

VINCENZO D'ASCIA

CN = D'ASCIA
VINCENZO
C = ITProgramma Operativo
Complementare

*Agenzia per la
Coesione Territoriale*

COMPLETAMENTO DELL'INTERVENTO DI EDILIZIA ABITATIVA SOSTITUTIVA PER LA REALIZZAZIONE DI 126 ALLOGGI IN VIA CUPA SPINELLI - CIRCOSCRIZIONE CHIAIANO

1° LOTTO FUNZIONALE - CUP: B62J01000030008

PROGETTO PRELIMINARE

PROGETTAZIONE ATI: INGEGNERIA e SVILUPPO S.R.L.

**ANTONIO
RUSSO**

**O = INGEGNERIA
E SVILUPPO SRL**

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RUP:
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APPROVAZIONI:

OGGETTO:

**TABULATO DI CALCOLO -
FABBRICATO B**

ELABORATO:

ST/B-04

SCALA: --
COMMESSA: I122_08
REDAZIONE: CAP
VERIFICA: SIR
APPROVAZIONE: ARU

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1 Dati di definizione

1.1 Elementi di input

1.1.1 Fili fissi

1.1.1.1 Fili fissi di piano

Livello: quota di inserimento espressa con notazione breve esprimibile come livello, falda, piano orizzontale alla Z specificata. [cm]

Punto: punto di inserimento.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Estradosso: distanza dalla quota di inserimento misurata in direzione ortogonale al piano della quota e con verso positivo verso l'alto. [cm]

Angolo: angolo misurato dal semiasse positivo delle ascisse in verso antiorario. [deg]

Tipo: tipo di simbolo.

T.c.: testo completo visualizzato accanto al filo fisso, costituito dalla concatenazione del prefisso e del testo.

Livello	Punto		Estradosso	Angolo	Tipo	T.c.	Livello	Punto		Estradosso	Angolo	Tipo	T.c.
	X	Y						X	Y				
L1	935	300	0	0	Croce	1	L1	1940	697	0	270	Angolo	20
L1	2130	492	0	90	Angolo	21	L1	2130	697	0	180	Angolo	22
L1	2265	300	0	0	Angolo	23	L1	2265	347	0	0	Croce	24
L1	2265	550	0	270	Angolo	25	L1	1940	492	0	0	Angolo	19
L1	3545	320	0	0	Croce	26	L1	3770	300	0	90	Angolo	28
L1	3770	920	0	180	Angolo	29	L1	300	745	0	0	Croce	30
L1	935	745	0	0	Croce	31	L1	1330	745	0	0	Croce	32
L1	2740	745	0	0	Croce	33	L1	3545	900	0	0	Croce	27
L1	3135	745	0	0	Croce	34	L1	1805	347	0	0	Croce	18
L1	1765	550	0	270	Angolo	16	L1	1330	300	0	0	Croce	2
L1	2740	300	0	0	Croce	3	L1	3135	300	0	0	Croce	4
L1	935	920	0	0	Croce	5	L1	1330	920	0	0	Croce	6
L1	1805	920	0	0	Croce	7	L1	1805	300	0	90	Croce	17
L1	2265	920	0	0	Croce	8	L1	3135	920	0	0	Croce	10
L1	300	300	0	0	Angolo	11	L1	300	920	0	270	Angolo	12
L1	525	320	0	0	Croce	13	L1	525	900	0	0	Croce	14
L1	1765	300	0	0	Angolo	15	L1	2740	920	0	0	Croce	9
L1	3770	745	0	0	Croce	35							

1.1.2 Travi C.A.

1.1.2.1 Travi C.A. di piano

Sezione: riferimento ad una definizione di sezione C.A..

P.i.: posizione dei punti d'inserimento rispetto alla geometria della sezione. SA=Sinistra anima, CA=Centro anima, DA=Destra anima

Liv.: quota del punto di inserimento iniziale. esprimibile come livello, falda, piano orizzontale alla Z specificata. [cm]

Punto i.: punto di inserimento iniziale.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Punto f.: punto di inserimento finale.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Estr.: distanza dalla quota di inserimento misurata in direzione ortogonale al piano della quota e con verso positivo verso l'alto. [cm]

Mat.: riferimento ad una definizione di materiale calcestruzzo.

Car.lin.: riferimento alla definizione di un carico lineare. L.: valori del carico espressi nel sistema locale dell'elemento. G: valori del carico espressi nel sistema globale.

Sovr.: aliquota di sovrarresistenza da assicurare in verifica.

S.Z: indica se l'elemento deve essere verificato considerando il sisma verticale.

C.i.: svincolo o cerniera da applicare al relativo estremo dell'asta nel modello.

C.f.: svincolo o cerniera da applicare al relativo estremo dell'asta nel modello.

P.lin.: peso per unità di lunghezza. [daN/cm]

Sezione	P.i.	Liv.	Punto i.		Punto f.		Estr.	Mat.	Car.lin.	Sovr.	S.Z	C.i.	C.f.	P.lin.
			X	Y	X	Y								
R 40x50	DA	L2	300	300	935	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L2	300	300	300	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 70x25	CA	L2	2740	300	2740	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 40x50	DA	L2	3770	300	3770	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 70x25	CA	L2	3135	300	3135	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 70x25	CA	L2	1330	300	1330	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 40x50	SA	L2	3135	920	3770	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L2	2740	920	3135	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 70x25	CA	L2	935	300	935	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 40x50	SA	L2	2295	920	2740	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L2	1775	920	2295	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L2	2265	300	2265	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 40x50	SA	L2	300	920	935	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L2	1330	920	1775	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 30x50	CA	L2	1935	682	2135	682	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 40x50	DA	L2	2265	300	2740	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L2	1805	300	1805	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 40x50	DA	L2	935	300	1330	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L2	3135	300	3770	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L2	2740	300	3135	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L2	1330	300	1805	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L2	935	920	1330	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 30x50	CA	L2	1805	347	2265	347	0	C25/30	Tompagni; G	0	No	No	No	3.75

TABULATO DI CALCOLO – FABBRICATO B

Sezione	P.i.	Liv.	Punto i.		Punto f.		Estr.	Mat.	Car.lin.	Sovr.	S.Z	C.I.	C.f.	P.lin.
			X	Y	X	Y								
R 30x50	CA	L3	1805	347	2265	347	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 40x50	DA	L3	935	300	1330	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L3	3135	300	3770	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L3	2295	920	2740	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L3	935	920	1330	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L3	3770	300	3770	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 40x50	DA	L3	1330	300	1805	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L3	1775	920	2295	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L3	300	920	935	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L3	1805	300	1805	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 40x50	DA	L3	300	300	935	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	DA	L3	2740	300	3135	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L3	300	300	300	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 40x50	SA	L3	1330	920	1775	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L3	2740	920	3135	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 70x25	CA	L3	3135	300	3135	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 40x50	DA	L3	2265	300	2740	300	0	C25/30	Tompagni; G	0	No	No	No	5
R 40x50	SA	L3	2265	300	2265	920	0	C25/30	Nessuno; G	0	No	No	No	5
R 70x25	CA	L3	1330	300	1330	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 70x25	CA	L3	935	300	935	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 40x50	SA	L3	3135	920	3770	920	0	C25/30	Tompagni; G	0	No	No	No	5
R 70x25	CA	L3	2740	300	2740	920	0	C25/30	Nessuno; G	0	No	No	No	4.38
R 30x50	CA	L3	1935	682	2135	682	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L4	1775	920	2295	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L4	2265	300	2740	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L4	2740	300	3135	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L4	2295	920	2740	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L4	2740	920	3135	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L4	3135	920	3770	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L4	3770	300	3770	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L4	935	300	1330	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L4	1330	920	1775	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L4	1805	300	1805	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L4	2265	300	2265	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	CA	L4	1935	682	2135	682	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L4	2740	300	2740	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L4	935	300	935	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L4	1330	300	1330	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L4	300	300	300	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L4	3135	300	3135	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L4	1330	300	1805	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L4	300	920	935	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L4	935	920	1330	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	CA	L4	1805	347	2265	347	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L4	300	300	935	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L4	3135	300	3770	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L5	3770	300	3770	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L5	2265	300	2740	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L5	2740	300	3135	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 20x50	CA	L5	1805	352	2265	352	0	C25/30	Tompagni; G	0	No	No	No	2.5
R 30x50	SA	L5	3135	920	3770	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	CA	L5	1935	682	2135	682	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L5	1330	300	1805	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L5	935	300	1330	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L5	300	300	935	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L5	3135	300	3770	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L5	300	300	300	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L5	3135	300	3135	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L5	1330	300	1330	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L5	935	300	935	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L5	2740	300	2740	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L5	2265	300	2265	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L5	1805	300	1805	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L5	935	920	1330	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L5	300	920	935	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L5	1330	920	1775	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L5	2740	920	3135	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L5	1775	920	2295	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L5	2295	920	2740	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L6	935	920	1330	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L6	3135	920	3770	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L6	935	300	1330	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L6	2740	920	3135	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L6	300	300	935	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L6	300	300	300	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L6	2265	300	2740	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L6	2295	920	2740	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 60x25	CA	L6	3135	300	3135	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L6	1330	300	1330	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L6	1775	920	2295	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 60x25	CA	L6	935	300	935	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L6	2740	300	3135	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 60x25	CA	L6	2740	300	2740	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L6	2265	300	2265	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L6	1805	300	1805	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L6	1330	300	1805	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L6	1330	920	1775	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 20x50	CA	L6	1805	352	2265	352	0	C25/30	Tompagni; G	0	No	No	No	2.5
R 30x50	SA	L6	300	920	935	920	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	DA	L6	3770	300	3770	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	CA	L6	1935	682	2135	682	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L6	3135	300	3770	300	0	C25/30	Tompagni; G	0	No	No	No	3.75
R 30x50	SA	L7	2295	920	2740	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	CA	L7	1935	682	2135	682	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L7	1805	300	1805	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L7	2265	300	2265	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L7	2740	300	2740	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L7	935	300	935	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L7	1330	300	1330	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 60x25	CA	L7	3135	300	3135	920	0	C25/30	Nessuno; G	0	No	No	No	3.75

TABULATO DI CALCOLO – FABBRICATO B

Sezione	P.i.	Liv.	Punto i.		Punto f.		Estr.	Mat.	Car.lin.	Sovr.	S.Z	C.I.	C.f.	P.lin.
			X	Y	X	Y								
R 30x50	SA	L7	300	300	300	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L7	300	300	935	300	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L7	935	300	1330	300	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 20x50	CA	L7	1805	352	2265	352	0	C25/30	Nessuno; G	0	No	No	No	2.5
R 30x50	DA	L7	1330	300	1805	300	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L7	935	920	1330	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L7	1330	920	1775	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L7	1775	920	2295	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L7	2740	920	3135	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L7	3135	920	3770	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L7	3135	300	3770	300	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L7	2265	300	2740	300	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L7	2740	300	3135	300	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	DA	L7	3770	300	3770	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	SA	L7	300	920	935	920	0	C25/30	Nessuno; G	0	No	No	No	3.75
R 30x50	CA	L7	1935	507	2135	507	0	C25/30	Nessuno; G	0	No	No	No	3.75

1.1.3 Scale C.A.

1.1.3.1 Scale C.A. a tre rampe

Nome: identificazione dell'elemento per i riferimenti dei pezzi di scala

T.m.: tipo di modellazione FEM. R=Trave rampante, N=Trave nervata, G=Gusci

Tr.: riferimento al tronco indicante la quota inferiore e superiore.

Punto iniziale: punto iniziale di inserimento della scala.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Punto piega 1: punto in cui si articolano la prima e la seconda parte rettilinee della scala.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Punto piega 2: punto in cui si articolano la seconda e la terza parte rettilinee della scala.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Punto finale: punto finale di inserimento della scala.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

P.i.: posizione dei punti d'inserimento rispetto alla geometria della scala. S=Sinistra, D=Destra

Finitura partenza: spessore della finitura al piano di partenza. [cm]

Finitura arrivo: spessore della finitura al piano di arrivo. [cm]

Finitura alzate: spessore della finitura delle alzate dei gradini. [cm]

Finitura pedate: spessore della finitura delle pedate dei gradini. [cm]

Peso finitura: peso specifico medio della finitura, impiegato nell'analisi dei carichi; viene computato nella condizione 'Permanenti portati' o, in mancanza di questa, nella condizione 'Permanenti'. [daN/cm³]

Mat.: riferimento ad una definizione di calcestruzzo.

Desc.: descrizione o nome assegnato all'elemento.

Carico: riferimento alla definizione di un carico di superficie.

Alzata (A): misura dell'alzata di ciascun gradino; in genere è compresa tra i 13 e i 20 cm. [cm]

Pedata (P): misura della pedata di ciascun gradino: la legge sulle barriere architettoniche (D.M. Ministero dei LL. PP. 14/06/89 n°236) richiede una pedata minima di 30 cm. [cm]

2A+P: in architettura è nota come formula di "Blondel": la legge sulle barriere architettoniche (D.M. Ministero dei LL. PP. 14/06/89 n°236) richiede un valore compreso tra 62 e 64 cm. [cm]

Nome	T.m.	Tr.	Punto iniziale		Punto piega 1		Punto piega 2		Punto finale		P.i.	Finitura partenza	Finitura arrivo	Finitura alzate	Finitura pedate	Peso finitura	Mat.	Carico	Alzata (A)	Pedata (P)	2A+P
			X	Y	X	Y	X	Y	X	Y							Desc.				
ST2	G	T1	2120	687	2120	502	1950	502	1950	687	D	0	0	0	0	0	C25/30	Scale	17.2	27	61.4
ST3	G	T2	2120	687	2120	502	1950	502	1950	687	D	0	0	0	0	0	C25/30	Scale	17.2	27	61.4
ST4	G	T3	2120	687	2120	502	1950	502	1950	687	D	0	0	0	0	0	C25/30	Scale	17.2	27	61.4
ST5	G	T4	2120	687	2120	502	1950	502	1950	687	D	0	0	0	0	0	C25/30	Scale	17.2	27	61.4
ST1	G	T5	2120	687	2120	502	1950	502	1950	687	D	0	0	0	0	0	C25/30	Scale	17.2	27	61.4

1.1.3.2 Piastre di scale C.A.

Scala: identificatore della scala C.A. a cui appartiene l'elemento

Elemento: funzionalità dell'elemento nella scala.

Spessore: spessore. [cm]

Larghezza: larghezza. [cm]

Lunghezza: lunghezza. Misurata sul bordo di inserimento della scala. [cm]

N.a.: numero di alzate.

Scala	Elemento	Spessore	Larghezza	Lunghezza	N.a.
ST1	Rampa 1	15	140	135	6
ST1	Pianerottolo 1	20	160	50	
ST1	Pianerottolo 2	20	140	15	
ST1	Rampa 2	15	140	108	5
ST1	Pianerottolo 3	20	140	47	
ST1	Pianerottolo 4	20	160	23	
ST1	Rampa 3	15	140	162	7
ST2	Rampa 1	15	140	135	6
ST2	Pianerottolo 1	20	165	50	
ST2	Pianerottolo 2	20	140	15	
ST2	Rampa 2	15	140	108	5
ST2	Pianerottolo 3	20	140	47	
ST2	Pianerottolo 4	20	165	23	
ST2	Rampa 3	15	140	162	7
ST3	Rampa 1	15	140	135	6
ST3	Pianerottolo 1	20	165	50	
ST3	Pianerottolo 2	20	140	15	
ST3	Rampa 2	15	140	108	5
ST3	Pianerottolo 3	20	140	47	

TABULATO DI CALCOLO – FABBRICATO B

Scala	Elemento	Spessore	Larghezza	Lunghezza	N.a.
ST3	Pianerottolo 4	20	165	23	
ST3	Rampa 3	15	140	162	7
ST4	Rampa 1	15	140	135	6
ST4	Pianerottolo 1	20	160	50	
ST4	Pianerottolo 2	20	140	15	
ST4	Rampa 2	15	140	108	5
ST4	Pianerottolo 3	20	140	47	
ST4	Pianerottolo 4	20	160	23	
ST4	Rampa 3	15	140	162	7
ST5	Rampa 1	15	140	135	6
ST5	Pianerottolo 1	20	160	50	
ST5	Pianerottolo 2	20	140	15	
ST5	Rampa 2	15	140	108	5
ST5	Pianerottolo 3	20	140	47	
ST5	Pianerottolo 4	20	160	23	
ST5	Rampa 3	15	140	162	7

1.1.4 Pilastri C.A.

Tr.: riferimento al tronco indicante la quota inferiore e superiore.

Sezione: riferimento ad una definizione di sezione C.A..

P.i.: posizione del punto di inserimento rispetto alla geometria della sezione. SS=Sinistra-sotto, SC=Sinistra-centro, SA=Sinistra-alto, CS=Centro-sotto, CC=Centro-centro, CA=Centro-alto, DS=Destra-sotto, DC=Destra-centro, DA=Destra-alto

Punto: posizione del punto di inserimento rispetto alla geometria della sezione.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Ang.: angolo misurato dal semiasse positivo delle ascisse in verso antiorario. [deg]

Mat.: riferimento ad una definizione di calcestruzzo.

Car.lin.: riferimento alla definizione di un carico lineare.L: valori del carico espressi nel sistema locale dell'elemento.G: valori del carico espressi nel sistema globale.

Sovr.: aliquota di sovrarresistenza da assicurare in verifica.

S.Z.: indica se l'elemento deve essere verificato considerando il sisma verticale.

C.i.: svincolo o cerniera da applicare al relativo estremo dell'asta nel modello.

C.f.: svincolo o cerniera da applicare al relativo estremo dell'asta nel modello.

P.lin.: peso per unità di lunghezza. [daN/cm]

Corr.: lista di elementi correlati all'elemento generati durante la modellazione.

Tr.	Sezione	P.i.	Punto		Ang.	Mat.	Car.lin.	Sovr.	S.Z	C.i.	C.f.	P.lin.	Corr.
			X	Y									
T1	R 70x40	DA	1805	920	0	C25/30	Nessuno; G	0	No	No	No	7	21
T1	R 70x40	CA	3135	920	0	C25/30	Nessuno; G	0	No	No	No	7	36
T1	R 70x40	CA	2740	920	0	C25/30	Nessuno; G	0	No	No	No	7	31
T1	R 70x40	SA	2265	920	0	C25/30	Nessuno; G	0	No	No	No	7	26
T1	R 70x40	CS	2740	300	0	C25/30	Nessuno; G	0	No	No	No	7	46
T1	R 70x40	CS	3135	300	0	C25/30	Nessuno; G	0	No	No	No	7	41
T1	R 70x40	CA	935	920	0	C25/30	Nessuno; G	0	No	No	No	7	16
T1	R 70x40	CA	1330	920	0	C25/30	Nessuno; G	0	No	No	No	7	11
T1	R 70x40	CS	935	300	0	C25/30	Nessuno; G	0	No	No	No	7	1
T1	R 70x40	CS	1330	300	0	C25/30	Nessuno; G	0	No	No	No	7	6
T2	R 70x40	SA	2265	920	0	C25/30	Nessuno; G	0	No	No	No	7	27
T2	R 70x40	CS	935	300	0	C25/30	Nessuno; G	0	No	No	No	7	2
T2	R 70x40	CA	3135	920	0	C25/30	Nessuno; G	0	No	No	No	7	37
T2	R 70x40	DA	1805	920	0	C25/30	Nessuno; G	0	No	No	No	7	22
T2	R 70x40	CA	2740	920	0	C25/30	Nessuno; G	0	No	No	No	7	32
T2	R 70x40	CS	2740	300	0	C25/30	Nessuno; G	0	No	No	No	7	47
T2	R 70x40	CS	3135	300	0	C25/30	Nessuno; G	0	No	No	No	7	42
T2	R 70x40	CS	1330	300	0	C25/30	Nessuno; G	0	No	No	No	7	7
T2	R 70x40	CA	1330	920	0	C25/30	Nessuno; G	0	No	No	No	7	12
T2	R 70x40	CA	935	920	0	C25/30	Nessuno; G	0	No	No	No	7	17
T3	R 60x40	CA	935	920	0	C25/30	Nessuno; G	0	No	No	No	6	18
T3	R 60x40	CS	2740	300	0	C25/30	Nessuno; G	0	No	No	No	6	48
T3	R 60x40	CS	3135	300	0	C25/30	Nessuno; G	0	No	No	No	6	43
T3	R 60x40	DA	1805	920	0	C25/30	Nessuno; G	0	No	No	No	6	23
T3	R 60x40	CA	3135	920	0	C25/30	Nessuno; G	0	No	No	No	6	38
T3	R 60x40	CA	1330	920	0	C25/30	Nessuno; G	0	No	No	No	6	13
T3	R 60x40	CS	1330	300	0	C25/30	Nessuno; G	0	No	No	No	6	8
T3	R 60x40	SA	2265	920	0	C25/30	Nessuno; G	0	No	No	No	6	28
T3	R 60x40	CS	935	300	0	C25/30	Nessuno; G	0	No	No	No	6	3
T3	R 60x40	CA	2740	920	0	C25/30	Nessuno; G	0	No	No	No	6	33
T4	R 60x40	CA	3135	920	0	C25/30	Nessuno; G	0	No	No	No	6	39
T4	R 60x40	CS	3135	300	0	C25/30	Nessuno; G	0	No	No	No	6	44
T4	R 60x40	CA	2740	920	0	C25/30	Nessuno; G	0	No	No	No	6	34
T4	R 60x40	CS	935	300	0	C25/30	Nessuno; G	0	No	No	No	6	4
T4	R 60x40	SA	2265	920	0	C25/30	Nessuno; G	0	No	No	No	6	29
T4	R 60x40	CS	1330	300	0	C25/30	Nessuno; G	0	No	No	No	6	9
T4	R 60x40	DA	1805	920	0	C25/30	Nessuno; G	0	No	No	No	6	24
T4	R 60x40	CA	935	920	0	C25/30	Nessuno; G	0	No	No	No	6	19
T4	R 60x40	CA	1330	920	0	C25/30	Nessuno; G	0	No	No	No	6	14
T4	R 60x40	CS	2740	300	0	C25/30	Nessuno; G	0	No	No	No	6	49
T5	R 60x40	CS	2740	300	0	C25/30	Nessuno; G	0	No	No	No	6	50
T5	R 60x40	CS	3135	300	0	C25/30	Nessuno; G	0	No	No	No	6	45
T5	R 60x40	SA	2265	920	0	C25/30	Nessuno; G	0	No	No	No	6	30
T5	R 60x40	CA	2740	920	0	C25/30	Nessuno; G	0	No	No	No	6	35
T5	R 60x40	DA	1805	920	0	C25/30	Nessuno; G	0	No	No	No	6	25
T5	R 60x40	CA	935	920	0	C25/30	Nessuno; G	0	No	No	No	6	20
T5	R 60x40	CA	1330	920	0	C25/30	Nessuno; G	0	No	No	No	6	15
T5	R 60x40	CS	1330	300	0	C25/30	Nessuno; G	0	No	No	No	6	10
T5	R 60x40	CS	935	300	0	C25/30	Nessuno; G	0	No	No	No	6	5
T5	R 60x40	CA	3135	920	0	C25/30	Nessuno; G	0	No	No	No	6	40
T6	R 60x40	CA	3135	920	0	C25/30	Nessuno; G	0	No	No	No	6	446
T6	R 60x40	CA	2740	920	0	C25/30	Nessuno; G	0	No	No	No	6	445
T6	R 60x40	SA	2265	920	0	C25/30	Nessuno; G	0	No	No	No	6	444
T6	R 60x40	DA	1805	920	0	C25/30	Nessuno; G	0	No	No	No	6	443
T6	R 60x40	CS	2740	300	0	C25/30	Nessuno; G	0	No	No	No	6	448
T6	R 60x40	CA	1330	920	0	C25/30	Nessuno; G	0	No	No	No	6	441
T6	R 60x40	CS	935	300	0	C25/30	Nessuno; G	0	No	No	No	6	439

TABULATO DI CALCOLO – FABBRICATO B

Tr.	Sezione	P.i.	Punto		Ang.	Mat.	Car.lin.	Sovr.	S.Z	C.i.	C.f.	P.lin.	Corr.
			X	Y									
T6	R 60x40	CS	3135	300	0	C25/30	Nessuno; G	0	No	No	No	6	447
T6	R 60x40	CA	935	920	0	C25/30	Nessuno; G	0	No	No	No	6	442
T6	R 60x40	CS	1330	300	0	C25/30	Nessuno; G	0	No	No	No	6	440

1.1.5 Pareti C.A.

Tr.: riferimento al tronco indicante la quota inferiore e superiore.

Sp.: spessore misurato in direzione ortogonale al piano medio dell'elemento. [cm]

P.i.: posizione del punto di inserimento rispetto ad una sezione verticale, vista dal punto iniziale verso il punto finale.

Punto i.: punto iniziale in pianta.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Punto f.: punto finale in pianta.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Mat.: riferimento ad una definizione di calcestruzzo.

Car.pot.: riferimento alla definizione di un carico potenziale. Accetta anche il valore "Nessuno".

DeltaT: riferimento alla definizione di una variazione termica. Accetta anche il valore "Nessuno".

Sovr.: aliquota di sovrarresistenza da assicurare in verifica.

S.Z: indica se l'elemento deve essere verificato considerando il sisma verticale.

Aperture: Riferimenti a tutti gli elementi che forano la parete.

Tr.	Sp.	P.i.	Punto i.		Punto f.		Mat.	Car.pot.	DeltaT	Sovr.	S.Z	Aperture
			X	Y	X	Y						
T1	30	Sinistra	1935	492	1935	697	C25/30			0	No	
T1	40	Destra	2265	550	2265	300	C25/30			0	No	
T1	30	Sinistra	2135	697	2135	492	C25/30			0	No	
T1	40	Sinistra	3770	920	3770	300	C25/30			0	No	
T1	40	Sinistra	1765	300	1765	550	C25/30			0	No	
T1	40	Sinistra	300	300	300	920	C25/30			0	No	
T2	30	Sinistra	1935	492	1935	697	C25/30			0	No	
T2	40	Destra	2265	550	2265	300	C25/30			0	No	
T2	30	Sinistra	2135	697	2135	492	C25/30			0	No	
T2	40	Sinistra	3770	920	3770	300	C25/30			0	No	
T2	40	Sinistra	1765	300	1765	550	C25/30			0	No	
T2	40	Sinistra	300	300	300	920	C25/30			0	No	
T3	30	Destra	2265	550	2265	300	C25/30			0	No	
T3	30	Sinistra	3770	920	3770	300	C25/30			0	No	
T3	30	Sinistra	300	300	300	920	C25/30			0	No	
T3	30	Sinistra	1775	300	1775	550	C25/30			0	No	
T3	30	Sinistra	2135	697	2135	492	C25/30			0	No	
T3	30	Sinistra	1935	492	1935	697	C25/30			0	No	
T4	30	Sinistra	1775	300	1775	550	C25/30			0	No	
T4	30	Sinistra	300	300	300	920	C25/30			0	No	
T4	30	Sinistra	2135	697	2135	492	C25/30			0	No	
T4	30	Sinistra	3770	920	3770	300	C25/30			0	No	
T4	30	Destra	2265	550	2265	300	C25/30			0	No	
T4	30	Sinistra	1935	492	1935	697	C25/30			0	No	
T5	30	Destra	2265	550	2265	300	C25/30			0	No	
T5	30	Sinistra	300	300	300	920	C25/30			0	No	
T5	30	Sinistra	2135	697	2135	492	C25/30			0	No	
T5	30	Sinistra	3770	920	3770	300	C25/30			0	No	
T5	30	Sinistra	1775	300	1775	550	C25/30			0	No	
T5	30	Sinistra	1935	492	1935	697	C25/30			0	No	
T6	30	Destra	2265	550	2265	300	C25/30			0	No	
T6	30	Sinistra	300	300	300	920	C25/30			0	No	
T6	30	Sinistra	1775	300	1775	550	C25/30			0	No	
T6	30	Sinistra	2135	697	2135	492	C25/30			0	No	
T6	30	Sinistra	3770	920	3770	300	C25/30			0	No	
T6	30	Sinistra	1935	492	1935	697	C25/30			0	No	

1.1.6 Carichi superficiali

1.1.6.1 Carichi superficiali di piano

Carico: riferimento alla definizione di un carico di superficie.

Solaio: caratteristiche dell'eventuale solaio in latero-cemento, C.A. o legno.

Liv.: quota di inserimento espressa con notazione breve esprimibile come livello, falda, piano orizzontale alla Z specificata. [cm]

Punti: punti di definizione in pianta.

Indice: indice del punto corrente nell'insieme dei punti di definizione dell'elemento.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Estr.: distanza dalla quota di inserimento misurata in direzione ortogonale al piano della quota e con verso positivo verso l'alto. [cm]

Angolo: direzione delle nervature che trasmettono il carico. Angolo misurato dal semiasse positivo delle ascisse in verso antiorario. [deg]

Comp.: descrizione sintetica del comportamento del carico superficiale o, nel caso di comportamento membranale, riferimento alla descrizione analitica della membrana.

Fori: riferimenti a tutti gli elementi che forano il carico superficiale.

Carico	Solaio	Liv.	Punti			Estr.	Angolo	Comp.	Fori
			Indice	X	Y				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L2	1	320	320	0	90	Rigido	
			2	935	320				
			3	935	900				
			4	320	900				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L2	1	3745	920	0	90	Rigido	
			2	3745	1075				
			3	300	1075				
			4	300	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L2	1	130.5	920	0	135	Rigido	

TABULATO DI CALCOLO – FABBRICATO B

Carico	Solaio	Liv.	Punti			Estr.	Angolo	Comp.	Fori
			Indice	X	Y				
			2	300	920				
			3	300	1075				
			4	130.5	1075				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L2	1	2740	900	0	90	Rigido	
			2	2285	900				
			3	2285	320				
			4	2740	320				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L2	1	3135	320	0	90	Rigido	
			2	3750	320				
			3	3750	900				
			4	3135	900				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L2	1	2740	320	0	0	Rigido	
			2	3135	320				
			3	3135	900				
			4	2740	900				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L2	1	1330	320	0	90	Rigido	
			2	1785	320				
			3	1785	900				
			4	1330	900				
Solaio senza Peso		L2	1	1785	687	0	0	Rigido	
			2	2285	687				
			3	2285	900				
			4	1785	900				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L2	1	935	320	0	0	Rigido	
			2	1330	320				
			3	1330	900				
			4	935	900				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L3	1	3135	320	0	90	Rigido	
			2	3750	320				
			3	3750	900				
			4	3135	900				
Solaio senza Peso		L3	1	1785	687	0	0	Rigido	
			2	2285	687				
			3	2285	900				
			4	1785	900				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L3	1	935	320	0	0	Rigido	
			2	1330	320				
			3	1330	900				
			4	935	900				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L3	1	1330	320	0	90	Rigido	
			2	1785	320				
			3	1785	900				
			4	1330	900				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L3	1	320	320	0	90	Rigido	
			2	935	320				
			3	935	900				
			4	320	900				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L3	1	1000	920	0	90	Rigido	
			2	1000	1075				
			3	690	1075				
			4	690	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L3	1	1795	920	0	90	Rigido	
			2	1795	1075				
			3	1485	1075				
			4	1485	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L3	1	2740	320	0	0	Rigido	
			2	3135	320				
			3	3135	900				
			4	2740	900				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L3	1	3070	920	0	90	Rigido	
			2	3070	1075				
			3	2765	1075				
			4	2765	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L3	1	2740	900	0	90	Rigido	
			2	2285	900				
			3	2285	320				
			4	2740	320				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L3	1	2660	920	0	90	Rigido	
			2	2660	1075				
			3	2270	1075				
			4	2270	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L4	1	2740	905	0	90	Rigido	
			2	2280	905				
			3	2280	315				
			4	2740	315				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L4	1	1790	920	0	90	Rigido	
			2	1790	1075				
			3	1085	1075				
			4	1085	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L4	1	2080	920	0	90	Rigido	
			2	2080	1075				

TABULATO DI CALCOLO – FABBRICATO B

Carico	Solaio	Liv.	Indice	Punti X	Y	Estr.	Angolo	Comp.	Fori
			3	1885	1075				
			4	1885	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L4	1	315	315	0	90	Rigido	
			2	935	315				
			3	935	905				
			4	315	905				
Solaio senza Peso		L4	1	1790	687	0	0	Rigido	
			2	2280	687				
			3	2280	905				
			4	1790	905				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L4	1	2645	920	0	90	Rigido	
			2	2645	1075				
			3	2270	1075				
			4	2270	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L4	1	3745	920	0	90	Rigido	
			2	3745	1075				
			3	3055	1075				
			4	3055	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L4	1	2740	315	0	0	Rigido	
			2	3135	315				
			3	3135	905				
			4	2740	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L4	1	1330	315	0	90	Rigido	
			2	1790	315				
			3	1790	905				
			4	1330	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L4	1	3135	315	0	90	Rigido	
			2	3755	315				
			3	3755	905				
			4	3135	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L4	1	935	315	0	0	Rigido	
			2	1330	315				
			3	1330	905				
			4	935	905				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L5	1	1045	920	0	90	Rigido	
			2	1045	1075				
			3	690	1075				
			4	690	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L5	1	1955	920	0	90	Rigido	
			2	1955	1075				
			3	1440	1075				
			4	1440	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L5	1	2595	920	0	90	Rigido	
			2	2595	1075				
			3	2270	1075				
			4	2270	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L5	1	3545	920	0	90	Rigido	
			2	3545	1075				
			3	2760	1075				
			4	2760	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L5	1	935	315	0	0	Rigido	
			2	1330	315				
			3	1330	905				
			4	935	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L5	1	2740	315	0	0	Rigido	
			2	3135	315				
			3	3135	905				
			4	2740	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L5	1	2740	905	0	90	Rigido	
			2	2280	905				
			3	2280	315				
			4	2740	315				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L5	1	315	315	0	90	Rigido	
			2	935	315				
			3	935	905				
			4	315	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L5	1	3135	315	0	90	Rigido	
			2	3755	315				
			3	3755	905				
			4	3135	905				
Solaio senza Peso		L5	1	1790	687	0	0	Rigido	
			2	2280	687				
			3	2280	905				
			4	1790	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XC1; 500	L5	1	1330	315	0	90	Rigido	
			2	1790	315				
			3	1790	905				
			4	1330	905				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L6	1	3330	920	0	90	Rigido	
			2	3330	1075				
			3	2760	1075				

TABULATO DI CALCOLO – FABBRICATO B

Carico	Solaio	Liv.	Indice	Punti X	Y	Estr.	Angolo	Comp.	Fori
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XCl; 250	L6	4	2760	920				
			1	2595	920	0	90	Rigido	
			2	2595	1075				
			3	2210	1075				
			4	2210	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XCl; 250	L6	1	1790	920	0	90	Rigido	
			2	1790	1075				
			3	1440	1075				
			4	1440	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 500	L6	1	1330	315	0	90	Rigido	
			2	1790	315				
			3	1790	905				
			4	1330	905				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XCl; 250	L6	1	1040	920	0	90	Rigido	
			2	1040	1075				
			3	385	1075				
			4	385	920				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 500	L6	1	315	315	0	90	Rigido	
			2	935	315				
			3	935	905				
			4	315	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 500	L6	1	3135	315	0	90	Rigido	
			2	3755	315				
			3	3755	905				
			4	3135	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 500	L6	1	2740	905	0	90	Rigido	
			2	2280	905				
			3	2280	315				
			4	2740	315				
Solaio senza Peso		L6	1	1790	687	0	0	Rigido	
			2	2280	687				
			3	2280	905				
			4	1790	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 500	L6	1	2740	315	0	0	Rigido	
			2	3135	315				
			3	3135	905				
			4	2740	905				
Solaio Intermedio	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 500	L6	1	935	315	0	0	Rigido	
			2	1330	315				
			3	1330	905				
			4	935	905				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XCl; 250	L7	1	1040	920	0	90	Rigido	
			2	1040	1075				
			3	385	1075				
			4	385	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XCl; 250	L7	1	1790	920	0	90	Rigido	
			2	1790	1075				
			3	1525	1075				
			4	1525	920				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XCl; 250	L7	1	2595	920	0	90	Rigido	
			2	2595	1075				
			3	2210	1075				
			4	2210	920				
Solaio Copertura	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 250	L7	1	1330	315	0	90	Rigido	
			2	1790	315				
			3	1790	905				
			4	1330	905				
Solaio Copertura	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 250	L7	1	2740	315	0	0	Rigido	
			2	3135	315				
			3	3135	905				
			4	2740	905				
Solaio Copertura	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 250	L7	1	315	315	0	90	Rigido	
			2	935	315				
			3	935	905				
			4	315	905				
Solaio Copertura	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 250	L7	1	3135	315	0	90	Rigido	
			2	3755	315				
			3	3755	905				
			4	3135	905				
Solaio Copertura	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 250	L7	1	2740	905	0	90	Rigido	
			2	2280	905				
			3	2280	315				
			4	2740	315				
Solaio Copertura	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 250	L7	1	2280	905	0	0	Rigido	H1
			2	1790	905				
			3	1790	352				
			4	2280	352				
Solaio Copertura	C.A.; Ner 10x(20+5)/50_1; C25/30; XCl; 250	L7	1	935	315	0	0	Rigido	
			2	1330	315				
			3	1330	905				
			4	935	905				

TABULATO DI CALCOLO – FABBRICATO B

Carico	Solaio	Liv.	Indice	Punti		Estr.	Angolo	Comp.	Fori
				X	Y				
Sbalzi	C.A.; Ner 10x(16+4)/50; C25/30; XC1; 250	L7	1	3330	920	0	90	Rigido	
			2	3330	1075				
			3	2835	1075				
			4	2835	920				

1.1.7 Fori su piastre e carichi superficiali

1.1.7.1 Fori di piano

Desc.: descrizione breve del foro utilizzata dagli elementi forabili come piastre e carichi superficiali.

Quota: quota di inserimento esprimibile come livello, falda, piano orizzontale alla Z specificata. [cm]

Livello: quota di inserimento espressa con notazione breve esprimibile come livello, falda, piano orizzontale alla Z specificata. [cm]

Estradosso: distanza dalla quota di inserimento misurata in direzione ortogonale al piano della quota e con verso positivo verso l'alto. [cm]

Spessore: spessore misurato in direzione ortogonale al piano medio dell'elemento. [cm]

Punti: punti di definizione in pianta.

Indice: indice del punto corrente nell'insieme dei punti di definizione dell'elemento.

X: coordinata X. [cm]

Y: coordinata Y. [cm]

Desc.	Quota	Livello	Estradosso	Spessore	Punti		
					Indice	X	Y
H1	Sesto Impalcato - Copertura	L7	0	25	1	2115	785
					2	2115	880
					3	1945	880
					4	1945	785

2 Dati di modellazione

2.1 Nodi

2.1.1 Nodi di piano rigido

Indice: numero dell'elemento nell'insieme che lo contiene.
Posizione: coordinate del nodo.
X: coordinata X. [cm]
Y: coordinata Y. [cm]
Z: coordinata Z. [cm]

Indice	Posizione		
	X	Y	Z
2	2034.8	646.9	297.5
6	2025	636.9	1537.5

Indice	Posizione		
	X	Y	Z
3	2033.2	629.6	607.5
7	2020.6	639	1847.5

Indice	Posizione		
	X	Y	Z
4	2057.5	636	917.5

Indice	Posizione		
	X	Y	Z
5	2049.1	637	1227.5

2.1.2 Nodi di definizione

Indice: numero dell'elemento nell'insieme che lo contiene.
Posizione: coordinate del nodo.
X: coordinata X. [cm]
Y: coordinata Y. [cm]
Z: coordinata Z. [cm]

Indice	Posizione		
	X	Y	Z
8	320	300	-60
12	935	320	-60
16	1785	350	-60
20	1785	400	-60
24	1785	450	-60
28	1950	492	-60
32	320	506.7	-60
36	1785	550	-60
40	2120	589.5	-60
44	2120	638.2	-60
48	2120	687	-60
52	3750	713.3	-60
56	3750	816.7	-60
60	1330	900	-60
64	3135	900	-60
68	2120	540.8	-22
72	2285	449	-15.4
76	1785	399.1	-11.7
80	1950	593.6	-10.3
84	320	351.7	-8.9
88	320	455	-8.9
92	320	558.3	-8.9
96	320	661.7	-8.9
100	3750	713.3	-8.9
104	3750	816.7	-8.9
108	3750	920	-8.9
112	2204	687	-8.9
116	2285	300	-8.9
120	2285	496.2	-2.5
124	2120	660.3	8.1
128	2232	660.3	8.1
132	2285	444.7	16.5
136	2285	472.5	20.6
140	2176	633.6	25.2
144	2120	658.9	30.3
148	1785	399	37.1
152	1785	349.6	39.1
156	320	300	42.1
160	320	403.3	42.1
164	320	506.7	42.1
168	320	610	42.1
172	1950	697	42.1
176	3750	765	42.1
180	3750	868.3	42.1
184	2120	606.9	42.2
188	2232	606.9	42.2
192	2285	412.3	44.2
196	1950	641.5	46.8
200	2120	492	55
204	2120	580.2	59.3
208	2232	580.2	59.3
212	2285	414.6	69.5
216	2285	471	70.7
220	2120	553.4	76.3
224	2232	553.4	76.3
228	1950	492	83.7
232	1785	402.4	86.7
236	3750	300	93.2
240	3750	403.3	93.2
244	3750	506.7	93.2

Indice	Posizione		
	X	Y	Z
9	1785	300	-60
13	1330	320	-60
17	2285	350	-60
21	2285	400	-60
25	2285	450	-60
29	2120	492	-60
33	3750	506.7	-60
37	2285	550	-60
41	1950	594.5	-60
45	1950	645.7	-60
49	1950	697	-60
53	320	765	-60
57	320	868.3	-60
61	1770	900	-60
65	320	920	-60
69	2120	492	-21.7
73	1785	300	-12.1
77	1785	449.6	-11.5
81	1950	543.1	-9.4
85	3750	351.7	-8.9
89	3750	455	-8.9
93	3750	558.3	-8.9
97	3750	661.7	-8.9
101	320	765	-8.9
105	320	868.3	-8.9
109	2120	687	-8.9
113	2232	687	-8.9
117	2285	550	-8.9
121	2120	613.3	-1.3
125	2148	660.3	8.1
129	2260	660.3	8.1
133	2120	492	16.7
137	2120	594.3	24.2
141	2204	633.6	25.2
145	1785	300	35.8
149	1950	592.6	37.1
153	2120	565	39.6
157	3750	300	42.1
161	3750	403.3	42.1
165	3750	506.7	42.1
169	3750	610	42.1
173	320	713.3	42.1
177	320	816.7	42.1
181	320	920	42.1
185	2148	606.9	42.2
189	2260	606.9	42.2
193	2285	443.7	44.8
197	2285	475.4	47.4
201	2120	527	55.6
205	2148	580.2	59.3
209	2260	580.2	59.3
213	2285	443.2	69.7
217	2285	364.3	71.4
221	2148	553.4	76.3
225	2260	553.4	76.3
229	1785	550	83.7
233	2120	666.8	90.4
237	320	351.7	93.2
241	320	455	93.2
245	320	558.3	93.2

Indice	Posizione		
	X	Y	Z
10	2285	300	-60
14	2740	320	-60
18	320	351.7	-60
22	320	403.3	-60
26	320	455	-60
30	1785	500	-60
34	2120	540.7	-60
38	320	558.3	-60
42	320	610	-60
46	320	661.7	-60
50	2120	697	-60
54	3750	765	-60
58	3750	868.3	-60
62	2300	900	-60
66	3750	920	-60
70	2120	632.9	-18.9
74	1950	492	-12.1
78	1785	349.3	-11.3
82	320	300	-8.9
86	320	403.3	-8.9
90	320	506.7	-8.9
94	320	610	-8.9
98	1950	697	-8.9
102	3750	765	-8.9
106	3750	868.3	-8.9
110	2148	687	-8.9
114	2260	687	-8.9
118	1950	644.3	-8.4
122	2120	638.4	0.2
126	2176	660.3	8.1
130	2120	620.9	11.7
134	2120	542.2	18.6
138	2120	633.6	25.2
142	2232	633.6	25.2
146	1950	492	35.8
150	1785	449.5	37.3
154	2120	672.7	42
158	320	351.7	42.1
162	320	455	42.1
166	320	558.3	42.1
170	320	661.7	42.1
174	3750	713.3	42.1
178	3750	816.7	42.1
182	3750	920	42.1
186	2176	606.9	42.2
190	2285	300	42.2
194	1950	543.7	45
198	2285	344.6	50.3
202	2120	650.8	56.3
206	2176	580.2	59.3
210	2120	619.7	63.1
214	2285	387.3	70.1
218	2285	493.4	71.8
222	2176	553.4	76.3
226	2120	593	83.5
230	2120	638	85.5
234	1950	527.5	92.9
238	3750	351.7	93.2
242	3750	455	93.2
246	3750	558.3	93.2

Indice	Posizione		
	X	Y	Z
11	3750	300	-60
15	3135	320	-60
19	3750	351.7	-60
23	3750	403.3	-60
27	3750	455	-60
31	2285	500	-60
35	1950	543.2	-60
39	3750	558.3	-60
43	3750	610	-60
47	3750	661.7	-60
51	320	713.3	-60
55	320	816.7	-60
59	935	900	-60
63	2740	900	-60
67	2120	587.3	-24.4
71	2285	404	-15.8
75	1785	550	-12.1
79	1785	499.8	-11.2
83	3750	300	-8.9
87	3750	403.3	-8.9
91	3750	506.7	-8.9
95	3750	610	-8.9
99	320	713.3	-8.9
103	320	816.7	-8.9
107	320	920	-8.9
111	2176	687	-8.9
115	2120	697	-8.9
119	2285	355.7	-3.7
123	2120	585.2	3.8
127	2204	660.3	8.1
131	2285	410	16.2
135	2285	381.9	19.7
139	2148	633.6	25.2
143	2260	633.6	25.2
147	1785	550	35.8
151	1785	499.7	38.8
155	2120	641.3	42
159	3750	351.7	42.1
163	3750	455	42.1
167	3750	558.3	42.1
171	3750	661.7	42.1
175	320	765	42.1
179	320	868.3	42.1
183	2120	697	42.2
187	2204	606.9	42.2
191	2285	550	42.2
195	2285	381.1	46.3
199	2285	509.4	51
203	2120	547.7	57
207	2204	580.2	59.3
211	1950	592	67.6
215	1950	619	70.2
219	1950	564.7	72.7
223	2204	553.4	76.3
227	1785	300	83.7
231	1785	449.9	86
235	320	300	93.2
239	320	403.3	93.2
243	320	506.7	93.2
247	320	610	93.2

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
248	3750	610	93.2	249	320	661.7	93.2	250	3750	661.7	93.2	251	1950	697	93.2
252	320	713.3	93.2	253	3750	713.3	93.2	254	320	765	93.2	255	3750	765	93.2
256	320	816.7	93.2	257	3750	816.7	93.2	258	320	868.3	93.2	259	3750	868.3	93.2
260	320	920	93.2	261	3750	920	93.2	262	2120	697	93.2	263	2285	300	93.3
264	2106.7	362	93.3	265	2132.2	362	93.3	266	2157.7	362	93.3	267	2183.1	362	93.3
268	2208.6	362	93.3	269	2234.1	362	93.3	270	2259.5	362	93.3	271	2285	362	93.3
272	2249.1	376.8	93.3	273	2261.4	382	93.3	274	2203.1	382.4	93.3	275	2181	383.2	93.3
276	2157.1	385.7	93.3	277	2226	386.2	93.3	278	2132	388.4	93.3	279	2285	389.5	93.3
280	2106.7	390	93.3	281	2268	397.6	93.3	282	2196	397.7	93.3	283	2237.9	402	93.3
284	2179.6	403.4	93.3	285	2205.2	407.3	93.3	286	2157.2	410.6	93.3	287	2131.9	416.8	93.3
288	2285	416.9	93.3	289	2106.7	418	93.3	290	2256.6	421.9	93.3	291	2214.3	422	93.3
292	2183.9	422.3	93.3	293	2160	436.5	93.3	294	2228.5	441.4	93.3	295	2190.7	442	93.3
296	2285	444.4	93.3	297	2106.7	446	93.3	298	2132.1	451.4	93.3	299	2261.4	451.7	93.3
300	2205	459	93.3	301	2167.1	462	93.3	302	2238.3	462.7	93.3	303	2285	471.8	93.3
304	2106.7	474	93.3	305	2182.3	475.1	93.3	306	2119.6	475.8	93.3	307	2263	476.3	93.3
308	2217.3	477.5	93.3	309	2244	479.2	93.3	310	2143.6	482	93.3	311	2194.5	488.8	93.3
312	2163.5	490.3	93.3	313	2120	492	93.3	314	2177.3	496.4	93.3	315	2230.8	498.6	93.3
316	2285	499.3	93.3	317	2259.9	500.5	93.3	318	2106.7	502	93.3	319	2120	502	93.3
320	2201.1	506	93.3	321	2151.5	507.2	93.3	322	2176.5	509.1	93.3	323	2120	526.7	93.3
324	2148	526.7	93.3	325	2176	526.7	93.3	326	2204	526.7	93.3	327	2232	526.7	93.3
328	2260	526.7	93.3	329	2285	526.7	93.3	330	2285	550	93.3	331	1785	499.4	94
332	1785	352.6	94.9	333	2285	334.1	95.3	334	1950	654.1	95.6	335	1950	622.6	97.5
336	1950	590.9	99.4	337	2120	565.2	104.7	338	1950	558.4	105.5	339	2120	606.8	107.1
340	2079.7	362	110.6	341	2079.7	390	110.6	342	2079.7	418	110.6	343	2079.7	446	110.6
344	2079.7	474	110.6	345	2079.7	502	110.6	346	2120	638.1	120	347	1785	481.2	123.6
348	1950	571.3	124.5	349	1785	374.2	124.9	350	2120	579.9	126.5	351	1950	590.7	127
352	2052.7	362	127.8	353	2052.7	390	127.8	354	2052.7	418	127.8	355	2052.7	446	127.8
356	2052.7	474	127.8	357	2052.7	502	127.8	358	1785	449.6	128.2	359	1785	408.3	129
360	1785	300	131.6	361	1950	492	131.6	362	1785	550	131.6	363	2120	534.5	133.1
364	2120	616.5	133.4	365	1950	620.4	135.5	366	1950	516	137.4	367	1785	516.2	138.5
368	1785	337.1	140.3	369	1950	564.9	140.9	370	2120	659.7	141	371	2120	559	142.9
372	320	300	144.3	373	3750	300	144.3	374	320	351.7	144.3	375	3750	351.7	144.3
376	320	403.3	144.3	377	3750	403.3	144.3	378	320	455	144.3	379	3750	455	144.3
380	320	506.7	144.3	381	3750	506.7	144.3	382	320	558.3	144.3	383	3750	558.3	144.3
384	320	610	144.3	385	3750	610	144.3	386	320	661.7	144.3	387	3750	661.7	144.3
388	1950	697	144.3	389	320	713.3	144.3	390	3750	713.3	144.3	391	320	765	144.3
392	3750	765	144.3	393	320	816.7	144.3	394	3750	816.7	144.3	395	320	868.3	144.3
396	3750	868.3	144.3	397	320	920	144.3	398	3750	920	144.3	399	2120	697	144.3
400	2285	300	144.4	401	2285	359.3	144.4	402	2285	387.5	144.4	403	2285	415.3	144.4
404	2285	442.9	144.4	405	2285	470.4	144.4	406	2120	492	144.4	407	2285	497.7	144.4
408	2285	524.5	144.4	409	2285	550	144.4	410	1950	655.2	144.9	411	2285	330.6	144.9
412	2025.7	362	145	413	2025.7	390	145	414	2025.7	418	145	415	2025.7	446	145
416	2025.7	474	145	417	2025.7	502	145	418	1785	438	145.3	419	1785	422	146.1
420	1950	543.8	147.1	421	1785	491.8	149.5	422	1785	364.2	151	423	1950	582.1	153.3
424	2120	628.5	154.5	425	2120	592.1	154.5	426	1785	463.3	154.7	427	1785	395	155
428	1785	418.6	160.7	429	1785	442.4	161.6	430	1998.7	362	162.2	431	1998.7	390	162.2
432	1998.7	418	162.2	433	1998.7	446	162.2	434	1998.7	474	162.2	435	1998.7	502	162.2
436	2120	563.1	169.6	437	1950	611.7	172.1	438	1950	568.2	173.7	439	1785	300	179.4
440	1785	362	179.4	441	1811.7	362	179.4	442	1838.4	362	179.4	443	1865	362	179.4
444	1891.7	362	179.4	445	1918.4	362	179.4	446	1945.1	362	179.4	447	1971.7	362	179.4
448	1821.8	376.3	179.4	449	1870.4	381.5	179.4	450	1808.6	382	179.4	451	1894.7	384.5	179.4
452	1845.6	385.5	179.4	453	1920.7	388.9	179.4	454	1785	388.9	179.4	455	1946.5	389.7	179.4
456	1971.7	390	179.4	457	1802.5	397	179.4	458	1877.5	398.1	179.4	459	1832.1	402	179.4
460	1895.7	405.9	179.4	461	1866.7	407.4	179.4	462	1785	415.8	179.4	463	1948.4	417.8	179.4
464	1971.7	418	179.4	465	1922.7	419.1	179.4	466	1814	420.8	179.4	467	1855.7	422	179.4
468	1888.1	423.9	179.4	469	1841.1	440.6	179.4	470	1935.5	440.8	179.4	471	1911.2	440.9	179.4
472	1879.3	442	179.4	473	1785	442.6	179.4	474	1951.8	443.6	179.4	475	1971.7	446	179.4
476	1809	449.1	179.4	477	1931.1	458.4	179.4	478	1863.6	458.8	179.4	479	1830.9	460.2	179.4
480	1902.9	462	179.4	481	1785	469.5	179.4	482	1951.4	469.8	179.4	483	1806.7	472.8	179.4
484	1971.7	474	179.4	485	1849.6	474.7	179.4	486	1825	475.9	179.4	487	1883.2	476.1	179.4
488	1926.4	482	179.4	489	1866.7	483.8	179.4	490	1950	492	179.4	491	1837.4	494.6	179.4
492	1785	496.4	179.4	493	1809.4	496.8	179.4	494	1899	498	179.4	495	1867.3	499.9	179.4
496	1950	502	179.4	497	1971.7	502	179.4	498	1923.8	507.9	179.4	499	1785	523.3	179.4
500	1810	523.3	179.4	501	1838	523.3	179.4	502	1866	523.3	179.4	503	1894	523.3	179.4
504	1922	523.3	179.4	505	1950	523.3	179.4	506	1785	550	179.4	507	2120	534.5	182.8
508	1785	332.1	184.7	509	2120	609.4	189.1	510	2120	653.6	192.9	511	1950	594.8	194.4
512	320	300	195.4	513	3750	300	195.4	514	320	351.7	195.4	515	3750	351.7	195.4
516	320	403.3	195.4	517	3750	403.3	195.4	518	320	455	195.4	519	3750	455	195.4
520	320	506.7	195.4	521	3750	506.7	195.4	522	320	558.3	195.4	523	3750	558.3	195.4
524	320	610	195.4	525	3750	610	195.4	526	320	661.7	195.4	527	3750	661.7	195.4
528	1950	697	195.4	529	320	713.3	195.4	530	3750	713.3	195.4	531	320	765	195.4
532	3750	765	195.4	533	320	816.7	195.4	534	3750	816.7	195.4	535	320	868.3	195.4
536	3750	868.3	195.4	537	320	920	195.4	538	3750	920	195.4	539	2120	697	195.4
540	2285	300	195.4	541	2285	329	195.4	542	2285	357.8	195.4	543	2285	386	195.4
544	2285	413.9	195.4	545	2285	441.5	195.4	546	2285	469.1	195.4	547	2120	492	195.4
548	2285	496.4	195.4	549	2285	523.4	195.4	550	2285	550	195.4	551	1810	550.6	196.9
552	1838	550.6	196.9	553	1866	550.6	196.9	554	1894	550.6	196.9	555	1922	550.6	196.9
556	2120	573.3	197.4	557	1950	552.2	199.1	558	1950	531.5	201.2	559	1950	649	204.4
560	1950	545.3	208.6	561	1950	618.4	212.9	562	1810	577.8	214.3	563	1838	577.8	214.3
564	1866	577.8	214.3	565	1894	577.8	214.3	566	1922	577.8	214.3	567	1950	57	

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
640	1838	659.7	266.5	641	1866	659.7	266.5	642	1894	659.7	266.5	643	1922	659.7	266.5
644	1950	659.7	266.5	645	1950	607.4	270.3	646	1950	668	277.8	647	1950	640.4	281.9
648	1810	687	283.9	649	1838	687	283.9	650	1866	687	283.9	651	1894	687	283.9
652	1922	687	283.9	653	1950	687	283.9	654	320	300	297.5	655	1785	300	297.5
656	2285	300	297.5	657	3750	300	297.5	658	320	320	297.5	659	935	320	297.5
660	1330	320	297.5	661	1785	320	297.5	662	2285	320	297.5	663	2740	320	297.5
664	3135	320	297.5	665	3750	320	297.5	666	1785	327.8	297.5	667	2285	327.8	297.5
668	1785	347	297.5	669	2285	347	297.5	670	320	351.7	297.5	671	3750	351.7	297.5
672	1785	355.6	297.5	673	2285	355.6	297.5	674	1785	383.3	297.5	675	2285	383.3	297.5
676	320	403.3	297.5	677	3750	403.3	297.5	678	1785	411.1	297.5	679	2285	411.1	297.5
680	1785	438.9	297.5	681	2285	438.9	297.5	682	320	455	297.5	683	3750	455	297.5
684	1785	466.7	297.5	685	2285	466.7	297.5	686	1950	492	297.5	687	2120	492	297.5
688	1785	494.4	297.5	689	2285	494.4	297.5	690	320	506.7	297.5	691	3750	506.7	297.5
692	1785	522.2	297.5	693	2285	522.2	297.5	694	1950	543.2	297.5	695	2120	543.2	297.5
696	1785	550	297.5	697	2285	550	297.5	698	320	558.3	297.5	699	3750	558.3	297.5
700	1950	594.5	297.5	701	2120	594.5	297.5	702	320	610	297.5	703	3750	610	297.5
704	1950	645.7	297.5	705	2120	645.7	297.5	706	2034.8	650.8	297.5	707	320	661.7	297.5
708	3750	661.7	297.5	709	1950	682	297.5	710	1992.5	682	297.5	711	2035	682	297.5
712	2077.5	682	297.5	713	2120	682	297.5	714	1785	687	297.5	715	1826.3	687	297.5
716	1867.5	687	297.5	717	1908.8	687	297.5	718	1950	687	297.5	719	1992.5	687	297.5
720	2035	687	297.5	721	2077.5	687	297.5	722	2120	687	297.5	723	2148	687	297.5
724	2176	687	297.5	725	2204	687	297.5	726	2232	687	297.5	727	2285	687	297.5
728	1950	697	297.5	729	2120	697	297.5	730	2175.9	709	297.5	731	2149.1	711.4	297.5
732	320	713.3	297.5	733	3750	713.3	297.5	734	2119.2	715.6	297.5	735	1992.3	715.7	297.5
736	2200.2	716	297.5	737	1953.1	718.2	297.5	738	1911.6	721.1	297.5	739	2228.1	721.2	297.5
740	2031.3	723.8	297.5	741	2080.3	727	297.5	742	2174	730	297.5	743	2253	732.3	297.5
744	1872.3	732.8	297.5	745	2153	735.1	297.5	746	1829	737.6	297.5	747	2127.2	738.7	297.5
748	1785	740.2	297.5	749	2285	740.2	297.5	750	1989.7	743.1	297.5	751	2103.5	745.3	297.5
752	2192.7	747.1	297.5	753	2220	749.7	297.5	754	1958.8	750.8	297.5	755	2161.8	760.2	297.5
756	1920.9	761.8	297.5	757	320	765	297.5	758	3750	765	297.5	759	2017.6	765.6	297.5
760	2132.4	767.4	297.5	761	2068.3	768.4	297.5	762	2102.7	770.9	297.5	763	1971.7	780.1	297.5
764	2239.1	780.9	297.5	765	2201.7	784.9	297.5	766	1881.8	786.1	297.5	767	1832.6	790.4	297.5
768	1931.5	790.8	297.5	769	2168.7	792.6	297.5	770	1785	793.5	297.5	771	2285	793.5	297.5
772	2137.1	799.1	297.5	773	1907.2	801.6	297.5	774	2106	803.5	297.5	775	2072.4	810	297.5
776	2026.7	813.6	297.5	777	320	816.7	297.5	778	3750	816.7	297.5	779	2201.4	817.6	297.5
780	1979.6	820.4	297.5	781	1910.7	824.2	297.5	782	2173.7	826.3	297.5	783	1937.3	826.4	297.5
784	2111.5	829.5	297.5	785	2140.1	831.5	297.5	786	2228.3	840.6	297.5	787	1889.3	842.8	297.5
788	1835.3	844.9	297.5	789	1785	846.7	297.5	790	2285	846.7	297.5	791	2088.4	853.5	297.5
792	2033.2	856.8	297.5	793	2180.8	856.9	297.5	794	1936.2	857	297.5	795	1983.3	858.8	297.5
796	2136.1	860.7	297.5	797	320	868.3	297.5	798	3750	868.3	297.5	799	320	900	297.5
800	935	900	297.5	801	1330	900	297.5	802	1770	900	297.5	803	1785	900	297.5
804	1835	900	297.5	805	1885	900	297.5	806	1935	900	297.5	807	1985	900	297.5
808	2035	900	297.5	809	2085	900	297.5	810	2135	900	297.5	811	2185	900	297.5
812	2235	900	297.5	813	2285	900	297.5	814	2300	900	297.5	815	2740	900	297.5
816	3135	900	297.5	817	3750	900	297.5	818	320	920	297.5	819	3750	920	297.5
820	2260	687	301.1	821	2120	639.1	312.1	822	2120	668.6	315.1	823	2120	660.3	318.1
824	2148	660.3	318.1	825	2176	660.3	318.1	826	2204	660.3	318.1	827	2232	660.3	318.1
828	2260	660.3	318.1	829	2120	602.9	324.1	830	2120	492	332.8	831	2120	640.2	332.8
832	2120	633.6	335.2	833	2148	633.6	335.2	834	2176	633.6	335.2	835	2204	633.6	335.2
836	2232	633.6	335.2	837	2260	633.6	335.2	838	2120	547	335.3	839	2120	697	341.8
840	2120	593.8	342.8	841	1785	300	345.5	842	1785	328.3	345.5	843	1785	356.5	345.5
844	1785	384.4	345.5	845	1785	412.2	345.5	846	1785	439.8	345.5	847	1785	467.4	345.5
848	1950	492	345.5	849	1785	494.9	345.5	850	1785	522.5	345.5	851	1785	550	345.5
852	2120	643.9	348.5	853	320	300	349.2	854	3750	300	349.2	855	320	351.7	349.2
856	3750	351.7	349.2	857	320	403.3	349.2	858	3750	403.3	349.2	859	320	455	349.2
860	3750	455	349.2	861	320	506.7	349.2	862	3750	506.7	349.2	863	320	558.3	349.2
864	3750	558.3	349.2	865	320	610	349.2	866	3750	610	349.2	867	320	661.7	349.2
868	3750	661.7	349.2	869	1950	697	349.2	870	320	713.3	349.2	871	3750	713.3	349.2
872	320	765	349.2	873	3750	765	349.2	874	320	816.7	349.2	875	3750	816.7	349.2
876	320	868.3	349.2	877	3750	868.3	349.2	878	320	920	349.2	879	3750	920	349.2
880	2285	300	350.4	881	2285	329.3	350.4	882	2285	358.3	350.4	883	2285	386.3	350.4
884	2285	414	350.4	885	2285	441.6	350.4	886	2285	469.2	350.4	887	2285	496.7	350.4
888	2285	523.9	350.4	889	2285	550	350.4	890	2120	611.9	350.4	891	2120	663.2	351.9
892	2120	606.9	352.2	893	2148	606.9	352.2	894	2176	606.9	352.2	895	2204	606.9	352.2
896	2232	606.9	352.2	897	2260	606.9	352.2	898	1950	648.3	352.6	899	2120	567.9	353.6
900	1950	540.1	353.6	901	2120	627.1	362.2	902	1950	595.5	366.1	903	2120	642.8	366.7
904	2120	492	368.1	905	2120	583.5	368.1	906	2120	529	368.9	907	2120	550.4	369.2
908	2148	580.2	369.3	909	2176	580.2	369.3	910	2204	580.2	369.3	911	2232	580.2	369.3
912	2260	580.2	369.3	913	2120	555.1	385.7	914	2120	697	386.1	915	2148	553.4	386.3
916	2176	553.4	386.3	917	2204	553.4	386.3	918	2232	553.4	386.3	919	2260	553.4	386.3
920	2120	637.7	386.5	921	2120	663.4	387.7	922	2120	607.3	388.1	923	1785	300	393.5
924	1785	329	393.5	925	1785	357.6	393.5	926	1785	385.6	393.5	927	1785	413.3	393.5
928	1785	440.7	393.5	929	1785	468.1	393.5	930	1950	492	393.5	931	1785	495.4	393.5
932	1785	522.7	393.5	933	1785	550	393.5	934	1950	655.9	399.2	935	1950	622	400.8
936	320	300	400.8	937	3750	300	400.8	938	320	351.7	400.8	939	3750	351.7	400.8
940	320	403.3	400.8	941	3750	403.3	400.8	942	320	455	400.8	943	3750	455	400.8
944	320	506.7	400.8	945	3750	506.7	400.8	946	320	558.3	400.8	947	3750	558.3	400.8
948	320	610	400.8	949	3750	610	400.8	950	320	661.7	400.8	951	3750	661.7	400.8
952	1950	697	400.8	953	320	713.3	400.8	954	3750	713.3	400.8	955	320	765	400.8
956	3750	765	400.8	957	320	816.7	400.8	958	3750	816.7	400.8	959	320		

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
1032	1950	530.7	405.9	1033	2120	635.7	408.8	1034	2120	574.8	410.4	1035	2120	613.9	415
1036	2079.7	362	420.6	1037	2079.7	390	420.6	1038	2079.7	418	420.6	1039	2079.7	446	420.6
1040	2079.7	474	420.6	1041	2079.7	502	420.6	1042	2120	592.7	425.2	1043	2120	655.8	426.2
1044	1950	574	427.5	1045	2120	697	430.4	1046	2052.7	362	437.8	1047	2052.7	390	437.8
1048	2052.7	418	437.8	1049	2052.7	446	437.8	1050	2052.7	474	437.8	1051	2052.7	502	437.8
1052	2120	620.5	438.7	1053	1950	615.4	439.4	1054	1785	300	441.5	1055	1785	329.8	441.5
1056	1785	359.1	441.5	1057	1785	387.1	441.5	1058	1785	414.5	441.5	1059	1785	441.7	441.5
1060	1785	468.8	441.5	1061	1950	492	441.5	1062	1785	495.9	441.5	1063	1785	523	441.5
1064	1785	550	441.5	1065	2120	544.1	442.7	1066	1950	655.2	449.3	1067	1950	517	449.7
1068	2120	589.5	450.8	1069	320	300	452.5	1070	3750	300	452.5	1071	320	351.7	452.5
1072	3750	351.7	452.5	1073	320	403.3	452.5	1074	3750	403.3	452.5	1075	320	455	452.5
1076	3750	455	452.5	1077	320	506.7	452.5	1078	3750	506.7	452.5	1079	320	558.3	452.5
1080	3750	558.3	452.5	1081	320	610	452.5	1082	3750	610	452.5	1083	320	661.7	452.5
1084	3750	661.7	452.5	1085	1950	697	452.5	1086	320	713.3	452.5	1087	3750	713.3	452.5
1088	320	765	452.5	1089	3750	765	452.5	1090	320	816.7	452.5	1091	3750	816.7	452.5
1092	320	868.3	452.5	1093	3750	868.3	452.5	1094	320	920	452.5	1095	3750	920	452.5
1096	2285	300	454.4	1097	2285	329.8	454.4	1098	2285	359.3	454.4	1099	2285	387.5	454.4
1100	2285	415.3	454.4	1101	2285	442.9	454.4	1102	2285	470.4	454.4	1103	2120	492	454.4
1104	2285	497.7	454.4	1105	2285	524.5	454.4	1106	2285	550	454.4	1107	2025.7	362	455
1108	2025.7	390	455	1109	2025.7	418	455	1110	2025.7	446	455	1111	2025.7	474	455
1112	2025.7	502	455	1113	1950	544.3	462.8	1114	1950	584.2	464.2	1115	2120	626.5	469
1116	2120	657.8	471.1	1117	1998.7	362	472.2	1118	1998.7	390	472.2	1119	1998.7	418	472.2
1120	1998.7	446	472.2	1121	1998.7	474	472.2	1122	1998.7	502	472.2	1123	2120	697	474.6
1124	1950	610.6	480.1	1125	1950	568.5	485.7	1126	1785	300	489.4	1127	1785	331	489.4
1128	1785	362	489.4	1129	1811.7	362	489.4	1130	1838.4	362	489.4	1131	1865	362	489.4
1132	1891.7	362	489.4	1133	1918.4	362	489.4	1134	1945.1	362	489.4	1135	1971.7	362	489.4
1136	1821.8	376.3	489.4	1137	1870.4	381.5	489.4	1138	1808.6	382	489.4	1139	1894.7	384.5	489.4
1140	1845.6	385.5	489.4	1141	1920.7	388.9	489.4	1142	1785	388.9	489.4	1143	1946.5	389.7	489.4
1144	1971.7	390	489.4	1145	1802.5	397	489.4	1146	1877.5	398.1	489.4	1147	1832.1	402	489.4
1148	1895.7	405.9	489.4	1149	1866.7	407.4	489.4	1150	1785	415.8	489.4	1151	1948.4	417.8	489.4
1152	1971.7	418	489.4	1153	1922.7	419.1	489.4	1154	1814	420.8	489.4	1155	1855.7	422	489.4
1156	1888.1	423.9	489.4	1157	1841.1	440.6	489.4	1158	1935.5	440.8	489.4	1159	1911.2	440.9	489.4
1160	1879.3	442	489.4	1161	1785	442.6	489.4	1162	1951.8	443.6	489.4	1163	1971.7	446	489.4
1164	1809	449.1	489.4	1165	1931.1	458.4	489.4	1166	1863.6	458.8	489.4	1167	1830.9	460.2	489.4
1168	1902.9	462	489.4	1169	1785	469.5	489.4	1170	1951.4	469.8	489.4	1171	1806.7	472.8	489.4
1172	1971.7	474	489.4	1173	1849.6	474.7	489.4	1174	1825	475.9	489.4	1175	1883.2	476.1	489.4
1176	1926.4	482	489.4	1177	1866.7	483.8	489.4	1178	1950	492	489.4	1179	1837.4	494.6	489.4
1180	1785	496.4	489.4	1181	1809.4	496.8	489.4	1182	1899	498	489.4	1183	1867.3	499.9	489.4
1184	1950	502	489.4	1185	1971.7	502	489.4	1186	1923.8	507.9	489.4	1187	1785	523.3	489.4
1188	1810	523.3	489.4	1189	1838	523.3	489.4	1190	1866	523.3	489.4	1191	1894	523.3	489.4
1192	1922	523.3	489.4	1193	1950	523.3	489.4	1194	1785	550	489.4	1195	2120	601.1	497.3
1196	2120	544.2	499.7	1197	320	300	504.2	1198	3750	300	504.2	1199	320	351.7	504.2
1200	3750	351.7	504.2	1201	320	403.3	504.2	1202	3750	403.3	504.2	1203	320	455	504.2
1204	3750	455	504.2	1205	320	506.7	504.2	1206	3750	506.7	504.2	1207	320	558.3	504.2
1208	3750	558.3	504.2	1209	320	610	504.2	1210	3750	610	504.2	1211	320	661.7	504.2
1212	3750	661.7	504.2	1213	1950	697	504.2	1214	320	713.3	504.2	1215	3750	713.3	504.2
1216	320	765	504.2	1217	3750	765	504.2	1218	320	816.7	504.2	1219	3750	816.7	504.2
1220	320	868.3	504.2	1221	3750	868.3	504.2	1222	320	920	504.2	1223	3750	920	504.2
1224	1950	594.8	504.6	1225	2285	300	505.4	1226	2285	329	505.4	1227	2285	357.8	505.4
1228	2285	386	505.4	1229	2285	413.9	505.4	1230	2285	441.5	505.4	1231	2285	469.1	505.4
1232	2120	492	505.4	1233	2285	496.4	505.4	1234	2285	523.4	505.4	1235	2285	550	505.4
1236	1810	550.6	506.9	1237	1838	550.6	506.9	1238	1866	550.6	506.9	1239	1894	550.6	506.9
1240	1922	550.6	506.9	1241	1950	552.2	509.1	1242	1950	531.5	511.2	1243	2120	650.6	511.9
1244	1950	649.1	512.6	1245	1950	545.3	518.6	1246	2120	697	518.9	1247	1950	618.3	522.2
1248	1810	577.8	524.3	1249	1838	577.8	524.3	1250	1866	577.8	524.3	1251	1894	577.8	524.3
1252	1922	577.8	524.3	1253	1950	577.8	524.3	1254	1950	581.2	528.8	1255	1950	552.3	535.6
1256	1810	605.1	541.7	1257	1838	605.1	541.7	1258	1866	605.1	541.7	1259	1894	605.1	541.7
1260	1922	605.1	541.7	1261	1950	605.1	541.7	1262	1785	300	548.5	1263	1785	329.2	548.5
1264	1785	358.2	548.5	1265	1785	385.9	548.5	1266	1785	413.4	548.5	1267	1785	440.8	548.5
1268	1785	468.1	548.5	1269	1950	492	548.5	1270	1785	495.4	548.5	1271	1785	522.7	548.5
1272	1785	550	548.5	1273	1950	610.1	548.5	1274	1950	671.7	552.4	1275	2120	543.9	554.6
1276	2120	596.3	554.9	1277	320	300	555.8	1278	3750	300	555.8	1279	320	351.7	555.8
1280	3750	351.7	555.8	1281	320	403.3	555.8	1282	3750	403.3	555.8	1283	320	455	555.8
1284	3750	455	555.8	1285	320	506.7	555.8	1286	3750	506.7	555.8	1287	320	558.3	555.8
1288	3750	558.3	555.8	1289	320	610	555.8	1290	3750	610	555.8	1291	320	661.7	555.8
1292	3750	661.7	555.8	1293	1950	697	555.8	1294	320	713.3	555.8	1295	3750	713.3	555.8
1296	320	765	555.8	1297	3750	765	555.8	1298	320	816.7	555.8	1299	3750	816.7	555.8
1300	320	868.3	555.8	1301	3750	868.3	555.8	1302	320	920	555.8	1303	3750	920	555.8
1304	2285	300	556.5	1305	2285	328.4	556.5	1306	2285	356.6	556.5	1307	2285	384.6	556.5
1308	2285	412.5	556.5	1309	2285	440.2	556.5	1310	2285	467.9	556.5	1311	2120	492	556.5
1312	2285	495.4	556.5	1313	2285	522.8	556.5	1314	2285	550	556.5	1315	1950	530.5	558.7
1316	1810	632.4	559.1	1317	1838	632.4	559.1	1318	1866	632.4	559.1	1319	1894	632.4	559.1
1320	1922	632.4	559.1	1321	1950	632.4	559.1	1322	2120	646.4	560.1	1323	2120	697	563.2
1324	1950	639.1	568.1	1325	1810	659.7	576.5	1326	1838	659.7	576.5	1327	1866	659.7	576.5
1328	1894	659.7	576.5	1329	1922	659.7	576.5	1330	1950	659.7	576.5	1331	1950	607.4	580.3
1332	1950	668	587.8	1333	1950	640.4	591.9	1334	1810	687	593.9	1335	1838	687	593.9
1336	1866	687	593.9	1337	1894	687	593.9	1338	1922	687	593.9	1339	1950	687	593.9
1340	315	300	607.5	1341	320	300	607.5	1342	1785	300	6				

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
1424	2033.3	634.4	607.5	1425	1950	645.7	607.5	1426	2120	645.7	607.5	1427	315	661.7	607.5
1428	320	661.7	607.5	1429	3750	661.7	607.5	1430	3755	661.7	607.5	1431	1950	682	607.5
1432	1992.5	682	607.5	1433	2035	682	607.5	1434	2077.5	682	607.5	1435	2120	682	607.5
1436	1785	687	607.5	1437	1826.3	687	607.5	1438	1867.5	687	607.5	1439	1908.8	687	607.5
1440	1950	687	607.5	1441	1992.5	687	607.5	1442	2035	687	607.5	1443	2077.5	687	607.5
1444	2120	687	607.5	1445	2148	687	607.5	1446	2176	687	607.5	1447	2204	687	607.5
1448	2232	687	607.5	1449	2285	687	607.5	1450	1950	697	607.5	1451	2120	697	607.5
1452	2175.9	709	607.5	1453	2149.1	711.4	607.5	1454	315	713.3	607.5	1455	320	713.3	607.5
1456	3750	713.3	607.5	1457	3755	713.3	607.5	1458	2119.2	715.6	607.5	1459	1992.3	715.7	607.5
1460	2200.2	716	607.5	1461	1953.1	718.2	607.5	1462	1911.6	721.1	607.5	1463	2228.1	721.2	607.5
1464	2031.3	723.8	607.5	1465	2080.3	727	607.5	1466	2174	730	607.5	1467	2253	732.3	607.5
1468	1872.3	732.8	607.5	1469	2153	735.1	607.5	1470	1829	737.6	607.5	1471	2127.2	738.7	607.5
1472	1785	740.2	607.5	1473	2285	740.2	607.5	1474	1989.7	743.1	607.5	1475	2103.5	745.3	607.5
1476	2192.7	747.1	607.5	1477	2220	749.7	607.5	1478	1958.8	750.8	607.5	1479	2161.8	760.2	607.5
1480	1920.9	761.8	607.5	1481	315	765	607.5	1482	320	765	607.5	1483	3750	765	607.5
1484	3755	765	607.5	1485	2017.6	765.6	607.5	1486	2132.4	767.4	607.5	1487	2068.3	768.4	607.5
1488	2102.7	770.9	607.5	1489	1971.7	780.1	607.5	1490	2239.1	780.9	607.5	1491	2201.7	784.9	607.5
1492	1881.8	786.1	607.5	1493	1832.6	790.4	607.5	1494	1931.5	790.8	607.5	1495	2168.7	792.6	607.5
1496	1785	793.5	607.5	1497	2285	793.5	607.5	1498	2137.1	799.1	607.5	1499	1907.2	801.6	607.5
1500	2106	803.5	607.5	1501	2072.4	810	607.5	1502	2026.7	813.6	607.5	1503	315	816.7	607.5
1504	320	816.7	607.5	1505	3750	816.7	607.5	1506	3755	816.7	607.5	1507	2201.4	817.6	607.5
1508	1979.6	820.4	607.5	1509	1910.7	824.2	607.5	1510	2173.7	826.3	607.5	1511	1937.3	826.4	607.5
1512	2111.5	829.5	607.5	1513	2140.1	831.5	607.5	1514	2228.3	840.6	607.5	1515	1889.3	842.8	607.5
1516	1835.3	844.9	607.5	1517	1785	846.7	607.5	1518	2285	846.7	607.5	1519	2088.4	853.5	607.5
1520	2033.2	856.8	607.5	1521	2180.8	856.9	607.5	1522	1936.2	857	607.5	1523	1983.3	858.8	607.5
1524	2136.1	860.7	607.5	1525	315	868.3	607.5	1526	320	868.3	607.5	1527	3750	868.3	607.5
1528	3755	868.3	607.5	1529	320	900	607.5	1530	690	900	607.5	1531	935	900	607.5
1532	1000	900	607.5	1533	1330	900	607.5	1534	1485	900	607.5	1535	1770	900	607.5
1536	1775	900	607.5	1537	1785	900	607.5	1538	1835	900	607.5	1539	1885	900	607.5
1540	1935	900	607.5	1541	1985	900	607.5	1542	2035	900	607.5	1543	2085	900	607.5
1544	2135	900	607.5	1545	2185	900	607.5	1546	2235	900	607.5	1547	2285	900	607.5
1548	2295	900	607.5	1549	2300	900	607.5	1550	2660	900	607.5	1551	2740	900	607.5
1552	3070	900	607.5	1553	3135	900	607.5	1554	3750	900	607.5	1555	315	920	607.5
1556	320	920	607.5	1557	3750	920	607.5	1558	3755	920	607.5	1559	2260	687	611.1
1560	2120	639.1	622.1	1561	2120	668.6	625.1	1562	2120	660.3	628.1	1563	2148	660.3	628.1
1564	2176	660.3	628.1	1565	2204	660.3	628.1	1566	2232	660.3	628.1	1567	2260	660.3	628.1
1568	2120	602.9	634.1	1569	2120	492	642.8	1570	2120	640.2	642.8	1571	2120	633.6	645.2
1572	2148	633.6	645.2	1573	2176	633.6	645.2	1574	2204	633.6	645.2	1575	2232	633.6	645.2
1576	2260	633.6	645.2	1577	2120	547	645.3	1578	2120	697	651.8	1579	2120	593.8	652.8
1580	2120	672	654.9	1581	1790	300	655.5	1582	1790	328.3	655.5	1583	1790	356.5	655.5
1584	1790	384.4	655.5	1585	1790	412.2	655.5	1586	1790	439.8	655.5	1587	1790	467.4	655.5
1588	1950	492	655.5	1589	1790	494.9	655.5	1590	1790	522.5	655.5	1591	1790	550	655.5
1592	315	300	659.2	1593	3755	300	659.2	1594	315	351.7	659.2	1595	3755	351.7	659.2
1596	315	403.3	659.2	1597	3755	403.3	659.2	1598	315	455	659.2	1599	3755	455	659.2
1600	315	506.7	659.2	1601	3755	506.7	659.2	1602	315	558.3	659.2	1603	3755	558.3	659.2
1604	315	610	659.2	1605	3755	610	659.2	1606	315	661.7	659.2	1607	3755	661.7	659.2
1608	1950	697	659.2	1609	315	713.3	659.2	1610	3755	713.3	659.2	1611	315	765	659.2
1612	3755	765	659.2	1613	315	816.7	659.2	1614	3755	816.7	659.2	1615	315	868.3	659.2
1616	3755	868.3	659.2	1617	315	920	659.2	1618	3755	920	659.2	1619	2280	300	660.4
1620	2280	329.3	660.4	1621	2280	358.3	660.4	1622	2280	386.3	660.4	1623	2280	414	660.4
1624	2280	441.6	660.4	1625	2280	469.2	660.4	1626	2280	496.7	660.4	1627	2280	523.9	660.4
1628	2280	550	660.4	1629	2120	611.9	660.4	1630	2120	606.9	662.2	1631	2148	606.9	662.2
1632	2176	606.9	662.2	1633	2204	606.9	662.2	1634	2232	606.9	662.2	1635	2260	606.9	662.2
1636	1950	648.3	662.6	1637	2120	567.9	663.6	1638	1950	540.1	663.6	1639	1950	595.5	676.1
1640	2120	492	678.1	1641	2120	583.5	678.1	1642	2120	529	678.9	1643	2120	550.4	679.2
1644	2148	580.2	679.3	1645	2176	580.2	679.3	1646	2204	580.2	679.3	1647	2232	580.2	679.3
1648	2260	580.2	679.3	1649	2120	619.7	683.8	1650	2120	650	689.5	1651	2120	555.1	695.7
1652	2120	697	696.1	1653	2148	553.4	696.3	1654	2176	553.4	696.3	1655	2204	553.4	696.3
1656	2232	553.4	696.3	1657	2260	553.4	696.3	1658	1790	300	703.5	1659	1790	329	703.5
1660	1790	357.6	703.5	1661	1790	385.6	703.5	1662	1790	413.3	703.5	1663	1790	440.7	703.5
1664	1790	468.1	703.5	1665	1950	492	703.5	1666	1790	495.4	703.5	1667	1790	522.7	703.5
1668	1790	550	703.5	1669	2120	597.3	704.6	1670	1950	655.9	709.2	1671	1950	622	710.8
1672	315	300	710.8	1673	3755	300	710.8	1674	315	351.7	710.8	1675	3755	351.7	710.8
1676	315	403.3	710.8	1677	3755	403.3	710.8	1678	315	455	710.8	1679	3755	455	710.8
1680	315	506.7	710.8	1681	3755	506.7	710.8	1682	315	558.3	710.8	1683	3755	558.3	710.8
1684	315	610	710.8	1685	3755	610	710.8	1686	315	661.7	710.8	1687	3755	661.7	710.8
1688	1950	697	710.8	1689	315	713.3	710.8	1690	3755	713.3	710.8	1691	315	765	710.8
1692	3755	765	710.8	1693	315	816.7	710.8	1694	3755	816.7	710.8	1695	315	868.3	710.8
1696	3755	868.3	710.8	1697	315	920	710.8	1698	3755	920	710.8	1699	2280	300	713.3
1700	2280	331	713.3	1701	2106.7	362	713.3	1702	2131.5	362	713.3	1703	2156.2	362	713.3
1704	2181	362	713.3	1705	2205.7	362	713.3	1706	2230.5	362	713.3	1707	2255.2	362	713.3
1708	2280	362	713.3	1709	2245.1	376.8	713.3	1710	2257.1	382	713.3	1711	2200.4	382.4	713.3
1712	2178.9	383.2	713.3	1713	2155.7	385.7	713.3	1714	2222.7	386.3	713.3	1715	2131.3	388.4	713.3
1716	2280	389.5	713.3	1717	2106.7	390	713.3	1718	2263.5	397.6	713.3	1719	2193.5	397.7	713.3
1720	2234.3	402	713.3	1721	2177.6	403.4	713.3	1722	2202.6	407.3	713.3	1723	2155.8	410.6	713.3
1724	2131.3	416.8	713.3	1725	2280	416.9	713.3	1726	2106.7	418	713.3	1727	2252.7	421.9	713.3
1728	2211.4	422	713.3	1729	2181.8	422.3	713.3	1730	2158.7	436.5	713.3	1731	2225.6	441.4	713.3
1732	2188.														

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
1816	315	403.3	762.5	1817	3755	403.3	762.5	1818	315	455	762.5	1819	3755	455	762.5
1820	315	506.7	762.5	1821	3755	506.7	762.5	1822	315	558.3	762.5	1823	3755	558.3	762.5
1824	315	610	762.5	1825	3755	610	762.5	1826	315	661.7	762.5	1827	3755	661.7	762.5
1828	1950	697	762.5	1829	315	713.3	762.5	1830	3755	713.3	762.5	1831	315	765	762.5
1832	3755	765	762.5	1833	315	816.7	762.5	1834	3755	816.7	762.5	1835	315	868.3	762.5
1836	3755	868.3	762.5	1837	315	920	762.5	1838	3755	920	762.5	1839	2280	300	764.4
1840	2120	492	764.4	1841	2280	550	764.4	1842	2025.7	362	765	1843	2025.7	390	765
1844	2025.7	418	765	1845	2025.7	446	765	1846	2025.7	474	765	1847	2025.7	502	765
1848	2280	363	771.6	1849	2280	385.3	771.6	1850	2280	470.1	772.2	1851	2280	492.4	772.5
1852	2280	413.2	772.5	1853	2280	442.1	772.6	1854	1950	544.3	772.8	1855	1950	584.2	774.2
1856	1998.7	362	782.2	1857	1998.7	390	782.2	1858	1998.7	418	782.2	1859	1998.7	446	782.2
1860	1998.7	474	782.2	1861	1998.7	502	782.2	1862	2120	697	784.6	1863	2120	659.3	786.5
1864	2120	624.4	788.1	1865	2120	586.9	788.4	1866	1950	610.6	790.1	1867	1950	568.5	795.7
1868	1790	300	799.4	1869	1790	331	799.4	1870	1790	362	799.4	1871	1816	362	799.4
1872	1841.9	362	799.4	1873	1867.9	362	799.4	1874	1893.8	362	799.4	1875	1919.8	362	799.4
1876	1945.8	362	799.4	1877	1971.7	362	799.4	1878	1825.7	376.2	799.4	1879	1873.1	381.4	799.4
1880	1812.9	382	799.4	1881	1896.8	384.4	799.4	1882	1848.9	385.4	799.4	1883	1922	388.8	799.4
1884	1790	388.9	799.4	1885	1947.1	389.6	799.4	1886	1971.7	390	799.4	1887	1806.9	397	799.4
1888	1879.9	398	799.4	1889	1835.7	402	799.4	1890	1897.7	405.9	799.4	1891	1869.4	407.3	799.4
1892	1790	415.8	799.4	1893	1949	417.8	799.4	1894	1971.7	418	799.4	1895	1923.9	419.1	799.4
1896	1818	420.8	799.4	1897	1858.6	422	799.4	1898	1890.2	423.9	799.4	1899	1844.1	440.6	799.4
1900	1936.3	440.8	799.4	1901	1912.6	440.9	799.4	1902	1881.4	442	799.4	1903	1790	442.6	799.4
1904	1952.2	443.6	799.4	1905	1971.7	446	799.4	1906	1812.8	449	799.4	1907	1932	458.4	799.4
1908	1865.6	458.7	799.4	1909	1833.8	460.1	799.4	1910	1904.3	462	799.4	1911	1790	469.5	799.4
1912	1951.7	469.8	799.4	1913	1810.2	472.8	799.4	1914	1971.7	474	799.4	1915	1851.6	474.6	799.4
1916	1827.7	475.8	799.4	1917	1884.6	476	799.4	1918	1927.1	482	799.4	1919	1868.1	483.7	799.4
1920	1950	492	799.4	1921	1839.1	494.5	799.4	1922	1790	496.4	799.4	1923	1811.9	496.8	799.4
1924	1899.6	498	799.4	1925	1868.2	499.9	799.4	1926	1950	502	799.4	1927	1971.7	502	799.4
1928	1924	507.9	799.4	1929	1790	523.3	799.4	1930	1810	523.3	799.4	1931	1838	523.3	799.4
1932	1866	523.3	799.4	1933	1894	523.3	799.4	1934	1922	523.3	799.4	1935	1950	523.3	799.4
1936	1790	550	799.4	1937	2280	344.1	800	1938	2280	508	800.9	1939	2280	474.3	801.7
1940	2280	378.1	801.7	1941	2280	410	803.6	1942	2280	442.1	803.7	1943	2120	538.1	804.9
1944	315	300	814.2	1945	3755	300	814.2	1946	315	351.7	814.2	1947	3755	351.7	814.2
1948	315	403.3	814.2	1949	3755	403.3	814.2	1950	315	455	814.2	1951	3755	455	814.2
1952	315	506.7	814.2	1953	3755	506.7	814.2	1954	315	558.3	814.2	1955	3755	558.3	814.2
1956	315	610	814.2	1957	3755	610	814.2	1958	315	661.7	814.2	1959	3755	661.7	814.2
1960	1950	697	814.2	1961	315	713.3	814.2	1962	3755	713.3	814.2	1963	315	765	814.2
1964	3755	765	814.2	1965	315	816.7	814.2	1966	3755	816.7	814.2	1967	315	868.3	814.2
1968	3755	868.3	814.2	1969	315	920	814.2	1970	3755	920	814.2	1971	1950	594.8	814.6
1972	2280	300	815.4	1973	2120	492	815.4	1974	2280	550	815.4	1975	1810	550.6	816.9
1976	1838	550.6	816.9	1977	1866	550.6	816.9	1978	1894	550.6	816.9	1979	1922	550.6	816.9
1980	1950	552.2	819.1	1981	1790	467.8	821.2	1982	1790	385.5	822	1983	1790	442.1	822.1
1984	1790	412.5	822.2	1985	1950	649.1	822.6	1986	2120	627.4	823.5	1987	1790	486.8	824.1
1988	1790	367.2	824.6	1989	2120	697	828.9	1990	2120	658.6	829.5	1991	1950	618.3	832.2
1992	2280	379.3	832.3	1993	2280	470.6	832.6	1994	1950	545.3	832.8	1995	1950	532.1	833.1
1996	1810	577.8	834.3	1997	1838	577.8	834.3	1998	1866	577.8	834.3	1999	1894	577.8	834.3
2000	1922	577.8	834.3	2001	1950	577.8	834.3	2002	2280	407	837	2003	2280	442.1	837.6
2004	1950	581.2	838.8	2005	1790	469.1	839.2	2006	1790	382.9	839.8	2007	1790	442.7	844.8
2008	1790	409.1	845	2009	1950	551.4	846.2	2010	1790	496.1	851.7	2011	2120	600.4	851.7
2012	1810	605.1	851.7	2013	1838	605.1	851.7	2014	1866	605.1	851.7	2015	1894	605.1	851.7
2016	1922	605.1	851.7	2017	1950	605.1	851.7	2018	1790	354	852.3	2019	2280	494.9	857.8
2020	2280	352.7	858.3	2021	1790	300	858.5	2022	1950	492	858.5	2023	1790	550	858.5
2024	1950	610.1	858.5	2025	2120	543.4	860.1	2026	1950	671.7	862.4	2027	315	300	865.8
2028	3755	300	865.8	2029	315	351.7	865.8	2030	3755	351.7	865.8	2031	315	403.3	865.8
2032	3755	403.3	865.8	2033	315	455	865.8	2034	3755	455	865.8	2035	315	506.7	865.8
2036	3755	506.7	865.8	2037	315	558.3	865.8	2038	3755	558.3	865.8	2039	315	610	865.8
2040	3755	610	865.8	2041	315	661.7	865.8	2042	3755	661.7	865.8	2043	1950	697	865.8
2044	315	713.3	865.8	2045	3755	713.3	865.8	2046	315	765	865.8	2047	3755	765	865.8
2048	315	816.7	865.8	2049	3755	816.7	865.8	2050	315	868.3	865.8	2051	3755	868.3	865.8
2052	315	920	865.8	2053	3755	920	865.8	2054	2280	300	866.5	2055	2120	492	866.5
2056	2280	550	866.5	2057	2120	650.4	868	2058	1810	632.4	869.1	2059	1838	632.4	869.1
2060	1866	632.4	869.1	2061	1894	632.4	869.1	2062	1922	632.4	869.1	2063	1950	632.4	869.1
2064	1950	527.8	870.6	2065	2280	446.6	871	2066	2280	401	871.1	2067	1790	447.6	871.4
2068	1790	402.4	871.7	2069	2120	697	873.2	2070	1950	639.1	878.1	2071	1810	659.7	886.5
2072	1838	659.7	886.5	2073	1866	659.7	886.5	2074	1894	659.7	886.5	2075	1922	659.7	886.5
2076	1950	659.7	886.5	2077	1950	607.4	890.3	2078	1950	668	897.8	2079	1950	640.4	901.9
2080	1810	687	903.9	2081	1838	687	903.9	2082	1866	687	903.9	2083	1894	687	903.9
2084	1922	687	903.9	2085	1950	687	903.9	2086	315	300	917.5	2087	1790	300	917.5
2088	2280	300	917.5	2089	3755	300	917.5	2090	315	315	917.5	2091	935	315	917.5
2092	1330	315	917.5	2093	1790	315	917.5	2094	2280	315	917.5	2095	2740	315	917.5
2096	3135	315	917.5	2097	3755	315	917.5	2098	935	320	917.5	2099	1330	320	917.5
2100	2740	320	917.5	2101	3135	320	917.5	2102	1790	347	917.5	2103	2280	347	917.5
2104	315	351.7	917.5	2105	3755	351.7	917.5	2106	1790	397.7	917.5	2107	2280	397.7	917.5
2108	315	403.3	917.5	2109	3755	403.3	917.5	2110	1790	448.5	917.5	2111	2280	448.5	917.5
2112	315	455	917.5	2113	3755	455	917.5	2114	1950	492	917.5	2115	2120	492	917.5
2116	1790	499.2	917.5	2117	2280	499.2	917.5	2118	315	506.7	917.5	2119	3755	506.7	917.5
2120	1950	543.2	917.5	2121	2120	543.2	917.5	2122	1790	550	917.5	2123	2280	550	917.5
2124	315	558.3	917.5	2125	3755	558.3	917.5	2126	1950	594.5	917.5	2127	2120	594.5	917.5
2128															

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
2208	315	816.7	917.5	2209	3755	816.7	917.5	2210	2192.2	818.7	917.5	2211	1920.9	827.4	917.5
2212	2161.8	829.8	917.5	2213	1949.2	836.6	917.5	2214	2122.2	837.5	917.5	2215	2078.6	841	917.5
2216	1989.8	841.1	917.5	2217	2033.5	842.5	917.5	2218	2221.9	843.7	917.5	2219	1894	847.1	917.5
2220	1839.4	849.1	917.5	2221	1790	850.5	917.5	2222	2280	850.5	917.5	2223	2172.5	862.1	917.5
2224	1940.7	865	917.5	2225	315	868.3	917.5	2226	3755	868.3	917.5	2227	2126	869.3	917.5
2228	1986.2	871.2	917.5	2229	2079.2	872.2	917.5	2230	2032.5	872.9	917.5	2231	935	900	917.5
2232	1330	900	917.5	2233	1775	900	917.5	2234	1790	900	917.5	2235	2280	900	917.5
2236	2295	900	917.5	2237	2740	900	917.5	2238	3135	900	917.5	2239	315	905	917.5
2240	935	905	917.5	2241	1085	905	917.5	2242	1330	905	917.5	2243	1775	905	917.5
2244	1790	905	917.5	2245	1837.5	905	917.5	2246	1885	905	917.5	2247	1933.8	905	917.5
2248	1982.5	905	917.5	2249	2031.3	905	917.5	2250	2080	905	917.5	2251	2130	905	917.5
2252	2180	905	917.5	2253	2230	905	917.5	2254	2280	905	917.5	2255	2295	905	917.5
2256	2645	905	917.5	2257	2740	905	917.5	2258	3055	905	917.5	2259	3135	905	917.5
2260	3755	905	917.5	2261	315	920	917.5	2262	3755	920	917.5	2263	2260	687	921.1
2264	2120	639.1	932.1	2265	2120	668.6	935.1	2266	2120	660.3	938.1	2267	2148	660.3	938.1
2268	2176	660.3	938.1	2269	2204	660.3	938.1	2270	2232	660.3	938.1	2271	2260	660.3	938.1
2272	2120	602.9	944.1	2273	2120	492	952.8	2274	2120	640.2	952.8	2275	2120	633.6	955.2
2276	2148	633.6	955.2	2277	2176	633.6	955.2	2278	2204	633.6	955.2	2279	2232	633.6	955.2
2280	2260	633.6	955.2	2281	2120	547	955.3	2282	1790	446.3	960.7	2283	2280	450.2	961
2284	1790	401.3	961.3	2285	2120	697	961.8	2286	2120	593.8	962.8	2287	2120	672	964.9
2288	1790	300	965.5	2289	1950	492	965.5	2290	1790	550	965.5	2291	2280	404.3	966.1
2292	315	300	969.2	2293	3755	300	969.2	2294	315	351.7	969.2	2295	3755	351.7	969.2
2296	315	403.3	969.2	2297	3755	403.3	969.2	2298	315	455	969.2	2299	3755	455	969.2
2300	315	506.7	969.2	2301	3755	506.7	969.2	2302	315	558.3	969.2	2303	3755	558.3	969.2
2304	315	610	969.2	2305	3755	610	969.2	2306	315	661.7	969.2	2307	3755	661.7	969.2
2308	1950	697	969.2	2309	315	713.3	969.2	2310	3755	713.3	969.2	2311	315	765	969.2
2312	3755	765	969.2	2313	315	816.7	969.2	2314	3755	816.7	969.2	2315	315	868.3	969.2
2316	3755	868.3	969.2	2317	315	920	969.2	2318	3755	920	969.2	2319	2280	300	970.4
2320	2280	550	970.4	2321	2120	611.9	970.4	2322	2120	606.9	972.2	2323	2148	606.9	972.2
2324	2176	606.9	972.2	2325	2204	606.9	972.2	2326	2232	606.9	972.2	2327	2260	606.9	972.2
2328	1950	648.3	972.6	2329	1790	494.6	973.1	2330	2120	567.9	973.6	2331	1950	540.1	973.6
2332	1790	353.7	973.6	2333	2280	350	974.7	2334	2280	498.2	977	2335	2280	424.5	983.6
2336	2280	449.3	983.6	2337	1950	595.5	986.1	2338	2120	492	988.1	2339	2120	583.5	988.1
2340	2280	473.1	988.2	2341	2120	529	988.9	2342	2120	550.4	989.2	2343	2148	580.2	989.3
2344	2176	580.2	989.3	2345	2204	580.2	989.3	2346	2232	580.2	989.3	2347	2260	580.2	989.3
2348	1790	441.7	992.2	2349	1790	407.4	993.3	2350	2120	619.7	993.8	2351	2280	394.6	996.2
2352	1790	470.1	996.7	2353	1790	380	997.8	2354	2280	368.9	998.1	2355	2120	650	999.5
2356	2280	420	1001	2357	2280	489.7	1001.4	2358	2280	446.5	1002.9	2359	2280	471.1	1004.1
2360	2120	555.1	1005.7	2361	2120	697	1006.1	2362	2148	553.4	1006.3	2363	2176	553.4	1006.3
2364	2204	553.4	1006.3	2365	2232	553.4	1006.3	2366	2260	553.4	1006.3	2367	1790	300	1013.5
2368	1950	492	1013.5	2369	1790	550	1013.5	2370	2120	597.3	1014.6	2371	1950	655.9	1019.2
2372	1950	622	1020.8	2373	315	300	1020.8	2374	3755	300	1020.8	2375	315	351.7	1020.8
2376	3755	351.7	1020.8	2377	315	403.3	1020.8	2378	3755	403.3	1020.8	2379	315	455	1020.8
2380	3755	455	1020.8	2381	315	506.7	1020.8	2382	3755	506.7	1020.8	2383	315	558.3	1020.8
2384	3755	558.3	1020.8	2385	315	610	1020.8	2386	3755	610	1020.8	2387	315	661.7	1020.8
2388	3755	661.7	1020.8	2389	1950	697	1020.8	2390	315	713.3	1020.8	2391	3755	713.3	1020.8
2392	315	765	1020.8	2393	3755	765	1020.8	2394	315	816.7	1020.8	2395	3755	816.7	1020.8
2396	315	868.3	1020.8	2397	3755	868.3	1020.8	2398	315	920	1020.8	2399	3755	920	1020.8
2400	2280	336.4	1021.5	2401	2280	300	1023.3	2402	2106.7	362	1023.3	2403	2131.5	362	1023.3
2404	2156.2	362	1023.3	2405	2181	362	1023.3	2406	2205.7	362	1023.3	2407	2230.5	362	1023.3
2408	2255.2	362	1023.3	2409	2280	362	1023.3	2410	2245.1	376.8	1023.3	2411	2257.1	382	1023.3
2412	2200.4	382.4	1023.3	2413	2178.9	383.2	1023.3	2414	2155.7	385.7	1023.3	2415	2222.7	386.3	1023.3
2416	2131.3	388.4	1023.3	2417	2280	389.5	1023.3	2418	2106.7	390	1023.3	2419	2263.5	397.6	1023.3
2420	2193.5	397.7	1023.3	2421	2234.3	402	1023.3	2422	2177.6	403.4	1023.3	2423	2202.6	407.3	1023.3
2424	2155.8	410.6	1023.3	2425	2131.3	416.8	1023.3	2426	2280	416.9	1023.3	2427	2106.7	418	1023.3
2428	2252.7	421.9	1023.3	2429	2211.4	422	1023.3	2430	2181.8	422.3	1023.3	2431	2158.7	436.5	1023.3
2432	2225.6	441.4	1023.3	2433	2188.6	442	1023.3	2434	2280	444.4	1023.3	2435	2106.7	446	1023.3
2436	2131.5	451.4	1023.3	2437	2257.6	451.7	1023.3	2438	2202.9	459	1023.3	2439	2165.7	462	1023.3
2440	2235.4	462.7	1023.3	2441	2280	471.8	1023.3	2442	2106.7	474	1023.3	2443	2181	475.1	1023.3
2444	2119.4	475.8	1023.3	2445	2259.6	476.3	1023.3	2446	2215.4	477.4	1023.3	2447	2241.5	479.2	1023.3
2448	2142.9	482	1023.3	2449	2193.3	488.7	1023.3	2450	2162.7	490.2	1023.3	2451	2120	492	1023.3
2452	2176.5	496.4	1023.3	2453	2229.3	498.6	1023.3	2454	2280	499.3	1023.3	2455	2257.5	500.5	1023.3
2456	2106.7	502	1023.3	2457	2120	502	1023.3	2458	2200.3	506	1023.3	2459	2151.2	507.2	1023.3
2460	2176	509.1	1023.3	2461	2120	526.7	1023.3	2462	2148	526.7	1023.3	2463	2176	526.7	1023.3
2464	2204	526.7	1023.3	2465	2232	526.7	1023.3	2466	2260	526.7	1023.3	2467	2280	526.7	1023.3
2468	2280	550	1023.3	2469	1790	441.8	1024.1	2470	1790	410.2	1024.8	2471	1790	473.7	1025.6
2472	1950	530.7	1025.9	2473	1790	379	1026.5	2474	1790	507.3	1026.6	2475	1790	345.1	1028
2476	2120	615.1	1031.1	2477	2079.7	362	1040.6	2478	2079.7	390	1040.6	2479	2079.7	418	1040.6
2480	2079.7	446	1040.6	2481	2079.7	474	1040.6	2482	2079.7	502	1040.6	2483	2120	571.1	1045.5
2484	1950	574	1047.5	2485	2120	595	1049.2	2486	2120	697	1050.4	2487	2280	415.6	1052.3
2488	2280	443.7	1052.6	2489	2280	387.9	1052.6	2490	2120	657.7	1053.1	2491	1790	491.2	1053.3
2492	1790	441.6	1053.4	2493	2280	471	1053.5	2494	1790	469.2	1053.6	2495	2280	360.6	1054
2496	1790	413	1054.3	2497	1790	385.7	1054.5	2498	1790	363.6	1054.6	2499	2280	497.8	1055.8
2500	2052.7	362	1057.8	2501	2052.7	390	1057.8	2502	2052.7	418	1057.8	2503	2052.7	446	1057.8
2504	2052.7	474	1057.8	2505	2052.7	502	1057.8	2506	1950	615.4	1059.4	2507	1790	300	1061.5
2508	1950	492	1061.5	2509	1790	550	1061.5	2510	2120	623.8	1063.9	2511	2120	531.7	1064.7
2512	2280	335.5	1065	2513	2280	520.7	1066.1	2514	1790						

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
2600	1879.9	398	1109.4	2601	1835.7	402	1109.4	2602	1897.7	405.9	1109.4	2603	1869.4	407.3	1109.4
2604	1790	415.8	1109.4	2605	1949	417.8	1109.4	2606	1971.7	418	1109.4	2607	1923.9	419.1	1109.4
2608	1818	420.8	1109.4	2609	1858.6	422	1109.4	2610	1890.2	423.9	1109.4	2611	1844.1	440.6	1109.4
2612	1936.3	440.8	1109.4	2613	1912.6	440.9	1109.4	2614	1881.4	442	1109.4	2615	1790	442.6	1109.4
2616	1952.2	443.6	1109.4	2617	1971.7	446	1109.4	2618	1812.8	449	1109.4	2619	1932	458.4	1109.4
2620	1865.6	458.7	1109.4	2621	1833.8	460.1	1109.4	2622	1904.3	462	1109.4	2623	1790	469.5	1109.4
2624	1951.7	469.8	1109.4	2625	1810.2	472.8	1109.4	2626	1971.7	474	1109.4	2627	1851.6	474.6	1109.4
2628	1827.7	475.8	1109.4	2629	1884.6	476	1109.4	2630	1927.1	482	1109.4	2631	1868.1	483.7	1109.4
2632	1950	492	1109.4	2633	1839.1	494.5	1109.4	2634	1790	496.4	1109.4	2635	1811.9	496.8	1109.4
2636	1899.6	498	1109.4	2637	1868.2	499.9	1109.4	2638	1950	502	1109.4	2639	1971.7	502	1109.4
2640	1924	507.9	1109.4	2641	1790	523.3	1109.4	2642	1810	523.3	1109.4	2643	1838	523.3	1109.4
2644	1866	523.3	1109.4	2645	1894	523.3	1109.4	2646	1922	523.3	1109.4	2647	1950	523.3	1109.4
2648	1790	550	1109.4	2649	2280	344.8	1110	2650	2280	508.5	1111	2651	2280	379	1111.8
2652	2280	475	1111.9	2653	1790	337.9	1112.8	2654	2280	411	1113.7	2655	2280	443	1113.9
2656	2120	538.1	1114.9	2657	315	300	1124.2	2658	3755	300	1124.2	2659	315	351.7	1124.2
2660	3755	351.7	1124.2	2661	315	403.3	1124.2	2662	3755	403.3	1124.2	2663	315	455	1124.2
2664	3755	455	1124.2	2665	315	506.7	1124.2	2666	3755	506.7	1124.2	2667	315	558.3	1124.2
2668	3755	558.3	1124.2	2669	315	610	1124.2	2670	3755	610	1124.2	2671	315	661.7	1124.2
2672	3755	661.7	1124.2	2673	1950	697	1124.2	2674	315	713.3	1124.2	2675	3755	713.3	1124.2
2676	315	765	1124.2	2677	3755	765	1124.2	2678	315	816.7	1124.2	2679	3755	816.7	1124.2
2680	315	868.3	1124.2	2681	3755	868.3	1124.2	2682	315	920	1124.2	2683	3755	920	1124.2
2684	1950	594.8	1124.6	2685	2280	300	1125.4	2686	2120	492	1125.4	2687	2280	550	1125.4
2688	1810	550.6	1126.9	2689	1838	550.6	1126.9	2690	1866	550.6	1126.9	2691	1894	550.6	1126.9
2692	1922	550.6	1126.9	2693	1950	552.2	1129.1	2694	1790	468.1	1131.3	2695	1790	386.1	1132
2696	1790	442.5	1132.1	2697	1790	413.1	1132.3	2698	1950	649.1	1132.6	2699	2120	627.4	1133.5
2700	1790	487.1	1134.1	2701	1790	367.9	1134.6	2702	2120	697	1138.9	2703	2120	658.6	1139.5
2704	1950	618.3	1142.2	2705	2280	380.7	1142.4	2706	2280	471.6	1142.7	2707	1950	545.3	1142.8
2708	1950	532.1	1143.1	2709	1810	577.8	1144.3	2710	1838	577.8	1144.3	2711	1866	577.8	1144.3
2712	1894	577.8	1144.3	2713	1922	577.8	1144.3	2714	1950	577.8	1144.3	2715	2280	408.6	1147.1
2716	2280	443.5	1147.7	2717	1950	581.2	1148.8	2718	1790	469.7	1149.3	2719	1790	383.9	1149.8
2720	1790	443.6	1154.9	2721	1790	410.2	1155.1	2722	1950	551.4	1156.2	2723	2120	600.4	1161.7
2724	1810	605.1	1161.7	2725	1838	605.1	1161.7	2726	1866	605.1	1161.7	2727	1894	605.1	1161.7
2728	1922	605.1	1161.7	2729	1950	605.1	1161.7	2730	1790	496.8	1161.7	2731	1790	356.6	1162.4
2732	2280	495.8	1167.8	2733	2280	354.6	1168.3	2734	1790	300	1168.5	2735	1950	492	1168.5
2736	1790	550	1168.5	2737	1950	610.1	1168.5	2738	2120	543.4	1170.1	2739	1950	671.7	1172.4
2740	315	300	1175.8	2741	3755	300	1175.8	2742	315	351.7	1175.8	2743	3755	351.7	1175.8
2744	315	403.3	1175.8	2745	3755	403.3	1175.8	2746	315	455	1175.8	2747	3755	455	1175.8
2748	315	506.7	1175.8	2749	3755	506.7	1175.8	2750	315	558.3	1175.8	2751	3755	558.3	1175.8
2752	315	610	1175.8	2753	3755	610	1175.8	2754	315	661.7	1175.8	2755	3755	661.7	1175.8
2756	1950	697	1175.8	2757	315	713.3	1175.8	2758	3755	713.3	1175.8	2759	315	765	1175.8
2760	3755	765	1175.8	2761	315	816.7	1175.8	2762	3755	816.7	1175.8	2763	315	868.3	1175.8
2764	3755	868.3	1175.8	2765	315	920	1175.8	2766	3755	920	1175.8	2767	2280	300	1176.5
2768	2120	492	1176.5	2769	2280	550	1176.5	2770	2120	650.4	1178	2771	1810	632.4	1179.1
2772	1838	632.4	1179.1	2773	1866	632.4	1179.1	2774	1894	632.4	1179.1	2775	1922	632.4	1179.1
2776	1950	632.4	1179.1	2777	1950	527.8	1180.6	2778	2280	448.4	1181.1	2779	2280	403.2	1181.1
2780	1790	449.1	1181.4	2781	1790	404.4	1181.7	2782	2120	697	1183.2	2783	1950	639.1	1188.1
2784	1810	659.7	1196.5	2785	1838	659.7	1196.5	2786	1866	659.7	1196.5	2787	1894	659.7	1196.5
2788	1922	659.7	1196.5	2789	1950	659.7	1196.5	2790	1950	607.4	1200.3	2791	1950	668	1207.8
2792	1950	640.4	1211.9	2793	1810	687	1213.9	2794	1838	687	1213.9	2795	1866	687	1213.9
2796	1894	687	1213.9	2797	1922	687	1213.9	2798	1950	687	1213.9	2799	315	300	1227.5
2800	1790	300	1227.5	2801	2280	300	1227.5	2802	3755	300	1227.5	2803	315	315	1227.5
2804	935	315	1227.5	2805	1330	315	1227.5	2806	1790	315	1227.5	2807	2280	315	1227.5
2808	2740	315	1227.5	2809	3135	315	1227.5	2810	3755	315	1227.5	2811	935	320	1227.5
2812	1330	320	1227.5	2813	2740	320	1227.5	2814	3135	320	1227.5	2815	315	351.7	1227.5
2816	3755	351.7	1227.5	2817	1790	352	1227.5	2818	2280	352	1227.5	2819	1790	401.5	1227.5
2820	2280	401.5	1227.5	2821	2820	315	403.3	2822	3755	403.3	1227.5	2823	1790	451	1227.5
2824	2280	451	1227.5	2825	315	455	1227.5	2826	3755	455	1227.5	2827	1950	492	1227.5
2828	2120	492	1227.5	2829	1790	500.5	1227.5	2830	2280	500.5	1227.5	2831	315	506.7	1227.5
2832	3755	506.7	1227.5	2833	1950	543.2	1227.5	2834	2120	543.2	1227.5	2835	1790	550	1227.5
2836	2280	550	1227.5	2837	315	558.3	1227.5	2838	3755	558.3	1227.5	2839	1950	594.5	1227.5
2840	2120	594.5	1227.5	2841	315	610	1227.5	2842	3755	610	1227.5	2843	1950	645.7	1227.5
2844	2120	645.7	1227.5	2845	315	661.7	1227.5	2846	3755	661.7	1227.5	2847	1950	682	1227.5
2848	1992.5	682	1227.5	2849	2035	682	1227.5	2850	2077.5	682	1227.5	2851	2120	682	1227.5
2852	1790	687	1227.5	2853	1830	687	1227.5	2854	1870	687	1227.5	2855	1910	687	1227.5
2856	1950	687	1227.5	2857	1992.5	687	1227.5	2858	2035	687	1227.5	2859	2077.5	687	1227.5
2860	2120	687	1227.5	2861	2148	687	1227.5	2862	2176	687	1227.5	2863	2204	687	1227.5
2864	2232	687	1227.5	2865	2280	687	1227.5	2866	1950	697	1227.5	2867	2120	697	1227.5
2868	2143.8	703.5	1227.5	2869	315	713.3	1227.5	2870	3755	713.3	1227.5	2871	2119.6	713.9	1227.5
2872	2161.9	714.7	1227.5	2873	2079.1	718.6	1227.5	2874	1993.3	721	1227.5	2875	2036.2	721	1227.5
2876	2192.2	721.1	1227.5	2877	1953.2	723	1227.5	2878	2234.4	724.1	1227.5	2879	1915	724.7	1227.5
2880	2249.7	735.4	1227.5	2881	1879.1	736.9	1227.5	2882	1834.2	740	1227.5	2883	1790	741.5	1227.5
2884	2280	741.5	1227.5	2885	2134.5	747.7	1227.5	2886	2083.3	754.7	1227.5	2887	2212.2	757	1227.5
2888	2037.5	757.3	1227.5	2889	2179.4	758.4	1227.5	2890	1994.6	758.6	1227.5	2891	1954.5	759.2	1227.5
2892	1921.9	759.6	1227.5	2893	315	765	1227.5	2894	3755	765	1227.5	2895	2232.4	789.5	1227.5
2896	2082	795.3	1227.5	2897	1838.6	795.5	1227.5	2898	1897.2	795.8	1227.5	2899	2037.5	795.8	1227.5
2900	1790	796	1227.5	2901	2280	796	1227.5	2902	1994.4	796	1227.5	2903	1950.3	796.2	

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
2992	2120	672	1274.9	2993	1790	300	1275.5	2994	1950	492	1275.5	2995	1790	550	1275.5
2996	315	300	1279.2	2997	3755	300	1279.2	2998	315	351.7	1279.2	2999	3755	351.7	1279.2
3000	315	403.3	1279.2	3001	3755	403.3	1279.2	3002	315	455	1279.2	3003	3755	455	1279.2
3004	315	506.7	1279.2	3005	3755	506.7	1279.2	3006	315	558.3	1279.2	3007	3755	558.3	1279.2
3008	315	610	1279.2	3009	3755	610	1279.2	3010	315	661.7	1279.2	3011	3755	661.7	1279.2
3012	1950	697	1279.2	3013	315	713.3	1279.2	3014	3755	713.3	1279.2	3015	315	765	1279.2
3016	3755	765	1279.2	3017	315	816.7	1279.2	3018	3755	816.7	1279.2	3019	315	868.3	1279.2
3020	3755	868.3	1279.2	3021	315	920	1279.2	3022	3755	920	1279.2	3023	2280	300	1280.4
3024	2280	550	1280.4	3025	2120	611.9	1280.4	3026	2120	606.9	1282.2	3027	2148	606.9	1282.2
3028	2176	606.9	1282.2	3029	2204	606.9	1282.2	3030	2232	606.9	1282.2	3031	2260	606.9	1282.2
3032	1950	648.3	1282.6	3033	1790	495.4	1283	3034	1790	355.5	1283.5	3035	2120	567.9	1283.6
3036	1950	540.1	1283.6	3037	2280	358.3	1285.8	3038	2280	498.2	1286.4	3039	2280	412.1	1292.3
3040	2280	445.5	1292.4	3041	1950	595.5	1296.1	3042	2280	385.8	1297	3043	2280	471.8	1297.3
3044	2120	492	1298.1	3045	2120	583.5	1298.1	3046	2120	529	1298.9	3047	2120	550.4	1299.2
3048	2148	580.2	1299.3	3049	2176	580.2	1299.3	3050	2204	580.2	1299.3	3051	2232	580.2	1299.3
3052	2260	580.2	1299.3	3053	1790	443.1	1302	3054	1790	408.9	1303.1	3055	2120	619.7	1303.8
3056	1790	471.1	1306.5	3057	1790	381.4	1307.7	3058	2120	650	1309.5	3059	2280	369.1	1310.7
3060	2280	489.7	1311	3061	2280	414.5	1312.7	3062	2280	444.4	1312.8	3063	2280	387.1	1312.9
3064	2280	470.6	1313.5	3065	2120	555.1	1315.7	3066	2120	697	1316.1	3067	2148	553.4	1316.3
3068	2176	553.4	1316.3	3069	2204	553.4	1316.3	3070	2232	553.4	1316.3	3071	2260	553.4	1316.3
3072	1790	300	1323.5	3073	1950	492	1323.5	3074	1790	550	1323.5	3075	2120	597.3	1324.6
3076	1950	655.9	1329.2	3077	1950	622	1330.8	3078	315	300	1330.8	3079	3755	300	1330.8
3080	315	351.7	1330.8	3081	3755	351.7	1330.8	3082	315	403.3	1330.8	3083	3755	403.3	1330.8
3084	315	455	1330.8	3085	3755	455	1330.8	3086	315	506.7	1330.8	3087	3755	506.7	1330.8
3088	315	558.3	1330.8	3089	3755	558.3	1330.8	3090	315	610	1330.8	3091	3755	610	1330.8
3092	315	661.7	1330.8	3093	3755	661.7	1330.8	3094	1950	697	1330.8	3095	315	713.3	1330.8
3096	3755	713.3	1330.8	3097	315	765	1330.8	3098	3755	765	1330.8	3099	315	816.7	1330.8
3100	3755	816.7	1330.8	3101	315	868.3	1330.8	3102	3755	868.3	1330.8	3103	315	920	1330.8
3104	3755	920	1330.8	3105	2280	339	1331.9	3106	2280	300	1333.3	3107	2106.7	362	1333.3
3108	2131.5	362	1333.3	3109	2156.2	362	1333.3	3110	2181	362	1333.3	3111	2205.7	362	1333.3
3112	2230.5	362	1333.3	3113	2255.2	362	1333.3	3114	2280	362	1333.3	3115	2245.1	376.8	1333.3
3116	2257.1	382	1333.3	3117	2200.4	382.4	1333.3	3118	2178.9	383.2	1333.3	3119	2155.7	385.7	1333.3
3120	2222.7	386.3	1333.3	3121	2131.3	388.4	1333.3	3122	2280	389.5	1333.3	3123	2106.7	390	1333.3
3124	2263.5	397.6	1333.3	3125	2193.5	397.7	1333.3	3126	2234.3	402	1333.3	3127	2177.6	403.4	1333.3
3128	2202.6	407.3	1333.3	3129	2155.8	410.6	1333.3	3130	2131.3	416.8	1333.3	3131	2280	416.9	1333.3
3132	2106.7	418	1333.3	3133	2252.7	421.9	1333.3	3134	2211.4	422	1333.3	3135	2181.8	422.3	1333.3
3136	2158.7	436.5	1333.3	3137	2225.6	441.4	1333.3	3138	2188.6	442	1333.3	3139	2280	444.4	1333.3
3140	2106.7	446	1333.3	3141	2131.5	451.4	1333.3	3142	2257.6	451.7	1333.3	3143	2202.9	459	1333.3
3144	2165.7	462	1333.3	3145	2235.4	462.7	1333.3	3146	2280	471.8	1333.3	3147	2106.7	474	1333.3
3148	2181	475.1	1333.3	3149	2119.4	475.8	1333.3	3150	2259.6	476.3	1333.3	3151	2215.4	477.4	1333.3
3152	2241.5	479.2	1333.3	3153	2142.9	482	1333.3	3154	2193.3	488.7	1333.3	3155	2162.7	490.2	1333.3
3156	2120	492	1333.3	3157	2176.5	496.4	1333.3	3158	2229.3	498.6	1333.3	3159	2280	499.3	1333.3
3160	2257.5	500.5	1333.3	3161	2106.7	502	1333.3	3162	2120	502	1333.3	3163	2200.3	506	1333.3
3164	2151.2	507.2	1333.3	3165	2176	509.1	1333.3	3166	2120	526.7	1333.3	3167	2148	526.7	1333.3
3168	2176	526.7	1333.3	3169	2204	526.7	1333.3	3170	2232	526.7	1333.3	3171	2260	526.7	1333.3
3172	2280	526.7	1333.3	3173	2280	550	1333.3	3174	1790	442.6	1333.9	3175	1790	411.1	1334.6
3176	1790	474.4	1335.4	3177	1950	530.7	1335.9	3178	1790	379.9	1336.4	3179	1790	507.7	1336.5
3180	1790	345.7	1337.9	3181	2120	615.1	1341.1	3182	2079.7	362	1350.6	3183	2079.7	390	1350.6
3184	2079.7	418	1350.6	3185	2079.7	446	1350.6	3186	2079.7	474	1350.6	3187	2079.7	502	1350.6
3188	2120	571.1	1355.5	3189	1950	574	1357.5	3190	2120	595	1359.2	3191	2120	697	1360.4
3192	2280	415.6	1362.3	3193	2280	443.7	1362.6	3194	2280	387.9	1362.6	3195	2120	657.7	1363.1
3196	1790	491.5	1363.2	3197	1790	442.1	1363.3	3198	1790	469.6	1363.4	3199	2280	471	1363.5
3200	2280	360.6	1364	3201	1790	413.6	1364.2	3202	1790	386.2	1364.4	3203	1790	364	1364.5
3204	2280	497.8	1365.8	3205	2052.7	362	1367.8	3206	2052.7	390	1367.8	3207	2052.7	418	1367.8
3208	2052.7	446	1367.8	3209	2052.7	474	1367.8	3210	2052.7	502	1367.8	3211	1950	615.4	1369.4
3212	1790	300	1371.5	3213	1950	492	1371.5	3214	1790	550	1371.5	3215	2120	623.8	1373.9
3216	2120	531.7	1374.7	3217	2280	335.9	1375	3218	2280	520.7	1376.1	3219	1790	519.3	1379
3220	1950	655.2	1379.3	3221	1950	517	1379.7	3222	1790	336.1	1380.6	3223	2120	601.5	1380.8
3224	315	300	1382.5	3225	3755	300	1382.5	3226	315	351.7	1382.5	3227	3755	351.7	1382.5
3228	315	403.3	1382.5	3229	3755	403.3	1382.5	3230	315	455	1382.5	3231	3755	455	1382.5
3232	315	506.7	1382.5	3233	3755	506.7	1382.5	3234	315	558.3	1382.5	3235	3755	558.3	1382.5
3236	315	610	1382.5	3237	3755	610	1382.5	3238	315	661.7	1382.5	3239	3755	661.7	1382.5
3240	1950	697	1382.5	3241	315	713.3	1382.5	3242	3755	713.3	1382.5	3243	315	765	1382.5
3244	3755	765	1382.5	3245	315	816.7	1382.5	3246	3755	816.7	1382.5	3247	315	868.3	1382.5
3248	3755	868.3	1382.5	3249	315	920	1382.5	3250	3755	920	1382.5	3251	2280	300	1384.4
3252	2120	492	1384.4	3253	2280	550	1384.4	3254	2025.7	362	1385	3255	2025.7	390	1385
3256	2025.7	418	1385	3257	2025.7	446	1385	3258	2025.7	474	1385	3259	2025.7	502	1385
3260	1790	496	1388.6	3261	1790	360.9	1390.4	3262	1790	469.4	1390.8	3263	2280	363.4	1391.6
3264	1790	442.6	1391.6	3265	1790	387.7	1391.8	3266	2280	385.9	1391.8	3267	1790	415.1	1392
3268	2280	470.6	1392.3	3269	2280	492.7	1392.6	3270	2280	413.8	1392.6	3271	2280	442.7	1392.7
3272	1950	544.3	1392.8	3273	1950	584.2	1394.2	3274	1998.7	362	1402.2	3275	1998.7	390	1402.2
3276	1998.7	418	1402.2	3277	1998.7	446	1402.2	3278	1998.7	474	1402.2	3279	1998.7	502	1402.2
3280	2120	697	1404.6	3281	2120	659.3	1406.5	3282	2120	624.4	1408.1	3283	2120	586.9	1408.4
3284	1950	610.6	1410.1	3285	1950	568.5	1415.7	3286	1790	300	1419.4	3287	1790	362	1419.4
3288	1816	362	1419.4	3289	1841.9	362	1419.4	3290	1867.9	362	1419.4	3291	1893.8	362	1419.4
3292	1919.8	362	1419.4	3293	1945.8	362	1419.4	3294	1971.7	362	1419.4	3295			

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
3384	3755	816.7	1434.2	3385	315	868.3	1434.2	3386	3755	868.3	1434.2	3387	315	920	1434.2
3388	3755	920	1434.2	3389	1950	594.8	1434.6	3390	2280	300	1435.4	3391	2120	492	1435.4
3392	2280	550	1435.4	3393	1810	550.6	1436.9	3394	1838	550.6	1436.9	3395	1866	550.6	1436.9
3396	1894	550.6	1436.9	3397	1922	550.6	1436.9	3398	1950	552.2	1439.1	3399	1790	468.1	1441.3
3400	1790	386.1	1442	3401	1790	442.5	1442.1	3402	1790	413.1	1442.3	3403	1950	649.1	1442.6
3404	2120	627.4	1443.5	3405	1790	487.1	1444.1	3406	1790	367.9	1444.6	3407	2120	697	1448.9
3408	2120	658.6	1449.5	3409	1950	618.3	1452.2	3410	2280	380.7	1452.4	3411	2280	471.6	1452.7
3412	1950	545.3	1452.8	3413	1950	532.1	1453.1	3414	1810	577.8	1454.3	3415	1838	577.8	1454.3
3416	1866	577.8	1454.3	3417	1894	577.8	1454.3	3418	1922	577.8	1454.3	3419	1950	577.8	1454.3
3420	2280	408.6	1457.1	3421	2280	443.5	1457.7	3422	1950	581.2	1458.8	3423	1790	469.7	1459.3
3424	1790	383.9	1459.8	3425	1790	443.6	1464.9	3426	1790	410.2	1465.1	3427	1950	551.4	1466.2
3428	2120	600.4	1471.7	3429	1810	605.1	1471.7	3430	1838	605.1	1471.7	3431	1866	605.1	1471.7
3432	1894	605.1	1471.7	3433	1922	605.1	1471.7	3434	1950	605.1	1471.7	3435	1790	496.8	1471.7
3436	1790	356.6	1472.4	3437	2280	495.8	1477.8	3438	2280	354.6	1478.3	3439	1790	300	1478.5
3440	1950	492	1478.5	3441	1790	550	1478.5	3442	1950	610.1	1478.5	3443	2120	543.4	1480.1
3444	1950	671.7	1482.4	3445	315	300	1485.8	3446	3755	300	1485.8	3447	315	351.7	1485.8
3448	3755	351.7	1485.8	3449	315	403.3	1485.8	3450	3755	403.3	1485.8	3451	315	455	1485.8
3452	3755	455	1485.8	3453	315	506.7	1485.8	3454	3755	506.7	1485.8	3455	315	558.3	1485.8
3456	3755	558.3	1485.8	3457	315	610	1485.8	3458	3755	610	1485.8	3459	315	661.7	1485.8
3460	3755	661.7	1485.8	3461	1950	697	1485.8	3462	315	713.3	1485.8	3463	3755	713.3	1485.8
3464	315	765	1485.8	3465	3755	765	1485.8	3466	315	816.7	1485.8	3467	3755	816.7	1485.8
3468	315	868.3	1485.8	3469	3755	868.3	1485.8	3470	315	920	1485.8	3471	3755	920	1485.8
3472	2280	300	1486.5	3473	2120	492	1486.5	3474	2280	550	1486.5	3475	2120	650.4	1488
3476	1810	632.4	1489.1	3477	1838	632.4	1489.1	3478	1866	632.4	1489.1	3479	1894	632.4	1489.1
3480	1922	632.4	1489.1	3481	1950	632.4	1489.1	3482	1950	527.8	1490.6	3483	2280	448.4	1491.1
3484	2280	403.2	1491.1	3485	1790	449.1	1491.4	3486	1790	404.4	1491.7	3487	2120	697	1493.2
3488	1950	639.1	1498.1	3489	1810	659.7	1506.5	3490	1838	659.7	1506.5	3491	1866	659.7	1506.5
3492	1894	659.7	1506.5	3493	1922	659.7	1506.5	3494	1950	659.7	1506.5	3495	1950	607.4	1510.3
3496	1950	668	1517.8	3497	1950	640.4	1521.9	3498	1810	687	1523.9	3499	1838	687	1523.9
3500	1866	687	1523.9	3501	1894	687	1523.9	3502	1922	687	1523.9	3503	1950	687	1523.9
3504	2025.3	641.7	1537.5	3505	315	300	1537.5	3506	1790	300	1537.5	3507	2280	300	1537.5
3508	3755	300	1537.5	3509	315	315	1537.5	3510	935	315	1537.5	3511	1330	315	1537.5
3512	1790	315	1537.5	3513	2280	315	1537.5	3514	2740	315	1537.5	3515	3135	315	1537.5
3516	3755	315	1537.5	3517	935	320	1537.5	3518	1330	320	1537.5	3519	2740	320	1537.5
3520	3135	320	1537.5	3521	315	351.7	1537.5	3522	3755	351.7	1537.5	3523	1790	352	1537.5
3524	2280	352	1537.5	3525	1790	401.5	1537.5	3526	2280	401.5	1537.5	3527	315	403.3	1537.5
3528	3755	403.3	1537.5	3529	1790	451	1537.5	3530	2280	451	1537.5	3531	315	455	1537.5
3532	3755	455	1537.5	3533	1950	492	1537.5	3534	2120	492	1537.5	3535	1790	500.5	1537.5
3536	2280	500.5	1537.5	3537	315	506.7	1537.5	3538	3755	506.7	1537.5	3539	1950	543.2	1537.5
3540	2120	543.2	1537.5	3541	1790	550	1537.5	3542	2280	550	1537.5	3543	315	558.3	1537.5
3544	3755	558.3	1537.5	3545	1950	594.5	1537.5	3546	2120	594.5	1537.5	3547	315	610	1537.5
3548	3755	610	1537.5	3549	1950	645.7	1537.5	3550	2120	645.7	1537.5	3551	315	661.7	1537.5
3552	3755	661.7	1537.5	3553	1950	682	1537.5	3554	1992.5	682	1537.5	3555	2035	682	1537.5
3556	2077.5	682	1537.5	3557	2120	682	1537.5	3558	1790	687	1537.5	3559	1830	687	1537.5
3560	1870	687	1537.5	3561	1910	687	1537.5	3562	1950	687	1537.5	3563	1992.5	687	1537.5
3564	2035	687	1537.5	3565	2077.5	687	1537.5	3566	2120	687	1537.5	3567	2160	687	1537.5
3568	2200	687	1537.5	3569	2240	687	1537.5	3570	2280	687	1537.5	3571	1950	697	1537.5
3572	2120	697	1537.5	3573	315	713.3	1537.5	3574	3755	713.3	1537.5	3575	2034.3	713.6	1537.5
3576	1992.7	714.5	1537.5	3577	2075.8	714.6	1537.5	3578	1952.7	716.3	1537.5	3579	2115.7	717.7	1537.5
3580	2154.9	720	1537.5	3581	1915.1	721	1537.5	3582	2188.6	733.1	1537.5	3583	1878.2	736.5	1537.5
3584	2235.2	739.1	1537.5	3585	1833.1	739.4	1537.5	3586	1790	741.5	1537.5	3587	2280	741.5	1537.5
3588	1953.1	743.3	1537.5	3589	1992.6	744.7	1537.5	3590	2033.3	745.2	1537.5	3591	1920.3	745.6	1537.5
3592	2073.8	746.8	1537.5	3593	2111.9	749.3	1537.5	3594	1897.8	750.5	1537.5	3595	2143.4	751.9	1537.5
3596	315	765	1537.5	3597	3755	765	1537.5	3598	1900	770.5	1537.5	3599	1922.8	772.2	1537.5
3600	1954.7	773.9	1537.5	3601	1991.4	775.7	1537.5	3602	2032.1	777.3	1537.5	3603	2072.7	779	1537.5
3604	2113.8	781.5	1537.5	3605	2162.1	786.9	1537.5	3606	1882.6	789.5	1537.5	3607	2225.8	793.1	1537.5
3608	1835.8	793.6	1537.5	3609	1790	796	1537.5	3610	2280	796	1537.5	3611	1917.9	798.8	1537.5
3612	1951.5	804.6	1537.5	3613	1989.2	808.3	1537.5	3614	2029.9	810.1	1537.5	3615	2070.5	810.7	1537.5
3616	2137.8	811	1537.5	3617	2108.1	811.1	1537.5	3618	315	816.7	1537.5	3619	3755	816.7	1537.5
3620	1917	828.7	1537.5	3621	2137.9	834.7	1537.5	3622	1946	837.5	1537.5	3623	2109.6	841.1	1537.5
3624	1985.2	842.2	1537.5	3625	2069.6	842.7	1537.5	3626	2027.3	844	1537.5	3627	1889.6	849	1537.5
3628	1837.9	849.4	1537.5	3629	2219.7	849.9	1537.5	3630	1790	850.5	1537.5	3631	2280	850.5	1537.5
3632	2162.4	850.8	1537.5	3633	1936.4	866.1	1537.5	3634	2114.7	867.3	1537.5	3635	315	868.3	1537.5
3636	3755	868.3	1537.5	3637	1980.9	871.7	1537.5	3638	2069.9	872.2	1537.5	3639	2025.2	873.5	1537.5
3640	935	900	1537.5	3641	1330	900	1537.5	3642	1775	900	1537.5	3643	1790	900	1537.5
3644	2280	900	1537.5	3645	2295	900	1537.5	3646	2740	900	1537.5	3647	3135	900	1537.5
3648	315	905	1537.5	3649	385	905	1537.5	3650	935	905	1537.5	3651	1040	905	1537.5
3652	1330	905	1537.5	3653	1440	905	1537.5	3654	1775	905	1537.5	3655	1790	905	1537.5
3656	1836.7	905	1537.5	3657	1883.3	905	1537.5	3658	1930	905	1537.5	3659	1976.7	905	1537.5
3660	2023.3	905	1537.5	3661	2070	905	1537.5	3662	2116.7	905	1537.5	3663	2163.3	905	1537.5
3664	2210	905	1537.5	3665	2280	905	1537.5	3666	2295	905	1537.5	3667	2595	905	1537.5
3668	2740	905	1537.5	3669	3135	905	1537.5	3670	3330	905	1537.5	3671	3755	905	1537.5
3672	315	920	1537.5	3673	3755	920	1537.5	3674	315	300	1589.2	3675	1790	300	1589.2
3676	2280	300	1589.2	3677	3755	300	1589.2	3678	1790	351	1589.2	3679	2280	351	1589.2
3680	315	351.7	1589.2	3681	3755	351.7	1589.2	3682	1790	401.1	1589.2	3683	2280	401.1	1589.2
3684	315	403.3	1589.2	3685	3755	403.3	1589.2	3686	1790	4					

TABULATO DI CALCOLO – FABBRICATO B

Indice	Posizione			Indice	Posizione			Indice	Posizione			Indice	Posizione		
	X	Y	Z		X	Y	Z		X	Y	Z		X	Y	Z
3776	315	351.7	1692.5	3777	3755	351.7	1692.5	3778	1790	400.8	1692.5	3779	2280	400.8	1692.5
3780	315	403.3	1692.5	3781	3755	403.3	1692.5	3782	1790	450.8	1692.5	3783	2280	450.8	1692.5
3784	315	455	1692.5	3785	3755	455	1692.5	3786	1950	492	1692.5	3787	2120	492	1692.5
3788	1790	500.4	1692.5	3789	2280	500.4	1692.5	3790	315	506.7	1692.5	3791	3755	506.7	1692.5
3792	1950	543.2	1692.5	3793	2120	543.2	1692.5	3794	1790	550	1692.5	3795	2280	550	1692.5
3796	315	558.3	1692.5	3797	3755	558.3	1692.5	3798	1950	594.5	1692.5	3799	2120	594.5	1692.5
3800	315	610	1692.5	3801	3755	610	1692.5	3802	1950	645.7	1692.5	3803	2120	645.7	1692.5
3804	315	661.7	1692.5	3805	3755	661.7	1692.5	3806	1950	697	1692.5	3807	2120	697	1692.5
3808	315	713.3	1692.5	3809	3755	713.3	1692.5	3810	315	765	1692.5	3811	3755	765	1692.5
3812	315	816.7	1692.5	3813	3755	816.7	1692.5	3814	315	868.3	1692.5	3815	3755	868.3	1692.5
3816	315	920	1692.5	3817	3755	920	1692.5	3818	315	300	1744.2	3819	1790	300	1744.2
3820	2280	300	1744.2	3821	3755	300	1744.2	3822	1790	350.6	1744.2	3823	2280	350.6	1744.2
3824	315	351.7	1744.2	3825	3755	351.7	1744.2	3826	1790	400.9	1744.2	3827	2280	400.9	1744.2
3828	315	403.3	1744.2	3829	3755	403.3	1744.2	3830	1790	450.8	1744.2	3831	2280	450.8	1744.2
3832	315	455	1744.2	3833	3755	455	1744.2	3834	1950	492	1744.2	3835	2120	492	1744.2
3836	1790	500.4	1744.2	3837	2280	500.4	1744.2	3838	315	506.7	1744.2	3839	3755	506.7	1744.2
3840	1950	543.2	1744.2	3841	2120	543.2	1744.2	3842	1790	550	1744.2	3843	2280	550	1744.2
3844	315	558.3	1744.2	3845	3755	558.3	1744.2	3846	1950	594.5	1744.2	3847	2120	594.5	1744.2
3848	315	610	1744.2	3849	3755	610	1744.2	3850	1950	645.7	1744.2	3851	2120	645.7	1744.2
3852	315	661.7	1744.2	3853	3755	661.7	1744.2	3854	1950	697	1744.2	3855	2120	697	1744.2
3856	315	713.3	1744.2	3857	3755	713.3	1744.2	3858	315	765	1744.2	3859	3755	765	1744.2
3860	315	816.7	1744.2	3861	3755	816.7	1744.2	3862	315	868.3	1744.2	3863	3755	868.3	1744.2
3864	315	920	1744.2	3865	3755	920	1744.2	3866	315	300	1795.8	3867	1790	300	1795.8
3868	2280	300	1795.8	3869	3755	300	1795.8	3870	1790	351	1795.8	3871	2280	351	1795.8
3872	315	351.7	1795.8	3873	3755	351.7	1795.8	3874	1790	401.1	1795.8	3875	2280	401.1	1795.8
3876	315	403.3	1795.8	3877	3755	403.3	1795.8	3878	1790	450.9	1795.8	3879	2280	450.9	1795.8
3880	315	455	1795.8	3881	3755	455	1795.8	3882	1950	492	1795.8	3883	2120	492	1795.8
3884	1790	500.5	1795.8	3885	2280	500.5	1795.8	3886	315	506.7	1795.8	3887	3755	506.7	1795.8
3888	1950	543.2	1795.8	3889	2120	543.2	1795.8	3890	1790	550	1795.8	3891	2280	550	1795.8
3892	315	558.3	1795.8	3893	3755	558.3	1795.8	3894	1950	594.5	1795.8	3895	2120	594.5	1795.8
3896	315	610	1795.8	3897	3755	610	1795.8	3898	1950	645.7	1795.8	3899	2120	645.7	1795.8
3900	315	661.7	1795.8	3901	3755	661.7	1795.8	3902	1950	697	1795.8	3903	2120	697	1795.8
3904	315	713.3	1795.8	3905	3755	713.3	1795.8	3906	315	765	1795.8	3907	3755	765	1795.8
3908	315	816.7	1795.8	3909	3755	816.7	1795.8	3910	315	868.3	1795.8	3911	3755	868.3	1795.8
3912	315	920	1795.8	3913	3755	920	1795.8	3914	315	300	1847.5	3915	1790	300	1847.5
3916	2280	300	1847.5	3917	3755	300	1847.5	3918	315	315	1847.5	3919	935	315	1847.5
3920	1330	315	1847.5	3921	1790	315	1847.5	3922	2280	315	1847.5	3923	2740	315	1847.5
3924	3135	315	1847.5	3925	3755	315	1847.5	3926	935	320	1847.5	3927	1330	320	1847.5
3928	2740	320	1847.5	3929	3135	320	1847.5	3930	315	351.7	1847.5	3931	3755	351.7	1847.5
3932	1790	352	1847.5	3933	2280	352	1847.5	3934	1790	401.5	1847.5	3935	2280	401.5	1847.5
3936	315	403.3	1847.5	3937	3755	403.3	1847.5	3938	1790	451	1847.5	3939	2280	451	1847.5
3940	315	455	1847.5	3941	3755	455	1847.5	3942	1950	492	1847.5	3943	2120	492	1847.5
3944	1790	500.5	1847.5	3945	2280	500.5	1847.5	3946	315	506.7	1847.5	3947	3755	506.7	1847.5
3948	1950	507	1847.5	3949	2120	507	1847.5	3950	1950	543.2	1847.5	3951	2120	543.2	1847.5
3952	1790	550	1847.5	3953	2280	550	1847.5	3954	315	558.3	1847.5	3955	3755	558.3	1847.5
3956	1950	594.5	1847.5	3957	2120	594.5	1847.5	3958	315	610	1847.5	3959	3755	610	1847.5
3960	1950	645.7	1847.5	3961	2120	645.7	1847.5	3962	315	661.7	1847.5	3963	3755	661.7	1847.5
3964	1950	682	1847.5	3965	2120	682	1847.5	3966	1950	697	1847.5	3967	2120	697	1847.5
3968	315	713.3	1847.5	3969	3755	713.3	1847.5	3970	315	765	1847.5	3971	3755	765	1847.5
3972	315	816.7	1847.5	3973	3755	816.7	1847.5	3974	315	868.3	1847.5	3975	3755	868.3	1847.5
3976	935	900	1847.5	3977	1330	900	1847.5	3978	1775	900	1847.5	3979	1790	900	1847.5
3980	2280	900	1847.5	3981	2295	900	1847.5	3982	2740	900	1847.5	3983	3135	900	1847.5
3984	315	905	1847.5	3985	385	905	1847.5	3986	935	905	1847.5	3987	1040	905	1847.5
3988	1330	905	1847.5	3989	1525	905	1847.5	3990	1775	905	1847.5	3991	2210	905	1847.5
3992	2295	905	1847.5	3993	2595	905	1847.5	3994	2740	905	1847.5	3995	2835	905	1847.5
3996	3135	905	1847.5	3997	3330	905	1847.5	3998	3755	905	1847.5	3999	315	920	1847.5
4000	3755	920	1847.5												

2.2 Aste

2.2.1 Carichi su aste

2.2.1.1 Carichi trapezoidali locali

Indice asta: indice dell'asta a cui si riferisce il carico trapezoidale.

Condizione: condizione elementare di carico a cui si riferisce il carico.

Posizione iniziale: posizione iniziale del carico sull'asse locale 1. [cm]

F1 iniziale: componente del valore iniziale del carico lungo l'asse locale 1. [daN/cm]

F2 iniziale: componente del valore iniziale del carico lungo l'asse locale 2. [daN/cm]

F3 iniziale: componente del valore iniziale del carico lungo l'asse locale 3. [daN/cm]

Posizione finale: posizione finale del carico sull'asse locale 1. [cm]

F1 finale: componente del valore finale del carico lungo l'asse locale 1. [daN/cm]

F2 finale: componente del valore finale del carico lungo l'asse locale 2. [daN/cm]

F3 finale: componente del valore finale del carico lungo l'asse locale 3. [daN/cm]

Indice asta	Condizione	Posizione iniziale	F1 iniziale	F2 iniziale	F3 iniziale	Posizione finale	F1 finale	F2 finale	F3 finale
149	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
149	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
149	Variabile A	0	0	-3.95	0	580	0	-3.95	0
150	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
150	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
150	Variabile A	0	0	-3.95	0	580	0	-3.95	0
151	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
151	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
151	Variabile A	0	0	-3.95	0	580	0	-3.95	0
152	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
152	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
152	Variabile A	0	0	-3.95	0	580	0	-3.95	0
153	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
153	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
153	Variabile A	0	0	-3.95	0	580	0	-3.95	0

TABULATO DI CALCOLO – FABBRICATO B

Indice asta	Condizione	Posizione iniziale	F1 iniziale	F2 iniziale	F3 iniziale	Posizione finale	F1 finale	F2 finale	F3 finale
154	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
154	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
154	Variabile A	0	0	-3.95	0	580	0	-3.95	0
155	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
155	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
155	Variabile A	0	0	-3.95	0	580	0	-3.95	0
156	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
156	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
156	Variabile A	0	0	-3.95	0	580	0	-3.95	0
157	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
157	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
157	Variabile A	0	0	-3.95	0	580	0	-3.95	0
158	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
158	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
158	Variabile A	0	0	-3.95	0	580	0	-3.95	0
159	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
159	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
159	Variabile A	0	0	-3.95	0	580	0	-3.95	0
160	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
160	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
160	Variabile A	0	0	-3.95	0	580	0	-3.95	0
161	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
161	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
161	Variabile A	0	0	-3.95	0	580	0	-3.95	0
162	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
162	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
162	Variabile A	0	0	-3.95	0	580	0	-3.95	0
163	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
163	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
163	Variabile A	0	0	-3.95	0	580	0	-3.95	0
164	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
164	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
164	Variabile A	0	0	-3.95	0	580	0	-3.95	0
213	Pesi strutturali	0	0	-6.345	0	615	0	-6.345	0
213	Permanenti portati	0	0	-6.38	0	615	0	-6.38	0
213	Variabile A	0	0	-5.8	0	615	0	-5.8	0
213	Pesi strutturali	0	0	-7	0	615	0	-7	0
214	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
214	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
214	Variabile A	0	0	-5.9	0	620	0	-5.9	0
214	Pesi strutturali	0	0	-7	0	620	0	-7	0
215	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
215	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
215	Variabile A	0	0	-5.9	0	620	0	-5.9	0
215	Pesi strutturali	0	0	-7	0	620	0	-7	0
216	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
216	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
216	Variabile A	0	0	-5.9	0	620	0	-5.9	0
216	Pesi strutturali	0	0	-7	0	620	0	-7	0
217	Pesi strutturali	0	0	-7	0	395	0	-7	0
218	Pesi strutturali	0	0	-7	0	395	0	-7	0
219	Pesi strutturali	0	0	-7	0	395	0	-7	0
220	Pesi strutturali	0	0	-7	0	395	0	-7	0
221	Pesi strutturali	0	0	-6.345	0	455	0	-6.345	0
221	Permanenti portati	0	0	-6.38	0	455	0	-6.38	0
221	Variabile A	0	0	-5.8	0	455	0	-5.8	0
221	Pesi strutturali	0	0	-7	0	455	0	-7	0
222	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
222	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
222	Variabile A	0	0	-5.9	0	460	0	-5.9	0
222	Pesi strutturali	0	0	-7	0	460	0	-7	0
223	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
223	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
223	Variabile A	0	0	-5.9	0	460	0	-5.9	0
223	Pesi strutturali	0	0	-7	0	460	0	-7	0
224	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
224	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
224	Variabile A	0	0	-5.9	0	460	0	-5.9	0
224	Pesi strutturali	0	0	-7	0	460	0	-7	0
225	Pesi strutturali	0	0	-6.345	0	370	0	-6.345	0
225	Permanenti portati	0	0	-6.38	0	370	0	-6.38	0
225	Variabile A	0	0	-5.8	0	370	0	-5.8	0
226	Pesi strutturali	0	0	-10.375	0	245	0	-10.375	0
226	Permanenti portati	0	0	-7.93	0	245	0	-7.93	0
226	Variabile A	0	0	-12	0	245	0	-12	0
225	Pesi strutturali	0	0	-7	0	370	0	-7	0
226	Pesi strutturali	0	0	-7	0	245	0	-7	0
227	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
227	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
227	Variabile A	0	0	-5.9	0	620	0	-5.9	0
227	Pesi strutturali	0	0	-7	0	620	0	-7	0
228	Pesi strutturali	0	0	-6.58	0	375	0	-6.58	0
228	Permanenti portati	0	0	-6.49	0	375	0	-6.49	0
228	Variabile A	0	0	-5.9	0	375	0	-5.9	0
229	Pesi strutturali	0	0	-10.61	0	245	0	-10.61	0
229	Permanenti portati	0	0	-8.04	0	245	0	-8.04	0
229	Variabile A	0	0	-12.1	0	245	0	-12.1	0
228	Pesi strutturali	0	0	-7	0	375	0	-7	0
229	Pesi strutturali	0	0	-7	0	245	0	-7	0
230	Pesi strutturali	0	0	-6.58	0	70	0	-6.58	0
230	Permanenti portati	0	0	-6.49	0	70	0	-6.49	0
230	Variabile A	0	0	-5.9	0	70	0	-5.9	0
231	Pesi strutturali	0	0	-10.61	0	550	0	-10.61	0
231	Permanenti portati	0	0	-8.04	0	550	0	-8.04	0
231	Variabile A	0	0	-12.1	0	550	0	-12.1	0
230	Pesi strutturali	0	0	-7	0	70	0	-7	0
231	Pesi strutturali	0	0	-7	0	550	0	-7	0
232	Pesi strutturali	0	0	-4.03	0	65	0	-4.03	0
232	Permanenti portati	0	0	-1.55	0	65	0	-1.55	0
232	Variabile A	0	0	-6.2	0	65	0	-6.2	0

TABULATO DI CALCOLO – FABBRICATO B

Indice asta	Condizione	Posizione iniziale	F1 iniziale	F2 iniziale	F3 iniziale	Posizione finale	F1 finale	F2 finale	F3 finale
232	Pesi strutturali	0	0	-7	0	65	0	-7	0
233	Pesi strutturali	0	0	-7	0	330	0	-7	0
235	Pesi strutturali	0	0	-4.03	0	245	0	-4.03	0
235	Permanenti portati	0	0	-1.55	0	245	0	-1.55	0
235	Variabile A	0	0	-6.2	0	245	0	-6.2	0
234	Pesi strutturali	0	0	-7	0	150	0	-7	0
235	Pesi strutturali	0	0	-7	0	245	0	-7	0
236	Pesi strutturali	0	0	-4.03	0	110	0	-4.03	0
236	Permanenti portati	0	0	-1.55	0	110	0	-1.55	0
236	Variabile A	0	0	-6.2	0	110	0	-6.2	0
236	Pesi strutturali	0	0	-7	0	110	0	-7	0
237	Pesi strutturali	0	0	-7	0	285	0	-7	0
238	Pesi strutturali	0	0	-4.03	0	105	0	-4.03	0
238	Permanenti portati	0	0	-1.55	0	105	0	-1.55	0
238	Variabile A	0	0	-6.2	0	105	0	-6.2	0
238	Pesi strutturali	0	0	-7	0	105	0	-7	0
239	Pesi strutturali	0	0	-7	0	290	0	-7	0
240	Pesi strutturali	0	0	-6.345	0	155	0	-6.345	0
240	Permanenti portati	0	0	-6.38	0	155	0	-6.38	0
240	Variabile A	0	0	-5.8	0	155	0	-5.8	0
241	Pesi strutturali	0	0	-10.375	0	285	0	-10.375	0
241	Permanenti portati	0	0	-7.93	0	285	0	-7.93	0
241	Variabile A	0	0	-12	0	285	0	-12	0
240	Pesi strutturali	0	0	-7	0	155	0	-7	0
241	Pesi strutturali	0	0	-7	0	285	0	-7	0
242	Pesi strutturali	0	0	-10.61	0	445	0	-10.61	0
242	Permanenti portati	0	0	-8.04	0	445	0	-8.04	0
242	Variabile A	0	0	-12.1	0	445	0	-12.1	0
242	Pesi strutturali	0	0	-7	0	445	0	-7	0
243	Pesi strutturali	0	0	-6.58	0	110	0	-6.58	0
243	Permanenti portati	0	0	-6.49	0	110	0	-6.49	0
243	Variabile A	0	0	-5.9	0	110	0	-5.9	0
244	Pesi strutturali	0	0	-10.61	0	335	0	-10.61	0
244	Permanenti portati	0	0	-8.04	0	335	0	-8.04	0
244	Variabile A	0	0	-12.1	0	335	0	-12.1	0
243	Pesi strutturali	0	0	-7	0	110	0	-7	0
244	Pesi strutturali	0	0	-7	0	335	0	-7	0
245	Pesi strutturali	0	0	-6.58	0	110	0	-6.58	0
245	Permanenti portati	0	0	-6.49	0	110	0	-6.49	0
245	Variabile A	0	0	-5.9	0	110	0	-5.9	0
246	Pesi strutturali	0	0	-10.61	0	335	0	-10.61	0
246	Permanenti portati	0	0	-8.04	0	335	0	-8.04	0
246	Variabile A	0	0	-12.1	0	335	0	-12.1	0
245	Pesi strutturali	0	0	-7	0	110	0	-7	0
246	Pesi strutturali	0	0	-7	0	335	0	-7	0
247	Pesi strutturali	0	0	-10.375	0	15	0	-10.375	0
247	Permanenti portati	0	0	-7.93	0	15	0	-7.93	0
247	Variabile A	0	0	-12	0	15	0	-12	0
247	Pesi strutturali	15	0	-4.03	0	25	0	-4.03	0
247	Permanenti portati	15	0	-1.55	0	25	0	-1.55	0
247	Variabile A	15	0	-6.2	0	25	0	-6.2	0
256	Pesi strutturali	35	0	-4.03	0	50	0	-4.03	0
256	Permanenti portati	35	0	-1.55	0	50	0	-1.55	0
256	Variabile A	35	0	-6.2	0	50	0	-6.2	0
256	Pesi strutturali	50	0	-10.375	0	65	0	-10.375	0
256	Permanenti portati	50	0	-7.93	0	65	0	-7.93	0
256	Variabile A	50	0	-12	0	65	0	-12	0
247	Pesi strutturali	0	0	-7	0	65	0	-7	0
248	Pesi strutturali	0	0	-7	0	50	0	-7	0
249	Pesi strutturali	0	0	-7	0	50	0	-7	0
250	Pesi strutturali	0	0	-7	0	50	0	-7	0
251	Pesi strutturali	0	0	-7	0	50	0	-7	0
252	Pesi strutturali	0	0	-7	0	50	0	-7	0
253	Pesi strutturali	0	0	-7	0	50	0	-7	0
254	Pesi strutturali	0	0	-7	0	50	0	-7	0
255	Pesi strutturali	0	0	-7	0	50	0	-7	0
256	Pesi strutturali	0	0	-7	0	65	0	-7	0
257	Pesi strutturali	0	0	-10.61	0	15	0	-10.61	0
257	Permanenti portati	0	0	-8.04	0	15	0	-8.04	0
257	Variabile A	0	0	-12.1	0	15	0	-12.1	0
259	Pesi strutturali	0	0	-4.03	0	48.8	0	-4.03	0
259	Permanenti portati	0	0	-1.55	0	48.8	0	-1.55	0
259	Variabile A	0	0	-6.2	0	48.8	0	-6.2	0
260	Pesi strutturali	0	0	-4.03	0	48.8	0	-4.03	0
260	Permanenti portati	0	0	-1.55	0	48.8	0	-1.55	0
260	Variabile A	0	0	-6.2	0	48.8	0	-6.2	0
261	Pesi strutturali	0	0	-4.03	0	48.8	0	-4.03	0
261	Permanenti portati	0	0	-1.55	0	48.8	0	-1.55	0
261	Variabile A	0	0	-6.2	0	48.8	0	-6.2	0
262	Pesi strutturali	0	0	-4.03	0	48.7	0	-4.03	0
262	Permanenti portati	0	0	-1.55	0	48.7	0	-1.55	0
262	Variabile A	0	0	-6.2	0	48.7	0	-6.2	0
266	Pesi strutturali	40	0	-4.03	0	50	0	-4.03	0
266	Permanenti portati	40	0	-1.55	0	50	0	-1.55	0
266	Variabile A	40	0	-6.2	0	50	0	-6.2	0
266	Pesi strutturali	50	0	-10.61	0	65	0	-10.61	0
266	Permanenti portati	50	0	-8.04	0	65	0	-8.04	0
266	Variabile A	50	0	-12.1	0	65	0	-12.1	0
257	Pesi strutturali	0	0	-7	0	62.5	0	-7	0
258	Pesi strutturali	0	0	-7	0	47.5	0	-7	0
259	Pesi strutturali	0	0	-7	0	48.8	0	-7	0
260	Pesi strutturali	0	0	-7	0	48.8	0	-7	0
261	Pesi strutturali	0	0	-7	0	48.8	0	-7	0
262	Pesi strutturali	0	0	-7	0	48.8	0	-7	0
263	Pesi strutturali	0	0	-7	0	50	0	-7	0
264	Pesi strutturali	0	0	-7	0	50	0	-7	0
265	Pesi strutturali	0	0	-7	0	50	0	-7	0
266	Pesi strutturali	0	0	-7	0	65	0	-7	0
267	Pesi strutturali	0	0	-10.61	0	15	0	-10.61	0
267	Permanenti portati	0	0	-8.04	0	15	0	-8.04	0

TABULATO DI CALCOLO – FABBRICATO B

Indice asta	Condizione	Posizione iniziale	F1 iniziale	F2 iniziale	F3 iniziale	Posizione finale	F1 finale	F2 finale	F3 finale
267	Variabile A	0	0	-12.1	0	15	0	-12.1	0
267	Pesi strutturali	15	0	-4.03	0	56.3	0	-4.03	0
267	Permanenti portati	15	0	-1.55	0	56.3	0	-1.55	0
267	Variabile A	15	0	-6.2	0	56.3	0	-6.2	0
268	Pesi strutturali	0	0	-4.03	0	41.3	0	-4.03	0
268	Permanenti portati	0	0	-1.55	0	41.3	0	-1.55	0
268	Variabile A	0	0	-6.2	0	41.3	0	-6.2	0
269	Pesi strutturali	0	0	-4.03	0	41.3	0	-4.03	0
269	Permanenti portati	0	0	-1.55	0	41.3	0	-1.55	0
269	Variabile A	0	0	-6.2	0	41.3	0	-6.2	0
270	Pesi strutturali	0	0	-4.03	0	41.3	0	-4.03	0
270	Permanenti portati	0	0	-1.55	0	41.3	0	-1.55	0
270	Variabile A	0	0	-6.2	0	41.3	0	-6.2	0
278	Pesi strutturali	30.6	0	-4.03	0	40.6	0	-4.03	0
278	Permanenti portati	30.6	0	-1.55	0	40.6	0	-1.55	0
278	Variabile A	30.6	0	-6.2	0	40.6	0	-6.2	0
278	Pesi strutturali	40.6	0	-10.61	0	55.6	0	-10.61	0
278	Permanenti portati	40.6	0	-8.04	0	55.6	0	-8.04	0
278	Variabile A	40.6	0	-12.1	0	55.6	0	-12.1	0
267	Pesi strutturali	0	0	-7	0	56.3	0	-7	0
268	Pesi strutturali	0	0	-7	0	41.3	0	-7	0
269	Pesi strutturali	0	0	-7	0	41.3	0	-7	0
270	Pesi strutturali	0	0	-7	0	41.3	0	-7	0
271	Pesi strutturali	0	0	-7	0	40.6	0	-7	0
272	Pesi strutturali	0	0	-7	0	40.6	0	-7	0
273	Pesi strutturali	0	0	-7	0	40.6	0	-7	0
274	Pesi strutturali	0	0	-7	0	40.6	0	-7	0
275	Pesi strutturali	0	0	-7	0	40.6	0	-7	0
276	Pesi strutturali	0	0	-7	0	40.6	0	-7	0
277	Pesi strutturali	0	0	-7	0	40.6	0	-7	0
278	Pesi strutturali	0	0	-7	0	55.6	0	-7	0
279	Pesi strutturali	0	0	-10.61	0	15	0	-10.61	0
279	Permanenti portati	0	0	-8.04	0	15	0	-8.04	0
279	Variabile A	0	0	-12.1	0	15	0	-12.1	0
288	Pesi strutturali	0	0	-4.03	0	70	0	-4.03	0
288	Permanenti portati	0	0	-1.55	0	70	0	-1.55	0
288	Variabile A	0	0	-6.2	0	70	0	-6.2	0
288	Pesi strutturali	70	0	-10.61	0	85	0	-10.61	0
288	Permanenti portati	70	0	-8.04	0	85	0	-8.04	0
288	Variabile A	70	0	-12.1	0	85	0	-12.1	0
279	Pesi strutturali	0	0	-7	0	61.7	0	-7	0
280	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
281	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
282	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
283	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
284	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
285	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
286	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
287	Pesi strutturali	0	0	-7	0	46.7	0	-7	0
288	Pesi strutturali	0	0	-7	0	85	0	-7	0
289	Pesi strutturali	0	0	-10.375	0	360	0	-10.375	0
289	Permanenti portati	0	0	-7.93	0	360	0	-7.93	0
289	Variabile A	0	0	-12	0	360	0	-12	0
290	Pesi strutturali	0	0	-6.345	0	80	0	-6.345	0
290	Permanenti portati	0	0	-6.38	0	80	0	-6.38	0
290	Variabile A	0	0	-5.8	0	80	0	-5.8	0
289	Pesi strutturali	0	0	-7	0	360	0	-7	0
290	Pesi strutturali	0	0	-7	0	80	0	-7	0
291	Pesi strutturali	0	0	-10.61	0	350	0	-10.61	0
291	Permanenti portati	0	0	-8.04	0	350	0	-8.04	0
291	Variabile A	0	0	-12.1	0	350	0	-12.1	0
292	Pesi strutturali	0	0	-6.58	0	95	0	-6.58	0
292	Permanenti portati	0	0	-6.49	0	95	0	-6.49	0
292	Variabile A	0	0	-5.9	0	95	0	-5.9	0
291	Pesi strutturali	0	0	-7	0	350	0	-7	0
292	Pesi strutturali	0	0	-7	0	95	0	-7	0
293	Pesi strutturali	0	0	-10.61	0	300	0	-10.61	0
293	Permanenti portati	0	0	-8.04	0	300	0	-8.04	0
293	Variabile A	0	0	-12.1	0	300	0	-12.1	0
294	Pesi strutturali	0	0	-6.58	0	145	0	-6.58	0
294	Permanenti portati	0	0	-6.49	0	145	0	-6.49	0
294	Variabile A	0	0	-5.9	0	145	0	-5.9	0
293	Pesi strutturali	0	0	-7	0	300	0	-7	0
294	Pesi strutturali	0	0	-7	0	145	0	-7	0
295	Pesi strutturali	0	0	-10.61	0	300	0	-10.61	0
295	Permanenti portati	0	0	-8.04	0	300	0	-8.04	0
295	Variabile A	0	0	-12.1	0	300	0	-12.1	0
296	Pesi strutturali	0	0	-6.58	0	145	0	-6.58	0
296	Permanenti portati	0	0	-6.49	0	145	0	-6.49	0
296	Variabile A	0	0	-5.9	0	145	0	-5.9	0
295	Pesi strutturali	0	0	-7	0	300	0	-7	0
296	Pesi strutturali	0	0	-7	0	145	0	-7	0
297	Pesi strutturali	25	0	-4.03	0	330	0	-4.03	0
297	Permanenti portati	25	0	-1.55	0	330	0	-1.55	0
297	Variabile A	25	0	-6.2	0	330	0	-6.2	0
297	Pesi strutturali	0	0	-7	0	330	0	-7	0
298	Pesi strutturali	0	0	-7	0	65	0	-7	0
300	Pesi strutturali	0	0	-4.03	0	80	0	-4.03	0
300	Permanenti portati	0	0	-1.55	0	80	0	-1.55	0
300	Variabile A	0	0	-6.2	0	80	0	-6.2	0
299	Pesi strutturali	0	0	-7	0	315	0	-7	0
300	Pesi strutturali	0	0	-7	0	80	0	-7	0
301	Pesi strutturali	20	0	-4.03	0	395	0	-4.03	0
301	Permanenti portati	20	0	-1.55	0	395	0	-1.55	0
301	Variabile A	20	0	-6.2	0	395	0	-6.2	0
301	Pesi strutturali	0	0	-7	0	395	0	-7	0
302	Pesi strutturali	20	0	-4.03	0	395	0	-4.03	0
302	Permanenti portati	20	0	-1.55	0	395	0	-1.55	0
302	Variabile A	20	0	-6.2	0	395	0	-6.2	0
302	Pesi strutturali	0	0	-7	0	395	0	-7	0

TABULATO DI CALCOLO – FABBRICATO B

Indice asta	Condizione	Posizione iniziale	F1 iniziale	F2 iniziale	F3 iniziale	Posizione finale	F1 finale	F2 finale	F3 finale
303	Pesi strutturali	0	0	-6.345	0	615	0	-6.345	0
303	Permanenti portati	0	0	-6.38	0	615	0	-6.38	0
303	Variabile A	0	0	-5.8	0	615	0	-5.8	0
303	Pesi strutturali	0	0	-7	0	615	0	-7	0
304	Pesi strutturali	0	0	-10.61	0	610	0	-10.61	0
304	Permanenti portati	0	0	-8.04	0	610	0	-8.04	0
304	Variabile A	0	0	-12.1	0	610	0	-12.1	0
304	Pesi strutturali	610	0	-6.58	0	620	0	-6.58	0
304	Permanenti portati	610	0	-6.49	0	620	0	-6.49	0
304	Variabile A	610	0	-5.9	0	620	0	-5.9	0
304	Pesi strutturali	0	0	-7	0	620	0	-7	0
305	Pesi strutturali	0	0	-10.61	0	410	0	-10.61	0
305	Permanenti portati	0	0	-8.04	0	410	0	-8.04	0
305	Variabile A	0	0	-12.1	0	410	0	-12.1	0
306	Pesi strutturali	0	0	-6.58	0	210	0	-6.58	0
306	Permanenti portati	0	0	-6.49	0	210	0	-6.49	0
306	Variabile A	0	0	-5.9	0	210	0	-5.9	0
305	Pesi strutturali	0	0	-7	0	410	0	-7	0
306	Pesi strutturali	0	0	-7	0	210	0	-7	0
307	Pesi strutturali	0	0	-10.61	0	195	0	-10.61	0
307	Permanenti portati	0	0	-8.04	0	195	0	-8.04	0
307	Variabile A	0	0	-12.1	0	195	0	-12.1	0
308	Pesi strutturali	0	0	-6.58	0	425	0	-6.58	0
308	Permanenti portati	0	0	-6.49	0	425	0	-6.49	0
308	Variabile A	0	0	-5.9	0	425	0	-5.9	0
307	Pesi strutturali	0	0	-7	0	195	0	-7	0
308	Pesi strutturali	0	0	-7	0	425	0	-7	0
309	Pesi strutturali	0	0	-6.345	0	615	0	-6.345	0
309	Permanenti portati	0	0	-6.38	0	615	0	-6.38	0
309	Variabile A	0	0	-5.8	0	615	0	-5.8	0
309	Pesi strutturali	0	0	-7	0	615	0	-7	0
310	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
310	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
310	Variabile A	0	0	-5.9	0	620	0	-5.9	0
310	Pesi strutturali	0	0	-7	0	620	0	-7	0
311	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
311	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
311	Variabile A	0	0	-5.9	0	620	0	-5.9	0
311	Pesi strutturali	0	0	-7	0	620	0	-7	0
312	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
312	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
312	Variabile A	0	0	-5.9	0	620	0	-5.9	0
312	Pesi strutturali	0	0	-7	0	620	0	-7	0
313	Pesi strutturali	0	0	-6.345	0	455	0	-6.345	0
313	Permanenti portati	0	0	-6.38	0	455	0	-6.38	0
313	Variabile A	0	0	-5.8	0	455	0	-5.8	0
313	Pesi strutturali	0	0	-7	0	455	0	-7	0
314	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
314	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
314	Variabile A	0	0	-5.9	0	460	0	-5.9	0
314	Pesi strutturali	0	0	-7	0	460	0	-7	0
315	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
315	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
315	Variabile A	0	0	-5.9	0	460	0	-5.9	0
315	Pesi strutturali	0	0	-7	0	460	0	-7	0
316	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
316	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
316	Variabile A	0	0	-5.9	0	460	0	-5.9	0
316	Pesi strutturali	0	0	-7	0	460	0	-7	0
317	Pesi strutturali	0	0	-7	0	395	0	-7	0
318	Pesi strutturali	0	0	-7	0	395	0	-7	0
319	Pesi strutturali	0	0	-7	0	395	0	-7	0
320	Pesi strutturali	0	0	-7	0	395	0	-7	0
373	Pesi strutturali	0	0	-7	0	500	0	-7	0
374	Pesi strutturali	0	0	-7	0	490	0	-7	0
375	Pesi strutturali	0	0	-7	0	490	0	-7	0
376	Pesi strutturali	0	0	-7	0	490	0	-7	0
382	Pesi strutturali	0	0	-1.528	0	147	0	-1.528	0
382	Permanenti portati	0	0	-1.76	0	147	0	-1.76	0
382	Variabile H	0	0	-1.6	0	147	0	-1.6	0
382	Pesi strutturali	147	0	-5.405	0	235	0	-5.405	0
382	Permanenti portati	147	0	-5.39	0	235	0	-5.39	0
382	Variabile H	147	0	-4.9	0	235	0	-4.9	0
382	Pesi strutturali	235	0	-3.29	0	330	0	-3.29	0
382	Permanenti portati	235	0	-3.41	0	330	0	-3.41	0
382	Variabile H	235	0	-3.1	0	330	0	-3.1	0
382	Pesi strutturali	330	0	-5.405	0	350	0	-5.405	0
382	Permanenti portati	330	0	-5.39	0	350	0	-5.39	0
382	Variabile H	330	0	-4.9	0	350	0	-4.9	0
388	Pesi strutturali	0	0	-1.527	0	147	0	-1.527	0
388	Permanenti portati	0	0	-1.76	0	147	0	-1.76	0
388	Variabile H	0	0	-1.6	0	147	0	-1.6	0
388	Pesi strutturali	147	0	-5.405	0	235	0	-5.405	0
388	Permanenti portati	147	0	-5.39	0	235	0	-5.39	0
388	Variabile H	147	0	-4.9	0	235	0	-4.9	0
388	Pesi strutturali	235	0	-3.525	0	330	0	-3.525	0
388	Permanenti portati	235	0	-3.63	0	330	0	-3.63	0
388	Variabile H	235	0	-3.3	0	330	0	-3.3	0
388	Pesi strutturali	330	0	-5.405	0	350	0	-5.405	0
388	Permanenti portati	330	0	-5.39	0	350	0	-5.39	0
388	Variabile H	330	0	-4.9	0	350	0	-4.9	0
389	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
389	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
389	Variabile H	0	0	-3.95	0	580	0	-3.95	0
390	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
390	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
390	Variabile H	0	0	-3.95	0	580	0	-3.95	0
391	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
391	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
391	Variabile H	0	0	-3.95	0	580	0	-3.95	0

TABULATO DI CALCOLO – FABBRICATO B

Indice asta	Condizione	Posizione iniziale	F1 iniziale	F2 iniziale	F3 iniziale	Posizione finale	F1 finale	F2 finale	F3 finale
392	Pesi strutturali	0	0	-3.936	0	580	0	-3.936	0
392	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
392	Variabile H	0	0	-3.95	0	580	0	-3.95	0
405	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
405	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
405	Variabile H	0	0	-5.9	0	620	0	-5.9	0
407	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
407	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
407	Variabile H	0	0	-5.9	0	460	0	-5.9	0
408	Pesi strutturali	0	0	-6.58	0	70	0	-6.58	0
408	Permanenti portati	0	0	-6.49	0	70	0	-6.49	0
408	Variabile H	0	0	-5.9	0	70	0	-5.9	0
409	Pesi strutturali	0	0	-10.61	0	550	0	-10.61	0
409	Permanenti portati	0	0	-8.04	0	550	0	-8.04	0
409	Variabile A	0	0	-6.2	0	550	0	-6.2	0
409	Variabile H	0	0	-5.9	0	550	0	-5.9	0
410	Pesi strutturali	0	0	-4.03	0	105	0	-4.03	0
410	Permanenti portati	0	0	-1.55	0	105	0	-1.55	0
410	Variabile A	0	0	-6.2	0	105	0	-6.2	0
412	Pesi strutturali	0	0	-6.58	0	195	0	-6.58	0
412	Permanenti portati	0	0	-6.49	0	195	0	-6.49	0
412	Variabile H	0	0	-5.9	0	195	0	-5.9	0
413	Pesi strutturali	0	0	-10.61	0	250	0	-10.61	0
413	Permanenti portati	0	0	-8.04	0	250	0	-8.04	0
413	Variabile A	0	0	-6.2	0	250	0	-6.2	0
413	Variabile H	0	0	-5.9	0	250	0	-5.9	0
414	Pesi strutturali	0	0	-10.61	0	15	0	-10.61	0
414	Permanenti portati	0	0	-8.04	0	15	0	-8.04	0
414	Variabile A	0	0	-6.2	0	15	0	-6.2	0
414	Variabile H	0	0	-5.9	0	15	0	-5.9	0
415	Pesi strutturali	0	0	-4.03	0	70	0	-4.03	0
415	Permanenti portati	0	0	-1.55	0	70	0	-1.55	0
415	Variabile A	0	0	-6.2	0	70	0	-6.2	0
415	Pesi strutturali	70	0	-10.61	0	85	0	-10.61	0
415	Permanenti portati	70	0	-8.04	0	85	0	-8.04	0
415	Variabile A	70	0	-6.2	0	85	0	-6.2	0
415	Variabile H	70	0	-5.9	0	85	0	-5.9	0
416	Pesi strutturali	0	0	-10.61	0	300	0	-10.61	0
416	Permanenti portati	0	0	-8.04	0	300	0	-8.04	0
416	Variabile A	0	0	-6.2	0	300	0	-6.2	0
416	Variabile H	0	0	-5.9	0	300	0	-5.9	0
417	Pesi strutturali	0	0	-6.58	0	145	0	-6.58	0
417	Permanenti portati	0	0	-6.49	0	145	0	-6.49	0
417	Variabile H	0	0	-5.9	0	145	0	-5.9	0
419	Pesi strutturali	0	0	-4.03	0	300	0	-4.03	0
419	Permanenti portati	0	0	-1.55	0	300	0	-1.55	0
419	Variabile A	0	0	-6.2	0	300	0	-6.2	0
420	Pesi strutturali	0	0	-10.61	0	195	0	-10.61	0
420	Permanenti portati	0	0	-8.04	0	195	0	-8.04	0
420	Variabile A	0	0	-6.2	0	195	0	-6.2	0
420	Variabile H	0	0	-5.9	0	195	0	-5.9	0
421	Pesi strutturali	0	0	-6.58	0	425	0	-6.58	0
421	Permanenti portati	0	0	-6.49	0	425	0	-6.49	0
421	Variabile H	0	0	-5.9	0	425	0	-5.9	0
422	Pesi strutturali	0	0	-6.58	0	620	0	-6.58	0
422	Permanenti portati	0	0	-6.49	0	620	0	-6.49	0
422	Variabile H	0	0	-5.9	0	620	0	-5.9	0
423	Pesi strutturali	0	0	-6.58	0	460	0	-6.58	0
423	Permanenti portati	0	0	-6.49	0	460	0	-6.49	0
423	Variabile H	0	0	-5.9	0	460	0	-5.9	0
475	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
475	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
475	Variabile A	0	0	-3.95	0	580	0	-3.95	0
476	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
476	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
476	Variabile A	0	0	-3.95	0	580	0	-3.95	0
477	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
477	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
477	Variabile A	0	0	-3.95	0	580	0	-3.95	0
478	Pesi strutturali	0	0	-3.819	0	580	0	-3.819	0
478	Permanenti portati	0	0	-4.345	0	580	0	-4.345	0
478	Variabile A	0	0	-3.95	0	580	0	-3.95	0
483	Pesi strutturali	0	0	-10.375	0	615	0	-10.375	0
483	Permanenti portati	0	0	-7.93	0	615	0	-7.93	0
483	Variabile A	0	0	-12	0	615	0	-12	0
483	Pesi strutturali	0	0	-7	0	615	0	-7	0
496	Pesi strutturali	0	0	-6.345	0	615	0	-6.345	0
496	Permanenti portati	0	0	-6.38	0	615	0	-6.38	0
496	Variabile A	0	0	-5.8	0	615	0	-5.8	0
496	Pesi strutturali	0	0	-7	0	615	0	-7	0
509	Pesi strutturali	0	0	-10.375	0	610	0	-10.375	0
509	Permanenti portati	0	0	-7.93	0	610	0	-7.93	0
509	Variabile A	0	0	-12	0	610	0	-12	0
509	Pesi strutturali	610	0	-6.345	0	615	0	-6.345	0
509	Permanenti portati	610	0	-6.38	0	615	0	-6.38	0
509	Variabile A	610	0	-5.8	0	615	0	-5.8	0
509	Pesi strutturali	0	0	-7	0	615	0	-7	0
510	Pesi strutturali	0	0	-4.03	0	395	0	-4.03	0
510	Permanenti portati	0	0	-1.55	0	395	0	-1.55	0
510	Variabile A	0	0	-6.2	0	395	0	-6.2	0
510	Pesi strutturali	0	0	-7	0	395	0	-7	0
511	Pesi strutturali	0	0	-10.375	0	440	0	-10.375	0
511	Permanenti portati	0	0	-7.93	0	440	0	-7.93	0
511	Variabile A	0	0	-12	0	440	0	-12	0
511	Pesi strutturali	0	0	-7	0	440	0	-7	0
512	Pesi strutturali	0	0	-10.375	0	15	0	-10.375	0
512	Permanenti portati	0	0	-7.93	0	15	0	-7.93	0
512	Variabile A	0	0	-12	0	15	0	-12	0
512	Pesi strutturali	15	0	-4.03	0	65	0	-4.03	0
512	Permanenti portati	15	0	-1.55	0	65	0	-1.55	0

TABULATO DI CALCOLO – FABBRICATO B

Indice asta	Condizione	Posizione iniziale	F1 iniziale	F2 iniziale	F3 iniziale	Posizione finale	F1 finale	F2 finale	F3 finale
512	Variabile A	15	0	-6.2	0	65	0	-6.2	0
513	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
513	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
513	Variabile A	0	0	-6.2	0	50	0	-6.2	0
514	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
514	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
514	Variabile A	0	0	-6.2	0	50	0	-6.2	0
515	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
515	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
515	Variabile A	0	0	-6.2	0	50	0	-6.2	0
516	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
516	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
516	Variabile A	0	0	-6.2	0	50	0	-6.2	0
517	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
517	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
517	Variabile A	0	0	-6.2	0	50	0	-6.2	0
518	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
518	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
518	Variabile A	0	0	-6.2	0	50	0	-6.2	0
519	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
519	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
519	Variabile A	0	0	-6.2	0	50	0	-6.2	0
520	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
520	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
520	Variabile A	0	0	-6.2	0	50	0	-6.2	0
521	Pesi strutturali	0	0	-4.03	0	50	0	-4.03	0
521	Permanenti portati	0	0	-1.55	0	50	0	-1.55	0
521	Variabile A	0	0	-6.2	0	50	0	-6.2	0
521	Pesi strutturali	50	0	-10.375	0	65	0	-10.375	0
521	Permanenti portati	50	0	-7.93	0	65	0	-7.93	0
521	Variabile A	50	0	-12	0	65	0	-12	0
512	Pesi strutturali	0	0	-7	0	65	0	-7	0
513	Pesi strutturali	0	0	-7	0	50	0	-7	0
514	Pesi strutturali	0	0	-7	0	50	0	-7	0
515	Pesi strutturali	0	0	-7	0	50	0	-7	0
516	Pesi strutturali	0	0	-7	0	50	0	-7	0
517	Pesi strutturali	0	0	-7	0	50	0	-7	0
518	Pesi strutturali	0	0	-7	0	50	0	-7	0
519	Pesi strutturali	0	0	-7	0	50	0	-7	0
520	Pesi strutturali	0	0	-7	0	50	0	-7	0
521	Pesi strutturali	0	0	-7	0	65	0	-7	0
522	Pesi strutturali	0	0	-10.375	0	440	0	-10.375	0
522	Permanenti portati	0	0	-7.93	0	440	0	-7.93	0
522	Variabile A	0	0	-12	0	440	0	-12	0
522	Pesi strutturali	0	0	-7	0	440	0	-7	0
523	Pesi strutturali	0	0	-4.03	0	395	0	-4.03	0
523	Permanenti portati	0	0	-1.55	0	395	0	-1.55	0
523	Variabile A	0	0	-6.2	0	395	0	-6.2	0
523	Pesi strutturali	0	0	-7	0	395	0	-7	0
524	Pesi strutturali	0	0	-7	0	395	0	-7	0
525	Pesi strutturali	0	0	-6.345	0	615	0	-6.345	0
525	Permanenti portati	0	0	-6.38	0	615	0	-6.38	0
525	Variabile A	0	0	-5.8	0	615	0	-5.8	0
525	Pesi strutturali	0	0	-7	0	615	0	-7	0
526	Pesi strutturali	0	0	-7	0	395	0	-7	0
527	Pesi strutturali	0	0	-6.345	0	455	0	-6.345	0
527	Permanenti portati	0	0	-6.38	0	455	0	-6.38	0
527	Variabile A	0	0	-5.8	0	455	0	-5.8	0
527	Pesi strutturali	0	0	-7	0	455	0	-7	0
528	Pesi strutturali	0	0	-6.345	0	455	0	-6.345	0
528	Permanenti portati	0	0	-6.38	0	455	0	-6.38	0
528	Variabile A	0	0	-5.8	0	455	0	-5.8	0
528	Pesi strutturali	0	0	-7	0	455	0	-7	0
529	Pesi strutturali	0	0	-7	0	500	0	-7	0

2.2.2 Caratteristiche meccaniche aste

I seguenti dati si riferiscono alle caratteristiche meccaniche delle aste utilizzate dal solutore ad elementi finiti. Normalmente differiscono dalle caratteristiche inerziali delle sezioni definite nel database. Tengono conto dei moltiplicatori inerziali espressi nelle preferenze FEM e di indicazioni tratte dalla bibliografia (SAP 90 Volume I Figura X-8; Belluzzi Vol. 1).

I.: numero dell'elemento nell'insieme che lo contiene.

Area: area della sezione trasversale. [cm²]

Area 2: area di taglio per sforzo di taglio nella direzione 2. [cm²]

Area 3: area di taglio per sforzo di taglio nella direzione 3. [cm²]

In.2: momento d'inerzia attorno all'asse locale 2. [cm⁴]

In.3: momento d'inerzia attorno all'asse locale 3. [cm⁴]

In.tors.: momento d'inerzia torsionale corretto con il fattore di torsione. [cm⁴]

E: modulo di elasticità longitudinale. [daN/cm²]

G: modulo di elasticità tangenziale. [daN/cm²]

α: coefficiente di dilatazione termica longitudinale. [°C⁻¹]

P.unit.: peso per unità di lunghezza dell'elemento. [daN/cm]

S.fibre: caratteristiche della sezione a fibre.

Sez.corr.: sezione degli elementi correlati.

Desc.: descrizione o nome assegnato all'elemento.

Mat.corr.: materiale degli elementi correlati.

Desc.: descrizione o nome assegnato all'elemento.

I.	Area	Area 2	Area 3	In.2	In.3	In.tors.	E	G	α	P.unit.	S.fibre	Sez.corr.	Mat.corr.
												Desc.	Desc.
1	2800	2333	2333	1143333	373333	9557	314472	142942	0.00001	7		R 70x40	C25/30
2	2400	2000	2000	720000	320000	7424	314472	142942	0.00001	6		R 60x40	C25/30
3	2000	1667	1667	266667	416667	5291	314472	142942	0.00001	5		R 40x50	C25/30
4	1500	1250	1250	112500	312500	2799	314472	142942	0.00001	3.75		R 30x50	C25/30
5	1750	1458	1458	714583	91146	2826	314472	142942	0.00001	4.375		R 70x25	C25/30
6	1500	1250	1250	450000	78125	2305	314472	142942	0.00001	3.75		R 60x25	C25/30

I.	Area	Area 2	Area 3	In.2	In.3	In.tors.	E	G	α	P.unit.	S.fibre	Sez.corr.	Mat.corr.
												Desc.	Desc.
7	1000	833	833	33333	208333	997	314472	142942	0.00001	2.5		R 20x50	C25/30

Indice: numero dell'elemento nell'insieme che lo contiene.

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Indice	Nodo I	Nodo J	Nodo K	Sezione	Indice	Nodo I	Nodo J	Nodo K	Sezione	Indice	Nodo I	Nodo J	Nodo K	Sezione	Indice	Nodo I	Nodo J	Nodo K	Sezione
				Indice					Indice					Indice					Indice
333	2097	2105	4003	4	334	2105	2109	4003	4	335	2109	2113	4003	4	336	2113	2119	4003	4
337	2119	2125	4003	4	338	2125	2129	4003	4	339	2129	2134	4003	4	340	2134	2162	4003	4
341	2162	2186	4003	4	342	2186	2209	4003	4	343	2209	2226	4003	4	344	2226	2260	4003	4
345	2810	2816	4003	4	346	2816	2822	4003	4	347	2822	2826	4003	4	348	2826	2832	4003	4
349	2832	2838	4003	4	350	2838	2842	4003	4	351	2842	2846	4003	4	352	2846	2870	4003	4
353	2870	2894	4003	4	354	2894	2907	4003	4	355	2907	2923	4003	4	356	2923	2963	4003	4
357	3516	3522	4003	4	358	3522	3528	4003	4	359	3528	3532	4003	4	360	3532	3538	4003	4
361	3538	3544	4003	4	362	3544	3548	4003	4	363	3548	3552	4003	4	364	3552	3574	4003	4
365	3574	3597	4003	4	366	3597	3619	4003	4	367	3619	3636	4003	4	368	3636	3671	4003	4
369	3553	3554	4003	4	370	3554	3555	4003	4	371	3555	3556	4003	4	372	3556	3557	4003	4
373	1360	1361	4003	4	374	2102	2103	4003	4	375	2817	2818	4003	7	376	3523	3524	4003	7
377	3921	3932	4003	4	378	3932	3934	4003	4	379	3934	3938	4003	4	380	3938	3944	4003	4
381	3944	3952	4003	4	382	3952	3979	4003	4	383	3922	3933	4003	4	384	3933	3935	4003	4
385	3935	3939	4003	4	386	3939	3945	4003	4	387	3945	3953	4003	4	388	3953	3980	4003	4
389	3928	3982	4003	6	390	3926	3976	4003	6	391	3927	3977	4003	6	392	3929	3983	4003	6
393	3918	3930	4003	4	394	3930	3936	4003	4	395	3936	3940	4003	4	396	3940	3946	4003	4
397	3946	3954	4003	4	398	3954	3958	4003	4	399	3958	3962	4003	4	400	3962	3968	4003	4
401	3968	3970	4003	4	402	3970	3972	4003	4	403	3972	3974	4003	4	404	3974	3984	4003	4
405	3918	3919	4003	4	406	3919	3920	4003	4	407	3920	3921	4003	4	408	3984	3985	4003	4
409	3985	3986	4003	4	410	3986	3987	4003	4	411	3987	3988	4003	4	412	3988	3989	4003	4
413	3989	3990	4003	4	414	3990	3991	4003	4	415	3991	3992	4003	4	416	3992	3993	4003	4
417	3993	3994	4003	4	418	3994	3995	4003	4	419	3995	3996	4003	4	420	3996	3997	4003	4
421	3997	3998	4003	4	422	3924	3925	4003	4	423	3922	3923	4003	4	424	3923	3924	4003</	

Nodo: nodo su cui è applicata la massa.

Massa X: massa per la componente di spostamento lungo l'asse X. [daN/(cm/s²)]

Massa Y: massa per la componente di spostamento lungo l'asse Y. [daN/(cm/s²)]

Massa Z: massa per la componente di spostamento lungo l'asse Z. [daN/(cm/s²)]

Momento Z: massa momento d'inerzia per la componente di rotazione attorno all'asse Z. $[(\text{daN}/(\text{cm}/\text{s}^2))] \cdot \text{cm}^2$

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
2	253.332	253.332	0	295735867	3	232.949	232.949	0	268424606
4	225.303	225.303	0	262366381	5	224.756	224.756	0	260208292
6	224.628	224.628	0	262745375	7	160.362	160.362	0	180323063
122	0.036	0.036	0	0	123	0.07	0.07	0	0
124	0.083	0.083	0	0	125	0.075	0.075	0	0
126	0.075	0.075	0	0	127	0.075	0.075	0	0
128	0.075	0.075	0	0	129	0.037	0.037	0	0
130	0.039	0.039	0	0	131	0.103	0.103	0	0
132	0.103	0.103	0	0	133	0.071	0.071	0	0
134	0.131	0.131	0	0	135	0.086	0.086	0	0
136	0.08	0.08	0	0	137	0.058	0.058	0	0
138	0.081	0.081	0	0	139	0.075	0.075	0	0
140	0.075	0.075	0	0	141	0.075	0.075	0	0
142	0.075	0.075	0	0	143	0.037	0.037	0	0
144	0.032	0.032	0	0	145	0.125	0.125	0	0
146	0.093	0.093	0	0	147	0.126	0.126	0	0
148	0.249	0.249	0	0	149	0.147	0.147	0	0
150	0.253	0.253	0	0	151	0.262	0.262	0	0
152	0.263	0.263	0	0	153	0.055	0.055	0	0
154	0.071	0.071	0	0	155	0.042	0.042	0	0
156	0.134	0.134	0	0	157	0.134	0.134	0	0
158	0.269	0.269	0	0	159	0.269	0.269	0	0
160	0.269	0.269	0	0	161	0.269	0.269	0	0
162	0.269	0.269	0	0	163	0.269	0.269	0	0
164	0.269	0.269	0	0	165	0.269	0.269	0	0
166	0.269	0.269	0	0	167	0.269	0.269	0	0
168	0.269	0.269	0	0	169	0.269	0.269	0	0
170	0.269	0.269	0	0	171	0.269	0.269	0	0
172	0.105	0.105	0	0	173	0.269	0.269	0	0
174	0.269	0.269	0	0	175	0.269	0.269	0	0
176	0.269	0.269	0	0	177	0.269	0.269	0	0
178	0.269	0.269	0	0	179	0.269	0.269	0	0
180	0.269	0.269	0	0	181	0.134	0.134	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
182	0.134	0.134	0	0	183	0.045	0.045	0	0
184	0.093	0.093	0	0	185	0.075	0.075	0	0
186	0.075	0.075	0	0	187	0.075	0.075	0	0
188	0.075	0.075	0	0	189	0.037	0.037	0	0
190	0.117	0.117	0	0	191	0.102	0.102	0	0
192	0.084	0.084	0	0	193	0.083	0.083	0	0
194	0.175	0.175	0	0	195	0.087	0.087	0	0
196	0.185	0.185	0	0	197	0.088	0.088	0	0
198	0.189	0.189	0	0	199	0.187	0.187	0	0
200	0.054	0.054	0	0	201	0.087	0.087	0	0
202	0.037	0.037	0	0	203	0.038	0.038	0	0
204	0.099	0.099	0	0	205	0.075	0.075	0	0
206	0.075	0.075	0	0	207	0.075	0.075	0	0
208	0.075	0.075	0	0	209	0.037	0.037	0	0
210	0.062	0.062	0	0	211	0.073	0.073	0	0
212	0.07	0.07	0	0	213	0.07	0.07	0	0
214	0.064	0.064	0	0	215	0.059	0.059	0	0
216	0.062	0.062	0	0	217	0.056	0.056	0	0
218	0.058	0.058	0	0	219	0.066	0.066	0	0
220	0.101	0.101	0	0	221	0.075	0.075	0	0
222	0.075	0.075	0	0	223	0.075	0.075	0	0
224	0.075	0.075	0	0	225	0.037	0.037	0	0
226	0.071	0.071	0	0	227	0.126	0.126	0	0
228	0.067	0.067	0	0	229	0.121	0.121	0	0
230	0.083	0.083	0	0	231	0.219	0.219	0	0
232	0.22	0.22	0	0	233	0.105	0.105	0	0
234	0.129	0.129	0	0	235	0.134	0.134	0	0
236	0.134	0.134	0	0	237	0.269	0.269	0	0
238	0.269	0.269	0	0	239	0.269	0.269	0	0
240	0.269	0.269	0	0	241	0.269	0.269	0	0
242	0.269	0.269	0	0	243	0.269	0.269	0	0
244	0.269	0.269	0	0	245	0.269	0.269	0	0
246	0.269	0.269	0	0	247	0.269	0.269	0	0
248	0.269	0.269	0	0	249	0.269	0.269	0	0
250	0.269	0.269	0	0	251	0.086	0.086	0	0
252	0.269	0.269	0	0	253	0.269	0.269	0	0
254	0.269	0.269	0	0	255	0.269	0.269	0	0
256	0.269	0.269	0	0	257	0.269	0.269	0	0
258	0.269	0.269	0	0	259	0.269	0.269	0	0
260	0.134	0.134	0	0	261	0.134	0.134	0	0
262	0.059	0.059	0	0	263	0.087	0.087	0	0
264	0.033	0.033	0	0	265	0.026	0.026	0	0
266	0.023	0.023	0	0	267	0.021	0.021	0	0
268	0.02	0.02	0	0	269	0.022	0.022	0	0
270	0.015	0.015	0	0	271	0.126	0.126	0	0
272	0.027	0.027	0	0	273	0.034	0.034	0	0
274	0.034	0.034	0	0	275	0.039	0.039	0	0
276	0.046	0.046	0	0	277	0.042	0.042	0	0
278	0.052	0.052	0	0	279	0.122	0.122	0	0
280	0.065	0.065	0	0	281	0.036	0.036	0	0
282	0.021	0.021	0	0	283	0.052	0.052	0	0
284	0.033	0.033	0	0	285	0.034	0.034	0	0
286	0.049	0.049	0	0	287	0.057	0.057	0	0
288	0.133	0.133	0	0	289	0.066	0.066	0	0
290	0.064	0.064	0	0	291	0.051	0.051	0	0
292	0.041	0.041	0	0	293	0.058	0.058	0	0
294	0.058	0.058	0	0	295	0.05	0.05	0	0
296	0.131	0.131	0	0	297	0.065	0.065	0	0
298	0.066	0.066	0	0	299	0.051	0.051	0	0
300	0.047	0.047	0	0	301	0.053	0.053	0	0
302	0.044	0.044	0	0	303	0.126	0.126	0	0
304	0.053	0.053	0	0	305	0.04	0.04	0	0
306	0.035	0.035	0	0	307	0.041	0.041	0	0
308	0.046	0.046	0	0	309	0.029	0.029	0	0
310	0.056	0.056	0	0	311	0.033	0.033	0	0
312	0.034	0.034	0	0	313	0.059	0.059	0	0
314	0.019	0.019	0	0	315	0.059	0.059	0	0
316	0.129	0.129	0	0	317	0.052	0.052	0	0
318	0.026	0.026	0	0	319	0.047	0.047	0	0
320	0.044	0.044	0	0	321	0.039	0.039	0	0
322	0.032	0.032	0	0	323	0.127	0.127	0	0
324	0.06	0.06	0	0	325	0.057	0.057	0	0
326	0.061	0.061	0	0	327	0.068	0.068	0	0
328	0.047	0.047	0	0	329	0.138	0.138	0	0
330	0.066	0.066	0	0	331	0.236	0.236	0	0
332	0.248	0.248	0	0	333	0.156	0.156	0	0
334	0.14	0.14	0	0	335	0.084	0.084	0	0
336	0.069	0.069	0	0	337	0.079	0.079	0	0
338	0.09	0.09	0	0	339	0.073	0.073	0	0
340	0.038	0.038	0	0	341	0.076	0.076	0	0
342	0.076	0.076	0	0	343	0.076	0.076	0	0
344	0.076	0.076	0	0	345	0.038	0.038	0	0
346	0.055	0.055	0	0	347	0.086	0.086	0	0
348	0.03	0.03	0	0	349	0.089	0.089	0	0
350	0.066	0.066	0	0	351	0.064	0.064	0	0
352	0.038	0.038	0	0	353	0.076	0.076	0	0
354	0.076	0.076	0	0	355	0.076	0.076	0	0
356	0.076	0.076	0	0	357	0.038	0.038	0	0
358	0.123	0.123	0	0	359	0.139	0.139	0	0
360	0.092	0.092	0	0	361	0.042	0.042	0	0
362	0.084	0.084	0	0	363	0.133	0.133	0	0
364	0.067	0.067	0	0	365	0.104	0.104	0	0
366	0.094	0.094	0	0	367	0.136	0.136	0	0
368	0.163	0.163	0	0	369	0.029	0.029	0	0
370	0.137	0.137	0	0	371	0.052	0.052	0	0
372	0.134	0.134	0	0	373	0.134	0.134	0	0
374	0.269	0.269	0	0	375	0.269	0.269	0	0
376	0.269	0.269	0	0	377	0.269	0.269	0	0
378	0.269	0.269	0	0	379	0.269	0.269	0	0
380	0.269	0.269	0	0	381	0.269	0.269	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
382	0.269	0.269	0	0	383	0.269	0.269	0	0
384	0.269	0.269	0	0	385	0.269	0.269	0	0
386	0.269	0.269	0	0	387	0.269	0.269	0	0
388	0.085	0.085	0	0	389	0.269	0.269	0	0
390	0.269	0.269	0	0	391	0.269	0.269	0	0
392	0.269	0.269	0	0	393	0.269	0.269	0	0
394	0.269	0.269	0	0	395	0.269	0.269	0	0
396	0.269	0.269	0	0	397	0.134	0.134	0	0
398	0.134	0.134	0	0	399	0.073	0.073	0	0
400	0.082	0.082	0	0	401	0.146	0.146	0	0
402	0.145	0.145	0	0	403	0.144	0.144	0	0
404	0.143	0.143	0	0	405	0.143	0.143	0	0
406	0.075	0.075	0	0	407	0.142	0.142	0	0
408	0.135	0.135	0	0	409	0.066	0.066	0	0
410	0.159	0.159	0	0	411	0.152	0.152	0	0
412	0.038	0.038	0	0	413	0.076	0.076	0	0
414	0.076	0.076	0	0	415	0.076	0.076	0	0
416	0.076	0.076	0	0	417	0.038	0.038	0	0
418	0.03	0.03	0	0	419	0.03	0.03	0	0
420	0.094	0.094	0	0	421	0.089	0.089	0	0
422	0.104	0.104	0	0	423	0.055	0.055	0	0
424	0.064	0.064	0	0	425	0.079	0.079	0	0
426	0.067	0.067	0	0	427	0.071	0.071	0	0
428	0.047	0.047	0	0	429	0.045	0.045	0	0
430	0.038	0.038	0	0	431	0.076	0.076	0	0
432	0.076	0.076	0	0	433	0.076	0.076	0	0
434	0.076	0.076	0	0	435	0.038	0.038	0	0
436	0.078	0.078	0	0	437	0.094	0.094	0	0
438	0.075	0.075	0	0	439	0.087	0.087	0	0
440	0.147	0.147	0	0	441	0.014	0.014	0	0
442	0.022	0.022	0	0	443	0.021	0.021	0	0
444	0.023	0.023	0	0	445	0.027	0.027	0	0
446	0.028	0.028	0	0	447	0.033	0.033	0	0
448	0.028	0.028	0	0	449	0.037	0.037	0	0
450	0.034	0.034	0	0	451	0.047	0.047	0	0
452	0.045	0.045	0	0	453	0.053	0.053	0	0
454	0.135	0.135	0	0	455	0.056	0.056	0	0
456	0.065	0.065	0	0	457	0.035	0.035	0	0
458	0.024	0.024	0	0	459	0.053	0.053	0	0
460	0.04	0.04	0	0	461	0.038	0.038	0	0
462	0.136	0.136	0	0	463	0.051	0.051	0	0
464	0.063	0.063	0	0	465	0.059	0.059	0	0
466	0.058	0.058	0	0	467	0.051	0.051	0	0
468	0.043	0.043	0	0	469	0.057	0.057	0	0
470	0.027	0.027	0	0	471	0.047	0.047	0	0
472	0.051	0.051	0	0	473	0.132	0.132	0	0
474	0.04	0.04	0	0	475	0.06	0.06	0	0
476	0.05	0.05	0	0	477	0.042	0.042	0	0
478	0.047	0.047	0	0	479	0.038	0.038	0	0
480	0.053	0.053	0	0	481	0.138	0.138	0	0
482	0.043	0.043	0	0	483	0.041	0.041	0	0
484	0.061	0.061	0	0	485	0.036	0.036	0	0
486	0.026	0.026	0	0	487	0.045	0.045	0	0
488	0.058	0.058	0	0	489	0.027	0.027	0	0
490	0.032	0.032	0	0	491	0.056	0.056	0	0
492	0.149	0.149	0	0	493	0.051	0.051	0	0
494	0.058	0.058	0	0	495	0.047	0.047	0	0
496	0.139	0.139	0	0	497	0.031	0.031	0	0
498	0.039	0.039	0	0	499	0.156	0.156	0	0
500	0.047	0.047	0	0	501	0.07	0.07	0	0
502	0.067	0.067	0	0	503	0.066	0.066	0	0
504	0.059	0.059	0	0	505	0.093	0.093	0	0
506	0.074	0.074	0	0	507	0.149	0.149	0	0
508	0.154	0.154	0	0	509	0.148	0.148	0	0
510	0.166	0.166	0	0	511	0.071	0.071	0	0
512	0.134	0.134	0	0	513	0.134	0.134	0	0
514	0.269	0.269	0	0	515	0.269	0.269	0	0
516	0.269	0.269	0	0	517	0.269	0.269	0	0
518	0.269	0.269	0	0	519	0.269	0.269	0	0
520	0.269	0.269	0	0	521	0.269	0.269	0	0
522	0.269	0.269	0	0	523	0.269	0.269	0	0
524	0.269	0.269	0	0	525	0.269	0.269	0	0
526	0.269	0.269	0	0	527	0.269	0.269	0	0
528	0.086	0.086	0	0	529	0.269	0.269	0	0
530	0.269	0.269	0	0	531	0.269	0.269	0	0
532	0.269	0.269	0	0	533	0.269	0.269	0	0
534	0.269	0.269	0	0	535	0.269	0.269	0	0
536	0.269	0.269	0	0	537	0.134	0.134	0	0
538	0.134	0.134	0	0	539	0.085	0.085	0	0
540	0.077	0.077	0	0	541	0.15	0.15	0	0
542	0.148	0.148	0	0	543	0.146	0.146	0	0
544	0.144	0.144	0	0	545	0.144	0.144	0	0
546	0.143	0.143	0	0	547	0.087	0.087	0	0
548	0.142	0.142	0	0	549	0.139	0.139	0	0
550	0.069	0.069	0	0	551	0.039	0.039	0	0
552	0.079	0.079	0	0	553	0.079	0.079	0	0
554	0.079	0.079	0	0	555	0.079	0.079	0	0
556	0.084	0.084	0	0	557	0.096	0.096	0	0
558	0.036	0.036	0	0	559	0.164	0.164	0	0
560	0.034	0.034	0	0	561	0.07	0.07	0	0
562	0.039	0.039	0	0	563	0.079	0.079	0	0
564	0.079	0.079	0	0	565	0.079	0.079	0	0
566	0.078	0.078	0	0	567	0.038	0.038	0	0
568	0.067	0.067	0	0	569	0.05	0.05	0	0
570	0.039	0.039	0	0	571	0.079	0.079	0	0
572	0.079	0.079	0	0	573	0.079	0.079	0	0
574	0.079	0.079	0	0	575	0.039	0.039	0	0
576	0.216	0.216	0	0	577	0.088	0.088	0	0
578	0.168	0.168	0	0	579	0.165	0.165	0	0
580	0.164	0.164	0	0	581	0.164	0.164	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
582	0.164	0.164	0	0	583	0.075	0.075	0	0
584	0.164	0.164	0	0	585	0.164	0.164	0	0
586	0.082	0.082	0	0	587	0.101	0.101	0	0
588	0.172	0.172	0	0	589	0.202	0.202	0	0
590	0.091	0.091	0	0	591	0.192	0.192	0	0
592	0.134	0.134	0	0	593	0.134	0.134	0	0
594	0.269	0.269	0	0	595	0.269	0.269	0	0
596	0.269	0.269	0	0	597	0.269	0.269	0	0
598	0.269	0.269	0	0	599	0.269	0.269	0	0
600	0.269	0.269	0	0	601	0.269	0.269	0	0
602	0.269	0.269	0	0	603	0.269	0.269	0	0
604	0.269	0.269	0	0	605	0.269	0.269	0	0
606	0.269	0.269	0	0	607	0.269	0.269	0	0
608	0.047	0.047	0	0	609	0.269	0.269	0	0
610	0.269	0.269	0	0	611	0.269	0.269	0	0
612	0.269	0.269	0	0	613	0.269	0.269	0	0
614	0.269	0.269	0	0	615	0.269	0.269	0	0
616	0.269	0.269	0	0	617	0.134	0.134	0	0
618	0.134	0.134	0	0	619	0.095	0.095	0	0
620	0.074	0.074	0	0	621	0.147	0.147	0	0
622	0.146	0.146	0	0	623	0.145	0.145	0	0
624	0.145	0.145	0	0	625	0.144	0.144	0	0
626	0.144	0.144	0	0	627	0.109	0.109	0	0
628	0.143	0.143	0	0	629	0.142	0.142	0	0
630	0.071	0.071	0	0	631	0.174	0.174	0	0
632	0.039	0.039	0	0	633	0.079	0.079	0	0
634	0.079	0.079	0	0	635	0.079	0.079	0	0
636	0.079	0.079	0	0	637	0.039	0.039	0	0
638	0.1	0.1	0	0	639	0.039	0.039	0	0
640	0.079	0.079	0	0	641	0.079	0.079	0	0
642	0.079	0.079	0	0	643	0.079	0.079	0	0
644	0.039	0.039	0	0	645	0.121	0.121	0	0
646	0.071	0.071	0	0	647	0.055	0.055	0	0
648	0.02	0.02	0	0	649	0.039	0.039	0	0
650	0.039	0.039	0	0	651	0.039	0.039	0	0
652	0.039	0.039	0	0	686	0.1	0.1	0	0
687	0.09	0.09	0	0	694	0.204	0.204	0	0
695	0.197	0.197	0	0	700	0.189	0.189	0	0
701	0.163	0.163	0	0	704	0.138	0.138	0	0
705	0.129	0.129	0	0	730	0.056	0.056	0	0
731	0.061	0.061	0	0	734	0.092	0.092	0	0
735	0.111	0.111	0	0	736	0.071	0.071	0	0
737	0.121	0.121	0	0	738	0.154	0.154	0	0
739	0.086	0.086	0	0	740	0.153	0.153	0	0
741	0.154	0.154	0	0	742	0.042	0.042	0	0
743	0.13	0.13	0	0	744	0.188	0.188	0	0
745	0.059	0.059	0	0	746	0.215	0.215	0	0
747	0.069	0.069	0	0	750	0.082	0.082	0	0
751	0.059	0.059	0	0	752	0.1	0.1	0	0
753	0.072	0.072	0	0	754	0.114	0.114	0	0
755	0.086	0.086	0	0	756	0.146	0.146	0	0
759	0.2	0.2	0	0	760	0.081	0.081	0	0
761	0.156	0.156	0	0	762	0.091	0.091	0	0
763	0.145	0.145	0	0	764	0.201	0.201	0	0
765	0.109	0.109	0	0	766	0.22	0.22	0	0
767	0.244	0.244	0	0	768	0.109	0.109	0	0
769	0.104	0.104	0	0	772	0.093	0.093	0	0
773	0.059	0.059	0	0	774	0.095	0.095	0	0
775	0.158	0.158	0	0	776	0.195	0.195	0	0
779	0.088	0.088	0	0	780	0.167	0.167	0	0
781	0.059	0.059	0	0	782	0.102	0.102	0	0
783	0.117	0.117	0	0	784	0.072	0.072	0	0
785	0.094	0.094	0	0	786	0.237	0.237	0	0
787	0.227	0.227	0	0	788	0.259	0.259	0	0
791	0.2	0.2	0	0	792	0.201	0.201	0	0
793	0.173	0.173	0	0	794	0.169	0.169	0	0
795	0.183	0.183	0	0	796	0.15	0.15	0	0
821	0.053	0.053	0	0	822	0.063	0.063	0	0
823	0.039	0.039	0	0	824	0.077	0.077	0	0
825	0.077	0.077	0	0	826	0.077	0.077	0	0
827	0.077	0.077	0	0	828	0.038	0.038	0	0
829	0.089	0.089	0	0	830	0.072	0.072	0	0
831	0.05	0.05	0	0	832	0.037	0.037	0	0
833	0.075	0.075	0	0	834	0.075	0.075	0	0
835	0.075	0.075	0	0	836	0.075	0.075	0	0
837	0.037	0.037	0	0	838	0.126	0.126	0	0
839	0.053	0.053	0	0	840	0.045	0.045	0	0
841	0.069	0.069	0	0	842	0.138	0.138	0	0
843	0.137	0.137	0	0	844	0.136	0.136	0	0
845	0.135	0.135	0	0	846	0.135	0.135	0	0
847	0.135	0.135	0	0	848	0.09	0.09	0	0
849	0.135	0.135	0	0	850	0.135	0.135	0	0
851	0.067	0.067	0	0	852	0.029	0.029	0	0
853	0.136	0.136	0	0	854	0.136	0.136	0	0
855	0.272	0.272	0	0	856	0.272	0.272	0	0
857	0.272	0.272	0	0	858	0.272	0.272	0	0
859	0.272	0.272	0	0	860	0.272	0.272	0	0
861	0.272	0.272	0	0	862	0.272	0.272	0	0
863	0.272	0.272	0	0	864	0.272	0.272	0	0
865	0.272	0.272	0	0	866	0.272	0.272	0	0
867	0.272	0.272	0	0	868	0.272	0.272	0	0
869	0.096	0.096	0	0	870	0.272	0.272	0	0
871	0.272	0.272	0	0	872	0.272	0.272	0	0
873	0.272	0.272	0	0	874	0.272	0.272	0	0
875	0.272	0.272	0	0	876	0.272	0.272	0	0
877	0.272	0.272	0	0	878	0.136	0.136	0	0
879	0.136	0.136	0	0	880	0.079	0.079	0	0
881	0.157	0.157	0	0	882	0.153	0.153	0	0
883	0.15	0.15	0	0	884	0.149	0.149	0	0
885	0.149	0.149	0	0	886	0.149	0.149	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
887	0.148	0.148	0	0	888	0.144	0.144	0	0
889	0.071	0.071	0	0	890	0.045	0.045	0	0
891	0.072	0.072	0	0	892	0.036	0.036	0	0
893	0.074	0.074	0	0	894	0.075	0.075	0	0
895	0.075	0.075	0	0	896	0.075	0.075	0	0
897	0.037	0.037	0	0	898	0.196	0.196	0	0
899	0.042	0.042	0	0	900	0.221	0.221	0	0
901	0.041	0.041	0	0	902	0.25	0.25	0	0
903	0.027	0.027	0	0	904	0.052	0.052	0	0
905	0.097	0.097	0	0	906	0.081	0.081	0	0
907	0.034	0.034	0	0	908	0.074	0.074	0	0
909	0.075	0.075	0	0	910	0.075	0.075	0	0
911	0.075	0.075	0	0	912	0.037	0.037	0	0
913	0.105	0.105	0	0	914	0.056	0.056	0	0
915	0.076	0.076	0	0	916	0.075	0.075	0	0
917	0.075	0.075	0	0	918	0.075	0.075	0	0
919	0.037	0.037	0	0	920	0.044	0.044	0	0
921	0.088	0.088	0	0	922	0.079	0.079	0	0
923	0.071	0.071	0	0	924	0.141	0.141	0	0
925	0.139	0.139	0	0	926	0.136	0.136	0	0
927	0.135	0.135	0	0	928	0.134	0.134	0	0
929	0.134	0.134	0	0	930	0.071	0.071	0	0
931	0.134	0.134	0	0	932	0.134	0.134	0	0
933	0.067	0.067	0	0	934	0.145	0.145	0	0
935	0.106	0.106	0	0	936	0.136	0.136	0	0
937	0.136	0.136	0	0	938	0.272	0.272	0	0
939	0.272	0.272	0	0	940	0.272	0.272	0	0
941	0.272	0.272	0	0	942	0.272	0.272	0	0
943	0.272	0.272	0	0	944	0.272	0.272	0	0
945	0.272	0.272	0	0	946	0.272	0.272	0	0
947	0.272	0.272	0	0	948	0.272	0.272	0	0
949	0.272	0.272	0	0	950	0.272	0.272	0	0
951	0.272	0.272	0	0	952	0.082	0.082	0	0
953	0.272	0.272	0	0	954	0.272	0.272	0	0
955	0.272	0.272	0	0	956	0.272	0.272	0	0
957	0.272	0.272	0	0	958	0.272	0.272	0	0
959	0.272	0.272	0	0	960	0.272	0.272	0	0
961	0.136	0.136	0	0	962	0.136	0.136	0	0
963	0.08	0.08	0	0	964	0.161	0.161	0	0
965	0.033	0.033	0	0	966	0.026	0.026	0	0
967	0.023	0.023	0	0	968	0.021	0.021	0	0
969	0.02	0.02	0	0	970	0.022	0.022	0	0
971	0.015	0.015	0	0	972	0.174	0.174	0	0
973	0.027	0.027	0	0	974	0.034	0.034	0	0
975	0.034	0.034	0	0	976	0.039	0.039	0	0
977	0.046	0.046	0	0	978	0.042	0.042	0	0
979	0.052	0.052	0	0	980	0.164	0.164	0	0
981	0.065	0.065	0	0	982	0.036	0.036	0	0
983	0.021	0.021	0	0	984	0.052	0.052	0	0
985	0.033	0.033	0	0	986	0.034	0.034	0	0
987	0.049	0.049	0	0	988	0.057	0.057	0	0
989	0.174	0.174	0	0	990	0.066	0.066	0	0
991	0.064	0.064	0	0	992	0.051	0.051	0	0
993	0.041	0.041	0	0	994	0.058	0.058	0	0
995	0.058	0.058	0	0	996	0.05	0.05	0	0
997	0.172	0.172	0	0	998	0.065	0.065	0	0
999	0.066	0.066	0	0	1000	0.051	0.051	0	0
1001	0.047	0.047	0	0	1002	0.053	0.053	0	0
1003	0.044	0.044	0	0	1004	0.169	0.169	0	0
1005	0.053	0.053	0	0	1006	0.04	0.04	0	0
1007	0.035	0.035	0	0	1008	0.041	0.041	0	0
1009	0.046	0.046	0	0	1010	0.029	0.029	0	0
1011	0.056	0.056	0	0	1012	0.033	0.033	0	0
1013	0.034	0.034	0	0	1014	0.06	0.06	0	0
1015	0.019	0.019	0	0	1016	0.059	0.059	0	0
1017	0.17	0.17	0	0	1018	0.052	0.052	0	0
1019	0.026	0.026	0	0	1020	0.047	0.047	0	0
1021	0.044	0.044	0	0	1022	0.039	0.039	0	0
1023	0.032	0.032	0	0	1024	0.131	0.131	0	0
1025	0.061	0.061	0	0	1026	0.057	0.057	0	0
1027	0.061	0.061	0	0	1028	0.068	0.068	0	0
1029	0.047	0.047	0	0	1030	0.15	0.15	0	0
1031	0.064	0.064	0	0	1032	0.176	0.176	0	0
1033	0.041	0.041	0	0	1034	0.084	0.084	0	0
1035	0.05	0.05	0	0	1036	0.038	0.038	0	0
1037	0.076	0.076	0	0	1038	0.076	0.076	0	0
1039	0.076	0.076	0	0	1040	0.076	0.076	0	0
1041	0.038	0.038	0	0	1042	0.047	0.047	0	0
1043	0.113	0.113	0	0	1044	0.18	0.18	0	0
1045	0.067	0.067	0	0	1046	0.038	0.038	0	0
1047	0.076	0.076	0	0	1048	0.076	0.076	0	0
1049	0.076	0.076	0	0	1050	0.076	0.076	0	0
1051	0.038	0.038	0	0	1052	0.076	0.076	0	0
1053	0.136	0.136	0	0	1054	0.073	0.073	0	0
1055	0.145	0.145	0	0	1056	0.14	0.14	0	0
1057	0.134	0.134	0	0	1058	0.133	0.133	0	0
1059	0.133	0.133	0	0	1060	0.133	0.133	0	0
1061	0.044	0.044	0	0	1062	0.133	0.133	0	0
1063	0.132	0.132	0	0	1064	0.066	0.066	0	0
1065	0.2	0.2	0	0	1066	0.172	0.172	0	0
1067	0.104	0.104	0	0	1068	0.116	0.116	0	0
1069	0.136	0.136	0	0	1070	0.136	0.136	0	0
1071	0.272	0.272	0	0	1072	0.272	0.272	0	0
1073	0.272	0.272	0	0	1074	0.272	0.272	0	0
1075	0.272	0.272	0	0	1076	0.272	0.272	0	0
1077	0.272	0.272	0	0	1078	0.272	0.272	0	0
1079	0.272	0.272	0	0	1080	0.272	0.272	0	0
1081	0.272	0.272	0	0	1082	0.272	0.272	0	0
1083	0.272	0.272	0	0	1084	0.272	0.272	0	0
1085	0.086	0.086	0	0	1086	0.272	0.272	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
1087	0.272	0.272	0	0	1088	0.272	0.272	0	0
1089	0.272	0.272	0	0	1090	0.272	0.272	0	0
1091	0.272	0.272	0	0	1092	0.272	0.272	0	0
1093	0.272	0.272	0	0	1094	0.136	0.136	0	0
1095	0.136	0.136	0	0	1096	0.078	0.078	0	0
1097	0.156	0.156	0	0	1098	0.149	0.149	0	0
1099	0.145	0.145	0	0	1100	0.144	0.144	0	0
1101	0.143	0.143	0	0	1102	0.143	0.143	0	0
1103	0.093	0.093	0	0	1104	0.142	0.142	0	0
1105	0.135	0.135	0	0	1106	0.066	0.066	0	0
1107	0.038	0.038	0	0	1108	0.076	0.076	0	0
1109	0.076	0.076	0	0	1110	0.076	0.076	0	0
1111	0.076	0.076	0	0	1112	0.038	0.038	0	0
1113	0.095	0.095	0	0	1114	0.062	0.062	0	0
1115	0.079	0.079	0	0	1116	0.118	0.118	0	0
1117	0.038	0.038	0	0	1118	0.076	0.076	0	0
1119	0.076	0.076	0	0	1120	0.076	0.076	0	0
1121	0.076	0.076	0	0	1122	0.038	0.038	0	0
1123	0.068	0.068	0	0	1124	0.1	0.1	0	0
1125	0.078	0.078	0	0	1126	0.084	0.084	0	0
1127	0.164	0.164	0	0	1128	0.174	0.174	0	0
1129	0.014	0.014	0	0	1130	0.022	0.022	0	0
1131	0.021	0.021	0	0	1132	0.023	0.023	0	0
1133	0.027	0.027	0	0	1134	0.028	0.028	0	0
1135	0.033	0.033	0	0	1136	0.028	0.028	0	0
1137	0.037	0.037	0	0	1138	0.034	0.034	0	0
1139	0.047	0.047	0	0	1140	0.045	0.045	0	0
1141	0.053	0.053	0	0	1142	0.169	0.169	0	0
1143	0.056	0.056	0	0	1144	0.065	0.065	0	0
1145	0.035	0.035	0	0	1146	0.024	0.024	0	0
1147	0.053	0.053	0	0	1148	0.04	0.04	0	0
1149	0.038	0.038	0	0	1150	0.176	0.176	0	0
1151	0.051	0.051	0	0	1152	0.063	0.063	0	0
1153	0.059	0.059	0	0	1154	0.058	0.058	0	0
1155	0.051	0.051	0	0	1156	0.043	0.043	0	0
1157	0.057	0.057	0	0	1158	0.027	0.027	0	0
1159	0.047	0.047	0	0	1160	0.051	0.051	0	0
1161	0.173	0.173	0	0	1162	0.04	0.04	0	0
1163	0.06	0.06	0	0	1164	0.05	0.05	0	0
1165	0.042	0.042	0	0	1166	0.047	0.047	0	0
1167	0.038	0.038	0	0	1168	0.053	0.053	0	0
1169	0.171	0.171	0	0	1170	0.043	0.043	0	0
1171	0.041	0.041	0	0	1172	0.061	0.061	0	0
1173	0.036	0.036	0	0	1174	0.026	0.026	0	0
1175	0.045	0.045	0	0	1176	0.058	0.058	0	0
1177	0.027	0.027	0	0	1178	0.032	0.032	0	0
1179	0.056	0.056	0	0	1180	0.173	0.173	0	0
1181	0.051	0.051	0	0	1182	0.058	0.058	0	0
1183	0.047	0.047	0	0	1184	0.137	0.137	0	0
1185	0.031	0.031	0	0	1186	0.039	0.039	0	0
1187	0.16	0.16	0	0	1188	0.047	0.047	0	0
1189	0.07	0.07	0	0	1190	0.067	0.067	0	0
1191	0.066	0.066	0	0	1192	0.059	0.059	0	0
1193	0.088	0.088	0	0	1194	0.074	0.074	0	0
1195	0.206	0.206	0	0	1196	0.221	0.221	0	0
1197	0.136	0.136	0	0	1198	0.136	0.136	0	0
1199	0.272	0.272	0	0	1200	0.272	0.272	0	0
1201	0.272	0.272	0	0	1202	0.272	0.272	0	0
1203	0.272	0.272	0	0	1204	0.272	0.272	0	0
1205	0.272	0.272	0	0	1206	0.272	0.272	0	0
1207	0.272	0.272	0	0	1208	0.272	0.272	0	0
1209	0.272	0.272	0	0	1210	0.272	0.272	0	0
1211	0.272	0.272	0	0	1212	0.272	0.272	0	0
1213	0.088	0.088	0	0	1214	0.272	0.272	0	0
1215	0.272	0.272	0	0	1216	0.272	0.272	0	0
1217	0.272	0.272	0	0	1218	0.272	0.272	0	0
1219	0.272	0.272	0	0	1220	0.272	0.272	0	0
1221	0.272	0.272	0	0	1222	0.136	0.136	0	0
1223	0.136	0.136	0	0	1224	0.07	0.07	0	0
1225	0.076	0.076	0	0	1226	0.151	0.151	0	0
1227	0.148	0.148	0	0	1228	0.146	0.146	0	0
1229	0.144	0.144	0	0	1230	0.144	0.144	0	0
1231	0.143	0.143	0	0	1232	0.104	0.104	0	0
1233	0.142	0.142	0	0	1234	0.139	0.139	0	0
1235	0.069	0.069	0	0	1236	0.039	0.039	0	0
1237	0.079	0.079	0	0	1238	0.079	0.079	0	0
1239	0.079	0.079	0	0	1240	0.08	0.08	0	0
1241	0.092	0.092	0	0	1242	0.036	0.036	0	0
1243	0.161	0.161	0	0	1244	0.173	0.173	0	0
1245	0.034	0.034	0	0	1246	0.078	0.078	0	0
1247	0.072	0.072	0	0	1248	0.039	0.039	0	0
1249	0.079	0.079	0	0	1250	0.079	0.079	0	0
1251	0.079	0.079	0	0	1252	0.078	0.078	0	0
1253	0.039	0.039	0	0	1254	0.066	0.066	0	0
1255	0.05	0.05	0	0	1256	0.039	0.039	0	0
1257	0.079	0.079	0	0	1258	0.079	0.079	0	0
1259	0.079	0.079	0	0	1260	0.079	0.079	0	0
1261	0.039	0.039	0	0	1262	0.088	0.088	0	0
1263	0.176	0.176	0	0	1264	0.172	0.172	0	0
1265	0.165	0.165	0	0	1266	0.164	0.164	0	0
1267	0.164	0.164	0	0	1268	0.164	0.164	0	0
1269	0.075	0.075	0	0	1270	0.164	0.164	0	0
1271	0.164	0.164	0	0	1272	0.082	0.082	0	0
1273	0.102	0.102	0	0	1274	0.093	0.093	0	0
1275	0.218	0.218	0	0	1276	0.208	0.208	0	0
1277	0.136	0.136	0	0	1278	0.136	0.136	0	0
1279	0.272	0.272	0	0	1280	0.272	0.272	0	0
1281	0.272	0.272	0	0	1282	0.272	0.272	0	0
1283	0.272	0.272	0	0	1284	0.272	0.272	0	0
1285	0.272	0.272	0	0	1286	0.272	0.272	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
1287	0.272	0.272	0	0	1288	0.272	0.272	0	0
1289	0.272	0.272	0	0	1290	0.272	0.272	0	0
1291	0.272	0.272	0	0	1292	0.272	0.272	0	0
1293	0.048	0.048	0	0	1294	0.272	0.272	0	0
1295	0.272	0.272	0	0	1296	0.272	0.272	0	0
1297	0.272	0.272	0	0	1298	0.272	0.272	0	0
1299	0.272	0.272	0	0	1300	0.272	0.272	0	0
1301	0.272	0.272	0	0	1302	0.136	0.136	0	0
1303	0.136	0.136	0	0	1304	0.074	0.074	0	0
1305	0.147	0.147	0	0	1306	0.146	0.146	0	0
1307	0.145	0.145	0	0	1308	0.145	0.145	0	0
1309	0.144	0.144	0	0	1310	0.144	0.144	0	0
1311	0.103	0.103	0	0	1312	0.143	0.143	0	0
1313	0.142	0.142	0	0	1314	0.071	0.071	0	0
1315	0.174	0.174	0	0	1316	0.039	0.039	0	0
1317	0.079	0.079	0	0	1318	0.079	0.079	0	0
1319	0.079	0.079	0	0	1320	0.079	0.079	0	0
1321	0.039	0.039	0	0	1322	0.183	0.183	0	0
1323	0.088	0.088	0	0	1324	0.102	0.102	0	0
1325	0.039	0.039	0	0	1326	0.079	0.079	0	0
1327	0.079	0.079	0	0	1328	0.079	0.079	0	0
1329	0.079	0.079	0	0	1330	0.039	0.039	0	0
1331	0.121	0.121	0	0	1332	0.072	0.072	0	0
1333	0.055	0.055	0	0	1334	0.02	0.02	0	0
1335	0.039	0.039	0	0	1336	0.039	0.039	0	0
1337	0.039	0.039	0	0	1338	0.039	0.039	0	0
1394	0.1	0.1	0	0	1395	0.086	0.086	0	0
1408	0.204	0.204	0	0	1409	0.176	0.176	0	0
1418	0.189	0.189	0	0	1419	0.153	0.153	0	0
1425	0.138	0.138	0	0	1426	0.12	0.12	0	0
1452	0.056	0.056	0	0	1453	0.061	0.061	0	0
1458	0.092	0.092	0	0	1459	0.111	0.111	0	0
1460	0.071	0.071	0	0	1461	0.121	0.121	0	0
1462	0.154	0.154	0	0	1463	0.086	0.086	0	0
1464	0.153	0.153	0	0	1465	0.154	0.154	0	0
1466	0.042	0.042	0	0	1467	0.13	0.13	0	0
1468	0.188	0.188	0	0	1469	0.059	0.059	0	0
1470	0.215	0.215	0	0	1471	0.069	0.069	0	0
1474	0.082	0.082	0	0	1475	0.059	0.059	0	0
1476	0.1	0.1	0	0	1477	0.072	0.072	0	0
1478	0.114	0.114	0	0	1479	0.086	0.086	0	0
1480	0.146	0.146	0	0	1485	0.2	0.2	0	0
1486	0.081	0.081	0	0	1487	0.156	0.156	0	0
1488	0.091	0.091	0	0	1489	0.145	0.145	0	0
1490	0.201	0.201	0	0	1491	0.109	0.109	0	0
1492	0.22	0.22	0	0	1493	0.244	0.244	0	0
1494	0.109	0.109	0	0	1495	0.104	0.104	0	0
1498	0.093	0.093	0	0	1499	0.059	0.059	0	0
1500	0.095	0.095	0	0	1501	0.158	0.158	0	0
1502	0.195	0.195	0	0	1507	0.088	0.088	0	0
1508	0.167	0.167	0	0	1509	0.059	0.059	0	0
1510	0.102	0.102	0	0	1511	0.117	0.117	0	0
1512	0.072	0.072	0	0	1513	0.094	0.094	0	0
1514	0.237	0.237	0	0	1515	0.227	0.227	0	0
1516	0.259	0.259	0	0	1519	0.2	0.2	0	0
1520	0.201	0.201	0	0	1521	0.173	0.173	0	0
1522	0.169	0.169	0	0	1523	0.183	0.183	0	0
1524	0.15	0.15	0	0	1560	0.053	0.053	0	0
1561	0.062	0.062	0	0	1562	0.039	0.039	0	0
1563	0.077	0.077	0	0	1564	0.077	0.077	0	0
1565	0.077	0.077	0	0	1566	0.076	0.076	0	0
1567	0.038	0.038	0	0	1568	0.089	0.089	0	0
1569	0.072	0.072	0	0	1570	0.08	0.08	0	0
1571	0.037	0.037	0	0	1572	0.075	0.075	0	0
1573	0.075	0.075	0	0	1574	0.075	0.075	0	0
1575	0.075	0.075	0	0	1576	0.037	0.037	0	0
1577	0.126	0.126	0	0	1578	0.04	0.04	0	0
1579	0.045	0.045	0	0	1580	0.078	0.078	0	0
1581	0.052	0.052	0	0	1582	0.104	0.104	0	0
1583	0.103	0.103	0	0	1584	0.102	0.102	0	0
1585	0.102	0.102	0	0	1586	0.101	0.101	0	0
1587	0.101	0.101	0	0	1588	0.09	0.09	0	0
1589	0.101	0.101	0	0	1590	0.101	0.101	0	0
1591	0.051	0.051	0	0	1592	0.102	0.102	0	0
1593	0.102	0.102	0	0	1594	0.204	0.204	0	0
1595	0.204	0.204	0	0	1596	0.204	0.204	0	0
1597	0.204	0.204	0	0	1598	0.204	0.204	0	0
1599	0.204	0.204	0	0	1600	0.204	0.204	0	0
1601	0.204	0.204	0	0	1602	0.204	0.204	0	0
1603	0.204	0.204	0	0	1604	0.204	0.204	0	0
1605	0.204	0.204	0	0	1606	0.204	0.204	0	0
1607	0.204	0.204	0	0	1608	0.096	0.096	0	0
1609	0.204	0.204	0	0	1610	0.204	0.204	0	0
1611	0.204	0.204	0	0	1612	0.204	0.204	0	0
1613	0.204	0.204	0	0	1614	0.204	0.204	0	0
1615	0.204	0.204	0	0	1616	0.204	0.204	0	0
1617	0.102	0.102	0	0	1618	0.102	0.102	0	0
1619	0.059	0.059	0	0	1620	0.118	0.118	0	0
1621	0.115	0.115	0	0	1622	0.112	0.112	0	0
1623	0.112	0.112	0	0	1624	0.112	0.112	0	0
1625	0.112	0.112	0	0	1626	0.111	0.111	0	0
1627	0.108	0.108	0	0	1628	0.053	0.053	0	0
1629	0.055	0.055	0	0	1630	0.036	0.036	0	0
1631	0.074	0.074	0	0	1632	0.075	0.075	0	0
1633	0.075	0.075	0	0	1634	0.075	0.075	0	0
1635	0.037	0.037	0	0	1636	0.196	0.196	0	0
1637	0.042	0.042	0	0	1638	0.221	0.221	0	0
1639	0.25	0.25	0	0	1640	0.052	0.052	0	0
1641	0.101	0.101	0	0	1642	0.081	0.081	0	0
1643	0.034	0.034	0	0	1644	0.074	0.074	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
1645	0.075	0.075	0	0	1646	0.075	0.075	0	0
1647	0.075	0.075	0	0	1648	0.037	0.037	0	0
1649	0.063	0.063	0	0	1650	0.143	0.143	0	0
1651	0.114	0.114	0	0	1652	0.074	0.074	0	0
1653	0.076	0.076	0	0	1654	0.075	0.075	0	0
1655	0.075	0.075	0	0	1656	0.075	0.075	0	0
1657	0.037	0.037	0	0	1658	0.053	0.053	0	0
1659	0.106	0.106	0	0	1660	0.104	0.104	0	0
1661	0.102	0.102	0	0	1662	0.101	0.101	0	0
1663	0.101	0.101	0	0	1664	0.1	0.1	0	0
1665	0.071	0.071	0	0	1666	0.1	0.1	0	0
1667	0.1	0.1	0	0	1668	0.05	0.05	0	0
1669	0.075	0.075	0	0	1670	0.145	0.145	0	0
1671	0.106	0.106	0	0	1672	0.102	0.102	0	0
1673	0.102	0.102	0	0	1674	0.204	0.204	0	0
1675	0.204	0.204	0	0	1676	0.204	0.204	0	0
1677	0.204	0.204	0	0	1678	0.204	0.204	0	0
1679	0.204	0.204	0	0	1680	0.204	0.204	0	0
1681	0.204	0.204	0	0	1682	0.204	0.204	0	0
1683	0.204	0.204	0	0	1684	0.204	0.204	0	0
1685	0.204	0.204	0	0	1686	0.204	0.204	0	0
1687	0.204	0.204	0	0	1688	0.082	0.082	0	0
1689	0.204	0.204	0	0	1690	0.204	0.204	0	0
1691	0.204	0.204	0	0	1692	0.204	0.204	0	0
1693	0.204	0.204	0	0	1694	0.204	0.204	0	0
1695	0.204	0.204	0	0	1696	0.204	0.204	0	0
1697	0.102	0.102	0	0	1698	0.102	0.102	0	0
1699	0.061	0.061	0	0	1700	0.111	0.111	0	0
1701	0.032	0.032	0	0	1702	0.025	0.025	0	0
1703	0.023	0.023	0	0	1704	0.02	0.02	0	0
1705	0.02	0.02	0	0	1706	0.021	0.021	0	0
1707	0.015	0.015	0	0	1708	0.112	0.112	0	0
1709	0.026	0.026	0	0	1710	0.033	0.033	0	0
1711	0.033	0.033	0	0	1712	0.038	0.038	0	0
1713	0.045	0.045	0	0	1714	0.041	0.041	0	0
1715	0.051	0.051	0	0	1716	0.104	0.104	0	0
1717	0.064	0.064	0	0	1718	0.035	0.035	0	0
1719	0.02	0.02	0	0	1720	0.051	0.051	0	0
1721	0.032	0.032	0	0	1722	0.033	0.033	0	0
1723	0.048	0.048	0	0	1724	0.056	0.056	0	0
1725	0.113	0.113	0	0	1726	0.066	0.066	0	0
1727	0.061	0.061	0	0	1728	0.049	0.049	0	0
1729	0.04	0.04	0	0	1730	0.056	0.056	0	0
1731	0.057	0.057	0	0	1732	0.049	0.049	0	0
1733	0.111	0.111	0	0	1734	0.064	0.064	0	0
1735	0.064	0.064	0	0	1736	0.049	0.049	0	0
1737	0.046	0.046	0	0	1738	0.052	0.052	0	0
1739	0.043	0.043	0	0	1740	0.109	0.109	0	0
1741	0.053	0.053	0	0	1742	0.039	0.039	0	0
1743	0.034	0.034	0	0	1744	0.039	0.039	0	0
1745	0.045	0.045	0	0	1746	0.028	0.028	0	0
1747	0.055	0.055	0	0	1748	0.032	0.032	0	0
1749	0.034	0.034	0	0	1750	0.057	0.057	0	0
1751	0.019	0.019	0	0	1752	0.057	0.057	0	0
1753	0.113	0.113	0	0	1754	0.049	0.049	0	0
1755	0.026	0.026	0	0	1756	0.046	0.046	0	0
1757	0.043	0.043	0	0	1758	0.039	0.039	0	0
1759	0.032	0.032	0	0	1760	0.129	0.129	0	0
1761	0.061	0.061	0	0	1762	0.057	0.057	0	0
1763	0.061	0.061	0	0	1764	0.067	0.067	0	0
1765	0.044	0.044	0	0	1766	0.108	0.108	0	0
1767	0.048	0.048	0	0	1768	0.176	0.176	0	0
1769	0.074	0.074	0	0	1770	0.038	0.038	0	0
1771	0.076	0.076	0	0	1772	0.076	0.076	0	0
1773	0.076	0.076	0	0	1774	0.076	0.076	0	0
1775	0.038	0.038	0	0	1776	0.13	0.13	0	0
1777	0.18	0.18	0	0	1778	0.041	0.041	0	0
1779	0.07	0.07	0	0	1780	0.063	0.063	0	0
1781	0.063	0.063	0	0	1782	0.061	0.061	0	0
1783	0.136	0.136	0	0	1784	0.061	0.061	0	0
1785	0.069	0.069	0	0	1786	0.061	0.061	0	0
1787	0.038	0.038	0	0	1788	0.076	0.076	0	0
1789	0.076	0.076	0	0	1790	0.076	0.076	0	0
1791	0.076	0.076	0	0	1792	0.038	0.038	0	0
1793	0.136	0.136	0	0	1794	0.055	0.055	0	0
1795	0.109	0.109	0	0	1796	0.105	0.105	0	0
1797	0.101	0.101	0	0	1798	0.1	0.1	0	0
1799	0.1	0.1	0	0	1800	0.1	0.1	0	0
1801	0.044	0.044	0	0	1802	0.099	0.099	0	0
1803	0.099	0.099	0	0	1804	0.05	0.05	0	0
1805	0.088	0.088	0	0	1806	0.164	0.164	0	0
1807	0.113	0.113	0	0	1808	0.093	0.093	0	0
1809	0.172	0.172	0	0	1810	0.104	0.104	0	0
1811	0.044	0.044	0	0	1812	0.102	0.102	0	0
1813	0.102	0.102	0	0	1814	0.204	0.204	0	0
1815	0.204	0.204	0	0	1816	0.204	0.204	0	0
1817	0.204	0.204	0	0	1818	0.204	0.204	0	0
1819	0.204	0.204	0	0	1820	0.204	0.204	0	0
1821	0.204	0.204	0	0	1822	0.204	0.204	0	0
1823	0.204	0.204	0	0	1824	0.204	0.204	0	0
1825	0.204	0.204	0	0	1826	0.204	0.204	0	0
1827	0.204	0.204	0	0	1828	0.086	0.086	0	0
1829	0.204	0.204	0	0	1830	0.204	0.204	0	0
1831	0.204	0.204	0	0	1832	0.204	0.204	0	0
1833	0.204	0.204	0	0	1834	0.204	0.204	0	0
1835	0.204	0.204	0	0	1836	0.204	0.204	0	0
1837	0.102	0.102	0	0	1838	0.102	0.102	0	0
1839	0.063	0.063	0	0	1840	0.073	0.073	0	0
1841	0.058	0.058	0	0	1842	0.038	0.038	0	0
1843	0.076	0.076	0	0	1844	0.076	0.076	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
1845	0.076	0.076	0	0	1846	0.076	0.076	0	0
1847	0.038	0.038	0	0	1848	0.047	0.047	0	0
1849	0.061	0.061	0	0	1850	0.06	0.06	0	0
1851	0.046	0.046	0	0	1852	0.067	0.067	0	0
1853	0.068	0.068	0	0	1854	0.095	0.095	0	0
1855	0.062	0.062	0	0	1856	0.038	0.038	0	0
1857	0.076	0.076	0	0	1858	0.076	0.076	0	0
1859	0.076	0.076	0	0	1860	0.076	0.076	0	0
1861	0.038	0.038	0	0	1862	0.064	0.064	0	0
1863	0.119	0.119	0	0	1864	0.1	0.1	0	0
1865	0.179	0.179	0	0	1866	0.1	0.1	0	0
1867	0.078	0.078	0	0	1868	0.069	0.069	0	0
1869	0.133	0.133	0	0	1870	0.1	0.1	0	0
1871	0.014	0.014	0	0	1872	0.021	0.021	0	0
1873	0.02	0.02	0	0	1874	0.023	0.023	0	0
1875	0.027	0.027	0	0	1876	0.027	0.027	0	0
1877	0.033	0.033	0	0	1878	0.027	0.027	0	0
1879	0.036	0.036	0	0	1880	0.033	0.033	0	0
1881	0.046	0.046	0	0	1882	0.044	0.044	0	0
1883	0.051	0.051	0	0	1884	0.092	0.092	0	0
1885	0.054	0.054	0	0	1886	0.065	0.065	0	0
1887	0.034	0.034	0	0	1888	0.023	0.023	0	0
1889	0.051	0.051	0	0	1890	0.039	0.039	0	0
1891	0.037	0.037	0	0	1892	0.101	0.101	0	0
1893	0.05	0.05	0	0	1894	0.062	0.062	0	0
1895	0.057	0.057	0	0	1896	0.056	0.056	0	0
1897	0.05	0.05	0	0	1898	0.042	0.042	0	0
1899	0.055	0.055	0	0	1900	0.026	0.026	0	0
1901	0.046	0.046	0	0	1902	0.05	0.05	0	0
1903	0.097	0.097	0	0	1904	0.039	0.039	0	0
1905	0.059	0.059	0	0	1906	0.047	0.047	0	0
1907	0.041	0.041	0	0	1908	0.046	0.046	0	0
1909	0.037	0.037	0	0	1910	0.053	0.053	0	0
1911	0.093	0.093	0	0	1912	0.042	0.042	0	0
1913	0.038	0.038	0	0	1914	0.061	0.061	0	0
1915	0.035	0.035	0	0	1916	0.025	0.025	0	0
1917	0.045	0.045	0	0	1918	0.057	0.057	0	0
1919	0.027	0.027	0	0	1920	0.031	0.031	0	0
1921	0.055	0.055	0	0	1922	0.099	0.099	0	0
1923	0.047	0.047	0	0	1924	0.058	0.058	0	0
1925	0.047	0.047	0	0	1926	0.136	0.136	0	0
1927	0.031	0.031	0	0	1928	0.039	0.039	0	0
1929	0.118	0.118	0	0	1930	0.046	0.046	0	0
1931	0.07	0.07	0	0	1932	0.067	0.067	0	0
1933	0.066	0.066	0	0	1934	0.059	0.059	0	0
1935	0.096	0.096	0	0	1936	0.062	0.062	0	0
1937	0.154	0.154	0	0	1938	0.145	0.145	0	0
1939	0.076	0.076	0	0	1940	0.078	0.078	0	0
1941	0.077	0.077	0	0	1942	0.075	0.075	0	0
1943	0.208	0.208	0	0	1944	0.102	0.102	0	0
1945	0.102	0.102	0	0	1946	0.204	0.204	0	0
1947	0.204	0.204	0	0	1948	0.204	0.204	0	0
1949	0.204	0.204	0	0	1950	0.204	0.204	0	0
1951	0.204	0.204	0	0	1952	0.204	0.204	0	0
1953	0.204	0.204	0	0	1954	0.204	0.204	0	0
1955	0.204	0.204	0	0	1956	0.204	0.204	0	0
1957	0.204	0.204	0	0	1958	0.204	0.204	0	0
1959	0.204	0.204	0	0	1960	0.088	0.088	0	0
1961	0.204	0.204	0	0	1962	0.204	0.204	0	0
1963	0.204	0.204	0	0	1964	0.204	0.204	0	0
1965	0.204	0.204	0	0	1966	0.204	0.204	0	0
1967	0.204	0.204	0	0	1968	0.204	0.204	0	0
1969	0.102	0.102	0	0	1970	0.102	0.102	0	0
1971	0.07	0.07	0	0	1972	0.087	0.087	0	0
1973	0.091	0.091	0	0	1974	0.084	0.084	0	0
1975	0.039	0.039	0	0	1976	0.079	0.079	0	0
1977	0.079	0.079	0	0	1978	0.079	0.079	0	0
1979	0.079	0.079	0	0	1980	0.097	0.097	0	0
1981	0.042	0.042	0	0	1982	0.04	0.04	0	0
1983	0.047	0.047	0	0	1984	0.05	0.05	0	0
1985	0.173	0.173	0	0	1986	0.087	0.087	0	0
1987	0.044	0.044	0	0	1988	0.042	0.042	0	0
1989	0.065	0.065	0	0	1990	0.115	0.115	0	0
1991	0.072	0.072	0	0	1992	0.069	0.069	0	0
1993	0.07	0.07	0	0	1994	0.033	0.033	0	0
1995	0.035	0.035	0	0	1996	0.039	0.039	0	0
1997	0.079	0.079	0	0	1998	0.079	0.079	0	0
1999	0.079	0.079	0	0	2000	0.078	0.078	0	0
2001	0.038	0.038	0	0	2002	0.086	0.086	0	0
2003	0.087	0.087	0	0	2004	0.068	0.068	0	0
2005	0.039	0.039	0	0	2006	0.037	0.037	0	0
2007	0.061	0.061	0	0	2008	0.059	0.059	0	0
2009	0.051	0.051	0	0	2010	0.186	0.186	0	0
2011	0.236	0.236	0	0	2012	0.039	0.039	0	0
2013	0.079	0.079	0	0	2014	0.079	0.079	0	0
2015	0.079	0.079	0	0	2016	0.079	0.079	0	0
2017	0.039	0.039	0	0	2018	0.179	0.179	0	0
2019	0.188	0.188	0	0	2020	0.193	0.193	0	0
2021	0.117	0.117	0	0	2022	0.07	0.07	0	0
2023	0.112	0.112	0	0	2024	0.105	0.105	0	0
2025	0.232	0.232	0	0	2026	0.093	0.093	0	0
2027	0.102	0.102	0	0	2028	0.102	0.102	0	0
2029	0.204	0.204	0	0	2030	0.204	0.204	0	0
2031	0.204	0.204	0	0	2032	0.204	0.204	0	0
2033	0.204	0.204	0	0	2034	0.204	0.204	0	0
2035	0.204	0.204	0	0	2036	0.204	0.204	0	0
2037	0.204	0.204	0	0	2038	0.204	0.204	0	0
2039	0.204	0.204	0	0	2040	0.204	0.204	0	0
2041	0.204	0.204	0	0	2042	0.204	0.204	0	0
2043	0.048	0.048	0	0	2044	0.204	0.204	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
2045	0.204	0.204	0	0	2046	0.204	0.204	0	0
2047	0.204	0.204	0	0	2048	0.204	0.204	0	0
2049	0.204	0.204	0	0	2050	0.204	0.204	0	0
2051	0.204	0.204	0	0	2052	0.102	0.102	0	0
2053	0.102	0.102	0	0	2054	0.103	0.103	0	0
2055	0.102	0.102	0	0	2056	0.112	0.112	0	0
2057	0.167	0.167	0	0	2058	0.039	0.039	0	0
2059	0.079	0.079	0	0	2060	0.079	0.079	0	0
2061	0.079	0.079	0	0	2062	0.079	0.079	0	0
2063	0.039	0.039	0	0	2064	0.173	0.173	0	0
2065	0.153	0.153	0	0	2066	0.152	0.152	0	0
2067	0.139	0.139	0	0	2068	0.148	0.148	0	0
2069	0.081	0.081	0	0	2070	0.102	0.102	0	0
2071	0.039	0.039	0	0	2072	0.079	0.079	0	0
2073	0.079	0.079	0	0	2074	0.079	0.079	0	0
2075	0.079	0.079	0	0	2076	0.039	0.039	0	0
2077	0.121	0.121	0	0	2078	0.072	0.072	0	0
2079	0.055	0.055	0	0	2080	0.02	0.02	0	0
2081	0.039	0.039	0	0	2082	0.039	0.039	0	0
2083	0.039	0.039	0	0	2084	0.039	0.039	0	0
2114	0.099	0.099	0	0	2115	0.087	0.087	0	0
2120	0.201	0.201	0	0	2121	0.187	0.187	0	0
2126	0.188	0.188	0	0	2127	0.176	0.176	0	0
2131	0.138	0.138	0	0	2132	0.125	0.125	0	0
2156	0.1	0.1	0	0	2157	0.086	0.086	0	0
2158	0.073	0.073	0	0	2159	0.07	0.07	0	0
2160	0.105	0.105	0	0	2163	0.107	0.107	0	0
2164	0.103	0.103	0	0	2165	0.073	0.073	0	0
2166	0.113	0.113	0	0	2167	0.081	0.081	0	0
2168	0.122	0.122	0	0	2169	0.179	0.179	0	0
2170	0.219	0.219	0	0	2171	0.076	0.076	0	0
2172	0.064	0.064	0	0	2173	0.092	0.092	0	0
2174	0.109	0.109	0	0	2177	0.116	0.116	0	0
2178	0.097	0.097	0	0	2179	0.11	0.11	0	0
2180	0.069	0.069	0	0	2181	0.074	0.074	0	0
2182	0.042	0.042	0	0	2183	0.065	0.065	0	0
2184	0.05	0.05	0	0	2187	0.078	0.078	0	0
2188	0.043	0.043	0	0	2189	0.103	0.103	0	0
2190	0.071	0.071	0	0	2191	0.097	0.097	0	0
2192	0.12	0.12	0	0	2193	0.117	0.117	0	0
2194	0.124	0.124	0	0	2195	0.128	0.128	0	0
2196	0.21	0.21	0	0	2197	0.194	0.194	0	0
2198	0.246	0.246	0	0	2199	0.111	0.111	0	0
2202	0.095	0.095	0	0	2203	0.12	0.12	0	0
2204	0.104	0.104	0	0	2205	0.132	0.132	0	0
2206	0.125	0.125	0	0	2207	0.132	0.132	0	0
2210	0.106	0.106	0	0	2211	0.081	0.081	0	0
2212	0.124	0.124	0	0	2213	0.106	0.106	0	0
2214	0.133	0.133	0	0	2215	0.135	0.135	0	0
2216	0.125	0.125	0	0	2217	0.133	0.133	0	0
2218	0.256	0.256	0	0	2219	0.241	0.241	0	0
2220	0.258	0.258	0	0	2223	0.186	0.186	0	0
2224	0.156	0.156	0	0	2227	0.15	0.15	0	0
2228	0.14	0.14	0	0	2229	0.142	0.142	0	0
2230	0.136	0.136	0	0	2264	0.053	0.053	0	0
2265	0.062	0.062	0	0	2266	0.039	0.039	0	0
2267	0.077	0.077	0	0	2268	0.077	0.077	0	0
2269	0.077	0.077	0	0	2270	0.077	0.077	0	0
2271	0.038	0.038	0	0	2272	0.089	0.089	0	0
2273	0.072	0.072	0	0	2274	0.08	0.08	0	0
2275	0.037	0.037	0	0	2276	0.075	0.075	0	0
2277	0.075	0.075	0	0	2278	0.075	0.075	0	0
2279	0.075	0.075	0	0	2280	0.037	0.037	0	0
2281	0.126	0.126	0	0	2282	0.144	0.144	0	0
2283	0.131	0.131	0	0	2284	0.137	0.137	0	0
2285	0.04	0.04	0	0	2286	0.045	0.045	0	0
2287	0.078	0.078	0	0	2288	0.099	0.099	0	0
2289	0.09	0.09	0	0	2290	0.105	0.105	0	0
2291	0.147	0.147	0	0	2292	0.102	0.102	0	0
2293	0.102	0.102	0	0	2294	0.204	0.204	0	0
2295	0.204	0.204	0	0	2296	0.204	0.204	0	0
2297	0.204	0.204	0	0	2298	0.204	0.204	0	0
2299	0.204	0.204	0	0	2300	0.204	0.204	0	0
2301	0.204	0.204	0	0	2302	0.204	0.204	0	0
2303	0.204	0.204	0	0	2304	0.204	0.204	0	0
2305	0.204	0.204	0	0	2306	0.204	0.204	0	0
2307	0.204	0.204	0	0	2308	0.096	0.096	0	0
2309	0.204	0.204	0	0	2310	0.204	0.204	0	0
2311	0.204	0.204	0	0	2312	0.204	0.204	0	0
2313	0.204	0.204	0	0	2314	0.204	0.204	0	0
2315	0.204	0.204	0	0	2316	0.204	0.204	0	0
2317	0.102	0.102	0	0	2318	0.102	0.102	0	0
2319	0.099	0.099	0	0	2320	0.097	0.097	0	0
2321	0.055	0.055	0	0	2322	0.036	0.036	0	0
2323	0.074	0.074	0	0	2324	0.075	0.075	0	0
2325	0.075	0.075	0	0	2326	0.075	0.075	0	0
2327	0.037	0.037	0	0	2328	0.196	0.196	0	0
2329	0.177	0.177	0	0	2330	0.042	0.042	0	0
2331	0.221	0.221	0	0	2332	0.182	0.182	0	0
2333	0.17	0.17	0	0	2334	0.163	0.163	0	0
2335	0.035	0.035	0	0	2336	0.042	0.042	0	0
2337	0.25	0.25	0	0	2338	0.052	0.052	0	0
2339	0.099	0.099	0	0	2340	0.031	0.031	0	0
2341	0.081	0.081	0	0	2342	0.034	0.034	0	0
2343	0.074	0.074	0	0	2344	0.075	0.075	0	0
2345	0.075	0.075	0	0	2346	0.075	0.075	0	0
2347	0.037	0.037	0	0	2348	0.081	0.081	0	0
2349	0.082	0.082	0	0	2350	0.063	0.063	0	0
2351	0.055	0.055	0	0	2352	0.065	0.065	0	0
2353	0.064	0.064	0	0	2354	0.051	0.051	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
2355	0.143	0.143	0	0	2356	0.043	0.043	0	0
2357	0.039	0.039	0	0	2358	0.039	0.039	0	0
2359	0.036	0.036	0	0	2360	0.115	0.115	0	0
2361	0.074	0.074	0	0	2362	0.076	0.076	0	0
2363	0.075	0.075	0	0	2364	0.075	0.075	0	0
2365	0.075	0.075	0	0	2366	0.037	0.037	0	0
2367	0.084	0.084	0	0	2368	0.071	0.071	0	0
2369	0.08	0.08	0	0	2370	0.075	0.075	0	0
2371	0.145	0.145	0	0	2372	0.106	0.106	0	0
2373	0.102	0.102	0	0	2374	0.102	0.102	0	0
2375	0.204	0.204	0	0	2376	0.204	0.204	0	0
2377	0.204	0.204	0	0	2378	0.204	0.204	0	0
2379	0.204	0.204	0	0	2380	0.204	0.204	0	0
2381	0.204	0.204	0	0	2382	0.204	0.204	0	0
2383	0.204	0.204	0	0	2384	0.204	0.204	0	0
2385	0.204	0.204	0	0	2386	0.204	0.204	0	0
2387	0.204	0.204	0	0	2388	0.204	0.204	0	0
2389	0.082	0.082	0	0	2390	0.204	0.204	0	0
2391	0.204	0.204	0	0	2392	0.204	0.204	0	0
2393	0.204	0.204	0	0	2394	0.204	0.204	0	0
2395	0.204	0.204	0	0	2396	0.204	0.204	0	0
2397	0.204	0.204	0	0	2398	0.102	0.102	0	0
2399	0.102	0.102	0	0	2400	0.115	0.115	0	0
2401	0.073	0.073	0	0	2402	0.032	0.032	0	0
2403	0.025	0.025	0	0	2404	0.023	0.023	0	0
2405	0.02	0.02	0	0	2406	0.02	0.02	0	0
2407	0.021	0.021	0	0	2408	0.015	0.015	0	0
2409	0.08	0.08	0	0	2410	0.026	0.026	0	0
2411	0.033	0.033	0	0	2412	0.033	0.033	0	0
2413	0.038	0.038	0	0	2414	0.045	0.045	0	0
2415	0.041	0.041	0	0	2416	0.051	0.051	0	0
2417	0.075	0.075	0	0	2418	0.064	0.064	0	0
2419	0.035	0.035	0	0	2420	0.02	0.02	0	0
2421	0.051	0.051	0	0	2422	0.032	0.032	0	0
2423	0.033	0.033	0	0	2424	0.048	0.048	0	0
2425	0.056	0.056	0	0	2426	0.081	0.081	0	0
2427	0.066	0.066	0	0	2428	0.061	0.061	0	0
2429	0.049	0.049	0	0	2430	0.04	0.04	0	0
2431	0.056	0.056	0	0	2432	0.057	0.057	0	0
2433	0.049	0.049	0	0	2434	0.077	0.077	0	0
2435	0.064	0.064	0	0	2436	0.064	0.064	0	0
2437	0.049	0.049	0	0	2438	0.046	0.046	0	0
2439	0.052	0.052	0	0	2440	0.043	0.043	0	0
2441	0.073	0.073	0	0	2442	0.053	0.053	0	0
2443	0.039	0.039	0	0	2444	0.034	0.034	0	0
2445	0.039	0.039	0	0	2446	0.045	0.045	0	0
2447	0.028	0.028	0	0	2448	0.055	0.055	0	0
2449	0.032	0.032	0	0	2450	0.034	0.034	0	0
2451	0.057	0.057	0	0	2452	0.019	0.019	0	0
2453	0.057	0.057	0	0	2454	0.081	0.081	0	0
2455	0.049	0.049	0	0	2456	0.026	0.026	0	0
2457	0.046	0.046	0	0	2458	0.043	0.043	0	0
2459	0.039	0.039	0	0	2460	0.032	0.032	0	0
2461	0.129	0.129	0	0	2462	0.061	0.061	0	0
2463	0.057	0.057	0	0	2464	0.061	0.061	0	0
2465	0.067	0.067	0	0	2466	0.044	0.044	0	0
2467	0.105	0.105	0	0	2468	0.053	0.053	0	0
2469	0.072	0.072	0	0	2470	0.07	0.07	0	0
2471	0.071	0.071	0	0	2472	0.176	0.176	0	0
2473	0.072	0.072	0	0	2474	0.138	0.138	0	0
2475	0.146	0.146	0	0	2476	0.074	0.074	0	0
2477	0.038	0.038	0	0	2478	0.076	0.076	0	0
2479	0.076	0.076	0	0	2480	0.076	0.076	0	0
2481	0.076	0.076	0	0	2482	0.038	0.038	0	0
2483	0.13	0.13	0	0	2484	0.18	0.18	0	0
2485	0.041	0.041	0	0	2486	0.07	0.07	0	0
2487	0.063	0.063	0	0	2488	0.063	0.063	0	0
2489	0.061	0.061	0	0	2490	0.136	0.136	0	0
2491	0.043	0.043	0	0	2492	0.063	0.063	0	0
2493	0.061	0.061	0	0	2494	0.056	0.056	0	0
2495	0.067	0.067	0	0	2496	0.063	0.063	0	0
2497	0.056	0.056	0	0	2498	0.043	0.043	0	0
2499	0.061	0.061	0	0	2500	0.038	0.038	0	0
2501	0.076	0.076	0	0	2502	0.076	0.076	0	0
2503	0.076	0.076	0	0	2504	0.076	0.076	0	0
2505	0.038	0.038	0	0	2506	0.136	0.136	0	0
2507	0.065	0.065	0	0	2508	0.044	0.044	0	0
2509	0.057	0.057	0	0	2510	0.088	0.088	0	0
2511	0.164	0.164	0	0	2512	0.114	0.114	0	0
2513	0.092	0.092	0	0	2514	0.091	0.091	0	0
2515	0.172	0.172	0	0	2516	0.104	0.104	0	0
2517	0.108	0.108	0	0	2518	0.044	0.044	0	0
2519	0.102	0.102	0	0	2520	0.102	0.102	0	0
2521	0.204	0.204	0	0	2522	0.204	0.204	0	0
2523	0.204	0.204	0	0	2524	0.204	0.204	0	0
2525	0.204	0.204	0	0	2526	0.204	0.204	0	0
2527	0.204	0.204	0	0	2528	0.204	0.204	0	0
2529	0.204	0.204	0	0	2530	0.204	0.204	0	0
2531	0.204	0.204	0	0	2532	0.204	0.204	0	0
2533	0.204	0.204	0	0	2534	0.204	0.204	0	0
2535	0.086	0.086	0	0	2536	0.204	0.204	0	0
2537	0.204	0.204	0	0	2538	0.204	0.204	0	0
2539	0.204	0.204	0	0	2540	0.204	0.204	0	0
2541	0.204	0.204	0	0	2542	0.204	0.204	0	0
2543	0.204	0.204	0	0	2544	0.102	0.102	0	0
2545	0.102	0.102	0	0	2546	0.067	0.067	0	0
2547	0.073	0.073	0	0	2548	0.057	0.057	0	0
2549	0.038	0.038	0	0	2550	0.076	0.076	0	0
2551	0.076	0.076	0	0	2552	0.076	0.076	0	0
2553	0.076	0.076	0	0	2554	0.038	0.038	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
2555	0.058	0.058	0	0	2556	0.062	0.062	0	0
2557	0.057	0.057	0	0	2558	0.046	0.046	0	0
2559	0.059	0.059	0	0	2560	0.061	0.061	0	0
2561	0.057	0.057	0	0	2562	0.058	0.058	0	0
2563	0.06	0.06	0	0	2564	0.046	0.046	0	0
2565	0.067	0.067	0	0	2566	0.068	0.068	0	0
2567	0.095	0.095	0	0	2568	0.062	0.062	0	0
2569	0.038	0.038	0	0	2570	0.076	0.076	0	0
2571	0.076	0.076	0	0	2572	0.076	0.076	0	0
2573	0.076	0.076	0	0	2574	0.038	0.038	0	0
2575	0.064	0.064	0	0	2576	0.119	0.119	0	0
2577	0.1	0.1	0	0	2578	0.179	0.179	0	0
2579	0.1	0.1	0	0	2580	0.078	0.078	0	0
2581	0.079	0.079	0	0	2582	0.075	0.075	0	0
2583	0.014	0.014	0	0	2584	0.021	0.021	0	0
2585	0.02	0.02	0	0	2586	0.023	0.023	0	0
2587	0.027	0.027	0	0	2588	0.027	0.027	0	0
2589	0.033	0.033	0	0	2590	0.027	0.027	0	0
2591	0.036	0.036	0	0	2592	0.033	0.033	0	0
2593	0.046	0.046	0	0	2594	0.044	0.044	0	0
2595	0.051	0.051	0	0	2596	0.07	0.07	0	0
2597	0.054	0.054	0	0	2598	0.065	0.065	0	0
2599	0.034	0.034	0	0	2600	0.023	0.023	0	0
2601	0.051	0.051	0	0	2602	0.039	0.039	0	0
2603	0.037	0.037	0	0	2604	0.079	0.079	0	0
2605	0.05	0.05	0	0	2606	0.062	0.062	0	0
2607	0.057	0.057	0	0	2608	0.056	0.056	0	0
2609	0.05	0.05	0	0	2610	0.042	0.042	0	0
2611	0.055	0.055	0	0	2612	0.026	0.026	0	0
2613	0.046	0.046	0	0	2614	0.05	0.05	0	0
2615	0.076	0.076	0	0	2616	0.039	0.039	0	0
2617	0.059	0.059	0	0	2618	0.047	0.047	0	0
2619	0.041	0.041	0	0	2620	0.046	0.046	0	0
2621	0.037	0.037	0	0	2622	0.053	0.053	0	0
2623	0.073	0.073	0	0	2624	0.042	0.042	0	0
2625	0.038	0.038	0	0	2626	0.061	0.061	0	0
2627	0.035	0.035	0	0	2628	0.025	0.025	0	0
2629	0.045	0.045	0	0	2630	0.057	0.057	0	0
2631	0.027	0.027	0	0	2632	0.031	0.031	0	0
2633	0.055	0.055	0	0	2634	0.081	0.081	0	0
2635	0.047	0.047	0	0	2636	0.058	0.058	0	0
2637	0.047	0.047	0	0	2638	0.136	0.136	0	0
2639	0.031	0.031	0	0	2640	0.039	0.039	0	0
2641	0.112	0.112	0	0	2642	0.046	0.046	0	0
2643	0.07	0.07	0	0	2644	0.067	0.067	0	0
2645	0.066	0.066	0	0	2646	0.059	0.059	0	0
2647	0.096	0.096	0	0	2648	0.061	0.061	0	0
2649	0.157	0.157	0	0	2650	0.143	0.143	0	0
2651	0.078	0.078	0	0	2652	0.075	0.075	0	0
2653	0.122	0.122	0	0	2654	0.077	0.077	0	0
2655	0.075	0.075	0	0	2656	0.208	0.208	0	0
2657	0.102	0.102	0	0	2658	0.102	0.102	0	0
2659	0.204	0.204	0	0	2660	0.204	0.204	0	0
2661	0.204	0.204	0	0	2662	0.204	0.204	0	0
2663	0.204	0.204	0	0	2664	0.204	0.204	0	0
2665	0.204	0.204	0	0	2666	0.204	0.204	0	0
2667	0.204	0.204	0	0	2668	0.204	0.204	0	0
2669	0.204	0.204	0	0	2670	0.204	0.204	0	0
2671	0.204	0.204	0	0	2672	0.204	0.204	0	0
2673	0.088	0.088	0	0	2674	0.204	0.204	0	0
2675	0.204	0.204	0	0	2676	0.204	0.204	0	0
2677	0.204	0.204	0	0	2678	0.204	0.204	0	0
2679	0.204	0.204	0	0	2680	0.204	0.204	0	0
2681	0.204	0.204	0	0	2682	0.102	0.102	0	0
2683	0.102	0.102	0	0	2684	0.07	0.07	0	0
2685	0.089	0.089	0	0	2686	0.091	0.091	0	0
2687	0.083	0.083	0	0	2688	0.039	0.039	0	0
2689	0.079	0.079	0	0	2690	0.079	0.079	0	0
2691	0.079	0.079	0	0	2692	0.08	0.08	0	0
2693	0.096	0.096	0	0	2694	0.042	0.042	0	0
2695	0.039	0.039	0	0	2696	0.047	0.047	0	0
2697	0.05	0.05	0	0	2698	0.173	0.173	0	0
2699	0.087	0.087	0	0	2700	0.044	0.044	0	0
2701	0.037	0.037	0	0	2702	0.065	0.065	0	0
2703	0.115	0.115	0	0	2704	0.072	0.072	0	0
2705	0.069	0.069	0	0	2706	0.069	0.069	0	0
2707	0.033	0.033	0	0	2708	0.035	0.035	0	0
2709	0.039	0.039	0	0	2710	0.079	0.079	0	0
2711	0.079	0.079	0	0	2712	0.079	0.079	0	0
2713	0.078	0.078	0	0	2714	0.039	0.039	0	0
2715	0.085	0.085	0	0	2716	0.086	0.086	0	0
2717	0.068	0.068	0	0	2718	0.038	0.038	0	0
2719	0.036	0.036	0	0	2720	0.06	0.06	0	0
2721	0.058	0.058	0	0	2722	0.051	0.051	0	0
2723	0.236	0.236	0	0	2724	0.039	0.039	0	0
2725	0.079	0.079	0	0	2726	0.079	0.079	0	0
2727	0.079	0.079	0	0	2728	0.079	0.079	0	0
2729	0.039	0.039	0	0	2730	0.183	0.183	0	0
2731	0.185	0.185	0	0	2732	0.185	0.185	0	0
2733	0.199	0.199	0	0	2734	0.124	0.124	0	0
2735	0.07	0.07	0	0	2736	0.111	0.111	0	0
2737	0.105	0.105	0	0	2738	0.232	0.232	0	0
2739	0.093	0.093	0	0	2740	0.102	0.102	0	0
2741	0.102	0.102	0	0	2742	0.204	0.204	0	0
2743	0.204	0.204	0	0	2744	0.204	0.204	0	0
2745	0.204	0.204	0	0	2746	0.204	0.204	0	0
2747	0.204	0.204	0	0	2748	0.204	0.204	0	0
2749	0.204	0.204	0	0	2750	0.204	0.204	0	0
2751	0.204	0.204	0	0	2752	0.204	0.204	0	0
2753	0.204	0.204	0	0	2754	0.204	0.204	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
2755	0.204	0.204	0	0	2756	0.048	0.048	0	0
2757	0.204	0.204	0	0	2758	0.204	0.204	0	0
2759	0.204	0.204	0	0	2760	0.204	0.204	0	0
2761	0.204	0.204	0	0	2762	0.204	0.204	0	0
2763	0.204	0.204	0	0	2764	0.204	0.204	0	0
2765	0.102	0.102	0	0	2766	0.102	0.102	0	0
2767	0.108	0.108	0	0	2768	0.102	0.102	0	0
2769	0.11	0.11	0	0	2770	0.167	0.167	0	0
2771	0.039	0.039	0	0	2772	0.079	0.079	0	0
2773	0.079	0.079	0	0	2774	0.079	0.079	0	0
2775	0.079	0.079	0	0	2776	0.039	0.039	0	0
2777	0.173	0.173	0	0	2778	0.15	0.15	0	0
2779	0.151	0.151	0	0	2780	0.137	0.137	0	0
2781	0.145	0.145	0	0	2782	0.081	0.081	0	0
2783	0.102	0.102	0	0	2784	0.039	0.039	0	0
2785	0.079	0.079	0	0	2786	0.079	0.079	0	0
2787	0.079	0.079	0	0	2788	0.079	0.079	0	0
2789	0.039	0.039	0	0	2790	0.121	0.121	0	0
2791	0.072	0.072	0	0	2792	0.055	0.055	0	0
2793	0.02	0.02	0	0	2794	0.039	0.039	0	0
2795	0.039	0.039	0	0	2796	0.039	0.039	0	0
2797	0.039	0.039	0	0	2827	0.099	0.099	0	0
2828	0.087	0.087	0	0	2833	0.201	0.201	0	0
2834	0.187	0.187	0	0	2839	0.188	0.188	0	0
2840	0.176	0.176	0	0	2843	0.138	0.138	0	0
2844	0.125	0.125	0	0	2868	0.057	0.057	0	0
2871	0.106	0.106	0	0	2872	0.08	0.08	0	0
2873	0.133	0.133	0	0	2874	0.139	0.139	0	0
2875	0.139	0.139	0	0	2876	0.104	0.104	0	0
2877	0.131	0.131	0	0	2878	0.107	0.107	0	0
2879	0.145	0.145	0	0	2880	0.139	0.139	0	0
2881	0.198	0.198	0	0	2882	0.237	0.237	0	0
2885	0.211	0.211	0	0	2886	0.166	0.166	0	0
2887	0.1	0.1	0	0	2888	0.155	0.155	0	0
2889	0.152	0.152	0	0	2890	0.144	0.144	0	0
2891	0.131	0.131	0	0	2892	0.104	0.104	0	0
2895	0.243	0.243	0	0	2896	0.171	0.171	0	0
2897	0.257	0.257	0	0	2898	0.286	0.286	0	0
2899	0.152	0.152	0	0	2902	0.145	0.145	0	0
2903	0.152	0.152	0	0	2904	0.18	0.18	0	0
2905	0.241	0.241	0	0	2908	0.107	0.107	0	0
2909	0.133	0.133	0	0	2910	0.14	0.14	0	0
2911	0.142	0.142	0	0	2912	0.142	0.142	0	0
2913	0.13	0.13	0	0	2914	0.096	0.096	0	0
2917	0.227	0.227	0	0	2918	0.227	0.227	0	0
2919	0.203	0.203	0	0	2920	0.192	0.192	0	0
2921	0.138	0.138	0	0	2924	0.132	0.132	0	0
2925	0.135	0.135	0	0	2926	0.136	0.136	0	0
2927	0.133	0.133	0	0	2928	0.126	0.126	0	0
2929	0.133	0.133	0	0	2968	0.053	0.053	0	0
2969	0.062	0.062	0	0	2970	0.039	0.039	0	0
2971	0.077	0.077	0	0	2972	0.077	0.077	0	0
2973	0.077	0.077	0	0	2974	0.076	0.076	0	0
2975	0.038	0.038	0	0	2976	0.089	0.089	0	0
2977	0.072	0.072	0	0	2978	0.08	0.08	0	0
2979	0.037	0.037	0	0	2980	0.075	0.075	0	0
2981	0.075	0.075	0	0	2982	0.075	0.075	0	0
2983	0.075	0.075	0	0	2984	0.037	0.037	0	0
2985	0.126	0.126	0	0	2986	0.13	0.13	0	0
2987	0.122	0.122	0	0	2988	0.141	0.141	0	0
2989	0.135	0.135	0	0	2990	0.04	0.04	0	0
2991	0.045	0.045	0	0	2992	0.078	0.078	0	0
2993	0.103	0.103	0	0	2994	0.09	0.09	0	0
2995	0.103	0.103	0	0	2996	0.102	0.102	0	0
2997	0.102	0.102	0	0	2998	0.204	0.204	0	0
2999	0.204	0.204	0	0	3000	0.204	0.204	0	0
3001	0.204	0.204	0	0	3002	0.204	0.204	0	0
3003	0.204	0.204	0	0	3004	0.204	0.204	0	0
3005	0.204	0.204	0	0	3006	0.204	0.204	0	0
3007	0.204	0.204	0	0	3008	0.204	0.204	0	0
3009	0.204	0.204	0	0	3010	0.204	0.204	0	0
3011	0.204	0.204	0	0	3012	0.096	0.096	0	0
3013	0.204	0.204	0	0	3014	0.204	0.204	0	0
3015	0.204	0.204	0	0	3016	0.204	0.204	0	0
3017	0.204	0.204	0	0	3018	0.204	0.204	0	0
3019	0.204	0.204	0	0	3020	0.204	0.204	0	0
3021	0.102	0.102	0	0	3022	0.102	0.102	0	0
3023	0.114	0.114	0	0	3024	0.096	0.096	0	0
3025	0.055	0.055	0	0	3026	0.036	0.036	0	0
3027	0.074	0.074	0	0	3028	0.075	0.075	0	0
3029	0.075	0.075	0	0	3030	0.075	0.075	0	0
3031	0.037	0.037	0	0	3032	0.196	0.196	0	0
3033	0.174	0.174	0	0	3034	0.187	0.187	0	0
3035	0.042	0.042	0	0	3036	0.221	0.221	0	0
3037	0.169	0.169	0	0	3038	0.161	0.161	0	0
3039	0.052	0.052	0	0	3040	0.054	0.054	0	0
3041	0.25	0.25	0	0	3042	0.033	0.033	0	0
3043	0.034	0.034	0	0	3044	0.052	0.052	0	0
3045	0.101	0.101	0	0	3046	0.081	0.081	0	0
3047	0.034	0.034	0	0	3048	0.074	0.074	0	0
3049	0.075	0.075	0	0	3050	0.075	0.075	0	0
3051	0.075	0.075	0	0	3052	0.037	0.037	0	0
3053	0.08	0.08	0	0	3054	0.082	0.082	0	0
3055	0.063	0.063	0	0	3056	0.065	0.065	0	0
3057	0.064	0.064	0	0	3058	0.143	0.143	0	0
3059	0.033	0.033	0	0	3060	0.04	0.04	0	0
3061	0.045	0.045	0	0	3062	0.043	0.043	0	0
3063	0.036	0.036	0	0	3064	0.038	0.038	0	0
3065	0.114	0.114	0	0	3066	0.074	0.074	0	0
3067	0.076	0.076	0	0	3068	0.075	0.075	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
3069	0.075	0.075	0	0	3070	0.075	0.075	0	0
3071	0.037	0.037	0	0	3072	0.086	0.086	0	0
3073	0.071	0.071	0	0	3074	0.079	0.079	0	0
3075	0.075	0.075	0	0	3076	0.145	0.145	0	0
3077	0.106	0.106	0	0	3078	0.102	0.102	0	0
3079	0.102	0.102	0	0	3080	0.204	0.204	0	0
3081	0.204	0.204	0	0	3082	0.204	0.204	0	0
3083	0.204	0.204	0	0	3084	0.204	0.204	0	0
3085	0.204	0.204	0	0	3086	0.204	0.204	0	0
3087	0.204	0.204	0	0	3088	0.204	0.204	0	0
3089	0.204	0.204	0	0	3090	0.204	0.204	0	0
3091	0.204	0.204	0	0	3092	0.204	0.204	0	0
3093	0.204	0.204	0	0	3094	0.082	0.082	0	0
3095	0.204	0.204	0	0	3096	0.204	0.204	0	0
3097	0.204	0.204	0	0	3098	0.204	0.204	0	0
3099	0.204	0.204	0	0	3100	0.204	0.204	0	0
3101	0.204	0.204	0	0	3102	0.204	0.204	0	0
3103	0.102	0.102	0	0	3104	0.102	0.102	0	0
3105	0.118	0.118	0	0	3106	0.079	0.079	0	0
3107	0.032	0.032	0	0	3108	0.025	0.025	0	0
3109	0.023	0.023	0	0	3110	0.02	0.02	0	0
3111	0.02	0.02	0	0	3112	0.021	0.021	0	0
3113	0.015	0.015	0	0	3114	0.073	0.073	0	0
3115	0.026	0.026	0	0	3116	0.033	0.033	0	0
3117	0.033	0.033	0	0	3118	0.038	0.038	0	0
3119	0.045	0.045	0	0	3120	0.041	0.041	0	0
3121	0.051	0.051	0	0	3122	0.069	0.069	0	0
3123	0.064	0.064	0	0	3124	0.035	0.035	0	0
3125	0.02	0.02	0	0	3126	0.051	0.051	0	0
3127	0.032	0.032	0	0	3128	0.033	0.033	0	0
3129	0.048	0.048	0	0	3130	0.056	0.056	0	0
3131	0.08	0.08	0	0	3132	0.066	0.066	0	0
3133	0.061	0.061	0	0	3134	0.049	0.049	0	0
3135	0.04	0.04	0	0	3136	0.056	0.056	0	0
3137	0.057	0.057	0	0	3138	0.049	0.049	0	0
3139	0.077	0.077	0	0	3140	0.064	0.064	0	0
3141	0.064	0.064	0	0	3142	0.049	0.049	0	0
3143	0.046	0.046	0	0	3144	0.052	0.052	0	0
3145	0.043	0.043	0	0	3146	0.074	0.074	0	0
3147	0.053	0.053	0	0	3148	0.039	0.039	0	0
3149	0.034	0.034	0	0	3150	0.039	0.039	0	0
3151	0.045	0.045	0	0	3152	0.028	0.028	0	0
3153	0.055	0.055	0	0	3154	0.032	0.032	0	0
3155	0.034	0.034	0	0	3156	0.057	0.057	0	0
3157	0.019	0.019	0	0	3158	0.057	0.057	0	0
3159	0.082	0.082	0	0	3160	0.049	0.049	0	0
3161	0.026	0.026	0	0	3162	0.046	0.046	0	0
3163	0.043	0.043	0	0	3164	0.039	0.039	0	0
3165	0.032	0.032	0	0	3166	0.129	0.129	0	0
3167	0.061	0.061	0	0	3168	0.057	0.057	0	0
3169	0.061	0.061	0	0	3170	0.067	0.067	0	0
3171	0.044	0.044	0	0	3172	0.105	0.105	0	0
3173	0.053	0.053	0	0	3174	0.071	0.071	0	0
3175	0.07	0.07	0	0	3176	0.071	0.071	0	0
3177	0.176	0.176	0	0	3178	0.072	0.072	0	0
3179	0.137	0.137	0	0	3180	0.149	0.149	0	0
3181	0.074	0.074	0	0	3182	0.038	0.038	0	0
3183	0.076	0.076	0	0	3184	0.076	0.076	0	0
3185	0.076	0.076	0	0	3186	0.076	0.076	0	0
3187	0.038	0.038	0	0	3188	0.13	0.13	0	0
3189	0.18	0.18	0	0	3190	0.041	0.041	0	0
3191	0.07	0.07	0	0	3192	0.063	0.063	0	0
3193	0.063	0.063	0	0	3194	0.061	0.061	0	0
3195	0.136	0.136	0	0	3196	0.043	0.043	0	0
3197	0.063	0.063	0	0	3198	0.056	0.056	0	0
3199	0.061	0.061	0	0	3200	0.065	0.065	0	0
3201	0.063	0.063	0	0	3202	0.057	0.057	0	0
3203	0.043	0.043	0	0	3204	0.061	0.061	0	0
3205	0.038	0.038	0	0	3206	0.076	0.076	0	0
3207	0.076	0.076	0	0	3208	0.076	0.076	0	0
3209	0.076	0.076	0	0	3210	0.038	0.038	0	0
3211	0.136	0.136	0	0	3212	0.065	0.065	0	0
3213	0.044	0.044	0	0	3214	0.057	0.057	0	0
3215	0.088	0.088	0	0	3216	0.164	0.164	0	0
3217	0.115	0.115	0	0	3218	0.092	0.092	0	0
3219	0.091	0.091	0	0	3220	0.172	0.172	0	0
3221	0.104	0.104	0	0	3222	0.109	0.109	0	0
3223	0.044	0.044	0	0	3224	0.102	0.102	0	0
3225	0.102	0.102	0	0	3226	0.204	0.204	0	0
3227	0.204	0.204	0	0	3228	0.204	0.204	0	0
3229	0.204	0.204	0	0	3230	0.204	0.204	0	0
3231	0.204	0.204	0	0	3232	0.204	0.204	0	0
3233	0.204	0.204	0	0	3234	0.204	0.204	0	0
3235	0.204	0.204	0	0	3236	0.204	0.204	0	0
3237	0.204	0.204	0	0	3238	0.204	0.204	0	0
3239	0.204	0.204	0	0	3240	0.086	0.086	0	0
3241	0.204	0.204	0	0	3242	0.204	0.204	0	0
3243	0.204	0.204	0	0	3244	0.204	0.204	0	0
3245	0.204	0.204	0	0	3246	0.204	0.204	0	0
3247	0.204	0.204	0	0	3248	0.204	0.204	0	0
3249	0.102	0.102	0	0	3250	0.102	0.102	0	0
3251	0.068	0.068	0	0	3252	0.073	0.073	0	0
3253	0.057	0.057	0	0	3254	0.038	0.038	0	0
3255	0.076	0.076	0	0	3256	0.076	0.076	0	0
3257	0.076	0.076	0	0	3258	0.076	0.076	0	0
3259	0.038	0.038	0	0	3260	0.058	0.058	0	0
3261	0.062	0.062	0	0	3262	0.057	0.057	0	0
3263	0.046	0.046	0	0	3264	0.059	0.059	0	0
3265	0.057	0.057	0	0	3266	0.061	0.061	0	0
3267	0.058	0.058	0	0	3268	0.06	0.06	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
3269	0.046	0.046	0	0	3270	0.067	0.067	0	0
3271	0.068	0.068	0	0	3272	0.095	0.095	0	0
3273	0.062	0.062	0	0	3274	0.038	0.038	0	0
3275	0.076	0.076	0	0	3276	0.076	0.076	0	0
3277	0.076	0.076	0	0	3278	0.076	0.076	0	0
3279	0.038	0.038	0	0	3280	0.064	0.064	0	0
3281	0.119	0.119	0	0	3282	0.1	0.1	0	0
3283	0.179	0.179	0	0	3284	0.1	0.1	0	0
3285	0.078	0.078	0	0	3286	0.079	0.079	0	0
3287	0.075	0.075	0	0	3288	0.014	0.014	0	0
3289	0.021	0.021	0	0	3290	0.02	0.02	0	0
3291	0.023	0.023	0	0	3292	0.027	0.027	0	0
3293	0.027	0.027	0	0	3294	0.033	0.033	0	0
3295	0.027	0.027	0	0	3296	0.036	0.036	0	0
3297	0.033	0.033	0	0	3298	0.046	0.046	0	0
3299	0.044	0.044	0	0	3300	0.051	0.051	0	0
3301	0.07	0.07	0	0	3302	0.054	0.054	0	0
3303	0.065	0.065	0	0	3304	0.034	0.034	0	0
3305	0.023	0.023	0	0	3306	0.051	0.051	0	0
3307	0.039	0.039	0	0	3308	0.037	0.037	0	0
3309	0.079	0.079	0	0	3310	0.05	0.05	0	0
3311	0.062	0.062	0	0	3312	0.057	0.057	0	0
3313	0.056	0.056	0	0	3314	0.05	0.05	0	0
3315	0.042	0.042	0	0	3316	0.055	0.055	0	0
3317	0.026	0.026	0	0	3318	0.046	0.046	0	0
3319	0.05	0.05	0	0	3320	0.077	0.077	0	0
3321	0.039	0.039	0	0	3322	0.059	0.059	0	0
3323	0.047	0.047	0	0	3324	0.041	0.041	0	0
3325	0.046	0.046	0	0	3326	0.037	0.037	0	0
3327	0.053	0.053	0	0	3328	0.073	0.073	0	0
3329	0.042	0.042	0	0	3330	0.038	0.038	0	0
3331	0.061	0.061	0	0	3332	0.035	0.035	0	0
3333	0.025	0.025	0	0	3334	0.045	0.045	0	0
3335	0.057	0.057	0	0	3336	0.027	0.027	0	0
3337	0.031	0.031	0	0	3338	0.055	0.055	0	0
3339	0.081	0.081	0	0	3340	0.047	0.047	0	0
3341	0.058	0.058	0	0	3342	0.047	0.047	0	0
3343	0.136	0.136	0	0	3344	0.031	0.031	0	0
3345	0.039	0.039	0	0	3346	0.112	0.112	0	0
3347	0.046	0.046	0	0	3348	0.07	0.07	0	0
3349	0.067	0.067	0	0	3350	0.066	0.066	0	0
3351	0.059	0.059	0	0	3352	0.096	0.096	0	0
3353	0.061	0.061	0	0	3354	0.157	0.157	0	0
3355	0.143	0.143	0	0	3356	0.078	0.078	0	0
3357	0.075	0.075	0	0	3358	0.122	0.122	0	0
3359	0.077	0.077	0	0	3360	0.075	0.075	0	0
3361	0.208	0.208	0	0	3362	0.102	0.102	0	0
3363	0.102	0.102	0	0	3364	0.204	0.204	0	0
3365	0.204	0.204	0	0	3366	0.204	0.204	0	0
3367	0.204	0.204	0	0	3368	0.204	0.204	0	0
3369	0.204	0.204	0	0	3370	0.204	0.204	0	0
3371	0.204	0.204	0	0	3372	0.204	0.204	0	0
3373	0.204	0.204	0	0	3374	0.204	0.204	0	0
3375	0.204	0.204	0	0	3376	0.204	0.204	0	0
3377	0.204	0.204	0	0	3378	0.088	0.088	0	0
3379	0.204	0.204	0	0	3380	0.204	0.204	0	0
3381	0.204	0.204	0	0	3382	0.204	0.204	0	0
3383	0.204	0.204	0	0	3384	0.204	0.204	0	0
3385	0.204	0.204	0	0	3386	0.204	0.204	0	0
3387	0.102	0.102	0	0	3388	0.102	0.102	0	0
3389	0.07	0.07	0	0	3390	0.089	0.089	0	0
3391	0.091	0.091	0	0	3392	0.083	0.083	0	0
3393	0.039	0.039	0	0	3394	0.079	0.079	0	0
3395	0.079	0.079	0	0	3396	0.079	0.079	0	0
3397	0.08	0.08	0	0	3398	0.096	0.096	0	0
3399	0.042	0.042	0	0	3400	0.039	0.039	0	0
3401	0.047	0.047	0	0	3402	0.05	0.05	0	0
3403	0.173	0.173	0	0	3404	0.087	0.087	0	0
3405	0.044	0.044	0	0	3406	0.037	0.037	0	0
3407	0.065	0.065	0	0	3408	0.115	0.115	0	0
3409	0.072	0.072	0	0	3410	0.069	0.069	0	0
3411	0.069	0.069	0	0	3412	0.033	0.033	0	0
3413	0.035	0.035	0	0	3414	0.039	0.039	0	0
3415	0.079	0.079	0	0	3416	0.079	0.079	0	0
3417	0.079	0.079	0	0	3418	0.078	0.078	0	0
3419	0.039	0.039	0	0	3420	0.085	0.085	0	0
3421	0.086	0.086	0	0	3422	0.068	0.068	0	0
3423	0.038	0.038	0	0	3424	0.036	0.036	0	0
3425	0.06	0.06	0	0	3426	0.058	0.058	0	0
3427	0.051	0.051	0	0	3428	0.236	0.236	0	0
3429	0.039	0.039	0	0	3430	0.079	0.079	0	0
3431	0.079	0.079	0	0	3432	0.079	0.079	0	0
3433	0.079	0.079	0	0	3434	0.039	0.039	0	0
3435	0.183	0.183	0	0	3436	0.185	0.185	0	0
3437	0.185	0.185	0	0	3438	0.199	0.199	0	0
3439	0.124	0.124	0	0	3440	0.07	0.07	0	0
3441	0.111	0.111	0	0	3442	0.105	0.105	0	0
3443	0.232	0.232	0	0	3444	0.093	0.093	0	0
3445	0.102	0.102	0	0	3446	0.102	0.102	0	0
3447	0.204	0.204	0	0	3448	0.204	0.204	0	0
3449	0.204	0.204	0	0	3450	0.204	0.204	0	0
3451	0.204	0.204	0	0	3452	0.204	0.204	0	0
3453	0.204	0.204	0	0	3454	0.204	0.204	0	0
3455	0.204	0.204	0	0	3456	0.204	0.204	0	0
3457	0.204	0.204	0	0	3458	0.204	0.204	0	0
3459	0.204	0.204	0	0	3460	0.204	0.204	0	0
3461	0.048	0.048	0	0	3462	0.204	0.204	0	0
3463	0.204	0.204	0	0	3464	0.204	0.204	0	0
3465	0.204	0.204	0	0	3466	0.204	0.204	0	0
3467	0.204	0.204	0	0	3468	0.204	0.204	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
3469	0.204	0.204	0	0	3470	0.102	0.102	0	0
3471	0.102	0.102	0	0	3472	0.108	0.108	0	0
3473	0.102	0.102	0	0	3474	0.11	0.11	0	0
3475	0.167	0.167	0	0	3476	0.039	0.039	0	0
3477	0.079	0.079	0	0	3478	0.079	0.079	0	0
3479	0.079	0.079	0	0	3480	0.079	0.079	0	0
3481	0.039	0.039	0	0	3482	0.173	0.173	0	0
3483	0.15	0.15	0	0	3484	0.151	0.151	0	0
3485	0.137	0.137	0	0	3486	0.145	0.145	0	0
3487	0.081	0.081	0	0	3488	0.102	0.102	0	0
3489	0.039	0.039	0	0	3490	0.079	0.079	0	0
3491	0.079	0.079	0	0	3492	0.079	0.079	0	0
3493	0.079	0.079	0	0	3494	0.039	0.039	0	0
3495	0.121	0.121	0	0	3496	0.072	0.072	0	0
3497	0.055	0.055	0	0	3498	0.02	0.02	0	0
3499	0.039	0.039	0	0	3500	0.039	0.039	0	0
3501	0.039	0.039	0	0	3502	0.039	0.039	0	0
3533	0.101	0.101	0	0	3534	0.102	0.102	0	0
3539	0.192	0.192	0	0	3540	0.216	0.216	0	0
3545	0.16	0.16	0	0	3546	0.226	0.226	0	0
3549	0.129	0.129	0	0	3550	0.2	0.2	0	0
3575	0.113	0.113	0	0	3576	0.11	0.11	0	0
3577	0.114	0.114	0	0	3578	0.105	0.105	0	0
3579	0.113	0.113	0	0	3580	0.121	0.121	0	0
3581	0.113	0.113	0	0	3582	0.191	0.191	0	0
3583	0.179	0.179	0	0	3584	0.226	0.226	0	0
3585	0.217	0.217	0	0	3588	0.097	0.097	0	0
3589	0.111	0.111	0	0	3590	0.119	0.119	0	0
3591	0.069	0.069	0	0	3592	0.117	0.117	0	0
3593	0.113	0.113	0	0	3594	0.042	0.042	0	0
3595	0.095	0.095	0	0	3598	0.042	0.042	0	0
3599	0.071	0.071	0	0	3600	0.096	0.096	0	0
3601	0.115	0.115	0	0	3602	0.121	0.121	0	0
3603	0.119	0.119	0	0	3604	0.12	0.12	0	0
3605	0.272	0.272	0	0	3606	0.192	0.192	0	0
3607	0.289	0.289	0	0	3608	0.242	0.242	0	0
3611	0.096	0.096	0	0	3612	0.103	0.103	0	0
3613	0.12	0.12	0	0	3614	0.124	0.124	0	0
3615	0.116	0.116	0	0	3616	0.064	0.064	0	0
3617	0.098	0.098	0	0	3620	0.082	0.082	0	0
3621	0.062	0.062	0	0	3622	0.106	0.106	0	0
3623	0.094	0.094	0	0	3624	0.12	0.12	0	0
3625	0.117	0.117	0	0	3626	0.122	0.122	0	0
3627	0.233	0.233	0	0	3628	0.248	0.248	0	0
3629	0.309	0.309	0	0	3632	0.247	0.247	0	0
3633	0.151	0.151	0	0	3634	0.15	0.15	0	0
3637	0.132	0.132	0	0	3638	0.13	0.13	0	0
3639	0.128	0.128	0	0	3674	0.102	0.102	0	0
3675	0.101	0.101	0	0	3676	0.101	0.101	0	0
3677	0.102	0.102	0	0	3678	0.2	0.2	0	0
3679	0.199	0.199	0	0	3680	0.204	0.204	0	0
3681	0.204	0.204	0	0	3682	0.197	0.197	0	0
3683	0.197	0.197	0	0	3684	0.204	0.204	0	0
3685	0.204	0.204	0	0	3686	0.196	0.196	0	0
3687	0.196	0.196	0	0	3688	0.204	0.204	0	0
3689	0.204	0.204	0	0	3690	0.101	0.101	0	0
3691	0.101	0.101	0	0	3692	0.196	0.196	0	0
3693	0.196	0.196	0	0	3694	0.204	0.204	0	0
3695	0.204	0.204	0	0	3696	0.202	0.202	0	0
3697	0.202	0.202	0	0	3698	0.098	0.098	0	0
3699	0.098	0.098	0	0	3700	0.204	0.204	0	0
3701	0.204	0.204	0	0	3702	0.202	0.202	0	0
3703	0.202	0.202	0	0	3704	0.204	0.204	0	0
3705	0.204	0.204	0	0	3706	0.202	0.202	0	0
3707	0.202	0.202	0	0	3708	0.204	0.204	0	0
3709	0.204	0.204	0	0	3710	0.101	0.101	0	0
3711	0.101	0.101	0	0	3712	0.204	0.204	0	0
3713	0.204	0.204	0	0	3714	0.204	0.204	0	0
3715	0.204	0.204	0	0	3716	0.204	0.204	0	0
3717	0.204	0.204	0	0	3718	0.204	0.204	0	0
3719	0.204	0.204	0	0	3720	0.102	0.102	0	0
3721	0.102	0.102	0	0	3722	0.102	0.102	0	0
3723	0.1	0.1	0	0	3724	0.1	0.1	0	0
3725	0.102	0.102	0	0	3726	0.199	0.199	0	0
3727	0.199	0.199	0	0	3728	0.204	0.204	0	0
3729	0.204	0.204	0	0	3730	0.198	0.198	0	0
3731	0.198	0.198	0	0	3732	0.204	0.204	0	0
3733	0.204	0.204	0	0	3734	0.197	0.197	0	0
3735	0.197	0.197	0	0	3736	0.204	0.204	0	0
3737	0.204	0.204	0	0	3738	0.101	0.101	0	0
3739	0.101	0.101	0	0	3740	0.196	0.196	0	0
3741	0.196	0.196	0	0	3742	0.204	0.204	0	0
3743	0.204	0.204	0	0	3744	0.202	0.202	0	0
3745	0.202	0.202	0	0	3746	0.098	0.098	0	0
3747	0.098	0.098	0	0	3748	0.204	0.204	0	0
3749	0.204	0.204	0	0	3750	0.202	0.202	0	0
3751	0.202	0.202	0	0	3752	0.204	0.204	0	0
3753	0.204	0.204	0	0	3754	0.202	0.202	0	0
3755	0.202	0.202	0	0	3756	0.204	0.204	0	0
3757	0.204	0.204	0	0	3758	0.101	0.101	0	0
3759	0.101	0.101	0	0	3760	0.204	0.204	0	0
3761	0.204	0.204	0	0	3762	0.204	0.204	0	0
3763	0.204	0.204	0	0	3764	0.204	0.204	0	0
3765	0.204	0.204	0	0	3766	0.204	0.204	0	0
3767	0.204	0.204	0	0	3768	0.102	0.102	0	0
3769	0.102	0.102	0	0	3770	0.102	0.102	0	0
3771	0.1	0.1	0	0	3772	0.1	0.1	0	0
3773	0.102	0.102	0	0	3774	0.199	0.199	0	0
3775	0.199	0.199	0	0	3776	0.204	0.204	0	0
3777	0.204	0.204	0	0	3778	0.198	0.198	0	0

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Massa X	Massa Y	Massa Z	Momento Z	Nodo	Massa X	Massa Y	Massa Z	Momento Z
3779	0.198	0.198	0	0	3780	0.204	0.204	0	0
3781	0.204	0.204	0	0	3782	0.197	0.197	0	0
3783	0.197	0.197	0	0	3784	0.204	0.204	0	0
3785	0.204	0.204	0	0	3786	0.101	0.101	0	0
3787	0.101	0.101	0	0	3788	0.196	0.196	0	0
3789	0.196	0.196	0	0	3790	0.204	0.204	0	0
3791	0.204	0.204	0	0	3792	0.202	0.202	0	0
3793	0.202	0.202	0	0	3794	0.098	0.098	0	0
3795	0.098	0.098	0	0	3796	0.204	0.204	0	0
3797	0.204	0.204	0	0	3798	0.202	0.202	0	0
3799	0.202	0.202	0	0	3800	0.204	0.204	0	0
3801	0.204	0.204	0	0	3802	0.202	0.202	0	0
3803	0.202	0.202	0	0	3804	0.204	0.204	0	0
3805	0.204	0.204	0	0	3806	0.101	0.101	0	0
3807	0.101	0.101	0	0	3808	0.204	0.204	0	0
3809	0.204	0.204	0	0	3810	0.204	0.204	0	0
3811	0.204	0.204	0	0	3812	0.204	0.204	0	0
3813	0.204	0.204	0	0	3814	0.204	0.204	0	0
3815	0.204	0.204	0	0	3816	0.102	0.102	0	0
3817	0.102	0.102	0	0	3818	0.102	0.102	0	0
3819	0.1	0.1	0	0	3820	0.1	0.1	0	0
3821	0.102	0.102	0	0	3822	0.199	0.199	0	0
3823	0.199	0.199	0	0	3824	0.204	0.204	0	0
3825	0.204	0.204	0	0	3826	0.198	0.198	0	0
3827	0.198	0.198	0	0	3828	0.204	0.204	0	0
3829	0.204	0.204	0	0	3830	0.197	0.197	0	0
3831	0.197	0.197	0	0	3832	0.204	0.204	0	0
3833	0.204	0.204	0	0	3834	0.101	0.101	0	0
3835	0.101	0.101	0	0	3836	0.196	0.196	0	0
3837	0.196	0.196	0	0	3838	0.204	0.204	0	0
3839	0.204	0.204	0	0	3840	0.202	0.202	0	0
3841	0.202	0.202	0	0	3842	0.098	0.098	0	0
3843	0.098	0.098	0	0	3844	0.204	0.204	0	0
3845	0.204	0.204	0	0	3846	0.202	0.202	0	0
3847	0.202	0.202	0	0	3848	0.204	0.204	0	0
3849	0.204	0.204	0	0	3850	0.202	0.202	0	0
3851	0.202	0.202	0	0	3852	0.204	0.204	0	0
3853	0.204	0.204	0	0	3854	0.101	0.101	0	0
3855	0.101	0.101	0	0	3856	0.204	0.204	0	0
3857	0.204	0.204	0	0	3858	0.204	0.204	0	0
3859	0.204	0.204	0	0	3860	0.204	0.204	0	0
3861	0.204	0.204	0	0	3862	0.204	0.204	0	0
3863	0.204	0.204	0	0	3864	0.102	0.102	0	0
3865	0.102	0.102	0	0	3866	0.102	0.102	0	0
3867	0.101	0.101	0	0	3868	0.101	0.101	0	0
3869	0.102	0.102	0	0	3870	0.2	0.2	0	0
3871	0.199	0.199	0	0	3872	0.204	0.204	0	0
3873	0.204	0.204	0	0	3874	0.197	0.197	0	0
3875	0.197	0.197	0	0	3876	0.204	0.204	0	0
3877	0.204	0.204	0	0	3878	0.196	0.196	0	0
3879	0.196	0.196	0	0	3880	0.204	0.204	0	0
3881	0.204	0.204	0	0	3882	0.101	0.101	0	0
3883	0.101	0.101	0	0	3884	0.196	0.196	0	0
3885	0.196	0.196	0	0	3886	0.204	0.204	0	0
3887	0.204	0.204	0	0	3888	0.202	0.202	0	0
3889	0.202	0.202	0	0	3890	0.098	0.098	0	0
3891	0.098	0.098	0	0	3892	0.204	0.204	0	0
3893	0.204	0.204	0	0	3894	0.202	0.202	0	0
3895	0.202	0.202	0	0	3896	0.204	0.204	0	0
3897	0.204	0.204	0	0	3898	0.202	0.202	0	0
3899	0.202	0.202	0	0	3900	0.204	0.204	0	0
3901	0.204	0.204	0	0	3902	0.101	0.101	0	0
3903	0.101	0.101	0	0	3904	0.204	0.204	0	0
3905	0.204	0.204	0	0	3906	0.204	0.204	0	0
3907	0.204	0.204	0	0	3908	0.204	0.204	0	0
3909	0.204	0.204	0	0	3910	0.204	0.204	0	0
3911	0.204	0.204	0	0	3912	0.102	0.102	0	0
3913	0.102	0.102	0	0					

2.4 Masse di piano

Quota: quota, livello o falda, a cui compete la massa risultante.

Massa X: massa per la componente di spostamento lungo l'asse X. [daN/(cm/s²)]

Massa Y: massa per la componente di spostamento lungo l'asse Y. [daN/(cm/s²)]

Quota	Massa X	Massa Y	Quota	Massa X	Massa Y
Primo Impalcato	261.721	261.721	Secondo Impalcato	241.294	241.294
Terzo Impalcato	233.859	233.859	Quarto Impalcato	233.336	233.336
Quinto Impalcato	233.153	233.153	Sesto Impalcato - Copertura	160.362	160.362
Altre quote	332.698	332.698			

2.5 Gusci

2.5.1 Caratteristiche meccaniche gusci

Indice: numero dell'elemento nell'insieme che lo contiene.

Comportamento: comportamento del materiale.

E1: modulo di elasticità longitudinale, lungo l'asse 1 del sistema di riferimento locale. [daN/cm²]

v: modulo di Poisson. Il valore è adimensionale.

E2: modulo di elasticità longitudinale, lungo l'asse 2 del sistema di riferimento locale. [daN/cm²]

G: modulo di elasticità tangenziale. [daN/cm²]

α: coefficiente di dilatazione termica longitudinale. [°C-1]

Peso unitario: peso per unità di volume, riferito allo spessore membranale. [daN/cm³]

Indice	Comportamento	E1	v	E2	G	α	Peso unitario
1	Isotropo	314472	0.1	0	0	0.00001	0.0025
2	Isotropo	314472	0.1	0	0	0.00001	0.003723057
3	Isotropo	314472	0.1	0	0	0.00001	0.003709988
4	Isotropo	314472	0.1	0	0	0.00001	0.003896729

2.5.2 Definizioni gusci

In.: numero dell'elemento nell'insieme che lo contiene.

Nodo I: primo nodo di definizione dell'elemento.

Nodo J: secondo nodo di definizione dell'elemento.

Nodo L: terzo nodo di definizione dell'elemento; nel caso di elementi triangolari non è definito.

Nodo K: ultimo nodo di definizione dell'elemento.

Sp.mem.: spessore membranale dell'elemento. [cm]

Sp.fless.: spessore flessionale dell'elemento. [cm]

Tm: variazione termica nel piano medio dell'elemento. [°C]

Mat.: caratteristiche meccaniche dell'elemento.

Ind.: numero dell'elemento nell'insieme che lo contiene.

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
1	505	557	438	420	30	30	0	1	2	557	568	511	438	30	30	0	1
3	568	587	561	511	30	30	0	1	4	587	638	559	561	30	30	0	1
5	638	646	590	559	30	30	0	1	6	646	728	608	590	30	30	0	1
7	608	528	559	590	30	30	0	1	8	528	388	410	559	30	30	0	1
9	388	251	334	410	30	30	0	1	10	251	172	196	334	30	30	0	1
11	172	98	118	196	30	30	0	1	12	49	45	118	98	30	30	0	1
13	45	41	80	118	30	30	0	1	14	41	35	81	80	30	30	0	1
15	28	74	81	35	30	30	0	1	16	74	146	194	81	30	30	0	1
17	146	228	234	194	30	30	0	1	18	228	361	366	234	30	30	0	1
19	490	496	366	361	30	30	0	1	20	496	505	420	366	30	30	0	1
21	149	196	118	80	30	30	0	1	22	80	81	194	149	30	30	0	1
23	211	336	335	215	30	30	0	1	24	335	334	196	215	30	30	0	1
25	196	149	211	215	30	30	0	1	26	338	336	211	219	30	30	0	1
27	211	149	194	219	30	30	0	1	28	194	234	338	219	30	30	0	1
29	423	351	348	369	30	30	0	1	30	338	420	369	348	30	30	0	1
31	351	336	338	348	30	30	0	1	32	420	438	423	369	30	30	0	1
33	338	234	366	420	30	30	0	1	34	335	336	351	365	30	30	0	1
35	365	410	334	335	30	30	0	1	36	437	511	561	559	30	30	0	1
37	559	410	365	437	30	30	0	1	38	437	365	351	423	30	30	0	1
39	423	438	511	437	30	30	0	1	40	587	568	569	631	30	30	0	1
41	568	557	560	569	30	30	0	1	42	557	505	558	560	30	30	0	1
43	505	496	631	558	30	30	0	1	44	490	583	631	496	30	30	0	1
45	686	694	631	583	30	30	0	1	46	694	700	645	631	30	30	0	1
47	700	704	647	645	30	30	0	1	48	728	646	647	704	30	30	0	1
49	646	638	645	647	30	30	0	1	50	638	587	631	645	30	30	0	1
51	631	569	560	558	30	30	0	1	52	1193	1241	1125	1113	30	30	0	1
53	1241	1254	1224	1125	30	30	0	1	54	1254	1273	1247	1224	30	30	0	1
55	1273	1324	1244	1247	30	30	0	1	56	1324	1332	1274	1244	30	30	0	1
57	1332	1450	1293	1274	30	30	0	1	58	1293	1213	1244	1274	30	30	0	1
59	1213	1085	1066	1244	30	30	0	1	60	1085	952	934	1066	30	30	0	1
61	952	869	898	934	30	30	0	1	62	728	704	898	869	30	30	0	1
63	704	700	902	898	30	30	0	1	64	700	694	900	902	30	30	0	1
65	686	848	900	694	30	30	0	1	66	848	930	1032	900	30	30	0	1
67	930	1061	1067	1032	30	30	0	1	68	1178	1184	1067	1061	30	30	0	1
69	1184	1193	1113	1067	30	30	0	1	70	1053	1066	934	935	30	30	0	1
71	934	898	902	935	30	30	0	1	72	902	1044	1053	935	30	30	0	1
73	902	900	1032	1044	30	30	0	1	74	1044	1032	1067	1113	30	30	0	1
75	1124	1224	1247	1244	30	30	0	1	76	1244	1066	1053	1124	30	30	0	1
77	1125	1224	1124	1114	30	30	0	1	78	1124	1053	1044	1114	30	30	0	1
79	1044	1113	1125	1114	30	30	0	1	80	1273	1254	1255	1315	30	30	0	1
81	1254	1241	1245	1255	30	30	0	1	82	1241	1193	1242	1245	30	30	0	1
83	1193	1184	1315	1242	30	30	0	1	84	1178	1269	1315	1184	30	30	0	1
85	1394	1408	1315	1269	30	30	0	1	86	1408	1418	1331	1315	30	30	0	1
87	1418	1425	1333	1331	30	30	0	1	88	1450	1332	1333	1425	30	30	0	1
89	1332	1324	1331	1333	30	30	0	1	90	1324	1273	1315	1331	30	30	0	1
91	1315	1255	1245	1242	30	30	0	1	92	1935	1980	1867	1854	30	30	0	1
93	1980	2004	1971	1867	30	30	0	1	94	2004	2024	1991	1971	30	30	0	1
95	2024	2070	1985	1991	30	30	0	1	96	2070	2078	2026	1985	30	30	0	1
97	2078	2154	2043	2026	30	30	0	1	98	2043	1960	1985	2026	30	30	0	1
99	1960	1828	1809	1985	30	30	0	1	100	1828	1688	1670	1809	30	30	0	1
101	1688	1608	1636	1670	30	30	0	1	102	1450	1425	1636	1608	30	30	0	1
103	1425	1418	1639	1636	30	30	0	1	104	1418	1408	1638	1639	30	30	0	1
105	1394	1588	1638	1408	30	30	0	1	106	1588	1665	1768	1638	30	30	0	1
107	1665	1801	1810	1768	30	30	0	1	108	1920	1926	1810	1801	30	30	0	1
109	1926	1935	1854	1810	30	30	0	1	110	1793	1809	1670	1671	30	30	0	1
111	1670	1636	1639	1671	30	30	0	1	112	1639	1777	1793	1671	30	30	0	1
113	1639	1638	1768	1777	30	30	0	1	114	1777	1768	1810	1854	30	30	0	1
115	1866	1971	1991	1985	30	30	0	1	116	1985	1809	1793	1866	30	30	0	1
117	1867	1971	1866	1855	30	30	0	1	118	1866	1793	1777	1855	30	30	0	1
119	1777	1854	1867	1855	30	30	0	1	120	2024	2004	2009	2064	30	30	0	1
121	2004	1980	1994	2009	30	30	0	1	122	1980	1935	1995	1994	30	30	0	1
123	1935	1926	2064	1995	30	30	0	1	124	1920	2022	2064	1926	30	30	0	1
125	2114	2120	2064	2022	30	30	0	1	126	2120	2126	2077	2064	30	30	0	1
127	2126	2131	2079	2077	30	30	0	1	128	2154	2078	2079	2131	30	30	0	1
129	2078	2070	2077	2079	30	30	0	1	130	2070	2024	2064	2077	30	30	0	1
131	2064	2009	1994	1995	30	30	0	1	132	2647	2693	2580	2567	30	30	0	1
133	2693	2717	2684	2580	30	30	0	1	134	2717	2737	2704	2684	30	30	0	1
135	2737	2783	2698	2704	30	30	0	1	136	2783	2791	2739	2698	30	30	0	1
137	2791	2866	2756	2739	30	30	0	1	138	2756	2673	2698	2739	30	30	0	1
139	2673	2535	2515	2698	30	30	0	1	140	2535	2389	2371	2515	30	30	0	1
141	2389	2308	2328	2371	30	30	0	1	142	2154	2131	2328	2308	30	30	0	1

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
143	2131	2126	2337	2328	30	30	0	1	144	2126	2120	2331	2337	30	30	0	1
145	2114	2289	2331	2120	30	30	0	1	146	2289	2368	2472	2331	30	30	0	1
147	2368	2508	2516	2472	30	30	0	1	148	2632	2638	2516	2508	30	30	0	1
149	2638	2647	2567	2516	30	30	0	1	150	2506	2515	2371	2372	30	30	0	1
151	2371	2328	2337	2372	30	30	0	1	152	2337	2484	2506	2372	30	30	0	1
153	2337	2331	2472	2484	30	30	0	1	154	2484	2472	2516	2567	30	30	0	1
155	2579	2684	2704	2698	30	30	0	1	156	2698	2515	2506	2579	30	30	0	1
157	2580	2684	2579	2568	30	30	0	1	158	2579	2506	2484	2568	30	30	0	1
159	2484	2567	2580	2568	30	30	0	1	160	2737	2717	2722	2777	30	30	0	1
161	2717	2693	2707	2722	30	30	0	1	162	2693	2647	2708	2707	30	30	0	1
163	2647	2638	2777	2708	30	30	0	1	164	2632	2735	2777	2638	30	30	0	1
165	2827	2833	2777	2735	30	30	0	1	166	2833	2839	2790	2777	30	30	0	1
167	2839	2843	2792	2790	30	30	0	1	168	2866	2791	2792	2843	30	30	0	1
169	2791	2783	2790	2792	30	30	0	1	170	2783	2737	2777	2790	30	30	0	1
171	2777	2722	2707	2708	30	30	0	1	172	3352	3398	3285	3272	30	30	0	1
173	3398	3422	3389	3285	30	30	0	1	174	3422	3442	3409	3389	30	30	0	1
175	3442	3488	3403	3409	30	30	0	1	176	3488	3496	3444	3403	30	30	0	1
177	3496	3571	3461	3444	30	30	0	1	178	3461	3378	3403	3444	30	30	0	1
179	3378	3240	3220	3403	30	30	0	1	180	3240	3094	3076	3220	30	30	0	1
181	3094	3012	3032	3076	30	30	0	1	182	2866	2843	3032	3012	30	30	0	1
183	2843	2839	3041	3032	30	30	0	1	184	2839	2833	3036	3041	30	30	0	1
185	2827	2994	3036	2833	30	30	0	1	186	2994	3073	3177	3036	30	30	0	1
187	3073	3213	3221	3177	30	30	0	1	188	3337	3343	3221	3213	30	30	0	1
189	3343	3352	3272	3221	30	30	0	1	190	3211	3220	3076	3077	30	30	0	1
191	3076	3032	3041	3077	30	30	0	1	192	3041	3189	3211	3077	30	30	0	1
193	3041	3036	3177	3189	30	30	0	1	194	3189	3177	3221	3272	30	30	0	1
195	3284	3389	3409	3403	30	30	0	1	196	3403	3220	3211	3284	30	30	0	1
197	3285	3389	3284	3273	30	30	0	1	198	3284	3211	3189	3273	30	30	0	1
199	3189	3272	3285	3273	30	30	0	1	200	3442	3422	3427	3482	30	30	0	1
201	3422	3398	3412	3427	30	30	0	1	202	3398	3352	3413	3412	30	30	0	1
203	3352	3343	3482	3413	30	30	0	1	204	3337	3440	3482	3343	30	30	0	1
205	3533	3539	3482	3440	30	30	0	1	206	3539	3545	3495	3482	30	30	0	1
207	3545	3549	3497	3495	30	30	0	1	208	3571	3496	3497	3549	30	30	0	1
209	3496	3488	3495	3497	30	30	0	1	210	3488	3442	3482	3495	30	30	0	1
211	3482	3427	3412	3413	30	30	0	1	212	220	204	226	337	30	30	0	1
213	204	184	210	226	30	30	0	1	214	184	138	155	210	30	30	0	1
215	138	124	144	155	30	30	0	1	216	124	109	154	144	30	30	0	1
217	115	183	154	109	30	30	0	1	218	183	262	233	154	30	30	0	1
219	262	399	370	233	30	30	0	1	220	399	539	510	370	30	30	0	1
221	539	619	591	510	30	30	0	1	222	729	705	591	619	30	30	0	1
223	705	701	589	591	30	30	0	1	224	701	695	576	589	30	30	0	1
225	687	627	576	695	30	30	0	1	226	627	547	507	576	30	30	0	1
227	547	406	363	507	30	30	0	1	228	313	323	363	406	30	30	0	1
229	323	220	337	363	30	30	0	1	230	233	370	346	230	30	30	0	1
231	155	144	154	202	30	30	0	1	232	154	233	230	202	30	30	0	1
233	230	210	155	202	30	30	0	1	234	436	507	363	371	30	30	0	1
235	363	337	350	371	30	30	0	1	236	350	425	436	371	30	30	0	1
237	337	226	339	350	30	30	0	1	238	226	210	230	339	30	30	0	1
239	350	339	364	425	30	30	0	1	240	339	230	346	364	30	30	0	1
241	436	425	509	556	30	30	0	1	242	509	589	576	556	30	30	0	1
243	576	507	436	556	30	30	0	1	244	510	591	589	509	30	30	0	1
245	364	346	370	424	30	30	0	1	246	370	510	509	424	30	30	0	1
247	509	425	364	424	30	30	0	1	248	124	138	130	122	30	30	0	1
249	138	184	137	130	30	30	0	1	250	184	204	153	137	30	30	0	1
251	204	220	203	153	30	30	0	1	252	220	323	201	203	30	30	0	1
253	313	200	201	323	30	30	0	1	254	200	133	134	201	30	30	0	1
255	133	69	68	134	30	30	0	1	256	29	34	68	69	30	30	0	1
257	34	40	67	68	30	30	0	1	258	40	44	70	67	30	30	0	1
259	48	109	70	44	30	30	0	1	260	109	124	122	70	30	30	0	1
261	130	137	123	121	30	30	0	1	262	123	67	70	121	30	30	0	1
263	70	122	130	121	30	30	0	1	264	153	203	201	134	30	30	0	1
265	134	123	137	153	30	30	0	1	266	134	68	67	123	30	30	0	1
267	48	50	115	109	30	30	0	1	268	890	905	899	840	30	30	0	1
269	905	913	907	899	30	30	0	1	270	913	1024	906	907	30	30	0	1
271	1014	904	906	1024	30	30	0	1	272	904	830	838	906	30	30	0	1
273	687	695	838	830	30	30	0	1	274	695	701	829	838	30	30	0	1
275	701	705	821	829	30	30	0	1	276	729	822	821	705	30	30	0	1
277	822	831	829	821	30	30	0	1	278	831	890	840	829	30	30	0	1
279	899	907	906	838	30	30	0	1	280	838	829	840	899	30	30	0	1
281	1045	1123	1116	1043	30	30	0	1	282	1123	1246	1243	1116	30	30	0	1
283	1246	1323	1322	1243	30	30	0	1	284	1451	1426	1322	1323	30	30	0	1
285	1426	1419	1276	1322	30	30	0	1	286	1419	1409	1275	1276	30	30	0	1
287	1395	1311	1275	1409	30	30	0	1	288	1311	1232	1196	1275	30	30	0	1
289	1232	1103	1065	1196	30	30	0	1	290	1014	1024	1065	1103	30	30	0	1
291	1024	913	1034	1065	30	30	0	1	292	913	905	922	1034	30	30	0	1
293	905	890	901	922	30	30	0	1	294	890	831	852	901	30	30	0	1
295	831	822	891	852	30	30	0	1	296	729	839	891	822	30	30	0	1
297	839	914	921	891	30	30	0	1	298	914	1045	1043	921	30	30	0	1
299	1035	1052	1068	1042	30	30	0	1	300	1068	1065	1034	1042	30	30	0	1
301	1034	922	1035	1042	30	30	0	1	302	1035	922	920	1033	30	30	0	1
303	920	921	1043	1033	30	30	0	1	304	1043	1052	1035	1033	30	30	0	1
305	901	852	891	903	30	30	0	1	306	891	921	920	903	30	30	0	1
307	920	922	901	903	30	30	0	1	308	1195	1276	1275	1196	30	30	0	1
309	1196	1065	1068	1195	30	30	0	1	310	1243	1322	1276	1195	30	30	0	1
311	1052	1043	1116	1115	30	30	0	1	312	1116	1243	1195	1115	30	30	0	1
313	1195	1068	1052	1115	30	30	0	1	314	1651	1641	1669	1776</				

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
339	1805	1864	1865	1811	30	30	0	1	340	1776	1669	1769	1778	30	30	0	1
341	1783	1863	1864	1805	30	30	0	1	342	1769	1669	1649	1650	30	30	0	1
343	1650	1783	1805	1769	30	30	0	1	344	1629	1641	1637	1579	30	30	0	1
345	1641	1651	1643	1637	30	30	0	1	346	1651	1760	1642	1643	30	30	0	1
347	1750	1640	1642	1760	30	30	0	1	348	1640	1569	1577	1642	30	30	0	1
349	1395	1409	1577	1569	30	30	0	1	350	1409	1419	1568	1577	30	30	0	1
351	1419	1426	1560	1568	30	30	0	1	352	1451	1561	1560	1426	30	30	0	1
353	1561	1570	1568	1560	30	30	0	1	354	1570	1629	1579	1568	30	30	0	1
355	1637	1643	1642	1577	30	30	0	1	356	1577	1568	1579	1637	30	30	0	1
357	2360	2339	2370	2483	30	30	0	1	358	2339	2321	2350	2370	30	30	0	1
359	2321	2274	2355	2350	30	30	0	1	360	2274	2265	2287	2355	30	30	0	1
361	2265	2155	2285	2287	30	30	0	1	362	2285	2361	2355	2287	30	30	0	1
363	2361	2486	2490	2355	30	30	0	1	364	2486	2575	2576	2490	30	30	0	1
365	2575	2702	2703	2576	30	30	0	1	366	2702	2782	2770	2703	30	30	0	1
367	2867	2844	2770	2782	30	30	0	1	368	2844	2840	2723	2770	30	30	0	1
369	2840	2834	2738	2723	30	30	0	1	370	2828	2768	2738	2834	30	30	0	1
371	2768	2686	2656	2738	30	30	0	1	372	2686	2547	2511	2656	30	30	0	1
373	2451	2461	2511	2547	30	30	0	1	374	2461	2360	2483	2511	30	30	0	1
375	2723	2738	2656	2578	30	30	0	1	376	2577	2576	2703	2699	30	30	0	1
377	2703	2770	2723	2699	30	30	0	1	378	2723	2578	2577	2699	30	30	0	1
379	2578	2656	2511	2483	30	30	0	1	380	2476	2510	2518	2485	30	30	0	1
381	2578	2483	2485	2518	30	30	0	1	382	2510	2577	2578	2518	30	30	0	1
383	2483	2370	2476	2485	30	30	0	1	384	2490	2576	2577	2510	30	30	0	1
385	2476	2370	2350	2355	30	30	0	1	386	2355	2490	2510	2476	30	30	0	1
387	2321	2339	2330	2286	30	30	0	1	388	2339	2360	2342	2330	30	30	0	1
389	2360	2461	2341	2342	30	30	0	1	390	2451	2338	2341	2461	30	30	0	1
391	2338	2273	2281	2341	30	30	0	1	392	2115	2121	2281	2273	30	30	0	1
393	2121	2127	2272	2281	30	30	0	1	394	2127	2132	2264	2272	30	30	0	1
395	2155	2265	2264	2132	30	30	0	1	396	2265	2274	2272	2264	30	30	0	1
397	2274	2321	2286	2272	30	30	0	1	398	2330	2342	2341	2281	30	30	0	1
399	2281	2272	2286	2330	30	30	0	1	400	3065	3045	3075	3188	30	30	0	1
401	3045	3025	3055	3075	30	30	0	1	402	3025	2978	3058	3055	30	30	0	1
403	2978	2969	2992	3058	30	30	0	1	404	2969	2867	2990	2992	30	30	0	1
405	2990	3066	3058	2992	30	30	0	1	406	3066	3191	3195	3058	30	30	0	1
407	3191	3280	3281	3195	30	30	0	1	408	3280	3407	3408	3281	30	30	0	1
409	3407	3487	3475	3408	30	30	0	1	410	3572	3550	3475	3487	30	30	0	1
411	3550	3546	3428	3475	30	30	0	1	412	3546	3540	3443	3428	30	30	0	1
413	3534	3473	3443	3540	30	30	0	1	414	3473	3391	3361	3443	30	30	0	1
415	3391	3252	3216	3361	30	30	0	1	416	3156	3166	3216	3252	30	30	0	1
417	3166	3065	3188	3216	30	30	0	1	418	3428	3443	3361	3283	30	30	0	1
419	3282	3281	3408	3404	30	30	0	1	420	3408	3475	3428	3404	30	30	0	1
421	3428	3283	3282	3404	30	30	0	1	422	3283	3361	3216	3188	30	30	0	1
423	3181	3215	3223	3190	30	30	0	1	424	3283	3188	3190	3223	30	30	0	1
425	3215	3282	3283	3223	30	30	0	1	426	3188	3075	3181	3190	30	30	0	1
427	3195	3281	3282	3215	30	30	0	1	428	3181	3075	3055	3058	30	30	0	1
429	3058	3195	3215	3181	30	30	0	1	430	3025	3045	3035	2991	30	30	0	1
431	3045	3065	3047	3035	30	30	0	1	432	3065	3166	3046	3047	30	30	0	1
433	3156	3044	3046	3166	30	30	0	1	434	3044	2977	2985	3046	30	30	0	1
435	2828	2834	2985	2977	30	30	0	1	436	2834	2840	2976	2985	30	30	0	1
437	2840	2844	2968	2976	30	30	0	1	438	2867	2969	2968	2844	30	30	0	1
439	2969	2978	2976	2968	30	30	0	1	440	2978	3025	2991	2976	30	30	0	1
441	3035	3047	3046	2985	30	30	0	1	442	2985	2976	2991	3035	30	30	0	1
443	811	810	796	793	25	25	0	1	444	810	809	791	796	25	25	0	1
445	809	808	792	791	25	25	0	1	446	808	807	795	792	25	25	0	1
447	807	806	794	795	25	25	0	1	448	806	805	787	794	25	25	0	1
449	805	804	788	787	25	25	0	1	450	803	789	788	804	25	25	0	1
451	789	770	767	788	25	25	0	1	452	770	748	746	767	25	25	0	1
453	714	715	746	748	25	25	0	1	454	715	716	744	746	25	25	0	1
455	716	717	738	744	25	25	0	1	456	717	718	737	738	25	25	0	1
457	718	719	735	737	25	25	0	1	458	719	720	740	735	25	25	0	1
459	720	721	741	740	25	25	0	1	460	721	722	734	741	25	25	0	1
461	722	723	731	734	25	25	0	1	462	723	724	730	731	25	25	0	1
463	724	725	736	730	25	25	0	1	464	725	726	739	736	25	25	0	1
465	726	820	743	739	25	25	0	1	466	727	749	743	820	25	25	0	1
467	749	771	764	743	25	25	0	1	468	771	790	786	764	25	25	0	1
469	813	812	786	790	25	25	0	1	470	812	811	793	786	25	25	0	1
471	766	767	746	744	25	25	0	1	472	744	738	756	766	25	25	0	1
473	787	788	767	766	25	25	0	1	474	768	783	781	773	25	25	0	1
475	787	766	773	781	25	25	0	1	476	783	794	787	781	25	25	0	1
477	766	756	768	773	25	25	0	1	478	780	776	792	795	25	25	0	1
479	795	794	783	780	25	25	0	1	480	780	783	768	763	25	25	0	1
481	763	759	776	780	25	25	0	1	482	735	740	759	750	25	25	0	1
483	759	763	754	750	25	25	0	1	484	754	737	735	750	25	25	0	1
485	756	738	737	754	25	25	0	1	486	754	763	768	756	25	25	0	1
487	791	792	776	775	25	25	0	1	488	775	776	759	761	25	25	0	1
489	761	759	740	741	25	25	0	1	490	747	760	762	751	25	25	0	1
491	762	761	741	751	25	25	0	1	492	741	734	747	751	25	25	0	1
493	774	772	785	784	25	25	0	1	494	785	796	791	784	25	25	0	1
495	791	775	774	784	25	25	0	1	496	762	760	772	774	25	25	0	1
497	774	775	761	762	25	25	0	1	498	785	772	769	782	25	25	0	1
499	782	793	796	785	25	25	0	1	500	765	764	786	779	25	25	0	1
501	786	793	782	779	25	25	0	1	502	782	769	765	779	25	25	0	1
503	752	736	739	753	25	25	0	1	504	739	743	764	753	25	25	0	1
505	764	765	752	753	25	25	0	1	506	769	772	760	755	25	25	0	1
507	755	752	765	769	25	25	0	1	508	745	731	730	742	25	25	0	1
509	730	736	752	7													

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
535	1448	1559	1467	1463	25	25	0	1	536	1449	1473	1467	1559	25	25	0	1
537	1473	1497	1490	1467	25	25	0	1	538	1497	1518	1514	1490	25	25	0	1
539	1547	1546	1514	1518	25	25	0	1	540	1546	1545	1521	1514	25	25	0	1
541	1492	1493	1470	1468	25	25	0	1	542	1468	1462	1480	1492	25	25	0	1
543	1515	1516	1493	1492	25	25	0	1	544	1494	1511	1509	1499	25	25	0	1
545	1515	1492	1499	1509	25	25	0	1	546	1511	1522	1515	1509	25	25	0	1
547	1492	1480	1494	1499	25	25	0	1	548	1523	1522	1511	1508	25	25	0	1
549	1508	1502	1520	1523	25	25	0	1	550	1508	1511	1494	1489	25	25	0	1
551	1489	1485	1502	1508	25	25	0	1	552	1459	1464	1485	1474	25	25	0	1
553	1485	1489	1478	1474	25	25	0	1	554	1478	1461	1459	1474	25	25	0	1
555	1480	1462	1461	1478	25	25	0	1	556	1478	1489	1494	1480	25	25	0	1
557	1519	1520	1502	1501	25	25	0	1	558	1501	1502	1485	1487	25	25	0	1
559	1487	1485	1464	1465	25	25	0	1	560	1471	1486	1488	1475	25	25	0	1
561	1488	1487	1465	1475	25	25	0	1	562	1465	1458	1471	1475	25	25	0	1
563	1513	1524	1519	1512	25	25	0	1	564	1519	1501	1500	1512	25	25	0	1
565	1500	1498	1513	1512	25	25	0	1	566	1500	1501	1487	1488	25	25	0	1
567	1488	1486	1498	1500	25	25	0	1	568	1513	1498	1495	1510	25	25	0	1
569	1510	1521	1524	1513	25	25	0	1	570	1491	1490	1514	1507	25	25	0	1
571	1514	1521	1510	1507	25	25	0	1	572	1510	1495	1491	1507	25	25	0	1
573	1476	1460	1463	1477	25	25	0	1	574	1463	1467	1490	1477	25	25	0	1
575	1490	1491	1476	1477	25	25	0	1	576	1495	1498	1486	1479	25	25	0	1
577	1479	1476	1491	1495	25	25	0	1	578	1452	1460	1476	1466	25	25	0	1
579	1476	1479	1469	1466	25	25	0	1	580	1469	1453	1452	1466	25	25	0	1
581	1471	1458	1453	1469	25	25	0	1	582	1469	1479	1486	1471	25	25	0	1
583	2252	2251	2227	2223	25	25	0	1	584	2251	2250	2229	2227	25	25	0	1
585	2250	2249	2230	2229	25	25	0	1	586	2249	2248	2228	2230	25	25	0	1
587	2248	2247	2224	2228	25	25	0	1	588	2247	2246	2219	2224	25	25	0	1
589	2246	2245	2220	2219	25	25	0	1	590	2244	2221	2220	2245	25	25	0	1
591	2221	2200	2198	2220	25	25	0	1	592	2200	2175	2170	2198	25	25	0	1
593	2140	2141	2170	2175	25	25	0	1	594	2141	2142	2169	2170	25	25	0	1
595	2142	2143	2166	2169	25	25	0	1	596	2143	2144	2164	2166	25	25	0	1
597	2144	2145	2163	2164	25	25	0	1	598	2145	2146	2160	2163	25	25	0	1
599	2146	2147	2156	2160	25	25	0	1	600	2147	2148	2157	2156	25	25	0	1
601	2148	2149	2158	2157	25	25	0	1	602	2149	2150	2159	2158	25	25	0	1
603	2150	2151	2165	2159	25	25	0	1	604	2151	2152	2167	2165	25	25	0	1
605	2152	2263	2168	2167	25	25	0	1	606	2153	2176	2168	2263	25	25	0	1
607	2176	2201	2196	2168	25	25	0	1	608	2201	2222	2218	2196	25	25	0	1
609	2254	2253	2218	2222	25	25	0	1	610	2253	2252	2223	2218	25	25	0	1
611	2163	2160	2177	2179	25	25	0	1	612	2179	2177	2194	2193	25	25	0	1
613	2193	2194	2207	2206	25	25	0	1	614	2206	2207	2217	2216	25	25	0	1
615	2216	2217	2230	2228	25	25	0	1	616	2216	2228	2224	2213	25	25	0	1
617	2213	2204	2206	2216	25	25	0	1	618	2202	2204	2213	2211	25	25	0	1
619	2213	2224	2219	2211	25	25	0	1	620	2219	2197	2202	2211	25	25	0	1
621	2219	2220	2198	2197	25	25	0	1	622	2164	2163	2179	2178	25	25	0	1
623	2178	2179	2193	2191	25	25	0	1	624	2191	2193	2206	2204	25	25	0	1
625	2166	2164	2178	2180	25	25	0	1	626	2180	2178	2191	2190	25	25	0	1
627	2190	2191	2204	2202	25	25	0	1	628	2180	2190	2188	2182	25	25	0	1
629	2197	2169	2182	2188	25	25	0	1	630	2190	2202	2197	2188	25	25	0	1
631	2169	2166	2180	2182	25	25	0	1	632	2197	2198	2170	2169	25	25	0	1
633	2229	2230	2217	2215	25	25	0	1	634	2215	2217	2207	2205	25	25	0	1
635	2205	2207	2194	2192	25	25	0	1	636	2192	2194	2177	2174	25	25	0	1
637	2174	2177	2160	2156	25	25	0	1	638	2227	2229	2215	2214	25	25	0	1
639	2214	2215	2205	2203	25	25	0	1	640	2203	2205	2192	2189	25	25	0	1
641	2189	2192	2174	2173	25	25	0	1	642	2173	2174	2156	2157	25	25	0	1
643	2214	2203	2199	2212	25	25	0	1	644	2212	2223	2227	2214	25	25	0	1
645	2212	2199	2195	2210	25	25	0	1	646	2195	2196	2218	2210	25	25	0	1
647	2218	2223	2212	2210	25	25	0	1	648	2181	2165	2167	2183	25	25	0	1
649	2167	2168	2196	2183	25	25	0	1	650	2196	2195	2181	2183	25	25	0	1
651	2159	2165	2181	2172	25	25	0	1	652	2172	2171	2158	2159	25	25	0	1
653	2187	2171	2172	2184	25	25	0	1	654	2172	2181	2195	2184	25	25	0	1
655	2195	2199	2187	2184	25	25	0	1	656	2199	2203	2189	2187	25	25	0	1
657	2187	2189	2173	2171	25	25	0	1	658	2171	2173	2157	2158	25	25	0	1
659	2955	2954	2929	2920	25	25	0	1	660	2954	2953	2928	2929	25	25	0	1
661	2953	2952	2927	2928	25	25	0	1	662	2952	2951	2926	2927	25	25	0	1
663	2951	2950	2925	2926	25	25	0	1	664	2950	2949	2924	2925	25	25	0	1
665	2949	2948	2921	2924	25	25	0	1	666	2948	2947	2919	2921	25	25	0	1
667	2947	2946	2917	2919	25	25	0	1	668	2945	2915	2917	2946	25	25	0	1
669	2915	2900	2897	2917	25	25	0	1	670	2900	2883	2882	2897	25	25	0	1
671	2852	2853	2882	2883	25	25	0	1	672	2853	2854	2881	2882	25	25	0	1
673	2854	2855	2879	2881	25	25	0	1	674	2855	2856	2877	2879	25	25	0	1
675	2856	2857	2874	2877	25	25	0	1	676	2857	2858	2875	2874	25	25	0	1
677	2858	2859	2873	2875	25	25	0	1	678	2859	2860	2871	2873	25	25	0	1
679	2860	2861	2868	2871	25	25	0	1	680	2861	2862	2872	2868	25	25	0	1
681	2862	2863	2876	2872	25	25	0	1	682	2863	2864	2878	2876	25	25	0	1
683	2864	2967	2880	2878	25	25	0	1	684	2865	2884	2880	2967	25	25	0	1
685	2884	2901	2895	2880	25	25	0	1	686	2901	2916	2918	2895	25	25	0	1
687	2957	2956	2918	2916	25	25	0	1	688	2956	2955	2920	2918	25	25	0	1
689	2874	2875	2888	2890	25	25	0	1	690	2890	2888	2899	2902	25	25	0	1
691	2902	2899	2911	2910	25	25	0	1	692	2910	2911	2926	2925	25	25	0	1
693	2890	2902	2903	2891	25	25	0	1	694	2891	2877	2874	2890	25	25	0	1
695	2891	2903	2898	2892	25	25	0	1	696	2898	2881	2879	2892	25	25	0	1
697	2879	2877	2891	2892	25	25	0	1	698	2898	2897	2882	2881	25	25	0	1
699	2919	2917	2897	2898	25	25	0	1	700	2909	2903	2902	2910	25	25	0	1
701	2910	2925	2924	2909	25	25	0										

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
731	229	147	151	331	40	40	0	1	732	147	75	79	151	40	40	0	1
733	36	30	79	75	40	40	0	1	734	30	24	77	79	40	40	0	1
735	24	20	76	77	40	40	0	1	736	20	16	78	76	40	40	0	1
737	9	73	78	16	40	40	0	1	738	73	145	152	78	40	40	0	1
739	145	227	332	152	40	40	0	1	740	227	360	368	332	40	40	0	1
741	439	508	368	360	40	40	0	1	742	508	440	422	368	40	40	0	1
743	331	151	150	231	40	40	0	1	744	151	79	77	150	40	40	0	1
745	231	150	148	232	40	40	0	1	746	150	77	76	148	40	40	0	1
747	232	148	152	332	40	40	0	1	748	148	76	78	152	40	40	0	1
749	359	232	332	349	40	40	0	1	750	332	368	422	349	40	40	0	1
751	422	427	359	349	40	40	0	1	752	358	426	421	347	40	40	0	1
753	421	367	331	347	40	40	0	1	754	331	231	358	347	40	40	0	1
755	428	429	418	419	40	40	0	1	756	358	359	419	418	40	40	0	1
757	429	426	358	418	40	40	0	1	758	359	427	428	419	40	40	0	1
759	358	231	232	359	40	40	0	1	760	439	577	588	508	40	40	0	1
761	508	588	578	440	40	40	0	1	762	440	578	579	454	40	40	0	1
763	454	579	580	462	40	40	0	1	764	462	580	581	473	40	40	0	1
765	473	581	582	481	40	40	0	1	766	481	582	584	492	40	40	0	1
767	492	584	585	499	40	40	0	1	768	499	585	586	506	40	40	0	1
769	577	655	666	588	40	40	0	1	770	588	666	672	578	40	40	0	1
771	578	672	674	579	40	40	0	1	772	579	674	678	580	40	40	0	1
773	580	678	680	581	40	40	0	1	774	581	680	684	582	40	40	0	1
775	582	684	688	584	40	40	0	1	776	584	688	692	585	40	40	0	1
777	585	692	696	586	40	40	0	1	778	655	841	842	666	40	40	0	1
779	666	842	843	672	40	40	0	1	780	672	843	844	674	40	40	0	1
781	674	844	845	678	40	40	0	1	782	678	845	846	680	40	40	0	1
783	680	846	847	684	40	40	0	1	784	684	847	849	688	40	40	0	1
785	688	849	850	692	40	40	0	1	786	692	850	851	696	40	40	0	1
787	841	923	924	842	40	40	0	1	788	842	924	925	843	40	40	0	1
789	843	925	926	844	40	40	0	1	790	844	926	927	845	40	40	0	1
791	845	927	928	846	40	40	0	1	792	846	928	929	847	40	40	0	1
793	847	929	931	849	40	40	0	1	794	849	931	932	850	40	40	0	1
795	850	932	933	851	40	40	0	1	796	923	1054	1055	924	40	40	0	1
797	924	1055	1056	925	40	40	0	1	798	925	1056	1057	926	40	40	0	1
799	926	1057	1058	927	40	40	0	1	800	927	1058	1059	928	40	40	0	1
801	928	1059	1060	929	40	40	0	1	802	929	1060	1062	931	40	40	0	1
803	931	1062	1063	932	40	40	0	1	804	932	1063	1064	933	40	40	0	1
805	1054	1126	1127	1055	40	40	0	1	806	1055	1127	1128	1056	40	40	0	1
807	1056	1128	1142	1057	40	40	0	1	808	1057	1142	1150	1058	40	40	0	1
809	1058	1150	1161	1059	40	40	0	1	810	1059	1161	1169	1060	40	40	0	1
811	1060	1169	1180	1062	40	40	0	1	812	1062	1180	1187	1063	40	40	0	1
813	1063	1187	1194	1064	40	40	0	1	814	1126	1262	1263	1127	40	40	0	1
815	1127	1263	1264	1128	40	40	0	1	816	1128	1264	1265	1142	40	40	0	1
817	1142	1265	1266	1150	40	40	0	1	818	1150	1266	1267	1161	40	40	0	1
819	1161	1267	1268	1169	40	40	0	1	820	1169	1268	1270	1180	40	40	0	1
821	1180	1270	1271	1187	40	40	0	1	822	1187	1271	1272	1194	40	40	0	1
823	1262	1342	1356	1263	40	40	0	1	824	1263	1356	1366	1264	40	40	0	1
825	1264	1366	1370	1265	40	40	0	1	826	1265	1370	1378	1266	40	40	0	1
827	1266	1378	1382	1267	40	40	0	1	828	1267	1382	1390	1268	40	40	0	1
829	1268	1390	1396	1270	40	40	0	1	830	1270	1396	1404	1271	40	40	0	1
831	1271	1404	1410	1272	40	40	0	1	832	1343	1581	1582	1357	30	30	0	1
833	1357	1582	1583	1367	30	30	0	1	834	1367	1583	1584	1371	30	30	0	1
835	1371	1584	1585	1379	30	30	0	1	836	1379	1585	1586	1383	30	30	0	1
837	1383	1586	1587	1391	30	30	0	1	838	1391	1587	1589	1397	30	30	0	1
839	1397	1589	1590	1405	30	30	0	1	840	1405	1590	1591	1411	30	30	0	1
841	1581	1658	1659	1582	30	30	0	1	842	1582	1659	1660	1583	30	30	0	1
843	1583	1660	1661	1584	30	30	0	1	844	1584	1661	1662	1585	30	30	0	1
845	1585	1662	1663	1586	30	30	0	1	846	1586	1663	1664	1587	30	30	0	1
847	1587	1664	1666	1589	30	30	0	1	848	1589	1666	1667	1590	30	30	0	1
849	1590	1667	1668	1591	30	30	0	1	850	1658	1794	1795	1659	30	30	0	1
851	1659	1795	1796	1660	30	30	0	1	852	1660	1796	1797	1661	30	30	0	1
853	1661	1797	1798	1662	30	30	0	1	854	1662	1798	1799	1663	30	30	0	1
855	1663	1799	1800	1664	30	30	0	1	856	1664	1800	1802	1666	30	30	0	1
857	1666	1802	1803	1667	30	30	0	1	858	1667	1803	1804	1668	30	30	0	1
859	1794	1868	1869	1795	30	30	0	1	860	1795	1869	1870	1796	30	30	0	1
861	1796	1870	1884	1797	30	30	0	1	862	1797	1884	1892	1798	30	30	0	1
863	1798	1892	1903	1799	30	30	0	1	864	1799	1903	1911	1800	30	30	0	1
865	1800	1911	1922	1802	30	30	0	1	866	1802	1922	1929	1803	30	30	0	1
867	1803	1929	1936	1804	30	30	0	1	868	2106	2110	2067	2068	30	30	0	1
869	2110	2116	2010	2067	30	30	0	1	870	2122	2023	2010	2116	30	30	0	1
871	1936	1929	2010	2023	30	30	0	1	872	1929	1922	1987	2010	30	30	0	1
873	1922	1911	1981	1987	30	30	0	1	874	1911	1903	1983	1981	30	30	0	1
875	1903	1892	1984	1983	30	30	0	1	876	1892	1884	1982	1984	30	30	0	1
877	1884	1870	1988	1982	30	30	0	1	878	1870	1869	2018	1988	30	30	0	1
879	1868	2021	2018	1869	30	30	0	1	880	2087	2102	2018	2021	30	30	0	1
881	2102	2106	2068	2018	30	30	0	1	882	1981	1983	2007	2005	30	30	0	1
883	2007	2067	2010	2005	30	30	0	1	884	2010	1987	1981	2005	30	30	0	1
885	2008	1984	1982	2006	30	30	0	1	886	1982	1988	2018	2006	30	30	0	1
887	2018	2068	2008	2006	30	30	0	1	888	2007	1983	1984	2008	30	30	0	1
889	2008	2068	2067	2007	30	30	0	1	890	2582	2596	2561	2556	30	30	0	1
891	2596	2604	2562	2561	30	30	0	1	892	2604	2615	2559	2562	30	30	0	1
893	2615	2623	2557	2559	30	30	0	1	894	2623	2634	2555	2557	30	30	0	1
895	2634	2641	2514	2555	30	30	0	1	896	2648	2509	2514	2641	30	30	0	1
897	2509	2369	2474	2514	30	30	0	1	898	2369	2290	2329	2474	30	30	0	1
899	2122	2116	2329	2290	30	30	0	1	900	2116	2110	2282	2329	30	30	0	1
901	2110	2106	2284	2282	30	30	0	1	902								

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
927	2497	2561	2562	2496	30	30	0	1	928	2819	2823	2780	2781	30	30	0	1
929	2823	2829	2730	2780	30	30	0	1	930	2835	2736	2730	2829	30	30	0	1
931	2648	2641	2730	2736	30	30	0	1	932	2641	2634	2700	2730	30	30	0	1
933	2634	2623	2694	2700	30	30	0	1	934	2623	2615	2696	2694	30	30	0	1
935	2615	2604	2697	2696	30	30	0	1	936	2604	2596	2695	2697	30	30	0	1
937	2596	2582	2701	2695	30	30	0	1	938	2582	2653	2731	2701	30	30	0	1
939	2581	2734	2731	2653	30	30	0	1	940	2800	2817	2731	2734	30	30	0	1
941	2817	2819	2781	2731	30	30	0	1	942	2694	2696	2720	2718	30	30	0	1
943	2720	2780	2730	2718	30	30	0	1	944	2730	2700	2694	2718	30	30	0	1
945	2721	2697	2695	2719	30	30	0	1	946	2695	2701	2731	2719	30	30	0	1
947	2731	2781	2721	2719	30	30	0	1	948	2720	2696	2697	2721	30	30	0	1
949	2721	2781	2780	2720	30	30	0	1	950	3287	3301	3265	3261	30	30	0	1
951	3301	3309	3267	3265	30	30	0	1	952	3309	3320	3264	3267	30	30	0	1
953	3320	3328	3262	3264	30	30	0	1	954	3328	3339	3260	3262	30	30	0	1
955	3339	3346	3219	3260	30	30	0	1	956	3353	3214	3219	3346	30	30	0	1
957	3214	3074	3179	3219	30	30	0	1	958	3074	2995	3033	3179	30	30	0	1
959	2835	2829	3033	2995	30	30	0	1	960	2829	2823	2988	3033	30	30	0	1
961	2823	2819	2989	2988	30	30	0	1	962	2819	2817	3034	2989	30	30	0	1
963	2800	2993	3034	2817	30	30	0	1	964	2993	3072	3180	3034	30	30	0	1
965	3072	3212	3222	3180	30	30	0	1	966	3286	3358	3222	3212	30	30	0	1
967	3358	3287	3261	3222	30	30	0	1	968	3176	3179	3033	3056	30	30	0	1
969	3033	2988	3053	3056	30	30	0	1	970	3053	3174	3176	3056	30	30	0	1
971	3198	3262	3260	3196	30	30	0	1	972	3260	3219	3179	3196	30	30	0	1
973	3179	3176	3198	3196	30	30	0	1	974	3198	3176	3174	3197	30	30	0	1
975	3197	3264	3262	3198	30	30	0	1	976	3054	2989	3034	3057	30	30	0	1
977	3034	3180	3178	3057	30	30	0	1	978	3178	3175	3054	3057	30	30	0	1
979	3053	2988	2989	3054	30	30	0	1	980	3054	3175	3174	3053	30	30	0	1
981	3197	3174	3175	3201	30	30	0	1	982	3201	3267	3264	3197	30	30	0	1
983	3202	3178	3180	3203	30	30	0	1	984	3180	3222	3261	3203	30	30	0	1
985	3261	3265	3202	3203	30	30	0	1	986	3201	3175	3178	3202	30	30	0	1
987	3202	3265	3267	3201	30	30	0	1	988	3525	3529	3485	3486	30	30	0	1
989	3529	3535	3435	3485	30	30	0	1	990	3541	3441	3435	3535	30	30	0	1
991	3353	3346	3435	3441	30	30	0	1	992	3346	3339	3405	3435	30	30	0	1
993	3339	3328	3399	3405	30	30	0	1	994	3328	3320	3401	3399	30	30	0	1
995	3320	3309	3402	3401	30	30	0	1	996	3309	3301	3400	3402	30	30	0	1
997	3301	3287	3406	3400	30	30	0	1	998	3287	3358	3436	3406	30	30	0	1
999	3286	3439	3436	3358	30	30	0	1	1000	3506	3523	3436	3439	30	30	0	1
1001	3523	3525	3486	3436	30	30	0	1	1002	3399	3401	3425	3423	30	30	0	1
1003	3425	3485	3435	3423	30	30	0	1	1004	3435	3405	3399	3423	30	30	0	1
1005	3426	3402	3400	3424	30	30	0	1	1006	3400	3406	3436	3424	30	30	0	1
1007	3436	3486	3426	3424	30	30	0	1	1008	3425	3401	3402	3426	30	30	0	1
1009	3426	3486	3485	3425	30	30	0	1	1010	65	57	105	107	40	40	0	1
1011	107	105	179	181	40	40	0	1	1012	181	179	258	260	40	40	0	1
1013	260	258	395	397	40	40	0	1	1014	397	395	535	537	40	40	0	1
1015	537	535	615	617	40	40	0	1	1016	617	615	797	818	40	40	0	1
1017	57	55	103	105	40	40	0	1	1018	105	103	177	179	40	40	0	1
1019	179	177	256	258	40	40	0	1	1020	258	256	393	395	40	40	0	1
1021	395	393	533	535	40	40	0	1	1022	535	533	613	615	40	40	0	1
1023	615	613	777	797	40	40	0	1	1024	55	53	101	103	40	40	0	1
1025	103	101	175	177	40	40	0	1	1026	177	175	254	256	40	40	0	1
1027	256	254	391	393	40	40	0	1	1028	393	391	531	533	40	40	0	1
1029	533	531	611	613	40	40	0	1	1030	613	611	757	777	40	40	0	1
1031	53	51	99	101	40	40	0	1	1032	101	99	173	175	40	40	0	1
1033	175	173	252	254	40	40	0	1	1034	254	252	389	391	40	40	0	1
1035	391	389	529	531	40	40	0	1	1036	531	529	609	611	40	40	0	1
1037	611	609	732	757	40	40	0	1	1038	51	46	96	99	40	40	0	1
1039	99	96	170	173	40	40	0	1	1040	173	170	249	252	40	40	0	1
1041	252	249	386	389	40	40	0	1	1042	389	386	526	529	40	40	0	1
1043	529	526	606	609	40	40	0	1	1044	609	606	707	732	40	40	0	1
1045	46	42	94	96	40	40	0	1	1046	96	94	168	170	40	40	0	1
1047	170	168	247	249	40	40	0	1	1048	249	247	384	386	40	40	0	1
1049	386	384	524	526	40	40	0	1	1050	526	524	604	606	40	40	0	1
1051	606	604	702	707	40	40	0	1	1052	42	38	92	94	40	40	0	1
1053	94	92	166	168	40	40	0	1	1054	168	166	245	247	40	40	0	1
1055	247	245	382	384	40	40	0	1	1056	384	382	522	524	40	40	0	1
1057	524	522	602	604	40	40	0	1	1058	604	602	698	702	40	40	0	1
1059	38	32	90	92	40	40	0	1	1060	92	90	164	166	40	40	0	1
1061	166	164	243	245	40	40	0	1	1062	245	243	380	382	40	40	0	1
1063	382	380	520	522	40	40	0	1	1064	522	520	600	602	40	40	0	1
1065	602	600	690	698	40	40	0	1	1066	32	26	88	90	40	40	0	1
1067	90	88	162	164	40	40	0	1	1068	164	162	241	243	40	40	0	1
1069	243	241	378	380	40	40	0	1	1070	380	378	518	520	40	40	0	1
1071	520	518	598	600	40	40	0	1	1072	600	598	682	690	40	40	0	1
1073	26	22	86	88	40	40	0	1	1074	88	86	160	162	40	40	0	1
1075	162	160	239	241	40	40	0	1	1076	241	239	376	378	40	40	0	1
1077	378	376	516	518	40	40	0	1	1078	518	516	596	598	40	40	0	1
1079	598	596	676	682	40	40	0	1	1080	22	18	84	86	40	40	0	1
1081	86	84	158	160	40	40	0	1	1082	160	158	237	239	40	40	0	1
1083	239	237	374	376	40	40	0	1	1084	376	374	514	516	40	40	0	1
1085	516	514	594	596	40	40	0	1	1086	596	594	670	676	40	40	0	1
1087	18	8	82	84	40	40	0	1	1088	84	82	156	158	40	40	0	1
1089	158	156	235	237	40	40	0	1	1090	237	235	372	374	40	40	0	1
1091	374	372	512	514	40	40	0	1	1092	514	512	592	594	40	40	0	1
1093	594	592	654	670	40	40	0	1	1094	818	797	876	878	40	40	0	1
1095	878	876	959	961	40	40	0	1	1096	961	959	1092	1094	40	40	0	1
1097	1094	1092	1220	1222	40	40	0	1	1098								

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
1123	1294	1291	1428	1455	40	40	0	1	1124	707	702	865	867	40	40	0	1
1125	867	865	948	950	40	40	0	1	1126	950	948	1081	1083	40	40	0	1
1127	1083	1081	1209	1211	40	40	0	1	1128	1211	1209	1289	1291	40	40	0	1
1129	1291	1289	1421	1428	40	40	0	1	1130	702	698	863	865	40	40	0	1
1131	865	863	946	948	40	40	0	1	1132	948	946	1079	1081	40	40	0	1
1133	1081	1079	1207	1209	40	40	0	1	1134	1209	1207	1287	1289	40	40	0	1
1135	1289	1287	1415	1421	40	40	0	1	1136	698	690	861	863	40	40	0	1
1137	863	861	944	946	40	40	0	1	1138	946	944	1077	1079	40	40	0	1
1139	1079	1077	1205	1207	40	40	0	1	1140	1207	1205	1285	1287	40	40	0	1
1141	1287	1285	1401	1415	40	40	0	1	1142	690	682	859	861	40	40	0	1
1143	861	859	942	944	40	40	0	1	1144	944	942	1075	1077	40	40	0	1
1145	1077	1075	1203	1205	40	40	0	1	1146	1205	1203	1283	1285	40	40	0	1
1147	1285	1283	1387	1401	40	40	0	1	1148	682	676	857	859	40	40	0	1
1149	859	857	940	942	40	40	0	1	1150	942	940	1073	1075	40	40	0	1
1151	1075	1073	1201	1203	40	40	0	1	1152	1203	1201	1281	1283	40	40	0	1
1153	1283	1281	1375	1387	40	40	0	1	1154	676	670	855	857	40	40	0	1
1155	857	855	938	940	40	40	0	1	1156	940	938	1071	1073	40	40	0	1
1157	1073	1071	1199	1201	40	40	0	1	1158	1201	1199	1279	1281	40	40	0	1
1159	1281	1279	1363	1375	40	40	0	1	1160	670	654	853	855	40	40	0	1
1161	855	853	936	938	40	40	0	1	1162	938	936	1069	1071	40	40	0	1
1163	1071	1069	1197	1199	40	40	0	1	1164	1199	1197	1277	1279	40	40	0	1
1165	1279	1277	1341	1363	40	40	0	1	1166	1555	1525	1615	1617	30	30	0	1
1167	1617	1615	1695	1697	30	30	0	1	1168	1697	1695	1835	1837	30	30	0	1
1169	1837	1835	1967	1969	30	30	0	1	1170	1969	1967	2050	2052	30	30	0	1
1171	2052	2050	2225	2261	30	30	0	1	1172	1525	1503	1613	1615	30	30	0	1
1173	1615	1613	1693	1695	30	30	0	1	1174	1695	1693	1833	1835	30	30	0	1
1175	1835	1833	1965	1967	30	30	0	1	1176	1967	1965	2048	2050	30	30	0	1
1177	2050	2048	2208	2225	30	30	0	1	1178	1503	1481	1611	1613	30	30	0	1
1179	1613	1611	1691	1693	30	30	0	1	1180	1693	1691	1831	1833	30	30	0	1
1181	1833	1831	1963	1965	30	30	0	1	1182	1965	1963	2046	2048	30	30	0	1
1183	2048	2046	2185	2208	30	30	0	1	1184	1481	1454	1609	1611	30	30	0	1
1185	1611	1609	1689	1691	30	30	0	1	1186	1691	1689	1829	1831	30	30	0	1
1187	1831	1829	1961	1963	30	30	0	1	1188	1963	1961	2044	2046	30	30	0	1
1189	2046	2044	2161	2185	30	30	0	1	1190	1454	1427	1606	1609	30	30	0	1
1191	1609	1606	1686	1689	30	30	0	1	1192	1689	1686	1826	1829	30	30	0	1
1193	1829	1826	1958	1961	30	30	0	1	1194	1961	1958	2041	2044	30	30	0	1
1195	2044	2041	2133	2161	30	30	0	1	1196	1427	1420	1604	1606	30	30	0	1
1197	1606	1604	1684	1686	30	30	0	1	1198	1686	1684	1824	1826	30	30	0	1
1199	1826	1824	1956	1958	30	30	0	1	1200	1958	1956	2039	2041	30	30	0	1
1201	2041	2039	2128	2133	30	30	0	1	1202	1420	1414	1602	1604	30	30	0	1
1203	1604	1602	1682	1684	30	30	0	1	1204	1684	1682	1822	1824	30	30	0	1
1205	1824	1822	1954	1956	30	30	0	1	1206	1956	1954	2037	2039	30	30	0	1
1207	2039	2037	2124	2128	30	30	0	1	1208	1414	1400	1600	1602	30	30	0	1
1209	1602	1600	1680	1682	30	30	0	1	1210	1682	1680	1820	1822	30	30	0	1
1211	1822	1820	1952	1954	30	30	0	1	1212	1954	1952	2035	2037	30	30	0	1
1213	2037	2035	2118	2124	30	30	0	1	1214	1400	1386	1598	1600	30	30	0	1
1215	1600	1598	1678	1680	30	30	0	1	1216	1680	1678	1818	1820	30	30	0	1
1217	1820	1818	1950	1952	30	30	0	1	1218	1952	1950	2033	2035	30	30	0	1
1219	2035	2033	2112	2118	30	30	0	1	1220	1386	1374	1596	1598	30	30	0	1
1221	1598	1596	1676	1678	30	30	0	1	1222	1678	1676	1816	1818	30	30	0	1
1223	1818	1816	1948	1950	30	30	0	1	1224	1950	1948	2031	2033	30	30	0	1
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1229	1816	1814	1946	1948	30	30	0	1	1230	1948	1946	2029	2031	30	30	0	1
1231	2031	2029	2104	2108	30	30	0	1	1232	1362	1340	1592	1594	30	30	0	1
1233	1594	1592	1672	1674	30	30	0	1	1234	1674	1672	1812	1814	30	30	0	1
1235	1814	1812	1944	1946	30	30	0	1	1236	1946	1944	2027	2029	30	30	0	1
1237	2029	2027	2086	2104	30	30	0	1	1238	2261	2225	2315	2317	30	30	0	1
1239	2317	2315	2396	2398	30	30	0	1	1240	2398	2396	2542	2544	30	30	0	1
1241	2544	2542	2680	2682	30	30	0	1	1242	2682	2680	2763	2765	30	30	0	1
1243	2765	2763	2922	2964	30	30	0	1	1244	2225	2208	2313	2315	30	30	0	1
1245	2315	2313	2394	2396	30	30	0	1	1246	2396	2394	2540	2542	30	30	0	1
1247	2542	2540	2678	2680	30	30	0	1	1248	2680	2678	2761	2763	30	30	0	1
1249	2763	2761	2906	2922	30	30	0	1	1250	2208	2185	2311	2313	30	30	0	1
1251	2313	2311	2392	2394	30	30	0	1	1252	2394	2392	2538	2540	30	30	0	1
1253	2540	2538	2676	2678	30	30	0	1	1254	2678	2676	2759	2761	30	30	0	1
1255	2761	2759	2893	2906	30	30	0	1	1256	2185	2161	2309	2311	30	30	0	1
1257	2311	2309	2390	2392	30	30	0	1	1258	2392	2390	2536	2538	30	30	0	1
1259	2538	2536	2674	2676	30	30	0	1	1260	2676	2674	2757	2759	30	30	0	1
1261	2759	2757	2869	2893	30	30	0	1	1262	2161	2133	2306	2309	30	30	0	1
1263	2309	2306	2387	2390	30	30	0	1	1264	2390	2387	2533	2536	30	30	0	1
1265	2536	2533	2671	2674	30	30	0	1	1266	2674	2671	2754	2757	30	30	0	1
1267	2757	2754	2845	2869	30	30	0	1	1268	2133	2128	2304	2306	30	30	0	1
1269	2306	2304	2385	2387	30	30	0	1	1270	2387	2385	2531	2533	30	30	0	1
1271	2533	2531	2669	2671	30	30	0	1	1272	2671	2669	2752	2754	30	30	0	1
1273	2754	2752	2841	2845	30	30	0	1	1274	2128	2124	2302	2304	30	30	0	1
1275	2304	2302	2383	2385	30	30	0	1	1276	2385	2383	2529	2531	30	30	0	1
1277	2531	2529	2667	2669	30	30	0	1	1278	2669	2667	2750	2752	30	30	0	1
1279	2752	2750	2837	2841	30	30	0	1	1280	2124	2118	2300	2302	30	30	0	1
1281	2302	2300	2381	2383	30	30	0	1	1282	2383	2381	2527	2529	30	30	0	1
1283	2529	2527	2665	2667	30	30	0	1	1284	2667	2665	2748	2750	30	30	0	1
1285	2750	2748	2831	2837	30	30	0	1	1286	2118	2112	2298	2300	30	30	0	1
1287	2300	2298	2379	2381	30	30	0	1	1288	2381	2379	2525	252				

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
1319	3247	3245	3383	3385	30	30	0	1	1320	3385	3383	3466	3468	30	30	0	1
1321	3468	3466	3618	3635	30	30	0	1	1322	2906	2893	3015	3017	30	30	0	1
1323	3017	3015	3097	3099	30	30	0	1	1324	3099	3097	3243	3245	30	30	0	1
1325	3245	3243	3381	3383	30	30	0	1	1326	3383	3381	3464	3466	30	30	0	1
1327	3466	3464	3596	3618	30	30	0	1	1328	2893	2869	3013	3015	30	30	0	1
1329	3015	3013	3095	3097	30	30	0	1	1330	3097	3095	3241	3243	30	30	0	1
1331	3243	3241	3379	3381	30	30	0	1	1332	3381	3379	3462	3464	30	30	0	1
1333	3464	3462	3573	3596	30	30	0	1	1334	2869	2845	3010	3013	30	30	0	1
1335	3013	3010	3092	3095	30	30	0	1	1336	3095	3092	3238	3241	30	30	0	1
1337	3241	3238	3376	3379	30	30	0	1	1338	3379	3376	3459	3462	30	30	0	1
1339	3462	3459	3551	3573	30	30	0	1	1340	2845	2841	3008	3010	30	30	0	1
1341	3010	3008	3090	3092	30	30	0	1	1342	3092	3090	3236	3238	30	30	0	1
1343	3238	3236	3374	3376	30	30	0	1	1344	3376	3374	3457	3459	30	30	0	1
1345	3459	3457	3547	3551	30	30	0	1	1346	2841	2837	3006	3008	30	30	0	1
1347	3008	3006	3088	3090	30	30	0	1	1348	3090	3088	3234	3236	30	30	0	1
1349	3236	3234	3372	3374	30	30	0	1	1350	3374	3372	3455	3457	30	30	0	1
1351	3457	3455	3543	3547	30	30	0	1	1352	2837	2831	3004	3006	30	30	0	1
1353	3006	3004	3086	3088	30	30	0	1	1354	3088	3086	3232	3234	30	30	0	1
1355	3234	3232	3370	3372	30	30	0	1	1356	3372	3370	3453	3455	30	30	0	1
1357	3455	3453	3537	3543	30	30	0	1	1358	2831	2825	3002	3004	30	30	0	1
1359	3004	3002	3084	3086	30	30	0	1	1360	3086	3084	3230	3232	30	30	0	1
1361	3232	3230	3368	3370	30	30	0	1	1362	3370	3368	3451	3453	30	30	0	1
1363	3453	3451	3531	3537	30	30	0	1	1364	2825	2821	3000	3002	30	30	0	1
1365	3002	3000	3082	3084	30	30	0	1	1366	3084	3082	3228	3230	30	30	0	1
1367	3230	3228	3366	3368	30	30	0	1	1368	3368	3366	3449	3451	30	30	0	1
1369	3451	3449	3527	3531	30	30	0	1	1370	2821	2815	2998	3000	30	30	0	1
1371	3000	2998	3080	3082	30	30	0	1	1372	3082	3080	3226	3228	30	30	0	1
1373	3228	3226	3364	3366	30	30	0	1	1374	3366	3364	3447	3449	30	30	0	1
1375	3449	3447	3521	3527	30	30	0	1	1376	2815	2799	2996	2998	30	30	0	1
1377	2998	2996	3078	3080	30	30	0	1	1378	3080	3078	3224	3226	30	30	0	1
1379	3226	3224	3362	3364	30	30	0	1	1380	3364	3362	3445	3447	30	30	0	1
1381	3447	3445	3505	3521	30	30	0	1	1382	66	108	106	58	40	40	0	1
1383	58	106	104	56	40	40	0	1	1384	56	104	102	54	40	40	0	1
1385	54	102	100	52	40	40	0	1	1386	52	100	97	47	40	40	0	1
1387	47	97	95	43	40	40	0	1	1388	43	95	93	39	40	40	0	1
1389	39	93	91	33	40	40	0	1	1390	33	91	89	27	40	40	0	1
1391	27	89	87	23	40	40	0	1	1392	23	87	85	19	40	40	0	1
1393	19	85	83	11	40	40	0	1	1394	108	182	180	106	40	40	0	1
1395	106	180	178	104	40	40	0	1	1396	104	178	176	102	40	40	0	1
1397	102	176	174	100	40	40	0	1	1398	100	174	171	97	40	40	0	1
1399	97	171	169	95	40	40	0	1	1400	95	169	167	93	40	40	0	1
1401	93	167	165	91	40	40	0	1	1402	91	165	163	89	40	40	0	1
1403	89	163	161	87	40	40	0	1	1404	87	161	159	85	40	40	0	1
1405	85	159	157	83	40	40	0	1	1406	182	261	259	180	40	40	0	1
1407	180	259	257	178	40	40	0	1	1408	178	257	255	176	40	40	0	1
1409	176	255	253	174	40	40	0	1	1410	174	253	250	171	40	40	0	1
1411	171	250	248	169	40	40	0	1	1412	169	248	246	167	40	40	0	1
1413	167	246	244	165	40	40	0	1	1414	165	244	242	163	40	40	0	1
1415	163	242	240	161	40	40	0	1	1416	161	240	238	159	40	40	0	1
1417	159	238	236	157	40	40	0	1	1418	261	398	396	259	40	40	0	1
1419	259	396	394	257	40	40	0	1	1420	257	394	392	255	40	40	0	1
1421	255	392	390	253	40	40	0	1	1422	253	390	387	250	40	40	0	1
1423	250	387	385	248	40	40	0	1	1424	248	385	383	246	40	40	0	1
1425	246	383	381	244	40	40	0	1	1426	244	381	379	242	40	40	0	1
1427	242	379	377	240	40	40	0	1	1428	240	377	375	238	40	40	0	1
1429	238	375	373	236	40	40	0	1	1430	398	538	536	396	40	40	0	1
1431	396	536	534	394	40	40	0	1	1432	394	534	532	392	40	40	0	1
1433	392	532	530	390	40	40	0	1	1434	390	530	527	387	40	40	0	1
1435	387	527	525	385	40	40	0	1	1436	385	525	523	383	40	40	0	1
1437	383	523	521	381	40	40	0	1	1438	381	521	519	379	40	40	0	1
1439	379	519	517	377	40	40	0	1	1440	377	517	515	375	40	40	0	1
1441	375	515	513	373	40	40	0	1	1442	538	618	616	536	40	40	0	1
1443	536	616	614	534	40	40	0	1	1444	534	614	612	532	40	40	0	1
1445	532	612	610	530	40	40	0	1	1446	530	610	607	527	40	40	0	1
1447	527	607	605	525	40	40	0	1	1448	525	605	603	523	40	40	0	1
1449	523	603	601	521	40	40	0	1	1450	521	601	599	519	40	40	0	1
1451	519	599	597	517	40	40	0	1	1452	517	597	595	515	40	40	0	1
1453	515	595	593	513	40	40	0	1	1454	618	819	798	616	40	40	0	1
1455	616	798	778	614	40	40	0	1	1456	614	778	758	612	40	40	0	1
1457	612	758	733	610	40	40	0	1	1458	610	733	708	607	40	40	0	1
1459	607	708	703	605	40	40	0	1	1460	605	703	699	603	40	40	0	1
1461	603	699	691	601	40	40	0	1	1462	601	691	683	599	40	40	0	1
1463	599	683	677	597	40	40	0	1	1464	597	677	671	595	40	40	0	1
1465	595	671	657	593	40	40	0	1	1466	819	879	877	798	40	40	0	1
1467	798	877	875	778	40	40	0	1	1468	778	875	873	758	40	40	0	1
1469	758	873	871	733	40	40	0	1	1470	733	871	868	708	40	40	0	1
1471	708	868	866	703	40	40	0	1	1472	703	866	864	699	40	40	0	1
1473	699	864	862	691	40	40	0	1	1474	691	862	860	683	40	40	0	1
1475	683	860	858	677	40	40	0	1	1476	677	858	856	671	40	40	0	1
1477	671	856	854	657	40	40	0	1	1478	879	962	960	877	40	40	0	1
1479	877	960	958	875	40	40	0	1	1480	875	958	956	873	40	40	0	1
1481	873	956	954	871	40	40	0	1	1482	871	954	951	868	40	40	0	1
1483	868	951	949	866	40	40	0	1	1484	866	949	947	864	40	40	0	1
1485	864	947	945	862	40	40	0	1	1486	862	945	943	860	40	40	0	1
1487	860	943	941	858	40	40	0	1	1488	858	941	939	856	40	40	0	1
1489	856	939	937	854	40	40	0	1	1490	962							

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
1515	1221	1301	1299	1219	40	40	0	1	1516	1219	1299	1297	1217	40	40	0	1
1517	1217	1297	1295	1215	40	40	0	1	1518	1215	1295	1292	1212	40	40	0	1
1519	1212	1292	1290	1210	40	40	0	1	1520	1210	1290	1288	1208	40	40	0	1
1521	1208	1288	1286	1206	40	40	0	1	1522	1206	1286	1284	1204	40	40	0	1
1523	1204	1284	1282	1202	40	40	0	1	1524	1202	1282	1280	1200	40	40	0	1
1525	1200	1280	1278	1198	40	40	0	1	1526	1303	1557	1527	1301	40	40	0	1
1527	1301	1527	1505	1299	40	40	0	1	1528	1299	1505	1483	1297	40	40	0	1
1529	1297	1483	1456	1295	40	40	0	1	1530	1295	1456	1429	1292	40	40	0	1
1531	1292	1429	1422	1290	40	40	0	1	1532	1290	1422	1416	1288	40	40	0	1
1533	1288	1416	1402	1286	40	40	0	1	1534	1286	1402	1388	1284	40	40	0	1
1535	1284	1388	1376	1282	40	40	0	1	1536	1282	1376	1364	1280	40	40	0	1
1537	1280	1364	1346	1278	40	40	0	1	1538	1558	1618	1616	1528	30	30	0	1
1539	1528	1616	1614	1506	30	30	0	1	1540	1506	1614	1612	1484	30	30	0	1
1541	1484	1612	1610	1457	30	30	0	1	1542	1457	1610	1607	1430	30	30	0	1
1543	1430	1607	1605	1423	30	30	0	1	1544	1423	1605	1603	1417	30	30	0	1
1545	1417	1603	1601	1403	30	30	0	1	1546	1403	1601	1599	1389	30	30	0	1
1547	1389	1599	1597	1377	30	30	0	1	1548	1377	1597	1595	1365	30	30	0	1
1549	1365	1595	1593	1347	30	30	0	1	1550	1618	1698	1696	1616	30	30	0	1
1551	1616	1696	1694	1614	30	30	0	1	1552	1614	1694	1692	1612	30	30	0	1
1553	1612	1692	1690	1610	30	30	0	1	1554	1610	1690	1687	1607	30	30	0	1
1555	1607	1687	1685	1605	30	30	0	1	1556	1605	1685	1683	1603	30	30	0	1
1557	1603	1683	1681	1601	30	30	0	1	1558	1601	1681	1679	1599	30	30	0	1
1559	1599	1679	1677	1597	30	30	0	1	1560	1597	1677	1675	1595	30	30	0	1
1561	1595	1675	1673	1593	30	30	0	1	1562	1698	1838	1836	1696	30	30	0	1
1563	1696	1836	1834	1694	30	30	0	1	1564	1694	1834	1832	1692	30	30	0	1
1565	1692	1832	1830	1690	30	30	0	1	1566	1690	1830	1827	1687	30	30	0	1
1567	1687	1827	1825	1685	30	30	0	1	1568	1685	1825	1823	1683	30	30	0	1
1569	1683	1823	1821	1681	30	30	0	1	1570	1681	1821	1819	1679	30	30	0	1
1571	1679	1819	1817	1677	30	30	0	1	1572	1677	1817	1815	1675	30	30	0	1
1573	1675	1815	1813	1673	30	30	0	1	1574	1838	1970	1968	1836	30	30	0	1
1575	1836	1968	1966	1834	30	30	0	1	1576	1834	1966	1964	1832	30	30	0	1
1577	1832	1964	1962	1830	30	30	0	1	1578	1830	1962	1959	1827	30	30	0	1
1579	1827	1959	1957	1825	30	30	0	1	1580	1825	1957	1955	1823	30	30	0	1
1581	1823	1955	1953	1821	30	30	0	1	1582	1821	1953	1951	1819	30	30	0	1
1583	1819	1951	1949	1817	30	30	0	1	1584	1817	1949	1947	1815	30	30	0	1
1585	1815	1947	1945	1813	30	30	0	1	1586	1970	2053	2051	1968	30	30	0	1
1587	1968	2051	2049	1966	30	30	0	1	1588	1966	2049	2047	1964	30	30	0	1
1589	1964	2047	2045	1962	30	30	0	1	1590	1962	2045	2042	1959	30	30	0	1
1591	1959	2042	2040	1957	30	30	0	1	1592	1957	2040	2038	1955	30	30	0	1
1593	1955	2038	2036	1953	30	30	0	1	1594	1953	2036	2034	1951	30	30	0	1
1595	1951	2034	2032	1949	30	30	0	1	1596	1949	2032	2030	1947	30	30	0	1
1597	1947	2030	2028	1945	30	30	0	1	1598	2053	2262	2226	2051	30	30	0	1
1599	2051	2226	2209	2049	30	30	0	1	1600	2049	2209	2186	2047	30	30	0	1
1601	2047	2186	2162	2045	30	30	0	1	1602	2045	2162	2134	2042	30	30	0	1
1603	2042	2134	2129	2040	30	30	0	1	1604	2040	2129	2125	2038	30	30	0	1
1605	2038	2125	2119	2036	30	30	0	1	1606	2036	2119	2113	2034	30	30	0	1
1607	2034	2113	2109	2032	30	30	0	1	1608	2032	2109	2105	2030	30	30	0	1
1609	2030	2105	2089	2028	30	30	0	1	1610	2089	2105	2295	2293	30	30	0	1
1611	2293	2295	2376	2374	30	30	0	1	1612	2374	2376	2522	2520	30	30	0	1
1613	2520	2522	2660	2658	30	30	0	1	1614	2658	2660	2743	2741	30	30	0	1
1615	2741	2743	2816	2802	30	30	0	1	1616	2105	2109	2297	2295	30	30	0	1
1617	2295	2297	2378	2376	30	30	0	1	1618	2376	2378	2524	2522	30	30	0	1
1619	2522	2524	2662	2660	30	30	0	1	1620	2660	2662	2745	2743	30	30	0	1
1621	2743	2745	2822	2816	30	30	0	1	1622	2109	2113	2299	2297	30	30	0	1
1623	2297	2299	2380	2378	30	30	0	1	1624	2378	2380	2526	2524	30	30	0	1
1625	2524	2526	2664	2662	30	30	0	1	1626	2662	2664	2747	2745	30	30	0	1
1627	2745	2747	2826	2822	30	30	0	1	1628	2113	2119	2301	2299	30	30	0	1
1629	2299	2301	2382	2380	30	30	0	1	1630	2380	2382	2528	2526	30	30	0	1
1631	2526	2528	2666	2664	30	30	0	1	1632	2664	2666	2749	2747	30	30	0	1
1633	2747	2749	2832	2826	30	30	0	1	1634	2119	2125	2303	2301	30	30	0	1
1635	2301	2303	2384	2382	30	30	0	1	1636	2382	2384	2530	2528	30	30	0	1
1637	2528	2530	2668	2666	30	30	0	1	1638	2666	2668	2751	2749	30	30	0	1
1639	2749	2751	2838	2832	30	30	0	1	1640	2125	2129	2305	2303	30	30	0	1
1641	2303	2305	2386	2384	30	30	0	1	1642	2384	2386	2532	2530	30	30	0	1
1643	2530	2532	2670	2668	30	30	0	1	1644	2668	2670	2753	2751	30	30	0	1
1645	2751	2753	2842	2838	30	30	0	1	1646	2129	2134	2307	2305	30	30	0	1
1647	2305	2307	2388	2386	30	30	0	1	1648	2386	2388	2534	2532	30	30	0	1
1649	2532	2534	2672	2670	30	30	0	1	1650	2670	2672	2755	2753	30	30	0	1
1651	2753	2755	2846	2842	30	30	0	1	1652	2134	2162	2310	2307	30	30	0	1
1653	2307	2310	2391	2388	30	30	0	1	1654	2388	2391	2537	2534	30	30	0	1
1655	2534	2537	2675	2672	30	30	0	1	1656	2672	2675	2758	2755	30	30	0	1
1657	2755	2758	2870	2846	30	30	0	1	1658	2162	2186	2312	2310	30	30	0	1
1659	2310	2312	2393	2391	30	30	0	1	1660	2391	2393	2539	2537	30	30	0	1
1661	2537	2539	2677	2675	30	30	0	1	1662	2675	2677	2760	2758	30	30	0	1
1663	2758	2760	2894	2870	30	30	0	1	1664	2186	2209	2314	2312	30	30	0	1
1665	2312	2314	2395	2393	30	30	0	1	1666	2393	2395	2541	2539	30	30	0	1
1667	2539	2541	2679	2677	30	30	0	1	1668	2677	2679	2762	2760	30	30	0	1
1669	2760	2762	2907	2894	30	30	0	1	1670	2209	2226	2316	2314	30	30	0	1
1671	2314	2316	2397	2395	30	30	0	1	1672	2395	2397	2543	2541	30	30	0	1
1673	2541	2543	2681	2679	30	30	0	1	1674	2679	2681	2764	2762	30	30	0	1
1675	2762	2764	2923	2907	30	30	0	1	1676	2226	2262	2318	2316	30	30	0	1
1677	2316	2318	2399	2397	30	30	0	1	1678	2397	2399	2545	2543	30	30	0	1
1679	2543	2545	2683	2681													

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
1711	3454	3456	3544	3538	30	30	0	1	1712	2838	2842	3009	3007	30	30	0	1
1713	3007	3009	3091	3089	30	30	0	1	1714	3089	3091	3237	3235	30	30	0	1
1715	3235	3237	3375	3373	30	30	0	1	1716	3373	3375	3458	3456	30	30	0	1
1717	3456	3458	3548	3544	30	30	0	1	1718	2842	2846	3011	3009	30	30	0	1
1719	3009	3011	3093	3091	30	30	0	1	1720	3091	3093	3239	3237	30	30	0	1
1721	3237	3239	3377	3375	30	30	0	1	1722	3375	3377	3460	3458	30	30	0	1
1723	3458	3460	3552	3548	30	30	0	1	1724	2846	2870	3014	3011	30	30	0	1
1725	3011	3014	3096	3093	30	30	0	1	1726	3093	3096	3242	3239	30	30	0	1
1727	3239	3242	3380	3377	30	30	0	1	1728	3377	3380	3463	3460	30	30	0	1
1729	3460	3463	3574	3552	30	30	0	1	1730	2870	2894	3016	3014	30	30	0	1
1731	3014	3016	3098	3096	30	30	0	1	1732	3096	3098	3244	3242	30	30	0	1
1733	3242	3244	3382	3380	30	30	0	1	1734	3380	3382	3465	3463	30	30	0	1
1735	3463	3465	3597	3574	30	30	0	1	1736	2894	2907	3018	3016	30	30	0	1
1737	3016	3018	3100	3098	30	30	0	1	1738	3098	3100	3246	3244	30	30	0	1
1739	3244	3246	3384	3382	30	30	0	1	1740	3382	3384	3467	3465	30	30	0	1
1741	3465	3467	3619	3597	30	30	0	1	1742	2907	2923	3020	3018	30	30	0	1
1743	3018	3020	3102	3100	30	30	0	1	1744	3100	3102	3248	3246	30	30	0	1
1745	3246	3248	3386	3384	30	30	0	1	1746	3384	3386	3469	3467	30	30	0	1
1747	3467	3469	3636	3619	30	30	0	1	1748	2923	2965	3022	3020	30	30	0	1
1749	3020	3022	3104	3102	30	30	0	1	1750	3102	3104	3250	3248	30	30	0	1
1751	3248	3250	3388	3386	30	30	0	1	1752	3386	3388	3471	3469	30	30	0	1
1753	3469	3471	3673	3636	30	30	0	1	1754	3533	3690	3696	3696	30	30	0	1
1755	3539	3696	3702	3545	30	30	0	1	1756	3545	3702	3706	3549	30	30	0	1
1757	3549	3706	3710	3571	30	30	0	1	1758	3690	3738	3744	3696	30	30	0	1
1759	3696	3744	3750	3702	30	30	0	1	1760	3702	3750	3754	3706	30	30	0	1
1761	3706	3754	3758	3710	30	30	0	1	1762	3738	3786	3792	3744	30	30	0	1
1763	3744	3792	3798	3750	30	30	0	1	1764	3750	3798	3802	3754	30	30	0	1
1765	3754	3802	3806	3758	30	30	0	1	1766	3786	3834	3840	3792	30	30	0	1
1767	3792	3840	3846	3798	30	30	0	1	1768	3798	3846	3850	3802	30	30	0	1
1769	3802	3850	3854	3806	30	30	0	1	1770	3834	3882	3888	3840	30	30	0	1
1771	3840	3888	3894	3846	30	30	0	1	1772	3846	3894	3898	3850	30	30	0	1
1773	3850	3898	3902	3854	30	30	0	1	1774	3882	3942	3950	3888	30	30	0	1
1775	3888	3950	3956	3894	30	30	0	1	1776	3894	3956	3960	3898	30	30	0	1
1777	3898	3960	3966	3902	30	30	0	1	1778	3572	3711	3707	3550	30	30	0	1
1779	3550	3707	3703	3546	30	30	0	1	1780	3546	3703	3697	3540	30	30	0	1
1781	3540	3697	3691	3534	30	30	0	1	1782	3711	3759	3755	3707	30	30	0	1
1783	3707	3755	3751	3703	30	30	0	1	1784	3703	3751	3745	3697	30	30	0	1
1785	3697	3745	3739	3691	30	30	0	1	1786	3759	3807	3803	3755	30	30	0	1
1787	3755	3803	3799	3751	30	30	0	1	1788	3751	3799	3793	3745	30	30	0	1
1789	3745	3793	3787	3739	30	30	0	1	1790	3807	3855	3851	3803	30	30	0	1
1791	3803	3851	3847	3799	30	30	0	1	1792	3799	3847	3841	3793	30	30	0	1
1793	3793	3841	3835	3787	30	30	0	1	1794	3855	3903	3899	3851	30	30	0	1
1795	3851	3899	3895	3847	30	30	0	1	1796	3847	3895	3889	3841	30	30	0	1
1797	3841	3889	3883	3835	30	30	0	1	1798	3903	3967	3961	3899	30	30	0	1
1799	3899	3961	3957	3895	30	30	0	1	1800	3895	3957	3951	3889	30	30	0	1
1801	3889	3951	3943	3883	30	30	0	1	1802	3506	3675	3678	3523	30	30	0	1
1803	3523	3678	3682	3525	30	30	0	1	1804	3525	3682	3686	3529	30	30	0	1
1805	3529	3686	3692	3535	30	30	0	1	1806	3535	3692	3698	3541	30	30	0	1
1807	3675	3723	3726	3678	30	30	0	1	1808	3678	3726	3730	3682	30	30	0	1
1809	3682	3730	3734	3686	30	30	0	1	1810	3686	3734	3740	3692	30	30	0	1
1811	3692	3740	3746	3698	30	30	0	1	1812	3723	3771	3774	3726	30	30	0	1
1813	3726	3774	3778	3730	30	30	0	1	1814	3730	3778	3782	3734	30	30	0	1
1815	3734	3782	3788	3740	30	30	0	1	1816	3740	3788	3794	3746	30	30	0	1
1817	3771	3819	3822	3774	30	30	0	1	1818	3774	3822	3826	3778	30	30	0	1
1819	3778	3826	3830	3782	30	30	0	1	1820	3782	3830	3836	3788	30	30	0	1
1821	3788	3836	3842	3794	30	30	0	1	1822	3819	3867	3870	3822	30	30	0	1
1823	3822	3870	3874	3826	30	30	0	1	1824	3826	3874	3878	3830	30	30	0	1
1825	3830	3878	3884	3836	30	30	0	1	1826	3836	3884	3890	3842	30	30	0	1
1827	3867	3915	3932	3870	30	30	0	1	1828	3870	3932	3934	3874	30	30	0	1
1829	3874	3934	3938	3878	30	30	0	1	1830	3878	3938	3944	3884	30	30	0	1
1831	3884	3944	3952	3890	30	30	0	1	1832	3672	3635	3718	3720	30	30	0	1
1833	3720	3718	3766	3768	30	30	0	1	1834	3768	3766	3814	3816	30	30	0	1
1835	3816	3814	3862	3864	30	30	0	1	1836	3864	3862	3910	3912	30	30	0	1
1837	3912	3910	3974	3999	30	30	0	1	1838	3635	3618	3716	3718	30	30	0	1
1839	3718	3716	3764	3766	30	30	0	1	1840	3766	3764	3812	3814	30	30	0	1
1841	3814	3812	3860	3862	30	30	0	1	1842	3862	3860	3908	3910	30	30	0	1
1843	3910	3908	3972	3974	30	30	0	1	1844	3618	3596	3714	3716	30	30	0	1
1845	3716	3714	3762	3764	30	30	0	1	1846	3764	3762	3810	3812	30	30	0	1
1847	3812	3810	3858	3860	30	30	0	1	1848	3860	3858	3906	3908	30	30	0	1
1849	3908	3906	3970	3972	30	30	0	1	1850	3596	3573	3712	3714	30	30	0	1
1851	3714	3712	3760	3762	30	30	0	1	1852	3762	3760	3808	3810	30	30	0	1
1853	3810	3808	3856	3858	30	30	0	1	1854	3858	3856	3904	3906	30	30	0	1
1855	3906	3904	3968	3970	30	30	0	1	1856	3573	3551	3708	3712	30	30	0	1
1857	3712	3708	3756	3760	30	30	0	1	1858	3760	3756	3804	3808	30	30	0	1
1859	3808	3804	3852	3856	30	30	0	1	1860	3856	3852	3900	3904	30	30	0	1
1861	3904	3900	3962	3968	30	30	0	1	1862	3551	3547	3704	3708	30	30	0	1
1863	3708	3704	3752	3756	30	30	0	1	1864	3756	3752	3800	3804	30	30	0	1
1865	3804	3800	3848	3852	30	30	0	1	1866	3852	3848	3896	3900	30	30	0	1
1867	3900	3896	3958	3962	30	30	0	1	1868	3547	3543	3700	3704	30	30	0	1
1869	3704	3700	3748	3752	30	30	0	1	1870	3752	3748	3796	3800	30	30	0	1
1871	3800	3796	3844	3848	30	30	0	1	1872	3848	3844	3892	3896	30	30	0	1
1873	3896	3892	3954	3958	30	30	0	1	1874	3543	3537	3694	3700	30	30	0	1
1875	3700	3694	3742	3748													

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
1907	3773	3777	3825	3821	30	30	0	1	1908	3821	3825	3873	3869	30	30	0	1
1909	3869	3873	3931	3917	30	30	0	1	1910	3522	3528	3685	3681	30	30	0	1
1911	3681	3685	3733	3729	30	30	0	1	1912	3729	3733	3781	3777	30	30	0	1
1913	3777	3781	3829	3825	30	30	0	1	1914	3825	3829	3877	3873	30	30	0	1
1915	3873	3877	3937	3931	30	30	0	1	1916	3528	3532	3689	3685	30	30	0	1
1917	3685	3689	3737	3733	30	30	0	1	1918	3733	3737	3785	3781	30	30	0	1
1919	3781	3785	3833	3829	30	30	0	1	1920	3829	3833	3881	3877	30	30	0	1
1921	3877	3881	3941	3937	30	30	0	1	1922	3532	3538	3695	3689	30	30	0	1
1923	3689	3695	3743	3737	30	30	0	1	1924	3737	3743	3791	3785	30	30	0	1
1925	3785	3791	3839	3833	30	30	0	1	1926	3833	3839	3887	3881	30	30	0	1
1927	3881	3887	3947	3941	30	30	0	1	1928	3538	3544	3701	3695	30	30	0	1
1929	3695	3701	3749	3743	30	30	0	1	1930	3743	3749	3797	3791	30	30	0	1
1931	3791	3797	3845	3839	30	30	0	1	1932	3839	3845	3893	3887	30	30	0	1
1933	3887	3893	3955	3947	30	30	0	1	1934	3544	3548	3705	3701	30	30	0	1
1935	3701	3705	3753	3749	30	30	0	1	1936	3749	3753	3801	3797	30	30	0	1
1937	3797	3801	3849	3845	30	30	0	1	1938	3845	3849	3897	3893	30	30	0	1
1939	3893	3897	3959	3955	30	30	0	1	1940	3548	3552	3709	3705	30	30	0	1
1941	3705	3709	3757	3753	30	30	0	1	1942	3753	3757	3805	3801	30	30	0	1
1943	3801	3805	3853	3849	30	30	0	1	1944	3849	3853	3901	3897	30	30	0	1
1945	3897	3901	3963	3959	30	30	0	1	1946	3552	3574	3713	3709	30	30	0	1
1947	3709	3713	3761	3757	30	30	0	1	1948	3757	3761	3809	3805	30	30	0	1
1949	3805	3809	3857	3853	30	30	0	1	1950	3853	3857	3905	3901	30	30	0	1
1951	3901	3905	3969	3963	30	30	0	1	1952	3574	3597	3715	3713	30	30	0	1
1953	3713	3715	3763	3761	30	30	0	1	1954	3761	3763	3811	3809	30	30	0	1
1955	3809	3811	3859	3857	30	30	0	1	1956	3857	3859	3907	3905	30	30	0	1
1957	3905	3907	3971	3969	30	30	0	1	1958	3597	3619	3717	3715	30	30	0	1
1959	3715	3717	3765	3763	30	30	0	1	1960	3763	3765	3813	3811	30	30	0	1
1961	3811	3813	3861	3859	30	30	0	1	1962	3859	3861	3909	3907	30	30	0	1
1963	3907	3909	3973	3971	30	30	0	1	1964	3619	3636	3719	3717	30	30	0	1
1965	3717	3719	3767	3765	30	30	0	1	1966	3765	3767	3815	3813	30	30	0	1
1967	3813	3815	3863	3861	30	30	0	1	1968	3861	3863	3911	3909	30	30	0	1
1969	3909	3911	3975	3973	30	30	0	1	1970	3636	3673	3721	3719	30	30	0	1
1971	3719	3721	3769	3767	30	30	0	1	1972	3767	3769	3817	3815	30	30	0	1
1973	3815	3817	3865	3863	30	30	0	1	1974	3863	3865	3913	3911	30	30	0	1
1975	3911	3913	4000	3975	30	30	0	1	1976	3663	3662	3634	3632	25	25	0	1
1977	3662	3661	3638	3634	25	25	0	1	1978	3661	3660	3639	3638	25	25	0	1
1979	3660	3659	3637	3639	25	25	0	1	1980	3659	3658	3633	3637	25	25	0	1
1981	3658	3657	3627	3633	25	25	0	1	1982	3657	3656	3628	3627	25	25	0	1
1983	3655	3630	3628	3656	25	25	0	1	1984	3630	3609	3608	3628	25	25	0	1
1985	3609	3586	3585	3608	25	25	0	1	1986	3558	3559	3585	3586	25	25	0	1
1987	3559	3560	3583	3585	25	25	0	1	1988	3560	3561	3581	3583	25	25	0	1
1989	3561	3562	3578	3581	25	25	0	1	1990	3562	3563	3576	3578	25	25	0	1
1991	3563	3564	3575	3576	25	25	0	1	1992	3564	3565	3577	3575	25	25	0	1
1993	3565	3566	3579	3577	25	25	0	1	1994	3566	3567	3580	3579	25	25	0	1
1995	3567	3568	3582	3580	25	25	0	1	1996	3568	3569	3584	3582	25	25	0	1
1997	3570	3587	3584	3569	25	25	0	1	1998	3587	3610	3607	3584	25	25	0	1
1999	3610	3631	3629	3607	25	25	0	1	2000	3665	3664	3629	3631	25	25	0	1
2001	3664	3663	3632	3629	25	25	0	1	2002	3623	3617	3616	3621	25	25	0	1
2003	3605	3632	3621	3616	25	25	0	1	2004	3617	3604	3605	3616	25	25	0	1
2005	3632	3634	3623	3621	25	25	0	1	2006	3605	3607	3629	3632	25	25	0	1
2007	3582	3584	3607	3605	25	25	0	1	2008	3593	3579	3580	3595	25	25	0	1
2009	3580	3582	3605	3595	25	25	0	1	2010	3605	3604	3593	3595	25	25	0	1
2011	3575	3577	3592	3590	25	25	0	1	2012	3577	3579	3593	3592	25	25	0	1
2013	3590	3592	3603	3602	25	25	0	1	2014	3592	3593	3604	3603	25	25	0	1
2015	3602	3603	3615	3614	25	25	0	1	2016	3603	3604	3617	3615	25	25	0	1
2017	3614	3615	3625	3626	25	25	0	1	2018	3615	3617	3623	3625	25	25	0	1
2019	3626	3625	3638	3639	25	25	0	1	2020	3625	3623	3634	3638	25	25	0	1
2021	3576	3575	3590	3589	25	25	0	1	2022	3589	3590	3602	3601	25	25	0	1
2023	3601	3602	3614	3613	25	25	0	1	2024	3613	3614	3626	3624	25	25	0	1
2025	3624	3626	3639	3637	25	25	0	1	2026	3624	3637	3633	3622	25	25	0	1
2027	3622	3612	3613	3624	25	25	0	1	2028	3611	3612	3622	3620	25	25	0	1
2029	3622	3633	3627	3620	25	25	0	1	2030	3627	3606	3611	3620	25	25	0	1
2031	3627	3628	3608	3606	25	25	0	1	2032	3578	3576	3589	3588	25	25	0	1
2033	3588	3589	3601	3600	25	25	0	1	2034	3600	3601	3613	3612	25	25	0	1
2035	3581	3578	3588	3591	25	25	0	1	2036	3591	3588	3600	3599	25	25	0	1
2037	3599	3600	3612	3611	25	25	0	1	2038	3591	3599	3598	3594	25	25	0	1
2039	3606	3583	3594	3598	25	25	0	1	2040	3599	3611	3606	3598	25	25	0	1
2041	3583	3581	3591	3594	25	25	0	1	2042	3606	3608	3585	3583	25	25	0	1
2043	316	303	216	218	40	40	0	1	2044	303	296	213	216	40	40	0	1
2045	296	288	212	213	40	40	0	1	2046	288	279	214	212	40	40	0	1
2047	279	271	217	214	40	40	0	1	2048	271	333	198	217	40	40	0	1
2049	263	190	198	333	40	40	0	1	2050	190	116	119	198	40	40	0	1
2051	10	17	119	116	40	40	0	1	2052	17	21	71	119	40	40	0	1
2053	21	25	72	71	40	40	0	1	2054	25	31	120	72	40	40	0	1
2055	37	117	120	31	40	40	0	1	2056	117	191	199	120	40	40	0	1
2057	330	329	199	191	40	40	0	1	2058	329	316	218	199	40	40	0	1
2059	132	72	120	136	40	40	0	1	2060	120	199	197	136	40	40	0	1
2061	197	193	132	136	40	40	0	1	2062	197	199	218	216	40	40	0	1
2063	216	213	193	197	40	40	0	1	2064	71	72	132	131	40	40	0	1
2065	131	132	193	192	40	40	0	1	2066	192	193	213	212	40	40	0	1
2067	195	192	212	214	40	40	0	1	2068	214	217	198	195	40	40	0	1
2069	131	192	195	135	40	40	0	1	2070	195	198	119	135	40	40	0	1
2071	119	71	131	135	40	40	0	1	2072	330	409	408	329	40	40	0	1
2073	329	408	407														

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
2103	625	681	679	624	40	40	0	1	2104	624	679	675	623	40	40	0	1
2105	623	675	673	622	40	40	0	1	2106	622	673	667	621	40	40	0	1
2107	621	667	656	620	40	40	0	1	2108	656	667	881	880	40	40	0	1
2109	880	881	964	963	40	40	0	1	2110	667	673	882	881	40	40	0	1
2111	881	882	972	964	40	40	0	1	2112	673	675	883	882	40	40	0	1
2113	882	883	980	972	40	40	0	1	2114	675	679	884	883	40	40	0	1
2115	883	884	989	980	40	40	0	1	2116	679	681	885	884	40	40	0	1
2117	884	885	997	989	40	40	0	1	2118	681	685	886	885	40	40	0	1
2119	885	886	1004	997	40	40	0	1	2120	685	689	887	886	40	40	0	1
2121	886	887	1017	1004	40	40	0	1	2122	689	693	888	887	40	40	0	1
2123	887	888	1030	1017	40	40	0	1	2124	693	697	889	888	40	40	0	1
2125	888	889	1031	1030	40	40	0	1	2126	1031	1106	1105	1030	40	40	0	1
2127	1030	1105	1104	1017	40	40	0	1	2128	1017	1104	1102	1004	40	40	0	1
2129	1004	1102	1101	997	40	40	0	1	2130	997	1101	1100	989	40	40	0	1
2131	989	1100	1099	980	40	40	0	1	2132	980	1099	1098	972	40	40	0	1
2133	972	1098	1097	964	40	40	0	1	2134	964	1097	1096	963	40	40	0	1
2135	1106	1235	1234	1105	40	40	0	1	2136	1105	1234	1233	1104	40	40	0	1
2137	1104	1233	1231	1102	40	40	0	1	2138	1102	1231	1230	1101	40	40	0	1
2139	1101	1230	1229	1100	40	40	0	1	2140	1100	1229	1228	1099	40	40	0	1
2141	1099	1228	1227	1098	40	40	0	1	2142	1098	1227	1226	1097	40	40	0	1
2143	1097	1226	1225	1096	40	40	0	1	2144	1235	1314	1313	1234	40	40	0	1
2145	1234	1313	1312	1233	40	40	0	1	2146	1233	1312	1310	1231	40	40	0	1
2147	1231	1310	1309	1230	40	40	0	1	2148	1230	1309	1308	1229	40	40	0	1
2149	1229	1308	1307	1228	40	40	0	1	2150	1228	1307	1306	1227	40	40	0	1
2151	1227	1306	1305	1226	40	40	0	1	2152	1226	1305	1304	1225	40	40	0	1
2153	1314	1413	1407	1313	40	40	0	1	2154	1313	1407	1399	1312	40	40	0	1
2155	1312	1399	1393	1310	40	40	0	1	2156	1310	1393	1385	1309	40	40	0	1
2157	1309	1385	1381	1308	40	40	0	1	2158	1308	1381	1373	1307	40	40	0	1
2159	1307	1373	1369	1306	40	40	0	1	2160	1306	1369	1359	1305	40	40	0	1
2161	1305	1359	1345	1304	40	40	0	1	2162	1344	1358	1620	1619	30	30	0	1
2163	1619	1620	1700	1699	30	30	0	1	2164	1358	1368	1621	1620	30	30	0	1
2165	1620	1621	1708	1700	30	30	0	1	2166	1368	1372	1622	1621	30	30	0	1
2167	1621	1622	1716	1708	30	30	0	1	2168	1372	1380	1623	1622	30	30	0	1
2169	1622	1623	1725	1716	30	30	0	1	2170	1380	1384	1624	1623	30	30	0	1
2171	1623	1624	1733	1725	30	30	0	1	2172	1384	1392	1625	1624	30	30	0	1
2173	1624	1625	1740	1733	30	30	0	1	2174	1392	1398	1626	1625	30	30	0	1
2175	1625	1626	1753	1740	30	30	0	1	2176	1398	1406	1627	1626	30	30	0	1
2177	1626	1627	1766	1753	30	30	0	1	2178	1406	1412	1628	1627	30	30	0	1
2179	1627	1628	1767	1766	30	30	0	1	2180	2111	2107	2066	2065	30	30	0	1
2181	2107	2103	2020	2066	30	30	0	1	2182	2088	2054	2020	2103	30	30	0	1
2183	2054	1972	1937	2020	30	30	0	1	2184	1972	1839	1807	1937	30	30	0	1
2185	1699	1700	1807	1839	30	30	0	1	2186	1700	1708	1785	1807	30	30	0	1
2187	1708	1716	1782	1785	30	30	0	1	2188	1716	1725	1780	1782	30	30	0	1
2189	1725	1733	1781	1780	30	30	0	1	2190	1733	1740	1784	1781	30	30	0	1
2191	1740	1753	1786	1784	30	30	0	1	2192	1753	1766	1808	1786	30	30	0	1
2193	1767	1841	1808	1766	30	30	0	1	2194	1841	1974	1938	1808	30	30	0	1
2195	1974	2056	2019	1938	30	30	0	1	2196	2123	2117	2019	2056	30	30	0	1
2197	2117	2111	2065	2019	30	30	0	1	2198	2003	1942	1939	1993	30	30	0	1
2199	1939	1938	2019	1993	30	30	0	1	2200	2019	2065	2003	1993	30	30	0	1
2201	1850	1784	1786	1851	30	30	0	1	2202	1786	1808	1938	1851	30	30	0	1
2203	1938	1939	1850	1851	30	30	0	1	2204	1853	1781	1784	1850	30	30	0	1
2205	1850	1939	1942	1853	30	30	0	1	2206	2002	2066	2020	1992	30	30	0	1
2207	2020	1937	1940	1992	30	30	0	1	2208	1940	1941	2002	1992	30	30	0	1
2209	1852	1941	1940	1849	30	30	0	1	2210	1849	1782	1780	1852	30	30	0	1
2211	1849	1940	1937	1848	30	30	0	1	2212	1937	1807	1785	1848	30	30	0	1
2213	1785	1782	1849	1848	30	30	0	1	2214	1780	1781	1853	1852	30	30	0	1
2215	1852	1853	1942	1941	30	30	0	1	2216	1941	1942	2003	2002	30	30	0	1
2217	2002	2003	2065	2066	30	30	0	1	2218	2454	2441	2359	2357	30	30	0	1
2219	2441	2434	2358	2359	30	30	0	1	2220	2434	2426	2356	2358	30	30	0	1
2221	2426	2417	2351	2356	30	30	0	1	2222	2417	2409	2354	2351	30	30	0	1
2223	2409	2400	2333	2354	30	30	0	1	2224	2401	2319	2333	2400	30	30	0	1
2225	2088	2103	2333	2319	30	30	0	1	2226	2103	2107	2291	2333	30	30	0	1
2227	2107	2111	2283	2291	30	30	0	1	2228	2111	2117	2334	2283	30	30	0	1
2229	2123	2320	2334	2117	30	30	0	1	2230	2468	2467	2334	2320	30	30	0	1
2231	2467	2454	2357	2334	30	30	0	1	2232	2359	2358	2336	2340	30	30	0	1
2233	2336	2283	2334	2340	30	30	0	1	2234	2334	2357	2359	2340	30	30	0	1
2235	2351	2354	2333	2291	30	30	0	1	2236	2336	2358	2356	2335	30	30	0	1
2237	2356	2351	2291	2335	30	30	0	1	2238	2291	2283	2336	2335	30	30	0	1
2239	2824	2820	2779	2778	30	30	0	1	2240	2820	2818	2733	2779	30	30	0	1
2241	2801	2767	2733	2818	30	30	0	1	2242	2767	2685	2649	2733	30	30	0	1
2243	2685	2546	2512	2649	30	30	0	1	2244	2401	2400	2512	2546	30	30	0	1
2245	2400	2409	2495	2512	30	30	0	1	2246	2409	2417	2489	2495	30	30	0	1
2247	2417	2426	2487	2489	30	30	0	1	2248	2426	2434	2488	2487	30	30	0	1
2249	2434	2441	2493	2488	30	30	0	1	2250	2441	2454	2499	2493	30	30	0	1
2251	2454	2467	2513	2499	30	30	0	1	2252	2468	2548	2513	2467	30	30	0	1
2253	2548	2687	2650	2513	30	30	0	1	2254	2687	2769	2732	2650	30	30	0	1
2255	2836	2830	2732	2769	30	30	0	1	2256	2830	2824	2778	2732	30	30	0	1
2257	2716	2655	2652	2706	30	30	0	1	2258	2652	2650	2732	2706	30	30	0	1
2259	2732	2778	2716	2706	30	30	0	1	2260	2563	2493	2499	2564	30	30	0	1
2261	2499	2513	2650	2564	30	30	0	1	2262	2650	2652	2563	2564	30	30	0	1
2263	2566	2488	2493	2563	30	30	0	1	2264	2563	2652	2655	2566	30	30	0	1
2265	2715	2779	2733	2705	30	30	0	1	2266	2733	2649	2651	2705	30	30	0	1
2267	2651	2654	2715	2705	30	30	0	1	2268	2565	2654	2651	2560	30	30	0	

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
2299	3530	3526	3484	3483	30	30	0	1	2300	3526	3524	3438	3484	30	30	0	1
2301	3507	3472	3438	3524	30	30	0	1	2302	3472	3390	3354	3438	30	30	0	1
2303	3390	3251	3217	3354	30	30	0	1	2304	3106	3105	3217	3251	30	30	0	1
2305	3105	3114	3200	3217	30	30	0	1	2306	3114	3122	3194	3200	30	30	0	1
2307	3122	3131	3192	3194	30	30	0	1	2308	3131	3139	3193	3192	30	30	0	1
2309	3139	3146	3199	3193	30	30	0	1	2310	3146	3159	3204	3199	30	30	0	1
2311	3159	3172	3218	3204	30	30	0	1	2312	3173	3253	3218	3172	30	30	0	1
2313	3253	3392	3355	3218	30	30	0	1	2314	3392	3474	3437	3355	30	30	0	1
2315	3542	3536	3437	3474	30	30	0	1	2316	3536	3530	3483	3437	30	30	0	1
2317	3421	3360	3357	3411	30	30	0	1	2318	3357	3355	3437	3411	30	30	0	1
2319	3437	3483	3421	3411	30	30	0	1	2320	3268	3199	3204	3269	30	30	0	1
2321	3204	3218	3355	3269	30	30	0	1	2322	3355	3357	3268	3269	30	30	0	1
2323	3271	3193	3199	3268	30	30	0	1	2324	3268	3357	3360	3271	30	30	0	1
2325	3420	3484	3438	3410	30	30	0	1	2326	3438	3354	3356	3410	30	30	0	1
2327	3356	3359	3420	3410	30	30	0	1	2328	3270	3359	3356	3266	30	30	0	1
2329	3266	3194	3192	3270	30	30	0	1	2330	3266	3356	3354	3263	30	30	0	1
2331	3354	3217	3200	3263	30	30	0	1	2332	3200	3194	3266	3263	30	30	0	1
2333	3192	3193	3271	3270	30	30	0	1	2334	3270	3271	3360	3359	30	30	0	1
2335	3359	3360	3421	3420	30	30	0	1	2336	3420	3421	3483	3484	30	30	0	1
2337	3542	3699	3693	3536	30	30	0	1	2338	3536	3693	3687	3530	30	30	0	1
2339	3530	3687	3683	3526	30	30	0	1	2340	3526	3683	3679	3524	30	30	0	1
2341	3524	3679	3676	3507	30	30	0	1	2342	3699	3747	3741	3693	30	30	0	1
2343	3693	3741	3735	3687	30	30	0	1	2344	3687	3735	3731	3683	30	30	0	1
2345	3683	3731	3727	3679	30	30	0	1	2346	3679	3727	3724	3676	30	30	0	1
2347	3747	3795	3789	3741	30	30	0	1	2348	3741	3789	3783	3735	30	30	0	1
2349	3735	3783	3779	3731	30	30	0	1	2350	3731	3779	3775	3727	30	30	0	1
2351	3727	3775	3772	3724	30	30	0	1	2352	3795	3843	3837	3789	30	30	0	1
2353	3789	3837	3831	3783	30	30	0	1	2354	3783	3831	3827	3779	30	30	0	1
2355	3779	3827	3823	3775	30	30	0	1	2356	3775	3823	3820	3772	30	30	0	1
2357	3843	3891	3885	3837	30	30	0	1	2358	3837	3885	3879	3831	30	30	0	1
2359	3831	3879	3875	3827	30	30	0	1	2360	3827	3875	3871	3823	30	30	0	1
2361	3823	3871	3868	3820	30	30	0	1	2362	3891	3953	3945	3885	30	30	0	1
2363	3885	3945	3939	3879	30	30	0	1	2364	3879	3939	3935	3875	30	30	0	1
2365	3875	3935	3933	3871	30	30	0	1	2366	3871	3933	3916	3868	30	30	0	1
2367	2967	2864	2974	2975	15	15	0	2	2368	2975	2974	2983	2984	15	15	0	2
2369	2984	2983	3030	3031	15	15	0	2	2370	3031	3030	3051	3052	15	15	0	2
2371	3052	3051	3070	3071	15	15	0	2	2372	3071	3070	3170	3171	15	15	0	2
2373	2864	2863	2973	2974	15	15	0	2	2374	2974	2973	2982	2983	15	15	0	2
2375	2983	2982	3029	3030	15	15	0	2	2376	3030	3029	3050	3051	15	15	0	2
2377	3051	3050	3069	3070	15	15	0	2	2378	3070	3069	3169	3170	15	15	0	2
2379	2863	2862	2972	2973	15	15	0	2	2380	2973	2972	2981	2982	15	15	0	2
2381	2982	2981	3028	3029	15	15	0	2	2382	3029	3028	3049	3050	15	15	0	2
2383	3050	3049	3068	3069	15	15	0	2	2384	3069	3068	3168	3169	15	15	0	2
2385	2862	2861	2971	2972	15	15	0	2	2386	2972	2971	2980	2981	15	15	0	2
2387	2981	2980	3027	3028	15	15	0	2	2388	3028	3027	3048	3049	15	15	0	2
2389	3049	3048	3067	3068	15	15	0	2	2390	3068	3067	3167	3168	15	15	0	2
2391	2861	2860	2970	2971	15	15	0	2	2392	2971	2970	2979	2980	15	15	0	2
2393	2980	2979	3026	3027	15	15	0	2	2394	3027	3026	3045	3048	15	15	0	2
2395	3048	3045	3065	3067	15	15	0	2	2396	3067	3065	3166	3167	15	15	0	2
2397	3153	3144	3148	3155	20	20	0	1	2398	3144	3138	3143	3148	20	20	0	1
2399	3138	3134	3137	3143	20	20	0	1	2400	3134	3126	3133	3137	20	20	0	1
2401	3126	3116	3124	3133	20	20	0	1	2402	3116	3114	3122	3124	20	20	0	1
2403	3122	3131	3133	3124	20	20	0	1	2404	3131	3139	3142	3133	20	20	0	1
2405	3139	3146	3150	3142	20	20	0	1	2406	3146	3159	3160	3150	20	20	0	1
2407	3172	3171	3160	3159	20	20	0	1	2408	3171	3170	3158	3160	20	20	0	1
2409	3170	3169	3163	3158	20	20	0	1	2410	3169	3168	3165	3163	20	20	0	1
2411	3168	3167	3164	3165	20	20	0	1	2412	3166	3162	3164	3167	20	20	0	1
2413	3162	3153	3155	3164	20	20	0	1	2414	3154	3163	3165	3157	20	20	0	1
2415	3165	3164	3155	3157	20	20	0	1	2416	3155	3148	3154	3157	20	20	0	1
2417	3154	3148	3143	3151	20	20	0	1	2418	3151	3158	3163	3154	20	20	0	1
2419	3145	3142	3150	3152	20	20	0	1	2420	3150	3160	3158	3152	20	20	0	1
2421	3158	3151	3145	3152	20	20	0	1	2422	3145	3151	3143	3137	20	20	0	1
2423	3137	3133	3142	3145	20	20	0	1	2424	3140	3132	3130	3141	20	20	0	1
2425	3132	3123	3121	3130	20	20	0	1	2426	3107	3108	3121	3123	20	20	0	1
2427	3108	3109	3119	3121	20	20	0	1	2428	3109	3110	3118	3119	20	20	0	1
2429	3110	3111	3117	3118	20	20	0	1	2430	3111	3112	3120	3117	20	20	0	1
2431	3112	3113	3115	3120	20	20	0	1	2432	3113	3114	3116	3115	20	20	0	1
2433	3116	3126	3120	3115	20	20	0	1	2434	3126	3134	3128	3120	20	20	0	1
2435	3134	3138	3135	3128	20	20	0	1	2436	3138	3144	3136	3135	20	20	0	1
2437	3144	3153	3141	3136	20	20	0	1	2438	3153	3162	3149	3141	20	20	0	1
2439	3161	3147	3149	3162	20	20	0	1	2440	3147	3140	3141	3149	20	20	0	1
2441	3127	3118	3117	3125	20	20	0	1	2442	3117	3120	3128	3125	20	20	0	1
2443	3128	3135	3127	3125	20	20	0	1	2444	3135	3136	3129	3127	20	20	0	1
2445	3136	3141	3130	3129	20	20	0	1	2446	3127	3129	3119	3118	20	20	0	1
2447	3129	3130	3121	3119	20	20	0	1	2448	3161	3187	3186	3147	15	15	0	3
2449	3147	3186	3185	3140	15	15	0	3	2450	3140	3185	3184	3132	15	15	0	3
2451	3132	3184	3183	3123	15	15	0	3	2452	3123	3183	3182	3107	15	15	0	3
2453	3187	3210	3209	3186	15	15	0	3	2454	3186	3209	3208	3185	15	15	0	3
2455	3185	3208	3207	3184	15	15	0	3	2456	3184	3207	3206	3183	15	15	0	3
2457	3183	3206	3205	3182	15	15	0	3	2458	3210	3259	3258	3209	15	15	0	3
2459	3209	3258	3257	3208	15	15	0	3	2460	3208	3257	3256	3207	15	15	0	3
2461	3207	3256	3255	3206	15	15	0	3	2462	3206	3255	3254	3205	15	15	0	3
2463	3259	3279	3278	3258													

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
2495	3321	3329	3324	3317	20	20	0	1	2496	3324	3318	3312	3317	20	20	0	1
2497	3312	3310	3321	3317	20	20	0	1	2498	3318	3315	3307	3312	20	20	0	1
2499	3350	3349	3342	3341	20	20	0	1	2500	3349	3348	3338	3342	20	20	0	1
2501	3348	3347	3340	3338	20	20	0	1	2502	3346	3339	3340	3347	20	20	0	1
2503	3339	3328	3330	3340	20	20	0	1	2504	3328	3320	3323	3330	20	20	0	1
2505	3320	3309	3313	3323	20	20	0	1	2506	3309	3301	3304	3313	20	20	0	1
2507	3301	3287	3297	3304	20	20	0	1	2508	3297	3306	3313	3304	20	20	0	1
2509	3306	3314	3316	3313	20	20	0	1	2510	3314	3319	3325	3316	20	20	0	1
2511	3319	3327	3334	3325	20	20	0	1	2512	3327	3335	3341	3334	20	20	0	1
2513	3335	3343	3345	3341	20	20	0	1	2514	3352	3351	3345	3343	20	20	0	1
2515	3351	3350	3341	3345	20	20	0	1	2516	3332	3325	3334	3336	20	20	0	1
2517	3334	3341	3342	3336	20	20	0	1	2518	3342	3338	3332	3336	20	20	0	1
2519	3326	3323	3313	3316	20	20	0	1	2520	3316	3325	3332	3326	20	20	0	1
2521	3326	3332	3338	3333	20	20	0	1	2522	3338	3340	3330	3333	20	20	0	1
2523	3330	3323	3326	3333	20	20	0	1	2524	3347	3348	3394	3393	15	15	0	4
2525	3393	3394	3415	3414	15	15	0	4	2526	3414	3415	3430	3429	15	15	0	4
2527	3429	3430	3477	3476	15	15	0	4	2528	3476	3477	3490	3489	15	15	0	4
2529	3489	3490	3499	3498	15	15	0	4	2530	3348	3349	3395	3394	15	15	0	4
2531	3394	3395	3416	3415	15	15	0	4	2532	3415	3416	3431	3430	15	15	0	4
2533	3430	3431	3478	3477	15	15	0	4	2534	3477	3478	3491	3490	15	15	0	4
2535	3490	3491	3500	3499	15	15	0	4	2536	3349	3350	3396	3395	15	15	0	4
2537	3395	3396	3417	3416	15	15	0	4	2538	3416	3417	3432	3431	15	15	0	4
2539	3431	3432	3479	3478	15	15	0	4	2540	3478	3479	3492	3491	15	15	0	4
2541	3491	3492	3501	3500	15	15	0	4	2542	3350	3351	3397	3396	15	15	0	4
2543	3396	3397	3418	3417	15	15	0	4	2544	3417	3418	3433	3432	15	15	0	4
2545	3432	3433	3480	3479	15	15	0	4	2546	3479	3480	3493	3492	15	15	0	4
2547	3492	3493	3502	3501	15	15	0	4	2548	3351	3352	3398	3397	15	15	0	4
2549	3397	3398	3419	3418	15	15	0	4	2550	3418	3419	3434	3433	15	15	0	4
2551	3433	3434	3481	3480	15	15	0	4	2552	3480	3481	3494	3493	15	15	0	4
2553	3493	3494	3503	3502	15	15	0	4	2554	109	124	125	110	15	15	0	2
2555	110	125	126	111	15	15	0	2	2556	111	126	127	112	15	15	0	2
2557	112	127	128	113	15	15	0	2	2558	113	128	129	114	15	15	0	2
2559	124	138	139	125	15	15	0	2	2560	125	139	140	126	15	15	0	2
2561	126	140	141	127	15	15	0	2	2562	127	141	142	128	15	15	0	2
2563	128	142	143	129	15	15	0	2	2564	138	184	185	139	15	15	0	2
2565	139	185	186	140	15	15	0	2	2566	140	186	187	141	15	15	0	2
2567	141	187	188	142	15	15	0	2	2568	142	188	189	143	15	15	0	2
2569	184	204	205	185	15	15	0	2	2570	185	205	206	186	15	15	0	2
2571	186	206	207	187	15	15	0	2	2572	187	207	208	188	15	15	0	2
2573	188	208	209	189	15	15	0	2	2574	204	220	221	205	15	15	0	2
2575	205	221	222	206	15	15	0	2	2576	206	222	223	207	15	15	0	2
2577	207	223	224	208	15	15	0	2	2578	208	224	225	209	15	15	0	2
2579	220	323	324	221	15	15	0	2	2580	221	324	325	222	15	15	0	2
2581	222	325	326	223	15	15	0	2	2582	223	326	327	224	15	15	0	2
2583	224	327	328	225	15	15	0	2	2584	310	301	305	312	20	20	0	1
2585	301	295	300	305	20	20	0	1	2586	295	291	294	300	20	20	0	1
2587	291	283	290	294	20	20	0	1	2588	283	273	281	290	20	20	0	1
2589	273	271	279	281	20	20	0	1	2590	279	288	290	281	20	20	0	1
2591	288	296	299	290	20	20	0	1	2592	296	303	307	299	20	20	0	1
2593	303	316	317	307	20	20	0	1	2594	329	328	317	316	20	20	0	1
2595	328	327	315	317	20	20	0	1	2596	327	326	320	315	20	20	0	1
2597	326	325	322	320	20	20	0	1	2598	325	324	321	322	20	20	0	1
2599	323	319	321	324	20	20	0	1	2600	319	310	312	321	20	20	0	1
2601	311	320	322	314	20	20	0	1	2602	322	321	312	314	20	20	0	1
2603	312	305	311	314	20	20	0	1	2604	311	305	300	308	20	20	0	1
2605	308	315	320	311	20	20	0	1	2606	302	299	307	309	20	20	0	1
2607	307	317	315	309	20	20	0	1	2608	315	308	302	309	20	20	0	1
2609	302	308	300	294	20	20	0	1	2610	294	290	299	302	20	20	0	1
2611	297	289	287	298	20	20	0	1	2612	289	280	278	287	20	20	0	1
2613	264	265	278	280	20	20	0	1	2614	265	266	276	278	20	20	0	1
2615	266	267	275	276	20	20	0	1	2616	267	268	274	275	20	20	0	1
2617	268	269	277	274	20	20	0	1	2618	269	270	272	277	20	20	0	1
2619	270	271	273	272	20	20	0	1	2620	273	283	277	272	20	20	0	1
2621	283	291	285	277	20	20	0	1	2622	291	295	292	285	20	20	0	1
2623	295	301	293	292	20	20	0	1	2624	301	310	298	293	20	20	0	1
2625	310	319	306	298	20	20	0	1	2626	318	304	306	319	20	20	0	1
2627	304	297	298	306	20	20	0	1	2628	284	275	274	282	20	20	0	1
2629	274	277	285	282	20	20	0	1	2630	285	292	284	282	20	20	0	1
2631	292	293	286	284	20	20	0	1	2632	293	298	287	286	20	20	0	1
2633	284	286	276	275	20	20	0	1	2634	286	287	278	276	20	20	0	1
2635	318	345	344	304	15	15	0	3	2636	304	344	343	297	15	15	0	3
2637	297	343	342	289	15	15	0	3	2638	289	342	341	280	15	15	0	3
2639	280	341	340	264	15	15	0	3	2640	345	357	356	344	15	15	0	3
2641	344	356	355	343	15	15	0	3	2642	343	355	354	342	15	15	0	3
2643	342	354	353	341	15	15	0	3	2644	341	353	352	340	15	15	0	3
2645	357	417	416	356	15	15	0	3	2646	356	416	415	355	15	15	0	3
2647	355	415	414	354	15	15	0	3	2648	354	414	413	353	15	15	0	3
2649	353	413	412	352	15	15	0	3	2650	417	435	434	416	15	15	0	3
2651	416	434	433	415	15	15	0	3	2652	415	433	432	414	15	15	0	3
2653	414	432	431	413	15	15	0	3	2654	413	431	430	412	15	15	0	3
2655	435	497	484	434	15	15	0	3	2656	434	484	475	433	15	15	0	3
2657	433	475	464	432	15	15	0	3	2658	432	464	456	431	15	15	0	3
2659	431	456	447	430	15	15	0	3	2660	488	480	471	477	20	20	0	1
2661	480	472	468	471	20	20	0	1	2662	472	467	461	468	20	20	0	1
2663	467	459	452	461	20	20	0	1	2664	459	450	448	452	20	20	0	1
2665	450	440	441	448	20												

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
2691	481	473	476	483	20	20	0	1	2692	473	462	466	476	20	20	0	1
2693	462	454	457	466	20	20	0	1	2694	454	440	450	457	20	20	0	1
2695	450	459	466	457	20	20	0	1	2696	459	467	469	466	20	20	0	1
2697	467	472	478	469	20	20	0	1	2698	472	480	487	478	20	20	0	1
2699	480	488	494	487	20	20	0	1	2700	488	496	498	494	20	20	0	1
2701	505	504	498	496	20	20	0	1	2702	504	503	494	498	20	20	0	1
2703	485	478	487	489	20	20	0	1	2704	487	494	495	489	20	20	0	1
2705	495	491	485	489	20	20	0	1	2706	479	476	466	469	20	20	0	1
2707	469	478	485	479	20	20	0	1	2708	479	485	491	486	20	20	0	1
2709	491	493	483	486	20	20	0	1	2710	483	476	479	486	20	20	0	1
2711	505	557	555	504	15	15	0	4	2712	504	555	554	503	15	15	0	4
2713	503	554	553	502	15	15	0	4	2714	502	553	552	501	15	15	0	4
2715	501	552	551	500	15	15	0	4	2716	557	567	566	555	15	15	0	4
2717	555	566	565	554	15	15	0	4	2718	554	565	564	553	15	15	0	4
2719	553	564	563	552	15	15	0	4	2720	552	563	562	551	15	15	0	4
2721	567	575	574	566	15	15	0	4	2722	566	574	573	565	15	15	0	4
2723	565	573	572	564	15	15	0	4	2724	564	572	571	563	15	15	0	4
2725	563	571	570	562	15	15	0	4	2726	575	637	636	574	15	15	0	4
2727	574	636	635	573	15	15	0	4	2728	573	635	634	572	15	15	0	4
2729	572	634	633	571	15	15	0	4	2730	571	633	632	570	15	15	0	4
2731	637	644	643	636	15	15	0	4	2732	636	643	642	635	15	15	0	4
2733	635	642	641	634	15	15	0	4	2734	634	641	640	633	15	15	0	4
2735	633	640	639	632	15	15	0	4	2736	644	653	652	643	15	15	0	4
2737	643	652	651	642	15	15	0	4	2738	642	651	650	641	15	15	0	4
2739	641	650	649	640	15	15	0	4	2740	640	649	648	639	15	15	0	4
2741	722	823	824	723	15	15	0	2	2742	723	824	825	724	15	15	0	2
2743	724	825	826	725	15	15	0	2	2744	725	826	827	726	15	15	0	2
2745	726	827	828	820	15	15	0	2	2746	823	832	833	824	15	15	0	2
2747	824	833	834	825	15	15	0	2	2748	825	834	835	826	15	15	0	2
2749	826	835	836	827	15	15	0	2	2750	827	836	837	828	15	15	0	2
2751	832	892	893	833	15	15	0	2	2752	833	893	894	834	15	15	0	2
2753	834	894	895	835	15	15	0	2	2754	835	895	896	836	15	15	0	2
2755	836	896	897	837	15	15	0	2	2756	892	905	908	893	15	15	0	2
2757	893	908	909	894	15	15	0	2	2758	894	909	910	895	15	15	0	2
2759	895	910	911	896	15	15	0	2	2760	896	911	912	897	15	15	0	2
2761	905	913	915	908	15	15	0	2	2762	908	915	916	909	15	15	0	2
2763	909	916	917	910	15	15	0	2	2764	910	917	918	911	15	15	0	2
2765	911	918	919	912	15	15	0	2	2766	913	1024	1025	915	15	15	0	2
2767	915	1025	1026	916	15	15	0	2	2768	916	1026	1027	917	15	15	0	2
2769	917	1027	1028	918	15	15	0	2	2770	918	1028	1029	919	15	15	0	2
2771	1011	1002	1006	1013	20	20	0	1	2772	1002	996	1001	1006	20	20	0	1
2773	996	992	995	1001	20	20	0	1	2774	992	984	991	995	20	20	0	1
2775	984	974	982	991	20	20	0	1	2776	974	972	980	982	20	20	0	1
2777	980	989	991	982	20	20	0	1	2778	989	997	1000	991	20	20	0	1
2779	997	1004	1008	1000	20	20	0	1	2780	1004	1017	1018	1008	20	20	0	1
2781	1030	1029	1018	1017	20	20	0	1	2782	1029	1028	1016	1018	20	20	0	1
2783	1028	1027	1021	1016	20	20	0	1	2784	1027	1026	1023	1021	20	20	0	1
2785	1026	1025	1022	1023	20	20	0	1	2786	1024	1020	1022	1025	20	20	0	1
2787	1020	1011	1013	1022	20	20	0	1	2788	1012	1021	1023	1015	20	20	0	1
2789	1023	1022	1013	1015	20	20	0	1	2790	1013	1006	1012	1015	20	20	0	1
2791	1012	1006	1001	1009	20	20	0	1	2792	1009	1016	1021	1012	20	20	0	1
2793	1003	1000	1008	1010	20	20	0	1	2794	1008	1018	1016	1010	20	20	0	1
2795	1016	1009	1003	1010	20	20	0	1	2796	1003	1009	1001	995	20	20	0	1
2797	995	991	1000	1003	20	20	0	1	2798	998	990	988	999	20	20	0	1
2799	990	981	979	988	20	20	0	1	2800	965	966	979	981	20	20	0	1
2801	966	967	977	979	20	20	0	1	2802	967	968	976	977	20	20	0	1
2803	968	969	975	976	20	20	0	1	2804	969	970	978	975	20	20	0	1
2805	970	971	973	978	20	20	0	1	2806	971	972	974	973	20	20	0	1
2807	974	984	978	973	20	20	0	1	2808	984	992	986	978	20	20	0	1
2809	992	996	993	986	20	20	0	1	2810	996	1002	994	993	20	20	0	1
2811	1002	1011	999	994	20	20	0	1	2812	1011	1020	1007	999	20	20	0	1
2813	1019	1005	1007	1020	20	20	0	1	2814	1005	998	999	1007	20	20	0	1
2815	985	976	975	983	20	20	0	1	2816	975	978	986	983	20	20	0	1
2817	986	993	985	983	20	20	0	1	2818	993	994	987	985	20	20	0	1
2819	994	999	988	987	20	20	0	1	2820	985	987	977	976	20	20	0	1
2821	987	988	979	977	20	20	0	1	2822	1019	1041	1040	1005	15	15	0	3
2823	1005	1040	1039	998	15	15	0	3	2824	998	1039	1038	990	15	15	0	3
2825	990	1038	1037	981	15	15	0	3	2826	981	1037	1036	965	15	15	0	3
2827	1041	1051	1050	1040	15	15	0	3	2828	1040	1050	1049	1039	15	15	0	3
2829	1039	1049	1048	1038	15	15	0	3	2830	1038	1048	1047	1037	15	15	0	3
2831	1037	1047	1046	1036	15	15	0	3	2832	1051	1112	1111	1050	15	15	0	3
2833	1050	1111	1110	1049	15	15	0	3	2834	1049	1110	1109	1048	15	15	0	3
2835	1048	1109	1108	1047	15	15	0	3	2836	1047	1108	1107	1046	15	15	0	3
2837	1112	1122	1121	1111	15	15	0	3	2838	1111	1121	1120	1110	15	15	0	3
2839	1110	1120	1119	1109	15	15	0	3	2840	1109	1119	1118	1108	15	15	0	3
2841	1108	1118	1117	1107	15	15	0	3	2842	1122	1185	1172	1121	15	15	0	3
2843	1121	1172	1163	1120	15	15	0	3	2844	1120	1163	1152	1119	15	15	0	3
2845	1119	1152	1144	1118	15	15	0	3	2846	1118	1144	1135	1117	15	15	0	3
2847	1176	1168	1159	1165	20	20	0	1	2848	1168	1160	1156	1159	20	20	0	1
2849	1160	1155	1149	1156	20	20	0	1	2850	1155	1147	1140	1149	20	20	0	1
2851	1147	1138	1136	1140	20	20	0	1	2852	1138	1128	1129	1136	20	20	0	1
2853	1129	1130	1140	1136	20	20	0	1	2854	1130	1131	1137	1140	20	20	0	1
2855	1131	1132	1139	1137	20	20	0	1	2856	1132	1133	1141	1139	20	20	0	1
2857	1133	1134	1143	1141	20	20	0	1	2858	1135	1144	1143	1134	20	20	0	1
2859	1144	1152	1151	1143	20	20	0	1	2860	1152	1163	1162	1151	20	20	0	1
2861	1163	1172															

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
2887	1176	1184	1186	1182	20	20	0	1	2888	1193	1192	1186	1184	20	20	0	1
2889	1192	1191	1182	1186	20	20	0	1	2890	1173	1166	1175	1177	20	20	0	1
2891	1175	1182	1183	1177	20	20	0	1	2892	1183	1179	1173	1177	20	20	0	1
2893	1167	1164	1154	1157	20	20	0	1	2894	1157	1166	1173	1167	20	20	0	1
2895	1167	1173	1179	1174	20	20	0	1	2896	1179	1181	1171	1174	20	20	0	1
2897	1171	1164	1167	1174	20	20	0	1	2898	1188	1189	1237	1236	15	15	0	4
2899	1236	1237	1249	1248	15	15	0	4	2900	1248	1249	1257	1256	15	15	0	4
2901	1256	1257	1317	1316	15	15	0	4	2902	1316	1317	1326	1325	15	15	0	4
2903	1325	1326	1335	1334	15	15	0	4	2904	1189	1190	1238	1237	15	15	0	4
2905	1237	1238	1250	1249	15	15	0	4	2906	1249	1250	1258	1257	15	15	0	4
2907	1257	1258	1318	1317	15	15	0	4	2908	1317	1318	1327	1326	15	15	0	4
2909	1326	1327	1336	1335	15	15	0	4	2910	1190	1191	1239	1238	15	15	0	4
2911	1238	1239	1251	1250	15	15	0	4	2912	1250	1251	1259	1258	15	15	0	4
2913	1258	1259	1319	1318	15	15	0	4	2914	1318	1319	1328	1327	15	15	0	4
2915	1327	1328	1337	1336	15	15	0	4	2916	1191	1192	1240	1239	15	15	0	4
2917	1239	1240	1252	1251	15	15	0	4	2918	1251	1252	1260	1259	15	15	0	4
2919	1259	1260	1320	1319	15	15	0	4	2920	1319	1320	1329	1328	15	15	0	4
2921	1328	1329	1338	1337	15	15	0	4	2922	1192	1193	1241	1240	15	15	0	4
2923	1240	1241	1253	1252	15	15	0	4	2924	1252	1253	1261	1260	15	15	0	4
2925	1260	1261	1321	1320	15	15	0	4	2926	1320	1321	1330	1329	15	15	0	4
2927	1329	1330	1339	1338	15	15	0	4	2928	1559	1448	1566	1567	15	15	0	2
2929	1567	1566	1575	1576	15	15	0	2	2930	1576	1575	1634	1635	15	15	0	2
2931	1635	1634	1647	1648	15	15	0	2	2932	1648	1647	1656	1657	15	15	0	2
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2935	1566	1565	1574	1575	15	15	0	2	2936	1575	1574	1633	1634	15	15	0	2
2937	1634	1633	1646	1647	15	15	0	2	2938	1647	1646	1655	1656	15	15	0	2
2939	1656	1655	1763	1764	15	15	0	2	2940	1447	1446	1564	1565	15	15	0	2
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2943	1633	1632	1645	1646	15	15	0	2	2944	1646	1645	1654	1655	15	15	0	2
2945	1655	1654	1762	1763	15	15	0	2	2946	1446	1445	1563	1564	15	15	0	2
2947	1564	1563	1572	1573	15	15	0	2	2948	1573	1572	1631	1632	15	15	0	2
2949	1632	1631	1644	1645	15	15	0	2	2950	1645	1644	1653	1654	15	15	0	2
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2953	1563	1562	1571	1572	15	15	0	2	2954	1572	1571	1630	1631	15	15	0	2
2955	1631	1630	1641	1644	15	15	0	2	2956	1644	1641	1651	1653	15	15	0	2
2957	1653	1651	1760	1761	15	15	0	2	2958	1747	1738	1742	1749	20	20	0	1
2959	1738	1732	1737	1742	20	20	0	1	2960	1732	1728	1731	1737	20	20	0	1
2961	1728	1720	1727	1731	20	20	0	1	2962	1720	1710	1718	1727	20	20	0	1
2963	1710	1708	1716	1718	20	20	0	1	2964	1716	1725	1727	1718	20	20	0	1
2965	1725	1733	1736	1727	20	20	0	1	2966	1733	1740	1744	1736	20	20	0	1
2967	1740	1753	1754	1744	20	20	0	1	2968	1766	1765	1754	1753	20	20	0	1
2969	1765	1764	1752	1754	20	20	0	1	2970	1764	1763	1757	1752	20	20	0	1
2971	1763	1762	1759	1757	20	20	0	1	2972	1762	1761	1758	1759	20	20	0	1
2973	1760	1756	1758	1761	20	20	0	1	2974	1756	1747	1749	1758	20	20	0	1
2975	1748	1757	1759	1751	20	20	0	1	2976	1759	1758	1749	1751	20	20	0	1
2977	1749	1742	1748	1751	20	20	0	1	2978	1748	1742	1737	1745	20	20	0	1
2979	1745	1752	1757	1748	20	20	0	1	2980	1739	1736	1744	1746	20	20	0	1
2981	1744	1754	1752	1746	20	20	0	1	2982	1752	1745	1739	1746	20	20	0	1
2983	1739	1745	1737	1731	20	20	0	1	2984	1731	1727	1736	1739	20	20	0	1
2985	1734	1726	1724	1735	20	20	0	1	2986	1726	1717	1715	1724	20	20	0	1
2987	1701	1702	1715	1717	20	20	0	1	2988	1702	1703	1713	1715	20	20	0	1
2989	1703	1704	1712	1713	20	20	0	1	2990	1704	1705	1711	1712	20	20	0	1
2991	1705	1706	1714	1711	20	20	0	1	2992	1706	1707	1709	1714	20	20	0	1
2993	1707	1708	1710	1709	20	20	0	1	2994	1710	1720	1714	1709	20	20	0	1
2995	1720	1728	1722	1714	20	20	0	1	2996	1728	1732	1729	1722	20	20	0	1
2997	1732	1738	1730	1729	20	20	0	1	2998	1738	1747	1735	1730	20	20	0	1
2999	1747	1756	1743	1735	20	20	0	1	3000	1755	1741	1743	1756	20	20	0	1
3001	1741	1734	1735	1743	20	20	0	1	3002	1721	1712	1711	1719	20	20	0	1
3003	1711	1714	1722	1719	20	20	0	1	3004	1722	1729	1721	1719	20	20	0	1
3005	1729	1730	1723	1721	20	20	0	1	3006	1730	1735	1724	1723	20	20	0	1
3007	1721	1723	1713	1712	20	20	0	1	3008	1723	1724	1715	1713	20	20	0	1
3009	1701	1717	1771	1770	15	15	0	3	3010	1770	1771	1788	1787	15	15	0	3
3011	1787	1788	1843	1842	15	15	0	3	3012	1842	1843	1857	1856	15	15	0	3
3013	1856	1857	1886	1877	15	15	0	3	3014	1717	1726	1772	1771	15	15	0	3
3015	1771	1772	1789	1788	15	15	0	3	3016	1788	1789	1844	1843	15	15	0	3
3017	1843	1844	1858	1857	15	15	0	3	3018	1857	1858	1894	1886	15	15	0	3
3019	1726	1734	1773	1772	15	15	0	3	3020	1772	1773	1790	1789	15	15	0	3
3021	1789	1790	1845	1844	15	15	0	3	3022	1844	1845	1859	1858	15	15	0	3
3023	1858	1859	1905	1894	15	15	0	3	3024	1734	1741	1774	1773	15	15	0	3
3025	1773	1774	1791	1790	15	15	0	3	3026	1790	1791	1846	1845	15	15	0	3
3027	1845	1846	1860	1859	15	15	0	3	3028	1859	1860	1914	1905	15	15	0	3
3029	1741	1755	1775	1774	15	15	0	3	3030	1774	1775	1792	1791	15	15	0	3
3031	1791	1792	1847	1846	15	15	0	3	3032	1846	1847	1861	1860	15	15	0	3
3033	1860	1861	1927	1914	15	15	0	3	3034	1918	1910	1901	1907	20	20	0	1
3035	1910	1902	1898	1901	20	20	0	1	3036	1902	1897	1891	1898	20	20	0	1
3037	1897	1889	1882	1891	20	20	0	1	3038	1889	1880	1878	1882	20	20	0	1
3039	1880	1870	1871	1878	20	20	0	1	3040	1871	1872	1882	1878	20	20	0	1
3041	1872	1873	1879	1882	20	20	0	1	3042	1873	1874	1881	1879	20	20	0	1
3043	1874	1875	1883	1881	20	20	0	1	3044	1875	1876	1885	1883	20	20	0	1
3045	1877	1886	1885	1876	20	20	0	1	3046	1886	1894	1893	1885	20	20	0	1
3047	1894	1905	1904	1893	20	20	0	1	3048	1905	1914	1912	1904	20	20	0	1
3049	1927	1926	1912	1914	20	20	0	1	3050	1926	1918	1907	1912	20	20	0	1
3051	1890	1898	1891	1888													

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
3083	1921	1923	1913	1916	20	20	0	1	3084	1913	1906	1909	1916	20	20	0	1
3085	1935	1980	1979	1934	15	15	0	4	3086	1934	1979	1978	1933	15	15	0	4
3087	1933	1978	1977	1932	15	15	0	4	3088	1932	1977	1976	1931	15	15	0	4
3089	1931	1976	1975	1930	15	15	0	4	3090	1980	2001	2000	1979	15	15	0	4
3091	1979	2000	1999	1978	15	15	0	4	3092	1978	1999	1998	1977	15	15	0	4
3093	1977	1998	1997	1976	15	15	0	4	3094	1976	1997	1996	1975	15	15	0	4
3095	2001	2017	2016	2000	15	15	0	4	3096	2000	2016	2015	1999	15	15	0	4
3097	1999	2015	2014	1998	15	15	0	4	3098	1998	2014	2013	1997	15	15	0	4
3099	1997	2013	2012	1996	15	15	0	4	3100	2017	2063	2062	2016	15	15	0	4
3101	2016	2062	2061	2015	15	15	0	4	3102	2015	2061	2060	2014	15	15	0	4
3103	2014	2060	2059	2013	15	15	0	4	3104	2013	2059	2058	2012	15	15	0	4
3105	2063	2076	2075	2062	15	15	0	4	3106	2062	2075	2074	2061	15	15	0	4
3107	2061	2074	2073	2060	15	15	0	4	3108	2060	2073	2072	2059	15	15	0	4
3109	2059	2072	2071	2058	15	15	0	4	3110	2076	2085	2084	2075	15	15	0	4
3111	2075	2084	2083	2074	15	15	0	4	3112	2074	2083	2082	2073	15	15	0	4
3113	2073	2082	2081	2072	15	15	0	4	3114	2072	2081	2080	2071	15	15	0	4
3115	2148	2266	2267	2149	15	15	0	2	3116	2149	2267	2268	2150	15	15	0	2
3117	2150	2268	2269	2151	15	15	0	2	3118	2151	2269	2270	2152	15	15	0	2
3119	2152	2270	2271	2263	15	15	0	2	3120	2266	2275	2276	2267	15	15	0	2
3121	2267	2276	2277	2268	15	15	0	2	3122	2268	2277	2278	2269	15	15	0	2
3123	2269	2278	2279	2270	15	15	0	2	3124	2270	2279	2280	2271	15	15	0	2
3125	2275	2322	2323	2276	15	15	0	2	3126	2276	2323	2324	2277	15	15	0	2
3127	2277	2324	2325	2278	15	15	0	2	3128	2278	2325	2326	2279	15	15	0	2
3129	2279	2326	2327	2280	15	15	0	2	3130	2322	2339	2343	2323	15	15	0	2
3131	2323	2343	2344	2324	15	15	0	2	3132	2324	2344	2345	2325	15	15	0	2
3133	2325	2345	2346	2326	15	15	0	2	3134	2326	2346	2347	2327	15	15	0	2
3135	2339	2360	2362	2343	15	15	0	2	3136	2343	2362	2363	2344	15	15	0	2
3137	2344	2363	2364	2345	15	15	0	2	3138	2345	2364	2365	2346	15	15	0	2
3139	2346	2365	2366	2347	15	15	0	2	3140	2360	2461	2462	2362	15	15	0	2
3141	2362	2462	2463	2363	15	15	0	2	3142	2363	2463	2464	2364	15	15	0	2
3143	2364	2464	2465	2365	15	15	0	2	3144	2365	2465	2466	2366	15	15	0	2
3145	2448	2439	2443	2450	20	20	0	1	3146	2439	2433	2438	2443	20	20	0	1
3147	2433	2429	2432	2438	20	20	0	1	3148	2429	2421	2428	2432	20	20	0	1
3149	2421	2411	2419	2428	20	20	0	1	3150	2411	2409	2417	2419	20	20	0	1
3151	2417	2426	2428	2419	20	20	0	1	3152	2426	2434	2437	2428	20	20	0	1
3153	2434	2441	2445	2437	20	20	0	1	3154	2441	2454	2455	2445	20	20	0	1
3155	2467	2466	2455	2454	20	20	0	1	3156	2466	2465	2453	2455	20	20	0	1
3157	2465	2464	2458	2453	20	20	0	1	3158	2464	2463	2460	2458	20	20	0	1
3159	2463	2462	2459	2460	20	20	0	1	3160	2461	2457	2459	2462	20	20	0	1
3161	2457	2448	2450	2459	20	20	0	1	3162	2449	2458	2460	2452	20	20	0	1
3163	2460	2459	2450	2452	20	20	0	1	3164	2450	2443	2449	2452	20	20	0	1
3165	2449	2443	2438	2446	20	20	0	1	3166	2446	2453	2458	2449	20	20	0	1
3167	2440	2437	2445	2447	20	20	0	1	3168	2445	2455	2453	2447	20	20	0	1
3169	2453	2446	2440	2447	20	20	0	1	3170	2440	2446	2438	2432	20	20	0	1
3171	2432	2428	2437	2440	20	20	0	1	3172	2435	2427	2425	2436	20	20	0	1
3173	2427	2418	2416	2425	20	20	0	1	3174	2402	2403	2416	2418	20	20	0	1
3175	2403	2404	2414	2416	20	20	0	1	3176	2404	2405	2413	2414	20	20	0	1
3177	2405	2406	2412	2413	20	20	0	1	3178	2406	2407	2415	2412	20	20	0	1
3179	2407	2408	2410	2415	20	20	0	1	3180	2408	2409	2411	2410	20	20	0	1
3181	2411	2421	2415	2410	20	20	0	1	3182	2421	2429	2423	2415	20	20	0	1
3183	2429	2433	2430	2423	20	20	0	1	3184	2433	2439	2431	2430	20	20	0	1
3185	2439	2448	2436	2431	20	20	0	1	3186	2448	2457	2444	2436	20	20	0	1
3187	2456	2442	2444	2457	20	20	0	1	3188	2442	2435	2436	2444	20	20	0	1
3189	2422	2413	2412	2420	20	20	0	1	3190	2412	2415	2423	2420	20	20	0	1
3191	2423	2430	2422	2420	20	20	0	1	3192	2430	2431	2424	2422	20	20	0	1
3193	2431	2436	2425	2424	20	20	0	1	3194	2422	2424	2414	2413	20	20	0	1
3195	2424	2425	2416	2414	20	20	0	1	3196	2456	2482	2481	2442	15	15	0	3
3197	2442	2481	2480	2435	15	15	0	3	3198	2435	2480	2479	2427	15	15	0	3
3199	2427	2479	2478	2418	15	15	0	3	3200	2418	2478	2477	2402	15	15	0	3
3201	2482	2505	2504	2481	15	15	0	3	3202	2481	2504	2503	2480	15	15	0	3
3203	2480	2503	2502	2479	15	15	0	3	3204	2479	2502	2501	2478	15	15	0	3
3205	2478	2501	2500	2477	15	15	0	3	3206	2505	2554	2553	2504	15	15	0	3
3207	2504	2553	2552	2503	15	15	0	3	3208	2503	2552	2551	2502	15	15	0	3
3209	2502	2551	2550	2501	15	15	0	3	3210	2501	2550	2549	2500	15	15	0	3
3211	2554	2574	2573	2553	15	15	0	3	3212	2553	2573	2572	2552	15	15	0	3
3213	2552	2572	2571	2551	15	15	0	3	3214	2551	2571	2570	2550	15	15	0	3
3215	2550	2570	2569	2549	15	15	0	3	3216	2574	2639	2626	2573	15	15	0	3
3217	2573	2626	2617	2572	15	15	0	3	3218	2572	2617	2606	2571	15	15	0	3
3219	2571	2606	2598	2570	15	15	0	3	3220	2570	2598	2589	2569	15	15	0	3
3221	2630	2622	2613	2619	20	20	0	1	3222	2622	2614	2610	2613	20	20	0	1
3223	2614	2609	2603	2610	20	20	0	1	3224	2609	2601	2594	2603	20	20	0	1
3225	2601	2592	2590	2594	20	20	0	1	3226	2592	2582	2583	2590	20	20	0	1
3227	2583	2584	2594	2590	20	20	0	1	3228	2584	2585	2591	2594	20	20	0	1
3229	2585	2586	2593	2591	20	20	0	1	3230	2586	2587	2595	2593	20	20	0	1
3231	2587	2588	2597	2595	20	20	0	1	3232	2589	2598	2597	2588	20	20	0	1
3233	2598	2606	2605	2597	20	20	0	1	3234	2606	2617	2616	2605	20	20	0	1
3235	2617	2626	2624	2616	20	20	0	1	3236	2639	2638	2624	2626	20	20	0	1
3237	2638	2630	2619	2624	20	20	0	1	3238	2602	2610	2603	2600	20	20	0	1
3239	2603	2594	2591	2600	20	20	0	1	3240	2591	2593	2602	2600	20	20	0	1
3241	2607	2602	2593	2595	20	20	0	1	3242	2595	2597	2605	2607	20	20	0	1
3243	2616	2624	2619	2612	20	20	0	1	3244	2619	2613	2607	2612	20	20	0	1
3245	2607	2605	2616	2612	20	20	0	1	3246	2613	2610	2602	2607	20	20	0	1
3247	2645	2644	2637	2636													

TABULATO DI CALCOLO – FABBRICATO B

In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.	In.	Nodo I	Nodo J	Nodo L	Nodo K	Sp.mem.	Sp.fless.	Tm	Mat.
								Ind.									Ind.
3279	2689	2690	2711	2710	15	15	0	4	3280	2710	2711	2726	2725	15	15	0	4
3281	2725	2726	2773	2772	15	15	0	4	3282	2772	2773	2786	2785	15	15	0	4
3283	2785	2786	2795	2794	15	15	0	4	3284	2644	2645	2691	2690	15	15	0	4
3285	2690	2691	2712	2711	15	15	0	4	3286	2711	2712	2727	2726	15	15	0	4
3287	2726	2727	2774	2773	15	15	0	4	3288	2773	2774	2787	2786	15	15	0	4
3289	2786	2787	2796	2795	15	15	0	4	3290	2645	2646	2692	2691	15	15	0	4
3291	2691	2692	2713	2712	15	15	0	4	3292	2712	2713	2728	2727	15	15	0	4
3293	2727	2728	2775	2774	15	15	0	4	3294	2774	2775	2788	2787	15	15	0	4
3295	2787	2788	2797	2796	15	15	0	4	3296	2646	2647	2693	2692	15	15	0	4
3297	2692	2693	2714	2713	15	15	0	4	3298	2713	2714	2729	2728	15	15	0	4
3299	2728	2729	2776	2775	15	15	0	4	3300	2775	2776	2789	2788	15	15	0	4
3301	2788	2789	2798	2797	15	15	0	4									

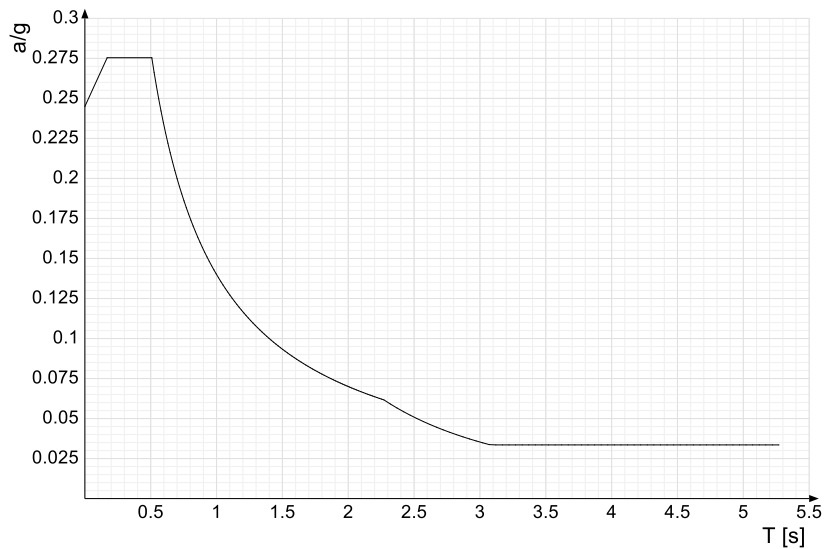
2.6 Accelerazioni spettrali

Ind.vertice: Indice del valore.

T: Periodo di vibrazione. [s]

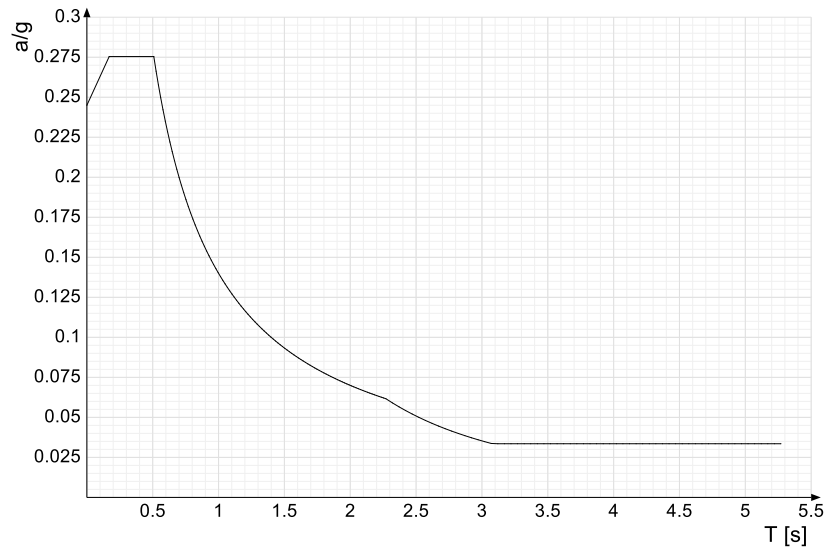
a/g: Accelerazione spettrale normalizzata ottenuta dividendo l'accelerazione spettrale per l'accelerazione di gravità. Il valore è adimensionale.

Sisma X SLV



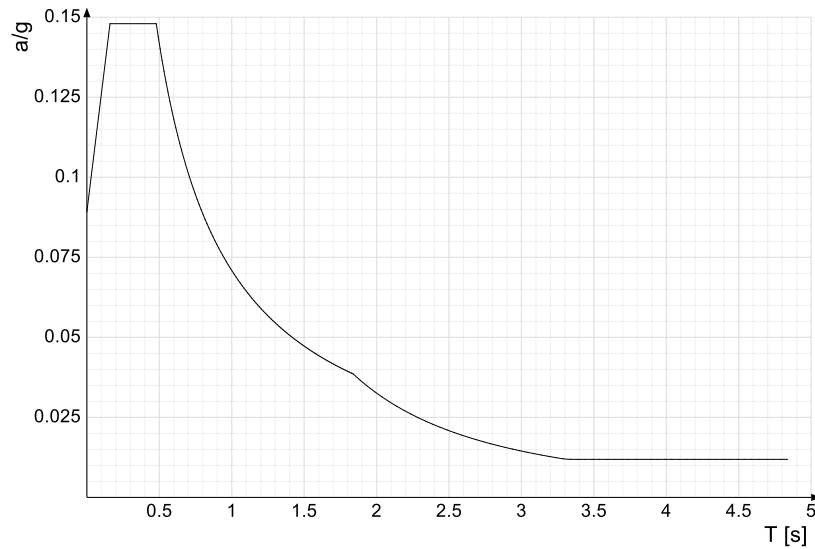
Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g
1	0	0.245	2	0.169	0.275	3	0.508	0.275	4	0.526	0.266
5	0.543	0.258	6	0.561	0.25	7	0.578	0.242	8	0.596	0.235
9	0.613	0.228	10	0.63	0.222	11	0.648	0.216	12	0.665	0.21
13	0.683	0.205	14	0.7	0.2	15	0.718	0.195	16	0.735	0.19
17	0.753	0.186	18	0.77	0.182	19	0.787	0.178	20	0.805	0.174
21	0.822	0.17	22	0.84	0.167	23	0.857	0.163	24	0.875	0.16
25	0.892	0.157	26	0.91	0.154	27	0.927	0.151	28	0.945	0.148
29	0.962	0.146	30	0.979	0.143	31	0.997	0.14	32	1.014	0.138
33	1.032	0.136	34	1.049	0.133	35	1.067	0.131	36	1.084	0.129
37	1.102	0.127	38	1.119	0.125	39	1.136	0.123	40	1.154	0.121
41	1.171	0.12	42	1.189	0.118	43	1.206	0.116	44	1.224	0.114
45	1.241	0.113	46	1.259	0.111	47	1.276	0.11	48	1.294	0.108
49	1.311	0.107	50	1.328	0.105	51	1.346	0.104	52	1.363	0.103
53	1.381	0.101	54	1.398	0.1	55	1.416	0.099	56	1.433	0.098
57	1.451	0.097	58	1.468	0.095	59	1.485	0.094	60	1.503	0.093
61	1.52	0.092	62	1.538	0.091	63	1.555	0.09	64	1.573	0.089
65	1.59	0.088	66	1.608	0.087	67	1.625	0.086	68	1.642	0.085
69	1.66	0.084	70	1.677	0.083	71	1.695	0.083	72	1.712	0.082
73	1.73	0.081	74	1.747	0.08	75	1.765	0.079	76	1.782	0.079
77	1.8	0.078	78	1.817	0.077	79	1.834	0.076	80	1.852	0.076
81	1.869	0.075	82	1.887	0.074	83	1.904	0.074	84	1.922	0.073
85	1.939	0.072	86	1.957	0.072	87	1.974	0.071	88	1.991	0.07
89	2.009	0.07	90	2.026	0.069	91	2.044	0.069	92	2.061	0.068
93	2.079	0.067	94	2.096	0.067	95	2.114	0.066	96	2.131	0.066
97	2.149	0.065	98	2.166	0.065	99	2.183	0.064	100	2.201	0.064
101	2.218	0.063	102	2.236	0.063	103	2.253	0.062	104	2.271	0.062
105	2.321	0.059	106	2.371	0.057	107	2.421	0.054	108	2.471	0.052
109	2.521	0.05	110	2.571	0.048	111	2.621	0.046	112	2.671	0.045
113	2.721	0.043	114	2.771	0.041	115	2.821	0.04	116	2.871	0.039
117	2.921	0.037	118	2.971	0.036	119	3.021	0.035	120	3.071	0.034
121	3.121	0.034	122	3.171	0.034	123	3.221	0.034	124	3.271	0.034
125	3.321	0.034	126	3.371	0.034	127	3.421	0.034	128	3.471	0.034
129	3.521	0.034	130	3.571	0.034	131	3.621	0.034	132	3.671	0.034
133	3.721	0.034	134	3.771	0.034	135	3.821	0.034	136	3.871	0.034
137	3.921	0.034	138	3.971	0.034	139	4.021	0.034	140	4.071	0.034
141	4.121	0.034	142	4.171	0.034	143	4.221	0.034	144	4.271	0.034
145	4.321	0.034	146	4.371	0.034	147	4.421	0.034	148	4.471	0.034
149	4.521	0.034	150	4.571	0.034	151	4.621	0.034	152	4.671	0.034
153	4.721	0.034	154	4.771	0.034	155	4.821	0.034	156	4.871	0.034
157	4.921	0.034	158	4.971	0.034	159	5.021	0.034	160	5.071	0.034
161	5.121	0.034	162	5.171	0.034	163	5.221	0.034	164	5.271	0.034

Sisma Y SLV



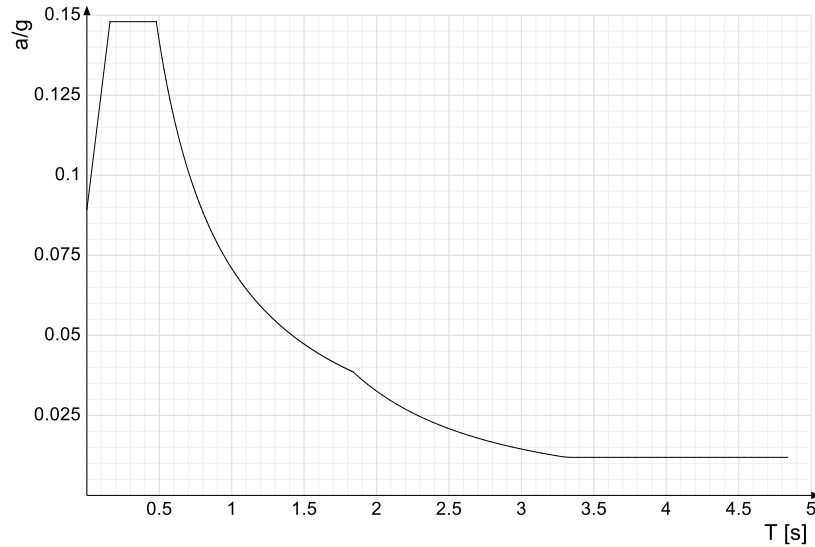
Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g
1	0	0.245	2	0.169	0.275	3	0.508	0.275	4	0.526	0.266
5	0.543	0.258	6	0.561	0.25	7	0.578	0.242	8	0.596	0.235
9	0.613	0.228	10	0.63	0.222	11	0.648	0.216	12	0.665	0.21
13	0.683	0.205	14	0.7	0.2	15	0.718	0.195	16	0.735	0.19
17	0.753	0.186	18	0.77	0.182	19	0.787	0.178	20	0.805	0.174
21	0.822	0.17	22	0.84	0.167	23	0.857	0.163	24	0.875	0.16
25	0.892	0.157	26	0.91	0.154	27	0.927	0.151	28	0.945	0.148
29	0.962	0.146	30	0.979	0.143	31	0.997	0.14	32	1.014	0.138
33	1.032	0.136	34	1.049	0.133	35	1.067	0.131	36	1.084	0.129
37	1.102	0.127	38	1.119	0.125	39	1.136	0.123	40	1.154	0.121
41	1.171	0.12	42	1.189	0.118	43	1.206	0.116	44	1.224	0.114
45	1.241	0.113	46	1.259	0.111	47	1.276	0.11	48	1.294	0.108
49	1.311	0.107	50	1.328	0.105	51	1.346	0.104	52	1.363	0.103
53	1.381	0.101	54	1.398	0.1	55	1.416	0.099	56	1.433	0.098
57	1.451	0.097	58	1.468	0.095	59	1.485	0.094	60	1.503	0.093
61	1.52	0.092	62	1.538	0.091	63	1.555	0.09	64	1.573	0.089
65	1.59	0.088	66	1.608	0.087	67	1.625	0.086	68	1.642	0.085
69	1.66	0.084	70	1.677	0.083	71	1.695	0.083	72	1.712	0.082
73	1.73	0.081	74	1.747	0.08	75	1.765	0.079	76	1.782	0.079
77	1.8	0.078	78	1.817	0.077	79	1.834	0.076	80	1.852	0.076
81	1.869	0.075	82	1.887	0.074	83	1.904	0.074	84	1.922	0.073
85	1.939	0.072	86	1.957	0.072	87	1.974	0.071	88	1.991	0.07
89	2.009	0.07	90	2.026	0.069	91	2.044	0.069	92	2.061	0.068
93	2.079	0.067	94	2.096	0.067	95	2.114	0.066	96	2.131	0.066
97	2.149	0.065	98	2.166	0.065	99	2.183	0.064	100	2.201	0.064
101	2.218	0.063	102	2.236	0.063	103	2.253	0.062	104	2.271	0.062
105	2.321	0.059	106	2.371	0.057	107	2.421	0.054	108	2.471	0.052
109	2.521	0.05	110	2.571	0.048	111	2.621	0.046	112	2.671	0.045
113	2.721	0.043	114	2.771	0.041	115	2.821	0.04	116	2.871	0.039
117	2.921	0.037	118	2.971	0.036	119	3.021	0.035	120	3.071	0.034
121	3.121	0.034	122	3.171	0.034	123	3.221	0.034	124	3.271	0.034
125	3.321	0.034	126	3.371	0.034	127	3.421	0.034	128	3.471	0.034
129	3.521	0.034	130	3.571	0.034	131	3.621	0.034	132	3.671	0.034
133	3.721	0.034	134	3.771	0.034	135	3.821	0.034	136	3.871	0.034
137	3.921	0.034	138	3.971	0.034	139	4.021	0.034	140	4.071	0.034
141	4.121	0.034	142	4.171	0.034	143	4.221	0.034	144	4.271	0.034
145	4.321	0.034	146	4.371	0.034	147	4.421	0.034	148	4.471	0.034
149	4.521	0.034	150	4.571	0.034	151	4.621	0.034	152	4.671	0.034
153	4.721	0.034	154	4.771	0.034	155	4.821	0.034	156	4.871	0.034
157	4.921	0.034	158	4.971	0.034	159	5.021	0.034	160	5.071	0.034
161	5.121	0.034	162	5.171	0.034	163	5.221	0.034	164	5.271	0.034

Sisma X SLD



Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g
1	0	0.089	2	0.16	0.148	3	0.479	0.148	4	0.493	0.144
5	0.506	0.14	6	0.519	0.136	7	0.533	0.133	8	0.546	0.13
9	0.56	0.127	10	0.573	0.124	11	0.587	0.121	12	0.6	0.118
13	0.614	0.116	14	0.627	0.113	15	0.641	0.111	16	0.654	0.108
17	0.667	0.106	18	0.681	0.104	19	0.694	0.102	20	0.708	0.1
21	0.721	0.098	22	0.735	0.096	23	0.748	0.095	24	0.762	0.093
25	0.775	0.091	26	0.789	0.09	27	0.802	0.088	28	0.815	0.087
29	0.829	0.086	30	0.842	0.084	31	0.856	0.083	32	0.869	0.082
33	0.883	0.08	34	0.896	0.079	35	0.91	0.078	36	0.923	0.077
37	0.936	0.076	38	0.95	0.075	39	0.963	0.074	40	0.977	0.073
41	0.99	0.072	42	1.004	0.071	43	1.017	0.07	44	1.031	0.069
45	1.044	0.068	46	1.058	0.067	47	1.071	0.066	48	1.084	0.065
49	1.098	0.065	50	1.111	0.064	51	1.125	0.063	52	1.138	0.062
53	1.152	0.062	54	1.165	0.061	55	1.179	0.06	56	1.192	0.059
57	1.206	0.059	58	1.219	0.058	59	1.232	0.058	60	1.246	0.057
61	1.259	0.056	62	1.273	0.056	63	1.286	0.055	64	1.3	0.055
65	1.313	0.054	66	1.327	0.053	67	1.34	0.053	68	1.354	0.052
69	1.367	0.052	70	1.38	0.051	71	1.394	0.051	72	1.407	0.05
73	1.421	0.05	74	1.434	0.049	75	1.448	0.049	76	1.461	0.049
77	1.475	0.048	78	1.488	0.048	79	1.502	0.047	80	1.515	0.047
81	1.528	0.046	82	1.542	0.046	83	1.555	0.046	84	1.569	0.045
85	1.582	0.045	86	1.596	0.044	87	1.609	0.044	88	1.623	0.044
89	1.636	0.043	90	1.65	0.043	91	1.663	0.043	92	1.676	0.042
93	1.69	0.042	94	1.703	0.042	95	1.717	0.041	96	1.73	0.041
97	1.744	0.041	98	1.757	0.04	99	1.771	0.04	100	1.784	0.04
101	1.798	0.039	102	1.811	0.039	103	1.824	0.039	104	1.838	0.039
105	1.888	0.037	106	1.938	0.035	107	1.988	0.033	108	2.038	0.031
109	2.088	0.03	110	2.138	0.029	111	2.188	0.027	112	2.238	0.026
113	2.288	0.025	114	2.338	0.024	115	2.388	0.023	116	2.438	0.022
117	2.488	0.021	118	2.538	0.02	119	2.588	0.019	120	2.638	0.019
121	2.688	0.018	122	2.738	0.017	123	2.788	0.017	124	2.838	0.016
125	2.888	0.016	126	2.938	0.015	127	2.988	0.015	128	3.038	0.014
129	3.088	0.014	130	3.138	0.013	131	3.188	0.013	132	3.238	0.012
133	3.288	0.012	134	3.338	0.012	135	3.388	0.012	136	3.438	0.012
137	3.488	0.012	138	3.538	0.012	139	3.588	0.012	140	3.638	0.012
141	3.688	0.012	142	3.738	0.012	143	3.788	0.012	144	3.838	0.012
145	3.888	0.012	146	3.938	0.012	147	3.988	0.012	148	4.038	0.012
149	4.088	0.012	150	4.138	0.012	151	4.188	0.012	152	4.238	0.012
153	4.288	0.012	154	4.338	0.012	155	4.388	0.012	156	4.438	0.012
157	4.488	0.012	158	4.538	0.012	159	4.588	0.012	160	4.638	0.012
161	4.688	0.012	162	4.738	0.012	163	4.788	0.012	164	4.838	0.012

Sisma Y SLD



Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g	Ind.vertice	T	a/g
1	0	0.089	2	0.16	0.148	3	0.479	0.148	4	0.493	0.144
5	0.506	0.14	6	0.519	0.136	7	0.533	0.133	8	0.546	0.13
9	0.56	0.127	10	0.573	0.124	11	0.587	0.121	12	0.6	0.118
13	0.614	0.116	14	0.627	0.113	15	0.641	0.111	16	0.654	0.108
17	0.667	0.106	18	0.681	0.104	19	0.694	0.102	20	0.708	0.1
21	0.721	0.098	22	0.735	0.096	23	0.748	0.095	24	0.762	0.093
25	0.775	0.091	26	0.789	0.09	27	0.802	0.088	28	0.815	0.087
29	0.829	0.086	30	0.842	0.084	31	0.856	0.083	32	0.869	0.082
33	0.883	0.08	34	0.896	0.079	35	0.91	0.078	36	0.923	0.077
37	0.936	0.076	38	0.95	0.075	39	0.963	0.074	40	0.977	0.073
41	0.99	0.072	42	1.004	0.071	43	1.017	0.07	44	1.031	0.069
45	1.044	0.068	46	1.058	0.067	47	1.071	0.066	48	1.084	0.065
49	1.098	0.065	50	1.111	0.064	51	1.125	0.063	52	1.138	0.062
53	1.152	0.062	54	1.165	0.061	55	1.179	0.06	56	1.192	0.059
57	1.206	0.059	58	1.219	0.058	59	1.232	0.058	60	1.246	0.057
61	1.259	0.056	62	1.273	0.056	63	1.286	0.055	64	1.3	0.055
65	1.313	0.054	66	1.327	0.053	67	1.34	0.053	68	1.354	0.052
69	1.367	0.052	70	1.38	0.051	71	1.394	0.051	72	1.407	0.05
73	1.421	0.05	74	1.434	0.049	75	1.448	0.049	76	1.461	0.049
77	1.475	0.048	78	1.488	0.048	79	1.502	0.047	80	1.515	0.047
81	1.528	0.046	82	1.542	0.046	83	1.555	0.046	84	1.569	0.045
85	1.582	0.045	86	1.596	0.044	87	1.609	0.044	88	1.623	0.044
89	1.636	0.043	90	1.65	0.043	91	1.663	0.043	92	1.676	0.042
93	1.69	0.042	94	1.703	0.042	95	1.717	0.041	96	1.73	0.041
97	1.744	0.041	98	1.757	0.04	99	1.771	0.04	100	1.784	0.04
101	1.798	0.039	102	1.811	0.039	103	1.824	0.039	104	1.838	0.039
105	1.888	0.037	106	1.938	0.035	107	1.988	0.033	108	2.038	0.031
109	2.088	0.03	110	2.138	0.029	111	2.188	0.027	112	2.238	0.026
113	2.288	0.025	114	2.338	0.024	115	2.388	0.023	116	2.438	0.022
117	2.488	0.021	118	2.538	0.02	119	2.588	0.019	120	2.638	0.019
121	2.688	0.018	122	2.738	0.017	123	2.788	0.017	124	2.838	0.016
125	2.888	0.016	126	2.938	0.015	127	2.988	0.015	128	3.038	0.014
129	3.088	0.014	130	3.138	0.013	131	3.188	0.013	132	3.238	0.012
133	3.288	0.012	134	3.338	0.012	135	3.388	0.012	136	3.438	0.012
137	3.488	0.012	138	3.538	0.012	139	3.588	0.012	140	3.638	0.012
141	3.688	0.012	142	3.738	0.012	143	3.788	0.012	144	3.838	0.012
145	3.888	0.012	146	3.938	0.012	147	3.988	0.012	148	4.038	0.012
149	4.088	0.012	150	4.138	0.012	151	4.188	0.012	152	4.238	0.012
153	4.288	0.012	154	4.338	0.012	155	4.388	0.012	156	4.438	0.012
157	4.488	0.012	158	4.538	0.012	159	4.588	0.012	160	4.638	0.012
161	4.688	0.012	162	4.738	0.012	163	4.788	0.012	164	4.838	0.012

3 Verifiche

3.1 Verifica regolarità strutturale

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

Livello:

Descr: descrizione livello.

Quota: quota livello. [cm]

Q: quota livello. [cm]

Qinf: quota livello precedente. [cm]

A1: a1 (Distribuzione masse).

A1n: a1 numeratore (distanza tra centro massa vs. centro rigidezza [se presente] o centro dell'ingombro del piano). [cm]

A1d: a1 denominatore (ingombro del piano nella medesima direzione [x o y globale]). [cm]

A1r: a1 rapporto (distanza centro massa/rigidezza su ingombro del piano).

A2: a2 (Distribuzione rigidezze).

A2n: a2 numeratore (rigidezza max [x o y globale]).

A2d: a2 denominatore (rigidezza min [x o y globale]).

A2r: a2 rapporto (rigidezza max/min).

A3: a3 (Forma compatta).

A3n: a3 numeratore (area convessa). [cm²]

A3d: a3 denominatore (area piano). [cm²]

A3r: a3 rapporto (area convessa/area piano).

B: b (Rapporto lati).

Bn: b numeratore (lato max [x o y globale]). [cm]

Bd: b denominatore (lato min [x o y globale]). [cm]

Br: b rapporto (lato max/min).

C: c (Rapporto rigidezze piano).

Cn: c numeratore (rigidezza elementi verticali).

Cd: c denominatore (rigidezza piano).

Cr: c rapporto (rigidezza elementi verticali/rigidezza piano).

E1: e1 (Variazione masse).

E1n: e1 numeratore (massa max). [daN]

E1d: e1 denominatore (massa min). [daN]

E1r: e1 rapporto (massa max/min).

E2: e2 (Riduzione rigidezze).

E2n: e2 numeratore (rigidezza relativa alla traslazione KUmax). [daN/cm]

E2d: e2 denominatore (rigidezza relativa alla traslazione KUmin). [daN/cm]

E2r: e2 rapporto (variazione massima in decremento Kmax/Kmin).

E3: e3 (Incremento rigidezze).

E3n: e3 numeratore (rigidezza relativa alla traslazione KUmax). [daN/cm]

E3d: e3 denominatore (rigidezza relativa alla traslazione KUmin). [daN/cm]

E3r: e3 rapporto (variazione massima in incremento Kmax/Kmin).

F: f (Rapporto Capacità/Domanda).

Fn: f numeratore (rapporto capacità/domanda massimo [c/d max]). [daN]

Fd: f denominatore (rapporto capacità/domanda minimo [c/d min]). [daN]

Fr: f rapporto (variazione massima [rapporto (c/d max)/(c/d min)]).

G1: g1 (Rastremazione di piano).

G1n: g1 numeratore (L1). [cm]

G1d: g1 denominatore (L2). [cm]

G1r: g1 rapporto (L1/L2).

G2: g2 (Rastremazione totale).

G2n: g2 numeratore (L0). [cm]

G2d: g2 denominatore (Li). [cm]

G2r: g2 rapporto (L0/Li).

Verifica regolarità strutturale

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

Avvertenze

La seguente procedura valuta la regolarità della costruzione secondo quanto indicato nelle NTC 2018 §7.2.1.

Tali valutazioni sono a carattere puramente informativo e vengono condotte sulla base del modello e delle verifiche presenti alla sua generazione, con le limitazioni indicate nella manualistica.

In ogni caso l'impostazione di regolarità della costruzione, in pianta ed elevazione, va indicata nelle preferenze di analisi dall'utente utilizzatore del software.

Sintesi dei risultati

Orizzontamenti considerati nella valutazione

Nessun livello di fondazione trovato

Livelli di elevazione considerati: Primo Impalcato(L2), Secondo Impalcato(L3), Terzo Impalcato(L4), Quarto Impalcato(L5), Quinto Impalcato(L6), Sesto Impalcato(L7), Settimo Impalcato / Copertura(L8),

Regolarità in pianta - NO

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

Ok - Criterio A1 (Distribuzione masse) rispettato, con rapporto massimo 0,07 (limite=0,2) al livello Terzo Impalcato
 No - Criterio A2 (Distribuzione rigidezze) NON rispettato, con rapporto massimo 2064778.8/934458.1=2.2 (limite=1,2) al livello Secondo Impalcato
 No - Criterio A3 (Forma compatta) NON rispettato, con rapporto massimo 2766135.8/81900=33.8 (limite=1) al livello Secondo Impalcato
 No - Criterio B (Rapporto lati) NON rispettato, con rapporto massimo 3470/620=5.6 (limite=4) al livello Primo Impalcato
 Ok - Criterio C (Rapporto rigidezze piano) rispettato, con rapporto massimo 0 (limite=0,1) al livello Primo Impalcato

Regolarità in altezza - NO

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

Ok - Criterio D (Altezza elementi sismoresistenti) rispettato, con rapporto massimo 1 (limite=1,01)

Ok - Criterio E1 (Variazione masse) rispettato, con rapporto massimo 1,22 (limite=1,25) tra il livello Settimo Impalcato / Copertura ed il precedente

No - Criterio E2 (Riduzione rigidezze) NON rispettato, con rapporto massimo 7134489.7/934458.1=7.6 (limite=1,3) tra il livello Secondo Impalcato ed il precedente

Ok - Criterio E3 (Incremento rigidezze) rispettato, con rapporto massimo 1 (limite=1,1) tra il livello Secondo Impalcato ed il precedente

N.V. - Criterio F (Rapporto Capacità/Domanda) non valutabile tra il livello Secondo Impalcato ed il precedente

Ok - Criterio G1 (Rastremazione di piano) rispettato, con rapporto massimo 0,05 (limite=0,1) tra il livello Secondo Impalcato ed il precedente

Ok - Criterio G2 (Rastremazione totale) rispettato, con rapporto massimo 0,05 (limite=0,3) tra il livello Secondo Impalcato ed il precedente

Valori per piano

Verifiche di regolarità in pianta

Livello		A1			A2			A3			B			C		
Descr	Quota	A1n	A1d	A1r	A2n	A2d	A2r	A3n	A3d	A3r	Bn	Bd	Br	Cn	Cd	Cr
Primo Impalcato	308	8	620	0.01	7134490	4472518	1.6	2151401	151100	14.24	3470	620	5.6	0	+∞	0
Secondo Impalcato	618	31	775	0.04	2064779	934458	2.21	2766136	81900	33.77	3640	775	4.7	0	+∞	0
Terzo Impalcato	928	53	775	0.07	1433200	675903	2.12	2604776	192361	13.54	3470	775	4.48	0	+∞	0
Quarto Impalcato	1238	45	775	0.06	1104183	556403	1.98	2626477	2205765	1.19	3470	775	4.48	0	+∞	0
Quinto Impalcato	1548	44	775	0.06	933434	510462	1.83	2641589	2212732	1.19	3470	775	4.48	0	+∞	0
Sesto Impalcato	1858	44	775	0.06	844874	469069	1.8	2648564	2028382	1.31	3470	775	4.48	0	+∞	0
Settimo Impalcato / Copertura	2168	12	775	0.02	803903	409687	1.96	2648564	193975	13.65	3470	775	4.48	0	+∞	0

Verifiche di regolarità in elevazione

Rapporto di regolarità per la condizione D (Altezza elementi sismoresistenti): 1860/1860=1.

Livello			E1			E2			E3			F			G1			G2		
Descr	Q	Qinf	E1n	E1d	E1r	E2n	E2d	E2r	E3n	E3d	E3r	Fn	Fd	Fr	G1n	G1d	G1r	G2n	G2d	G2r
Secondo Impalcato	618	308	269064	223184	1.21	7134490	934458	7.63	7134490	7134490	1				170	3470	0.05	170	3470	0.05
Terzo Impalcato	928	618	269064	241976	1.11	2064779	1433200	1.44	934458	934458	1				0	775	0	0	620	0
Quarto Impalcato	1238	928	241976	240386	1.01	1433200	1104183	1.3	675903	675903	1				0	775	0	0	620	0
Quinto Impalcato	1548	1238	240386	239950	1	1104183	933434	1.18	556403	556403	1				0	775	0	0	620	0
Sesto Impalcato	1858	1548	239950	239714	1	933434	844874	1.1	510462	510462	1				0	3470	0	0	620	0
Settimo Impalcato / Copertura	2168	1858	239714	195798	1.22	469069	409687	1.14	469069	469069	1				0	775	0	0	1	0

3.2 Verifiche pilastrate C.A.

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

Q.inf.: quota inferiore. [cm]

Q.sup.: quota superiore. [cm]

Q.sez.: sezione impiegata.

Esistente: campata esistente.

Secondaria: campata secondaria.

Dissipativa: campata dissipativa.

Interna a parete: campata adiacente ad una parete in c.a.

Sovvaresistenza: aliquota di sovrarresistenza da assicurare in verifica.

Materiale CLS: materiale calcestruzzo impiegato.

Materiale Acciaio: materiale/i acciaio impiegato/i.

FC: fattore di confidenza riferito al materiale CLS.

Posizione: posizione della barra.

X: ascissa relativa della barra rispetto al baricentro della sezione. [cm]

Y: ordinata relativa della barra rispetto al baricentro della sezione. [cm]

Diametro: diametro nominale della barra. [cm]

Area: area nominale della barra. [cm²]

Q.inf.: quota inferiore della barra. [cm]

Q.sup.: quota superiore della barra. [cm]

Materiale: materiale della barra.

Quota: quota della sezione. [cm]

As: area complessiva delle armature verticali. [cm²]

%: percentuale di acciaio.

At: area delle armature verticali destinata alla verifica di torsione. [cm²]

Pos.: posizioni barre longitudinali presenti nella sezione.

Mx: momento Mx. [daN*cm]

My: momento My. [daN*cm]

N: sforzo normale. [daN]

MRdx: momento resistente in direzione X. [daN*cm]

MRdy: momento resistente in direzione Y. [daN*cm]

Comb.: combinazione peggiore.

Coeff.s.: coefficiente di sicurezza minimo.

Verifica: stato di verifica.

C.S.: coefficiente di sicurezza minimo.

Nmin: compressione massima. [daN]

Nlim: compressione limite. [daN]

Comb.Nmin: combinazione in cui si ottiene la compressione massima.

Ver.: stato di verifica.

α, n : termine relativo alla disposizione delle armature trasversali nel piano della sezione.

α, s : termine relativo al passo delle staffe.

α : coefficiente di efficacia del confinamento.

ω, wd : rapporto meccanico di armatura trasversale per confinamento secondo D.M. 17-01-18 NTC §7.4.6.2.2.

$\alpha\omega, wd$: coefficiente di efficacia del confinamento per rapporto meccanico di armatura trasversale per confinamento secondo D.M. 17-01-18 NTC §7.4.6.2.2.

v, d: forza assiale adimensionalizzata.

Ac: area del calcestruzzo confinato. [cm²]

lim. [7.4.29]: limite per dettagli costruttivi di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2 formula [7.4.29].

coeff. [7.4.29]: coefficiente dei dettagli costruttivi di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2 formula [7.4.29].

comb. [7.4.29]: combinazione peggiore dei dettagli costruttivi di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2 formula [7.4.29].

Staffe: staffatura presente nella sezione.

Ved,x: taglio di verifica per la direzione X. [daN]

Ved,y: taglio di verifica per la direzione Y. [daN]

Ned: sforzo normale di verifica. [daN]

Comb.V: combinazione di verifica taglio.

Cot: cotagente delle bielle compresse per la verifica critica.

Vres: resistenza a taglio per la verifica. [daN]

c.s.V: coefficiente di sicurezza taglio.

Mt: momento torcente di verifica. [daN*cm]

As,t: area di staffatura destinata alla torsione. [cm²]

Al,t: area di barre longitudinali destinata alla torsione. [cm²]

Comb.Tor.: combinazione di verifica torsione.

Trcd: resistenza a torsione delle bielle di calcestruzzo [4.1.27]. [daN*cm]

Trsd: resistenza a torsione in relazione al minimo di staffe necessario [4.1.28]. [daN*cm]

Trld: resistenza a torsione in relazione al minimo di barre longitudinali necessario [4.1.29]. [daN*cm]

c.s.V-T: coefficiente di sicurezza taglio-torsione.

Q.inf.: quota inferiore della campata. [cm]

Q.sup.: quota superiore della campata. [cm]

Luce: lunghezza del pilastro. [cm]

yRd: coefficiente per gerarchia delle resistenze secondo D.M. 14-01-2008 §7.4.4.2.1.

MRdx,inf: momento resistente della sezione inferiore in direzione x. [daN*cm]

MRdy,inf: momento resistente della sezione inferiore in direzione y. [daN*cm]

N,inf: sforzo normale della sezione inferiore. [daN]

MRdx,sup: momento resistente della sezione superiore in direzione x. [daN*cm]

MRdy,sup: momento resistente della sezione superiore in direzione y. [daN*cm]

N,sup: sforzo normale della sezione superiore. [daN]

Vpl,x: taglio plastico in direzione x. [daN]

Vpl,y: taglio plastico in direzione y. [daN]

Comb.: combinazione di riferimento.

$\sigma_{c,max}$: tensione massima sul calcestruzzo. [daN/cm²]

$\sigma_{f,max}$: tensione massima sull'acciaio. [daN/cm²]

Pilastrata: pilastrata cui appartiene il nodo.

Q.Nodo: quota del nodo oggetto di verifica. [cm]

Escluso: nodo escluso dalla verifica da parte dell'utente.

Confinato: nodo interamente confinato.

Segnalazioni: eventuali indicazioni relative alla verifica.

ω, wd : rapporto meccanico volumetrico della staffatura di confinamento secondo EC8 § 5.4.3.2.2 (8).

$\alpha\omega, wd$: coefficiente di efficacia del confinamento per rapporto meccanico di armatura trasversale per confinamento secondo EC8 § 5.4.3.2.2 (8).

lim. [5.15]: limite per dettagli costruttivi di duttilità secondo EC8 §5.4.3.2.2 (8) formula [5.15].

passo: passo staffe. [cm]

passo limite: passo staffe massimo secondo EC8 §5.4.3.2.2 (11). [cm]

c.s.: coefficiente di sicurezza.

Comb.: combinazione che dà il valore peggiore per la verifica.

Quota: quota della sezione di verifica. [cm]

λ, x : snellezza per sbandamento in direzione X.

λ, y : snellezza per sbandamento in direzione Y.

$\lambda, limX$: snellezza limite in direzione X.

$\lambda, limY$: snellezza limite in direzione Y.

M 2° ord.: la verifica viene effettuata considerando anche gli effetti del secondo ordine, se non richiesti la verifica viene comunque condotta considerando i momenti del 1° ordine.

Nsd: sforzo normale. [daN]

M0ed,x: momento del primo ordine che tiene conto dell'effetto delle imperfezioni in direzione X. [daN*cm]

M2,x: momento del secondo ordine in direzione X. [daN*cm]

M0ed,y: momento del primo ordine che tiene conto dell'effetto delle imperfezioni in direzione Y. [daN*cm]

M2,y: momento del secondo ordine in direzione y. [daN*cm]

Mver,x: momento di verifica in direzione X. [daN*cm]

Mver,y: momento di verifica in direzione Y. [daN*cm]

C.s x: coefficiente di sicurezza per sbandamento in direzione X.

C.s y: coefficiente di sicurezza per sbandamento in direzione Y.

Risultato: tipo di risultato esposto, può essere critico, in direzione X e in direzione Y.

(5.38): applicabilità delle verifiche in direzioni separate.

(5.39): coefficiente di sicurezza per i casi di non applicabilità delle verifiche su direzioni separate.

Angolo: angolo di orientazione della travatura rispetto all'asse X globale. [deg]

yrd * $\Sigma(Mb,rd)$: somma dei momenti plastici delle travature. [daN*cm]

Verifica: indicazione di verifica.

$\Sigma(Mc,rd)$: somma dei momenti plastici dei pilastri. [daN*cm]

Mc,inf: momento plastico del pilastro inferiore. [daN*cm]

Mc,sup: momento plastico del pilastro superiore. [daN*cm]

Verifica: stato di verifica.

Mx,sr: momento Mx di fessurazione. [daN*cm]

My,sr: momento My di fessurazione. [daN*cm]

N,sr: sforzo normale di fessurazione. [daN]

σ_s : tensione massima sull'acciaio in condizioni fessurate. [daN/cm²]

Ac,eff: area di calcestruzzo efficace. [cm²]

p,eff: rapporto geometrico di area d'acciaio efficace.

Sm: distanza media fra le fessure. [cm]

Wk: apertura delle fessure. [cm]

Fessurata: presenza di fessurazione.

Pilastrata 1

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0	1, 2, 3, 4	288324	-288324	-144162	856356	-856356	SLU 16	2.97	Si
29	28.65	2	0	1, 2, 3, 4	287807	-287807	-143904	856356	-856356	SLU 16	2.975	Si
58	28.65	2	0	1, 2, 3, 4	287281	-287281	-143641	856356	-856356	SLU 16	2.981	Si
87	28.65	1	0	3, 4	-286756	286756	-143378	-856356	856356	SLU 16	2.986	Si
116	28.65	1	0	3, 4	-286230	286230	-143115	-856356	856356	SLU 16	2.992	Si
144	28.65	1	0	3, 4	-285704	285704	-142852	-856356	856356	SLU 16	2.997	Si
173	28.65	1	0	3, 4	-285178	285178	-142589	-856356	856356	SLU 16	3.003	Si
202	28.65	1	0	3, 4	-284653	284653	-142326	-856356	856356	SLU 16	3.008	Si
231	28.65	1	0	3, 4	-284127	322940	-142063	-856356	973338	SLU 16	3.014	Si
260	28.65	1	0	3, 4	-283610	380557	-141805	-856356	1149085	SLU 16	3.019	Si
310	28.65	2	0	3, 4, 5, 6, 7	369204	-678894	-117728	1189002	-2186345	SLU 16	3.22	Si
339	28.65	2	0	3, 4, 5, 6, 7	297729	-547199	-117470	1020074	-1874799	SLU 16	3.426	Si
368	28.65	2	0	3, 4, 5, 6, 7	234418	-414472	-117209	850670	-1504060	SLU 16	3.629	Si
397	28.65	1	0	5, 6, 7	233888	-279169	-116944	856356	-1022149	SLU 16	3.661	Si
426	28.65	1	0	5, 6, 7	233362	-233362	-116681	856356	-856356	SLU 16	3.67	Si
454	28.65	1	0	5, 6, 7	232836	-232836	-116418	856356	-856356	SLU 16	3.678	Si
483	29.07	1.2	0	5, 6, 7, 12	-232310	232310	-116155	-859634	859634	SLU 16	3.7	Si
512	31.34	1.2	0	5, 6, 7, 12	-231784	256891	-115892	-877391	972428	SLU 16	3.785	Si
541	33.61	1.2	0	5, 6, 7, 12	-231259	390906	-115629	-884677	1495405	SLU 16	3.825	Si
570	34.93	1.2	0	5, 6, 7, 12	-282875	522601	-115371	-1039507	1920454	SLU 16	3.675	Si
620	34.93	2.5	0	5, 6, 7, 8, 12	261652	-478188	-91479	1015128	-1855218	SLU 16	3.88	Si
649	32.11	2.5	0	5, 6, 7, 8, 12	209582	-375246	-91258	849818	-1521555	SLU 16	4.055	Si
678	29.3	2.5	0	5, 6, 7, 8, 12	182069	-271449	-91034	759636	-1132760	SLU 16	4.172	Si
707	24.13	1	0	8	182785	-182785	-91392	730647	-730647	SLU 15	3.997	Si
736	24.13	1	0	8	182334	-182334	-91167	730647	-730647	SLU 15	4.007	Si
764	24.13	1	0	8	-181884	181884	-90942	-730647	730647	SLU 15	4.017	Si
793	24.13	1	0	8	-181433	181433	-90716	-730647	730647	SLU 15	4.027	Si
822	25.89	1.2	0	8, 13	-179811	253282	-89906	-739390	1041506	SLU 16	4.112	Si
851	27.88	1.2	0	8, 13	-179360	358037	-89680	-723730	1444700	SLU 16	4.035	Si
880	28.15	1.2	0	8, 13	-213397	460979	-89459	-816123	1762987	SLU 16	3.824	Si
930	28.15	2.2	0	8, 9, 13	259305	-620383	-66131	1067239	-2553356	SLU 16	4.116	Si
959	26.16	2.2	0	8, 9, 13	206197	-498419	-65909	932041	-2252928	SLU 16	4.52	Si
988	24.16	2.2	0	8, 9, 13	152674	-375500	-65686	756726	-1861162	SLU 16	4.956	Si
1017	24.13	1	0	9	134968	-229753	-67484	715621	-1218182	SLU 15	5.302	Si
1046	24.13	1	0	9	134518	-134518	-67259	-730647	730647	SLU 15	5.432	Si
1074	24.13	1	0	9	-134067	134067	-67034	-730647	730647	SLU 15	5.45	Si
1103	24.13	1	0	9	-133616	133616	-66808	-730647	730647	SLU 15	5.468	Si
1132	24.13	1	0	9	-133166	237893	-66583	-711838	1271658	SLU 15	5.346	Si
1161	24.13	1	0	9	-168022	354805	-66358	-827969	1748383	SLU 15	4.928	Si
1190	24.13	1	0	9	-218377	469693	-66136	-977029	2101429	SLU 15	4.474	Si
1240	24.13	2	0	9, 10	249684	-562864	-40945	1237209	-2789044	SLU 16	4.955	Si
1269	24.13	2	0	9, 10	202252	-449584	-40723	1171942	-2605102	SLU 16	5.794	Si
1298	24.13	2	0	9, 10	141144	-308009	-43963	957480	-2089448	SLU 15	6.784	Si
1327	24.13	1	0	10	102767	-209841	-43735	789783	-1612657	SLU 15	7.685	Si
1356	24.13	1	0	10	87020	-112607	-43510	730647	-945479	SLU 15	8.396	Si
1384	24.13	1	0	10	86569	-86569	-43285	730647	-730647	SLU 15	8.44	Si
1413	24.13	1	0	10	-86119	86119	-43059	-730647	730647	SLU 15	8.484	Si
1442	24.13	1	0	10	-85668	179095	-42834	-697636	1458459	SLU 15	8.143	Si
1471	24.13	1	0	10	-135623	357336	-39146	-942865	2484246	SLU 16	6.952	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
1500	24.13	1	0	10	-183055	470616	-38924	-1082369	2782659	SLU 16	5.913	Si
1550	24.13	2	0	10,11	315372	-617229	-20742	1357846	-2657502	SLU 15	4.306	Si
1579	24.13	2	0	10,11	226269	-455157	-15564	1345193	-2705959	SLU 16	5.945	Si
1608	24.13	2	0	10,11	156849	-335224	-15341	1342983	-2870279	SLU 16	8.562	Si
1637	24.13	1	0	11	86081	-212962	-15114	1163507	-2878487	SLU 16	13.516	Si
1666	24.13	1	0	11	-48499	39863	-19932	-881583	724612	SLU 14	18.177	Si
1694	24.13	1	0	11	-130166	170901	-19706	-1549601	2034540	SLU 14	11.905	Si
1723	24.13	1	0	11	-211833	315696	-19481	-1630654	2430171	SLU 14	7.698	Si
1752	24.13	1	0	11	-293500	460491	-19256	-1554972	2439692	SLU 14	5.298	Si
1781	24.13	1	0	11	-375168	605286	-19030	-1458814	2353615	SLU 14	3.888	Si
1810	24.13	1	0	11	-455421	747575	-18809	-1385443	2274207	SLU 14	3.042	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	28.65	2	0.0003	1,2,3,4	379708	4192307	-55668	416931	4603275	SLV 16-Ger.	1.098	133633	256802	SLV 1	Si
29	28.65	2	0.0003	1,2,3,4	1457	-3274054	-55727	2313	-5197483	SLV 15	1.587	133435	256802	SLV 1	Si
58	28.65	2	0.0003	1,2,3,4	39594	2664228	-132974	77262	5198819	SLV 2	1.951	133232	256802	SLV 1	Si
87	28.65	1	0.0003	3,4	17059	2167500	-132772	37671	4786409	SLV 2	2.208	133030	256802	SLV 1	Si
116	28.65	1	0.0003	3,4	-5469	1672763	-132570	-13681	4184447	SLV 2	2.502	132828	256802	SLV 1	Si
144	28.65	1	0.0003	3,4	-21124	1166869	-132626	-59825	3304708	SLV 1	2.832	132626	256802	SLV 1	Si
173	28.65	1	0.0003	3,4	-44843	669374	-132424	-143308	2139166	SLV 1	3.196	132424	256802	SLV 1	Si
202	28.65	1	0.0003	3,4	-68535	110381	-132221	-221941	357452	SLV 1	3.238	132221	256802	SLV 1	Si
231	28.65	1	0.0003	3,4	-92153	-347986	-132019	-298880	-1128621	SLV 1	3.243	132019	256802	SLV 1	Si
260	28.65	1	0.0003	3,4	-116711	-842597	-131562	-357073	-2577886	SLV 2	3.059	131820	256802	SLV 1	Si
310	28.65	2	0.0006	3,4,5,6,7	251347	-2961162	-50923	423193	-4985712	SLV 13	1.684	106846	256802	SLV 1	Si
339	28.65	2	0.0006	3,4,5,6,7	206230	-2392110	-50725	456265	-5292330	SLV 13	2.212	106647	256802	SLV 1	Si
368	28.65	2	0.0006	3,4,5,6,7	160779	-1819048	-50524	489667	-5540088	SLV 13	3.046	106447	256802	SLV 1	Si
397	28.65	1	0.0006	5,6,7	104222	882535	-106024	370621	3138369	SLV 2	3.556	106243	256802	SLV 1	Si
426	28.65	1	0.0006	5,6,7	62832	470752	-106041	253708	1900827	SLV 1	4.038	106041	256802	SLV 1	Si
454	28.65	1	0.0006	5,6,7	16610	62473	-105839	67196	252740	SLV 1	4.046	105839	256802	SLV 1	Si
483	29.07	1.2	0.0006	5,6,7,12	-29603	-375105	-105636	-120451	-1526235	SLV 1	4.069	105636	256802	SLV 1	Si
512	31.34	1.2	0.0006	5,6,7,12	-78155	-778927	-105215	-295154	-2941621	SLV 2	3.777	105434	256802	SLV 1	Si
541	33.61	1.2	0.0006	5,6,7,12	-123671	-1187963	-105012	-411144	-3949387	SLV 2	3.325	105232	256802	SLV 1	Si
570	34.93	1.2	0.0006	5,6,7,12	-168823	2225419	-46438	-413797	5454669	SLV 15	2.451	105033	256802	SLV 1	Si
620	34.93	2.5	0.0006	5,6,7,8,12	199391	-2269631	-43330	367879	-4187509	SLV 13	1.845	79857	220116	SLV 1	Si
649	32.11	2.5	0.0006	5,6,7,8,12	162042	-1821714	-43159	374833	-4213962	SLV 13	2.313	79687	220116	SLV 1	Si
678	29.3	2.5	0.0006	5,6,7,8,12	124437	-1370879	-42988	386848	-4261783	SLV 13	3.109	79515	220116	SLV 1	Si
707	24.13	1	0.0006	8	79830	701006	-79133	300991	2643057	SLV 2	3.77	79340	220116	SLV 1	Si
736	24.13	1	0.0006	8	51780	381468	-79167	230606	1698901	SLV 1	4.454	79167	220116	SLV 1	Si
764	24.13	1	0.0006	8	18370	73433	-78994	84955	339606	SLV 1	4.625	78994	220116	SLV 1	Si
793	24.13	1	0.0006	8	-14867	-296701	-78820	-68906	-1375168	SLV 1	4.635	78820	220116	SLV 1	Si
822	25.89	1.2	0.0006	8,13	-48580	-613134	-78440	-196556	-2480781	SLV 2	4.046	78647	220116	SLV 1	Si
851	27.88	1.2	0.0006	8,13	-106647	1386434	-41946	-303964	3951613	SLV 13	2.85	78474	220116	SLV 1	Si
880	28.15	1.2	0.0006	8,13	-142613	1833665	-41776	-293526	3774052	SLV 13	2.058	78303	220116	SLV 1	Si
930	28.15	2.2	0.0008	8,9,13	201991	-1673253	-34030	433552	-3591450	SLV 13	2.146	55920	220116	SLV 1	Si
959	26.16	2.2	0.0008	8,9,13	162151	-1300808	-33860	464103	-3723132	SLV 13	2.862	55750	220116	SLV 1	Si
988	24.16	2.2	0.0008	8,9,13	122009	-927040	-33688	506528	-3848677	SLV 13	4.152	55578	220116	SLV 1	Si
1017	24.13	1	0.0008	9	81109	-551733	-33513	515786	-3508564	SLV 13	6.359	55403	220116	SLV 1	Si
1046	24.13	1	0.0008	9	27965	-47971	-55230	184976	-317311	SLV 1	6.615	55230	220116	SLV 1	Si
1074	24.13	1	0.0008	9	-4403	-265936	-55056	-28284	-1708447	SLV 1	6.424	55056	220116	SLV 1	Si
1103	24.13	1	0.0008	9	-38824	-467305	-54725	-215697	-2596233	SLV 2	5.556	54893	220116	SLV 1	Si
1132	24.13	1	0.0008	9	-82029	1001292	-32820	-323738	3951732	SLV 13	3.947	54710	220116	SLV 1	Si
1161	24.13	1	0.0008	9	-122266	1379720	-32647	-325999	3678759	SLV 13	2.666	54536	220116	SLV 1	Si
1190	24.13	1	0.0008	9	-162019	1752599	-32476	-315271	3410369	SLV 13	1.946	54366	220116	SLV 1	Si
1240	24.13	2	0.0008	9,10	177057	-1165176	-22962	505231	-3324819	SLV 13	2.853	33952	220116	SLV 1	Si
1269	24.13	2	0.0008	9,10	145119	-893020	-22791	576363	-3546760	SLV 13	3.972	33781	220116	SLV 1	Si
1298	24.13	2	0.0008	9,10	112936	-621659	-22620	669853	-3687226	SLV 13	5.931	33610	220116	SLV 1	Si
1327	24.13	1	0.0008	10	80137	-357787	-22445	746765	-3334070	SLV 13	9.319	33435	220116	SLV 1	Si
1356	24.13	1	0.0008	10	42283	-138400	-33261	430554	-1867492	SLV 1	10.183	33261	220116	SLV 1	Si
1384	24.13	1	0.0008	10	14585	-266864	-33088	137204	-2510451	SLV 1	9.407	33088	220116	SLV 1	Si
1413	24.13	1	0.0008	10	-18213	531815	-21925	-138861	4054635	SLV 13	7.624	32915	220116	SLV 1	Si
1442	24.13	1	0.0008	10	-50151	807052	-21751	-240357	3867904	SLV 13	4.793	32741	220116	SLV 1	Si
1471	24.13	1	0.0008	10	-82585	1084492	-21578	-268578	3526934	SLV 13	3.252	32568	220116	SLV 1	Si
1500	24.13	1	0.0008	10	-114502	1358035	-21408	-275911	3272407	SLV 13	2.41	32398	220116	SLV 1	Si
1550	24.13	2	0.0008	10,11	221174	-932776	-10074	645700	-2723162	SLV 13	2.919	13839	220116	SLV 1	Si
1579	24.13	2	0.0008	10,11	165474	-695684	-9903	680727	-2861908	SLV 13	4.114	13669	220116	SLV 1	Si
1608	24.13	2	0.0008	10,11	109340	-459913	-9732	749153	-3151133	SLV 13	6.852	13497	220116	SLV 1	Si
1637	24.13	1	0.0008	11	52126	-239279	-9557	778630	-3574251	SLV 13	14.938	13322	220116	SLV 1	Si
1666	24.13	1	0.0008	11	-6275	-158967	-13149	-126238	-3198180	SLV 1	20.118	13149	220116	SLV 1	Si
1694	24.13	1	0.0008	11	-61320	301361	-9210	-724180	3558999	SLV 13	11.81	12975	220116	SLV 1	Si
1723	24.13	1	0.0008	11	-117971	539920	-9037	-659026	3016164	SLV 13	5.586	12802	220116	SLV 1	Si
1752	24.13	1	0.0008	11	-174649	781379	-8863	-620268	2775084	SLV 13	3.552	12629	220116	SLV 1	Si
1781	24.13	1	0.0008	11	-231329	1023844	-8690	-593359	2626158	SLV 13	2.565	12455	220116	SLV 1	Si
1810	24.13	1	0.0008	11	-287030	1262566	-8520	-577119	2538586	SLV 13	2.011	12285	220116	SLV 1	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0.0001	1,2,3,4	69106	1812361	-114307	178728	4687288	SLD 2	2.586	Si
29	28.65	2	0.0001	1,2,3,4	48244	1579017	-114108	134012	4386172	SLD 2	2.778	Si
58	28.65	2	0.0001	1,2,3,4	27016	1341528	-113906	80715	4008036	SLD 2	2.988	Si
87	28.65	1	0.0001	3,4	10665	1103407	-113839	34188	3537222	SLD 1	3.206	Si
116	28.65	1	0.0001	3,4	-15434	874175	-113501	-52932	2998011	SLD 2	3.43	Si
144	28.65	1	0.0001	3,4	-33057	635136	-113434	-121208	2328795	SLD 1	3.667	Si
173	28.65	1	0.0001	3,4	-54911	400366	-113232	-207643	1513948	SLD 1	3.781	Si
202	28.65	1	0.0001	3,4	-76758	135614	-113030	-290774	513731	SLD 1	3.788	Si
231	28.65	1	0.0001	3,4	-98578	-79890	-112828	-374100	-303180	SLD 1	3.795	Si
260	28.65	1	0.0001	3,4	-119693	-310503	-112629	-455031	-1180426	SLD 1	3.802	Si
310	28.65	2	0.0003	3,4,5,6,7	236527	-1703714	-64048	728753	-5249243	SLD 13	3.081	Si
339	28.65	2	0.0003	3,4,5,6,7	192599	-1375857	-63849	703653	-5026640	SLD 13	3.653	Si
368	28.65	2	0.0003	3,4,5,6,7	148337	-1045668	-63649	650307	-4584208	SLD 13	4.384	Si
397	28.65	1	0.0003	5,6,7	100474	357340	-91777	468750	1667131	SLD 1	4.665	Si
426	28.65	1	0.0003	5,6,7	55617	194360	-91575	260049	908767	SLD 1	4.676	Si
454	28.65	1	0.0003	5,6,7	10759	27939	-91373	50417	130924	SLD 1	4.686	Si
483	29.07	1.2	0.0003	5,6,7,12	-34097	-154372	-91171	-160748	-727772	SLD 1	4.714	Si
512	31.34	1.2	0.0003	5,6,7,12	-78947	-315848	-90969	-380718	-1523171	SLD 1	4.822	Si
541	33.61	1.2	0.0003	5,6,7,12	-124691	-485726	-90651	-586147	-2283296	SLD 2	4.701	Si
570	34.93	1.2	0.0003	5,6,7,12	-163825	1294437	-62235	-648168	5121399	SLD 13	3.956	Si
620	34.93	2.5	0.0003	5,6,7,8,12	178089	-1291780	-51752	588029	-4265297	SLD 13	3.302	Si
649	32.11	2.5	0.0003	5,6,7,8,12	144075	-1034373	-51582	558609	-4010489	SLD 13	3.877	Si
678	29.3	2.5	0.0003	5,6,7,8,12	109813	-775280	-51410	509924	-3600062	SLD 13	4.644	Si
707	24.13	1	0.0003	8	71604	305803	-69662	366053	1563317	SLD 2	5.112	Si
736	24.13	1	0.0003	8	42126	175635	-69597	221121	921927	SLD 1	5.249	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
764	24.13	1	0.0003	8	9822	51040	-69424	51685	268583	SLD 1	5.262	Si
793	24.13	1	0.0003	8	-22404	-107078	-69250	-118188	-564880	SLD 1	5.275	Si
822	25.89	1.2	0.0003	8,13	-54464	-231991	-69077	-293469	-1250034	SLD 1	5.388	Si
851	27.88	1.2	0.0003	8,13	-99357	808990	-50369	-438341	3569086	SLD 13	4.412	Si
880	28.15	1.2	0.0003	8,13	-132741	1066014	-50198	-476286	3824961	SLD 13	3.588	Si
930	28.15	2.2	0.0004	8,9,13	177443	-1034596	-38978	648956	-3783795	SLD 13	3.657	Si
959	26.16	2.2	0.0004	8,9,13	141725	-809361	-38808	644278	-3679339	SLD 13	4.546	Si
988	24.16	2.2	0.0004	8,9,13	105731	-583238	-38636	609108	-3359997	SLD 13	5.761	Si
1017	24.13	1	0.0004	9	58609	38297	-49596	431716	282100	SLD 1	7.366	Si
1046	24.13	1	0.0004	9	26306	-61337	-49422	194449	-453393	SLD 1	7.392	Si
1074	24.13	1	0.0004	9	-5938	-135273	-49249	-44050	-1003440	SLD 1	7.418	Si
1103	24.13	1	0.0004	9	-38988	-199285	-48993	-288420	-1474232	SLD 2	7.398	Si
1132	24.13	1	0.0004	9	-76693	581402	-37768	-455564	3453587	SLD 13	5.94	Si
1161	24.13	1	0.0004	9	-112928	810276	-37595	-523505	3756244	SLD 13	4.636	Si
1190	24.13	1	0.0004	9	-148614	1035746	-37424	-546499	3808752	SLD 13	3.677	Si
1240	24.13	2	0.0004	9,10	159685	-758904	-25370	749633	-3562645	SLD 13	4.694	Si
1269	24.13	2	0.0004	9,10	130842	-587991	-25200	790935	-3554376	SLD 13	6.045	Si
1298	24.13	2	0.0004	9,10	101776	-417238	-25028	813646	-3335604	SLD 13	7.994	Si
1327	24.13	1	0.0004	10	72148	-249616	-24853	781019	-2702137	SLD 13	10.825	Si
1356	24.13	1	0.0004	10	40070	-126427	-30284	471910	-1488929	SLD 1	11.777	Si
1384	24.13	1	0.0004	10	13134	-134746	-30111	156167	-1602189	SLD 1	11.89	Si
1413	24.13	1	0.0004	10	-16226	302403	-24333	-173469	3233035	SLD 13	10.691	Si
1442	24.13	1	0.0004	10	-45350	475403	-24160	-359987	3773760	SLD 13	7.938	Si
1471	24.13	1	0.0004	10	-74677	649560	-23986	-447742	3894566	SLD 13	5.996	Si
1500	24.13	1	0.0004	10	-103512	821177	-23816	-475455	3771839	SLD 13	4.593	Si
1550	24.13	2	0.0004	10,11	204358	-656390	-10864	865675	-2780515	SLD 13	4.236	Si
1579	24.13	2	0.0004	10,11	152787	-495331	-10693	914943	-2966223	SLD 13	5.988	Si
1608	24.13	2	0.0004	10,11	100813	-334508	-10522	980052	-3251925	SLD 13	9.722	Si
1637	24.13	1	0.0004	11	47833	-180116	-10347	881786	-3320398	SLD 13	18.435	Si
1666	24.13	1	0.0004	11	-5528	-98592	-12097	-141727	-2527811	SLD 1	25.639	Si
1694	24.13	1	0.0004	11	-57161	175207	-10000	-1036907	3178262	SLD 13	18.14	Si
1723	24.13	1	0.0004	11	-109627	337834	-9827	-1013405	3122965	SLD 13	9.244	Si
1752	24.13	1	0.0004	11	-162105	501821	-9653	-918587	2843625	SLD 13	5.667	Si
1781	24.13	1	0.0004	11	-214584	666329	-9480	-857870	2663662	SLD 13	3.998	Si
1810	24.13	1	0.0004	11	-266156	828102	-9310	-820429	2552637	SLD 13	3.083	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8661	0.6611	0.3563	0.2356	0.398	1984	0.2025	1.163	SLV 5	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5.8	2030	-1151	-144162	SLU 16	1	102703	50.6	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/5.8	2030	-1151	-143904	SLU 16	1	102703	50.6	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/5.8	2030	-1151	-143641	SLU 16	1	102703	50.6	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	2030	-1151	-143378	SLU 16	2.5	27994	24.33	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	2030	-1151	-143115	SLU 16	2.5	27994	24.33	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	2030	-1151	-142852	SLU 16	2.5	27994	24.33	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	2030	-1151	-142589	SLU 16	2.5	27994	24.33	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	2030	-1151	-142326	SLU 16	1.5	92036	45.35	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	2030	-1151	-142063	SLU 16	1.5	92036	45.35	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	2030	-1151	-141805	SLU 16	1.5	92036	45.35	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	4639	-2518	-117728	SLU 16	1.5	92036	19.84	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	4639	-2518	-117470	SLU 16	1.5	92036	19.84	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	4639	-2518	-117209	SLU 16	1.5	92036	19.84	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	4639	-2518	-116944	SLU 16	2.5	27994	11.12	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	4639	-2518	-116681	SLU 16	2.5	27994	11.12	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	4639	-2518	-116418	SLU 16	2.5	27994	11.12	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	4639	-2518	-116155	SLU 16	2.5	27994	11.12	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	4639	-2518	-115892	SLU 16	1.5	92036	19.84	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	4639	-2518	-115629	SLU 16	1.5	92036	19.84	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	4639	-2518	-115371	SLU 16	1.5	92036	19.84	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	4X/5Y ø10/12	3626	-1834	-91479	SLU 16	1.6	78171	21.56	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	3626	-1834	-91258	SLU 16	1.6	78171	21.56	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	3626	-1834	-91034	SLU 16	1.6	78171	21.56	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	3626	-1834	-90807	SLU 16	2.5	43228	11.92	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	3626	-1834	-90582	SLU 16	2.5	43228	11.92	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	3626	-1834	-90356	SLU 16	2.5	43228	11.92	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	3626	-1834	-90131	SLU 16	2.5	43228	11.92	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/5Y ø10/12	3626	-1834	-89906	SLU 16	1.6	78171	21.56	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/5Y ø10/12	3626	-1834	-89680	SLU 16	1.6	78171	21.56	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/5Y ø10/12	3626	-1834	-89459	SLU 16	1.6	78171	21.56	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/5Y ø10/12	4296	-1871	-66131	SLU 16	1.5	75649	17.61	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/5Y ø10/12	4296	-1871	-65909	SLU 16	1.5	75649	17.61	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/5Y ø10/12	4296	-1871	-65686	SLU 16	1.5	75649	17.61	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	4296	-1871	-65458	SLU 16	2.5	43228	10.06	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	4296	-1871	-65233	SLU 16	2.5	43228	10.06	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	4296	-1871	-65008	SLU 16	2.5	43228	10.06	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	4296	-1871	-64782	SLU 16	2.5	43228	10.06	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	4296	-1871	-64557	SLU 16	1.5	75649	17.61	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	4296	-1871	-64332	SLU 16	1.5	75649	17.61	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	4296	-1871	-64110	SLU 16	1.5	75649	17.61	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	3990	-1671	-40945	SLU 16	1.4	70606	17.69	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	3990	-1671	-40723	SLU 16	1.4	70606	17.69	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	3990	-1671	-40500	SLU 16	1.4	70606	17.69	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	3990	-1671	-40272	SLU 16	2.5	43228	10.83	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	3990	-1671	-40047	SLU 16	2.5	43228	10.83	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	3990	-1671	-39822	SLU 16	2.5	43228	10.83	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	3990	-1671	-39596	SLU 16	2.5	43228	10.83	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	3990	-1671	-39371	SLU 16	1.4	70606	17.69	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	3990	-1671	-39146	SLU 16	1.4	70606	17.69	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	3990	-1671	-38924	SLU 16	1.4	70606	17.69	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	5241	-2977	-20742	SLU 15	1.4	68084	12.99	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	5241	-2977	-20521	SLU 15	1.4	68084	12.99	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	5241	-2977	-20298	SLU 15	1.4	68084	12.99	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	5241	-2977	-20070	SLU 15	2.5	43228	8.25	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	5241	-2977	-19845	SLU 15	2.5	43228	8.25	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	5241	-2977	-19619	SLU 15	2.5	43228	8.25	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	5241	-2977	-19394	SLU 15	2.5	43228	8.25	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	5241	-2977	-19169	SLU 15	1.4	68084	12.99	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	5241	-2977	-18943	SLU 15	1.4	68084	12.99	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	5241	-2977	-18722	SLU 15	1.4	68084	12.99	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5.8	48042	25648	-133633	SLV 1-Ger.	1	102703	2.14	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
29	4X/4Y ø10/5.8	48042	25648	-133435	SLV 1-Ger.	1	102703	2.14	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
58	4X/4Y ø10/5.8	48042	25648	-133232	SLV 1-Ger.	1	102703	2.14	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
87	2X/2Y ø10/17.1	48042	25648	-133030	SLV 1-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
116	2X/2Y ø10/17.1	48042	25648	-132828	SLV 1-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
144	2X/2Y ø10/17.1	48042	25648	-132626	SLV 1-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
173	2X/2Y ø10/17.1	48042	25648	-132424	SLV 1-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
202	4X/4Y ø10/11.7	48042	25648	-132221	SLV 1-Ger.	1.5	92035	1.92	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
231	4X/4Y ø10/11.7	48042	25648	-132019	SLV 1-Ger.	1.5	92035	1.92	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
260	4X/4Y ø10/11.7	48042	25648	-131820	SLV 1-Ger.	1.5	92035	1.92	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	SI
310	4X/4Y ø10/11.7	46490	26067	-106846	SLV 1-Ger.	1.5	92035	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
339	4X/4Y ø10/11.7	46490	26067	-106647	SLV 1-Ger.	1.5	92035	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
368	4X/4Y ø10/11.7	46490	26067	-106447	SLV 1-Ger.	1.5	92035	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
397	2X/2Y ø10/17.1	46490	26067	-106243	SLV 1-Ger.	2.5	27993	1.07	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
426	2X/2Y ø10/17.1	46490	26067	-106041	SLV 1-Ger.	2.5	27993	1.07	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
454	2X/2Y ø10/17.1	46490	26067	-105839	SLV 1-Ger.	2.5	27993	1.07	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
483	2X/2Y ø10/17.1	46490	26067	-105636	SLV 1-Ger.	2.5	27993	1.07	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
512	4X/5Y ø10/11.7	46490	26067	-105434	SLV 1-Ger.	1.5	92035	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
541	4X/5Y ø10/11.7	46490	26067	-105232	SLV 1-Ger.	1.5	92035	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
570	4X/5Y ø10/11.7	46490	26067	-105033	SLV 1-Ger.	1.5	92035	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	SI
620	4X/5Y ø10/12	34198	23250	-77593	SLV 3-Ger.	1.5	75648	2.21	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
649	4X/5Y ø10/12	34335	23263	-79480	SLV 2-Ger.	1.5	75648	2.2	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
678	4X/5Y ø10/12	34349	23263	-79515	SLV 1-Ger.	1.5	75648	2.2	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
707	2X/2Y ø10/17.5	34349	23408	-79340	SLV 1-Ger.	2.5	27422	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
736	2X/2Y ø10/17.5	34349	23408	-79167	SLV 1-Ger.	2.5	27422	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
764	2X/2Y ø10/17.5	34349	23408	-78994	SLV 1-Ger.	2.5	27422	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
793	2X/2Y ø10/17.5	34349	23408	-78820	SLV 1-Ger.	2.5	27422	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
822	4X/5Y ø10/12	34349	23263	-78647	SLV 1-Ger.	1.5	75648	2.2	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
851	4X/5Y ø10/12	34349	23263	-78474	SLV 1-Ger.	1.5	75648	2.2	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
880	4X/5Y ø10/12	34349	23263	-78303	SLV 1-Ger.	1.5	75648	2.2	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	SI
930	4X/5Y ø10/12	29633	19132	-55920	SLV 1-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
959	4X/5Y ø10/12	29633	19132	-55750	SLV 1-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
988	4X/5Y ø10/12	29633	19132	-55578	SLV 1-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1017	2X/2Y ø10/17.5	29633	19132	-55403	SLV 1-Ger.	2.5	27421	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1046	2X/2Y ø10/17.5	29633	19132	-55230	SLV 1-Ger.	2.5	27421	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1074	2X/2Y ø10/17.5	29633	19132	-55056	SLV 1-Ger.	2.5	27421	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1103	2X/2Y ø10/17.5	29633	19132	-54883	SLV 1-Ger.	2.5	27421	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1132	4X/4Y ø10/12	29633	19132	-54710	SLV 1-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1161	4X/4Y ø10/12	29633	19132	-54536	SLV 1-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1190	4X/4Y ø10/12	29633	19132	-54366	SLV 1-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1240	4X/4Y ø10/12	26216	16256	-33952	SLV 1-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1269	4X/4Y ø10/12	26216	16256	-33781	SLV 1-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1298	4X/4Y ø10/12	26216	16256	-33610	SLV 1-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1327	2X/2Y ø10/17.5	26216	16256	-33435	SLV 1-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1356	2X/2Y ø10/17.5	26216	16256	-33261	SLV 1-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1384	2X/2Y ø10/17.5	26216	16256	-33088	SLV 1-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1413	2X/2Y ø10/17.5	26216	16256	-32915	SLV 1-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1442	4X/4Y ø10/12	26216	16256	-32741	SLV 1-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1471	4X/4Y ø10/12	26216	16256	-32568	SLV 1-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1500	4X/4Y ø10/12	26216	16256	-32398	SLV 1-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1550	4X/4Y ø10/12	22723	14162	-13839	SLV 1-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1579	4X/4Y ø10/12	22723	14162	-13669	SLV 1-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1608	4X/4Y ø10/12	22723	14162	-13497	SLV 1-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1637	2X/2Y ø10/17.5	22723	14162	-13322	SLV 1-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1666	2X/2Y ø10/17.5	22723	14162	-13149	SLV 1-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1694	2X/2Y ø10/17.5	22723	14162	-12975	SLV 1-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1723	2X/2Y ø10/17.5	22723	14162	-12802	SLV 1-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1752	4X/4Y ø10/12	22723	14162	-12629	SLV 1-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1781	4X/4Y ø10/12	21888	14162	-8179	SLV 15-Ger.	1.3	65561	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1810	4X/4Y ø10/12	21888	14162	-8008	SLV 15-Ger.	1.3	65561	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vpl,y	Comb.
0	260	260	1.1	3033906.8		-133633.4	3028278.9		-131820.4	48042.4		SLV 1
	0	260	1.1		5682478.8	-133633.4		5672999.7	-131820.4		25647.7	SLV 1
310	570	260	1.1	2907439.2		-106846.2	3253931.8		-105033.2	46490		SLV 1
310	570	260	1.1		5444830.1	-106846.2		5543725.6	-105033.2		26067.3	SLV 1
620	880	260	1.1	2958357.8		-79857.2	2574365.8		-78303.2	34348.7		SLV 1
620	880	260	1.1		4312262.8	-79857.2		3806521.4	-78303.2		23407.7	SLV 1
930	1190	260	1.1	2383295.9		-55919.9	2138895.6		-54365.9	29632.5		SLV 1
930	1190	260	1.1		3610395.7	-55919.9		3393655.1	-54365.9		19132.3	SLV 1
1240	1500	260	1.1	1929469.3		-33951.8	1912886.3		-32397.8	26216.2		SLV 1
1240	1500	260	1.1		3109169.4	-33951.8		3087394	-32397.8		16256.1	SLV 1
1550	1810	260	1.1	1684337		-13839.1	1663056.7		-12285.1	22723		SLV 1
1550	1810	260	1.1		2703395.5	-13839.1		2667501.5	-12285.1		14162.1	SLV 1

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
620	4X/5Y ø10/12	9085	-1368	-51752	SLD 13	1.7	69992	7.7	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
649	4X/5Y ø10/12	9085	-1368	-51582	SLD 13	1.7	69962	7.7	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
678	4X/5Y ø10/12	9085	-1368	-51410	SLD 13	1.7	69931	7.7	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
707	2X/2Y ø10/17.5	9085	-1368	-51235	SLD 13	2.5	43227	4.76	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
736	2X/2Y ø10/17.5	9085	-1368	-51062	SLD 13	2.5	43227	4.76	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
764	2X/2Y ø10/17.5	9085	-1368	-50889	SLD 13	2.5	43227	4.76	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
793	2X/2Y ø10/17.5	9085	-1368	-50715	SLD 13	2.5	43227	4.76	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
822	4X/5Y ø10/12	9085	-1368	-50542	SLD 13	1.7	69775	7.68	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
851	4X/5Y ø10/12	9085	-1368	-50369	SLD 13	1.7	69744	7.68	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
880	4X/5Y ø10/12	9085	-1368	-50198	SLD 13	1.7	69714	7.67	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
930	4X/5Y ø10/12	7969	-1406	-38978	SLD 13	1.7	68667	8.62	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
959	4X/5Y ø10/12	7969	-1406	-38808	SLD 13	1.7	68636	8.61	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
988	4X/5Y ø10/12	7969	-1406	-38636	SLD 13	1.7	68605	8.61	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1017	2X/2Y ø10/17.5	7969	-1406	-38461	SLD 13	2.5	43227	5.42	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1046	2X/2Y ø10/17.5	7969	-1406	-38288	SLD 13	2.5	43227	5.42	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1074	2X/2Y ø10/17.5	7969	-1406	-38115	SLD 13	2.5	43227	5.42	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1103	2X/2Y ø10/17.5	7969	-1406	-37941	SLD 13	2.5	43227	5.42	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1132	4X/4Y ø10/12	7969	-1406	-37768	SLD 13	1.7	68447	8.59	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1161	4X/4Y ø10/12	7969	-1406	-37595	SLD 13	1.7	68416	8.58	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1190	4X/4Y ø10/12	7969	-1406	-37424	SLD 13	1.7	68385	8.58	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1240	4X/4Y ø10/12	6072	-1163	-25370	SLD 13	1.7	66193	10.9	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1269	4X/4Y ø10/12	6072	-1163	-25200	SLD 13	1.7	66162	10.9	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1298	4X/4Y ø10/12	6072	-1163	-25028	SLD 13	1.7	66131	10.89	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1327	2X/2Y ø10/17.5	6072	-1163	-24853	SLD 13	2.5	43227	7.12	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1356	2X/2Y ø10/17.5	6072	-1163	-24680	SLD 13	2.5	43227	7.12	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1384	2X/2Y ø10/17.5	6072	-1163	-24506	SLD 13	2.5	43227	7.12	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1413	2X/2Y ø10/17.5	6072	-1163	-24333	SLD 13	2.5	43227	7.12	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1442	4X/4Y ø10/12	6072	-1163	-24160	SLD 13	1.7	65973	10.87	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1471	4X/4Y ø10/12	6072	-1163	-23986	SLD 13	1.7	65941	10.86	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1500	4X/4Y ø10/12	6072	-1163	-23816	SLD 13	1.7	65910	10.86	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1550	4X/4Y ø10/12	5714	-2068	-10864	SLD 13	1.6	64442	11.28	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1579	4X/4Y ø10/12	5714	-2068	-10693	SLD 13	1.6	64411	11.27	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1608	4X/4Y ø10/12	5714	-2068	-10522	SLD 13	1.6	64379	11.27	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1637	2X/2Y ø10/17.5	5714	-2068	-10347	SLD 13	2.5	43227	7.57	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1666	2X/2Y ø10/17.5	5714	-2068	-10173	SLD 13	2.5	43227	7.57	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1694	2X/2Y ø10/17.5	5714	-2068	-10000	SLD 13	2.5	43227	7.57	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1723	2X/2Y ø10/17.5	5714	-2068	-9827	SLD 13	2.5	43227	7.57	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1752	4X/4Y ø10/12	5714	-2068	-9653	SLD 13	1.6	64219	11.24	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1781	4X/4Y ø10/12	5714	-2068	-9480	SLD 13	1.6	64187	11.23	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1810	4X/4Y ø10/12	5714	-2068	-9310	SLD 13	1.6	64156	11.23	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	61256	-104170	-105405	SLE RA 8	-38	61256	-104170	-105405	SLE RA 8	-551.2	Si
29	37946	-62832	-105207	SLE RA 8	-35.8	37946	-62832	-105207	SLE RA 8	-526.3	Si
58	14225	-20766	-105004	SLE RA 8	-33.7	14225	-20766	-105004	SLE RA 8	-500.9	Si
87	-9496	21300	-104802	SLE RA 8	-33.4	-9496	21300	-104802	SLE RA 8	-497.9	Si
116	-33217	63367	-104600	SLE RA 8	-35.5	-33217	63367	-104600	SLE RA 8	-521.4	Si
144	-56937	105433	-104398	SLE RA 8	-37.5	-56937	105433	-104398	SLE RA 8	-544.9	Si
173	-80658	147499	-104196	SLE RA 8	-39.6	-80658	147499	-104196	SLE RA 8	-568.3	Si
202	-104379	189565	-103993	SLE RA 8	-41.6	-104379	189565	-103993	SLE RA 8	-591.8	Si
231	-128100	231631	-103791	SLE RA 8	-43.6	-128100	231631	-103791	SLE RA 8	-615.3	Si
260	-151410	272969	-103592	SLE RA 8	-45.7	-151410	272969	-103592	SLE RA 8	-638.4	Si
310	263663	-487368	-86056	SLE RA 8	-50.6	263663	-487368	-86056	SLE RA 8	-677.3	Si
339	212602	-392841	-85857	SLE RA 8	-45.9	212602	-392841	-85857	SLE RA 8	-622.5	Si
368	161141	-297575	-85657	SLE RA 8	-41.2	161141	-297575	-85657	SLE RA 8	-567.4	Si
397	108681	-200459	-85452	SLE RA 8	-36.3	108681	-200459	-85452	SLE RA 8	-511.2	Si
426	56721	-104267	-85250	SLE RA 8	-31.5	56721	-104267	-85250	SLE RA 8	-455.5	Si
454	4760	-8076	-85048	SLE RA 8	-26.7	4760	-8076	-85048	SLE RA 8	-399.8	Si
483	-47200	88115	-84846	SLE RA 8	-30.5	-47200	88115	-84846	SLE RA 8	-443.2	Si
512	-99161	184306	-84644	SLE RA 8	-34.8	-99161	184306	-84644	SLE RA 8	-492.1	Si
541	-151121	280498	-84441	SLE RA 8	-39.1	-151121	280498	-84441	SLE RA 8	-540.3	Si
570	-202182	375024	-84243	SLE RA 8	-43.4	-202182	375024	-84243	SLE RA 8	-589.2	Si
620	186474	-342792	-66843	SLE RA 8	-43.2	186474	-342792	-66843	SLE RA 8	-576.4	Si
649	149441	-269008	-66673	SLE RA 8	-39.5	149441	-269008	-66673	SLE RA 8	-535.7	Si
678	112119	-194646	-66501	SLE RA 8	-35.6	112119	-194646	-66501	SLE RA 8	-491.8	Si
707	74072	-118841	-66326	SLE RA 8	-32.1	74072	-118841	-66326	SLE RA 8	-452.5	Si
736	36388	-43757	-66153	SLE RA 8	-27.4	34642	-41138	-66543	SLE RA 7	-398.5	Si
764	-1297	31326	-65979	SLE RA 8	-25	166	28382	-66370	SLE RA 7	-372.5	Si
793	-38982	106410	-65806	SLE RA 8	-29.6	-38982	106410	-65806	SLE RA 8	-424.3	Si
822	-76666	181493	-65633	SLE RA 8	-33.8	-76666	181493	-65633	SLE RA 8	-472.4	Si
851	-114351	256577	-65459	SLE RA 8	-38	-114351	256577	-65459	SLE RA 8	-519.4	Si
880	-151383	330361	-65289	SLE RA 8	-42.3	-151383	330361	-65289	SLE RA 8	-569.2	Si
930	183892	-444438	-48349	SLE RA 8	-41.9	183892	-444438	-48349	SLE RA 8	-545	Si
959	146169	-357049	-48179	SLE RA 8	-37.2	146169	-357049	-48179	SLE RA 8	-490.7	Si
988	108151	-268976	-48007	SLE RA 8	-32.4	108151	-268976	-48007	SLE RA 8	-435.3	Si
1017	69395	-179192	-47832	SLE RA 8	-27.2	69395	-179192	-47832	SLE RA 8	-374.6	Si
1046	31007	-90264	-47659	SLE RA 8	-22	26258	-81437	-49009	SLE RA 7	-315.3	Si
1074	-10262	2691	-48836	SLE RA 7	-18.3	-10262	2691	-48836	SLE RA 7	-272.3	Si
1103	-46782	86818	-48662	SLE RA 7	-23.1	-46782	86818	-48662	SLE RA 7	-327.5	Si
1132	-83301	170946	-48489	SLE RA 7	-27.9	-83301	170946	-48489	SLE RA 7	-382.7	Si
1161	-122542	265448	-46965	SLE RA 8	-32.7	-119821	255074	-48316	SLE RA 7	-437.9	Si
1190	-160264	352837	-46795	SLE RA 8	-37.6	-160264	352837	-46795	SLE RA 8	-493.8	Si
1240	176675	-402914	-29972	SLE RA 8	-37.3	176675	-402914	-29972	SLE RA 8	-465.6	Si
1269	143275	-321891	-29802	SLE RA 8	-29.5	143275	-321891	-29802	SLE RA 8	-378.8	Si
1298	109614	-240234	-29630	SLE RA 8	-24.8	109614	-240234	-29630	SLE RA 8	-324.4	Si
1327	73333	-150862	-31764	SLE RA 7	-20.6	73333	-150862	-31764	SLE RA 7	-277.8	Si
1356	46183	-80439	-31591	SLE RA 7	-16.7	46183	-80439	-31591	SLE RA 7	-231.8	Si
1384	19033	-10017	-31417	SLE RA 7	-12.7	19033	-10017	-31417	SLE RA 7	-185.8	Si
1413	-26665	90357	-28935	SLE RA 8	-15	-26665	90357	-28935	SLE RA 8	-210.3	Si
1442	-60653	172806	-28762	SLE RA 8	-19.6	-60653	172806	-28762	SLE RA 8	-263.3	Si
1471	-94642	255256	-28589	SLE RA 8	-24.2	-94642	255256	-28589	SLE RA 8	-316.4	Si
1500	-128041	336279	-28418	SLE RA 8	-28.7	-128041	336279	-28418	SLE RA 8	-368.6	Si
1550	224767	-441109	-14921	SLE RA 7	-48.6	211285	-412395	-11616	SLE RA 8	729.5	Si
1579	161508	-326662	-11446	SLE RA 8	-35.2	161508	-326662	-11446	SLE RA 8	477	Si
1608	103891	-229085	-14579	SLE RA 7	-18.7	103891	-229085	-14579	SLE RA 7	-234.7	Si
1637	60199	-152177	-11099	SLE RA 8	-12.5	60199	-152177	-11099	SLE RA 8	-158.5	Si
1666	-33445	13712	-14288	SLE RA 6	-7.4	-33445	13712	-14288	SLE RA 6	-102.6	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
1694	-91815	116754	-14115	SLE RA 6	-14	-91815	116754	-14115	SLE RA 6	-178.3	Si
1723	-150184	219795	-13942	SLE RA 6	-20.6	-150184	219795	-13942	SLE RA 6	-254	Si
1752	-208554	322836	-13768	SLE RA 6	-39.1	-208554	322836	-13768	SLE RA 6	492	Si
1781	-266924	425877	-13595	SLE RA 6	-53	-266924	425877	-13595	SLE RA 6	804.4	Si
1810	-324283	527134	-13425	SLE RA 6	-66.7	-324283	527134	-13425	SLE RA 6	1125.7	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	51141	-88354	-94651	SLE QP 4	-33.8	Si
29	31796	-53447	-94452	SLE QP 4	-32	Si
58	12110	-17926	-94250	SLE QP 4	-30.2	Si
87	-7576	17595	-94047	SLE QP 4	-29.9	Si
116	-27261	53116	-93845	SLE QP 4	-31.6	Si
144	-46947	88637	-93643	SLE QP 4	-33.3	Si
173	-66633	124159	-93441	SLE QP 4	-35	Si
202	-86319	159680	-93239	SLE QP 4	-36.7	Si
231	-106005	195201	-93036	SLE QP 4	-38.4	Si
260	-125350	230107	-92838	SLE QP 4	-40.1	Si
310	219548	-412297	-77439	SLE QP 4	-44.1	Si
339	177010	-332352	-77240	SLE QP 4	-40.1	Si
368	134139	-251781	-77040	SLE QP 4	-36.1	Si
397	90435	-169646	-76836	SLE QP 4	-32.1	Si
426	47148	-88293	-76633	SLE QP 4	-28	Si
454	3861	-6940	-76431	SLE QP 4	-24	Si
483	-39427	74413	-76229	SLE QP 4	-27.2	Si
512	-82714	155767	-76027	SLE QP 4	-30.8	Si
541	-126001	237120	-75825	SLE QP 4	-34.3	Si
570	-168539	317065	-75626	SLE QP 4	-37.9	Si
620	153985	-287947	-60358	SLE QP 4	-37.6	Si
649	123676	-225988	-60187	SLE QP 4	-34.5	Si
678	93129	-163545	-60016	SLE QP 4	-31.3	Si
707	61989	-99888	-59841	SLE QP 4	-28.4	Si
736	31146	-36838	-59667	SLE QP 4	-24.5	Si
764	303	26212	-59494	SLE QP 4	-22.5	Si
793	-30541	89262	-59321	SLE QP 4	-26.2	Si
822	-61384	152313	-59147	SLE QP 4	-29.7	Si
851	-92227	215363	-58974	SLE QP 4	-33.1	Si
880	-122537	277322	-58804	SLE QP 4	-36.7	Si
930	150616	-373755	-44050	SLE QP 4	-36.2	Si
959	119415	-299985	-43879	SLE QP 4	-32.3	Si
988	87969	-225637	-43708	SLE QP 4	-28.3	Si
1017	55912	-149846	-43533	SLE QP 4	-23.9	Si
1046	24161	-74776	-43359	SLE QP 4	-19.6	Si
1074	-7590	293	-43186	SLE QP 4	-16.1	Si
1103	-39342	75363	-43013	SLE QP 4	-20.3	Si
1132	-71093	150432	-42839	SLE QP 4	-24.5	Si
1161	-102844	225502	-42666	SLE QP 4	-28.7	Si
1190	-134046	299272	-42496	SLE QP 4	-32.8	Si
1240	140460	-333627	-27845	SLE QP 4	-29	Si
1269	115050	-267803	-27674	SLE QP 4	-25.4	Si
1298	89442	-201463	-27503	SLE QP 4	-21.7	Si
1327	63335	-133836	-27328	SLE QP 4	-17.9	Si
1356	37478	-66852	-27154	SLE QP 4	-14.1	Si
1384	11620	131	-26981	SLE QP 4	-10.4	Si
1413	-14237	67115	-26808	SLE QP 4	-12.8	Si
1442	-40095	134098	-26634	SLE QP 4	-16.4	Si
1471	-65952	201082	-26461	SLE QP 4	-20	Si
1500	-91362	266906	-26291	SLE QP 4	-23.6	Si
1550	185541	-367955	-11674	SLE QP 4	-40.7	Si
1579	138607	-286563	-11504	SLE QP 4	-29.9	Si
1608	91305	-204534	-11332	SLE QP 4	-16	Si
1637	43084	-120912	-11157	SLE QP 4	-10.5	Si
1666	-46677	-38087	-10984	SLE QP 4	-5.5	Si
1694	-57294	54352	-10836	SLE QP 3	-8.9	Si
1723	-103815	135284	-10662	SLE QP 3	-14.1	Si
1752	-150337	216217	-10489	SLE QP 3	-19.3	Si
1781	-196858	297149	-10316	SLE QP 3	-37.7	Si
1810	-242574	376681	-10145	SLE QP 3	-48.6	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 1	285	No	No	
Pilastrata 1	595	No	No	
Pilastrata 1	905	No	No	
Pilastrata 1	1215	No	No	
Pilastrata 1	1525	No	No	
Pilastrata 1	1835	No	No	

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	285	0.872	0.763	0.666	0.265	0.177	0.301	0.145	5.6	13.9	1.22	SLD 5	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	595	0.811	0.827	0.671	0.177	0.119	0.233	0.104	8.3	14.2	1.137	SLD 5	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	905	0.763	0.815	0.622	0.154	0.096	0.202	0.085	10	12.8	1.118	SLD 5	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	1215	0.763	0.786	0.6	0.154	0.092	0.127	0.041	10	12.8	2.264	SLD 5	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	1525	0.763	0.786	0.6	0.154	0.092	0.053	-0.003	10	12.8	1000	SLD 5	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	285	0.872	0.763	0.666	0.265	0.177	0.323	0.158	5.6	13.9	1.116	SLV 5	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	595	0.811	0.827	0.671	0.177	0.119	0.249	0.114	8.3	14.2	1.04	SLV 5	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	905	0.763	0.815	0.622	0.154	0.096	0.214	0.093	10	12.8	1.027	SLV 5	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	1215	0.763	0.786	0.6	0.154	0.092	0.134	0.045	10	12.8	2.044	SLV 5	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	1525	0.763	0.786	0.6	0.154	0.092	0.056	-0.002	10	12.8	1000	SLV 5	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 1	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	41	41	No	-144162	SLU 16	102387	267351	183072	154037	102387	-183072	2.97	2.97	Min	No	2.97	Si
-60	285	0	30	17	41	41	No	-144162	SLU 16	102387	267351	183072	154037	102387	-183072	2.97	2.97	X	No	2.97	Si
-60	285	260	30	17	47	47	No	-112494	SLD 2	59372	239116	1135585	126764	-120747	-1135585	3.81	3.2	Min	No	3.15	Si
-60	285	0	30	17	46	46	No	-114442	SLD 1	59286	218316	1131533	91556	75886	1804966	3.74		X	Si		Si
-60	285	202.2	30	17	43	43	No	-131963	SLV 2	58205	280500	2227424	165310	-72962	2227424	3.24	2.19	Min	No	2.17	Si
-60	285	0	30	17	43	43	No	-133633	SLV 1	58798	241445	2219695	105325	97221	3647221	3.2		X	Si		Si
-60	285	0	30	17	41	41	No	-144162	SLU 16	102387	267351	183072	154037	102387	-183072	2.97	2.97	Min	No	2.97	Si
-60	285	0	30	17	41	41	No	-144162	SLU 16	102387	267351	183072	154037	102387	-183072	2.97	2.97	Y	No	2.97	Si
-60	285	0	30	17	46	46	No	-114307	SLD 2	59372	223214	1135585	91437	69106	1812361		2.61	Min	Si		Si
-60	285	0	30	17	46	46	No	-114307	SLD 2	59372	223214	1135585	91437	69106	1812361		2.61	Y	Si		Si
-60	285	0	30	17	66	66	No	-55926	SLV 15	72896	118876	2201251	44046	72896	-3838035		1.29	Min	Si		Si
-60	285	0	30	17	66	66	No	-55926	SLV 15	72896	118876	2201251	44046	72896	-3838035		1.29	Y	Si		Si
285	595	310	27	15	46	46	No	-117728	SLU 16	160773	178885	295680	102276	369204	-678894	3.52	3.52	Min	No	3.22	Si
285	595	310	27	15	46	46	No	-117728	SLU 16	160773	178885	295680	102276	369204	-678894	3.52	3.52	X	No	3.22	Si
285	595	310	27	15	52	52	No	-92381	SLD 1	101766	159023	370485	75729	234239	851465	4.63		Min	Si		Si
285	595	310	27	15	52	52	No	-92381	SLD 1	101766	159023	370485	75729	234239	851465	4.63		X	Si		Si
285	595	310	27	15	48	48	No	-106846	SLV 1	107069	180900	907034	75404	246888	2084322	4.01		Min	Si		Si
285	595	310	27	15	48	48	No	-106846	SLV 1	107069	180900	907034	75404	246888	2084322	4.01		X	Si		Si
285	595	310	27	15	46	46	No	-117728	SLU 16	160773	178885	295680	102276	369204	-678894	3.52	3.52	Min	No	3.22	Si
285	595	310	27	15	46	46	No	-117728	SLU 16	160773	178885	295680	102276	369204	-678894	3.52	3.52	Y	No	3.22	Si
285	595	310	27	15	62	62	No	-64048	SLD 13	102658	109909	741556	46327	236527	-1703714		3.36	Min	Si		Si
285	595	310	27	15	62	62	No	-64048	SLD 13	102658	109909	741556	46327	236527	-1703714		3.36	Y	Si		Si
285	595	310	27	15	72	72	No	-48251	SLV 15	89555	84745	1275773	32954	198886	-2931168		1.75	Min	Si		Si
285	595	310	27	15	72	72	No	-48251	SLV 15	89555	84745	1275773	32954	198886	-2931168		1.75	Y	Si		Si
595	905	880	27	18	49	49	No	-89459	SLU 16	114199	134882	239509	90536	-213397	460979	4.26	4.04	Min	No	3.82	Si
595	905	706.7	27	18	48	48	No	-91392	SLU 15	104620	141436	220057	94414	104620	-220057	4	4	X	No	4	Si
595	905	620	27	18	60	60	No	-59718	SLD 9	95051	94463	285922	56667	219854	-624303	6.29	5.18	Min	No	4.72	Si
595	905	706.7	27	18	55	55	No	-69770	SLD 1	74008	115637	298863	62094	74549	301444	5.24		X	Si		Si
595	905	764.4	27	18	71	71	No	-42466	SLV 13	86599	54925	989940	50509	86599	-989940	8.6	4.11	Min	No	3.97	Si
595	905	706.7	27	18	52	52	No	-79340	SLV 1	79778	126556	714348	63962	85448	714348	4.6		X	Si		Si
595	905	880	27	18	49	49	No	-89459	SLU 16	114199	134882	239509	90536	-213397	460979	4.26	4.04	Min	No	3.82	Si
595	905	706.7	27	18	48	48	No	-91392	SLU 15	104620	141436	220057	94414	104620	-220057	4	4	Y	No	4	Si
595	905	620	27	18	64	64	No	-51752	SLD 13	77467	86872	564231	43565	178089	-1291780		3.51	Min	Si		Si
595	905	620	27	18	64	64	No	-51752	SLD 13	77467	86872	564231	43565	178089	-1291780		3.51	Y	Si		Si

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
595	905	620	27	18	70	70	No	-43330	SLV 13	86599	70375	989940	34604	199391	-2269631		1.91	Min	Si		Si
595	905	620	27	18	70	70	No	-43330	SLV 13	86599	70375	989940	34604	199391	-2269631		1.91	Y	Si		Si
905	1215	930	27	18	57	57	No	-66131	SLU 16	118519	99951	270494	66945	259305	-620383	5.29	4.6	Min	No	4.12	Si
905	1215	930	27	18	56	56	No	-68156	SLU 15	114312	104783	252430	70332	241023	-578464	5.25	4.64	X	No	4.21	Si
905	1215	930	27	18	69	69	No	-43981	SLD 9	88820	70578	293556	44382	203776	-627818	7.63	5.64	Min	No	4.97	Si
905	1215	930	27	18	67	67	No	-47322	SLD 5	85913	76641	105058	56284	197051	-243835	7.29	7.63	X	No	6.63	Si
905	1215	1045.6	27	18	80	80	No	-33340	SLV 13	88095	50613	900969	34022	88095	-900969	10.91	4.57	Min	No	4.37	Si
905	1215	987.8	27	18	62	62	No	-55578	SLV 1	71200	95718	552003	54363	93395	552003	6.58		X	Si		Si
905	1215	930	27	18	57	57	No	-66131	SLU 16	118519	99951	270494	66945	259305	-620383	5.29	4.6	Min	No	4.12	Si
905	1215	930	27	18	57	57	No	-66131	SLU 16	118519	99951	270494	66945	259305	-620383	5.29	4.6	Y	No	4.12	Si
905	1215	1190	27	18	75	75	No	-37424	SLD 13	78564	63657	535177	32617	-148614	1035746		3.97	Min	Si		Si
905	1215	1190	27	18	75	75	No	-37424	SLD 13	78564	63657	535177	32617	-148614	1035746		3.97	Y	Si		Si
905	1215	1190	27	18	81	81	No	-32476	SLV 13	88095	53812	900969	26579	-162019	1752599		2.02	Min	Si		Si
905	1215	1190	27	18	81	81	No	-32476	SLV 13	88095	53812	900969	26579	-162019	1752599		2.02	Y	Si		Si
1215	1525	1240	27	18	72	72	No	-40945	SLU 16	108562	61437	248898	41270	249684	-562864	7.2	6.09	Min	No	4.96	Si
1215	1525	1240	27	18	69	69	No	-44408	SLU 15	93299	68917	217446	46251	216143	-499860	7.17	6.2	X	No	5.3	Si
1215	1525	1240	27	18	87	87	No	-28063	SLD 9	79764	45408	249837	28860	184288	-522683	10.2	7.36	Min	No	6.02	Si
1215	1525	1240	27	18	84	84	No	-29744	SLD 5	78188	48397	121318	35377	180665	-281123	9.93	9.95	X	No	7.91	Si
1215	1525	1240	27	18	87	87	No	-28169	SLV 9	96295	43404	351627	26944	222588	-697561	9.33	5.9	Min	No	4.69	Si
1215	1525	1240	27	18	82	82	No	-31466	SLV 5	93195	48872	109852	37426	215459	-224132	8.94	10.31	X	No	7.73	Si
1215	1525	1240	27	18	72	72	No	-40945	SLU 16	108562	61437	248898	41270	249684	-562864	7.2	6.09	Min	No	4.96	Si
1215	1525	1240	27	18	72	72	No	-40945	SLU 16	108562	61437	248898	41270	249684	-562864	7.2	6.09	Y	No	4.96	Si
1215	1525	1500	27	18	94	94	No	-23816	SLD 13	69157	40248	420502	21143	-103512	821177		4.88	Min	Si		Si
1215	1525	1500	27	18	94	94	No	-23816	SLD 13	69157	40248	420502	21143	-103512	821177		4.88	Y	Si		Si
1215	1525	1500	27	18	99	99	No	-21408	SLV 13	76673	35107	689950	15876	-114502	1358035		2.49	Min	Si		Si
1215	1525	1500	27	18	99	99	No	-21408	SLV 13	76673	35107	689950	15876	-114502	1358035		2.49	Y	Si		Si
1525	1835	1810	27	18	106	106	No	-18809	SLU 14	225138	27894	375214	18208	-455421	747575	5.48	5.21	Min	No	3.04	Si
1525	1835	1810	27	18	106	106	No	-18722	SLU 15	227536	27762	375798	18166	-455709	740317	5.47	5.27	X	No	3.06	Si
1525	1835	1810	27	18	151	151	No	-9310	SLD 13	134075	15885	417953	6904	-266156	828102	8.94	3.77	Min	No	3.08	Si
1525	1835	1810	27	18	143	143	No	-10318	SLD 9	152845	16923	299450	10630	-303541	586538	7.76	5.94	X	No	3.96	Si
1525	1835	1810	27	18	142	142	No	-10462	SLV 9	179397	16429	397302	7758	-356271	782305	6.3	4.14	Min	No	3.01	Si
1525	1835	1810	27	18	142	142	No	-10462	SLV 9	179397	16429	397302	7758	-356271	782305	6.3	4.14	X	No	3.01	Si
1525	1835	1810	27	18	106	106	No	-18809	SLU 14	225138	27894	375214	18208	-455421	747575	5.48	5.21	Min	No	3.04	Si
1525	1835	1810	27	18	106	106	No	-18809	SLU 14	225138	27894	375214	18208	-455421	747575	5.48	5.21	Y	No	3.04	Si
1525	1835	1810	27	18	151	151	No	-9310	SLD 13	134075	15885	417953	6904	-266156	828102	8.94	3.77	Min	No	3.08	Si
1525	1835	1810	27	18	151	151	No	-9310	SLD 13	134075	15885	417953	6904	-266156	828102	8.94	3.77	Y	No	3.08	Si
1525	1835	1810	27	18	158	158	No	-8520	SLV 13	144636	14204	632990	6318	-287030	1262566		2.23	Min	Si		Si
1525	1835	1810	27	18	158	158	No	-8520	SLV 13	144636	14204	632990	6318	-287030	1262566		2.23	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	0	8384614	<	9206939	4652138	4554801	1.098	SLV 16		Si
285	90	759417	<	4820498	2442087	2378411	6.348	SLV 16		Si
285	180	8384614	<	9206939	4652138	4554801	1.098	SLV 16		Si
595	0	8384614	<	8889851	4926013	3963837	1.06	SLV 16		Si
595	90	759417	<	5304370	2708639	2595731	6.985	SLV 16		Si
595	180	8384614	<	8889851	4926013	3963837	1.06	SLV 16		Si
905	90	740999	<	4351906	2214706	2137200	5.873	SLV 16		Si
905	180	6285528	<	6706266	3401613	3304653	1.067	SLV 16		Si
905	360	6285528	<	6706266	3401613	3304653	1.067	SLV 16		Si
1215	90	740999	<	3686414	1893984	1792429	4.975	SLV 16		Si
1215	180	5250179	<	5924147	3052008	2872139	1.128	SLV 16		Si
1215	360	5250179	<	5924147	3052008	2872139	1.128	SLV 16		Si
1525	90	740999	<	3396233	1771149	1625084	4.583	SLV 16		Si
1525	180	3805858	<	5444117	2840665	2603452	1.43	SLV 16		Si
1525	360	3805858	<	5444117	2840665	2603452	1.43	SLV 16		Si

Pilastrata 2

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0	1,2,3,4	247627	247627	-123814	856356	856356	SLU 16	3.458	Si
29	28.65	2	0	1,2,3,4	247111	247111	-123555	856356	856356	SLU 16	3.465	Si
58	28.65	2	0	1,2,3,4	246585	246585	-123292	856356	856356	SLU 16	3.473	Si
87	28.65	1	0	3,4	-246059	-246059	-123030	-856356	-856356	SLU 16	3.48	Si
116	28.65	1	0	3,4	-245533	-245533	-122767	-856356	-856356	SLU 16	3.488	Si
144	28.65	1	0	3,4	-245008	-245008	-122504	-856356	-856356	SLU 16	3.495	Si
173	28.65	1	0	3,4	-244482	-244482	-122241	-856356	-856356	SLU 16	3.503	Si
202	28.65	1	0	3,4	-243956	-243956	-121978	-856356	-856356	SLU 16	3.51	Si
231	28.65	1	0	3,4	-243430	-243430	-121715	-856356	-856356	SLU 16	3.518	Si
260	28.65	1	0	3,4	-242914	-242914	-121457	-856356	-856356	SLU 16	3.525	Si
310	28.65	2	0	3,4,5,6,7	366789	262733	-101537	1424457	1020345	SLU 16	3.884	Si
339	28.65	2	0	3,4,5,6,7	295952	214364	-101279	1208914	875639	SLU 16	4.085	Si
368	28.65	2	0	3,4,5,6,7	224560	220237	-101018	951826	856356	SLU 16	4.239	Si
397	28.65	1	0	5,6,7	201506	201506	-100753	856356	856356	SLU 16	4.25	Si
426	28.65	1	0	5,6,7	200980	200980	-100490	856356	856356	SLU 16	4.261	Si
454	28.65	1	0	5,6,7	200454	200454	-100227	856356	856356	SLU 16	4.272	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
483	29.07	1.2	0	5, 6, 7, 13	-199928	-199928	-99964	-859634	-859634	SLU 16	4.3	Si
512	31.34	1.2	0	5, 6, 7, 13	-199403	-199403	-99701	-877391	-877391	SLU 16	4.4	Si
541	33.61	1.2	0	5, 6, 7, 13	-208641	-198877	-99438	-939098	-895148	SLU 16	4.501	Si
570	34.93	1.2	0	5, 6, 7, 13	-279479	-198360	-99180	-1232457	-874738	SLU 16	4.41	Si
620	34.93	2.6	0	5, 6, 7, 8, 9, 13	260839	164312	-79316	1242900	782949	SLU 16	4.765	Si
649	32.67	2.6	0	5, 6, 7, 8, 9, 13	208550	158188	-79094	1018291	172389	SLU 16	4.883	Si
678	30.4	2.6	0	5, 6, 7, 8, 9, 13	158505	158505	-79253	779711	779711	SLU 15	4.919	Si
707	28.65	1.2	0	8, 9	158050	158050	-79025	766052	766052	SLU 15	4.847	Si
736	28.65	1.2	0	8, 9	157600	157600	-78800	766052	766052	SLU 15	4.861	Si
764	28.65	1.2	0	8, 9	-157149	-157149	-78574	-766052	-766052	SLU 15	4.875	Si
793	28.65	1.2	0	8, 9	-156698	-156698	-78349	-766052	-766052	SLU 15	4.889	Si
822	28.65	1.2	0	8, 9	-156248	-156248	-78124	-766052	-766052	SLU 15	4.903	Si
851	28.65	1.2	0	8, 9	-155797	-155797	-77898	-766052	-766052	SLU 15	4.917	Si
880	28.65	1.2	0	8, 9	-216210	-191456	-77295	-1025306	-907920	SLU 16	4.742	Si
930	28.65	2.2	0	8, 9, 10	264979	245296	-57409	1457799	1349514	SLU 16	5.502	Si
959	28.1	2.2	0	8, 9, 10	210893	198448	-57187	1248752	1175059	SLU 16	5.921	Si
988	27.55	2.2	0	8, 9, 10	143453	135648	-58523	910987	861424	SLU 15	6.35	Si
1017	24.13	1	0	10	116592	116592	-58296	730647	730647	SLU 15	6.267	Si
1046	24.13	1	0	10	116141	116141	-58070	730647	730647	SLU 15	6.291	Si
1074	24.13	1	0	10	-115690	115690	-57845	-730647	730647	SLU 15	6.316	Si
1103	24.13	1	0	10	-115240	-115240	-57620	-730647	-730647	SLU 15	6.34	Si
1132	24.13	1	0	10	-118391	-114789	-57394	-753576	-730647	SLU 15	6.365	Si
1161	24.13	1	0	10	-170659	-127760	-57169	-1041314	-779555	SLU 15	6.102	Si
1190	24.13	1	0	10	-222023	-170833	-56948	-1268793	-976256	SLU 15	5.715	Si
1240	24.13	2	0	10, 11	252804	214348	-35541	1759589	1491929	SLU 16	6.96	Si
1269	24.13	2	0	10, 11	204754	172792	-35320	1603273	1353006	SLU 16	7.83	Si
1298	24.13	2	0	10, 11	142956	113632	-37854	1237740	983849	SLU 15	8.658	Si
1327	24.13	1	0	11	104204	82391	-37627	979805	774706	SLU 15	9.403	Si
1356	24.13	1	0	11	74803	74803	-37402	730647	730647	SLU 15	9.768	Si
1384	24.13	1	0	11	74353	74353	-37176	730647	730647	SLU 15	9.827	Si
1413	24.13	1	0	11	-73902	-73902	-36951	-730647	-730647	SLU 15	9.887	Si
1442	24.13	1	0	11	-73451	-73451	-36726	-730647	-730647	SLU 15	9.947	Si
1471	24.13	1	0	11	-137521	-123227	-33742	-1291617	-1157362	SLU 16	9.392	Si
1500	24.13	1	0	11	-185572	-164783	-33521	-1554792	-1380621	SLU 16	8.378	Si
1550	24.13	2	0	11, 12	318505	249855	-17612	2042936	1602604	SLU 15	6.414	Si
1579	24.13	2	0	11, 12	233074	186956	-17391	2055608	1648866	SLU 15	8.82	Si
1608	24.13	2	0	11, 12	158294	137422	-13295	1999845	1736144	SLU 16	12.634	Si
1637	24.13	1	0	12	87321	91122	-13068	1648134	1719872	SLU 16	18.874	Si
1666	24.13	1	0	12	-49710	-33427	-16714	-1042178	-700805	SLU 14	20.965	Si
1694	24.13	1	0	12	-132756	-93348	-16488	-1900528	-1336371	SLU 14	14.316	Si
1723	24.13	1	0	12	-215801	-155481	-16263	-2113426	-1522685	SLU 14	9.793	Si
1752	24.13	1	0	12	-298847	-217614	-16038	-2082775	-1516630	SLU 14	6.969	Si
1781	24.13	1	0	12	-381893	-279746	-15812	-1981540	-1451530	SLU 14	5.189	Si
1810	24.13	1	0	12	-463501	-340804	-15591	-1882569	-1384219	SLU 14	4.062	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	28.65	2	0.0003	1,2,3,4	379708	4192307	-56097	417769	4612526	SLV 4-Ger.	1.1	107187	256802	SLV 13	Si
29	28.65	2	0.0003	1,2,3,4	-18891	3266155	-55898	-30077	5200267	SLV 4	1.592	106989	256802	SLV 13	Si
58	28.65	2	0.0003	1,2,3,4	-33641	2716464	-55696	-68000	5490884	SLV 4	2.021	106786	256802	SLV 13	Si
87	28.65	1	0.0003	3,4	33288	-2157086	-106584	80505	-5216794	SLV 13	2.418	106584	256802	SLV 13	Si
116	28.65	1	0.0003	3,4	8721	-1614459	-106382	24970	-4622492	SLV 13	2.863	106382	256802	SLV 13	Si
144	28.65	1	0.0003	3,4	-15831	-1073738	-106180	-53652	-3638855	SLV 13	3.389	106180	256802	SLV 13	Si
173	28.65	1	0.0003	3,4	-40362	-539158	-105977	-160977	-2150347	SLV 13	3.988	105977	256802	SLV 13	Si
202	28.65	1	0.0003	3,4	-64855	25447	-105775	-262533	103010	SLV 13	4.048	105775	256802	SLV 13	Si
231	28.65	1	0.0003	3,4	-89277	549854	-105573	-354522	2183488	SLV 13	3.971	105573	256802	SLV 13	Si
260	28.65	1	0.0003	3,4	-113119	1075723	-105374	-379538	3609270	SLV 13	3.355	105374	256802	SLV 13	Si
310	28.65	2	0.0006	3,4,5,6,7	240336	2908189	-51314	415966	5033394	SLV 2	1.731	85743	256802	SLV 13	Si
339	28.65	2	0.0006	3,4,5,6,7	196188	2347948	-51115	445871	5336115	SLV 2	2.273	85544	256802	SLV 13	Si
368	28.65	2	0.0006	3,4,5,6,7	158187	-1574354	-85344	490687	-4883568	SLV 13	3.102	85344	256802	SLV 13	Si
397	28.65	1	0.0006	5,6,7	111888	-1064101	-85139	428230	-4072660	SLV 13	3.827	85139	256802	SLV 13	Si
426	28.65	1	0.0006	5,6,7	66045	-562483	-84937	311332	-2651511	SLV 13	4.714	84937	256802	SLV 13	Si
454	28.65	1	0.0006	5,6,7	20230	-59714	-84735	102225	-301741	SLV 13	5.053	84735	256802	SLV 13	Si
483	29.07	1.2	0.0006	5,6,7,13	-26571	478917	-84533	-130841	2358258	SLV 13	4.924	84533	256802	SLV 13	Si
512	31.34	1.2	0.0006	5,6,7,13	-72003	978099	-84331	-293578	3988013	SLV 13	4.077	84331	256802	SLV 13	Si
541	33.61	1.2	0.0006	5,6,7,13	-131264	1518199	-81246	-434065	5020402	SLV 15	3.307	84128	256802	SLV 13	Si
570	34.93	1.2	0.0006	5,6,7,13	-161609	-2214408	-49501	-402714	-5518100	SLV 2	2.492	83930	256802	SLV 13	Si
620	34.93	2.6	0.0006	5,6,7,8,9,13	186344	2232825	-43411	351489	4211629	SLV 2	1.886	64160	220116	SLV 13	Si
649	32.67	2.6	0.0006	5,6,7,8,9,13	151156	1791013	-43241	362227	4291951	SLV 2	2.396	63990	220116	SLV 13	Si
678	30.4	2.6	0.0006	5,6,7,8,9,13	120345	-1238597	-63818	392171	-4036235	SLV 13	3.259	63818	220116	SLV 13	Si
707	28.65	1.2	0.0006	8,9	85655	-837772	-63643	353620	-3458684	SLV 13	4.128	63643	220116	SLV 13	Si
736	28.65	1.2	0.0006	8,9	51061	-445836	-63470	270980	-2366026	SLV 13	5.307	63470	220116	SLV 13	Si
764	28.65	1.2	0.0006	8,9	16568	-64449	-63296	100259	-389997	SLV 13	6.051	63296	220116	SLV 13	Si
793	28.65	1.2	0.0006	8,9	-17804	386286	-63123	-99022	2148474	SLV 13	5.562	63123	220116	SLV 13	Si
822	28.65	1.2	0.0006	8,9	-51754	776960	-62950	-225208	3380930	SLV 13	4.351	62950	220116	SLV 13	Si
851	28.65	1.2	0.0006	8,9	-104955	-1371653	-42028	-335085	-4379224	SLV 2	3.193	62776	220116	SLV 13	Si
880	28.65	1.2	0.0006	8,9	-139109	-1812899	-41857	-321929	-4195455	SLV 2	2.314	62606	220116	SLV 13	Si
930	28.65	2.2	0.0008	8,9,10	191000	1614316	-33662	468884	3962962	SLV 2	2.455	44996	220116	SLV 13	Si
959	28.1	2.2	0.0008	8,9,10	152968	1252746	-33492	503837	4126235	SLV 2	3.294	44826	220116	SLV 13	Si
988	27.55	2.2	0.0008	8,9,10	114649	889567	-33320	531043	4120377	SLV 2	4.632	44654	220116	SLV 13	Si
1017	24.13	1	0.0008	10	75613	523570	-33145	500861	3468129	SLV 2	6.624	44479	220116	SLV 13	Si
1046	24.13	1	0.0008	10	31505	-135465	-44306	259771	-1116975	SLV 13	8.245	44306	220116	SLV 13	Si
1074	24.13	1	0.0008	10	-3129	264882	-44132	-24003	2031950	SLV 13	7.671	44132	220116	SLV 13	Si
1103	24.13	1	0.0008	10	-39410	552375	-43959	-230957	3237112	SLV 13	5.86	43959	220116	SLV 13	Si
1132	24.13	1	0.0008	10	-80258	-977751	-32452	-324840	-3957416	SLV 2	4.047	43786	220116	SLV 13	Si
1161	24.13	1	0.0008	10	-118637	-1345038	-32279	-325959	-3695523	SLV 2	2.748	43612	220116	SLV 13	Si
1190	24.13	1	0.0008	10	-156576	-1706855	-32108	-314442	-3427769	SLV 2	2.008	43442	220116	SLV 13	Si
1240	24.13	2	0.0008	10,11	167622	1088833	-22201	515705	3349891	SLV 2	3.077	27512	220116	SLV 13	Si
1269	24.13	2	0.0008	10,11	137497	832000	-22031	589720	3568424	SLV 2	4.289	27342	220116	SLV 13	Si
1298	24.13	2	0.0008	10,11	107140	575054	-21859	684936	3676259	SLV 2	6.393	27170	220116	SLV 13	Si
1327	24.13	1	0.0008	11	76205	320802	-21684	769273	3238425	SLV 2	10.095	26995	220116	SLV 13	Si
1356	24.13	1	0.0008	11	43633	21371	-26822	594301	291077	SLV 13	13.62	26822	220116	SLV 13	Si
1384	24.13	1	0.0008	11	14272	267574	-26648	153765	2882782	SLV 13	10.774	26648	220116	SLV 13	Si
1413	24.13	1	0.0008	11	-16268	469229	-26475	-129862	3745678	SLV 13	7.983	26475	220116	SLV 13	Si
1442	24.13	1	0.0008	11	-46732	-764332	-20991	-237388	-3882641	SLV 2	5.08	26302	220116	SLV 13	Si
1471	24.13	1	0.0008	11	-77314	-1025652	-20817	-267785	-2552438	SLV 2	3.464	26128	220116	SLV 13	Si
1500	24.13	1	0.0008	11	-107417	-1283252	-20647	-275685	-3293457	SLV 2	2.566	25958	220116	SLV 13	Si
1550	24.13	2	0.0008	11,12	214660	828281	-9383	699947	2700791	SLV 2	3.261	11432	220116	SLV 13	Si
1579	24.13	2	0.0008	11,12	160668	614718	-9212	741407	2836638	SLV 2	4.615	11262	220116	SLV 13	Si
1608	24.13	2	0.0008	11,12	106257	401112	-9041	830344	3134475	SLV 2	7.814	11090	220116	SLV 13	Si
1637	24.13	1	0.0008	12	50806	192493	-8866	903875	3424619	SLV 2	17.791	10915	220116	SLV 13	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
1666	24.13	1	0.0008	12	-5735	104451	-10685	-155762	2837114	SLV 14	27.162	10742	220116	SLV 13	Si
1694	24.13	1	0.0008	12	-59241	-275757	-8519	-757167	-3524478	SLV 2	12.781	10569	220116	SLV 13	Si
1723	24.13	1	0.0008	12	-114158	-490050	-8346	-697668	-2994895	SLV 2	6.111	10395	220116	SLV 13	Si
1752	24.13	1	0.0008	12	-169083	-707024	-8172	-657865	-2750876	SLV 2	3.891	10222	220116	SLV 13	Si
1781	24.13	1	0.0008	12	-224022	-924817	-7999	-632164	-2609727	SLV 2	2.822	10049	220116	SLV 13	Si
1810	24.13	1	0.0008	12	-278014	-1139188	-7829	-614736	-2518936	SLV 2	2.211	9878	220116	SLV 13	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coef.f.s.	Verifica
0	28.65	2	0.0001	1,2,3,4	80618	-1879956	-94631	220163	-5134072	SLD 13	2.731	Si
29	28.65	2	0.0001	1,2,3,4	58727	-1619775	-94432	176062	-4856090	SLD 13	2.998	Si
58	28.65	2	0.0001	1,2,3,4	36452	-1364934	-94230	120055	-4495451	SLD 13	3.294	Si
87	28.65	1	0.0001	3,4	14180	-1097142	-94028	51542	-3987975	SLD 13	3.635	Si
116	28.65	1	0.0001	3,4	-8089	-829611	-93825	-32355	-3318527	SLD 13	4	Si
144	28.65	1	0.0001	3,4	-30352	-563088	-93623	-133053	-2468425	SLD 13	4.384	Si
173	28.65	1	0.0001	3,4	-52607	-299670	-93421	-241113	-1373480	SLD 13	4.583	Si
202	28.65	1	0.0001	3,4	-74848	-21945	-93219	-343797	-100800	SLD 13	4.593	Si
231	28.65	1	0.0001	3,4	-97064	236545	-93016	-446811	1088874	SLD 13	4.603	Si
260	28.65	1	0.0001	3,4	-118841	495623	-92818	-529461	2208108	SLD 13	4.455	Si
310	28.65	2	0.0003	3,4,5,6,7	230205	1544573	-59137	773137	5187407	SLD 2	3.358	Si
339	28.65	2	0.0003	3,4,5,6,7	186950	1247689	-58939	744327	4967569	SLD 2	3.981	Si
368	28.65	2	0.0003	3,4,5,6,7	146735	-751730	-76186	674283	-3454380	SLD 13	4.595	Si
397	28.65	1	0.0003	5,6,7	101809	-506602	-75982	529452	-2634552	SLD 13	5.2	Si
426	28.65	1	0.0003	5,6,7	57318	-265806	-75780	323860	-1501876	SLD 13	5.65	Si
454	28.65	1	0.0003	5,6,7	12839	-24523	-75578	72738	-138933	SLD 13	5.665	Si
483	29.07	1.2	0.0003	5,6,7,13	-32168	235908	-75375	-183435	1345227	SLD 13	5.702	Si
512	31.34	1.2	0.0003	5,6,7,13	-76458	475456	-75173	-416906	2592541	SLD 13	5.453	Si
541	33.61	1.2	0.0003	5,6,7,13	-120808	718049	-74971	-591336	3514729	SLD 13	4.895	Si
570	34.93	1.2	0.0003	5,6,7,13	-164072	-1169970	-57324	-709390	-5058525	SLD 2	4.324	Si
620	34.93	2.6	0.0003	5,6,7,8,9,13	171280	1174882	-47961	617691	4237004	SLD 2	3.606	Si
649	32.67	2.6	0.0003	5,6,7,8,9,13	138279	940536	-47791	588982	4006105	SLD 2	4.259	Si
678	30.4	2.6	0.0003	5,6,7,8,9,13	107424	-604384	-58159	538943	-3032164	SLD 13	5.017	Si
707	28.65	1.2	0.0003	8,9	74236	-412623	-57984	425526	-2365187	SLD 13	5.732	Si
736	28.65	1.2	0.0003	8,9	41238	-225524	-57810	271527	-1484941	SLD 13	6.584	Si
764	28.65	1.2	0.0003	8,9	8289	-43573	-57637	55082	-289561	SLD 13	6.645	Si
793	28.65	1.2	0.0003	8,9	-24612	175647	-57464	-164051	1170777	SLD 13	6.666	Si
822	28.65	1.2	0.0003	8,9	-57345	362065	-57290	-345167	2179313	SLD 13	6.019	Si
851	28.65	1.2	0.0003	8,9	-99421	-737440	-46578	-498333	-3696317	SLD 2	5.012	Si
880	28.65	1.2	0.0003	8,9	-131975	-971470	-46407	-546328	-4021539	SLD 2	4.14	Si
930	28.65	2.2	0.0004	8,9,10	173774	889431	-36012	773796	3960534	SLD 2	4.453	Si
959	28.1	2.2	0.0004	8,9,10	138630	692808	-35841	753380	3765031	SLD 2	5.434	Si
988	27.55	2.2	0.0004	8,9,10	103216	495320	-35670	700772	3362895	SLD 2	6.789	Si
1017	24.13	1	0.0004	10	67125	296317	-35495	563241	2486373	SLD 2	8.391	Si
1046	24.13	1	0.0004	10	28639	-55701	-41104	254540	-495061	SLD 13	8.888	Si
1074	24.13	1	0.0004	10	-5115	136737	-40931	-45657	1220430	SLD 13	8.925	Si
1103	24.13	1	0.0004	10	-39455	267863	-40757	-316626	2149612	SLD 13	8.025	Si
1132	24.13	1	0.0004	10	-76325	-520384	-34801	-498317	-3397507	SLD 2	6.529	Si
1161	24.13	1	0.0004	10	-111966	-720102	-34628	-574359	-3693945	SLD 2	5.13	Si
1190	24.13	1	0.0004	10	-147076	-916858	-34458	-602818	-3757919	SLD 2	4.099	Si
1240	24.13	2	0.0004	10,11	155945	612354	-23218	880342	3456860	SLD 2	5.645	Si
1269	24.13	2	0.0004	10,11	127826	471065	-23048	920311	3391546	SLD 2	7.2	Si
1298	24.13	2	0.0004	10,11	99487	329643	-22876	933518	3093131	SLD 2	9.383	Si
1327	24.13	1	0.0004	11	70603	189384	-22701	886079	2376808	SLD 2	12.55	Si
1356	24.13	1	0.0004	11	41023	24312	-25253	593466	351711	SLD 13	14.467	Si
1384	24.13	1	0.0004	11	13034	138213	-25079	178590	1893824	SLD 13	13.702	Si
1413	24.13	1	0.0004	11	-15389	229599	-24906	-183178	2732918	SLD 13	11.903	Si
1442	24.13	1	0.0004	11	-43968	-406198	-22008	-399199	-3688017	SLD 2	9.079	Si
1471	24.13	1	0.0004	11	-72557	-549946	-21835	-506129	-3836209	SLD 2	6.976	Si
1500	24.13	1	0.0004	11	-100669	-691625	-21664	-546576	-3755142	SLD 2	5.429	Si
1550	24.13	2	0.0004	11,12	202076	490431	-9753	1083931	2630656	SLD 2	5.364	Si
1579	24.13	2	0.0004	11,12	151158	366326	-9583	1151285	2790100	SLD 2	7.616	Si
1608	24.13	2	0.0004	11,12	99843	242009	-9411	1228929	2978812	SLD 2	12.309	Si
1637	24.13	1	0.0004	12	47538	119599	-9236	1123613	2826867	SLD 2	23.636	Si
1666	24.13	1	0.0004	12	-5096	59122	-10086	-171280	1987240	SLD 14	33.612	Si
1694	24.13	1	0.0004	12	-56166	-148710	-8889	-1146666	-3036008	SLD 2	20.416	Si
1723	24.13	1	0.0004	12	-107971	-273584	-8716	-1169185	-2962563	SLD 2	10.829	Si
1752	24.13	1	0.0004	12	-159777	-399712	-8543	-1081076	-2704515	SLD 2	6.766	Si
1781	24.13	1	0.0004	12	-211590	-526222	-8369	-1025628	-2550725	SLD 2	4.847	Si
1810	24.13	1	0.0004	12	-262509	-650704	-8199	-980235	-2429798	SLD 2	3.734	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8403	0.6414	0.2969	0.1905	0.338	1984	0.1668	1.142	SLV 9	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	-949	-1149	-123814	SLU 16	1.6	85010	74.01	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/7	-949	-1149	-123555	SLU 16	1.6	85010	74.01	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/7	-949	-1149	-123292	SLU 16	1.6	85010	74.01	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	-949	-1149	-123030	SLU 16	2.5	27994	24.37	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	-949	-1149	-122767	SLU 16	2.5	27994	24.37	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	-949	-1149	-122504	SLU 16	2.5	27994	24.37	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	-949	-1149	-122241	SLU 16	2.5	27994	24.37	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	-949	-1149	-1221978	SLU 16	2.2	72396	63.03	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	-949	-1149	-121715	SLU 16	2.2	72396	63.03	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	-949	-1149	-121457	SLU 16	2.2	72396	63.03	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	-1704	-2495	-101537	SLU 16	2.2	72396	29.01	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	-1704	-2495	-101279	SLU 16	2.2	72396	29.01	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	-1704	-2495	-101018	SLU 16	2.2	72396	29.01	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	-1704	-2495	-100753	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	-1704	-2495	-100490	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	-1704	-2495	-100227	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	-1704	-2495	-99964	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	-1704	-2495	-99701	SLU 16	1.9	78154	31.32	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	-1704	-2495	-99438	SLU 16	1.9	78154	31.32	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	-1704	-2495	-99180	SLU 16	1.9	78154	31.32	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	4X/5Y ø10/12	-1374	-1842	-79316	SLU 16	1.8	69985	38	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	-1374	-1842	-79094	SLU 16	1.8	69985	38	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	-1374	-1842	-78871	SLU 16	1.8	69985	38	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	-1374	-1842	-78643	SLU 16	2.5	27423	14.89	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	-1374	-1842	-78418	SLU 16	2.5	27423	14.89	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	-1374	-1842	-78193	SLU 16	2.5	27423	14.89	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
793	2X/2Y ø10/17.5	-1374	-1842	-77967	SLU 16	2.5	27423	14.89	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	-1374	-1842	-77742	SLU 16	2	63986	34.74	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	-1374	-1842	-77517	SLU 16	2	63986	34.74	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	-1374	-1842	-77295	SLU 16	2	63986	34.74	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	-1650	-1905	-57409	SLU 16	2	62386	32.75	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	-1650	-1905	-57187	SLU 16	2	62386	32.75	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	-1650	-1905	-56964	SLU 16	2	62386	32.75	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	-1650	-1905	-56736	SLU 16	2.5	27423	14.39	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	-1650	-1905	-56511	SLU 16	2.5	27423	14.39	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	-1650	-1905	-56286	SLU 16	2.5	27423	14.39	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	-1650	-1905	-56060	SLU 16	2.5	27423	14.39	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	-1650	-1905	-55835	SLU 16	2	62386	32.75	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	-1650	-1905	-55610	SLU 16	2	62386	32.75	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	-1650	-1905	-55388	SLU 16	2	62386	32.75	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	-1464	-1693	-35541	SLU 16	1.9	59187	34.97	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	-1464	-1693	-35320	SLU 16	1.9	59187	34.97	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	-1464	-1693	-35097	SLU 16	1.9	59187	34.97	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	-1464	-1693	-34869	SLU 16	2.5	27423	16.2	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	-1464	-1693	-34644	SLU 16	2.5	27423	16.2	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	-1464	-1693	-34418	SLU 16	2.5	27423	16.2	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	-1464	-1693	-34193	SLU 16	2.5	27423	16.2	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	-1464	-1693	-33968	SLU 16	1.9	59187	34.97	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	-1464	-1693	-33742	SLU 16	1.9	59187	34.97	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	-1464	-1693	-33521	SLU 16	1.9	59187	34.97	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	-2216	-3009	-17612	SLU 15	1.8	57587	19.14	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	-2216	-3009	-17391	SLU 15	1.8	57587	19.14	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	-2216	-3009	-17168	SLU 15	1.8	57587	19.14	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	-2216	-3009	-16940	SLU 15	2.5	27422	9.11	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	-2216	-3009	-16715	SLU 15	2.5	27422	9.11	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	-2216	-3009	-16489	SLU 15	2.5	27422	9.11	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	-2216	-3009	-16264	SLU 15	2.5	27422	9.11	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	-2216	-3009	-16039	SLU 15	1.8	57587	19.14	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	-2216	-3009	-15813	SLU 15	1.8	57587	19.14	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	-2216	-3009	-15592	SLU 15	1.8	57587	19.14	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	46010	24575	-107187	SLV 13-Ger.	1	102261	2.22	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
29	4X/4Y ø10/7	46010	24575	-106989	SLV 13-Ger.	1	102261	2.22	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
58	4X/4Y ø10/7	46010	24575	-106786	SLV 13-Ger.	1	102261	2.22	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
87	2X/2Y ø10/17.1	46010	24575	-106584	SLV 13-Ger.	2.5	52195	1.13	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
116	2X/2Y ø10/17.1	46010	24575	-106382	SLV 13-Ger.	2.5	52195	1.13	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/17.1	46010	24575	-106180	SLV 13-Ger.	2.5	52195	1.13	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/17.1	46010	24575	-105977	SLV 13-Ger.	2.5	52195	1.13	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	46010	24575	-105775	SLV 13-Ger.	1.5	92035	2	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	46010	24575	-105573	SLV 13-Ger.	1.5	92035	2	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	46010	24575	-105374	SLV 13-Ger.	1.5	92035	2	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	44239	24719	-82860	SLV 15-Ger.	1.5	88967	2.01	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	44239	24719	-82661	SLV 15-Ger.	1.5	88967	2.01	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	44239	24719	-82461	SLV 15-Ger.	1.5	88967	2.01	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/17.1	44540	24719	-85139	SLV 13-Ger.	2.5	27993	1.13	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/17.1	44540	24719	-84937	SLV 13-Ger.	2.5	27993	1.13	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/17.1	44540	24719	-84735	SLV 13-Ger.	2.5	27993	1.13	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/17.1	44540	24719	-84533	SLV 13-Ger.	2.5	27993	1.13	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	4X/5Y ø10/11.7	44540	24719	-84331	SLV 13-Ger.	1.5	88967	2	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/5Y ø10/11.7	44540	24719	-84128	SLV 13-Ger.	1.5	88967	2	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/5Y ø10/11.7	44540	24719	-83930	SLV 13-Ger.	1.5	88967	2	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/5Y ø10/12	33970	21983	-59922	SLV 9-Ger.	1.5	73125	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/5Y ø10/12	33970	22026	-59752	SLV 9-Ger.	1.5	73125	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/5Y ø10/12	33970	22026	-59580	SLV 9-Ger.	1.5	73125	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	34342	22365	-63643	SLV 13-Ger.	2.5	27421	1.23	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	34342	22365	-63470	SLV 13-Ger.	2.5	27421	1.23	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	34342	22365	-63296	SLV 13-Ger.	2.5	27421	1.23	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	34342	22365	-63123	SLV 13-Ger.	2.5	27421	1.23	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	34132	22365	-60554	SLV 15-Ger.	1.5	73126	2.14	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	34132	22365	-60380	SLV 15-Ger.	1.5	73126	2.14	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	34132	22365	-60210	SLV 15-Ger.	1.5	73126	2.14	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/4Y ø10/12	28728	18275	-40009	SLV 5-Ger.	1.4	70603	2.46	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	28728	18275	-39838	SLV 5-Ger.	1.4	70603	2.46	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	29077	18275	-42616	SLV 16-Ger.	1.4	70605	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	29319	18275	-44479	SLV 13-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	29319	18275	-44306	SLV 13-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
1074	2X/2Y ø10/17.5	29319	18275	-44132	SLV 13-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	29319	18275	-43959	SLV 13-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	29124	17821	-42139	SLV 9-Ger.	1.4	70603	2.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	29124	17821	-41966	SLV 9-Ger.	1.4	70603	2.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	29124	17821	-41796	SLV 9-Ger.	1.4	70603	2.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	24418	15675	-23188	SLV 11-Ger.	1.4	68082	2.79	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	24786	15675	-25164	SLV 6-Ger.	1.4	68082	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	24786	15675	-24992	SLV 6-Ger.	1.4	68082	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	25158	15675	-26995	SLV 13-Ger.	2.5	43225	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	25158	15675	-26822	SLV 13-Ger.	2.5	43225	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	25158	15675	-26648	SLV 13-Ger.	2.5	43225	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	25158	15675	-26475	SLV 13-Ger.	2.5	43225	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	24955	15675	-25111	SLV 15-Ger.	1.4	68083	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	24955	15675	-24938	SLV 15-Ger.	1.4	68083	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	24955	15476	-24767	SLV 15-Ger.	1.4	68083	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	22253	13582	-11432	SLV 13-Ger.	1.4	68083	3.06	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	22253	13598	-11262	SLV 13-Ger.	1.4	68083	3.06	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1608	4X/4Y ø10/12	22253	13598	-11090	SLV 13-Ger.	1.4	68083	3.06	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1637	2X/2Y ø10/17.5	22253	13883	-10915	SLV 13-Ger.	2.5	43225	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1666	2X/2Y ø10/17.5	22253	13883	-10742	SLV 13-Ger.	2.5	43225	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1694	2X/2Y ø10/17.5	22253	13883	-10569	SLV 13-Ger.	2.5	43225	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1723	2X/2Y ø10/17.5	22253	13883	-10395	SLV 13-Ger.	2.5	43225	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1752	4X/4Y ø10/12	21866	13668	-8242	SLV 12-Ger.	1.3	65560	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1781	4X/4Y ø10/12	21889	13668	-8185	SLV 11-Ger.	1.3	65560	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1810	4X/4Y ø10/12	21889	13668	-8015	SLV 11-Ger.	1.3	65560	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vpl,y	Comb.
0	260	260	1.1	2909326.3		-107187.3	2899323.7		-105374.3	46009.9		SLV 13
0	260	260	1.1		5448405.7	-107187.3		5426652.6	-105374.3		24575.1	SLV 13
310	570	260	1.1	2751054		-85742.6	3091641.5		-83929.6	44539.6		SLV 13
310	570	260	1.1		5158812.7	-85742.6		5368727.9	-83929.6		24719.1	SLV 13
620	880	260	1.1	2828123.3		-64159.9	2458133.9		-62605.9	34342.4		SLV 13
620	880	260	1.1		4192728.3	-64159.9		3924557.3	-62605.9		22364.9	SLV 13
930	1190	260	1.1	2288967.2		-44995.9	2030652.4		-43441.9	29318.7		SLV 13
930	1190	260	1.1		3687862	-44995.9		3242006.7	-43441.9		18275.3	SLV 13
1240	1500	260	1.1	1860795.9		-27511.8	1844206.9		-25957.8	25158.5		SLV 13
1240	1500	260	1.1		2989014.2	-27511.8		2957530	-25957.8		15675	SLV 13
1550	1810	260	1.1	1651397.3		-11432.3	1630110.7		-9878.3	22252.9		SLV 13
1550	1810	260	1.1		2647835.6	-11432.3		2611930.8	-9878.3		13883.3	SLV 13

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	-10352	-952	-70396	SLD 2	1.2	95865	9.26	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
29	4X/4Y ø10/7	-10352	-952	-70197	SLD 2	1.2	95824	9.26	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
58	4X/4Y ø10/7	-10352	-952	-69995	SLD 2	1.2	95782	9.25	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
87	2X/2Y ø10/17.1	-10352	-955	-69793	SLD 2	2.5	52196	5.04	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
116	2X/2Y ø10/17.1	-10352	-955	-69590	SLD 2	2.5	52196	5.04	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
144	2X/2Y ø10/17.1	-10352	-955	-69388	SLD 2	2.5	52196	5.04	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
173	2X/2Y ø10/17.1	-10352	-955	-69186	SLD 2	2.5	52196	5.04	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
202	4X/4Y ø10/11.7	-10352	-955	-68984	SLD 2	1.7	84352	8.15	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
231	4X/4Y ø10/11.7	-10352	-955	-68781	SLD 2	1.7	84315	8.14	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
260	4X/4Y ø10/11.7	-10352	-955	-68583	SLD 2	1.7	84279	8.14	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
310	4X/4Y ø10/11.7	-10469	-1645	-59137	SLD 2	1.7	83740	8	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
339	4X/4Y ø10/11.7	-10469	-1645	-58939	SLD 2	1.7	83703	8	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
368	4X/4Y ø10/11.7	-10469	-1645	-58738	SLD 2	1.7	83666	7.99	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
397	2X/2Y ø10/17.1	-10469	-1649	-58534	SLD 2	2.5	52195	4.99	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
426	2X/2Y ø10/17.1	-10469	-1649	-58332	SLD 2	2.5	52195	4.99	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
454	2X/2Y ø10/17.1	-10469	-1649	-58130	SLD 2	2.5	52195	4.99	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
483	2X/2Y ø10/17.1	-10469	-1649	-57928	SLD 2	2.5	52195	4.99	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
512	4X/5Y ø10/11.7	-10469	-1645	-57725	SLD 2	1.7	83479	7.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
541	4X/5Y ø10/11.7	-10469	-1645	-57523	SLD 2	1.7	83442	7.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
570	4X/5Y ø10/11.7	-10469	-1645	-57324	SLD 2	1.7	83406	7.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
620	4X/5Y ø10/12	-8271	-1361	-47961	SLD 2	1.7	69312	8.38	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
649	4X/5Y ø10/12	-8271	-1361	-47791	SLD 2	1.7	69282	8.38	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
678	4X/5Y ø10/12	-8271	-1361	-47619	SLD 2	1.7	69251	8.37	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
707	2X/2Y ø10/17.5	-8271	-1361	-47444	SLD 2	2.5	43227	5.23	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
736	2X/2Y ø10/17.5	-8271	-1361	-47271	SLD 2	2.5	43227	5.23	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
764	2X/2Y ø10/17.5	-8271	-1361	-47098	SLD 2	2.5	43227	5.23	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
793	2X/2Y ø10/17.5	-8271	-1361	-46924	SLD 2	2.5	43227	5.23	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
822	4X/4Y ø10/12	-8271	-1361	-46751	SLD 2	1.7	69095	8.35	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
851	4X/4Y ø10/12	-8271	-1361	-46578	SLD 2	1.7	69064	8.35	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
880	4X/4Y ø10/12	-8271	-1361	-46407	SLD 2	1.7	69034	8.35	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
930	4X/4Y ø10/12	-6954	-1415	-36012	SLD 2	1.7	68128	9.8	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
959	4X/4Y ø10/12	-6954	-1415	-35841	SLD 2	1.7	68097	9.79	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
988	4X/4Y ø10/12	-6954	-1415	-35670	SLD 2	1.7	68066	9.79	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1017	2X/2Y ø10/17.5	-6954	-1415	-35495	SLD 2	2.5	43227	6.22	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1046	2X/2Y ø10/17.5	-6954	-1415	-35321	SLD 2	2.5	43227	6.22	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1074	2X/2Y ø10/17.5	-6954	-1415	-35148	SLD 2	2.5	43227	6.22	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1103	2X/2Y ø10/17.5	-6954	-1415	-34975	SLD 2	2.5	43227	6.22	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1132	4X/4Y ø10/12	-6954	-1415	-34801	SLD 2	1.7	67908	9.77	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1161	4X/4Y ø10/12	-6954	-1415	-34628	SLD 2	1.7	67876	9.76	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1190	4X/4Y ø10/12	-6954	-1415	-34458	SLD 2	1.7	67845	9.76	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
1240	4X/4Y ø10/12	-5013	-1163	-23218	SLD 2	1.7	65802	13.13	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1269	4X/4Y ø10/12	-5013	-1163	-23048	SLD 2	1.7	65771	13.12	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1298	4X/4Y ø10/12	-5013	-1163	-22876	SLD 2	1.7	65739	13.11	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1327	2X/2Y ø10/17.5	-5013	-1163	-22701	SLD 2	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1356	2X/2Y ø10/17.5	-5013	-1163	-22528	SLD 2	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1384	2X/2Y ø10/17.5	-5013	-1163	-22355	SLD 2	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1413	2X/2Y ø10/17.5	-5013	-1163	-22181	SLD 2	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1442	4X/4Y ø10/12	-5013	-1163	-22008	SLD 2	1.7	65582	13.08	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1471	4X/4Y ø10/12	-5013	-1163	-21835	SLD 2	1.7	65550	13.08	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1500	4X/4Y ø10/12	-5013	-1163	-21664	SLD 2	1.7	65519	13.07	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1550	4X/4Y ø10/12	-4395	-2068	-9753	SLD 2	1.6	64237	14.62	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1579	4X/4Y ø10/12	-4395	-2068	-9583	SLD 2	1.6	64206	14.61	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1608	4X/4Y ø10/12	-4395	-2068	-9411	SLD 2	1.6	64174	14.6	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1637	2X/2Y ø10/17.5	-4395	-2068	-9236	SLD 2	2.5	43227	9.84	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1666	2X/2Y ø10/17.5	-4395	-2068	-9063	SLD 2	2.5	43227	9.84	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1694	2X/2Y ø10/17.5	-4395	-2068	-8889	SLD 2	2.5	43227	9.84	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1723	2X/2Y ø10/17.5	-4395	-2068	-8716	SLD 2	2.5	43227	9.84	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1752	4X/4Y ø10/12	-4395	-2068	-8543	SLD 2	1.6	64014	14.57	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1781	4X/4Y ø10/12	-4395	-2068	-8369	SLD 2	1.6	63982	14.56	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1810	4X/4Y ø10/12	-4395	-2068	-8199	SLD 2	1.6	63951	14.55	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	61166	48975	-90651	SLE RA 8	-32	61166	48975	-90651	SLE RA 8	-465.7	Si
29	37897	29945	-90453	SLE RA 8	-30.5	37897	29945	-90453	SLE RA 8	-447.6	Si
58	14218	10581	-90250	SLE RA 8	-28.8	14218	10581	-90250	SLE RA 8	-429.3	Si
87	-9461	-8784	-90048	SLE RA 8	-28.5	-9461	-8784	-90048	SLE RA 8	-425.5	Si
116	-33140	-28148	-89846	SLE RA 8	-30	-33140	-28148	-89846	SLE RA 8	-442	Si
144	-56819	-47512	-89644	SLE RA 8	-31.5	-56819	-47512	-89644	SLE RA 8	-458.4	Si
173	-80498	-66877	-89442	SLE RA 8	-33	-80498	-66877	-89442	SLE RA 8	-474.9	Si
202	-104177	-86241	-89239	SLE RA 8	-34.5	-104177	-86241	-89239	SLE RA 8	-491.4	Si
231	-127856	-105605	-89037	SLE RA 8	-36	-127856	-105605	-89037	SLE RA 8	-507.9	Si
260	-151125	-124635	-88838	SLE RA 8	-37.4	-151125	-124635	-88838	SLE RA 8	-524.1	Si
310	261956	184089	-74330	SLE RA 8	-39.4	261956	184089	-74330	SLE RA 8	-528.6	Si
339	211348	150298	-74131	SLE RA 8	-36.2	211348	150298	-74131	SLE RA 8	-492.8	Si
368	160343	116243	-73931	SLE RA 8	-33	160343	116243	-73931	SLE RA 8	-456.7	Si
397	108347	81527	-73727	SLE RA 8	-29.8	108347	81527	-73727	SLE RA 8	-419.9	Si
426	56847	47141	-73525	SLE RA 8	-26.5	56847	47141	-73525	SLE RA 8	-383.5	Si
454	5347	12756	-73322	SLE RA 8	-23.3	5347	12756	-73322	SLE RA 8	-347	Si
483	-46153	-21630	-73120	SLE RA 8	-25.2	-46153	-21630	-73120	SLE RA 8	-367.8	Si
512	-97653	-56015	-72918	SLE RA 8	-28	-97653	-56015	-72918	SLE RA 8	-398.1	Si
541	-149153	-90401	-72716	SLE RA 8	-30.8	-149153	-90401	-72716	SLE RA 8	-427.6	Si
570	-199762	-124192	-72517	SLE RA 8	-33.5	-199762	-124192	-72517	SLE RA 8	-457.9	Si
620	185936	114937	-58054	SLE RA 8	-32.8	185936	114937	-58054	SLE RA 8	-440.7	Si
649	148734	87529	-57884	SLE RA 8	-30.3	148734	87529	-57884	SLE RA 8	-414.4	Si
678	111241	59907	-57712	SLE RA 8	-27.8	111241	59907	-57712	SLE RA 8	-387.3	Si
707	73020	31748	-57537	SLE RA 8	-25.1	73020	31748	-57537	SLE RA 8	-357.8	Si
736	35163	3857	-57364	SLE RA 8	-22.2	35163	2853	-57618	SLE RA 7	-325	Si
764	-2694	-24034	-57190	SLE RA 8	-21.1	-2694	-24034	-57190	SLE RA 8	-314.2	Si
793	-40551	-51925	-57017	SLE RA 8	-23.9	-40551	-51925	-57017	SLE RA 8	-345.2	Si
822	-78408	-79816	-56844	SLE RA 8	-26.8	-78408	-79816	-56844	SLE RA 8	-376.2	Si
851	-116265	-107707	-56670	SLE RA 8	-29.6	-116265	-107707	-56670	SLE RA 8	-407.2	Si
880	-153467	-135115	-56500	SLE RA 8	-32.3	-153467	-135115	-56500	SLE RA 8	-437.7	Si
930	188063	173663	-42045	SLE RA 8	-30.3	188063	173663	-42045	SLE RA 8	-395.4	Si
959	149619	140518	-41875	SLE RA 8	-27.2	149619	140518	-41875	SLE RA 8	-362.6	Si
988	110873	107114	-41703	SLE RA 8	-24.1	110873	107114	-41703	SLE RA 8	-327.7	Si
1017	71376	73061	-41528	SLE RA 8	-21.4	71376	73061	-41528	SLE RA 8	-297.1	Si
1046	32254	39332	-41355	SLE RA 8	-18	27344	34091	-42395	SLE RA 7	-260.2	Si
1074	-9931	2924	-42221	SLE RA 7	-15.9	-9931	2924	-42221	SLE RA 7	-236.2	Si
1103	-47206	-28242	-42048	SLE RA 7	-18.7	-47206	-28242	-42048	SLE RA 7	-267.3	Si
1132	-84480	-59409	-41875	SLE RA 7	-21.7	-84480	-59409	-41875	SLE RA 7	-300.9	Si
1161	-121755	-90576	-41701	SLE RA 7	-24.7	-121755	-90576	-41701	SLE RA 7	-334.4	Si
1190	-162676	-128726	-40491	SLE RA 8	-27.8	-158385	-121203	-41531	SLE RA 7	-367.3	Si
1240	178994	150970	-26066	SLE RA 8	-24.2	178994	150970	-26066	SLE RA 8	-307.6	Si
1269	145135	121759	-25895	SLE RA 8	-21.3	145135	121759	-25895	SLE RA 8	-275	Si
1298	111011	92320	-25724	SLE RA 8	-18.4	102097	80802	-27562	SLE RA 7	-242.2	Si
1327	74386	58427	-27387	SLE RA 7	-15.9	74386	58427	-27387	SLE RA 7	-216	Si
1356	46940	36266	-27214	SLE RA 7	-13.6	46940	36266	-27214	SLE RA 7	-190	Si
1384	19493	14104	-27040	SLE RA 7	-11.3	19493	14104	-27040	SLE RA 7	-164	Si
1413	-27142	-26864	-25029	SLE RA 8	-11.4	-27142	-26864	-25029	SLE RA 8	-162.8	Si
1442	-61597	-56589	-24855	SLE RA 8	-14.2	-61597	-56589	-24855	SLE RA 8	-194.1	Si
1471	-96053	-86314	-24682	SLE RA 8	-17	-96053	-86314	-24682	SLE RA 8	-225.4	Si
1500	-129912	-115524	-24512	SLE RA 8	-19.8	-129912	-115524	-24512	SLE RA 8	-256.1	Si
1550	227083	176116	-12714	SLE RA 7	-31.9	212745	161483	-10132	SLE RA 8	424.2	Si
1579	166229	132113	-12543	SLE RA 7	-18	166229	132113	-12543	SLE RA 7	-219	Si
1608	104898	87765	-12372	SLE RA 7	-13.1	104898	87765	-12372	SLE RA 7	-164.2	Si
1637	61122	64010	-9615	SLE RA 8	-8.9	61122	64010	-9615	SLE RA 8	-114.1	Si
1666	-34201	-19655	-12023	SLE RA 6	-6.9	-34201	-19655	-12023	SLE RA 6	-93.2	Si
1694	-93534	-63183	-11849	SLE RA 6	-11.5	-93534	-63183	-11849	SLE RA 6	-144.6	Si
1723	-152867	-106712	-11676	SLE RA 6	-16.1	-152867	-106712	-11676	SLE RA 6	-196	Si
1752	-212200	-150241	-11503	SLE RA 6	-29.1	-212200	-150241	-11503	SLE RA 6	359.7	Si
1781	-271533	-193769	-11329	SLE RA 6	-38.7	-271533	-193769	-11329	SLE RA 6	590.5	Si
1810	-329839	-236544	-11159	SLE RA 6	-48.1	-329839	-236544	-11159	SLE RA 6	827.1	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	51105	38886	-81642	SLE QP 4	-28.6	Si
29	31779	23636	-81443	SLE QP 4	-27.2	Si
58	12112	8118	-81241	SLE QP 4	-25.9	Si
87	-7555	-7400	-81039	SLE QP 4	-25.6	Si
116	-27222	-22918	-80837	SLE QP 4	-26.8	Si
144	-46889	-38436	-80634	SLE QP 4	-28	Si
173	-66556	-53955	-80432	SLE QP 4	-29.3	Si
202	-86222	-69473	-80230	SLE QP 4	-30.5	Si
231	-105889	-84991	-80028	SLE QP 4	-31.7	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Verifica
260	-125216	-100240	-79829	SLE QP 4	-32,9	Si
310	218298	143745	-67087	SLE QP 4	-34,2	Si
339	176103	117649	-66888	SLE QP 4	-31,6	Si
368	133578	91348	-66688	SLE QP 4	-29	Si
397	90228	64536	-66484	SLE QP 4	-26,3	Si
426	47290	37980	-66282	SLE QP 4	-23,6	Si
454	4353	11424	-66080	SLE QP 4	-20,9	Si
483	-38585	-15132	-65877	SLE QP 4	-22,5	Si
512	-81523	-41688	-65675	SLE QP 4	-24,7	Si
541	-124460	-68244	-65473	SLE QP 4	-26,9	Si
570	-166655	-94340	-65274	SLE QP 4	-29,2	Si
620	153803	89081	-52588	SLE QP 4	-28,5	Si
649	123287	67572	-52417	SLE QP 4	-26,5	Si
678	92531	45894	-52246	SLE QP 4	-24,5	Si
707	61178	23796	-52071	SLE QP 4	-22,3	Si
736	30124	1908	-51897	SLE QP 4	-20	Si
764	-931	-19979	-51724	SLE QP 4	-19	Si
793	-31985	-41867	-51551	SLE QP 4	-21,2	Si
822	-63039	-63755	-51377	SLE QP 4	-23,5	Si
851	-94094	-85643	-51204	SLE QP 4	-25,8	Si
880	-124610	-107152	-51034	SLE QP 4	-28	Si
930	154660	141113	-38409	SLE QP 4	-26,2	Si
959	122735	114090	-38238	SLE QP 4	-23,7	Si
988	90560	86856	-38067	SLE QP 4	-21,1	Si
1017	57761	59093	-37892	SLE QP 4	-18,8	Si
1046	25274	31594	-37718	SLE QP 4	-16,1	Si
1074	-7214	4096	-37545	SLE QP 4	-14,1	Si
1103	-39701	-23403	-37372	SLE QP 4	-16,5	Si
1132	-72188	-50902	-37198	SLE QP 4	-19,1	Si
1161	-104675	-78400	-37025	SLE QP 4	-21,7	Si
1190	-136600	-105423	-36855	SLE QP 4	-24,3	Si
1240	142750	116301	-24261	SLE QP 4	-20,4	Si
1269	116913	94588	-24091	SLE QP 4	-18,2	Si
1298	90873	72705	-23919	SLE QP 4	-16	Si
1327	64328	50397	-23744	SLE QP 4	-13,8	Si
1356	38035	28302	-23571	SLE QP 4	-11,5	Si
1384	11743	6206	-23398	SLE QP 4	-9,3	Si
1413	-14550	-15889	-23224	SLE QP 4	-9,7	Si
1442	-40842	-37985	-23051	SLE QP 4	-11,8	Si
1471	-67135	-60080	-22878	SLE QP 4	-13,9	Si
1500	-92972	-81793	-22707	SLE QP 4	-16	Si
1550	187765	139073	-10132	SLE QP 4	-18,5	Si
1579	140359	108187	-9961	SLE QP 4	-14,8	Si
1608	92582	77059	-9790	SLE QP 4	-11,1	Si
1637	43878	45327	-9615	SLE QP 4	-7,4	Si
1666	-10641	6426	-9441	SLE QP 3	-4,2	Si
1694	-57770	-24468	-9268	SLE QP 3	-7,3	Si
1723	-104900	-55363	-9094	SLE QP 3	-10,8	Si
1752	-152029	-86257	-8921	SLE QP 3	-14,3	Si
1781	-199158	-117152	-8748	SLE QP 3	-17,8	Si
1810	-245471	-147511	-8577	SLE QP 3	-33,7	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 2	285	No	No	
Pilastrata 2	595	No	No	
Pilastrata 2	905	No	No	
Pilastrata 2	1215	No	No	
Pilastrata 2	1525	No	No	
Pilastrata 2	1835	No	No	

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	285	0.837	0.763	0.639	0.206	0.132	0.259	0.12	7.1	13.9	1.102	SLD 9	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	595	0.776	0.827	0.642	0.147	0.094	0.202	0.085	10	14.2	1.106	SLD 9	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	905	0.763	0.789	0.602	0.154	0.092	0.175	0.069	10	13.9	1.333	SLD 9	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	1215	0.763	0.786	0.6	0.154	0.092	0.11	0.031	10	12.8	3.007	SLD 9	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	1525	0.763	0.786	0.6	0.154	0.092	0.046	-0.007	10	12.8	1000	SLD 9	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	285	0.837	0.763	0.639	0.206	0.132	0.276	0.13	7.1	13.9	1.013	SLV 9	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	595	0.776	0.827	0.642	0.147	0.094	0.214	0.093	10	14.2	1.017	SLV 9	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	905	0.763	0.789	0.602	0.154	0.092	0.185	0.075	10	13.9	1.228	SLV 9	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	1215	0.763	0.786	0.6	0.154	0.092	0.116	0.034	10	12.8	2.702	SLV 9	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	1525	0.763	0.786	0.6	0.154	0.092	0.049	-0.006	10	12.8	1000	SLV 9	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 2	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	45	45	No	-123814	SLU 16	102187	229659	85009	129389	102187	85009	3.46	3.46	Min	No	3.46	Si
-60	285	0	30	17	45	45	No	-123814	SLU 16	102187	229659	85009	129389	102187	85009	3.46	3.46	X	No	3.46	Si
-60	285	231.1	30	17	52	52	No	-93016	SLD 13	59068	197715	1123289	88145	-97064	1123289	4.6	3.63	Min	No	3.57	Si
-60	285	0	30	17	51	51	No	-94631	SLD 13	59068	177941	1123289	74424	80618	-1879956	4.52		X	Si		Si
-60	285	202.2	30	17	48	48	No	-105775	SLV 13	63247	224835	2210917	132504	-64855	2210917	4.05	2.4	Min	No	2.38	Si
-60	285	0	30	17	48	48	No	-107187	SLV 13	63247	190250	2210917	83769	106611	-3747069	3.99		X	Si		Si
-60	285	0	30	17	45	45	No	-123814	SLU 16	102187	229659	85009	129389	102187	85009	3.46	3.46	Min	No	3.46	Si
-60	285	0	30	17	45	45	No	-123814	SLU 16	102187	229659	85009	129389	102187	85009	3.46	3.46	Y	No	3.46	Si
-60	285	0	30	17	51	51	No	-94631	SLD 13	59068	177941	1123289	74424	80618	-1879956		2.77	Min	Si		Si
-60	285	0	30	17	51	51	No	-94631	SLD 13	59068	177941	1123289	74424	80618	-1879956		2.77	Y	Si		Si
-60	285	0	30	17	66	66	No	-56097	SLV 4	84209	119239	2200056	43835	-84209	3824841	1.3	Min	Si			Si
-60	285	0	30	17	66	66	No	-56097	SLV 4	84209	119239	2200056	43835	-84209	3824841		1.3	Y	Si		Si
285	595	310	27	15	49	49	No	-101537	SLU 16	159691	154313	113953	85772	366789	262733	3.97	4.22	Min	No	3.88	Si
285	595	310	27	15	49	49	No	-101537	SLU 16	159691	154313	113953	85772	366789	262733	3.97	4.22	X	No	3.88	Si
285	595	310	27	15	61	61	No	-66894	SLD 6	113502	110977	264745	48231	262565	608468	5.91	5.57	Min	No	4.95	Si
285	595	310	27	15	57	57	No	-76585	SLD 13	101829	131537	536643	51574	234544	-1231992	5.43		X	Si		Si
285	595	310	27	15	57	57	No	-77347	SLV 9	133563	122450	266542	55721	310672	-612383	5.08	5	Min	No	4.41	Si
285	595	310	27	15	54	54	No	-85743	SLV 13	107734	144590	1120772	55665	248692	-2573824	4.89		X	Si		Si
285	595	310	27	15	49	49	No	-101537	SLU 16	159691	154313	113953	85772	366789	262733	3.97	4.22	Min	No	3.88	Si
285	595	310	27	15	49	49	No	-101537	SLU 16	159691	154313	113953	85772	366789	262733	3.97	4.22	Y	No	3.88	Si
285	595	310	27	15	65	65	No	-59137	SLD 2	100005	102181	672224	39268	230205	1544573		3.69	Min	Si		Si
285	595	310	27	15	65	65	No	-59137	SLD 2	100005	102181	672224	39268	230205	1544573		3.69	Y	Si		Si
285	595	310	27	15	69	69	No	-51314	SLV 2	104221	87455	1265923	33183	240336	2908189		1.81	Min	Si		Si
285	595	310	27	15	69	69	No	-51314	SLV 2	104221	87455	1265923	33183	240336	2908189		1.81	Y	Si		Si
595	905	880	27	18	52	52	No	-77295	SLU 16	114481	116638	97462	76762	-216210	-191456	4.85	4.96	Min	No	4.74	Si
595	905	706.7	27	18	52	52	No	-79025	SLU 15	104383	122316	85560	79933	104383	85560	4.85	4.85	X	No	4.85	Si
595	905	620	27	18	63	63	No	-53028	SLD 6	91175	84813	208112	44098	210626	445073	6.97	6.35	Min	No	5.68	Si
595	905	620	27	18	61	61	No	-56436	SLD 9	93559	89620	92368	52413	216362	-214089	6.6	7.15	X	No	6.25	Si
595	905	620	27	18	63	63	No	-53239	SLV 6	111918	80828	356104	42186	259606	788731	6.59	4.88	Min	No	4.29	Si
595	905	620	27	18	59	59	No	-59922	SLV 9	116349	90148	221950	49129	270280	-511766	5.98	5.59	X	No	4.87	Si
595	905	880	27	18	52	52	No	-77295	SLU 16	114481	116638	97462	76762	-216210	-191456	4.85	4.96	Min	No	4.74	Si
595	905	706.7	27	18	52	52	No	-79025	SLU 15	104383	122316	85560	79933	104383	85560	4.85	4.85	Y	No	4.85	Si
595	905	620	27	18	66	66	No	-47961	SLD 2	74575	81451	514073	37204	171280	1174882		3.84	Min	Si		Si
595	905	620	27	18	66	66	No	-47961	SLD 2	74575	81451	514073	37204	171280	1174882		3.84	Y	Si		Si
595	905	620	27	18	70	70	No	-43411	SLV 2	81019	71867	974095	32973	186344	2232825		1.95	Min	Si		Si
595	905	620	27	18	70	70	No	-43411	SLV 2	81019	71867	974095	32973	186344	2232825		1.95	Y	Si		Si
905	1215	930	27	18	61	61	No	-57409	SLU 16	120343	86864	106700	57413	264979	245296	5.87	6.56	Min	No	5.5	Si
905	1215	930	27	18	60	60	No	-58968	SLU 15	116310	90737	96742	60562	246582	222130	5.87	6.5	X	No	5.56	Si
905	1215	930	27	18	74	74	No	-39095	SLD 6	87271	63510	199209	35206	200156	398936	8.36	7.7	Min	No	6.5	Si
905	1215	930	27	18	72	72	No	-41016	SLD 9	87648	66547	51917	48784	201059	-56856	8.08	9.34	X	No	7.98	Si
905	1215	930	27	18	73	73	No	-39603	SLV 6	104325	61351	336025	33261	239845	645212	7.8	6.03	Min	No	5.02	Si
905	1215	930	27	18	70	70	No	-43350	SLV 9	104850	67067	159307	43083	241121	-251346	7.34	8.21	X	No	6.61	Si
905	1215	930	27	18	61	61	No	-57409	SLU 16	120343	86864	106700	57413	264979	245296	5.87	6.56	Min	No	5.5	Si
905	1215	1016.7	27	18	60	60	No	-58296	SLU 15	116310	89958	96742	60110	116310	96742	6.27	6.27	Y	No	6.27	Si
905	1215	1190	27	18	78	78	No	-34458	SLD 2	77641	59155	472228	27336	-147076	-916858		4.49	Min	Si		Si
905	1215	1190	27	18	78	78	No	-34458	SLD 2	77641	59155	472228	27336	-147076	-916858		4.49	Y	Si		Si
905	1215	1190	27	18	81	81	No	-32108	SLV 2	83368	54055	876713	24704	-156576	-1706855		2.08	Min	Si		Si
905	1215	1190	27	18	81	81	No	-32108	SLV 2	83368	54055	876713	24704	-156576	-1706855		2.08	Y	Si		Si
1215	1525	1240	27	18	77	77	No	-35541	SLU 16	109923	53373	93351	35021	252804	214348	7.78	9.52	Min	No	6.96	Si
1215	1525	1240	27	18	77	77	No	-35541	SLU 16	109923	53373	93351	35021	252804	214348	7.78	9.52	X	No	6.96	Si
1215	1525	1240	27	18	90	90	No	-25943	SLD 13	66132	44617	258851	22934	152709	-366941	11.52	9.46	Min	No	7.79	Si
1215	1525	1240	27	18	91	91	No	-25796	SLD 9	79039	42039	53753	30682	182606	-53753	10.74		X	Si		Si
1215	1525	1355.6	27	18	99	99	No	-21511	SLV 2	72567	35686	651461	22632	72567	651461	16.19	6.25	Min	No	5.95	Si

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
1215	1525	1240	27	18	88	88	No	-27156	SLV 9	93970	42262	124924	30034	217211	-143394	9.61	12.81	X	No	8.81	Si
1215	1525	1240	27	18	77	77	No	-35541	SLU 16	109923	53373	93351	35021	252804	214348	7.78	9.52	Min	No	6.96	Si
1215	1525	1240	27	18	74	74	No	-38299	SLU 15	94385	59503	75444	39858	218689	174686	7.89	9.33	Y	No	7.32	Si
1215	1525	1500	27	18	99	99	No	-21664	SLD 2	67529	37135	352631	17219	-100669	-691625		5.86	Min	Si		Si
1215	1525	1500	27	18	99	99	No	-21664	SLD 2	67529	37135	352631	17219	-100669	-691625		5.86	Y	Si		Si
1215	1525	1500	27	18	101	101	No	-20647	SLV 2	72567	34684	651461	15312	-107417	-1283252		2.65	Min	Si		Si
1215	1525	1500	27	18	101	101	No	-20647	SLV 2	72567	34684	651461	15312	-107417	-1283252		2.65	Y	Si		Si
1525	1835	1810	27	18	117	117	No	-15591	SLU 14	229095	23092	169013	14595	-463501	-340804	5.07	11.81	Min	No	4.06	Si
1525	1835	1810	27	18	117	117	No	-15591	SLU 14	229095	23092	169013	14595	-463501	-340804	5.07	11.81	X	No	4.06	Si
1525	1835	1810	27	18	161	161	No	-8199	SLD 2	132267	14103	326983	6080	-262509	-650704	8.73	4.91	Min	No	3.73	Si
1525	1835	1810	27	18	154	154	No	-8949	SLD 5	152706	14731	163916	8472	-303192	-323263	7.41	12.32	X	No	5.32	Si
1525	1835	1810	27	18	146	146	No	-9878	SLV 13	137243	16788	399350	7326	-272668	806761	8.83	3.94	Min	No	3.16	Si
1525	1835	1810	27	18	151	151	No	-9257	SLV 5	178161	14606	249313	8107	-353743	-494094	6.1	7.19	X	No	3.93	Si
1525	1835	1810	27	18	117	117	No	-15591	SLU 14	229095	23092	169013	14595	-463501	-340804	5.07	11.81	Min	No	4.06	Si
1525	1835	1810	27	18	117	117	No	-15591	SLU 14	229095	23092	169013	14595	-463501	-340804	5.07	11.81	Y	No	4.06	Si
1525	1835	1810	27	18	161	161	No	-8199	SLD 2	132267	14103	326983	6080	-262509	-650704	8.73	4.91	Min	No	3.73	Si
1525	1835	1810	27	18	161	161	No	-8199	SLD 2	132267	14103	326983	6080	-262509	-650704	8.73	4.91	Y	No	3.73	Si
1525	1835	1810	27	18	164	164	No	-7829	SLV 2	140116	13225	570563	5806	-278014	-1139188		2.48	Min	Si		Si
1525	1835	1810	27	18	164	164	No	-7829	SLV 2	140116	13225	570563	5806	-278014	-1139188		2.48	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	90	759417	<	4829565	2446778	2382787	6.36	SLV 4		Si
285	180	8384614	<	9220797	4659307	4561490	1.1	SLV 4		Si
285	360	8384614	<	9220797	4659307	4561490	1.1	SLV 4		Si
595	90	759417	<	5310611	2713119	2597492	6.993	SLV 4		Si
595	180	8384614	<	8897734	4931876	3965858	1.061	SLV 4		Si
595	360	8384614	<	8897734	4931876	3965858	1.061	SLV 4		Si
905	90	740999	<	4374222	2228695	2145527	5.903	SLV 4		Si
905	180	6285528	<	7110508	3610356	3500151	1.131	SLV 4		Si
905	360	6285528	<	7110508	3610356	3500151	1.131	SLV 4		Si
1215	90	740999	<	3672648	1890165	1782482	4.956	SLV 4		Si
1215	180	5250179	<	5902188	3044760	2857428	1.124	SLV 4		Si
1215	360	5250179	<	5902188	3044760	2857428	1.124	SLV 4		Si
1525	90	740999	<	3376992	1761196	1615796	4.557	SLV 4		Si
1525	180	3805858	<	5413731	2825944	2587787	1.422	SLV 4		Si
1525	360	3805858	<	5413731	2825944	2587787	1.422	SLV 4		Si

Pilastrata 3

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	33.18	2.4	0	1,2,3,4	247591	-247591	-123796	891760	-891760	SLU 16	3.602	Si
29	33.18	2.4	0	1,2,3,4	247074	-247074	-123537	891760	-891760	SLU 16	3.609	Si
58	33.18	2.4	0	1,2,3,4	246549	-246549	-123274	891760	-891760	SLU 16	3.617	Si
87	33.18	1.2	0	3,4	-246023	246023	-123011	-891760	891760	SLU 16	3.625	Si
116	33.18	1.2	0	3,4	-245497	245497	-122749	-891760	891760	SLU 16	3.632	Si
144	33.18	1.2	0	3,4	-244971	244971	-122486	-891760	891760	SLU 16	3.64	Si
173	33.18	1.2	0	3,4	-244445	244445	-122223	-891760	891760	SLU 16	3.648	Si
202	33.18	1.2	0	3,4	-243920	243920	-121960	-891760	891760	SLU 16	3.656	Si
231	33.18	1.2	0	3,4	-243394	243394	-121697	-891760	891760	SLU 16	3.664	Si
260	33.18	1.2	0	3,4	-242877	242877	-121439	-891760	891760	SLU 16	3.672	Si
310	33.18	2.4	0	3,4,5,6,7	367521	-278560	-101512	1474963	-1117940	SLU 16	4.013	Si
339	33.18	2.4	0	3,4,5,6,7	296530	-228130	-101253	1251917	-963137	SLU 16	4.222	Si
368	33.18	2.4	0	3,4,5,6,7	224985	-201986	-100993	993298	-891760	SLU 16	4.415	Si
397	33.18	1.2	0	5,6,7	201455	-201455	-100728	891760	-891760	SLU 16	4.427	Si
426	33.18	1.2	0	5,6,7	200930	-200930	-100465	891760	-891760	SLU 16	4.438	Si
454	33.18	1.2	0	5,6,7	200404	-200404	-100202	891760	-891760	SLU 16	4.45	Si
483	33.59	1.4	0	5,6,7,13	-199878	199878	-99939	-895038	895038	SLU 16	4.478	Si
512	35.86	1.4	0	5,6,7,13	-199352	199352	-99676	-912795	912795	SLU 16	4.579	Si
541	38.13	1.4	0	5,6,7,13	-209152	198827	-99413	-978878	930552	SLU 16	4.68	Si
570	39.46	1.4	0	5,6,7,13	-280142	198310	-99155	-1276487	903612	SLU 16	4.557	Si
620	39.46	2.8	0	5,6,7,8,9,13	261805	-179049	-79315	1289940	-882193	SLU 16	4.927	Si
649	36.64	2.8	0	5,6,7,8,9,13	209291	-158188	-79094	1055579	-797836	SLU 16	5.044	Si
678	33.82	2.8	0	5,6,7,8,9,13	158480	-158480	-79240	806495	-806495	SLU 15	5.089	Si
707	28.65	1.2	0	8,9	158025	-158025	-79013	766052	-766052	SLU 15	4.848	Si
736	28.65	1.2	0	8,9	157574	-157574	-78787	766052	-766052	SLU 15	4.862	Si
764	28.65	1.2	0	8,9	-157124	157124	-78562	-766052	766052	SLU 15	4.875	Si
793	28.65	1.2	0	8,9	-156673	156673	-78337	-766052	766052	SLU 15	4.889	Si
822	28.65	1.2	0	8,9	-156222	156222	-78111	-766052	766052	SLU 15	4.904	Si
851	28.65	1.2	0	8,9	-155772	155772	-77886	-766052	766052	SLU 15	4.918	Si
880	28.65	1.2	0	8,9	-217298	193312	-77295	-1029112	915516	SLU 16	4.736	Si
930	28.65	2.2	0	8,9,10	266877	-274978	-57449	1444441	-1488287	SLU 16	5.412	Si
959	28.1	2.2	0	8,9,10	212491	-222154	-57228	1242574	-1299078	SLU 16	5.848	Si
988	27.55	2.2	0	8,9,10	144534	-151983	-58549	911578	-958561	SLU 15	6.307	Si
1017	24.13	1	0	10	116643	-116643	-58322	730647	-730647	SLU 15	6.264	Si
1046	24.13	1	0	10	116193	-116193	-58096	730647	-730647	SLU 15	6.288	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
1074	24.13	1	0	10	-115742	-115742	-57871	-730647	-730647	SLU 15	6.313	Si
1103	24.13	1	0	10	-115291	115291	-57646	-730647	730647	SLU 15	6.337	Si
1132	24.13	1	0	10	-118587	114841	-57420	-754481	730647	SLU 15	6.362	Si
1161	24.13	1	0	10	-171110	145321	-57195	-1037546	881173	SLU 15	6.064	Si
1190	24.13	1	0	10	-222724	193936	-56974	-1259320	1096550	SLU 15	5.654	Si
1240	24.13	2	0	10,11	254793	-217186	-35620	1761748	-1501717	SLU 16	6.914	Si
1269	24.13	2	0	10,11	206422	-172867	-35398	1609659	-1348006	SLU 16	7.798	Si
1298	24.13	2	0	10,11	144075	-111727	-37915	1245246	-965667	SLU 15	8.643	Si
1327	24.13	1	0	11	105046	-77805	-37688	986993	-731042	SLU 15	9.396	Si
1356	24.13	1	0	11	74924	-74924	-37462	730647	-730647	SLU 15	9.752	Si
1384	24.13	1	0	11	74474	-74474	-37237	730647	-730647	SLU 15	9.811	Si
1413	24.13	1	0	11	-74023	74023	-37012	-730647	730647	SLU 15	9.871	Si
1442	24.13	1	0	11	-73572	73572	-36786	-730647	730647	SLU 15	9.931	Si
1471	24.13	1	0	11	-138138	142825	-33821	-1274663	1317907	SLU 16	9.227	Si
1500	24.13	1	0	11	-186509	187143	-33600	-1528483	1533677	SLU 16	8.195	Si
1550	24.13	2	0	11,12	321206	-221408	-17668	2118794	-1460490	SLU 15	6.596	Si
1579	24.13	2	0	11,12	235190	-163184	-17447	2133627	-1480388	SLU 15	9.072	Si
1608	24.13	2	0	11,12	160109	-116386	-13358	2085928	-1516293	SLU 16	13.028	Si
1637	24.13	1	0	12	88414	-75522	-13130	1719202	-1468515	SLU 16	19.445	Si
1666	24.13	1	0	12	-49501	38198	-16751	-1031988	796343	SLU 14	20.848	Si
1694	24.13	1	0	12	-132862	97270	-16526	-1887470	1381846	SLU 14	14.206	Si
1723	24.13	1	0	12	-216222	156342	-16300	-2111536	1526773	SLU 14	9.766	Si
1752	24.13	1	0	12	-299583	215415	-16075	-2090223	1502970	SLU 14	6.977	Si
1781	24.13	1	0	12	-382944	274487	-15850	-1994055	1429301	SLU 14	5.207	Si
1810	24.13	1	0	12	-464862	332537	-15628	-1896133	1356390	SLU 14	4.079	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	33.18	2.4	0.0003	1,2,3,4	379708	4192307	-56030	445349	4917037	SLV 15-Ger.	1.173	107175	256802	SLV 2	Si
29	33.18	2.4	0.0003	1,2,3,4	-8971	-3267439	-55831	-15022	-5471453	SLV 15	1.675	106977	256802	SLV 2	Si
58	33.18	2.4	0.0003	1,2,3,4	50304	-2714746	-58864	106206	-5731562	SLV 13	2.111	106774	256802	SLV 2	Si
87	33.18	1.2	0.0003	3,4	25741	2148822	-106572	63784	5324703	SLV 2	2.478	106572	256802	SLV 2	Si
116	33.18	1.2	0.0003	3,4	2238	1615480	-106370	6573	4745092	SLV 2	2.937	106370	256802	SLV 2	Si
144	33.18	1.2	0.0003	3,4	-21275	1074023	-106168	-74162	3743994	SLV 2	3.486	106168	256802	SLV 2	Si
173	33.18	1.2	0.0003	3,4	-44721	536346	-105966	-184226	2209453	SLV 2	4.119	105966	256802	SLV 2	Si
202	33.18	1.2	0.0003	3,4	-67227	-31857	-105763	-283418	-134304	SLV 2	4.216	105763	256802	SLV 2	Si
231	33.18	1.2	0.0003	3,4	-91045	-560537	-105561	-371637	-2288055	SLV 2	4.082	105561	256802	SLV 2	Si
260	33.18	1.2	0.0003	3,4	-113963	-1090097	-105362	-391212	-3742085	SLV 2	3.433	105362	256802	SLV 2	Si
310	33.18	2.4	0.0006	3,4,5,6,7	245024	-2915022	-51150	442924	-5269402	SLV 13	1.808	85767	256802	SLV 2	Si
339	33.18	2.4	0.0006	3,4,5,6,7	200365	-2354372	-50951	468525	-5505367	SLV 13	2.338	85569	256802	SLV 2	Si
368	33.18	2.4	0.0006	3,4,5,6,7	154582	1573382	-85368	490987	4997406	SLV 2	3.176	85368	256802	SLV 2	Si
397	33.18	1.2	0.0006	5,6,7	108699	1061412	-85164	427673	4176076	SLV 2	3.934	85164	256802	SLV 2	Si
426	33.18	1.2	0.0006	5,6,7	63259	558105	-84962	308100	2718204	SLV 2	4.87	84962	256802	SLV 2	Si
454	33.18	1.2	0.0006	5,6,7	17828	54099	-84760	93787	284589	SLV 2	5.261	84760	256802	SLV 2	Si
483	33.59	1.4	0.0006	5,6,7,13	-27588	-486399	-84558	-139715	-2463310	SLV 2	5.064	84558	256802	SLV 2	Si
512	35.86	1.4	0.0006	5,6,7,13	-72977	-987384	-84355	-304187	-4115693	SLV 2	4.168	84355	256802	SLV 2	Si
541	38.13	1.4	0.0006	5,6,7,13	-118308	-1494102	-84153	-399777	-5048751	SLV 2	3.379	84153	256802	SLV 2	Si
570	39.46	1.4	0.0006	5,6,7,13	-161782	2211272	-49337	-413802	5655923	SLV 13	2.558	83954	256802	SLV 2	Si
620	39.46	2.8	0.0006	5,6,7,8,9,13	192084	-2245639	-43157	374555	-4378905	SLV 13	1.95	64265	220116	SLV 2	Si
649	36.64	2.8	0.0006	5,6,7,8,9,13	155624	-1802731	-42986	381300	-4416940	SLV 13	2.45	64095	220116	SLV 2	Si
678	33.82	2.8	0.0006	5,6,7,8,9,13	118899	-1356880	-42815	391384	-4466507	SLV 13	3.292	63923	220116	SLV 2	Si
707	28.65	1.2	0.0006	8,9	81963	831619	-63748	339819	3447895	SLV 2	4.146	63748	220116	SLV 2	Si
736	28.65	1.2	0.0006	8,9	48858	440968	-63575	259896	2345711	SLV 2	5.319	63575	220116	SLV 2	Si
764	28.65	1.2	0.0006	8,9	14962	58750	-63401	90387	354922	SLV 2	6.041	63401	220116	SLV 2	Si
793	28.65	1.2	0.0006	8,9	-18594	-390089	-63228	-103033	-2161621	SLV 2	5.541	63228	220116	SLV 2	Si
822	28.65	1.2	0.0006	8,9	-51708	-780035	-63055	-224398	-3385113	SLV 2	4.34	63055	220116	SLV 2	Si
851	28.65	1.2	0.0006	8,9	-106618	1367608	-41773	-340966	4373634	SLV 13	3.198	62881	220116	SLV 2	Si
880	28.65	1.2	0.0006	8,9	-141731	1809936	-41603	-327895	4187276	SLV 13	2.313	62711	220116	SLV 2	Si
930	28.65	2.2	0.0008	8,9,10	195249	-1635417	-33447	470256	-3938884	SLV 13	2.408	45123	220116	SLV 2	Si
959	28.1	2.2	0.0008	8,9,10	156473	-1270356	-33277	505441	-4103528	SLV 13	3.23	44953	220116	SLV 2	Si
988	27.55	2.2	0.0008	8,9,10	117403	-903661	-33105	535284	-4120119	SLV 13	4.559	44781	220116	SLV 2	Si
1017	24.13	1	0.0008	10	77598	-534091	-32930	507919	-3495907	SLV 13	6.546	44606	220116	SLV 2	Si
1046	24.13	1	0.0008	10	30685	128238	-44433	252287	1054356	SLV 2	8.222	44433	220116	SLV 2	Si
1074	24.13	1	0.0008	10	-3287	-269030	-44259	-25072	-2051905	SLV 2	7.627	44259	220116	SLV 2	Si
1103	24.13	1	0.0008	10	-39328	-552287	-44086	-230188	-3232515	SLV 2	5.853	44086	220116	SLV 2	Si
1132	24.13	1	0.0008	10	-81210	981565	-32237	-326869	3950790	SLV 13	4.025	43913	220116	SLV 2	Si
1161	24.13	1	0.0008	10	-120368	1352390	-32063	-327527	3679920	SLV 13	2.721	43739	220116	SLV 2	Si
1190	24.13	1	0.0008	10	-159056	1717694	-31893	-315953	3412064	SLV 13	1.986	43569	220116	SLV 2	Si
1240	24.13	2	0.0008	10,11	172692	-1100192	-22079	522316	-3327595	SLV 13	3.025	27655	220116	SLV 2	Si
1269	24.13	2	0.0008	10,11	141526	-840925	-21909	596721	-3545620	SLV 13	4.216	27485	220116	SLV 2	Si
1298	24.13	2	0.0008	10,11	110121	-581545	-21737	694387	-3667032	SLV 13	6.306	27313	220116	SLV 2	Si
1327	24.13	1	0.0008	11	78116	-324831	-21562	781555	-3249963	SLV 13	10.005	27138	220116	SLV 2	Si
1356	24.13	1	0.0008	11	43357	-19791	-26965	587413	-268129	SLV 2	13.548	26965	220116	SLV 2	Si
1384	24.13	1	0.0008	11	14862	-257676	-26791	162003	-2808727	SLV 2	10.9	26791	220116	SLV 2	Si
1413	24.13	1	0.0008	11	-17892	509059	-21042	-142387	4051067	SLV 13	7.958	26618	220116	SLV 2	Si
1442	24.13	1	0.0008	11	-49031	770732	-20869	-246067	3867996	SLV 13	5.019	26445	220116	SLV 2	Si
1471	24.13	1	0.0008	11	-80677	1034518	-20696	-275212	3529044	SLV 13	3.411	26271	220116	SLV 2	Si
1500	24.13	1	0.0008	11	-111821	1294557	-20525	-282883	3274944	SLV 13	2.53	26101	220116	SLV 2	Si
1550	24.13	2	0.0008	11,12	218310	-810536	-9459	724252	-2688979	SLV 13	3.318	11351	220116	SLV 2	Si
1579	24.13	2	0.0008	11,12	163320	-598371	-9288	772705	-2831030	SLV 13	4.731	11181	220116	SLV 2	Si
1608	24.13	2	0.0008	11,12	107901	-386340	-9117	873660	-3128135	SLV 13	8.097	11009	220116	SLV 2	Si
1637	24.13	1	0.0008	12	51414	-180700	-8942	953814	-3352252	SLV 13	18.551	10834	220116	SLV 2	Si
1666	24.13	1	0.0008	12	-4948	-105286	-10607	-134716	-2866504	SLV 1	27.226	10661	220116	SLV 2	Si
1694	24.13	1	0.0008	12	-60548	287263	-8595	-742052	3520554	SLV 13	12.256	10488	220116	SLV 2	Si
1723	24.13	1	0.0008	12	-116498	500287	-8422	-695358	2986125	SLV 13	5.969	10314	220116	SLV 2	Si
1752	24.13	1	0.0008	12	-172455	715926	-8248	-661387	2745663	SLV 13	3.835	10141	220116	SLV 2	Si
1781	24.13	1	0.0008	12	-228414	932383	-8075	-638457	2606172	SLV 13	2.795	9968	220116	SLV 2	Si
1810	24.13	1	0.0008	12	-283405	1145447	-7905	-622332	2515296	SLV 13	2.196	9797	220116	SLV 2	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
339	33.18	2.4	0.0003	3,4,5,6,7	189205	-1256011	-58835	767749	-5096604	SLD 13	4.058	Si
368	33.18	2.4	0.0003	3,4,5,6,7	144967	746990	-76179	686616	3538011	SLD 2	4.736	Si
397	33.18	1.2	0.0003	5,6,7	100222	501834	-75975	538409	2695943	SLD 2	5.372	Si
426	33.18	1.2	0.0003	5,6,7	55904	261015	-75772	328965	1535932	SLD 2	5.884	Si
454	33.18	1.2	0.0003	5,6,7	11589	19959	-75570	68380	117762	SLD 2	5.9	Si
483	33.59	1.4	0.0003	5,6,7,13	-32720	-240589	-75368	-194286	-1428560	SLD 2	5.938	Si
512	35.86	1.4	0.0003	5,6,7,13	-77021	-480218	-75166	-431652	-2691316	SLD 2	5.604	Si
541	38.13	1.4	0.0003	5,6,7,13	-121301	-722846	-74964	-608276	-3624785	SLD 2	5.015	Si
570	39.46	1.4	0.0003	5,6,7,13	-164307	1169969	-57221	-725733	5167684	SLD 13	4.417	Si
620	39.46	2.8	0.0003	5,6,7,8,9,13	174369	-1185876	-47821	639444	-4348840	SLD 13	3.667	Si
649	36.64	2.8	0.0003	5,6,7,8,9,13	140669	-950370	-47651	608514	-4111165	SLD 13	4.326	Si
678	33.82	2.8	0.0003	5,6,7,8,9,13	105341	597556	-58202	543424	3082608	SLD 2	5.159	Si
707	28.65	1.2	0.0003	8,9	72398	406836	-58027	416705	2341636	SLD 2	5.756	Si
736	28.65	1.2	0.0003	8,9	40136	221017	-57853	264944	1458977	SLD 2	6.601	Si
764	28.65	1.2	0.0003	8,9	7431	39238	-57680	49344	260562	SLD 2	6.641	Si
793	28.65	1.2	0.0003	8,9	-25108	-178392	-57507	-167230	-1188184	SLD 2	6.661	Si
822	28.65	1.2	0.0003	8,9	-57468	-363826	-57333	-345295	-2186023	SLD 2	6.008	Si
851	28.65	1.2	0.0003	8,9	-100456	735801	-46438	-504449	3694907	SLD 13	5.022	Si
880	28.65	1.2	0.0003	8,9	-133543	970983	-46267	-552843	4019672	SLD 13	4.14	Si
930	28.65	2.2	0.0004	8,9,10	176331	-908562	-35903	770077	-3967893	SLD 13	4.367	Si
959	28.1	2.2	0.0004	8,9,10	140747	-708482	-35733	752524	-3788010	SLD 13	5.347	Si
988	27.55	2.2	0.0004	8,9,10	104887	-507510	-35561	702825	-3400700	SLD 13	6.701	Si
1017	24.13	1	0.0004	10	68340	-304961	-35386	568439	-2536607	SLD 13	8.318	Si
1046	24.13	1	0.0004	10	28368	50471	-41171	251720	447840	SLD 2	8.873	Si
1074	24.13	1	0.0004	10	-5115	-138713	-40998	-45576	-1236037	SLD 2	8.911	Si
1103	24.13	1	0.0004	10	-39408	-265984	-40825	-316458	-2135916	SLD 2	8.03	Si
1132	24.13	1	0.0004	10	-76855	525876	-34693	-499116	3415191	SLD 13	6.494	Si
1161	24.13	1	0.0004	10	-112955	729105	-34520	-574089	3705645	SLD 13	5.082	Si
1190	24.13	1	0.0004	10	-148508	929317	-34349	-600904	3760269	SLD 13	4.046	Si
1240	24.13	2	0.0004	10,11	158937	-619761	-23169	883865	-3446564	SLD 13	5.561	Si
1269	24.13	2	0.0004	10,11	130221	-476354	-22999	927213	-3391772	SLD 13	7.112	Si
1298	24.13	2	0.0004	10,11	101283	-332806	-22827	942896	-3098271	SLD 13	9.31	Si
1327	24.13	1	0.0004	11	71786	-190389	-22652	898573	-2383181	SLD 13	12.517	Si
1356	24.13	1	0.0004	11	41029	-21583	-25340	591508	-311151	SLD 2	14.417	Si
1384	24.13	1	0.0004	11	13407	-130353	-25167	185452	-1803065	SLD 2	13.832	Si
1413	24.13	1	0.0004	11	-16300	268394	-22203	-193344	3183509	SLD 14	11.861	Si
1442	24.13	1	0.0004	11	-45196	414075	-21959	-404765	3708325	SLD 13	8.956	Si
1471	24.13	1	0.0004	11	-74394	559972	-21785	-509644	3836132	SLD 13	6.851	Si
1500	24.13	1	0.0004	11	-103102	703771	-21615	-548649	3745047	SLD 13	5.321	Si
1550	24.13	2	0.0004	11,12	204608	-473585	-9806	1123983	-2601574	SLD 13	5.493	Si
1579	24.13	2	0.0004	11,12	153038	-351431	-9635	1198027	-2751117	SLD 13	7.828	Si
1608	24.13	2	0.0004	11,12	101064	-229159	-9464	1286948	-2918097	SLD 13	12.734	Si
1637	24.13	1	0.0004	12	48085	-109489	-9289	1177840	-2681919	SLD 13	24.495	Si
1666	24.13	1	0.0004	12	-4608	-56826	-10062	-156649	-1931758	SLD 1	33.994	Si
1694	24.13	1	0.0004	12	-56888	156043	-8942	-1125386	3086921	SLD 13	19.783	Si
1723	24.13	1	0.0004	12	-109363	279005	-8769	-1160939	2961772	SLD 13	10.615	Si
1752	24.13	1	0.0004	12	-161840	403189	-8595	-1083157	2698440	SLD 13	6.693	Si
1781	24.13	1	0.0004	12	-214319	527753	-8422	-1032568	2542664	SLD 13	4.818	Si
1810	24.13	1	0.0004	12	-265889	650325	-8252	-990316	2422168	SLD 13	3.725	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8403	0.6415	0.2969	0.1905	0.338	1984	0.1667	1.143	SLV 6	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	888	-1151	-123796	SLU 16	1.6	84520	73.42	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/7	888	-1151	-123537	SLU 16	1.6	84520	73.42	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/7	888	-1151	-123274	SLU 16	1.6	84520	73.42	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	888	-1151	-123011	SLU 16	2.5	27833	24.18	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	888	-1151	-122749	SLU 16	2.5	27833	24.18	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	888	-1151	-122486	SLU 16	2.5	27833	24.18	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	888	-1151	-122223	SLU 16	2.5	27833	24.18	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	888	-1151	-121960	SLU 16	2.2	71978	62.53	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	888	-1151	-121697	SLU 16	2.2	71978	62.53	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	888	-1151	-121439	SLU 16	2.2	71978	62.53	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	1776	-2501	-101512	SLU 16	2.2	71978	28.78	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	1776	-2501	-101253	SLU 16	2.2	71978	28.78	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	1776	-2501	-100993	SLU 16	2.2	71978	28.78	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	1776	-2501	-100728	SLU 16	2.5	27833	11.13	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	1776	-2501	-100465	SLU 16	2.5	27833	11.13	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	1776	-2501	-100202	SLU 16	2.5	27833	11.13	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	1776	-2501	-99939	SLU 16	2.5	27833	11.13	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	1776	-2501	-99676	SLU 16	1.9	77704	31.07	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	1776	-2501	-99413	SLU 16	1.9	77704	31.07	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	1776	-2501	-99155	SLU 16	1.9	77704	31.07	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	4X/5Y ø10/12	1438	-1850	-79315	SLU 16	1.8	69985	37.83	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	1438	-1850	-79094	SLU 16	1.8	69985	37.83	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	1438	-1850	-78871	SLU 16	1.8	69985	37.83	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	1438	-1850	-78643	SLU 16	2.5	27423	14.82	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	1438	-1850	-78418	SLU 16	2.5	27423	14.82	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	1438	-1850	-78192	SLU 16	2.5	27423	14.82	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	1438	-1850	-77967	SLU 16	2.5	27423	14.82	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	1438	-1850	-77742	SLU 16	2	63986	34.59	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	1438	-1850	-77516	SLU 16	2	63986	34.59	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	1438	-1850	-77295	SLU 16	2	63986	34.59	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	1861	-1916	-57449	SLU 16	2	62386	32.57	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	1861	-1916	-57228	SLU 16	2	62386	32.57	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	1861	-1916	-57004	SLU 16	2	62386	32.57	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	1861	-1916	-56777	SLU 16	2.5	27423	14.31	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	1861	-1916	-56552	SLU 16	2.5	27423	14.31	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	1861	-1916	-56326	SLU 16	2.5	27423	14.31	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	1861	-1916	-56101	SLU 16	2.5	27423	14.31	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	1861	-1916	-55876	SLU 16	2	62386	32.57	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	1861	-1916	-55650	SLU 16	2	62386	32.57	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	1861	-1916	-55429	SLU 16	2	62386	32.57	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	1561	-1704	-35620	SLU 16	1.9	59187	34.74	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	1561	-1704	-35398	SLU 16	1.9	59187	34.74	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	1561	-1704	-35175	SLU 16	1.9	59187	34.74	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	1561	-1704	-34948	SLU 16	2.5	27423	16.09	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	1561	-1704	-34722	SLU 16	2.5	27423	16.09	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	1561	-1704	-34497	SLU 16	2.5	27423	16.09	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
1413	2X/2Y ø10/17.5	1561	-1704	-34272	SLV 16	2.5	27423	16.09	-0.3	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	1561	-1704	-34046	SLV 16	1.9	59187	34.74	-0.3	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	1561	-1704	-33821	SLV 16	1.9	59187	34.74	-0.3	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	1561	-1704	-33600	SLV 16	1.9	59187	34.74	-0.3	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	2051	-3030	-17668	SLV 15	1.8	57587	19.01	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	2051	-3030	-17447	SLV 15	1.8	57587	19.01	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	2051	-3030	-17224	SLV 15	1.8	57587	19.01	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	2051	-3030	-16996	SLV 15	2.5	27422	9.05	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	2051	-3030	-16771	SLV 15	2.5	27422	9.05	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	2051	-3030	-16545	SLV 15	2.5	27422	9.05	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	2051	-3030	-16320	SLV 15	2.5	27422	9.05	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	2051	-3030	-16095	SLV 15	1.8	57587	19.01	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	2051	-3030	-15869	SLV 15	1.8	57587	19.01	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	2051	-3030	-15648	SLV 15	1.8	57587	19.01	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.v-T	Ver.
0	4X/4Y ø10/7	47516	26693	-107175	SLV 2-Ger.	1	102261	2.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
29	4X/4Y ø10/7	47516	26693	-106977	SLV 2-Ger.	1	102261	2.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
58	4X/4Y ø10/7	47516	26693	-106774	SLV 2-Ger.	1	102261	2.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
87	2X/2Y ø10/17.1	47516	26693	-106572	SLV 2-Ger.	2.5	27832	1.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
116	2X/2Y ø10/17.1	47516	26693	-106370	SLV 2-Ger.	2.5	27832	1.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/17.1	47516	26693	-106168	SLV 2-Ger.	2.5	27832	1.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/17.1	47516	26693	-105966	SLV 2-Ger.	2.5	27832	1.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	47516	26693	-105763	SLV 2-Ger.	1.5	92035	1.94	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	47516	26693	-105561	SLV 2-Ger.	1.5	92035	1.94	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	47516	26693	-105362	SLV 2-Ger.	1.5	92035	1.94	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	45896	26839	-82946	SLV 4-Ger.	1.5	88967	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	45896	26839	-82748	SLV 4-Ger.	1.5	88967	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	45896	26839	-82547	SLV 4-Ger.	1.5	88967	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/17.1	46161	26839	-85164	SLV 2-Ger.	2.5	27832	1.04	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/17.1	46161	26839	-84962	SLV 2-Ger.	2.5	27832	1.04	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/17.1	46161	26839	-84760	SLV 2-Ger.	2.5	27832	1.04	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/17.1	46161	26839	-84558	SLV 2-Ger.	2.5	27832	1.04	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	4X/5Y ø10/11.7	46161	26839	-84024	SLV 1-Ger.	1.5	88967	1.93	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/5Y ø10/11.7	46161	26839	-84153	SLV 2-Ger.	1.5	88967	1.93	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/5Y ø10/11.7	46161	26839	-83954	SLV 2-Ger.	1.5	88967	1.93	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/5Y ø10/12	34634	23064	-59769	SLV 6-Ger.	1.5	73126	2.11	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/5Y ø10/12	34634	23064	-59599	SLV 6-Ger.	1.5	73126	2.11	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/5Y ø10/12	34634	23064	-59427	SLV 6-Ger.	1.5	73126	2.11	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	35033	23427	-63748	SLV 2-Ger.	2.5	27421	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	35033	23427	-63575	SLV 2-Ger.	2.5	27421	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	35033	23427	-63401	SLV 2-Ger.	2.5	27421	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	35033	23427	-63228	SLV 2-Ger.	2.5	27421	1.17	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	34830	23427	-60772	SLV 4-Ger.	1.5	73126	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	34830	23427	-60599	SLV 4-Ger.	1.5	73126	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	34830	23427	-60429	SLV 4-Ger.	1.5	73126	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/4Y ø10/12	28703	18287	-39796	SLV 10-Ger.	1.4	70604	2.46	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	29062	18287	-42659	SLV 5-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	29062	18287	-42487	SLV 5-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	29334	18287	-44606	SLV 2-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	29334	18287	-44433	SLV 2-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	29334	18287	-44259	SLV 2-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	29334	18287	-44086	SLV 2-Ger.	2.5	43226	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	29128	18287	-42175	SLV 4-Ger.	1.4	70604	2.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	29128	18287	-42001	SLV 4-Ger.	1.4	70604	2.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	29128	18287	-41831	SLV 4-Ger.	1.4	70604	2.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	24441	15688	-23321	SLV 8-Ger.	1.4	68082	2.79	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	24773	15688	-25088	SLV 9-Ger.	1.4	68082	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	24820	15688	-25194	SLV 10-Ger.	1.4	68082	2.74	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	25183	15688	-27138	SLV 2-Ger.	2.5	43226	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	25183	15688	-26965	SLV 2-Ger.	2.5	43226	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	25183	15688	-26791	SLV 2-Ger.	2.5	43226	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	25183	15688	-26618	SLV 2-Ger.	2.5	43226	1.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	24962	15688	-25156	SLV 3-Ger.	1.4	68083	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	24985	15688	-25117	SLV 4-Ger.	1.4	68083	2.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	24985	15468	-24947	SLV 4-Ger.	1.4	68083	2.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	22237	13874	-11351	SLV 2-Ger.	1.4	68083	3.06	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	22237	13599	-11181	SLV 2-Ger.	1.4	68083	3.06	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1608	4X/4Y ø10/12	22237	13618	-11009	SLV 2-Ger.	1.4	68083	3.06	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1637	2X/2Y ø10/17.5	22237	13874	-10834	SLV 2-Ger.	2.5	43226	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1666	2X/2Y ø10/17.5	22237	13874	-10661	SLV 2-Ger.	2.5	43226	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1694	2X/2Y ø10/17.5	22237	13874	-10488	SLV 2-Ger.	2.5	43226	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1723	2X/2Y ø10/17.5	22237	13874	-10314	SLV 2-Ger.	2.5	43226	1.94	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1752	4X/4Y ø10/12	21878	13681	-8303	SLV 14-Ger.	1.3	65562	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1781	4X/4Y ø10/12	21912	13681	-8305	SLV 8-Ger.	1.3	65560	2.99	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1810	4X/4Y ø10/12	21912	13681	-8135	SLV 8-Ger.	1.3	65560	2.99	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
116	2X/2Y ø10/17.1	10290	-957	-69533	SLD 13	2.5	52196	5.07	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
144	2X/2Y ø10/17.1	10290	-957	-69331	SLD 13	2.5	52196	5.07	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
173	2X/2Y ø10/17.1	10290	-957	-69128	SLD 13	2.5	52196	5.07	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
202	4X/4Y ø10/11.7	10290	-957	-68926	SLD 13	1.7	84342	8.2	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
231	4X/4Y ø10/11.7	10290	-957	-68724	SLD 13	1.7	84305	8.19	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
260	4X/4Y ø10/11.7	10290	-957	-68525	SLD 13	1.7	84269	8.19	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
310	4X/4Y ø10/11.7	10505	-1649	-59034	SLD 13	1.7	83721	7.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
339	4X/4Y ø10/11.7	10505	-1649	-58835	SLD 13	1.7	83684	7.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
368	4X/4Y ø10/11.7	10505	-1649	-58635	SLD 13	1.7	83647	7.96	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
397	2X/2Y ø10/17.1	10505	-1649	-58431	SLD 13	2.5	52195	4.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
426	2X/2Y ø10/17.1	10505	-1649	-58228	SLD 13	2.5	52195	4.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
454	2X/2Y ø10/17.1	10505	-1649	-58026	SLD 13	2.5	52195	4.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
483	2X/2Y ø10/17.1	10505	-1649	-57824	SLD 13	2.5	52195	4.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
512	4X/5Y ø10/11.7	10505	-1649	-57622	SLD 13	1.7	83460	7.94	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
541	4X/5Y ø10/11.7	10505	-1649	-57419	SLD 13	1.7	83423	7.94	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
570	4X/5Y ø10/11.7	10505	-1649	-57221	SLD 13	1.7	83386	7.94	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
620	4X/5Y ø10/12	8312	-1368	-47821	SLD 13	1.7	69287	8.34	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
649	4X/5Y ø10/12	8312	-1368	-47651	SLD 13	1.7	69257	8.33	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
678	4X/5Y ø10/12	8312	-1368	-47479	SLD 13	1.7	69226	8.33	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
707	2X/2Y ø10/17.5	8312	-1368	-47304	SLD 13	2.5	43227	5.2	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
736	2X/2Y ø10/17.5	8312	-1368	-47131	SLD 13	2.5	43227	5.2	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
764	2X/2Y ø10/17.5	8312	-1368	-46958	SLD 13	2.5	43227	5.2	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
793	2X/2Y ø10/17.5	8312	-1368	-46784	SLD 13	2.5	43227	5.2	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
822	4X/4Y ø10/12	8312	-1368	-46611	SLD 13	1.7	69070	8.31	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
851	4X/4Y ø10/12	8312	-1368	-46438	SLD 13	1.7	69039	8.31	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
880	4X/4Y ø10/12	8312	-1368	-46267	SLD 13	1.7	69009	8.3	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
930	4X/4Y ø10/12	7076	-1421	-35903	SLD 13	1.7	68108	9.63	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
959	4X/4Y ø10/12	7076	-1421	-35733	SLD 13	1.7	68077	9.62	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
988	4X/4Y ø10/12	7076	-1421	-35561	SLD 13	1.7	68046	9.62	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1017	2X/2Y ø10/17.5	7076	-1421	-35386	SLD 13	2.5	43227	6.11	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1046	2X/2Y ø10/17.5	7076	-1421	-35213	SLD 13	2.5	43227	6.11	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1074	2X/2Y ø10/17.5	7076	-1421	-35040	SLD 13	2.5	43227	6.11	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1103	2X/2Y ø10/17.5	7076	-1421	-34866	SLD 13	2.5	43227	6.11	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1132	4X/4Y ø10/12	7076	-1421	-34693	SLD 13	1.7	67888	9.59	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1161	4X/4Y ø10/12	7076	-1421	-34520	SLD 13	1.7	67857	9.59	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1190	4X/4Y ø10/12	7076	-1421	-34349	SLD 13	1.7	67826	9.59	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1240	4X/4Y ø10/12	5088	-1170	-23169	SLD 13	1.7	65793	12.93	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1269	4X/4Y ø10/12	5088	-1170	-22999	SLD 13	1.7	65762	12.93	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1298	4X/4Y ø10/12	5088	-1170	-22827	SLD 13	1.7	65730	12.92	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1327	2X/2Y ø10/17.5	5088	-1170	-22652	SLD 13	2.5	43227	8.5	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1356	2X/2Y ø10/17.5	5088	-1170	-22479	SLD 13	2.5	43227	8.5	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1384	2X/2Y ø10/17.5	5088	-1170	-22305	SLD 13	2.5	43227	8.5	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1413	2X/2Y ø10/17.5	5088	-1170	-22132	SLD 13	2.5	43227	8.5	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1442	4X/4Y ø10/12	5088	-1170	-21959	SLD 13	1.7	65573	12.89	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1471	4X/4Y ø10/12	5088	-1170	-21785	SLD 13	1.7	65541	12.88	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1500	4X/4Y ø10/12	5088	-1170	-21615	SLD 13	1.7	65510	12.88	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1550	4X/4Y ø10/12	4327	-2080	-9806	SLD 13	1.6	64247	14.85	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1579	4X/4Y ø10/12	4327	-2080	-9635	SLD 13	1.6	64216	14.84	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1608	4X/4Y ø10/12	4327	-2080	-9464	SLD 13	1.6	64184	14.83	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1637	2X/2Y ø10/17.5	4327	-2080	-9289	SLD 13	2.5	43227	9.99	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1666	2X/2Y ø10/17.5	4327	-2080	-9115	SLD 13	2.5	43227	9.99	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1694	2X/2Y ø10/17.5	4327	-2080	-8942	SLD 13	2.5	43227	9.99	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1723	2X/2Y ø10/17.5	4327	-2080	-8769	SLD 13	2.5	43227	9.99	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1752	4X/4Y ø10/12	4327	-2080	-8595	SLD 13	1.6	64024	14.79	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1781	4X/4Y ø10/12	4327	-2080	-8422	SLD 13	1.6	63992	14.79	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1810	4X/4Y ø10/12	4327	-2080	-8252	SLD 13	1.6	63961	14.78	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	61373	-44376	-90633	SLE RA 8	-31.3	61373	-44376	-90633	SLE RA 8	-454.7	Si
29	38053	-26608	-90435	SLE RA 8	-29.8	38053	-26608	-90435	SLE RA 8	-437.4	Si
58	14323	-8527	-90233	SLE RA 8	-28.2	14323	-8527	-90233	SLE RA 8	-419.8	Si
87	-9407	9554	-90030	SLE RA 8	-27.9	-9407	9554	-90030	SLE RA 8	-416.9	Si
116	-33137	27636	-89828	SLE RA 8	-29.4	-33137	27636	-89828	SLE RA 8	-432.6	Si
144	-56867	45717	-89626	SLE RA 8	-30.8	-56867	45717	-89626	SLE RA 8	-448.4	Si
173	-80597	63798	-89424	SLE RA 8	-32.2	-80597	63798	-89424	SLE RA 8	-464.1	Si
202	-104327	81879	-89221	SLE RA 8	-33.7	-104327	81879	-89221	SLE RA 8	-479.9	Si
231	-128057	99960	-89019	SLE RA 8	-35.1	-128057	99960	-89019	SLE RA 8	-495.6	Si
260	-151377	117728	-88820	SLE RA 8	-36.5	-151377	117728	-88820	SLE RA 8	-511.1	Si
310	262464	-196110	-74308	SLE RA 8	-38.9	262464	-196110	-74308	SLE RA 8	-521.2	Si
339	211749	-160723	-74109	SLE RA 8	-35.7	211749	-160723	-74109	SLE RA 8	-485.7	Si
368	160637	-125058	-73909	SLE RA 8	-32.5	160637	-125058	-73909	SLE RA 8	-449.9	Si
397	108532	-88701	-73704	SLE RA 8	-29.3	108532	-88701	-73704	SLE RA 8	-413.4	Si
426	56924	-52691	-73502	SLE RA 8	-26.1	56924	-52691	-73502	SLE RA 8	-377.2	Si
454	5316	-16680	-73300	SLE RA 8	-22.9	5316	-16680	-73300	SLE RA 8	-341	Si
483	-46292	19331	-73098	SLE RA 8	-24.6	-46292	19331	-73098	SLE RA 8	-359.4	Si
512	-97901	55341	-72896	SLE RA 8	-27.4	-97901	55341	-72896	SLE RA 8	-389.6	Si
541	-149509	91352	-72693	SLE RA 8	-30.2	-149509	91352	-72693	SLE RA 8	-419.2	Si
570	-200224	126740	-72495	SLE RA 8	-32.9	-200224	126740	-72495	SLE RA 8	-449.5	Si
620	186611	-125650	-58051	SLE RA 8	-32.4	186611	-125650	-58051	SLE RA 8	-435	Si
649	149252	-96895	-57881	SLE RA 8	-30	149252	-96895	-57881	SLE RA 8	-409.7	Si
678	111600	-67915	-57709	SLE RA 8	-27.6	111600	-67915	-57709	SLE RA 8	-383.5	Si
707	73217	-38373	-57534	SLE RA 8	-25.4	73217	-38373	-57534	SLE RA 8	-360.5	Si
736	35199	-9111	-57361	SLE RA 8	-22.4	35199	-9111	-57361	SLE RA 8	-327	Si
764	-2818	20150	-57187	SLE RA 8	-21	-2818	20150	-57187	SLE RA 8	-312.7	Si
793	-40836	49412	-57014	SLE RA 8	-23.9	-40836	49412	-57014	SLE RA 8	-344.3	Si
822	-78853	78673	-56841	SLE RA 8	-26.7	-78853	78673	-56841	SLE RA 8	-376	Si
851	-116871	107934	-56667	SLE RA 8	-29.6	-116871	107934	-56667	SLE RA 8	-407.6	Si
880	-154230	136689	-56497	SLE RA 8	-32.4	-154230	136689	-56497	SLE RA 8	-438.7	Si
930	189390	-194951	-42072	SLE RA 8	-31.1	189390	-194951	-42072	SLE RA 8	-404.8	Si
959	150736	-157513	-41902	SLE RA 8	-27.9	150736	-157513	-41902	SLE RA 8	-370.2	Si
988	111779	-119781	-41730	SLE RA 8	-24.6	111779	-119781	-41730	SLE RA 8	-333.5	Si
1017	72066	-81317	-41555	SLE RA 8	-21.7	72066	-81317	-41555	SLE RA 8	-301.1	Si
1046	32731	-43220	-41382	SLE RA 8	-18.2	27746	-37669	-42411	SLE RA 7	-262	Si
1074	-9709	-2427	-42238	SLE RA 7	-15.9	-9709	-2427	-42238	SLE RA 7	-236	Si
1103	-47164	32816	-42065	SLE RA 7	-18.9	-47164	32816	-42065	SLE RA 7	-269.3	Si
1132	-84618	68058	-41891	SLE RA 7	-22	-84618	68058	-41891	SLE RA 7	-304.6	Si
1161	-122073	103301	-41718	SLE RA 7	-25.2	-122073	103301	-41718	SLE RA 7	-340	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
1190	-163263	146609	-40518	SLE RA 8	-28.4	-163263	146609	-40518	SLE RA 8	-375.3	Si
1240	180383	-153100	-26119	SLE RA 8	-24.4	180383	-153100	-26119	SLE RA 8	-309.6	Si
1269	146300	-121905	-25949	SLE RA 8	-21.4	146300	-121905	-25949	SLE RA 8	-276	Si
1298	111950	-90467	-25777	SLE RA 8	-18.4	102885	-79484	-27604	SLE RA 7	-242.3	Si
1327	74979	-55175	-27429	SLE RA 7	-15.8	74979	-55175	-27429	SLE RA 7	-215.2	Si
1356	47339	-31098	-27256	SLE RA 7	-13.5	47339	-31098	-27256	SLE RA 7	-188.3	Si
1384	19699	-7020	-27082	SLE RA 7	-11.1	19699	-7020	-27082	SLE RA 7	-161.4	Si
1413	-27119	36812	-25082	SLE RA 8	-11.8	-27119	36812	-25082	SLE RA 8	-167.2	Si
1442	-61803	68556	-24909	SLE RA 8	-14.7	-61803	68556	-24909	SLE RA 8	-199.5	Si
1471	-96486	100299	-24736	SLE RA 8	-17.6	-96486	100299	-24736	SLE RA 8	-231.8	Si
1500	-130570	131493	-24565	SLE RA 8	-20.4	-130570	131493	-24565	SLE RA 8	-263.5	Si
1550	228989	-155757	-12754	SLE RA 7	-30.8	215000	-138982	-10176	SLE RA 8	404.3	Si
1579	167722	-115089	-12583	SLE RA 7	-17.5	167722	-115089	-12583	SLE RA 7	-212.9	Si
1608	105976	-74103	-12412	SLE RA 7	-12.7	105976	-74103	-12412	SLE RA 7	-159.3	Si
1637	61888	-52880	-9659	SLE RA 8	-8.6	61888	-52880	-9659	SLE RA 8	-110.2	Si
1666	-34047	24818	-12050	SLE RA 6	-7	-34047	24818	-12050	SLE RA 6	-95.4	Si
1694	-93612	66083	-11877	SLE RA 6	-11.6	-93612	66083	-11877	SLE RA 6	-146	Si
1723	-153177	107349	-11704	SLE RA 6	-16.1	-153177	107349	-11704	SLE RA 6	-196.6	Si
1752	-212743	148615	-11530	SLE RA 6	-29	-212743	148615	-11530	SLE RA 6	358.5	Si
1781	-272308	189880	-11357	SLE RA 6	-38.5	-272308	189880	-11357	SLE RA 6	587.3	Si
1810	-330843	230432	-11187	SLE RA 6	-47.8	-330843	230432	-11187	SLE RA 6	821.9	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	51248	-35933	-81603	SLE QP 4	-27.9	Si
29	31887	-21690	-81404	SLE QP 4	-26.6	Si
58	12185	-7196	-81202	SLE QP 4	-25.3	Si
87	-7517	7298	-81000	SLE QP 4	-25.1	Si
116	-27218	21791	-80797	SLE QP 4	-26.2	Si
144	-46920	36285	-80595	SLE QP 4	-27.4	Si
173	-66622	50779	-80393	SLE QP 4	-28.6	Si
202	-86323	65273	-80191	SLE QP 4	-29.7	Si
231	-106025	79767	-79988	SLE QP 4	-30.9	Si
260	-125386	94010	-79790	SLE QP 4	-32	Si
310	218601	-156408	-67048	SLE QP 4	-33.8	Si
339	176343	-128480	-66849	SLE QP 4	-31.2	Si
368	133753	-100333	-66649	SLE QP 4	-28.6	Si
397	90336	-71639	-66445	SLE QP 4	-25.9	Si
426	47333	-43218	-66243	SLE QP 4	-23.2	Si
454	4330	-14798	-66040	SLE QP 4	-20.6	Si
483	-38673	13623	-65838	SLE QP 4	-22	Si
512	-81676	42043	-65636	SLE QP 4	-24.2	Si
541	-124680	70464	-65434	SLE QP 4	-26.4	Si
570	-166938	98392	-65235	SLE QP 4	-28.7	Si
620	154231	-98106	-52570	SLE QP 4	-28.1	Si
649	123613	-75348	-52399	SLE QP 4	-26.2	Si
678	92756	-52411	-52228	SLE QP 4	-24.3	Si
707	61299	-29029	-52053	SLE QP 4	-22.5	Si
736	30142	-5870	-51879	SLE QP 4	-20.1	Si
764	-1016	17289	-51706	SLE QP 4	-18.9	Si
793	-32173	40449	-51533	SLE QP 4	-21.2	Si
822	-63330	63608	-51359	SLE QP 4	-23.5	Si
851	-94487	86767	-51186	SLE QP 4	-25.8	Si
880	-125105	109525	-51016	SLE QP 4	-28.1	Si
930	155502	-157803	-38416	SLE QP 4	-26.8	Si
959	123444	-127385	-38246	SLE QP 4	-24.2	Si
988	91135	-96730	-38074	SLE QP 4	-21.5	Si
1017	58198	-65479	-37899	SLE QP 4	-19.1	Si
1046	25576	-34526	-37726	SLE QP 4	-16.2	Si
1074	-7047	-3573	-37552	SLE QP 4	-14.1	Si
1103	-39670	27380	-37379	SLE QP 4	-16.6	Si
1132	-72293	58333	-37206	SLE QP 4	-19.3	Si
1161	-104915	89286	-37032	SLE QP 4	-22.1	Si
1190	-136973	119704	-36862	SLE QP 4	-24.8	Si
1240	143629	-118646	-24290	SLE QP 4	-20.5	Si
1269	117648	-95332	-24120	SLE QP 4	-18.3	Si
1298	91463	-71837	-23948	SLE QP 4	-16	Si
1327	64771	-47885	-23773	SLE QP 4	-13.7	Si
1356	38332	-24161	-23600	SLE QP 4	-11.4	Si
1384	11894	-437	-23426	SLE QP 4	-9.1	Si
1413	-14545	23287	-23253	SLE QP 4	-10	Si
1442	-40983	47011	-23080	SLE QP 4	-12.2	Si
1471	-67422	70735	-22906	SLE QP 4	-14.3	Si
1500	-93403	94048	-22736	SLE QP 4	-16.5	Si
1550	189195	-122756	-10163	SLE QP 4	-18	Si
1579	141482	-94505	-9993	SLE QP 4	-14.4	Si
1608	93396	-66032	-9821	SLE QP 4	-10.8	Si
1637	44376	-37007	-9646	SLE QP 4	-7.1	Si
1666	-10492	-1506	-9467	SLE QP 3	-4	Si
1694	-57854	27192	-9294	SLE QP 3	-7.4	Si
1723	-105216	55890	-9121	SLE QP 3	-10.8	Si
1752	-152578	84588	-8947	SLE QP 3	-14.3	Si
1781	-199939	113286	-8774	SLE QP 3	-17.8	Si
1810	-246482	141488	-8604	SLE QP 3	-33.4	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 3	285	No	No	
Pilastrata 3	595	No	No	
Pilastrata 3	905	No	No	
Pilastrata 3	1215	No	No	

TABULATO DI CALCOLO – FABBRICATO B

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni									
Pilastrata 3	1525	No	No										
Pilastrata 3	1835	No	No										

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	285	0.837	0.763	0.639	0.206	0.132	0.259	0.119	7.1	14.9	1.103	SLD 6	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	595	0.776	0.827	0.642	0.147	0.094	0.201	0.085	10	15.1	1.108	SLD 6	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	905	0.763	0.789	0.602	0.154	0.092	0.174	0.069	10	13.9	1.336	SLD 6	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	1215	0.763	0.786	0.6	0.154	0.092	0.11	0.031	10	12.8	3.002	SLD 6	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	1525	0.763	0.786	0.6	0.154	0.092	0.046	-0.008	10	12.8	1000	SLD 6	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	285	0.837	0.763	0.639	0.206	0.132	0.276	0.13	7.1	14.9	1.015	SLV 6	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	595	0.776	0.827	0.642	0.147	0.094	0.214	0.093	10	15.1	1.021	SLV 6	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	905	0.763	0.789	0.602	0.154	0.092	0.184	0.075	10	13.9	1.232	SLV 6	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	1215	0.763	0.786	0.6	0.154	0.092	0.116	0.034	10	12.8	2.699	SLV 6	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	1525	0.763	0.786	0.6	0.154	0.092	0.048	-0.006	10	12.8	1000	SLV 6	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 3	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	45	45	No	-123796	SLV 16	102367	230924	80323	130057	102367	-80323	3.6	3.6	Min	No	3.6	Si
-60	285	0	30	17	45	45	No	-123796	SLV 16	102367	230924	80323	130057	102367	-80323	3.6	3.6	X	No	3.6	Si
-60	285	231.1	30	17	52	52	No	-92991	SLD 2	59012	198807	1124010	86647	-98024	-1124010	4.79	3.73	Min	No	3.67	Si
-60	285	0	30	17	51	51	No	-94605	SLD 2	59012	182021	1124010	74330	75184	1885796	4.71		X	Si		Si
-60	285	202.2	30	17	48	48	No	-105763	SLV 2	58027	226113	2212162	132489	-67227	-2212162	4.22	2.45	Min	No	2.42	Si
-60	285	0	30	17	48	48	No	-107175	SLV 2	58027	195402	2212162	83719	95841	3755324	4.16		X	Si		Si
-60	285	0	30	17	45	45	No	-123796	SLV 16	102367	230924	80323	130057	102367	-80323	3.6	3.6	Min	No	3.6	Si
-60	285	0	30	17	45	45	No	-123796	SLV 16	102367	230924	80323	130057	102367	-80323	3.6	3.6	Y	No	3.6	Si
-60	285	0	30	17	51	51	No	-94605	SLD 2	59012	182021	1124010	74330	75184	1885796		2.82	Min	Si		Si
-60	285	0	30	17	51	51	No	-94605	SLD 2	59012	182021	1124010	74330	75184	1885796		2.82	Y	Si		Si
-60	285	0	30	17	66	66	No	-56030	SLV 15	79373	119788	2201246	43762	79373	-3827191		1.37	Min	Si		Si
-60	285	0	30	17	66	66	No	-56030	SLV 15	79373	119788	2201246	43762	79373	-3827191		1.37	Y	Si		Si
285	595	310	27	15	49	49	No	-101512	SLV 16	160011	155148	120661	86331	367521	-278560	4.1	4.39	Min	No	4.01	Si
285	595	310	27	15	49	49	No	-101512	SLV 16	160011	155148	120661	86331	367521	-278560	4.1	4.39	X	No	4.01	Si
285	595	310	27	15	61	61	No	-66786	SLD 9	113800	111398	262141	48767	263258	-603072	6.12	5.76	Min	No	5.11	Si
285	595	310	27	15	57	57	No	-76578	SLD 2	100944	132733	534769	51897	232416	1227297	5.63		X	Si		Si
285	595	310	27	15	57	57	No	-77233	SLV 6	132878	123196	277195	55984	309017	635954	5.28	5.11	Min	No	4.52	Si
285	595	310	27	15	54	54	No	-85767	SLV 2	105886	146343	1122022	55847	244260	2576191	5.08		X	Si		Si
285	595	310	27	15	49	49	No	-101512	SLV 16	160011	155148	120661	86331	367521	-278560	4.1	4.39	Min	No	4.01	Si

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
285	595	310	27	15	49	49	No	-101512	SLU 16	160011	155148	120661	86331	367521	-278560	4.1	4.39	Y	No	4.01	Si
285	595	310	27	15	65	65	No	-59034	SLD 13	101077	102276	676152	39378	232752	-1553922		3.74	Min	Si		Si
285	595	310	27	15	65	65	No	-59034	SLD 13	101077	102276	676152	39378	232752	-1553922		3.74	Y	Si		Si
285	595	310	27	15	71	71	No	-48329	SLV 15	90292	85374	1257381	31343	192943	-2889008		1.88	Min	Si		Si
285	595	310	27	15	71	71	No	-48329	SLV 15	90292	85374	1257381	31343	192943	-2889008		1.88	Y	Si		Si
595	905	880	27	18	52	52	No	-77295	SLU 16	115037	116609	99178	77004	-217298	193312	4.85	4.96	Min	No	4.74	Si
595	905	706.7	27	18	52	52	No	-79013	SLU 15	104740	122282	87536	79997	104740	-87536	4.85	4.85	X	No	4.85	Si
595	905	620	27	18	63	63	No	-52881	SLD 9	91542	84552	206063	44316	211452	-457394	7.24	6.5	Min	No	5.81	Si
595	905	706.7	27	18	60	60	No	-58027	SLD 2	73720	96690	423028	44887	73720	423028	6.6		X	Si		Si
595	905	764.4	27	18	71	71	No	-42554	SLV 14	85963	52971	973716	45454	85963	-973716	9	4.49	Min	No	4.32	Si
595	905	706.7	27	18	58	58	No	-63748	SLV 2	79090	102524	878279	48272	81963	878279	6.01		X	Si		Si
595	905	880	27	18	52	52	No	-77295	SLU 16	115037	116609	99178	77004	-217298	193312	4.85	4.96	Min	No	4.74	Si
595	905	706.7	27	18	52	52	No	-79013	SLU 15	104740	122282	87536	79997	104740	-87536	4.85	4.85	Y	No	4.85	Si
595	905	620	27	18	67	67	No	-47821	SLD 13	75921	80834	517509	37243	174369	-1185876		3.9	Min	Si		Si
595	905	620	27	18	67	67	No	-47821	SLD 13	75921	80834	517509	37243	174369	-1185876		3.9	Y	Si		Si
595	905	620	27	18	70	70	No	-43157	SLV 13	83513	70874	979421	32853	192084	-2245639		2.01	Min	Si		Si
595	905	620	27	18	70	70	No	-43157	SLV 13	83513	70874	979421	32853	192084	-2245639		2.01	Y	Si		Si
905	1215	930	27	18	61	61	No	-57449	SLV 16	120839	86891	119667	57417	266877	-274978	5.86	6.43	Min	No	5.41	Si
905	1215	930	27	18	60	60	No	-58994	SLU 15	116725	90755	108743	60508	248166	-249595	5.85	6.4	X	No	5.49	Si
905	1215	930	27	18	74	74	No	-38983	SLD 9	87719	63334	205145	35392	201187	-426442	8.37	7.51	Min	No	6.34	Si
905	1215	930	27	18	72	72	No	-40959	SLD 6	87622	66560	54872	48716	200995	54872	8.09	9.35	X	No	8	Si
905	1215	930	27	18	73	73	No	-39386	SLV 9	104878	61017	340585	33304	241112	-681964	7.81	5.85	Min	No	4.87	Si
905	1215	930	27	18	70	70	No	-43239	SLV 6	104467	67046	154683	46401	240223	213864	7.36	8.49	X	No	6.79	Si
905	1215	930	27	18	61	61	No	-57449	SLU 16	120839	86891	119667	57417	266877	-274978	5.86	6.43	Min	No	5.41	Si
905	1215	1016.7	27	18	60	60	No	-58322	SLU 15	116725	89965	108743	60010	116725	-108743	6.26	6.26	Y	No	6.26	Si
905	1215	1190	27	18	78	78	No	-34349	SLD 13	78450	58839	479062	27464	-148508	929317		4.43	Min	Si		Si
905	1215	1190	27	18	78	78	No	-34349	SLD 13	78450	58839	479062	27464	-148508	929317		4.43	Y	Si		Si
905	1215	1190	27	18	81	81	No	-31893	SLV 13	85203	53481	882918	24651	-159056	1717694		2.06	Min	Si		Si
905	1215	1190	27	18	81	81	No	-31893	SLV 13	85203	53481	882918	24651	-159056	1717694		2.06	Y	Si		Si
1215	1525	1240	27	18	77	77	No	-35620	SLU 16	110777	53471	98586	35159	254793	-217186	7.74	9.48	Min	No	6.91	Si
1215	1525	1240	27	18	77	77	No	-35620	SLU 16	110777	53471	98586	35159	254793	-217186	7.74	9.48	X	No	6.91	Si
1215	1525	1240	27	18	92	92	No	-24829	SLD 9	78478	40616	164189	22526	181305	-321861	11.01	10.36	Min	No	7.91	Si
1215	1525	1240	27	18	91	91	No	-25815	SLD 6	78988	42148	39330	30704	182511	-39330	10.74		X	Si		Si
1215	1525	1240	27	18	92	92	No	-25259	SLV 9	92691	39505	272378	21364	214242	-511590	10.01	7.71	Min	No	5.85	Si
1215	1525	1240	27	18	88	88	No	-27168	SLV 6	93518	42394	101603	32313	216206	101603	9.63	13.45	X	No	9.16	Si
1215	1525	1240	27	18	77	77	No	-35620	SLU 16	110777	53471	98586	35159	254793	-217186	7.74	9.48	Min	No	6.91	Si
1215	1525	1240	27	18	74	74	No	-38360	SLU 15	95098	59576	77257	39935	220349	-178022	7.86	9.29	Y	No	7.28	Si
1215	1525	1500	27	18	99	99	No	-21615	SLD 13	68835	36825	358627	17329	-103102	703771		5.74	Min	Si		Si
1215	1525	1500	27	18	99	99	No	-21615	SLD 13	68835	36825	358627	17329	-103102	703771		5.74	Y	Si		Si
1215	1525	1500	27	18	102	102	No	-20525	SLV 13	74786	34113	657294	15222	-111821	1294557		2.61	Min	Si		Si
1215	1525	1500	27	18	102	102	No	-20525	SLV 13	74786	34113	657294	15222	-111821	1294557		2.61	Y	Si		Si
1525	1835	1810	27	18	116	116	No	-15628	SLU 14	229805	23153	164096	14578	-464862	332537	5.05	12.02	Min	No	4.08	Si
1525	1835	1810	27	18	116	116	No	-15628	SLU 14	229805	23153	164096	14578	-464862	332537	5.05	12.02	X	No	4.08	Si
1525	1835	1810	27	18	160	160	No	-8252	SLD 13	133967	14154	325809	6119	-265889	650325	8.6	4.92	Min	No	3.72	Si
1525	1835	1810	27	18	154	154	No	-8930	SLD 10	153589	14693	167925	8331	-304933	332263	7.35	11.93	X	No	5.24	Si
1525	1835	1810	27	18	147	147	No	-9797	SLV 2	135825	16729	400927	7266	-269736	-810582	8.94	3.91	Min	No	3.16	Si
1525	1835	1810	27	18	152	152	No	-9196	SLV 10	179231	14503	260636	7949	-355886	517499	6.04	6.75	X	No	3.82	Si
1525	1835	1810	27	18	116	116	No	-15628	SLU 14	229805	23153	164096	14578	-464862	332537	5.05	12.02	Min	No	4.08	Si
1525	1835	1810	27	18	116	116	No	-15628	SLU 14	229805	23153	164096	14578	-464862	332537	5.05	12.02	Y	No	4.08	Si
1525	1835	1810	27	18	160	160	No	-8252	SLD 13	133967	14154	325809	6119	-265889	650325	8.6	4.92	Min	No	3.72	Si
1525	1835	1810	27	18	160	160	No	-8252	SLD 13	133967	14154	325809	6119	-265889	650325	8.6	4.92	Y	No	3.72	Si
1525	1835	1810	27	18	164	164	No	-7905	SLV 13	142805	13292	572368	5862	-283405	1145447		2.47	Min	Si		Si
1525	1835	1810	27	18	164	164	No	-7905	SLV 13	142805	13292	572368	5862	-283405	1145447		2.47	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	0	8384614	<	9752649	4921818	4830831	1.163	SLV 15		Si
285	90	759417	<	5317775	2691654	2626121	7.002	SLV 15		Si
285	180	8384614	<	9752649	4921818	4830831	1.163	SLV 15		Si
595	0	9014695	<	9325643	5158838	4166805	1.034	SLV 15		Si
595	90	759417	<	5798745	2956852	2841893	7.636	SLV 15		Si
595	180	9014695	<	9325643	5158838	4166805	1.034	SLV 15		Si
905	90	740999	<	4371458	2227158	2144300	5.899	SLV 15		Si
905	180	6285528	<	7106213	3608380	3497833	1.131	SLV 15		Si
905	360	6285528	<	7106213	3608380	3497833	1.131	SLV 15		Si
1215	90	740999	<	3670279	1888963	1781316	4.953	SLV 15		Si
1215	180	5250179	<	5898181	3042479	2855703	1.123	SLV 15		Si
1215	360	5250179	<	5898181	3042479	2855703	1.123	SLV 15		Si
1525	90	740999	<	3377798	1760029	1617769	4.558	SLV 15		Si
1525	180	3796547	<	5415332	2824218	2591114	1.426	SLV 15		Si
1525	360	3796547	<	5415332	2824218	2591114	1.426	SLV 15		Si

Pilastrata 4

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovvaresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
29	28.65	2	0	1,2,3,4	288189	288189	-144094	856356	856356	SLU 16	2.972	Si
58	28.65	2	0	1,2,3,4	287663	287663	-143831	856356	856356	SLU 16	2.977	Si
87	28.65	1	0	3,4	-287137	-287137	-143568	-856356	-856356	SLU 16	2.982	Si
116	28.65	1	0	3,4	-286611	-286611	-143306	-856356	-856356	SLU 16	2.988	Si
144	28.65	1	0	3,4	-286085	-286085	-143043	-856356	-856356	SLU 16	2.993	Si
173	28.65	1	0	3,4	-285560	-285560	-142780	-856356	-856356	SLU 16	2.999	Si
202	28.65	1	0	3,4	-285034	-285034	-142517	-856356	-856356	SLU 16	3.004	Si
231	28.65	1	0	3,4	-284508	-330889	-142254	-856356	-995960	SLU 16	3.01	Si
260	28.65	1	0	3,4	-283991	-390311	-141996	-856356	-1176955	SLU 16	3.015	Si
310	28.65	2	0	3,4,5,6,7	369819	663661	-117908	1193661	2142093	SLU 16	3.228	Si
339	28.65	2	0	3,4,5,6,7	298180	533919	-117650	1023260	1832240	SLU 16	3.432	Si
368	28.65	2	0	3,4,5,6,7	234779	403161	-117390	852714	1464272	SLU 16	3.632	Si
397	28.65	1	0	5,6,7	234248	269863	-117124	856356	986556	SLU 16	3.656	Si
426	28.65	1	0	5,6,7	233722	233722	-116861	856356	856356	SLU 16	3.664	Si
454	28.65	1	0	5,6,7	233197	233197	-116598	856356	856356	SLU 16	3.672	Si
483	28.65	1	0	5,6,7	-232671	-232671	-116335	-856356	-856356	SLU 16	3.681	Si
512	29.65	1.3	0	5,6,7,12,13	-232145	-258247	-116073	-864190	-961356	SLU 16	3.723	Si
541	33.64	1.3	0	5,6,7,12,13	-231619	-390274	-115810	-885109	-1491390	SLU 16	3.821	Si
570	36.69	1.3	0	5,6,7,12,13	-283761	-520017	-115551	-1054963	-1933314	SLU 16	3.718	Si
620	36.69	2.5	0	5,6,7,8,12,13	262338	464117	-91609	1037981	1836354	SLU 16	3.957	Si
649	32.16	2.5	0	5,6,7,8,12,13	210168	362819	-91387	855538	1476937	SLU 16	4.071	Si
678	27.62	2.5	0	5,6,7,8,12,13	182328	260727	-91164	751842	1075125	SLU 16	4.124	Si
707	24.13	1	0	8	183032	183032	-91516	730647	730647	SLU 15	3.992	Si
736	24.13	1	0	8	182582	182582	-91291	730647	730647	SLU 15	4.002	Si
764	24.13	1	0	8	-182131	-182131	-91065	-730647	-730647	SLU 15	4.012	Si
793	24.13	1	0	8	-181680	-181680	-90840	-730647	-730647	SLU 15	4.022	Si
822	24.85	1.2	0	8,14	-181230	-233877	-90615	-736315	-950215	SLU 15	4.063	Si
851	26.85	1.2	0	8,14	-179620	-358761	-89810	-717781	-1433647	SLU 16	3.996	Si
880	28.15	1.2	0	8,14	-213619	-460059	-89589	-816346	-1758114	SLU 16	3.821	Si
930	28.15	2.2	0	8,9,14	260272	592636	-66177	1087521	2476269	SLU 16	4.178	Si
959	26.16	2.2	0	8,9,14	207036	476215	-65955	946912	2178046	SLU 16	4.574	Si
988	24.16	2.2	0	8,9,14	153383	358882	-65732	766525	1793501	SLU 16	4.997	Si
1017	24.13	1	0	9	135060	219719	-67530	718991	1169674	SLU 15	5.323	Si
1046	24.13	1	0	9	134609	134609	-67305	730647	730647	SLU 15	5.428	Si
1074	24.13	1	0	9	-134158	-134158	-67079	-730647	-730647	SLU 15	5.446	Si
1103	24.13	1	0	9	-133708	-133708	-66854	-730647	-730647	SLU 15	5.465	Si
1132	24.13	1	0	9	-133257	-227165	-66629	-715512	-1219741	SLU 15	5.369	Si
1161	24.13	1	0	9	-168080	-338886	-66403	-834947	-1683434	SLU 15	4.968	Si
1190	24.13	1	0	9	-218537	-448673	-66182	-988855	-2030195	SLU 15	4.525	Si
1240	24.13	2	0	9,10	251628	561360	-40903	1245904	2779502	SLU 16	4.951	Si
1269	24.13	2	0	9,10	203963	450732	-40681	1178707	2604791	SLU 16	5.779	Si
1298	24.13	2	0	9,10	142359	311006	-43928	962443	2102609	SLU 15	6.761	Si
1327	24.13	1	0	10	103788	215463	-43700	793675	1647654	SLU 15	7.647	Si
1356	24.13	1	0	10	86949	120829	-43475	729127	1013225	SLU 15	8.386	Si
1384	24.13	1	0	10	86499	86499	-43249	730647	730647	SLU 15	8.447	Si
1413	24.13	1	0	10	-86048	-86048	-43024	-730647	-730647	SLU 15	8.491	Si
1442	24.13	1	0	10	-85597	-130373	-42799	-706289	-1345568	SLU 15	8.251	Si
1471	24.13	1	0	10	-135569	-337301	-39104	-961993	-2393471	SLU 16	7.096	Si
1500	24.13	1	0	10	-183234	-447928	-38883	-1106205	-2704192	SLU 16	6.037	Si
1550	24.13	2	0	10,11	317635	644222	-20704	1321365	2679974	SLU 15	4.16	Si
1579	24.13	2	0	10,11	228387	480524	-15522	1298732	2732514	SLU 16	5.687	Si
1608	24.13	2	0	10,11	158372	355439	-15299	1300519	2918791	SLU 16	8.212	Si
1637	24.13	1	0	11	86997	227925	-15071	1135165	2974037	SLU 16	13.048	Si
1666	24.13	1	0	11	-48359	-39811	-19906	-880405	-724784	SLU 14	18.205	Si
1694	24.13	1	0	11	-130298	-167682	-19680	-1559492	-2006930	SLU 14	11.969	Si
1723	24.13	1	0	11	-212236	-315352	-19455	-1633094	-2426539	SLU 14	7.695	Si
1752	24.13	1	0	11	-294174	-463022	-19230	-1551656	-2442261	SLU 14	5.275	Si
1781	24.13	1	0	11	-376113	-610691	-19004	-1452264	-2358030	SLU 14	3.861	Si
1810	24.13	1	0	11	-457950	-754245	-18684	-1378603	-2270563	SLU 15	3.01	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	28.65	2	0.0003	1,2,3,4	379708	4192307	-55559	416720	4600944	SLV 3-Gen.	1.097	133995	256802	SLV 14	Si
29	28.65	2	0.0003	1,2,3,4	-7673	3271958	-55619	-12179	5193331	SLV 4	1.587	133797	256802	SLV 14	Si
58	28.65	2	0.0003	1,2,3,4	47873	-2675496	-133336	92987	-5196784	SLV 13	1.942	133594	256802	SLV 14	Si
87	28.65	1	0.0003	3,4	24254	-2175652	-133134	53350	-4785621	SLV 13	2.2	133392	256802	SLV 14	Si
116	28.65	1	0.0003	3,4	8709	-1665902	-133190	21758	-4161818	SLV 14	2.498	133190	256802	SLV 14	Si
144	28.65	1	0.0003	3,4	-16102	-1166104	-132988	-45537	-3297810	SLV 14	2.828	132988	256802	SLV 14	Si
173	28.65	1	0.0003	3,4	-40892	-671842	-132785	-130320	-2141135	SLV 14	3.187	132785	256802	SLV 14	Si
202	28.65	1	0.0003	3,4	-65645	-224155	-132583	-211999	-723907	SLV 14	3.229	132583	256802	SLV 14	Si
231	28.65	1	0.0003	3,4	-90326	337681	-132381	-292152	1092206	SLV 14	3.234	132381	256802	SLV 14	Si
260	28.65	1	0.0003	3,4	-116429	828467	-131924	-356725	2538319	SLV 13	3.064	132182	256802	SLV 14	Si
310	28.65	2	0.0006	3,4,5,6,7	246949	2954255	-50903	417478	4994285	SLV 2	1.691	107209	256802	SLV 14	Si
339	28.65	2	0.0006	3,4,5,6,7	202195	2385478	-50704	449372	5301659	SLV 2	2.222	107010	256802	SLV 14	Si
368	28.65	2	0.0006	3,4,5,6,7	157042	1812689	-50504	480930	5551232	SLV 2	3.062	106810	256802	SLV 14	Si
397	28.65	1	0.0006	5,6,7	106059	-885585	-106387	375759	-3137565	SLV 13	3.543	106606	256802	SLV 14	Si
426	28.65	1	0.0006	5,6,7	64684	-475190	-106404	260294	-1912203	SLV 14	4.024	106404	256802	SLV 14	Si
454	28.65	1	0.0006	5,6,7	18194	-680044	-106201	73352	-274337	SLV 14	4.032	106201	256802	SLV 14	Si
483	28.65	1	0.0006	5,6,7	-28401	368887	-105999	-114724	1490094	SLV 14	4.039	105999	256802	SLV 14	Si
512	29.65	1.3	0.0006	5,6,7,12,13	-77363	770883	-105578	-289094	2880668	SLV 13	3.737	105797	256802	SLV 14	Si
541	33.64	1.3	0.0006	5,6,7,12,13	-123304	1178485	-105376	-413782	3954743	SLV 13	3.356	105595	256802	SLV 14	Si
570	36.69	1.3	0.0006	5,6,7,12,13	-160162	-2247968	-49090	-427295	-5997330	SLV 2	2.668	105396	256802	SLV 14	Si
620	36.69	2.5	0.0006	5,6,7,8,12,13	194038	2256127	-43337	393945	4580507	SLV 2	2.03	80189	220116	SLV 14	Si
649	32.16	2.5	0.0006	5,6,7,8,12,13	157963	1809740	-43167	385013	4410981	SLV 2	2.437	80019	220116	SLV 14	Si
678	27.62	2.5	0.0006	5,6,7,8,12,13	119844	1360469	-42995	375370	4261213	SLV 2	3.132	79847	220116	SLV 14	Si
707	24.13	1	0.0006	8	82584	-707587	-79465	309282	-2649974	SLV 13	3.745	79672	220116	SLV 14	Si
736	24.13	1	0.0006	8	53943	-389279	-79499	238413	-1720506	SLV 14	4.42	79499	220116	SLV 14	Si
764	24.13	1	0.0006	8	19775	-79603	-79326	91069	-366598	SLV 14	4.605	79326	220116	SLV 14	Si
793	24.13	1	0.0006	8	-14277	290613	-79152	-65896	1341302	SLV 14	4.615	79152	220116	SLV 14	Si
822	24.85	1.2	0.0006	8,14	-48796	607205	-78772	-196041	2439474	SLV 13	4.018	78979	220116	SLV 14	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
1190	24.13	1	0.0008	9	-160155	-1737489	-32484	-315265	-3420253	SLV 2	1.969	54604	220116	SLV 14	Si
1240	24.13	2	0.0008	9,10	-173843	-1144134	-22931	507577	3340579	SLV 2	2.92	34066	220116	SLV 14	Si
1269	24.13	2	0.0008	9,10	-142632	877041	-22761	578932	3559833	SLV 2	4.059	33896	220116	SLV 14	Si
1298	24.13	2	0.0008	9,10	-111182	610822	-22589	671550	3689420	SLV 2	6.04	33724	220116	SLV 14	Si
1327	24.13	1	0.0008	10	79132	352394	-22414	745556	3320138	SLV 2	9.422	33549	220116	SLV 14	Si
1356	24.13	1	0.0008	10	43196	184362	-33376	437926	1869098	SLV 14	10.138	33376	220116	SLV 14	Si
1384	24.13	1	0.0008	10	14638	272718	-33203	136408	2541464	SLV 14	9.319	33203	220116	SLV 14	Si
1413	24.13	1	0.0008	10	-17041	-522341	-21894	-131940	-4044245	SLV 2	7.743	33029	220116	SLV 14	Si
1442	24.13	1	0.0008	10	-48217	-792453	-21721	-236198	-3881913	SLV 2	4.899	32856	220116	SLV 14	Si
1471	24.13	1	0.0008	10	-79906	-1064763	-21547	-266398	-3549782	SLV 2	3.334	32683	220116	SLV 14	Si
1500	24.13	1	0.0008	10	-111095	-1333265	-21377	-274213	-3290862	SLV 2	2.468	32512	220116	SLV 14	Si
1550	24.13	2	0.0008	10,11	220573	938554	-10063	640079	2723579	SLV 2	2.902	13856	220116	SLV 14	Si
1579	24.13	2	0.0008	10,11	165291	701832	-9893	673936	2861564	SLV 2	4.077	13685	220116	SLV 14	Si
1608	24.13	2	0.0008	10,11	109582	466462	-9721	738993	3145702	SLV 2	6.744	13514	220116	SLV 14	Si
1637	24.13	1	0.0008	11	52811	246269	-9546	769201	3586971	SLV 2	14.565	13339	220116	SLV 14	Si
1666	24.13	1	0.0008	11	-7094	164869	-13165	-139951	3252378	SLV 14	19.727	13165	220116	SLV 14	Si
1694	24.13	1	0.0008	11	-59751	-294097	-9199	-724663	-3566793	SLV 2	12.128	12992	220116	SLV 14	Si
1723	24.13	1	0.0008	11	-116312	-532232	-9026	-661344	-3026253	SLV 2	5.686	12819	220116	SLV 14	Si
1752	24.13	1	0.0008	11	-172458	-773311	-8853	-620162	-2780849	SLV 2	3.596	12645	220116	SLV 14	Si
1781	24.13	1	0.0008	11	-228687	-1015410	-8679	-592404	-2630379	SLV 2	2.59	12472	220116	SLV 14	Si
1810	24.13	1	0.0008	11	-283962	-1253778	-8509	-575670	-2541761	SLV 2	2.027	12302	220116	SLV 14	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0.0001	1,2,3,4	74487	-1805645	-114553	192660	-4670289	SLD 13	2.586	Si
29	28.65	2	0.0001	1,2,3,4	53072	-1574762	-114354	147338	-4371884	SLD 13	2.776	Si
58	28.65	2	0.0001	1,2,3,4	31280	-1346992	-114152	93145	-4010993	SLD 13	2.978	Si
87	28.65	1	0.0001	3,4	14356	-1107727	-114085	45886	-3540503	SLD 14	3.196	Si
116	28.65	1	0.0001	3,4	-12294	-873785	-113747	-42110	-2992878	SLD 13	3.425	Si
144	28.65	1	0.0001	3,4	-30484	-635718	-113680	-111563	-2326570	SLD 14	3.66	Si
173	28.65	1	0.0001	3,4	-52894	-403197	-113478	-199581	-1521353	SLD 14	3.773	Si
202	28.65	1	0.0001	3,4	-75291	-193967	-113276	-284598	-733185	SLD 14	3.78	Si
231	28.65	1	0.0001	3,4	-97663	71863	-113073	-369823	272125	SLD 14	3.787	Si
260	28.65	1	0.0001	3,4	-119590	299942	-112875	-453650	1137794	SLD 14	3.793	Si
310	28.65	2	0.0003	3,4,5,6,7	234386	1694509	-64096	725653	5246155	SLD 2	3.096	Si
339	28.65	2	0.0003	3,4,5,6,7	190609	1367576	-63897	699572	5019273	SLD 2	3.67	Si
368	28.65	2	0.0003	3,4,5,6,7	144756	-536682	-92109	634677	-2353061	SLD 13	4.384	Si
397	28.65	1	0.0003	5,6,7	101398	-362214	-92020	471818	-1685419	SLD 14	4.653	Si
426	28.65	1	0.0003	5,6,7	56520	-199133	-91817	263572	-928627	SLD 14	4.663	Si
454	28.65	1	0.0003	5,6,7	11498	-32469	-91615	53737	-151748	SLD 14	4.674	Si
483	28.65	1	0.0003	5,6,7	-33583	150301	-91413	-157304	704007	SLD 14	4.684	Si
512	29.65	1.3	0.0003	5,6,7,12,13	-78676	311641	-91211	-372712	1476342	SLD 14	4.737	Si
541	33.64	1.3	0.0003	5,6,7,12,13	-124668	481590	-90894	-587452	2269316	SLD 13	4.712	Si
570	36.69	1.3	0.0003	5,6,7,12,13	-164453	-1295112	-62283	-677270	-5333686	SLD 2	4.118	Si
620	36.69	2.5	0.0003	5,6,7,8,12,13	175533	1280647	-51798	616140	4495209	SLD 2	3.51	Si
649	32.16	2.5	0.0003	5,6,7,8,12,13	142152	1024566	-51628	566683	4084397	SLD 2	3.986	Si
678	27.62	2.5	0.0003	5,6,7,8,12,13	107555	766820	-51456	499301	3559805	SLD 2	4.642	Si
707	24.13	1	0.0003	8	73073	-311760	-69872	371227	-1583811	SLD 13	5.08	Si
736	24.13	1	0.0003	8	43272	-181648	-69807	226455	-950622	SLD 14	5.233	Si
764	24.13	1	0.0003	8	10568	-55657	-69634	55443	-291996	SLD 14	5.246	Si
793	24.13	1	0.0003	8	-22090	103062	-69460	-116182	542050	SLD 14	5.259	Si
822	24.85	1.2	0.0003	8,14	-54580	228615	-69287	-290012	1214746	SLD 14	5.313	Si
851	26.85	1.2	0.0003	8,14	-98918	-809461	-50415	-434558	-3556042	SLD 2	4.393	Si
880	28.15	1.2	0.0003	8,14	-131931	-1065165	-50244	-473757	-3824950	SLD 2	3.591	Si
930	28.15	2.2	0.0004	8,9,14	176040	1013324	-39000	655798	3774919	SLD 2	3.725	Si
959	26.16	2.2	0.0004	8,9,14	140578	791964	-38830	649550	3659314	SLD 2	4.621	Si
988	24.16	2.2	0.0004	8,9,14	104844	569753	-38658	612223	3327011	SLD 2	5.839	Si
1017	24.13	1	0.0004	9	59493	-46400	-49734	437009	-340834	SLD 14	7.346	Si
1046	24.13	1	0.0004	9	26883	56254	-49560	198164	414660	SLD 14	7.371	Si
1074	24.13	1	0.0004	9	-5699	133472	-49387	-42155	987311	SLD 14	7.397	Si
1103	24.13	1	0.0004	9	-38913	200378	-49131	-286955	1477646	SLD 13	7.374	Si
1132	24.13	1	0.0004	9	-76317	-575221	-37790	-456201	-3438528	SLD 2	5.978	Si
1161	24.13	1	0.0004	9	-112281	-800158	-37617	-525482	-3744805	SLD 2	4.68	Si
1190	24.13	1	0.0004	9	-147708	-1021758	-37446	-550404	-3807386	SLD 2	3.726	Si
1240	24.13	2	0.0004	9,10	158452	746959	-25348	755522	3561600	SLD 2	4.768	Si
1269	24.13	2	0.0004	9,10	129932	579481	-25177	795579	3548173	SLD 2	6.123	Si
1298	24.13	2	0.0004	9,10	101191	412208	-25006	815628	3322514	SLD 2	8.06	Si
1327	24.13	1	0.0004	10	71895	248236	-24831	780666	2695442	SLD 2	10.858	Si
1356	24.13	1	0.0004	10	40743	129136	-30335	477226	1512582	SLD 14	11.713	Si
1384	24.13	1	0.0004	10	13327	140826	-30162	157026	1659250	SLD 14	11.782	Si
1413	24.13	1	0.0004	10	-15514	-293608	-24311	-168436	-3187648	SLD 2	10.857	Si
1442	24.13	1	0.0004	10	-44301	-463126	-24137	-358490	-3747705	SLD 2	8.092	Si
1471	24.13	1	0.0004	10	-73299	-633800	-23964	-449802	-3889363	SLD 2	6.137	Si
1500	24.13	1	0.0004	10	-101811	-801995	-23794	-481291	-3791273	SLD 2	4.727	Si
1550	24.13	2	0.0004	10,11	204652	666673	-10849	853510	2780388	SLD 2	4.171	Si
1579	24.13	2	0.0004	10,11	153162	504618	-10678	899802	2964558	SLD 2	5.875	Si
1608	24.13	2	0.0004	10,11	101271	342807	-10507	962168	3256973	SLD 2	9.501	Si
1637	24.13	1	0.0004	11	48382	187428	-10332	867841	3361943	SLD 2	17.937	Si
1666	24.13	1	0.0004	11	-5876	104140	-12095	-147852	2620399	SLD 14	25.162	Si
1694	24.13	1	0.0004	11	-56426	-170164	-9985	-1045000	-3151438	SLD 2	18.52	Si
1723	24.13	1	0.0004	11	-108984	-333780	-9812	-1019964	-3123800	SLD 2	9.359	Si
1752	24.13	1	0.0004	11	-161326	-498778	-9638	-920356	-2845502	SLD 2	5.705	Si
1781	24.13	1	0.0004	11	-213710	-664254	-9465	-857482	-2665229	SLD 2	4.012	Si
1810	24.13	1	0.0004	11	-265196	-827081	-9295	-818972	-2554170	SLD 2	3.088	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8661	0.6611	0.3563	0.2356	0.398	1984	0.203	1.16	SLV 10	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffa	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5.8	-2093	-1152	-144353	SLU 16	1	102703	49.07	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/5.8	-2093	-1152	-144094	SLU 16	1	102703	49.07	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/5.8	-2093	-1152	-143831	SLU 16	1	102703	49.07	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	-2093	-1152	-143568	SLU 16	2.5	27994	24.3	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	-2093	-1152	-143306	SLU 16	2.5	27994	24.3	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	-2093	-1152	-143043	SLU 16	2.5	27994	24.3	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	-2093	-1152	-142780	SLU 16	2.5	27994	24.3	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	-2093	-1152	-142517	SLU 16	1.5	92036	43.97	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	-2093	-1152	-142254	SLU 16	1.5	92036	43.97	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	-2093	-1152	-141996	SLU 16	1.5	92036	43.97	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	-4570	-2523	-117908	SLU 16	1.5	92036	20.14	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
339	4X/4Y ø10/11.7	-4570	-2523	-117650	SLU 16	1.5	92036	20.14	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	-4570	-2523	-117390	SLU 16	1.5	92036	20.14	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	-4570	-2523	-117124	SLU 16	2.5	27994	11.09	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	-4570	-2523	-116861	SLU 16	2.5	27994	11.09	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	-4570	-2523	-116598	SLU 16	2.5	27994	11.09	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	-4570	-2523	-116335	SLU 16	2.5	27994	11.09	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	5X/5Y ø10/11.7	-4570	-2523	-116073	SLU 16	1.3	95870	20.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	5X/5Y ø10/11.7	-4570	-2523	-115810	SLU 16	1.3	95870	20.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	5X/5Y ø10/11.7	-4570	-2523	-115551	SLU 16	1.3	95870	20.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	5X/5Y ø10/12	-3568	-1838	-91609	SLU 16	1.3	81953	22.97	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	5X/5Y ø10/12	-3568	-1838	-91387	SLU 16	1.3	81953	22.97	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	5X/5Y ø10/12	-3568	-1838	-91164	SLU 16	1.3	81953	22.97	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	-3568	-1838	-90937	SLU 16	2.5	43228	12.11	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	-3568	-1838	-90711	SLU 16	2.5	43228	12.11	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	-3568	-1838	-90486	SLU 16	2.5	43228	12.11	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	-3568	-1838	-90261	SLU 16	2.5	43228	12.11	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/5Y ø10/12	-3568	-1838	-90035	SLU 16	1.6	78171	21.91	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/5Y ø10/12	-3568	-1838	-89810	SLU 16	1.6	78171	21.91	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/5Y ø10/12	-3568	-1838	-89589	SLU 16	1.6	78171	21.91	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/5Y ø10/12	-4101	-1875	-66177	SLU 16	1.5	75649	18.45	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/5Y ø10/12	-4101	-1875	-65955	SLU 16	1.5	75649	18.45	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/5Y ø10/12	-4101	-1875	-65732	SLU 16	1.5	75649	18.45	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	-4101	-1875	-65505	SLU 16	2.5	43228	10.54	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	-4101	-1875	-65279	SLU 16	2.5	43228	10.54	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	-4101	-1875	-65054	SLU 16	2.5	43228	10.54	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	-4101	-1875	-64829	SLU 16	2.5	43228	10.54	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	-4101	-1875	-64603	SLU 16	1.5	75649	18.45	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	-4101	-1875	-64378	SLU 16	1.5	75649	18.45	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	-4101	-1875	-64157	SLU 16	1.5	75649	18.45	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	-3897	-1679	-40903	SLU 16	1.4	70606	18.12	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	-3897	-1679	-40681	SLU 16	1.4	70606	18.12	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	-3897	-1679	-40458	SLU 16	1.4	70606	18.12	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	-3897	-1679	-40231	SLU 16	2.5	43228	11.09	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	-3897	-1679	-40005	SLU 16	2.5	43228	11.09	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	-3897	-1679	-39780	SLU 16	2.5	43228	11.09	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	-3897	-1679	-39555	SLU 16	2.5	43228	11.09	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	-3897	-1679	-39329	SLU 16	1.4	70606	18.12	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	-3897	-1679	-39104	SLU 16	1.4	70606	18.12	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	-3897	-1679	-38883	SLU 16	1.4	70606	18.12	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	-5399	-2995	-20704	SLU 15	1.4	68084	12.61	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	-5399	-2995	-20482	SLU 15	1.4	68084	12.61	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	-5399	-2995	-20259	SLU 15	1.4	68084	12.61	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	-5399	-2995	-20032	SLU 15	2.5	43228	8.01	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	-5399	-2995	-19806	SLU 15	2.5	43228	8.01	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	-5399	-2995	-19581	SLU 15	2.5	43228	8.01	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	-5399	-2995	-19356	SLU 15	2.5	43228	8.01	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	-5399	-2995	-19130	SLU 15	1.4	68084	12.61	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	-5399	-2995	-18905	SLU 15	1.4	68084	12.61	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	-5399	-2995	-18684	SLU 15	1.4	68084	12.61	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5.8	48058	25657	-133995	SLV 14-Ger.	1	102703	2.14	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
29	4X/4Y ø10/5.8	48058	25657	-133797	SLV 14-Ger.	1	102703	2.14	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
58	4X/4Y ø10/5.8	48058	25657	-133594	SLV 14-Ger.	1	102703	2.14	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
87	2X/2Y ø10/17.1	48058	25657	-133392	SLV 14-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
116	2X/2Y ø10/17.1	48058	25657	-133190	SLV 14-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/17.1	48058	25657	-132988	SLV 14-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/17.1	48058	25657	-132785	SLV 14-Ger.	2.5	52195	1.09	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	48058	25657	-132583	SLV 14-Ger.	1.5	92035	1.92	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	48058	25657	-132381	SLV 14-Ger.	1.5	92035	1.92	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	48058	25657	-132182	SLV 14-Ger.	1.5	92035	1.92	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	48350	25736	-107209	SLV 14-Ger.	1.5	92035	1.9	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	48350	25736	-107010	SLV 14-Ger.	1.5	92035	1.9	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	48350	25736	-106810	SLV 14-Ger.	1.5	92035	1.9	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/17.1	48350	25736	-106606	SLV 14-Ger.	2.5	52195	1.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/17.1	48350	25736	-106404	SLV 14-Ger.	2.5	52195	1.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/17.1	48350	25736	-106201	SLV 14-Ger.	2.5	52195	1.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/17.1	48350	25736	-105999	SLV 14-Ger.	2.5	52195	1.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	5X/5Y ø10/11.7	48350	25736	-105797	SLV 14-Ger.	1.3	95870	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	5X/5Y ø10/11.7	48350	25736	-105595	SLV 14-Ger.	1.3	95870	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	5X/5Y ø10/11.7	48350	25736	-105396	SLV 14-Ger.	1.3	95870	1.98	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	5X/5Y ø10/12	35109	22623	-70253	SLV 10-Ger.	1.3	78800	2.24	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	5X/5Y ø10/12	35109	23040	-70082	SLV 10-Ger.	1.3	78800	2.24	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	5X/5Y ø10/12	35109	23052	-69911	SLV 10-Ger.	1.3	78800	2.24	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	35847	23175	-79672	SLV 14-Ger.	2.5	27422	1.18	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	35847	23175	-79499	SLV 14-Ger.	2.5	27422	1.18	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
764	2X/2Y ø10/17.5	35847	23175	-79326	SLV 14-Ger.	2.5	27422	1.18	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	35847	23175	-79152	SLV 14-Ger.	2.5	27422	1.18	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/5Y ø10/12	35847	23052	-78979	SLV 14-Ger.	1.5	75648	2.11	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/5Y ø10/12	35847	23052	-78806	SLV 14-Ger.	1.5	75648	2.11	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/5Y ø10/12	35847	23052	-78635	SLV 14-Ger.	1.5	75648	2.11	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/5Y ø10/12	29658	19151	-56158	SLV 14-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/5Y ø10/12	29658	19151	-55988	SLV 14-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/5Y ø10/12	29658	19151	-55816	SLV 14-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	29658	19151	-55641	SLV 14-Ger.	2.5	27422	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	29658	19151	-55468	SLV 14-Ger.	2.5	27422	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	29658	19151	-55294	SLV 14-Ger.	2.5	27422	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	29658	19151	-55121	SLV 14-Ger.	2.5	27422	1.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	29658	19139	-54948	SLV 14-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	29658	19151	-54774	SLV 14-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	29658	19151	-54604	SLV 14-Ger.	1.5	73127	2.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	26230	16266	-34066	SLV 14-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	26230	16266	-33896	SLV 14-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	26230	16266	-33724	SLV 14-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	26230	16266	-33549	SLV 14-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	26230	16266	-33376	SLV 14-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	26230	16266	-33203	SLV 14-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	26230	16266	-33029	SLV 14-Ger.	2.5	43226	1.65	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	26230	16266	-32856	SLV 14-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	26230	16266	-32683	SLV 14-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	26230	16266	-32512	SLV 14-Ger.	1.4	70605	2.69	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	22726	14164	-13856	SLV 14-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	22726	14164	-13685	SLV 14-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1608	4X/4Y ø10/12	22726	14164	-13514	SLV 14-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1637	2X/2Y ø10/17.5	22726	14164	-13339	SLV 14-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1666	2X/2Y ø10/17.5	22726	14164	-13165	SLV 14-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1694	2X/2Y ø10/17.5	22726	14164	-12992	SLV 14-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1723	2X/2Y ø10/17.5	22726	14164	-12819	SLV 14-Ger.	2.5	43226	1.9	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1752	4X/4Y ø10/12	22726	14164	-12645	SLV 14-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1781	4X/4Y ø10/12	22726	14164	-12472	SLV 14-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1810	4X/4Y ø10/12	22726	14164	-12302	SLV 14-Ger.	1.4	68083	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vpl,y	Comb.
0	260	260	1.1	3035028.7		-133995.2	3029400.9		-132182.2	48058.4		SLV 14
0	260	260	1.1		5684368.1	-133995.2		5674889	-132182.2		25657.2	SLV 14
310	570	260	1.1	2909446.2		-107209	3173668.9		-105396	48349.9		SLV 14
310	570	260	1.1		5448632.8	-107209		5979527.1	-105396		25736.3	SLV 14
620	880	260	1.1	2900792.3		-80189.3	2576874.7		-78635.3	35847.3		SLV 14
620	880	260	1.1		4663606.5	-80189.3		3809396.9	-78635.3		23174.7	SLV 14
930	1190	260	1.1	2385465.4		-56158	2141048.7		-54604	29658.2		SLV 14
930	1190	260	1.1		3613387.2	-56158		3396742.1	-54604		19150.6	SLV 14
1240	1500	260	1.1	1930691.6		-34066.4	1914108.6		-32512.4	26229.8		SLV 14
1240	1500	260	1.1		3110774.2	-34066.4		3088998.8	-32512.4		16266.5	SLV 14
1550	1810	260	1.1	1684565.5		-13855.8	1663285.4		-12301.8	22726.3		SLV 14
1550	1810	260	1.1		2703781	-13855.8		2667887.3	-12301.8		14164	SLV 14

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5.8	-10790	-963	-76689	SLD 2	1	98111	9.09	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
29	4X/4Y ø10/5.8	-10790	-963	-76490	SLD 2	1	98070	9.09	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
58	4X/4Y ø10/5.8	-10790	-963	-76288	SLD 2	1	98028	9.09	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
87	2X/2Y ø10/17.1	-10790	-963	-76086	SLD 2	2.5	52196	4.84	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
116	2X/2Y ø10/17.1	-10790	-963	-75883	SLD 2	2.5	52196	4.84	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
144	2X/2Y ø10/17.1	-10790	-963	-75681	SLD 2	2.5	52196	4.84	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
173	2X/2Y ø10/17.1	-10790	-963	-75479	SLD 2	2.5	52196	4.84	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
202	4X/4Y ø10/11.7	-10790	-959	-75277	SLD 2	1.7	85496	7.92	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
231	4X/4Y ø10/11.7	-10790	-959	-75074	SLD 2	1.7	85459	7.92	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
260	4X/4Y ø10/11.7	-10790	-959	-74876	SLD 2	1.7	85423	7.92	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
310	4X/4Y ø10/11.7	-11529	-1661	-64096	SLD 2	1.7	84654	7.34	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
339	4X/4Y ø10/11.7	-11529	-1661	-63897	SLD 2	1.7	84617	7.34	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
368	4X/4Y ø10/11.7	-11529	-1661	-63697	SLD 2	1.7	84580	7.34	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
397	2X/2Y ø10/17.1	-11529	-1668	-63493	SLD 2	2.5	52195	4.53	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
426	2X/2Y ø10/17.1	-11529	-1668	-63291	SLD 2	2.5	52195	4.53	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
454	2X/2Y ø10/17.1	-11529	-1668	-63088	SLD 2	2.5	52195	4.53	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
483	2X/2Y ø10/17.1	-11529	-1668	-62886	SLD 2	2.5	52195	4.53	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
512	5X/5Y ø10/11.7	-11529	-1661	-62684	SLD 2	1.4	90053	7.81	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
541	5X/5Y ø10/11.7	-11529	-1661	-62482	SLD 2	1.4	90013	7.81	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
570	5X/5Y ø10/11.7	-11529	-1661	-62283	SLD 2	1.4	89974	7.8	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
620	5X/5Y ø10/12	-9039	-1363	-51798	SLD 2	1.5	74861	8.28	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
649	5X/5Y ø10/12	-9039	-1363	-51628	SLD 2	1.5	74829	8.28	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
678	5X/5Y ø10/12	-9039	-1363	-51456	SLD 2	1.5	74796	8.28	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
707	2X/2Y ø10/17.5	-9039	-1363	-51281	SLD 2	2.5	43227	4.78	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
736	2X/2Y ø10/17.5	-9039	-1363	-51108	SLD 2	2.5	43227	4.78	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
764	2X/2Y ø10/17.5	-9039	-1363	-50935	SLD 2	2.5	43227	4.78	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
793	2X/2Y ø10/17.5	-9039	-1363	-50761	SLD 2	2.5	43227	4.78	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
822	4X/5Y ø10/12	-9039	-1363	-50588	SLD 2	1.7	69783	7.72	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
851	4X/5Y ø10/12	-9039	-1363	-50415	SLD 2	1.7	69752	7.72	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
880	4X/5Y ø10/12	-9039	-1363	-50244	SLD 2	1.7	69722	7.71	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
930	4X/5Y ø10/12	-7833	-1402	-39000	SLD 2	1.7	68671	8.77	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
959	4X/5Y ø10/12	-7833	-1402	-38830	SLD 2	1.7	68640	8.76	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
988	4X/5Y ø10/12	-7833	-1402	-38658	SLD 2	1.7	68609	8.76	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1017	2X/2Y ø10/17.5	-7833	-1402	-38483	SLD 2	2.5	43227	5.52	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1046	2X/2Y ø10/17.5	-7833	-1402	-38310	SLD 2	2.5	43227	5.52	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1074	2X/2Y ø10/17.5	-7833	-1402	-38137	SLD 2	2.5	43227	5.52	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1103	2X/2Y ø10/17.5	-7833	-1402	-37963	SLD 2	2.5	43227	5.52	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1132	4X/4Y ø10/12	-7833	-1402	-37790	SLD 2	1.7	68451	8.74	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1161	4X/4Y ø10/12	-7833	-1402	-37617	SLD 2	1.7	68420	8.73	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1190	4X/4Y ø10/12	-7833	-1402	-37446	SLD 2	1.7	68389	8.73	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1240	4X/4Y ø10/12	-5951	-1158	-25348	SLD 2	1.7	66189	11.12	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1269	4X/4Y ø10/12	-5951	-1158	-25177	SLD 2	1.7	66158	11.12	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1298	4X/4Y ø10/12	-5951	-1158	-25006	SLD 2	1.7	66127	11.11	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1327	2X/2Y ø10/17.5	-5951	-1158	-24831	SLD 2	2.5	43227	7.26	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1356	2X/2Y ø10/17.5	-5951	-1158	-24657	SLD 2	2.5	43227	7.26	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1384	2X/2Y ø10/17.5	-5951	-1158	-24484	SLD 2	2.5	43227	7.26	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1413	2X/2Y ø10/17.5	-5951	-1158	-24311	SLD 2	2.5	43227	7.26	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1442	4X/4Y ø10/12	-5951	-1158	-24137	SLD 2	1.7	65969	11.08	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1471	4X/4Y ø10/12	-5951	-1158	-23964	SLD 2	1.7	65937	11.08	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1500	4X/4Y ø10/12	-5951	-1158	-23794	SLD 2	1.7	65906	11.07	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1550	4X/4Y ø10/12	-5749	-2068	-10849	SLD 2	1.6	64439	11.21	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1579	4X/4Y ø10/12	-5749	-2068	-10678	SLD 2	1.6	64408	11.2	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1608	4X/4Y ø10/12	-5749	-2068	-10507	SLD 2	1.6	64376	11.2	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1637	2X/2Y ø10/17.5	-5749	-2068	-10332	SLD 2	2.5	43227	7.52	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1666	2X/2Y ø10/17.5	-5749	-2068	-10158	SLD 2	2.5	43227	7.52	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1694	2X/2Y ø10/17.5	-5749	-2068	-9985	SLD 2	2.5	43227	7.52	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1723	2X/2Y ø10/17.5	-5749	-2068	-9812	SLD 2	2.5	43227	7.52	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1752	4X/4Y ø10/12	-5749	-2068	-9638	SLD 2	1.6	64216	11.17	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1781	4X/4Y ø10/12	-5749	-2068	-9465	SLD 2	1.6	64184	11.16	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1810	4X/4Y ø10/12	-5749	-2068	-9295	SLD 2	1.6	64153	11.16	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	61448	108879	-105546	SLE RA 8	-38.1	61448	108879	-105546	SLE RA 8	-553.4	SI
29	38108	66236	-105347	SLE RA 8	-36	38108	66236	-105347	SLE RA 8	-528.1	SI
58	14357	22842	-105145	SLE RA 8	-33.8	14357	22842	-105145	SLE RA 8	-502.3	SI
87	-9394	-20551	-104942	SLE RA 8	-33.4	-9394	-20551	-104942	SLE RA 8	-498.3	SI
116	-33145	-63945	-104740	SLE RA 8	-35.5	-33145	-63945	-104740	SLE RA 8	-522.2	SI
144	-56896	-107338	-104538	SLE RA 8	-37.6	-56896	-107338	-104538	SLE RA 8	-546.1	SI
173	-80646	-150732	-104336	SLE RA 8	-39.7	-80646	-150732	-104336	SLE RA 8	-570	SI
202	-104397	-194126	-104133	SLE RA 8	-41.8	-104397	-194126	-104133	SLE RA 8	-593.9	SI
231	-128148	-237519	-103931	SLE RA 8	-43.8	-128148	-237519	-103931	SLE RA 8	-617.8	SI
260	-151488	-280162	-103733	SLE RA 8	-45.9	-151488	-280162	-103733	SLE RA 8	-641.3	SI
310	264089	475797	-86187	SLE RA 8	-50.4	264089	475797	-86187	SLE RA 8	-674.5	SI
339	212914	382785	-85989	SLE RA 8	-45.7	212914	382785	-85989	SLE RA 8	-620.2	SI
368	161337	289046	-85788	SLE RA 8	-41	161337	289046	-85788	SLE RA 8	-565.5	SI
397	108760	193486	-85584	SLE RA 8	-36.2	108760	193486	-85584	SLE RA 8	-509.7	SI
426	56683	98836	-85382	SLE RA 8	-31.4	56683	98836	-85382	SLE RA 8	-454.4	SI
454	4605	4186	-85180	SLE RA 8	-26.7	4605	4186	-85180	SLE RA 8	-399.1	SI
483	-47472	-90464	-84978	SLE RA 8	-30.7	-47472	-90464	-84978	SLE RA 8	-445.5	SI
512	-99549	-185114	-84775	SLE RA 8	-35.2	-99549	-185114	-84775	SLE RA 8	-496.7	SI
541	-151626	-279764	-84573	SLE RA 8	-39.1	-151626	-279764	-84573	SLE RA 8	-540.2	SI
570	-202801	-372776	-84374	SLE RA 8	-43	-202801	-372776	-84374	SLE RA 8	-583.7	SI
620	186952	332568	-66937	SLE RA 8	-42.5	186952	332568	-66937	SLE RA 8	-566.5	SI
649	149850	260002	-66767	SLE RA 8	-39.2	149850	260002	-66767	SLE RA 8	-531.9	SI
678	112458	186869	-66595	SLE RA 8	-35.7	112458	186869	-66595	SLE RA 8	-493.4	SI
707	74340	112315	-66420	SLE RA 8	-31.9	74340	112315	-66420	SLE RA 8	-450.4	SI
736	36585	38472	-66247	SLE RA 8	-27.3	34810	36328	-66633	SLE RA 7	-397.1	SI
764	-1170	-35372	-66073	SLE RA 8	-25.2	275	-31956	-66460	SLE RA 7	-374.6	SI
793	-38925	-109216	-65900	SLE RA 8	-29.7	-38925	-109216	-65900	SLE RA 8	-425.9	SI
822	-76680	-183059	-65727	SLE RA 8	-34.1	-76680	-183059	-65727	SLE RA 8	-475.9	SI
851	-114435	-256903	-65553	SLE RA 8	-38.2	-114435	-256903	-65553	SLE RA 8	-522.5	SI
880	-151536	-329468	-65383	SLE RA 8	-42.3	-151536	-329468	-65383	SLE RA 8	-569.5	SI
930	184561	424564	-48383	SLE RA 8	-41.3	184561	424564	-48383	SLE RA 8	-537.2	SI
959	146749	341151	-48212	SLE RA 8	-36.7	146749	341151	-48212	SLE RA 8	-484.5	SI
988	108641	257086	-48041	SLE RA 8	-32	108641	257086	-48041	SLE RA 8	-430.8	SI
1017	69794	171388	-47866	SLE RA 8	-26.9	69794	171388	-47866	SLE RA 8	-371.7	SI
1046	31316	86507	-47692	SLE RA 8	-21.9	26508	77972	-49043	SLE RA 7	-314.2	SI
1074	-10084	-2409	-48869	SLE RA 7	-18.3	-10084	-2409	-48869	SLE RA 7	-272.2	SI
1103	-46676	-82790	-48696	SLE RA 7	-23	-46676	-82790	-48696	SLE RA 7	-325.9	SI
1132	-83268	-163172	-48523	SLE RA 7	-27.6	-83268	-163172	-48523	SLE RA 7	-379.6	SI
1161	-119860	-243553	-48349	SLE RA 7	-32.3	-119860	-243553	-48349	SLE RA 7	-433.3	SI
1190	-160406	-336432	-46829	SLE RA 8	-37.1	-160406	-336432	-46829	SLE RA 8	-487.2	SI
1240	178028	401728	-29943	SLE RA 8	-37.4	178028	401728	-29943	SLE RA 8	-465.9	SI
1269	144467	322620	-29773	SLE RA 8	-29.6	144467	322620	-29773	SLE RA 8	-379.6	SI
1298	110643	242892	-29601	SLE RA 8	-25	110643	242892	-29601	SLE RA 8	-325.9	SI
1327	74051	154872	-31739	SLE RA 7	-20.8	74051	154872	-31739	SLE RA 7	-279.7	SI
1356	46766	86332	-31566	SLE RA 7	-16.9	46766	86332	-31566	SLE RA 7	-234.4	SI
1384	19480	17792	-31392	SLE RA 7	-13	19480	17792	-31392	SLE RA 7	-189.1	SI
1413	-26296	-79887	-28906	SLE RA 8	-14.6	-26296	-79887	-28906	SLE RA 8	-205.5	SI
1442	-60449	-160389	-28733	SLE RA 8	-19.1	-60449	-160389	-28733	SLE RA 8	-257.9	SI
1471	-94602	-240890	-28560	SLE RA 8	-23.7	-94602	-240890	-28560	SLE RA 8	-310.2	SI
1500	-128163	-319998	-28389	SLE RA 8	-28.1	-128163	-319998	-28389	SLE RA 8	-361.7	SI
1550	226362	460362	-14893	SLE RA 7	-50.1	213178	433973	-11586	SLE RA 8	773.6	SI

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
1579	162988	344630	-11416	SLE RA 8	-36,7	162988	344630	-11416	SLE RA 8	512,5	Si
1608	104787	241929	-14551	SLE RA 7	-19,2	104787	241929	-14551	SLE RA 7	-240,4	Si
1637	60839	162796	-11069	SLE RA 8	-12,8	60839	162796	-11069	SLE RA 8	-163,2	Si
1666	-33343	-9212	-14269	SLE RA 6	-7,3	-33343	-9212	-14269	SLE RA 6	-100,5	Si
1694	-91912	-114376	-14096	SLE RA 6	-13,9	-91912	-114376	-14096	SLE RA 6	-177,2	Si
1723	-150482	-219540	-13923	SLE RA 6	-20,6	-150482	-219540	-13923	SLE RA 6	-253,9	Si
1752	-209051	-324704	-13749	SLE RA 6	-39,3	-209051	-324704	-13749	SLE RA 6	496,6	Si
1781	-267621	-429867	-13576	SLE RA 6	-53,4	-267621	-429867	-13576	SLE RA 6	813,4	Si
1810	-326055	-532171	-13339	SLE RA 7	-67,3	-326055	-532171	-13339	SLE RA 7	1142,6	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	51280	91421	-94777	SLE QP 4	-33,9	Si
29	31912	55463	-94579	SLE QP 4	-32,1	Si
58	12204	18871	-94376	SLE QP 4	-30,2	Si
87	-7505	-17720	-94174	SLE QP 4	-29,9	Si
116	-27213	-54312	-93972	SLE QP 4	-31,7	Si
144	-46922	-90903	-93770	SLE QP 4	-33,4	Si
173	-66631	-127495	-93568	SLE QP 4	-35,1	Si
202	-86339	-164086	-93365	SLE QP 4	-36,9	Si
231	-106048	-200677	-93163	SLE QP 4	-38,6	Si
260	-125415	-236636	-92964	SLE QP 4	-40,3	Si
310	219798	400111	-77554	SLE QP 4	-43,8	Si
339	177189	321910	-77356	SLE QP 4	-39,9	Si
368	134247	243097	-77155	SLE QP 4	-36	Si
397	90471	162753	-76951	SLE QP 4	-31,9	Si
426	47112	83175	-76749	SLE QP 4	-27,9	Si
454	3753	3597	-76547	SLE QP 4	-24	Si
483	-39606	-75982	-76345	SLE QP 4	-27,3	Si
512	-82965	-155560	-76142	SLE QP 4	-31	Si
541	-126324	-235138	-75940	SLE QP 4	-34,3	Si
570	-168933	-313339	-75741	SLE QP 4	-37,5	Si
620	154283	279368	-60437	SLE QP 4	-37	Si
649	123931	218546	-60267	SLE QP 4	-34,3	Si
678	93342	157248	-60095	SLE QP 4	-31,4	Si
707	62160	94759	-59920	SLE QP 4	-28,3	Si
736	31274	32865	-59747	SLE QP 4	-24,4	Si
764	388	-29028	-59574	SLE QP 4	-22,6	Si
793	-30498	-90922	-59400	SLE QP 4	-26,3	Si
822	-61384	-152815	-59227	SLE QP 4	-29,9	Si
851	-92270	-214709	-59054	SLE QP 4	-33,3	Si
880	-122621	-275531	-58883	SLE QP 4	-36,7	Si
930	150997	358302	-44080	SLE QP 4	-35,7	Si
959	119745	287645	-43910	SLE QP 4	-31,9	Si
988	88250	216435	-43738	SLE QP 4	-28	Si
1017	56142	143842	-43563	SLE QP 4	-23,7	Si
1046	24341	71940	-43390	SLE QP 4	-19,5	Si
1074	-7461	39	-43217	SLE QP 4	-16	Si
1103	-39262	-71863	-43043	SLE QP 4	-20,2	Si
1132	-71064	-143765	-42870	SLE QP 4	-24,3	Si
1161	-102866	-215666	-42697	SLE QP 4	-28,4	Si
1190	-134117	-286323	-42526	SLE QP 4	-32,4	Si
1240	141287	331981	-27826	SLE QP 4	-29	Si
1269	115780	267744	-27656	SLE QP 4	-25,4	Si
1298	90073	203004	-27484	SLE QP 4	-21,7	Si
1327	63868	137007	-27309	SLE QP 4	-18	Si
1356	37912	71638	-27136	SLE QP 4	-14,3	Si
1384	11956	6270	-26962	SLE QP 4	-10,6	Si
1413	-14001	-59099	-26789	SLE QP 4	-12,5	Si
1442	-39957	-124468	-26616	SLE QP 4	-16	Si
1471	-65913	-189836	-26442	SLE QP 4	-19,6	Si
1500	-91420	-254073	-26272	SLE QP 4	-23,1	Si
1550	186739	383233	-11652	SLE QP 4	-41,9	Si
1579	139543	299337	-11482	SLE QP 4	-30,9	Si
1608	91977	214785	-11310	SLE QP 4	-16,4	Si
1637	43488	128591	-11135	SLE QP 4	-10,8	Si
1666	-4539	43217	-10962	SLE QP 4	-5,7	Si
1694	-57391	-52064	-10817	SLE QP 3	-8,8	Si
1723	-104112	-135061	-10644	SLE QP 3	-14,1	Si
1752	-150833	-218059	-10470	SLE QP 3	-19,3	Si
1781	-197555	-301056	-10297	SLE QP 3	-38,1	Si
1810	-243844	-382171	-10098	SLE QP 4	-49,1	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 4	285	No	No	
Pilastrata 4	595	No	No	
Pilastrata 4	905	No	No	
Pilastrata 4	1215	No	No	
Pilastrata 4	1525	No	No	
Pilastrata 4	1835	No	No	

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	285	0.872	0.763	0.666	0.265	0.177	0.302	0.145	5,6	13,9	1.215	SLD 10	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	595	0.811	0.836	0.678	0.177	0.12	0.234	0.105	8.3	13.6	1.143	SLD 10	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	905	0.763	0.815	0.622	0.154	0.096	0.202	0.086	10	12.8	1.111	SLD 10	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	1215	0.763	0.786	0.6	0.154	0.092	0.127	0.041	10	12.8	2.25	SLD 10	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	1525	0.763	0.786	0.6	0.154	0.092	0.053	-0.003	10	12.8	1000	SLD 10	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	285	0.872	0.763	0.666	0.265	0.177	0.325	0.159	5.6	13.9	1.111	SLV 10	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	595	0.811	0.836	0.678	0.177	0.12	0.251	0.115	8.3	13.6	1.043	SLV 10	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	905	0.763	0.815	0.622	0.154	0.096	0.216	0.094	10	12.8	1.017	SLV 10	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	1215	0.763	0.786	0.6	0.154	0.092	0.135	0.046	10	12.8	2.021	SLV 10	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	1525	0.763	0.786	0.6	0.154	0.092	0.056	-0.001	10	12.8	1000	SLV 10	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 4	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	41	41	No	-144353	SLU 16	102453	267679	187940	153774	102453	187940	2.97	2.97	Min	No	2.97	Si
-60	285	0	30	17	41	41	No	-144353	SLU 16	102453	267679	187940	153774	102453	187940	2.97	2.97	X	No	2.97	Si
-60	285	260	30	17	47	47	No	-112740	SLD 13	59525	239638	1134027	129578	-120645	1134027	3.8	3.2	Min	No	3.15	Si
-60	285	0	30	17	46	46	No	-114688	SLD 14	59438	215436	1129974	91856	81251	-1798251	3.73		X	Si		Si
-60	285	202.2	30	17	44	44	No	-129185	SLV 15	79518	259771	2236998	149188	-103940	-2236998	3.31	2.2	Min	No	2.17	Si
-60	285	0	30	17	43	43	No	-133995	SLV 14	63864	237569	2216930	105669	107621	-3637459	3.2		X	Si		Si
-60	285	0	30	17	41	41	No	-144353	SLU 16	102453	267679	187940	153774	102453	187940	2.97	2.97	Min	No	2.97	Si
-60	285	0	30	17	41	41	No	-144353	SLU 16	102453	267679	187940	153774	102453	187940	2.97	2.97	Y	No	2.97	Si
-60	285	0	30	17	46	46	No	-114553	SLD 13	59525	219661	1134027	91736	74487	-1805645		2.61	Min	Si		Si
-60	285	0	30	17	46	46	No	-114553	SLD 13	59525	219661	1134027	91736	74487	-1805645		2.61	Y	Si		Si
-60	285	0	30	17	67	67	No	-55817	SLV 4	77547	118645	2198508	43983	77547	3834404		1.29	Min	Si		Si
-60	285	0	30	17	67	67	No	-55817	SLV 4	77547	118645	2198508	43983	77547	3834404		1.29	Y	Si		Si
285	595	310	27	15	46	46	No	-117908	SLU 16	161050	179137	289229	102226	369819	663661	3.51	3.53	Min	No	3.23	Si
285	595	310	27	15	46	46	No	-117908	SLU 16	161050	179137	289229	102226	369819	663661	3.51	3.53	X	No	3.23	Si
285	595	310	27	15	52	52	No	-92623	SLD 14	102762	158987	372592	75295	236601	-856679	4.62		Min	Si		Si
285	595	310	27	15	52	52	No	-92623	SLD 14	102762	158987	372592	75295	236601	-856679	4.62		X	Si		Si
285	595	310	27	15	48	48	No	-107209	SLV 14	108910	180599	906402	75415	251266	-2083347	3.99		Min	Si		Si
285	595	310	27	15	48	48	No	-107209	SLV 14	108910	180599	906402	75415	251266	-2083347	3.99		X	Si		Si
285	595	310	27	15	46	46	No	-117908	SLU 16	161050	179137	289229	102226	369819	663661	3.51	3.53	Min	No	3.23	Si
285	595	310	27	15	46	46	No	-117908	SLU 16	161050	179137	289229	102226	369819	663661	3.51	3.53	Y	No	3.23	Si
285	595	310	27	15	62	62	No	-64096	SLD 2	101772	110352	737705	46212	234386	1694509		3.37	Min	Si		Si
285	595	310	27	15	62	62	No	-64096	SLD 2	101772	110352	737705	46212	234386	1694509		3.37	Y	Si		Si
285	595	310	27	15	70	70	No	-50903	SLV 2	106975	86207	1285917	34660	246949	2954255		1.77	Min	Si		Si
285	595	310	27	15	70	70	No	-50903	SLV 2	106975	86207	1285917	34660	246949	2954255		1.77	Y	Si		Si
595	905	880	27	18	49	49	No	-89589	SLU 16	114491	135067	238261	90558	-213619	-460059	4.25	4.04	Min	No	3.82	Si
595	905	706.7	27	18	48	48	No	-91516	SLU 15	104862	141608	218540	94631	104862	218540	3.99	3.99	X	No	3.99	Si
595	905	620	27	18	59	59	No	-59934	SLD 6	94563	94982	287826	56748	218713	611886	6.36	5.36	Min	No	4.87	Si
595	905	706.7	27	18	55	55	No	-69980	SLD 14	75208	115419	302205	61557	76013	-307402	5.22		X	Si		Si

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ.x	λ.y	λ.limX	λ.limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
595	905	764.4	27	18	71	71	No	-42473	SLV 2	84282	56074	984259	50517	84282	984259	8.6	4.13	Min	No	3.99	Si
595	905	706.7	27	18	52	52	No	-79672	SLV 14	82046	126120	717353	63920	88191	-717353	4.59		X	Si		Si
595	905	880	27	18	49	49	No	-89589	SLV 16	114491	135067	238261	90558	-213619	-460059	4.25	4.04	Min	No	3.82	Si
595	905	706.7	27	18	48	48	No	-91516	SLV 15	104862	141608	218540	94631	104862	218540	3.99	3.99	Y	No	3.99	Si
595	905	620	27	18	64	64	No	-51798	SLD 2	76358	87386	563186	43493	175533	1280647		3.75	Min	Si		Si
595	905	620	27	18	64	64	No	-51798	SLD 2	76358	87386	563186	43493	175533	1280647		3.75	Y	Si		Si
595	905	620	27	18	70	70	No	-43337	SLV 2	84282	70970	984259	34551	194038	2256127		2.11	Min	Si		Si
595	905	620	27	18	70	70	No	-43337	SLV 2	84282	70970	984259	34551	194038	2256127		2.11	Y	Si		Si
905	1215	930	27	18	57	57	No	-66177	SLV 16	118671	99994	258379	67055	260272	592636	5.29	4.68	Min	No	4.18	Si
905	1215	930	27	18	56	56	No	-68202	SLV 15	114430	104836	241289	70437	241796	552948	5.24	4.71	X	No	4.27	Si
905	1215	930	27	18	69	69	No	-44159	SLD 6	88503	70981	287062	44613	203046	599270	7.61	5.79	Min	No	5.09	Si
905	1215	930	27	18	67	67	No	-47535	SLD 10	86009	77016	93401	56537	197277	216531	7.26	7.78	X	No	6.72	Si
905	1215	930	27	18	69	69	No	-44054	SLV 6	108054	67276	415677	41240	248539	827658	7.17	4.7	Min	No	4.06	Si
905	1215	987.8	27	18	62	62	No	-55816	SLV 14	72174	95547	556481	53693	95489	-556481	6.55		X	Si		Si
905	1215	930	27	18	57	57	No	-66177	SLV 16	118671	99994	258379	67055	260272	592636	5.29	4.68	Min	No	4.18	Si
905	1215	930	27	18	57	57	No	-66177	SLV 16	118671	99994	258379	67055	260272	592636	5.29	4.68	Y	No	4.18	Si
905	1215	1190	27	18	75	75	No	-37446	SLD 2	78064	63827	527510	32490	-147708	-1021758		4.03	Min	Si		Si
905	1215	1190	27	18	75	75	No	-37446	SLD 2	78064	63827	527510	32490	-147708	-1021758		4.03	Y	Si		Si
905	1215	1190	27	18	81	81	No	-32484	SLV 2	86746	54016	892477	26497	-160155	-1737489		2.04	Min	Si		Si
905	1215	1190	27	18	81	81	No	-32484	SLV 2	86746	54016	892477	26497	-160155	-1737489		2.04	Y	Si		Si
1215	1525	1240	27	18	72	72	No	-40903	SLV 16	109382	61348	244808	41202	251628	561360	7.19	6.1	Min	No	4.95	Si
1215	1525	1240	27	18	69	69	No	-44372	SLV 15	93972	68836	216125	46204	217738	497727	7.16	6.22	X	No	5.3	Si
1215	1525	1240	27	18	87	87	No	-28142	SLD 6	79561	45641	233733	29402	183848	491994	10.2	7.65	Min	No	6.23	Si
1215	1525	1240	27	18	84	84	No	-29845	SLD 10	78470	48591	108250	35498	181332	251479	9.9	10.33	X	No	8.16	Si
1215	1525	1240	27	18	86	86	No	-28331	SLV 6	95595	43792	362784	27595	221004	641800	9.33	6.32	Min	No	4.98	Si
1215	1525	1240	27	18	82	82	No	-31672	SLV 10	93452	49228	98853	37670	216063	170454	8.89	10.94	X	No	8.1	Si
1215	1525	1240	27	18	72	72	No	-40903	SLV 16	109382	61348	244808	41202	251628	561360	7.19	6.1	Min	No	4.95	Si
1215	1525	1240	27	18	72	72	No	-40903	SLV 16	109382	61348	244808	41202	251628	561360	7.19	6.1	Y	No	4.95	Si
1215	1525	1500	27	18	94	94	No	-23794	SLD 2	68605	40425	410997	21036	-101811	-801995		5.01	Min	Si		Si
1215	1525	1500	27	18	94	94	No	-23794	SLD 2	68605	40425	410997	21036	-101811	-801995		5.01	Y	Si		Si
1215	1525	1500	27	18	100	100	No	-21377	SLV 2	75254	35373	677344	15853	-111095	-1333265		2.55	Min	Si		Si
1215	1525	1500	27	18	100	100	No	-21377	SLV 2	75254	35373	677344	15853	-111095	-1333265		2.55	Y	Si		Si
1525	1835	1810	27	18	106	106	No	-18684	SLV 15	228697	27705	383770	18116	-457950	-754245	5.43	5.14	Min	No	3.01	Si
1525	1835	1810	27	18	106	106	No	-18684	SLV 15	228697	27705	383770	18116	-457950	-754245	5.43	5.14	X	No	3.01	Si
1525	1835	1810	27	18	151	151	No	-9295	SLD 2	133647	15902	418083	6893	-265196	-827081	8.98	3.78	Min	No	3.09	Si
1525	1835	1810	27	18	143	143	No	-10339	SLD 6	152770	16985	294507	10758	-303331	-575238	7.78	6.09	X	No	4.01	Si
1525	1835	1810	27	18	142	142	No	-10519	SLV 6	178692	16557	384330	7801	-354784	-754731	6.34	4.34	Min	No	3.1	Si
1525	1835	1810	27	18	142	142	No	-10519	SLV 6	178692	16557	384330	7801	-354784	-754731	6.34	4.34	X	No	3.1	Si
1525	1835	1810	27	18	106	106	No	-18684	SLV 15	228697	27705	383770	18116	-457950	-754245	5.43	5.14	Min	No	3.01	Si
1525	1835	1810	27	18	106	106	No	-18783	SLV 14	225765	27869	380019	18203	-456633	-755805	5.46	5.14	Y	No	3.02	Si
1525	1835	1810	27	18	151	151	No	-9295	SLD 2	133647	15902	418083	6893	-265196	-827081	8.98	3.78	Min	No	3.09	Si
1525	1835	1810	27	18	151	151	No	-9295	SLD 2	133647	15902	418083	6893	-265196	-827081	8.98	3.78	Y	No	3.09	Si
1525	1835	1810	27	18	158	158	No	-8509	SLV 2	143184	14253	629287	6310	-283962	-1253778		2.25	Min	Si		Si
1525	1835	1810	27	18	158	158	No	-8509	SLV 2	143184	14253	629287	6310	-283962	-1253778		2.25	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	90	759417	<	4817879	2440902	2376976	6.344	SLV 3		Si
285	180	8384614	<	9202937	4650326	4552611	1.098	SLV 3		Si
285	360	8384614	<	9202937	4650326	4552611	1.098	SLV 3		Si
595	90	759417	<	5386504	2757212	2629292	7.093	SLV 3		Si
595	180	9014695	<	9489594	5252621	4236973	1.053	SLV 3		Si
595	360	9014695	<	9489594	5252621	4236973	1.053	SLV 3		Si
905	90	740999	<	4348101	2212825	2135276	5.868	SLV 3		Si
905	180	6285528	<	6701619	3399441	3302178	1.066	SLV 3		Si
905	360	6285528	<	6701619	3399441	3302178	1.066	SLV 3		Si
1215	90	740999	<	3682448	1892099	1790350	4.97	SLV 3		Si
1215	180	5250179	<	5917492	3048429	2869063	1.127	SLV 3		Si
1215	360	5250179	<	5917492	3048429	2869063	1.127	SLV 3		Si
1525	90	740999	<	3393325	1769070	1624255	4.579	SLV 3		Si
1525	180	3805858	<	5439645	2837590	2602055	1.429	SLV 3		Si
1525	360	3805858	<	5439645	2837590	2602055	1.429	SLV 3		Si

Pilastrata 5

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0	1,2,3,4	-354378	-354378	-177189	-856356	-856356	SLU 16	2.417	Si
29	28.65	2	0	1,2,3,4	-353862	-353862	-176931	-856356	-856356	SLU 16	2.42	Si
58	28.65	2	0	1,2,3,4	-353336	-353336	-176668	-856356	-856356	SLU 16	2.424	Si
87	28.65	1	0	3,4	352810	352810	-176405	856356	856356	SLU 16	2.427	Si
116	28.65	1	0	3,4	352284	352284	-176142	856356	856356	SLU 16	2.431	Si
144	28.65	1	0	3,4	351759	351759	-175879	856356	856356	SLU 16	2.434	Si
173	28.65	1	0	3,4	351233	351233	-175616	856356	856356	SLU 16	2.438	Si
202	28.65	1	0	3,4	350707	350707	-175354	856356	856356	SLU 16	2.442	Si
231	28.65	1	0	3,4	350181	423854	-175091	856356	1036519	SLU 16	2.445	Si
260	28.65	1	0	3,4	349665	499558	-174832	856356	1223456	SLU 16	2.449	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
310	28.65	2	0	3,4,5,6,7	-366672	-885575	-141845	-993207	-2398768	SLU 16	2.709	Si
339	28.65	2	0	3,4,5,6,7	-296575	-713698	-141587	-852205	-2050805	SLU 16	2.873	Si
368	28.65	2	0	3,4,5,6,7	-282653	-540476	-141326	-844515	-1614843	SLU 16	2.988	Si
397	28.65	1	0	5,6,7	-282122	-363890	-141061	-856356	-1104556	SLU 16	3.035	Si
426	28.65	1	0	5,6,7	-281596	-281596	-140798	-856356	-856356	SLU 16	3.041	Si
454	28.65	1	0	5,6,7	-281071	-281071	-140535	-856356	-856356	SLU 16	3.047	Si
483	29.07	1.2	0	5,6,7,13	280545	280545	-140272	859634	859634	SLU 16	3.064	Si
512	31.34	1.2	0	5,6,7,13	280019	335726	-140010	877391	1051939	SLU 16	3.133	Si
541	33.61	1.2	0	5,6,7,13	279493	510630	-139747	878568	1605130	SLU 16	3.143	Si
570	34.93	1.2	0	5,6,7,13	278977	682507	-139488	856000	2094176	SLU 16	3.068	Si
620	34.93	2.6	0	5,6,7,8,9,13	-259328	-525712	-111228	-862140	-1747738	SLU 16	3.325	Si
649	32.67	2.6	0	5,6,7,8,9,13	-222013	-420936	-111006	-761677	-1444140	SLU 16	3.431	Si
678	30.4	2.6	0	5,6,7,8,9,13	-221566	-315340	-110783	-770128	-1096070	SLU 16	3.476	Si
707	28.65	1.2	0	8,9	-221111	-221111	-110556	-766052	-766052	SLU 16	3.465	Si
736	28.65	1.2	0	8,9	-220661	-220661	-110330	-766052	-766052	SLU 16	3.472	Si
764	28.65	1.2	0	8,9	-220210	-220210	-110105	-766052	-766052	SLU 16	3.479	Si
793	28.65	1.2	0	8,9	219759	219759	-109880	766052	766052	SLU 16	3.486	Si
822	28.65	1.2	0	8,9	219309	219309	-109654	766052	766052	SLU 16	3.493	Si
851	28.65	1.2	0	8,9	218858	325411	-109429	756488	1124790	SLU 16	3.457	Si
880	28.65	1.2	0	8,9	218415	430186	-109208	734176	1446018	SLU 16	3.361	Si
930	28.65	2.2	0	8,9,10	-250312	-599081	-85265	-928039	-2221113	SLU 16	3.708	Si
959	28.1	2.2	0	8,9,10	-200288	-472986	-85044	-800697	-1890871	SLU 16	3.998	Si
988	27.55	2.2	0	8,9,10	-169642	-345903	-84821	-723543	-1475320	SLU 16	4.265	Si
1017	24.13	1	0	10	-169187	-216353	-834593	-730647	-934340	SLU 16	4.319	Si
1046	24.13	1	0	10	-168736	-168736	-84368	-730647	-730647	SLU 16	4.33	Si
1074	24.13	1	0	10	168285	168285	-84143	730647	730647	SLU 16	4.342	Si
1103	24.13	1	0	10	167835	168596	-83917	730647	733961	SLU 16	4.353	Si
1132	24.13	1	0	10	167384	296912	-83692	712431	1263738	SLU 16	4.256	Si
1161	24.13	1	0	10	166933	425229	-83467	674249	1717512	SLU 16	4.039	Si
1190	24.13	1	0	10	206072	551324	-83245	773332	2068970	SLU 16	3.753	Si
1240	24.13	2	0	10,11	-230846	-734016	-55135	-942838	-2997925	SLU 16	4.084	Si
1269	24.13	2	0	10,11	-187433	-583787	-54913	-879139	-2738206	SLU 16	4.69	Si
1298	24.13	2	0	10,11	-143680	-432382	-54690	-776922	-2338020	SLU 16	5.407	Si
1327	24.13	1	0	11	-111153	-259507	-55576	-685362	-1600112	SLU 15	6.166	Si
1356	24.13	1	0	11	-110702	-130355	-55351	-730647	-860360	SLU 15	6.6	Si
1384	24.13	1	0	11	-110251	-110251	-55126	-730647	-730647	SLU 15	6.627	Si
1413	24.13	1	0	11	109801	127950	-54900	730647	851421	SLU 15	6.654	Si
1442	24.13	1	0	11	107122	333463	-53561	645551	2009544	SLU 16	6.026	Si
1471	24.13	1	0	11	121810	486338	-53336	651588	2601529	SLU 16	5.349	Si
1500	24.13	1	0	11	165223	636567	-53114	770138	2967172	SLU 16	4.661	Si
1550	24.13	2	0	11,12	-264202	-930737	-23092	-893702	-3148360	SLU 16	3.383	Si
1579	24.13	2	0	11,12	-203501	-726844	-22870	-929530	-3320002	SLU 16	4.568	Si
1608	24.13	2	0	11,12	-142325	-521355	-22647	-928476	-3401134	SLU 16	6.524	Si
1637	24.13	1	0	12	-79961	-311875	-22420	-805534	-3141872	SLU 16	10.074	Si
1666	24.13	1	0	12	51949	-51949	-25975	730647	-730647	SLU 15	14.065	Si
1694	24.13	1	0	12	125505	202622	-23010	1357849	2192174	SLU 14	10.819	Si
1723	24.13	1	0	12	183426	420905	-25524	1265155	2903131	SLU 15	6.897	Si
1752	24.13	1	0	12	262454	644428	-25299	1220505	2996824	SLU 15	4.65	Si
1781	24.13	1	0	12	341481	867951	-25073	1141798	2902136	SLU 15	3.344	Si
1810	24.13	1	0	12	419141	1087606	-24852	1074578	2788363	SLU 15	2.564	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	28.65	2	0.0003	1,2,3,4	379708	4192307	-69364	444304	4905503	SLV 13-Ger.	1.17	148967	256802	SLV 4	Si
29	28.65	2	0.0003	1,2,3,4	-74708	3147495	-148454	-125524	5288442	SLV 3	1.68	148768	256802	SLV 4	Si
58	28.65	2	0.0003	1,2,3,4	-61711	2661855	-148566	-115101	4964818	SLV 4	1.865	148566	256802	SLV 4	Si
87	28.65	1	0.0003	3,4	-36986	2171814	-148364	-77139	4529661	SLV 4	2.086	148364	256802	SLV 4	Si
116	28.65	1	0.0003	3,4	-12270	1676913	-148162	-28650	3915534	SLV 4	2.335	148162	256802	SLV 4	Si
144	28.65	1	0.0003	3,4	12432	1184477	-147959	32399	3086885	SLV 4	2.606	147959	256802	SLV 4	Si
173	28.65	1	0.0003	3,4	37112	697635	-147757	107497	2020719	SLV 4	2.897	147757	256802	SLV 4	Si
202	28.65	1	0.0003	3,4	61756	256415	-147555	179204	744068	SLV 4	2.902	147555	256802	SLV 4	Si
231	28.65	1	0.0003	3,4	86329	-296498	-147353	250855	-861563	SLV 4	2.906	147353	256802	SLV 4	Si
260	28.65	1	0.0003	3,4	110321	-773992	-147154	314252	-2204733	SLV 4	2.849	147154	256802	SLV 4	Si
310	28.65	2	0.0006	3,4,5,6,7	-243561	-3052519	-60810	-416965	-5225783	SLV 16	1.712	118330	256802	SLV 4	Si
339	28.65	2	0.0006	3,4,5,6,7	-199814	-2464764	-60611	-445865	-5499879	SLV 16	2.231	118131	256802	SLV 4	Si
368	28.65	2	0.0006	3,4,5,6,7	-155604	1227809	-117662	-461365	3640438	SLV 3	2.965	117931	256802	SLV 4	Si
397	28.65	1	0.0006	5,6,7	-114339	828110	-117727	-382156	2767790	SLV 4	3.342	117727	256802	SLV 4	Si
426	28.65	1	0.0006	5,6,7	-68135	448633	-117525	-248234	1634501	SLV 4	3.643	117525	256802	SLV 4	Si
454	28.65	1	0.0006	5,6,7	-21129	62662	-117323	-77113	228689	SLV 4	3.65	117323	256802	SLV 4	Si
483	29.07	1.2	0.0006	5,6,7,13	24799	-354481	-117120	91010	-1300894	SLV 4	3.67	117120	256802	SLV 4	Si
512	31.34	1.2	0.0006	5,6,7,13	70977	-730683	-116918	251284	-2586879	SLV 4	3.54	116918	256802	SLV 4	Si
541	33.61	1.2	0.0006	5,6,7,13	118880	-1122120	-116447	379084	-3578229	SLV 3	3.189	116716	256802	SLV 4	Si
570	34.93	1.2	0.0006	5,6,7,13	154812	2322842	-58997	375521	5634431	SLV 16	2.426	116517	256802	SLV 4	Si
620	34.93	2.6	0.0006	5,6,7,8,9,13	-192745	-2289086	-51345	-362159	-4301094	SLV 16	1.879	89444	220116	SLV 4	Si
649	32.67	2.6	0.0006	5,6,7,8,9,13	-157561	-1839871	-51175	-374440	-4372391	SLV 16	2.376	89273	220116	SLV 4	Si
678	30.4	2.6	0.0006	5,6,7,8,9,13	-119504	-1387746	-51003	-375197	-4356995	SLV 16	3.14	89102	220116	SLV 4	Si
707	28.65	1.2	0.0006	8,9	-84063	683171	-88680	-310162	2520664	SLV 3	3.69	88927	220116	SLV 4	Si
736	28.65	1.2	0.0006	8,9	-55846	367260	-88753	-237580	1562386	SLV 4	4.254	88753	220116	SLV 4	Si
764	28.65	1.2	0.0006	8,9	-22077	59391	-88580	-95464	256807	SLV 4	4.324	88580	220116	SLV 4	Si
793	28.65	1.2	0.0006	8,9	11582	-309915	-88407	50178	-1342714	SLV 4	4.333	88407	220116	SLV 4	Si
822	28.65	1.2	0.0006	8,9	45732	-624681	-87986	175325	-2394876	SLV 3	3.834	88233	220116	SLV 4	Si
851	28.65	1.2	0.0006	8,9	102586	1377690	-49962	326083	4379167	SLV 16	3.179	88060	220116	SLV 4	Si
880	28.65	1.2	0.0006	8,9	137158	1826233	-49791	325157	4329386	SLV 16	2.371	87890	220116	SLV 4	Si
930	28.65	2.2	0.0008	8,9,10	-193934	-1661163	-41909	-484096	-4146577	SLV 16	2.496	65097	220116	SLV 4	Si
959	28.1	2.2	0.0008	8,9,10	-156145	-1286384	-41739	-509628	-4198517	SLV 16	3.264	64927	220116	SLV 4	Si
988	27.55	2.2	0.0008	8,9,10	-118072	-910269	-41567	-520255	-4010858	SLV 16	4.406	64755	220116	SLV 4	Si
1017	24.13	1	0.0008	10	-62893	239238	-64580	-355779	1353335	SLV 4	5.657	64580	220116	SLV 4	Si
1046	24.13	1	0.0008	10	-31000	-26707	-64407	-175837	-151482	SLV 4	5.672	64407	220116	SLV 4	Si
1074	24.13	1	0.0008	10	831	-244334	-64233	4724	-1389625	SLV 4	5.687	64233	220116	SLV 4	Si
1103	24.13	1	0.0008	10	34300	-444572	-63871	174301	-2259178	SLV 3	5.082	64060	220116	SLV 4	Si
1132	24.13	1	0.0008	10	75597	1029969	-40699	293036	3992457	SLV 16	3.876	63887	220116	SLV 4	Si
1161	24.13	1	0.0008	10	113726	1410786	-40525	312354	3874794	SLV 16	2.747	63713	220116	SLV 4	Si
1190	24.13	1	0.0008	10	151420	1786006	-40355	308604	3639993	SLV 16	2.038	63543	220116	SLV 4	Si
1240	24.13	2	0.0008	10,11	-164943	-1234673	-28844	-473274	-3542661	SLV 16	2.869	40709	220116	SLV 4	Si
1269	24.13	2	0.0008	10,11	-135550	-946760	-28674	-356886	-3749936	SLV 16	3.961	40539	220116	SLV 4	Si
1298	24.13	2	0.0008	10,11	-105931	-659464	-28502	-600709	-3739671	SLV 16	5.671	40367	220116	SLV 4	Si
1327	24.13	1	0.0008	11	-75748	-379106	-28327	-636656	-3186362	SLV 16	8.405	40192	220116	SLV 4	Si
1356	24.13	1	0.0008	11	-42026	-188160	-40019	-369231	-1653114	SLV 4	8.786	40019	220116	SLV 4	Si
1384	24.13	1	0.0008	11	-15361	-259102	-39845	-127649	-2153111	SLV 4	8.31	39845	220116	SLV 4	Si
1413	24.13	1	0.0008	11	14888	557650	-27807	104015	3896073	SLV 16	6.987	39672	220116	SLV 4	Si
1442	24.13	1	0.0008	11	44213	848923	-27634	208626	4005762	SLV 16	4.719	39499	220116	SLV 4	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
1471	24.13	1	0.0008	11	74053	1142376	-27460	243334	3753782	SLV 16	3.286	39325	220116	SLV 4	Si
1500	24.13	1	0.0008	11	103425	1431644	-27290	251746	3484762	SLV 16	2.434	39155	220116	SLV 4	Si
1550	24.13	2	0.0008	11,12	-205757	-1096126	-13166	-539531	-2874236	SLV 16	2.622	17254	220116	SLV 4	Si
1579	24.13	2	0.0008	11,12	-154330	-820519	-12996	-573462	-3048900	SLV 16	3.716	17084	220116	SLV 4	Si
1608	24.13	2	0.0008	11,12	-102508	-545765	-12824	-637568	-3394499	SLV 16	6.22	16912	220116	SLV 4	Si
1637	24.13	1	0.0008	12	-49699	-284313	-12649	-645200	-3690962	SLV 16	12.982	16737	220116	SLV 4	Si
1666	24.13	1	0.0008	12	6244	-164388	-16564	109028	-2870428	SLV 4	17.461	16564	220116	SLV 4	Si
1694	24.13	1	0.0008	12	54555	332221	-12302	615124	3745879	SLV 16	11.275	16390	220116	SLV 4	Si
1723	24.13	1	0.0008	12	107716	609921	-12129	576599	3264884	SLV 16	5.353	16217	220116	SLV 4	Si
1752	24.13	1	0.0008	12	159910	890509	-11956	531878	2961929	SLV 16	3.326	16044	220116	SLV 4	Si
1781	24.13	1	0.0008	12	212209	1172086	-11782	502836	2777296	SLV 16	2.37	15870	220116	SLV 4	Si
1810	24.13	1	0.0008	12	263626	1449235	-11612	485925	2671287	SLV 16	1.843	15700	220116	SLV 4	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0.0001	1,2,3,4	-76647	1786374	-129208	-187574	4371684	SLD 3	2.447	Si
29	28.65	2	0.0001	1,2,3,4	-61517	1557396	-129174	-160054	4052022	SLD 4	2.602	Si
58	28.65	2	0.0001	1,2,3,4	-39223	1338313	-128972	-108315	3695813	SLD 4	2.762	Si
87	28.65	1	0.0001	3,4	-16931	1111451	-128770	-49668	3260545	SLD 4	2.934	Si
116	28.65	1	0.0001	3,4	5357	882010	-128567	16668	2744150	SLD 4	3.111	Si
144	28.65	1	0.0001	3,4	27641	653889	-128365	91051	2153971	SLD 4	3.294	Si
173	28.65	1	0.0001	3,4	49916	428614	-128163	166764	1431949	SLD 4	3.341	Si
202	28.65	1	0.0001	3,4	72179	226123	-127961	241521	756645	SLD 4	3.346	Si
231	28.65	1	0.0001	3,4	94416	-31660	-127758	316432	-106108	SLD 4	3.351	Si
260	28.65	1	0.0001	3,4	116214	-252569	-127560	390093	-847794	SLD 4	3.357	Si
310	28.65	2	0.0003	3,4,5,6,7	-232008	-1795667	-74283	-671979	-5200900	SLD 16	2.896	Si
339	28.65	2	0.0003	3,4,5,6,7	-189088	-1449404	-74084	-641143	-4914506	SLD 16	3.391	Si
368	28.65	2	0.0003	3,4,5,6,7	-145830	-1100663	-73884	-584297	-4410038	SLD 16	4.007	Si
397	28.65	1	0.0003	5,6,7	-103555	316485	-102821	-431231	1317931	SLD 4	4.164	Si
426	28.65	1	0.0003	5,6,7	-59026	173678	-102619	-246287	724668	SLD 4	4.172	Si
454	28.65	1	0.0003	5,6,7	-14058	27642	-102417	-58771	115562	SLD 4	4.181	Si
483	29.07	1.2	0.0003	5,6,7,13	30330	-135200	-102215	127537	-568520	SLD 4	4.205	Si
512	31.34	1.2	0.0003	5,6,7,13	74853	-276329	-102013	321898	-1188323	SLD 4	4.3	Si
541	33.61	1.2	0.0003	5,6,7,13	116440	1024363	-72669	503187	4426706	SLD 16	4.321	Si
570	34.93	1.2	0.0003	5,6,7,13	159262	1370298	-72470	581493	5003182	SLD 16	3.651	Si
620	34.93	2.6	0.0003	5,6,7,8,9,13	-174395	-1312473	-60099	-554267	-4171337	SLD 16	3.178	Si
649	32.67	2.6	0.0003	5,6,7,8,9,13	-141707	-1053904	-59928	-524428	-3900273	SLD 16	3.701	Si
678	30.4	2.6	0.0003	5,6,7,8,9,13	-107417	-793649	-59757	-469345	-3467750	SLD 16	4.369	Si
707	28.65	1.2	0.0003	8,9	-77064	283625	-78911	-374060	1376681	SLD 4	4.854	Si
736	28.65	1.2	0.0003	8,9	-44798	159654	-78738	-217925	776646	SLD 4	4.865	Si
764	28.65	1.2	0.0003	8,9	-12563	35654	-78564	-61247	173822	SLD 4	4.875	Si
793	28.65	1.2	0.0003	8,9	19630	-121532	-78391	95916	-593816	SLD 4	4.886	Si
822	28.65	1.2	0.0003	8,9	51662	-245344	-78218	252985	-1201429	SLD 4	4.897	Si
851	28.65	1.2	0.0003	8,9	95701	797815	-58715	418672	3490267	SLD 16	4.375	Si
880	28.65	1.2	0.0003	8,9	128138	1056008	-58545	471555	3886152	SLD 16	3.68	Si
930	28.65	2.2	0.0004	8,9,10	-171497	-1024051	-47124	-664988	-3970801	SLD 16	3.878	Si
959	28.1	2.2	0.0004	8,9,10	-137479	-796648	-46953	-637733	-3695463	SLD 16	4.639	Si
988	27.55	2.2	0.0004	8,9,10	-103199	-568344	-46782	-582695	-3209041	SLD 16	5.646	Si
1017	24.13	1	0.0004	10	-59963	56186	-58396	-375122	351495	SLD 4	6.256	Si
1046	24.13	1	0.0004	10	-28658	-42151	-58223	-179814	-264477	SLD 4	6.275	Si
1074	24.13	1	0.0004	10	2646	-114918	-58050	16651	-723211	SLD 4	6.293	Si
1103	24.13	1	0.0004	10	34519	-175258	-57876	217890	-1106251	SLD 4	6.312	Si
1132	24.13	1	0.0004	10	70608	607351	-45913	380324	3271457	SLD 16	5.386	Si
1161	24.13	1	0.0004	10	105102	838438	-45740	457955	3653290	SLD 16	4.357	Si
1190	24.13	1	0.0004	10	139085	1066079	-45570	499538	3828934	SLD 16	3.592	Si
1240	24.13	2	0.0004	10,11	-149590	-831658	-31432	-664882	-3696463	SLD 16	4.445	Si
1269	24.13	2	0.0004	10,11	-122891	-644644	-31262	-686823	-3602845	SLD 16	5.589	Si
1298	24.13	2	0.0004	10,11	-95984	-457634	-31090	-688871	-3284407	SLD 16	7.177	Si
1327	24.13	1	0.0004	11	-68559	-273320	-30915	-641119	-2555899	SLD 16	9.351	Si
1356	24.13	1	0.0004	11	-39447	-133491	-36787	-391735	-1325650	SLD 4	9.931	Si
1384	24.13	1	0.0004	11	-13903	-127210	-36614	-138717	-1269264	SLD 4	9.978	Si
1413	24.13	1	0.0004	11	13297	327362	-30395	122157	3007320	SLD 16	9.187	Si
1442	24.13	1	0.0004	11	40230	516749	-30222	284297	3651769	SLD 16	7.067	Si
1471	24.13	1	0.0004	11	67375	707280	-30049	372976	3915397	SLD 16	5.536	Si
1500	24.13	1	0.0004	11	94066	894983	-29878	409896	3899898	SLD 16	4.358	Si
1550	24.13	2	0.0004	11,12	-189954	-817516	-14020	-697490	-3001827	SLD 16	3.672	Si
1579	24.13	2	0.0004	11,12	-142295	-618329	-13850	-742262	-3225419	SLD 16	5.216	Si
1608	24.13	2	0.0004	11,12	-94267	-418998	-13678	-789071	-3507266	SLD 16	8.371	Si
1637	24.13	1	0.0004	12	-45315	-224804	-13503	-689263	-3419355	SLD 16	15.21	Si
1666	24.13	1	0.0004	12	5024	-104205	-15414	106921	-2217507	SLD 4	21.28	Si
1694	24.13	1	0.0004	12	51456	206893	-13156	814173	3273588	SLD 16	15.823	Si
1723	24.13	1	0.0004	12	100385	408295	-12983	844158	3433430	SLD 16	8.409	Si
1752	24.13	1	0.0004	12	148815	611052	-12810	761558	3127053	SLD 16	5.117	Si
1781	24.13	1	0.0004	12	197296	814271	-12636	704027	2905630	SLD 16	3.568	Si
1810	24.13	1	0.0004	12	244949	1014181	-12466	670503	2776129	SLD 16	2.737	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8847	0.6753	0.4157	0.2807	0.451	1984	0.2344	1.198	SLV 8	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	2667	1141	-177189	SLU 16	1	102703	38.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/5	2667	1141	-176931	SLU 16	1	102703	38.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/5	2667	1141	-176668	SLU 16	1	102703	38.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	2667	1141	-176405	SLU 16	2.5	52196	19.57	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	2667	1141	-176142	SLU 16	2.5	52196	19.57	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	2667	1141	-175879	SLU 16	2.5	52196	19.57	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	2667	1141	-175616	SLU 16	2.5	52196	19.57	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	2667	1141	-175354	SLU 16	1.5	92036	34.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	2667	1141	-175091	SLU 16	1.5	92036	34.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	2667	1141	-174832	SLU 16	1.5	92036	34.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	6054	2469	-141845	SLU 16	1.5	92036	15.2	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	6054	2469	-141587	SLU 16	1.5	92036	15.2	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	6054	2469	-141326	SLU 16	1.5	92036	15.2	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	6054	2469	-141061	SLU 16	2.5	52196	8.62	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	6054	2469	-140798	SLU 16	2.5	52196	8.62	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	6054	2469	-140535	SLU 16	2.5	52196	8.62	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	6054	2469	-140272	SLU 16	2.5	52196	8.62	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	6054	2469	-140010	SLU 16	1.5	92036	15.2	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	6054	2469	-139747	SLU 16	1.5	92036	15.2	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	6054	2469	-139488	SLU 16	1.5	92036	15.2	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
620	4X/5Y ø10/12	3691	1793	-111228	SLU 16	1.6	78171	21.18	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	3691	1793	-111006	SLU 16	1.6	78171	21.18	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	3691	1793	-110783	SLU 16	1.6	78171	21.18	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	3691	1793	-110556	SLU 16	2.5	43228	11.71	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	3691	1793	-110330	SLU 16	2.5	43228	11.71	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	3691	1793	-110105	SLU 16	2.5	43228	11.71	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	3691	1793	-109880	SLU 16	2.5	43228	11.71	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	3691	1793	-109654	SLU 16	1.6	78171	21.18	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	3691	1793	-109429	SLU 16	1.6	78171	21.18	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	3691	1793	-109208	SLU 16	1.6	78171	21.18	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	4442	1762	-85265	SLU 16	1.6	78171	17.6	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	4442	1762	-85044	SLU 16	1.6	78171	17.6	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	4442	1762	-84821	SLU 16	1.6	78171	17.6	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	4442	1762	-84593	SLU 16	2.5	43228	9.73	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	4442	1762	-84368	SLU 16	2.5	43228	9.73	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	4442	1762	-84143	SLU 16	2.5	43228	9.73	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	4442	1762	-83917	SLU 16	2.5	43228	9.73	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	4442	1762	-83692	SLU 16	1.6	78171	17.6	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	4442	1762	-83467	SLU 16	1.6	78171	17.6	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	4442	1762	-83245	SLU 16	1.6	78171	17.6	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	5292	1529	-55135	SLU 16	1.5	73127	13.82	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	5292	1529	-54913	SLU 16	1.5	73127	13.82	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	5292	1529	-54690	SLU 16	1.5	73127	13.82	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	5292	1529	-54463	SLU 16	2.5	43228	8.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	5292	1529	-54237	SLU 16	2.5	43228	8.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	5292	1529	-54012	SLU 16	2.5	43228	8.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	5292	1529	-53787	SLU 16	2.5	43228	8.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	5292	1529	-53561	SLU 16	1.5	73127	13.82	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	5292	1529	-53336	SLU 16	1.5	73127	13.82	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	5292	1529	-53114	SLU 16	1.5	73127	13.82	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	7737	2736	-26872	SLU 15	1.4	70606	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	7737	2736	-26651	SLU 15	1.4	70606	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	7737	2699	-26427	SLU 15	1.4	70606	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	7737	2736	-26200	SLU 15	2.5	43228	5.59	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	7737	2736	-25975	SLU 15	2.5	43228	5.59	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	7737	2736	-25749	SLU 15	2.5	43228	5.59	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	7737	2736	-25524	SLU 15	2.5	43228	5.59	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	7737	2699	-25299	SLU 15	1.4	70606	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	7737	2699	-25073	SLU 15	1.4	68084	8.8	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	7737	2699	-24852	SLU 15	1.4	68084	8.8	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	48712	26043	-148967	SLV 4-Ger.	1	102703	2.11	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
29	4X/4Y ø10/5	48712	26043	-148768	SLV 4-Ger.	1	102703	2.11	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
58	4X/4Y ø10/5	48712	26043	-148566	SLV 4-Ger.	1	102703	2.11	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
87	2X/2Y ø10/17.1	48712	26043	-148364	SLV 4-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
116	2X/2Y ø10/17.1	48712	26043	-148162	SLV 4-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/17.1	48712	26043	-147959	SLV 4-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/17.1	48712	26043	-147757	SLV 4-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	48712	26043	-147555	SLV 4-Ger.	1.5	92035	1.89	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	48712	26043	-147353	SLV 4-Ger.	1.5	92035	1.89	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	48712	26043	-147154	SLV 4-Ger.	1.5	92035	1.89	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	47373	26603	-118330	SLV 4-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	47373	26603	-118131	SLV 4-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	47373	26603	-117931	SLV 4-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/17.1	47373	26603	-117727	SLV 4-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/17.1	47373	26603	-117525	SLV 4-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/17.1	47373	26603	-117323	SLV 4-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/17.1	47373	26603	-117120	SLV 4-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	4X/5Y ø10/11.7	47373	26603	-116918	SLV 4-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/5Y ø10/11.7	47373	26603	-116716	SLV 4-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/5Y ø10/11.7	47373	26603	-116517	SLV 4-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/5Y ø10/12	35610	24064	-79124	SLV 8-Ger.	1.5	75647	2.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/5Y ø10/12	35610	24064	-78954	SLV 8-Ger.	1.5	75647	2.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/5Y ø10/12	35610	24064	-78782	SLV 8-Ger.	1.5	75647	2.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	36419	24064	-88927	SLV 4-Ger.	2.5	27421	1.14	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	36419	24064	-88753	SLV 4-Ger.	2.5	27421	1.14	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	36419	24064	-88580	SLV 4-Ger.	2.5	27421	1.14	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	36419	24064	-88407	SLV 4-Ger.	2.5	27421	1.14	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	35610	24064	-77914	SLV 8-Ger.	1.5	75647	2.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	35610	24064	-77740	SLV 8-Ger.	1.5	75647	2.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	35610	24064	-77570	SLV 8-Ger.	1.5	75647	2.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/4Y ø10/12	30965	19899	-59295	SLV 8-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	30965	19899	-59125	SLV 8-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	30965	19899	-58953	SLV 8-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	31602	19899	-64580	SLV 4-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	31602	19899	-64407	SLV 4-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	31602	19899	-64233	SLV 4-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	31602	19899	-64060	SLV 4-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	30965	19899	-58085	SLV 8-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	30965	19899	-57911	SLV 8-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	30965	19899	-57741	SLV 8-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	27017	16629	-40709	SLV 4-Ger.	1.4	70604	2.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	27017	16741	-40539	SLV 4-Ger.	1.4	70604	2.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	27017	16752	-40367	SLV 4-Ger.	1.4	70604	2.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	27017	16866	-40192	SLV 4-Ger.	2.5	43225	1.6	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	27017	16866	-40019	SLV 4-Ger.	2.5	43225	1.6	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	27017	16866	-39845	SLV 4-Ger.	2.5	43225	1.6	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	27017	16866	-39672	SLV 4-Ger.	2.5	43225	1.6	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	27017	16752	-39499	SLV 4-Ger.	1.4	70604	2.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	27017	16752	-39325	SLV 4-Ger.	1.4	70604	2.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	27017	16866	-39155	SLV 4-Ger.	1.4	70604	2.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	23386	14557	-17254	SLV 4-Ger.	1.4	68083	2.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	23386	14557	-17084	SLV 4-Ger.	1.4	68083	2.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1608	4X/4Y ø10/12	23386	14557	-16912	SLV 4-Ger.	1.4	68083	2.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1637	2X/2Y ø10/17.5	23386	14557	-16737	SLV 4-Ger.	2.5	43225	1.85	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1666	2X/2Y ø10/17.5	23386	14557	-16564	SLV 4-Ger.	2.5	43225	1.85	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1694	2X/2Y ø10/17.5	23386	14557	-16390	SLV 4-Ger.	2.5	43225	1.85	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1723	2X/2Y ø10/17.5	23386	14557	-16217	SLV 4-Ger.	2.5	43225	1.85	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1752	4X/4Y ø10/12	23386	14557	-16044	SLV 4-Ger.	1.4	68083	2.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
1781	4X/4Y ø10/12	23386	14557	-15870	SLV 4-Ger.	1.4	68083	2.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1810	4X/4Y ø10/12	23386	14557	-15700	SLV 4-Ger.	1.4	68083	2.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vply	Comb.
0	260	260	1.1	3079866		-148966.9	3075827.4		-147153.9	48712.4		SLV 4
0	260	260	1.1		5760768.3	-148966.9		5753069.6	-147153.9		26043.3	SLV 4
310	570	260	1.1	2970766.1		-118330.1	3317252.6		-116517.1	47373		SLV 4
310	570	260	1.1		5564793.7	-118330.1		5632450.1	-116517.1		26603.2	SLV 4
620	880	260	1.1	3026382.4		-89443.6	2661526.4		-87889.6	36419		SLV 4
620	880	260	1.1		4379670.6	-89443.6		4228453.9	-87889.6		24064.2	SLV 4
930	1190	260	1.1	2481449		-65097.1	2221875.3		-63543.1	31601.8		SLV 4
930	1190	260	1.1		3956876.5	-65097.1		3512630.6	-63543.1		19898.7	SLV 4
1240	1500	260	1.1	2001528.3		-40709.2	1984939.4		-39155.2	27016.7		SLV 4
1240	1500	260	1.1		3203775.2	-40709.2		3181990.3	-39155.2		16865.8	SLV 4
1550	1810	260	1.1	1731070.2		-17253.9	1709783.4		-15699.9	23386.5		SLV 4
1550	1810	260	1.1		2781394.1	-17253.9		2746316.3	-15699.9		14557.5	SLV 4

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	11025	960	-90834	SLD 16	1	101053	9.17	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
29	4X/4Y ø10/5	11025	960	-90635	SLD 16	1	101011	9.16	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
58	4X/4Y ø10/5	11025	960	-90433	SLD 16	1	100969	9.16	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
87	2X/2Y ø10/17.1	11025	960	-90231	SLD 16	2.5	52196	4.73	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
116	2X/2Y ø10/17.1	11025	960	-90029	SLD 16	2.5	52196	4.73	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
144	2X/2Y ø10/17.1	11025	960	-89826	SLD 16	2.5	52196	4.73	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
173	2X/2Y ø10/17.1	11025	960	-89624	SLD 16	2.5	52196	4.73	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
202	4X/4Y ø10/11.7	11025	960	-89422	SLD 16	1.7	88067	7.99	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
231	4X/4Y ø10/11.7	11025	960	-89220	SLD 16	1.7	88030	7.98	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
260	4X/4Y ø10/11.7	11025	960	-89021	SLD 16	1.7	87994	7.98	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
310	4X/4Y ø10/11.7	12210	1636	-74283	SLD 16	1.7	85315	6.99	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
339	4X/4Y ø10/11.7	12210	1646	-74084	SLD 16	1.7	85279	6.98	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
368	4X/4Y ø10/11.7	12210	1646	-73884	SLD 16	1.7	85243	6.98	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
397	2X/2Y ø10/17.1	12210	1646	-73680	SLD 16	2.5	52195	4.27	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
426	2X/2Y ø10/17.1	12210	1646	-73478	SLD 16	2.5	52195	4.27	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
454	2X/2Y ø10/17.1	12210	1646	-73275	SLD 16	2.5	52195	4.27	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
483	2X/2Y ø10/17.1	12210	1646	-73073	SLD 16	2.5	52195	4.27	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
512	4X/5Y ø10/11.7	12210	1646	-72871	SLD 16	1.7	85059	6.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
541	4X/5Y ø10/11.7	12210	1646	-72669	SLD 16	1.7	85022	6.96	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
570	4X/5Y ø10/11.7	12210	1646	-72470	SLD 16	1.7	84986	6.96	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
620	4X/5Y ø10/12	9126	1346	-60099	SLD 16	1.7	71489	7.83	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
649	4X/5Y ø10/12	9126	1346	-59928	SLD 16	1.7	71458	7.83	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
678	4X/5Y ø10/12	9126	1346	-59757	SLD 16	1.7	71427	7.83	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
707	2X/2Y ø10/17.5	9126	1346	-59582	SLD 16	2.5	43227	4.74	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
736	2X/2Y ø10/17.5	9126	1346	-59408	SLD 16	2.5	43227	4.74	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
764	2X/2Y ø10/17.5	9126	1346	-59235	SLD 16	2.5	43227	4.74	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
793	2X/2Y ø10/17.5	9126	1346	-59062	SLD 16	2.5	43227	4.74	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
822	4X/4Y ø10/12	9126	1346	-58888	SLD 16	1.7	71272	7.81	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
851	4X/4Y ø10/12	9126	1346	-58715	SLD 16	1.7	71240	7.81	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
880	4X/4Y ø10/12	9126	1346	-58545	SLD 16	1.7	71210	7.8	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
930	4X/4Y ø10/12	8046	1355	-47124	SLD 16	1.7	69162	8.6	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
959	4X/4Y ø10/12	8046	1355	-46953	SLD 16	1.7	69132	8.59	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
988	4X/4Y ø10/12	8046	1355	-46782	SLD 16	1.7	69101	8.59	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1017	2X/2Y ø10/17.5	8046	1355	-46607	SLD 16	2.5	43227	5.37	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1046	2X/2Y ø10/17.5	8046	1355	-46433	SLD 16	2.5	43227	5.37	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1074	2X/2Y ø10/17.5	8046	1355	-46260	SLD 16	2.5	43227	5.37	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1103	2X/2Y ø10/17.5	8046	1355	-46087	SLD 16	2.5	43227	5.37	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1132	4X/4Y ø10/12	8046	1355	-45913	SLD 16	1.7	68945	8.57	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1161	4X/4Y ø10/12	8046	1355	-45740	SLD 16	1.7	68914	8.57	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1190	4X/4Y ø10/12	8046	1355	-45570	SLD 16	1.7	68884	8.56	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1240	4X/4Y ø10/12	6638	1097	-31432	SLD 16	1.7	67295	10.14	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1269	4X/4Y ø10/12	6638	1097	-31262	SLD 16	1.7	67264	10.13	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1298	4X/4Y ø10/12	6638	1097	-31090	SLD 16	1.7	67233	10.13	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1327	2X/2Y ø10/17.5	6638	1097	-30915	SLD 16	2.5	43227	6.51	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1356	2X/2Y ø10/17.5	6638	1097	-30742	SLD 16	2.5	43227	6.51	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1384	2X/2Y ø10/17.5	6638	1097	-30569	SLD 16	2.5	43227	6.51	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1413	2X/2Y ø10/17.5	6638	1097	-30395	SLD 16	2.5	43227	6.51	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1442	4X/4Y ø10/12	6638	1097	-30222	SLD 16	1.7	67075	10.1	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1471	4X/4Y ø10/12	6638	1097	-30049	SLD 16	1.7	67044	10.1	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1500	4X/4Y ø10/12	6638	1097	-29878	SLD 16	1.7	67013	10.1	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1550	4X/4Y ø10/12	7055	1937	-14020	SLD 16	1.6	65024	9.22	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Sl
1579	4X/4Y ø10/12	7055	1937	-13850	SLD 16	1.6	64993	9.21	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Sl
1608	4X/4Y ø10/12	7055	1937	-13678	SLD 16	1.6	64961	9.21	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Sl
1637	2X/2Y ø10/17.5	7055	1937	-13503	SLD 16	2.5	43227	6.13	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Sl
1666	2X/2Y ø10/17.5	7055	1937	-13330	SLD 16	2.5	43227	6.13	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Sl
1694	2X/2Y ø10/17.5	7055	1937	-13156	SLD 16	2.5	43227	6.13	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Sl
1723	2X/2Y ø10/17.5	7055	1937	-12983	SLD 16	2.5	43227	6.13	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
454	-7891	-10079	-101889	SLE RA 8	-32.2	-7891	-10079	-101889	SLE RA 8	-480.1	Si
483	43088	114708	-101686	SLE RA 8	-36.2	43088	114708	-101686	SLE RA 8	-527.4	Si
512	94067	239495	-101484	SLE RA 8	-41.1	94067	239495	-101484	SLE RA 8	-583.9	Si
541	145046	364282	-101282	SLE RA 8	-46	145046	364282	-101282	SLE RA 8	-639.7	Si
570	195143	486909	-101083	SLE RA 8	-50.9	195143	486909	-101083	SLE RA 8	-696.4	Si
620	-184901	-376129	-80635	SLE RA 8	-49	-184901	-376129	-80635	SLE RA 8	-659.5	Si
649	-148687	-301042	-80464	SLE RA 8	-45.2	-148687	-301042	-80464	SLE RA 8	-616.4	Si
678	-112189	-225367	-80293	SLE RA 8	-41.2	-112189	-225367	-80293	SLE RA 8	-572.2	Si
707	-74983	-148223	-80118	SLE RA 8	-37.1	-74983	-148223	-80118	SLE RA 8	-524.9	Si
736	-38131	-71814	-79944	SLE RA 8	-32.6	-38131	-71814	-79944	SLE RA 8	-473.3	Si
764	-1280	4596	-79771	SLE RA 8	-28.4	-1280	4596	-79771	SLE RA 8	-425.4	Si
793	35572	81005	-79598	SLE RA 8	-32.6	35572	81005	-79598	SLE RA 8	-473.7	Si
822	72424	157414	-79424	SLE RA 8	-37	72424	157414	-79424	SLE RA 8	-523.5	Si
851	109276	233824	-79251	SLE RA 8	-41.3	109276	233824	-79251	SLE RA 8	-573.2	Si
880	145490	308911	-79081	SLE RA 8	-45.6	145490	308911	-79081	SLE RA 8	-622.1	Si
930	-177654	-429633	-61712	SLE RA 8	-45.1	-177654	-429633	-61712	SLE RA 8	-595.8	Si
959	-142080	-339337	-61541	SLE RA 8	-40.4	-142080	-339337	-61541	SLE RA 8	-542.9	Si
988	-106228	-248334	-61370	SLE RA 8	-35.6	-106228	-248334	-61370	SLE RA 8	-487	Si
1017	-69679	-155564	-61195	SLE RA 8	-31.2	-69679	-155564	-61195	SLE RA 8	-437.5	Si
1046	-33479	-63677	-61021	SLE RA 8	-26.1	-33479	-63677	-61021	SLE RA 8	-377.3	Si
1074	2721	28209	-60848	SLE RA 8	-23.1	2721	28209	-60848	SLE RA 8	-343.8	Si
1103	38921	120095	-60675	SLE RA 8	-28.2	38921	120095	-60675	SLE RA 8	-402.1	Si
1132	75122	211982	-60501	SLE RA 8	-33.2	75122	211982	-60501	SLE RA 8	-460.4	Si
1161	111322	303868	-60328	SLE RA 8	-38.2	111322	303868	-60328	SLE RA 8	-518.7	Si
1190	146896	394164	-60158	SLE RA 8	-43.2	146896	394164	-60158	SLE RA 8	-576	Si
1240	-163570	-522635	-39882	SLE RA 8	-43.4	-163570	-522635	-39882	SLE RA 8	-553.1	Si
1269	-132971	-415771	-39712	SLE RA 8	-35.8	-132971	-415771	-39712	SLE RA 8	-465.9	Si
1298	-102133	-308072	-39540	SLE RA 8	-30.4	-102133	-308072	-39540	SLE RA 8	-402.3	Si
1327	-70696	-198280	-39365	SLE RA 8	-24.8	-70696	-198280	-39365	SLE RA 8	-337.3	Si
1356	-44681	-92997	-39934	SLE RA 7	-20	-44681	-92997	-39934	SLE RA 7	-281.5	Si
1384	-19894	-67	-39761	SLE RA 7	-15.5	-19894	-67	-39761	SLE RA 7	-227.7	Si
1413	22716	127956	-38845	SLE RA 8	-19.7	22716	127956	-38845	SLE RA 8	-277.5	Si
1442	53854	236701	-38672	SLE RA 8	-25	53854	236701	-38672	SLE RA 8	-339.9	Si
1471	84991	345447	-38498	SLE RA 8	-30.3	84991	345447	-38498	SLE RA 8	-402.4	Si
1500	115590	452310	-38328	SLE RA 8	-35.6	115590	452310	-38328	SLE RA 8	-463.7	Si
1550	-206510	-652125	-19238	SLE RA 7	-59.4	-189730	-661706	-16718	SLE RA 8	952.9	Si
1579	-145652	-516616	-16548	SLE RA 8	-44.7	-145652	-516616	-16548	SLE RA 8	607.8	Si
1608	-101230	-370389	-16376	SLE RA 8	-30.3	-101230	-370389	-16376	SLE RA 8	-363.8	Si
1637	-55945	-221323	-16201	SLE RA 8	-16.5	-55945	-221323	-16201	SLE RA 8	-212.7	Si
1666	-11092	-73677	-16028	SLE RA 8	-8.9	-11092	-73677	-16028	SLE RA 8	-124.2	Si
1694	88379	140322	-16549	SLE RA 6	-15.5	74308	136829	-18375	SLE RA 7	-199.7	Si
1723	130667	295168	-18201	SLE RA 7	-23.7	130667	295168	-18201	SLE RA 7	-297.4	Si
1752	187025	453507	-18028	SLE RA 7	-44	199688	404402	-16202	SLE RA 6	518.1	Si
1781	243384	611845	-17855	SLE RA 7	-61.2	243384	611845	-17855	SLE RA 7	910.6	Si
1810	298767	767444	-17684	SLE RA 7	-78.1	298767	767444	-17684	SLE RA 7	1320.7	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	-52464	-108713	-109165	SLE QP 4	-38.9	Si
29	-33256	-65806	-108966	SLE QP 4	-36.9	Si
58	-13709	-22144	-108764	SLE QP 4	-34.8	Si
87	5838	21519	-108562	SLE QP 4	-34.4	Si
116	25384	65181	-108360	SLE QP 4	-36.3	Si
144	44931	108843	-108158	SLE QP 4	-38.2	Si
173	64478	152506	-107955	SLE QP 4	-40.1	Si
202	84024	196168	-107753	SLE QP 4	-42	Si
231	103571	239831	-107551	SLE QP 4	-43.9	Si
260	122780	282737	-107352	SLE QP 4	-45.8	Si
310	-218426	-504282	-88026	SLE QP 4	-49.6	Si
339	-176517	-406380	-87828	SLE QP 4	-45.2	Si
368	-134281	-307713	-87627	SLE QP 4	-40.8	Si
397	-91225	-207129	-87423	SLE QP 4	-36.3	Si
426	-48579	-107503	-87221	SLE QP 4	-31.9	Si
454	-5933	-7877	-87019	SLE QP 4	-27.4	Si
483	36713	91748	-86816	SLE QP 4	-30.7	Si
512	79360	191374	-86614	SLE QP 4	-34.7	Si
541	122006	291000	-86412	SLE QP 4	-38.7	Si
570	163914	388901	-86213	SLE QP 4	-42.6	Si
620	-153259	-310007	-69035	SLE QP 4	-41.3	Si
649	-123438	-247050	-68864	SLE QP 4	-38.1	Si
678	-93384	-183600	-68693	SLE QP 4	-34.8	Si
707	-62746	-118918	-68518	SLE QP 4	-31.4	Si
736	-32400	-54852	-68344	SLE QP 4	-27.6	Si
764	-2054	9214	-68171	SLE QP 4	-24.5	Si
793	28292	73280	-67998	SLE QP 4	-27.9	Si
822	58638	137346	-67824	SLE QP 4	-31.5	Si
851	88984	201413	-67651	SLE QP 4	-35.1	Si
880	118805	264370	-67481	SLE QP 4	-38.7	Si
930	-146835	-365186	-52459	SLE QP 4	-38.1	Si
959	-116974	-289393	-52289	SLE QP 4	-34.2	Si
988	-86878	-213006	-52117	SLE QP 4	-30.1	Si
1017	-56198	-135136	-51942	SLE QP 4	-26.5	Si
1046	-25811	-58007	-51769	SLE QP 4	-22.1	Si
1074	4577	19121	-51596	SLE QP 4	-19.6	Si
1103	34965	96250	-51422	SLE QP 4	-23.8	Si
1132	65352	173378	-51249	SLE QP 4	-28	Si
1161	95740	250507	-51076	SLE QP 4	-32.2	Si
1190	125602	326300	-50905	SLE QP 4	-36.3	Si
1240	-132442	-410692	-34084	SLE QP 4	-33.5	Si
1269	-108764	-328248	-33914	SLE QP 4	-29.4	Si
1298	-84899	-245160	-33742	SLE QP 4	-25.2	Si
1327	-60572	-160458	-33567	SLE QP 4	-20.9	Si
1356	-36476	-76563	-33394	SLE QP 4	-16.7	Si
1384	-12380	7332	-33220	SLE QP 4	-12.9	Si
1413	11715	91228	-33047	SLE QP 4	-15.7	Si
1442	35811	175123	-32874	SLE QP 4	-19.8	Si
1471	59907	259018	-32700	SLE QP 4	-23.9	Si
1500	83586	341461	-32530	SLE QP 4	-28	Si
1550	-172150	-527175	-14892	SLE QP 4	-48.9	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Verifica
1579	-128765	-407927	-14722	SLE QP 4	-36.1	Si
1608	-85040	-287747	-14550	SLE QP 4	-19.7	Si
1637	-40466	-165232	-14375	SLE QP 4	-13	Si
1666	3684	-43885	-14202	SLE QP 4	-6.8	Si
1694	53864	78960	-13246	SLE QP 3	-10.4	Si
1723	91983	198811	-13855	SLE QP 4	-16.8	Si
1752	136132	320158	-13682	SLE QP 4	-31.1	Si
1781	180282	441506	-13509	SLE QP 4	-44.4	Si
1810	223667	560753	-13338	SLE QP 4	-57.5	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Valore limite di controllo 0,400 mm

Coefficiente di viscosità Fi = 1.7

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	Mx,sr	My,sr	N,sr	σs	Ac,eff	p,eff	Sm	Wk	Fessurata	Verifica
0	-31110	-66836	-77575										No	Si
29	-19705	-40542	-77376										No	Si
58	-8099	-13784	-77174										No	Si
87	3507	12973	-76971										No	Si
116	15112	39731	-76769										No	Si
144	26718	66488	-76567										No	Si
173	38324	93246	-76365										No	Si
202	49930	120003	-76162										No	Si
231	61536	146760	-75960										No	Si
260	72940	173055	-75762										No	Si
310	-130918	-311033	-62496										No	Si
339	-105677	-250713	-62298										No	Si
368	-80237	-189921	-62097										No	Si
397	-54304	-127949	-61893										No	Si
426	-28617	-66566	-61691										No	Si
454	-2931	-5184	-61489										No	Si
483	22756	56199	-61287										No	Si
512	48442	117581	-61084										No	Si
541	74129	178964	-60882										No	Si
570	99371	239284	-60683										No	Si
620	-90117	-192405	-48621										No	Si
649	-72972	-153131	-48451										No	Si
678	-55693	-113550	-48279										No	Si
707	-38078	-73201	-48104										No	Si
736	-20632	-33236	-47931										No	Si
764	-3185	6729	-47758										No	Si
793	14262	46694	-47584										No	Si
822	31709	86660	-47411										No	Si
851	49155	126625	-47238										No	Si
880	66300	165898	-47067										No	Si
930	-155641	-383600	-55103										No	Si
959	-64161	-180096	-36340										No	Si
988	-47347	-132987	-36168										No	Si
1017	-30207	-84963	-35993										No	Si
1046	-13231	-37397	-35820										No	Si
1074	3746	10170	-35647										No	Si
1103	20723	57736	-35473										No	Si
1132	37699	105303	-35300										No	Si
1161	54676	152869	-35127										No	Si
1190	71359	199612	-34956										No	Si
1240	-141336	-442675	-35741										No	Si
1269	-115680	-353255	-35570										No	Si
1298	-89823	-263135	-35399										No	Si
1327	-34832	-96918	-22925										No	Si
1356	-22189	-45702	-22752										No	Si
1384	-9546	5513	-22578										No	Si
1413	3097	56729	-22405										No	Si
1442	15741	107944	-22232										No	Si
1471	67074	283712	-34357										No	Si
1500	92730	373132	-34187										No	Si
1550	-177173	-565612	-15414										No	Si
1579	-133590	-438981	-15244										No	Si
1608	-89665	-311359	-15072										No	Si
1637	-44888	-181258	-14897										No	Si
1666	7766	-30619	-9238										No	Si
1694	53864	78960	-13246										No	Si
1723	97711	189037	-13073										No	Si
1752	132514	334188	-14204										No	Si
1781	176865	463050	-14030										No	Si
1810	220448	589681	-13860	SLE FR 4	208779	558466	558466	985.4	890.2	0.0158	41.57	0.0119	Si	Si

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Valore limite di controllo 0,300 mm

Coefficiente di viscosità Fi = 1.7

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	Mx,sr	My,sr	N,sr	σs	Ac,eff	p,eff	Sm	Wk	Fessurata	Verifica
0	-31110	-66836	-77575										No	Si
29	-19705	-40542	-77376										No	Si
58	-8099	-13784	-77174										No	Si
87	3507	12973	-76971										No	Si
116	15112	39731	-76769										No	Si
144	26718	66488	-76567										No	Si
173	38324	93246	-76365										No	Si
202	49930	120003	-76162										No	Si
231	61536	146760	-75960										No	Si
260	72940	173055	-75762										No	Si
310	-130918	-311033	-62496										No	Si
339	-105677	-250713	-62298										No	Si
368	-80237	-189921	-62097										No	Si
397	-54304	-127949	-61893										No	Si
426	-28617	-66566	-61691										No	Si
454	-2931	-5184	-61489										No	Si
483	22756	56199	-61287										No	Si
512	48442	117581	-61084										No	Si
541	74129	178964	-60882										No	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	Mx,sr	My,sr	N,sr	σs	Ac,eff	p,eff	Sm	Wk	Fessurata	Verifica
570	99371	239284	-60683										No	Si
620	-90117	-192405	-48621										No	Si
649	-72972	-153131	-48451										No	Si
678	-55693	-113550	-48279										No	Si
707	-38078	-73201	-48104										No	Si
736	-20632	-33236	-47931										No	Si
764	-3185	6729	-47758										No	Si
793	14262	46694	-47584										No	Si
822	31709	86660	-47411										No	Si
851	49155	126625	-47238										No	Si
880	66300	165898	-47067										No	Si
930	-146835	-365186	-52459										No	Si
959	-64161	-180096	-36340										No	Si
988	-47347	-132987	-36168										No	Si
1017	-30207	-84963	-35993										No	Si
1046	-13231	-37397	-35820										No	Si
1074	3746	10170	-35647										No	Si
1103	20723	57736	-35473										No	Si
1132	37699	105303	-35300										No	Si
1161	54676	152869	-35127										No	Si
1190	71359	199612	-34956										No	Si
1240	-132442	-410692	-34084										No	Si
1269	-108764	-328248	-33914										No	Si
1298	-84899	-245160	-33742										No	Si
1327	-34832	-96918	-22925										No	Si
1356	-22189	-45702	-22752										No	Si
1384	-9546	5513	-22578										No	Si
1413	3097	56729	-22405										No	Si
1442	15741	107944	-22232										No	Si
1471	59907	259018	-32700										No	Si
1500	83586	341461	-32530										No	Si
1550	-172150	-527175	-14892										No	Si
1579	-128765	-407927	-14722										No	Si
1608	-85040	-287747	-14550										No	Si
1637	-40466	-165232	-14375										No	Si
1666	7766	-30619	-9238										No	Si
1694	53864	78960	-13246										No	Si
1723	97711	189037	-13073										No	Si
1752	136132	320158	-13682										No	Si
1781	180282	441506	-13509										No	Si
1810	223667	560753	-13338	SLE QP 4	216903	543796	543796	958.2	918.1	0.0153	42.17	0.0118	Si	Si

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni										
Pilastrata 5	285	No	No											
Pilastrata 5	595	No	No											
Pilastrata 5	905	No	No											
Pilastrata 5	1215	No	No											
Pilastrata 5	1525	No	No											
Pilastrata 5	1835	No	No											

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	285	0.885	0.763	0.675	0.295	0.199	0.34	0.168	5	13.9	1.185	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	595	0.837	0.827	0.692	0.206	0.143	0.265	0.124	7.1	14.2	1.156	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	905	0.8	0.789	0.631	0.184	0.116	0.239	0.108	8.3	13.9	1.082	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	1215	0.763	0.786	0.6	0.154	0.092	0.154	0.057	10	12.8	1.614	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	1525	0.763	0.786	0.6	0.154	0.092	0.067	0.005	10	12.8	18.12	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	285	0.885	0.763	0.675	0.295	0.199	0.363	0.182	5	13.9	1.094	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α_s	α_n	α	ω, wd	$\alpha\omega, wd$	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	595	0.837	0.827	0.692	0.206	0.143	0.283	0.134	7.1	14.2	1.067	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α_s	α_n	α	ω, wd	$\alpha\omega, wd$	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	905	0.8	0.789	0.631	0.184	0.116	0.253	0.116	8.3	13.9	1.005	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α_s	α_n	α	ω, wd	$\alpha\omega, wd$	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	1215	0.763	0.786	0.6	0.154	0.092	0.162	0.062	10	12.8	1.488	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α_s	α_n	α	ω, wd	$\alpha\omega, wd$	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	1525	0.763	0.786	0.6	0.154	0.092	0.07	0.007	10	12.8	13.072	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α_s	α_n	α	ω, wd	$\alpha\omega, wd$	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 5	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ, x	λ, y	$\lambda, \lim X$	$\lambda, \lim Y$	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	37	37	No	-177189	SLU 16	99894	309813	240357	175721	-99894	-240357	2.42	2.42	Min	No	2.42	Si
-60	285	0	30	17	37	37	No	-177189	SLU 16	99894	309813	240357	175721	-99894	-240357	2.42	2.42	X	No	2.42	Si
-60	285	260	30	17	44	44	No	-127395	SLD 3	58116	270789	1135924	159587	117269	-1135924	3.36	2.94	Min	No	2.91	Si
-60	285	0	30	17	44	44	No	-129373	SLD 4	58030	242810	1132578	104253	-83427	1779933	3.31		X	Si		Si
-60	285	231.1	30	17	41	41	No	-143852	SLV 1	76266	295584	2238386	162532	115656	-2238386	2.98	2.09	Min	No	2.07	Si
-60	285	0	30	17	41	41	No	-148967	SLV 4	65026	263822	2219233	117826	-110751	3618141	2.87		X	Si		Si
-60	285	0	30	17	37	37	No	-177189	SLU 16	99894	309813	240357	175721	-99894	-240357	2.42	2.42	Min	No	2.42	Si
-60	285	0	30	17	37	37	No	-177189	SLU 16	99894	309813	240357	175721	-99894	-240357	2.42	2.42	Y	No	2.42	Si
-60	285	0	30	17	44	44	No	-129208	SLD 3	58116	247403	1135924	104106	-76647	1786374		2.47	Min	Si		Si
-60	285	0	30	17	44	44	No	-129208	SLD 3	58116	247403	1135924	104106	-76647	1786374		2.47	Y	Si		Si
-60	285	0	30	17	60	60	No	-69678	SLV 14	77106	148107	2193661	55052	-77106	-3847853		1.38	Min	Si		Si
-60	285	0	30	17	60	60	No	-69678	SLV 14	77106	148107	2193661	55052	-77106	-3847853		1.38	Y	Si		Si
285	595	310	27	15	42	42	No	-141845	SLU 16	159508	215616	385713	121090	-366672	-885575	3.02	2.87	Min	No	2.71	Si
285	595	310	27	15	42	42	No	-141845	SLU 16	159508	215616	385713	121090	-366672	-885575	3.02	2.87	X	No	2.71	Si
285	595	310	27	15	49	49	No	-103425	SLD 4	102630	177194	326484	92510	-236513	750526	4.14		Min	Si		Si
285	595	310	27	15	49	49	No	-103425	SLD 4	102630	177194	326484	92510	-236513	750526	4.14		X	Si		Si
285	595	310	27	15	46	46	No	-118330	SLV 4	109308	198671	859490	86217	-252429	1975272	3.62		Min	Si		Si
285	595	310	27	15	46	46	No	-118330	SLV 4	109308	198671	859490	86217	-252429	1975272	3.62		X	Si		Si
285	595	310	27	15	42	42	No	-141845	SLU 16	159508	215616	385713	121090	-366672	-885575	3.02	2.87	Min	No	2.71	Si
285	595	310	27	15	42	42	No	-141845	SLU 16	159508	215616	385713	121090	-366672	-885575	3.02	2.87	Y	No	2.71	Si
285	595	310	27	15	58	58	No	-74283	SLD 16	100665	128051	781709	54879	-232008	-1795667		3.1	Min	Si		Si
285	595	310	27	15	58	58	No	-74283	SLD 16	100665	128051	781709	54879	-232008	-1795667		3.1	Y	Si		Si
285	595	310	27	15	64	64	No	-60810	SLV 16	105437	103226	1328699	42126	-243561	-3052519		1.79	Min	Si		Si
285	595	310	27	15	64	64	No	-60810	SLV 16	105437	103226	1328699	42126	-243561	-3052519		1.79	Y	Si		Si
595	905	620	27	18	44	44	No	-111228	SLU 16	113053	168768	229477	111962	-259328	-525712	3.66	3.5	Min	No	3.32	Si
595	905	706.7	27	18	44	44	No	-110556	SLU 16	113053	168097	229477	110333	-113053	-229477	3.46	3.46	X	No	3.46	Si
595	905	620	27	18	56	56	No	-68484	SLD 12	94279	108402	284953	65626	-218242	-643001	5.65	4.72	Min	No	4.38	Si
595	905	706.7	27	18	52	52	No	-78911	SLD 4	74941	129984	290255	73336	-77064	290255	4.85		X	Si		Si
595	905	764.4	27	18	49	49	No	-88333	SLV 3	78144	112045	713696	72903	-78144	713696	4.34	3.7	Min	No	3.65	Si
595	905	706.7	27	18	49	49	No	-88927	SLV 4	82012	140499	706080	72955	-89682	706080	4.31		X	Si		Si
595	905	620	27	18	44	44	No	-111228	SLU 16	113053	168768	229477	111962	-259328	-525712	3.66	3.5	Min	No	3.32	Si
595	905	706.7	27	18	44	44	No	-110556	SLU 16	113053	168097	229477	110333	-113053	-229477	3.46	3.46	Y	No	3.46	Si
595	905	620	27	18	59	59	No	-60099	SLD 16	75775	101383	572375	50949	-174395	-1312473		3.35	Min	Si		Si
595	905	620	27	18	59	59	No	-60099	SLD 16	75775	101383	572375	50949	-174395	-1312473		3.35	Y	Si		Si
595	905	620	27	18	64	64	No	-51345	SLV 16	83607	84085	997961	41203	-192745	-2289086		1.94	Min	Si		Si
595	905	620	27	18	64	64	No	-51345	SLV 16	83607	84085	997961	41203	-192745	-2289086		1.94	Y	Si		Si
905	1215	930	27	18	50	50	No	-85265	SLU 16	109288	129160	288044	86592	-250312	-599081	4.36	3.99	Min	No	3.71	Si
905	1215	1016.7	27	18	50	50	No	-84593	SLU 16	109288	127245	288044	86395	-109288	-288044	4.32	4.32	X	No	4.32	Si
905	1215	930	27	18	63	63	No	-52493	SLD 12	86762	84162	306818	53098	-199303	-608039	6.74	5.44	Min	No	4.91	Si
905	1215	1016.7	27	18	60	60	No	-58396	SLD 4	67504	100411	189551	69456	-67504	189551	6.26	6.26	X	No	6.26	Si
905	1215	1045.6	27	18	72	72	No	-41219	SLV 16	84496	63450	915584	41404	-84496	-915584	8.86	4.41	Min	No	4.24	Si
905	1215	1016.7	27	18	57	57	No	-64580	SLV 4	69018	109388	542026	64227	-69018	542026	5.66		X	Si		Si
905	1215	930	27	18	50	50	No	-85265	SLU 16	109288	129160	288044	86592	-250312	-599081	4.36	3.99	Min	No	3.71	Si
905	1215	1190	27	18	50	50	No	-83245	SLU 16	109288	127241	288044	83887	206072	551324	4.39	3.97	Y	No	3.75	Si
905	1215	1190	27	18	68	68	No	-45570	SLD 16	74830	77543	548471	40066	139085	1066079		3.82	Min	Si		Si
905	1215	1190	27	18	68	68	No	-45570	SLD 16	74830	77543	548471	40066	139085	1066079		3.82	Y	Si		Si
905	1215	1190	27	18	72	72	No	-40355	SLV 16	84496	66918	915584	33242	151420	1786006		2.11	Min	Si		Si
905	1215	1190	27	18	72	72	No	-40355	SLV 16	84496	66918	915584	33242	151420	1786006		2.11	Y	Si		Si
1215	1525	1240	27	18	62	62	No	-55135	SLU 16	100290	83091	335063	54750	-230846	-734016	6.02	4.6	Min	No	4.08	Si
1215	1525	1240	27	18	62	62	No	-55135	SLU 16	100290	83091	335063	54750	-230846	-734016	6.02	4.6	X	No	4.08	Si
1215	1525	1240	27	18	78	78	No	-34372	SLD 12	75901	55465	279951	36551	-175493	-573532	9.13	6.46	Min	No	5.58	Si
1215	1525	1240	27	18	76	76	No	-36186	SLD 8	74855	58616	142780	43039	-173084	-329517	8.85	8.29	X	No	7.06	Si
1215	1525	1355.6	27	18	87	87	No	-28154	SLV 16	71362	46057	727810	33486	-71362	727810	12.98	5.67	Min	No	5.41	Si
1215	1525	1240	27	18	75	75	No	-38090	SLV 8	90058	58796	105903	45304	-208326	-247685	8.06	8.72	X	No	7.06	Si
1215	1525	1240	27	18	62	62	No	-55135	SLU 16	100290	83091	335063	54750	-230846	-734016	6.02	4.6	Min	No	4.08	Si
1215	1525	1240	27	18	62	62	No	-55135	SLU 16	100290	83091	335063	54750	-230846	-734016	6.02	4.6	Y	No	4.08	Si
1215	1525	1500	27	18	84	84	No	-29878	SLD 16	64727	50599	458635	27284	94066	894983		4.56	Min	Si		Si
1215	1525	1500	27	18	84	84	No	-29878	SLD 16	64727	50599	458635	27284	94066	894983		4.56	Y	Si		Si
1215	1525	1500	27	18	88	88	No	-27290	SLV 16	71362	44921	727810	23165	103425	1431644		2.49	Min	Si		Si
1215	1525	1500	27	18	88	88	No	-27290	SLV 16	71362	44921	727810	23165	103425	1431644		2.49	Y	Si		Si
1525	1835	1810	27	18	92	92	No	-24852	SLV 15	209237	37036	552650	24189	419141	1087606	6.22	3.48	Min	No	2.56	Si
1525	1835	1810	27	18	98	98	No	-22113	SLU 14	215441	32679	471146	22355	436041	935736	5.91	4.09	X	No	2.77	Si
1525	1835	1810	27	18	125	125	No	-13571	SLD 12	142921	22307	386292	14585	283685	756674	9.02	4.63	Min	No	3.53	Si
1525	1835	1810	27	18	125	125	No	-13571	SLD 12	142921	22307	386292	14585	283685	756674	9.02	4.63	X	No	3.53	Si
1525	1835	1810	27	18	124	124	No	-13742	SLV 12	169063	21579	477489	10191	335582	938911	7.42	3.53	Min	No	2.77	Si
1525	1835	1810	27																		

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
1525	1835	1810	27	18	92	92	No	-24852	SLU 15	209237	37036	552650	24189	419141	1087606	6.22	3.48	Min	No	2.56	Si
1525	1835	1810	27	18	92	92	No	-24852	SLU 15	209237	37036	552650	24189	419141	1087606	6.22	3.48	Y	No	2.56	Si
1525	1835	1810	27	18	130	130	No	-12466	SLD 16	123497	21425	512775	9245	244949	1014181		3.14	Min	Si		Si
1525	1835	1810	27	18	130	130	No	-12466	SLD 16	123497	21425	512775	9245	244949	1014181		3.14	Y	Si		Si
1525	1835	1810	27	18	135	135	No	-11612	SLV 16	132985	19506	728228	8612	263626	1449235		2	Min	Si		Si
1525	1835	1810	27	18	135	135	No	-11612	SLV 16	132985	19506	728228	8612	263626	1449235		2	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	0	8384614	<	9596090	4879291	4716799	1.144	SLV 13		Si
285	180	8384614	<	9596090	4879291	4716799	1.144	SLV 13		Si
285	270	759417	<	5065672	2581286	2484386	6.67	SLV 13		Si
595	0	9014695	<	9131425	5067999	4063426	1.013	SLV 13		Si
595	180	9014695	<	9131425	5067999	4063426	1.013	SLV 13		Si
595	270	759417	<	5497157	2817143	2680014	7.239	SLV 13		Si
905	0	6629414	<	7332328	3716906	3615422	1.106	SLV 13		Si
905	180	6629414	<	7332328	3716906	3615422	1.106	SLV 13		Si
905	270	740999	<	4544189	2311557	2232632	6.133	SLV 13		Si
1215	0	5148416	<	6157504	3169567	2987937	1.196	SLV 13		Si
1215	180	5148416	<	6157504	3169567	2987937	1.196	SLV 13		Si
1215	270	740999	<	3835705	1975477	1860228	5.176	SLV 13		Si
1525	0	4661163	<	5629642	2956453	2673189	1.208	SLV 13		Si
1525	180	4661163	<	5629642	2956453	2673189	1.208	SLV 13		Si
1525	270	740999	<	3510068	1843639	1666428	4.737	SLV 13		Si

Pilastrata 6

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0	1,2,3,4	-281426	281426	-140713	-856356	856356	SLU 16	3.043	Si
29	28.65	2	0	1,2,3,4	-280909	280909	-140455	-856356	856356	SLU 16	3.049	Si
58	28.65	2	0	1,2,3,4	-280383	280383	-140192	-856356	856356	SLU 16	3.054	Si
87	28.65	1	0	3,4	279858	-279858	-139929	856356	-856356	SLU 16	3.06	Si
116	28.65	1	0	3,4	279332	-279332	-139666	856356	-856356	SLU 16	3.066	Si
144	28.65	1	0	3,4	278806	-278806	-139403	856356	-856356	SLU 16	3.072	Si
173	28.65	1	0	3,4	278280	-278280	-139140	856356	-856356	SLU 16	3.077	Si
202	28.65	1	0	3,4	277755	-277755	-138877	856356	-856356	SLU 16	3.083	Si
231	28.65	1	0	3,4	277229	-277229	-138614	856356	-856356	SLU 16	3.089	Si
260	28.65	1	0	3,4	276712	-276712	-138356	856356	-856356	SLU 16	3.095	Si
310	28.65	2	0	3,4,5,6,7	-369174	263112	-112160	-1327497	946115	SLU 16	3.596	Si
339	28.65	2	0	3,4,5,6,7	-298374	223804	-111902	-1122172	841716	SLU 16	3.761	Si
368	28.65	2	0	3,4,5,6,7	-227021	223283	-111642	-870691	856356	SLU 16	3.835	Si
397	28.65	1	0	5,6,7	-222752	222752	-111376	-856356	856356	SLU 16	3.844	Si
426	28.65	1	0	5,6,7	-222226	222226	-111113	-856356	856356	SLU 16	3.854	Si
454	28.65	1	0	5,6,7	-221701	-221701	-110850	-856356	-856356	SLU 16	3.863	Si
483	29.07	1.2	0	5,6,7,13	221175	-221175	-110587	859634	-859634	SLU 16	3.887	Si
512	31.34	1.2	0	5,6,7,13	220649	-220649	-110325	877391	-877391	SLU 16	3.976	Si
541	33.61	1.2	0	5,6,7,13	220123	-220123	-110062	895148	-895148	SLU 16	4.067	Si
570	34.93	1.2	0	5,6,7,13	276749	-219607	-109803	1122796	-890964	SLU 16	4.057	Si
620	34.93	2.6	0	5,6,7,8,9,13	-259485	177990	-88995	-1128378	773994	SLU 16	4.349	Si
649	32.67	2.6	0	5,6,7,8,9,13	-209095	177547	-88774	-925104	785528	SLU 16	4.424	Si
678	30.4	2.6	0	5,6,7,8,9,13	-177101	177101	-88550	-779711	779711	SLU 16	4.403	Si
707	28.65	1.2	0	8,9	-176646	176646	-88323	-766052	766052	SLU 16	4.337	Si
736	28.65	1.2	0	8,9	-176195	176195	-88098	-766052	766052	SLU 16	4.348	Si
764	28.65	1.2	0	8,9	-175745	-175745	-87872	-766052	-766052	SLU 16	4.359	Si
793	28.65	1.2	0	8,9	175294	-175294	-87647	766052	-766052	SLU 16	4.37	Si
822	28.65	1.2	0	8,9	174843	-174843	-87422	766052	-766052	SLU 16	4.381	Si
851	28.65	1.2	0	8,9	174393	-174393	-87196	766052	-766052	SLU 16	4.393	Si
880	28.65	1.2	0	8,9	200244	-173950	-86975	876757	-761627	SLU 16	4.378	Si
930	28.65	2.2	0	8,9,10	-252815	207379	-61016	-1375613	1128392	SLU 16	5.441	Si
959	28.1	2.2	0	8,9,10	-200994	164283	-60794	-1165125	952316	SLU 16	5.797	Si
988	27.55	2.2	0	8,9,10	-148768	121142	-60571	-917524	747143	SLU 16	6.167	Si
1017	24.13	1	0	10	-121421	121421	-60711	-730647	730647	SLU 15	6.017	Si
1046	24.13	1	0	10	-120971	120971	-60485	-730647	730647	SLU 15	6.04	Si
1074	24.13	1	0	10	120520	-120520	-60260	730647	-730647	SLU 15	6.062	Si
1103	24.13	1	0	10	120069	-120069	-60035	730647	-730647	SLU 15	6.085	Si
1132	24.13	1	0	10	119619	-119619	-59809	730647	-730647	SLU 15	6.108	Si
1161	24.13	1	0	10	168139	-142707	-59217	996279	-845590	SLU 16	5.925	Si
1190	24.13	1	0	10	219959	-185804	-58995	1221281	-1031641	SLU 16	5.552	Si
1240	24.13	2	0	10,11	-254174	241373	-37755	-1686629	1601687	SLU 16	6.636	Si
1269	24.13	2	0	10,11	-206575	195226	-37534	-1536987	1452546	SLU 16	7.44	Si
1298	24.13	2	0	10,11	-158603	148717	-37311	-1321870	1239477	SLU 16	8.334	Si
1327	24.13	1	0	11	-106756	91777	-38941	-968639	832734	SLU 15	9.073	Si
1356	24.13	1	0	11	-77431	77431	-38715	-730647	730647	SLU 15	9.436	Si
1384	24.13	1	0	11	-76980	76980	-38490	-730647	730647	SLU 15	9.491	Si
1413	24.13	1	0	11	76529	-76529	-38265	730647	-730647	SLU 15	9.547	Si
1442	24.13	1	0	11	76079	-76079	-38039	730647	-730647	SLU 15	9.604	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
1471	24.13	1	0	11	132491	-133498	-35957	1194076	-1203156	SLU 16	9.013	Si
1500	24.13	1	0	11	180090	-179646	-35735	1453176	-1449590	SLU 16	8.069	Si
1550	24.13	2	0	11,12	-317501	261044	-17712	-2015202	1656870	SLU 15	6.347	Si
1579	24.13	2	0	11,12	-232220	196768	-17490	-2024325	1715276	SLU 15	8.717	Si
1608	24.13	2	0	11,12	-157138	151189	-13996	-1926619	1853677	SLU 16	12.261	Si
1637	24.13	1	0	12	-86840	96354	-13768	-1589996	1764205	SLU 16	18.31	Si
1666	24.13	1	0	12	50237	-32586	-16293	1073129	-696080	SLU 14	21.361	Si
1694	24.13	1	0	12	133807	-81224	-16068	1962553	-1191323	SLU 14	14.667	Si
1723	24.13	1	0	12	217376	-138454	-15842	2175260	-1385494	SLU 14	10.007	Si
1752	24.13	1	0	12	300946	-195684	-15617	2138464	-1390492	SLU 14	7.106	Si
1781	24.13	1	0	12	384515	-252913	-15392	2027290	-1333442	SLU 14	5.272	Si
1810	24.13	1	0	12	466638	-309152	-15170	1916930	-1269985	SLU 14	4.108	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	28.65	2	0.0003	1,2,3,4	379708	4192307	-78047	459448	5072706	SLV 1-GER.	1.21	98529	256802	SLV 16	Si
29	28.65	2	0.0003	1,2,3,4	-76710	3320424	-80243	-130729	5658678	SLV 3	1.704	98330	256802	SLV 16	Si
58	28.65	2	0.0003	1,2,3,4	-50196	-2693016	-98128	-106419	-5709323	SLV 16	2.12	98128	256802	SLV 16	Si
87	28.65	1	0.0003	3,4	-26549	-2128717	-97926	-66780	-5354491	SLV 16	2.515	97926	256802	SLV 16	Si
116	28.65	1	0.0003	3,4	-2909	-1571300	-97724	-8808	-4757432	SLV 16	3.028	97724	256802	SLV 16	Si
144	28.65	1	0.0003	3,4	20719	-1009239	-97521	75826	-3693605	SLV 16	3.66	97521	256802	SLV 16	Si
173	28.65	1	0.0003	3,4	44328	-448886	-97319	195029	-1974971	SLV 16	4.4	97319	256802	SLV 16	Si
202	28.65	1	0.0003	3,4	67904	131740	-97117	299379	580825	SLV 16	4.409	97117	256802	SLV 16	Si
231	28.65	1	0.0003	3,4	91415	698791	-96915	369196	2822181	SLV 16	4.039	96915	256802	SLV 16	Si
260	28.65	1	0.0003	3,4	114374	1252164	-96716	380677	4167645	SLV 16	3.328	96716	256802	SLV 16	Si
310	28.65	2	0.0006	3,4,5,6,7	-243056	3183528	-65775	-404762	5301533	SLV 3	1.665	78449	256802	SLV 16	Si
339	28.65	2	0.0006	3,4,5,6,7	-200559	2564273	-65576	-433288	5539871	SLV 3	2.16	78251	256802	SLV 16	Si
368	28.65	2	0.0006	3,4,5,6,7	-155919	1940500	-65376	-448597	5583063	SLV 3	2.877	78050	256802	SLV 16	Si
397	28.65	1	0.0006	5,6,7	-110274	-1185806	-77846	-420533	-4522085	SLV 16	3.814	77846	256802	SLV 16	Si
426	28.65	1	0.0006	5,6,7	-64519	-619146	-77644	-317829	-3050000	SLV 16	4.926	77644	256802	SLV 16	Si
454	28.65	1	0.0006	5,6,7	-18754	-57042	-77442	-103690	-315389	SLV 16	5.529	77442	256802	SLV 16	Si
483	29.07	1.2	0.0006	5,6,7,13	27009	544643	-77239	139164	2806292	SLV 16	5.153	77239	256802	SLV 16	Si
512	31.34	1.2	0.0006	5,6,7,13	72752	1109913	-77037	294535	4493448	SLV 16	4.048	77037	256802	SLV 16	Si
541	33.61	1.2	0.0006	5,6,7,13	114174	-1856717	-64161	349469	-5833117	SLV 3	3.061	76835	256802	SLV 16	Si
570	34.93	1.2	0.0006	5,6,7,13	167511	-2463941	-61817	382362	-5624226	SLV 1	2.283	76636	256802	SLV 16	Si
620	34.93	2.6	0.0006	5,6,7,8,9,13	-186981	2426425	-53205	-331816	4305935	SLV 3	1.775	60922	220116	SLV 16	Si
649	32.67	2.6	0.0006	5,6,7,8,9,13	-152754	1950310	-53034	-343184	4381653	SLV 3	2.247	60752	220116	SLV 16	Si
678	30.4	2.6	0.0006	5,6,7,8,9,13	-118283	1470916	-52863	-352020	4377558	SLV 3	2.976	60580	220116	SLV 16	Si
707	28.65	1.2	0.0006	8,9	-85959	-912276	-60405	-347107	-3683833	SLV 16	4.038	60405	220116	SLV 16	Si
736	28.65	1.2	0.0006	8,9	-51508	-476589	-60232	-278053	-2572755	SLV 16	5.398	60232	220116	SLV 16	Si
764	28.65	1.2	0.0006	8,9	-16700	-49955	-60059	-106504	-318584	SLV 16	6.377	60059	220116	SLV 16	Si
793	28.65	1.2	0.0006	8,9	17686	436272	-59885	99177	2446454	SLV 16	5.608	59885	220116	SLV 16	Si
822	28.65	1.2	0.0006	8,9	55689	-971798	-51994	230857	-4028576	SLV 3	4.145	59712	220116	SLV 16	Si
851	28.65	1.2	0.0006	8,9	93698	-1454487	-51821	284181	-4411385	SLV 3	3.033	59539	220116	SLV 16	Si
880	28.65	1.2	0.0006	8,9	126628	-1930079	-51651	284797	-4340911	SLV 3	2.249	59368	220116	SLV 16	Si
930	28.65	2.2	0.0008	8,9,10	-179415	1729869	-38319	-422508	4073704	SLV 3	2.355	42469	220116	SLV 12	Si
959	28.1	2.2	0.0008	8,9,10	-143635	1345614	-38148	-448770	4204216	SLV 3	3.124	42299	220116	SLV 12	Si
988	27.55	2.2	0.0008	8,9,10	-107585	959330	-37977	-466929	4163594	SLV 3	4.34	42127	220116	SLV 12	Si
1017	24.13	1	0.0008	10	-70856	568827	-37802	-427793	3434269	SLV 3	6.037	41952	220116	SLV 12	Si
1046	24.13	1	0.0008	10	-55229	-27972	-41779	-482930	-244594	SLV 12	8.744	41779	220116	SLV 12	Si
1074	24.13	1	0.0008	10	3244	252212	-41211	26529	2062504	SLV 16	8.178	41606	220116	SLV 12	Si
1103	24.13	1	0.0008	10	39846	-632553	-37282	230529	-3659619	SLV 3	5.785	41432	220116	SLV 12	Si
1132	24.13	1	0.0008	10	75774	-1020109	-37108	297089	-3999592	SLV 3	3.921	41259	220116	SLV 12	Si
1161	24.13	1	0.0008	10	111859	-1410372	-36935	302060	-3808534	SLV 3	2.7	41086	220116	SLV 12	Si
1190	24.13	1	0.0008	10	147548	-1794733	-36765	291513	-3545872	SLV 3	1.976	40915	220116	SLV 12	Si
1240	24.13	2	0.0008	10,11	-166338	1187940	-24689	-476951	3406248	SLV 3	2.867	26731	220116	SLV 12	Si
1269	24.13	2	0.0008	10,11	-136670	913609	-24519	-542728	3628009	SLV 3	3.971	26561	220116	SLV 12	Si
1298	24.13	2	0.0008	10,11	-106776	638668	-24347	-624440	3735023	SLV 3	5.848	26389	220116	SLV 12	Si
1327	24.13	1	0.0008	11	-76315	364278	-24172	-693243	3309101	SLV 3	9.084	26214	220116	SLV 12	Si
1356	24.13	1	0.0008	11	-63026	36254	-26041	-884171	508596	SLV 12	14.029	26041	220116	SLV 12	Si
1384	24.13	1	0.0008	11	-16959	258280	-25197	-191136	2910927	SLV 16	11.27	25868	220116	SLV 12	Si
1413	24.13	1	0.0008	11	15146	-509357	-23652	117917	-3965425	SLV 3	7.785	25694	220116	SLV 12	Si
1442	24.13	1	0.0008	11	44776	-786142	-23479	224998	-3950319	SLV 3	5.025	25521	220116	SLV 12	Si
1471	24.13	1	0.0008	11	74898	-1065051	-23305	256421	-3646296	SLV 3	3.424	25348	220116	SLV 12	Si
1500	24.13	1	0.0008	11	104546	-1339919	-23135	263014	-3370948	SLV 3	2.516	25177	220116	SLV 12	Si
1550	24.13	2	0.0008	11,12	-207672	988868	-10709	-643127	2783655	SLV 3	3.097	11095	220116	SLV 8	Si
1579	24.13	2	0.0008	11,12	-155251	667208	-10538	-684137	2940146	SLV 3	4.407	10924	220116	SLV 8	Si
1608	24.13	2	0.0008	11,12	-102422	435144	-10367	-769322	3268509	SLV 3	7.511	10753	220116	SLV 8	Si
1637	24.13	1	0.0008	12	-48569	206346	-10192	-819253	3480571	SLV 3	16.868	10578	220116	SLV 8	Si
1666	24.13	1	0.0008	12	4956	100812	-9540	146051	2970857	SLV 15	29.469	10404	220116	SLV 8	Si
1694	24.13	1	0.0008	12	58139	-294954	-9845	710928	-3606748	SLV 3	12.228	10231	220116	SLV 8	Si
1723	24.13	1	0.0008	12	111478	-527718	-9672	655999	-3105392	SLV 3	5.885	10058	220116	SLV 8	Si
1752	24.13	1	0.0008	12	164821	-763066	-9498	613600	-2840770	SLV 3	3.723	9884	220116	SLV 8	Si
1781	24.13	1	0.0008	12	218164	-999180	-9325	585593	-2681985	SLV 3	2.684	9711	220116	SLV 8	Si
1810	24.13	1	0.0008	12	270585	-1231531	-9155	567556	-2583158	SLV 3	2.098	9541	220116	SLV 8	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0.0001	1,2,3,4	-76467	-1915329	-93512	-207424	-5195551	SLD 16	2.713	Si
29	28.65	2	0.0001	1,2,3,4	-55086	-1640771	-93314	-164887	-4911304	SLD 16	2.993	Si
58	28.65	2	0.0001	1,2,3,4	-33329	-1361404	-93111	-110636	-4519166	SLD 16	3.319	Si
87	28.65	1	0.0001	3,4	-11575	-1082083	-92909	-42619	-3984278	SLD 16	3.682	Si
116	28.65	1	0.0001	3,4	10177	-806387	-92707	41384	-3279179	SLD 16	4.067	Si
144	28.65	1	0.0001	3,4	31925	-528219	-92505	143002	-2366080	SLD 16	4.479	Si
173	28.65	1	0.0001	3,4	53666	-250687	-92303	248949	-1162898	SLD 16	4.639	Si
202	28.65	1	0.0001	3,4	75397	36554	-92100	350521	169941	SLD 16	4.649	Si
231	28.65	1	0.0001	3,4	97106	317334	-91898	452440	1478541	SLD 16	4.659	Si
260	28.65	1	0.0001	3,4	118389	591286	-91699	514424	2569251	SLD 16	4.345	Si
310	28.65	2	0.0003	3,4,5,6,7	-232181	1682329	-68404	-715240	5182466	SLD 3	3.081	Si
339	28.65	2	0.0003	3,4,5,6,7	-189799	1354856	-68205	-687893	4910436	SLD 3	3.624	Si
368	28.65	2	0.0003	3,4,5,6,7	-146130	1024994	-68005	-629583	4416057	SLD 3	4.308	Si
397	28.65	1	0.0003	5,6,7	-101579	-572136	-74224	-522101	-2940710	SLD 16	5.14	Si
426	28.65	1	0.0003	5,6,7	-57140	-299051	-74022	-330524	-1729843	SLD 16	5.784	Si
454	28.65	1	0.0003	5,6,7	-12695	-28446	-73820	-73632	-164993	SLD 16	5.8	Si
483	29.07	1.2	0.0003	5,6,7,13	31753	263175	-73618	185390	1536541	SLD 16	5.838	Si
512	31.34	1.2	0.0003	5,6,7,13	76196	535542	-73416	411557	2892607	SLD 16	5.401	Si
541	33.61	1.2	0.0003	5,6,7,13	118479	-983037	-66789	542832	-4503967	SLD 3	4.582	Si
570	34.93	1.2	0.0003	5,6,7,13	161641	-1310300	-66591	622764	-5048261	SLD 3	3.853	Si
620	34.93	2.6	0.0003	5,6,7,8,9,13	-171620	1273720	-54691	-568940	4222527	SLD 3	3.315	Si
649	32.67	2.6	0.0003	5,6,7,8,9,13	-139451	1023030	-54520	-541499	3972511	SLD 3	3.883	Si
678	30.4	2.6	0.0003	5,6,7,8,9,13	-107041	770628	-54349	-495187	3565020	SLD 3	4.626	Si
707	28.65	1.2	0.0003	8,9	-73424	513981	-54174	-410229	2871656	SLD 3	5.587	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
736	28.65	1.2	0.0003	8,9	-42928	-235959	-57922	-280196	-1540130	SLD 16	6.527	Si
764	28.65	1.2	0.0003	8,9	-10169	-30111	-57749	-67449	-199714	SLD 16	6.633	Si
793	28.65	1.2	0.0003	8,9	22387	207926	-57575	148933	1383241	SLD 16	6.653	Si
822	28.65	1.2	0.0003	8,9	56830	-516042	-53480	321638	-2920642	SLD 3	5.66	Si
851	28.65	1.2	0.0003	8,9	90842	-770136	-53307	423279	-3588459	SLD 3	4.66	Si
880	28.65	1.2	0.0003	8,9	122427	-1020534	-53137	475264	-3961745	SLD 3	3.882	Si
930	28.65	2.2	0.0004	8,9,10	-165767	934492	-38916	-711724	4012257	SLD 3	4.294	Si
959	28.1	2.2	0.0004	8,9,10	-132166	728158	-38746	-686771	3783701	SLD 3	5.196	Si
988	27.55	2.2	0.0004	8,9,10	-98306	520750	-38574	-633437	3555453	SLD 3	6.444	Si
1017	24.13	1	0.0004	10	-63797	311117	-38399	-502774	2451884	SLD 3	7.881	Si
1046	24.13	1	0.0004	10	-40637	-5273	-40393	-367528	-47694	SLD 12	9.044	Si
1074	24.13	1	0.0004	10	-1347	35586	-40220	-12236	323232	SLD 12	9.083	Si
1103	24.13	1	0.0004	10	39385	-334456	-37879	310378	-2635692	SLD 3	7.881	Si
1132	24.13	1	0.0004	10	73333	-542498	-37706	454786	-3364370	SLD 3	6.202	Si
1161	24.13	1	0.0004	10	107404	-752042	-37532	527940	-3696650	SLD 3	4.915	Si
1190	24.13	1	0.0004	10	140972	-958432	-37362	557907	-3793077	SLD 3	3.958	Si
1240	24.13	2	0.0004	10,11	-156056	665758	-24803	-824618	3517946	SLD 3	5.284	Si
1269	24.13	2	0.0004	10,11	-128189	515098	-24632	-861599	3462139	SLD 3	6.721	Si
1298	24.13	2	0.0004	10,11	-100106	364050	-24461	-872267	3172121	SLD 3	8.713	Si
1327	24.13	1	0.0004	11	-71484	213075	-24286	-830927	2476788	SLD 3	11.624	Si
1356	24.13	1	0.0004	11	-52064	33613	-25193	-754959	487411	SLD 12	14.501	Si
1384	24.13	1	0.0004	11	-15260	134187	-24652	-213031	1873244	SLD 16	13.96	Si
1413	24.13	1	0.0004	11	13937	-265562	-23766	160731	-3062725	SLD 3	11.533	Si
1442	24.13	1	0.0004	11	42068	-417621	-23592	368326	-3656453	SLD 3	8.755	Si
1471	24.13	1	0.0004	11	70402	-570793	-23419	475698	-3856759	SLD 3	6.757	Si
1500	24.13	1	0.0004	11	98262	-721724	-23249	516584	-3794250	SLD 3	5.257	Si
1550	24.13	2	0.0004	11,12	-198559	528931	-10497	-1022570	2723971	SLD 3	5.15	Si
1579	24.13	2	0.0004	11,12	-148438	394826	-10326	-1089050	2896740	SLD 3	7.337	Si
1608	24.13	2	0.0004	11,12	-97924	260332	-10155	-1161046	3086645	SLD 3	11.857	Si
1637	24.13	1	0.0004	12	-46431	126898	-9980	-1049686	2868858	SLD 3	22.608	Si
1666	24.13	1	0.0004	12	4674	56576	-9561	165416	2002098	SLD 15	35.388	Si
1694	24.13	1	0.0004	12	55582	-160021	-9633	1077380	-3101788	SLD 3	19.384	Si
1723	24.13	1	0.0004	12	106585	-295091	-9460	1110200	-3073704	SLD 3	10.416	Si
1752	24.13	1	0.0004	12	157588	-431374	-9286	1023660	-2802108	SLD 3	6.496	Si
1781	24.13	1	0.0004	12	208592	-568015	-9113	966337	-2631421	SLD 3	4.633	Si
1810	24.13	1	0.0004	12	258714	-702443	-8943	922971	-2505994	SLD 3	3.568	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8403	0.6414	0.2969	0.1905	0.34	1984	0.1681	1.133	SLV 12	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	-840	1141	-140713	SLU 16	1.6	85010	74.48	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/7	-840	1141	-140455	SLU 16	1.6	85010	74.48	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/7	-840	1141	-140192	SLU 16	1.6	85010	74.48	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	-840	1141	-139929	SLU 16	2.5	27994	24.52	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	-840	1141	-139666	SLU 16	2.5	27994	24.52	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	-840	1141	-139403	SLU 16	2.5	27994	24.52	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	-840	1141	-139140	SLU 16	2.5	27994	24.52	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	-840	1141	-138877	SLU 16	2.2	72396	63.42	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	-840	1141	-138614	SLU 16	2.2	72396	63.42	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	-840	1141	-138356	SLU 16	2.2	72396	63.42	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	-1853	2494	-112160	SLU 16	2.2	72396	29.03	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	-1853	2494	-111902	SLU 16	2.2	72396	29.03	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	-1853	2494	-111642	SLU 16	2.2	72396	29.03	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	-1853	2494	-111376	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	-1853	2494	-111113	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	-1853	2494	-110850	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	-1853	2494	-110587	SLU 16	2.5	27994	11.22	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	-1853	2494	-110325	SLU 16	1.9	78154	31.34	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	-1853	2494	-110062	SLU 16	1.9	78154	31.34	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	-1853	2494	-109803	SLU 16	1.9	78154	31.34	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	4X/5Y ø10/12	-1298	1775	-88995	SLU 16	1.8	69985	39.43	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	-1298	1775	-88774	SLU 16	1.8	69985	39.43	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	-1298	1775	-88550	SLU 16	1.8	69985	39.43	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	-1298	1775	-88323	SLU 16	2.5	27423	15.45	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	-1298	1775	-88098	SLU 16	2.5	27423	15.45	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	-1298	1775	-87872	SLU 16	2.5	27423	15.45	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	-1298	1775	-87647	SLU 16	2.5	27423	15.45	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	-1298	1775	-87422	SLU 16	2	63986	36.05	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	-1298	1775	-87196	SLU 16	2	63986	36.05	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	-1298	1775	-86975	SLU 16	2	63986	36.05	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	-1518	1825	-61016	SLU 16	2	62386	34.18	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	-1518	1825	-60794	SLU 16	2	62386	34.18	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	-1518	1825	-60571	SLU 16	2	62386	34.18	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	-1518	1825	-60344	SLU 16	2.5	27423	15.02	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	-1518	1825	-60118	SLU 16	2.5	27423	15.02	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	-1518	1825	-59893	SLU 16	2.5	27423	15.02	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	-1518	1825	-59668	SLU 16	2.5	27423	15.02	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	-1518	1825	-59442	SLU 16	2	62386	34.18	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	-1518	1825	-59217	SLU 16	2	62386	34.18	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	-1518	1825	-58995	SLU 16	2	62386	34.18	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	-1626	1677	-37755	SLU 16	1.9	59187	35.3	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	-1626	1677	-37534	SLU 16	1.9	59187	35.3	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	-1626	1677	-37311	SLU 16	1.9	59187	35.3	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	-1626	1677	-37083	SLU 16	2.5	27423	16.36	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	-1626	1677	-36858	SLU 16	2.5	27423	16.36	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	-1626	1677	-36633	SLU 16	2.5	27423	16.36	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	-1626	1677	-36407	SLU 16	2.5	27423	16.36	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	-1626	1677	-36182	SLU 16	1.9	59187	35.3	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	-1626	1677	-35957	SLU 16	1.9	59187	35.3	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	-1626	1677	-35735	SLU 16	1.9	59187	35.3	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	-2264	3004	-17712	SLU 15	1.8	57587	19.17	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	-2264	3004	-17490	SLU 15	1.8	57587	19.17	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	-2264	3004	-17267	SLU 15	1.8	57587	19.17	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	-2264	3004	-17040	SLU 15	2.5	27422	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	-2264	3004	-16814	SLU 15	2.5	27422	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	-2264	3004	-16589	SLU 15	2.5	27422	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	-2264	3004	-16364	SLU 15	2.5	27422	9.13	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	-2264	3004	-16138	SLU 15	1.8	57587	19.17	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	-2264	3004	-15913	SLU 15	1.8	57587	19.17	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
1810	4X/4Y ø10/12	-2264	3004	-15692	SLV 15	1.8	57587	19.17	-0.5	0	0	SLV 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	45030	24046	-98529	SLV 16-Ger.	1	102261	2.27	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
29	4X/4Y ø10/7	45030	24046	-98330	SLV 16-Ger.	1	102261	2.27	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
58	4X/4Y ø10/7	45030	24046	-98128	SLV 16-Ger.	1	102261	2.27	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
87	2X/2Y ø10/17.1	45030	24046	-97926	SLV 16-Ger.	2.5	52195	1.16	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
116	2X/2Y ø10/17.1	45030	24046	-97724	SLV 16-Ger.	2.5	52195	1.16	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/17.1	45030	24046	-97521	SLV 16-Ger.	2.5	52195	1.16	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/17.1	45030	24046	-97319	SLV 16-Ger.	2.5	52195	1.16	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	45030	24046	-97117	SLV 16-Ger.	1.5	92035	2.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	45030	24046	-96915	SLV 16-Ger.	1.5	92035	2.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	45030	24046	-96716	SLV 16-Ger.	1.5	92035	2.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	43778	24139	-78449	SLV 16-Ger.	1.5	88967	2.03	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	43778	24139	-78251	SLV 16-Ger.	1.5	88967	2.03	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	43778	24139	-78050	SLV 16-Ger.	1.5	88967	2.03	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/17.1	43778	24139	-77846	SLV 16-Ger.	2.5	27993	1.16	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/17.1	43778	24139	-77644	SLV 16-Ger.	2.5	27993	1.16	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/17.1	43778	24139	-77442	SLV 16-Ger.	2.5	27993	1.16	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/17.1	43778	24139	-77239	SLV 16-Ger.	2.5	27993	1.16	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	4X/5Y ø10/11.7	43778	24139	-77037	SLV 16-Ger.	1.5	88967	2.03	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/5Y ø10/11.7	43778	24139	-76835	SLV 16-Ger.	1.5	88967	2.03	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/5Y ø10/11.7	43778	23666	-76636	SLV 16-Ger.	1.5	88967	2.03	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/5Y ø10/12	34045	21964	-60773	SLV 15-Ger.	1.5	73126	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/5Y ø10/12	34058	21964	-60752	SLV 16-Ger.	1.5	73127	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/5Y ø10/12	34058	22042	-60580	SLV 16-Ger.	1.5	73127	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	34058	22106	-60405	SLV 16-Ger.	2.5	27422	1.24	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	34058	22106	-60232	SLV 16-Ger.	2.5	27422	1.24	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	34058	22106	-60059	SLV 16-Ger.	2.5	27422	1.24	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	34058	22106	-59885	SLV 16-Ger.	2.5	27422	1.24	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	34058	21593	-59712	SLV 16-Ger.	1.5	73127	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	34058	21593	-59539	SLV 16-Ger.	1.5	73127	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	34058	21593	-59368	SLV 16-Ger.	1.5	73127	2.15	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/4Y ø10/12	29019	17677	-42469	SLV 12-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	29019	17677	-42299	SLV 12-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	29019	17677	-42127	SLV 12-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	29019	18045	-41952	SLV 12-Ger.	2.5	43224	1.49	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	29019	18045	-41779	SLV 12-Ger.	2.5	43224	1.49	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	29019	18045	-41606	SLV 12-Ger.	2.5	43224	1.49	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	29019	18045	-41432	SLV 12-Ger.	2.5	43224	1.49	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	29019	17677	-41259	SLV 12-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	29019	17677	-41086	SLV 12-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	29019	17883	-40915	SLV 12-Ger.	1.4	70603	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	24750	15311	-25128	SLV 14-Ger.	1.4	68083	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	24750	15319	-24958	SLV 14-Ger.	1.4	68083	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	24750	15319	-24786	SLV 14-Ger.	1.4	68083	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	25025	15605	-26214	SLV 12-Ger.	2.5	43223	1.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	25025	15605	-26041	SLV 12-Ger.	2.5	43223	1.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	25025	15605	-25868	SLV 12-Ger.	2.5	43223	1.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	25025	15605	-25694	SLV 12-Ger.	2.5	43223	1.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	24958	15417	-25131	SLV 8-Ger.	1.4	68082	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	24999	15455	-25199	SLV 11-Ger.	1.4	68082	2.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	25025	15455	-25177	SLV 12-Ger.	1.4	68082	2.72	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	22187	13844	-11095	SLV 8-Ger.	1.4	68082	3.07	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	22187	13844	-10924	SLV 8-Ger.	1.4	68082	3.07	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.v-T	Ver.
1608	4X/4Y ø10/12	22187	13844	-10753	SLV 8-Ger.	1.4	68082	3.07	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1637	2X/2Y ø10/17.5	22187	13844	-10578	SLV 8-Ger.	2.5	43223	1.95	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1666	2X/2Y ø10/17.5	22187	13844	-10404	SLV 8-Ger.	2.5	43223	1.95	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1694	2X/2Y ø10/17.5	22187	13844	-10231	SLV 8-Ger.	2.5	43223	1.95	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1723	2X/2Y ø10/17.5	22187	13844	-10058	SLV 8-Ger.	2.5	43223	1.95	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1752	4X/4Y ø10/12	21873	13696	-8277	SLV 10-Ger.	1.3	65561	3	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1781	4X/4Y ø10/12	21901	13696	-8247	SLV 6-Ger.	1.3	65560	2.99	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl
1810	4X/4Y ø10/12	21938	13752	-8264	SLV 14-Ger.	1.3	65562	2.99	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Sl

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vpl,y	Comb.
0	260	260	1.1	2848732.9		-98529	2834877.5		-96716	45030.4		SLV 16
0	260	260	1.1		5334042.3	-98529		5309498	-96716		24046	SLV 16
310	570	260	1.1	2683785		-78449.2	3021859.7		-76636.2	43778.2		SLV 16
310	570	260	1.1		5046749.7	-78449.2		5300816.6	-76636.2		24139.3	SLV 16
620	880	260	1.1	2797255.1		-60922.4	2427849.9		-59368.4	34057.8		SLV 16
620	880	260	1.1		4167438.6	-60922.4		3882582	-59368.4		22106.2	SLV 16
930	1190	260	1.1	2261459.2		-42469.5	2003710.8		-40915.5	29019.4		SLV 12
930	1190	260	1.1		3652490.5	-42469.5		3206635.2	-40915.5		18045	SLV 12
1240	1500	260	1.1	1852472.3		-26731.3	1835883.3		-25177.3	25024.8		SLV 12
1240	1500	260	1.1		2973215.9	-26731.3		2941731.7	-25177.3		15604.6	SLV 12
1550	1810	260	1.1	1646775.2		-11094.5	1625488.5		-9540.5	22186.9		SLV 8
1550	1810	260	1.1		2640039.4	-11094.5		2604134.3	-9540.5		13844.2	SLV 8

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.v-T	Ver.
0	4X/4Y ø10/7	-10683	953	-84350	SLD 3	1.2	98738	9.24	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
29	4X/4Y ø10/7	-10683	953	-84151	SLD 3	1.2	98697	9.24	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
58	4X/4Y ø10/7	-10683	953	-83949	SLD 3	1.2	98656	9.23	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
87	2X/2Y ø10/17.1	-10683	953	-83747	SLD 3	2.5	52196	4.89	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
116	2X/2Y ø10/17.1	-10683	953	-83544	SLD 3	2.5	52196	4.89	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
144	2X/2Y ø10/17.1	-10683	953	-83342	SLD 3	2.5	52196	4.89	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
173	2X/2Y ø10/17.1	-10683	953	-83140	SLD 3	2.5	52196	4.89	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
202	4X/4Y ø10/11.7	-10683	953	-82938	SLD 3	1.7	86888	8.13	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
231	4X/4Y ø10/11.7	-10683	953	-82735	SLD 3	1.7	86852	8.13	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
260	4X/4Y ø10/11.7	-10683	953	-82537	SLD 3	1.7	86816	8.13	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Sl
310	4X/4Y ø10/11.7	-11545	1645	-68404	SLD 3	1.7	84247	7.3	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
339	4X/4Y ø10/11.7	-11545	1645	-68205	SLD 3	1.7	84210	7.29	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
368	4X/4Y ø10/11.7	-11545	1645	-68005	SLD 3	1.7	84174	7.29	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
397	2X/2Y ø10/17.1	-11545	1648	-67800	SLD 3	2.5	52195	4.52	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
426	2X/2Y ø10/17.1	-11545	1648	-67598	SLD 3	2.5	52195	4.52	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
454	2X/2Y ø10/17.1	-11545	1648	-67396	SLD 3	2.5	52195	4.52	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
483	2X/2Y ø10/17.1	-11545	1648	-67194	SLD 3	2.5	52195	4.52	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
512	4X/5Y ø10/11.7	-11545	1645	-66992	SLD 3	1.7	85188	7.38	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
541	4X/5Y ø10/11.7	-11545	1645	-66789	SLD 3	1.7	85150	7.38	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
570	4X/5Y ø10/11.7	-11545	1645	-66591	SLD 3	1.7	85114	7.37	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Sl
620	4X/5Y ø10/12	-8844	1328	-54691	SLD 3	1.7	70519	7.97	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
649	4X/5Y ø10/12	-8844	1328	-54520	SLD 3	1.7	70488	7.97	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
678	4X/5Y ø10/12	-8844	1328	-54349	SLD 3	1.7	70458	7.97	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
707	2X/2Y ø10/17.5	-8844	1335	-54174	SLD 3	2.5	43227	4.89	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
736	2X/2Y ø10/17.5	-8844	1335	-54000	SLD 3	2.5	43227	4.89	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
764	2X/2Y ø10/17.5	-8844	1335	-53827	SLD 3	2.5	43227	4.89	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
793	2X/2Y ø10/17.5	-8844	1335	-53654	SLD 3	2.5	43227	4.89	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
822	4X/4Y ø10/12	-8844	1335	-53480	SLD 3	1.7	70302	7.95	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
851	4X/4Y ø10/12	-8844	1335	-53307	SLD 3	1.7	70271	7.95	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
880	4X/4Y ø10/12	-8844	1335	-53137	SLD 3	1.7	70240	7.94	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Sl
930	4X/4Y ø10/12	-7291	1381	-38916	SLD 3	1.7	68656	9.42	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
959	4X/4Y ø10/12	-7291	1381	-38746	SLD 3	1.7	68625	9.41	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
988	4X/4Y ø10/12	-7291	1381	-38574	SLD 3	1.7	68594	9.41	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1017	2X/2Y ø10/17.5	-7291	1381	-38399	SLD 3	2.5	43227	5.93	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1046	2X/2Y ø10/17.5	-7291	1381	-38226	SLD 3	2.5	43227	5.93	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1074	2X/2Y ø10/17.5	-7291	1381	-38052	SLD 3	2.5	43227	5.93	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1103	2X/2Y ø10/17.5	-7291	1381	-37879	SLD 3	2.5	43227	5.93	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1132	4X/4Y ø10/12	-7291	1381	-37706	SLD 3	1.7	68436	9.39	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1161	4X/4Y ø10/12	-7291	1381	-37532	SLD 3	1.7	68404	9.38	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1190	4X/4Y ø10/12	-7291	1381	-37362	SLD 3	1.7	68374	9.38	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Sl
1240	4X/4Y ø10/12	-5337	1162	-24803	SLD 3	1.7	66090	12.38	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1269	4X/4Y ø10/12	-5337	1162	-24632	SLD 3	1.7	66059	12.38	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1298	4X/4Y ø10/12	-5337	1162	-24461	SLD 3	1.7	66027	12.37	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1327	2X/2Y ø10/17.5	-5337	1162	-24286	SLD 3	2.5	43227	8.1	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1356	2X/2Y ø10/17.5	-5337	1162	-24112	SLD 3	2.5	43227	8.1	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1384	2X/2Y ø10/17.5	-5337	1162	-23939	SLD 3	2.5	43227	8.1	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1413	2X/2Y ø10/17.5	-5337	1162	-23766	SLD 3	2.5	43227	8.1	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1442	4X/4Y ø10/12	-5337	1162	-23592	SLD 3	1.7	65870	12.34	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1471	4X/4Y ø10/12	-5337	1162	-23419	SLD 3	1.7	65838	12.34	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1500	4X/4Y ø10/12	-5337	1162	-23249	SLD 3	1.7	65807	12.33	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Sl
1550	4X/4Y ø10/12	-4744	2068	-10497	SLD 3	1.6	64375	13.57	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Sl</

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
202	100818	-76378	-100972	SLE RA 8	-37.7	100818	-76378	-100972	SLE RA 8	-541.2	Si
231	124352	-93525	-100770	SLE RA 8	-39.1	124352	-93525	-100770	SLE RA 8	-556.9	Si
260	147479	-110376	-100571	SLE RA 8	-40.5	147479	-110376	-100571	SLE RA 8	-572.4	Si
310	-263644	184820	-81681	SLE RA 8	-41.8	-263644	184820	-81681	SLE RA 8	-563.8	Si
339	-213062	147924	-81482	SLE RA 8	-38.5	-213062	147924	-81482	SLE RA 8	-527	Si
368	-162084	110740	-81282	SLE RA 8	-35.2	-162084	110740	-81282	SLE RA 8	-490	Si
397	-110116	72833	-81077	SLE RA 8	-31.9	-110116	72833	-81077	SLE RA 8	-452.2	Si
426	-58643	35288	-80875	SLE RA 8	-28.6	-58643	35288	-80875	SLE RA 8	-414.8	Si
454	-7170	-2258	-80673	SLE RA 8	-25.4	-7170	-2258	-80673	SLE RA 8	-378.8	Si
483	44303	-39803	-80471	SLE RA 8	-27.9	44303	-39803	-80471	SLE RA 8	-406.6	Si
512	95776	-77349	-80269	SLE RA 8	-30.7	95776	-77349	-80269	SLE RA 8	-437.5	Si
541	147248	-114894	-80066	SLE RA 8	-33.5	147248	-114894	-80066	SLE RA 8	-467.6	Si
570	197830	-151790	-79868	SLE RA 8	-36.4	197830	-151790	-79868	SLE RA 8	-498.7	Si
620	-185076	122686	-64742	SLE RA 8	-35.3	-185076	122686	-64742	SLE RA 8	-477.6	Si
649	-149186	96826	-64571	SLE RA 8	-33	-149186	96826	-64571	SLE RA 8	-453.1	Si
678	-113014	70764	-64400	SLE RA 8	-30.6	-113014	70764	-64400	SLE RA 8	-427.7	Si
707	-76140	44195	-64225	SLE RA 8	-28.1	-76140	44195	-64225	SLE RA 8	-399.9	Si
736	-39618	17879	-64051	SLE RA 8	-25.3	-39618	17879	-64051	SLE RA 8	-368.4	Si
764	-3095	-8436	-63878	SLE RA 8	-23	-3095	-8436	-63878	SLE RA 8	-343.7	Si
793	33428	-34752	-63705	SLE RA 8	-25.4	33428	-34752	-63705	SLE RA 8	-369.9	Si
822	69950	-61067	-63531	SLE RA 8	-28.1	69950	-61067	-63531	SLE RA 8	-399.5	Si
851	106473	-87383	-63358	SLE RA 8	-30.8	106473	-87383	-63358	SLE RA 8	-429.2	Si
880	142363	-113243	-63188	SLE RA 8	-33.4	142363	-113243	-63188	SLE RA 8	-458.3	Si
930	-179704	146008	-44515	SLE RA 8	-29.8	-179704	146008	-44515	SLE RA 8	-392.9	Si
959	-142819	115687	-44345	SLE RA 8	-26.9	-142819	115687	-44345	SLE RA 8	-361.9	Si
988	-105645	85129	-44173	SLE RA 8	-24	-105645	85129	-44173	SLE RA 8	-329.1	Si
1017	-67750	53977	-43998	SLE RA 8	-21.4	-67750	53977	-43998	SLE RA 8	-300.5	Si
1046	-30215	23123	-43825	SLE RA 8	-18.3	-30215	23123	-43825	SLE RA 8	-265.1	Si
1074	10330	-8295	-43896	SLE RA 7	-16.7	10330	-8295	-43896	SLE RA 7	-247.8	Si
1103	46359	-36326	-43723	SLE RA 7	-19.6	46359	-36326	-43723	SLE RA 7	-279.3	Si
1132	82389	-69442	-43305	SLE RA 8	-22.5	82389	-69442	-43305	SLE RA 8	-311.6	Si
1161	119924	-100297	-43131	SLE RA 8	-25.5	119924	-100297	-43131	SLE RA 8	-345.2	Si
1190	156809	-130618	-42961	SLE RA 8	-28.4	156809	-130618	-42961	SLE RA 8	-378.1	Si
1240	-180078	169238	-27583	SLE RA 8	-25.4	-180078	169238	-27583	SLE RA 8	-324.1	Si
1269	-146513	136947	-27412	SLE RA 8	-22.5	-146513	136947	-27412	SLE RA 8	-290.4	Si
1298	-112686	104403	-27241	SLE RA 8	-19.5	-112686	104403	-27241	SLE RA 8	-256.4	Si
1327	-76239	64875	-28304	SLE RA 7	-16.6	-76239	64875	-28304	SLE RA 7	-224.7	Si
1356	-48997	39636	-28131	SLE RA 7	-14.2	-48997	39636	-28131	SLE RA 7	-197.5	Si
1384	-21755	14397	-27957	SLE RA 7	-11.8	-21755	14397	-27957	SLE RA 7	-170.4	Si
1413	24267	-27353	-26546	SLE RA 8	-11.8	24267	-27353	-26546	SLE RA 8	-169.6	Si
1442	58423	-60213	-26372	SLE RA 8	-14.7	58423	-60213	-26372	SLE RA 8	-202	Si
1471	92579	-93073	-26199	SLE RA 8	-17.6	92579	-93073	-26199	SLE RA 8	-234.4	Si
1500	126144	-125365	-26029	SLE RA 8	-20.5	126144	-125365	-26029	SLE RA 8	-266.3	Si
1550	-226488	184105	-12792	SLE RA 7	-32.3	-221169	182310	-10611	SLE RA 8	425.6	Si
1579	-165721	138980	-12621	SLE RA 7	-18.2	-165721	138980	-12621	SLE RA 7	-222	Si
1608	-111722	106303	-10269	SLE RA 8	-13.3	-104478	93503	-12450	SLE RA 7	-166.8	Si
1637	-60835	67411	-10094	SLE RA 8	-9.2	-60835	67411	-10094	SLE RA 8	-118	Si
1666	34533	-15135	-11754	SLE RA 6	-6.6	34533	-15135	-11754	SLE RA 6	-90	Si
1694	94229	-55602	-11581	SLE RA 6	-11.1	94229	-55602	-11581	SLE RA 6	-140.3	Si
1723	153925	-96068	-11407	SLE RA 6	-15.7	153925	-96068	-11407	SLE RA 6	-190.7	Si
1752	213621	-136535	-11234	SLE RA 6	-28.5	213621	-136535	-11234	SLE RA 6	358.7	Si
1781	273317	-177002	-11061	SLE RA 6	-37.9	273317	-177002	-11061	SLE RA 6	588	Si
1810	327911	-227579	-11238	SLE RA 7	-47.3	331980	-216768	-10890	SLE RA 6	822.3	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	-52538	34244	-88288	SLE QP 4	-30.6	Si
29	-33297	20799	-88089	SLE QP 4	-29.3	Si
58	-13717	7118	-87887	SLE QP 4	-28	Si
87	5863	-6564	-87685	SLE QP 4	-27.6	Si
116	25443	-20246	-87482	SLE QP 4	-28.7	Si
144	45023	-33928	-87280	SLE QP 4	-29.9	Si
173	64603	-47610	-87078	SLE QP 4	-31.1	Si
202	84183	-61291	-86876	SLE QP 4	-32.2	Si
231	103763	-74973	-86674	SLE QP 4	-33.4	Si
260	123004	-88418	-86475	SLE QP 4	-34.5	Si
310	-219501	141457	-71039	SLE QP 4	-35.4	Si
339	-177317	113690	-70841	SLE QP 4	-32.8	Si
368	-134803	85706	-70640	SLE QP 4	-30.1	Si
397	-91464	57179	-70436	SLE QP 4	-27.4	Si
426	-48537	28924	-70234	SLE QP 4	-24.7	Si
454	-5610	668	-70032	SLE QP 4	-22	Si
483	37316	-27587	-69830	SLE QP 4	-23.9	Si
512	80243	-55842	-69627	SLE QP 4	-26.2	Si
541	123170	-84098	-69425	SLE QP 4	-28.5	Si
570	165354	-111864	-69226	SLE QP 4	-30.8	Si
620	-153850	91345	-56174	SLE QP 4	-29.8	Si
649	-124046	71764	-56003	SLE QP 4	-27.9	Si
678	-94009	52029	-55832	SLE QP 4	-26	Si
707	-63388	31912	-55657	SLE QP 4	-24	Si
736	-33059	11986	-55483	SLE QP 4	-21.7	Si
764	-2730	-7941	-55310	SLE QP 4	-19.9	Si
793	27599	-27867	-55137	SLE QP 4	-21.8	Si
822	57928	-47793	-54963	SLE QP 4	-24	Si
851	88257	-67719	-54790	SLE QP 4	-26.1	Si
880	118061	-87300	-54620	SLE QP 4	-28.3	Si
930	-150309	114139	-39506	SLE QP 4	-25.5	Si
959	-119201	90654	-39336	SLE QP 4	-23.1	Si
988	-87849	66985	-39164	SLE QP 4	-20.7	Si
1017	-55888	42857	-38989	SLE QP 4	-18.6	Si
1046	-24232	18958	-38816	SLE QP 4	-16	Si
1074	7424	-4941	-38643	SLE QP 4	-14.6	Si
1103	39080	-28840	-38469	SLE QP 4	-17	Si
1132	70737	-52739	-38296	SLE QP 4	-19.5	Si
1161	102393	-76637	-38123	SLE QP 4	-21.9	Si
1190	133501	-100122	-37952	SLE QP 4	-24.3	Si
1240	-144282	122081	-24909	SLE QP 4	-20.9	Si
1269	-118487	99483	-24738	SLE QP 4	-18.7	Si
1298	-92491	76708	-24567	SLE QP 4	-16.5	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Verifica
1327	-65989	53491	-24392	SLE QP 4	-14.2	Si
1356	-39740	30494	-24218	SLE QP 4	-11.9	Si
1384	-13492	7498	-24045	SLE QP 4	-9.7	Si
1413	12757	-15498	-23872	SLE QP 4	-9.9	Si
1442	39006	-38494	-23698	SLE QP 4	-12	Si
1471	65255	-61491	-23525	SLE QP 4	-14.1	Si
1500	91050	-84089	-23355	SLE QP 4	-16.2	Si
1550	-187898	144236	-10263	SLE QP 4	-18.7	Si
1579	-140473	111739	-10093	SLE QP 4	-15	Si
1608	-92676	78988	-9921	SLE QP 4	-11.3	Si
1637	-43952	45601	-9746	SLE QP 4	-7.4	Si
1666	10626	5521	-9424	SLE QP 3	-4.2	Si
1694	57969	-25211	-9251	SLE QP 3	-7.3	Si
1723	105312	-55944	-9078	SLE QP 3	-10.8	Si
1752	152654	-86676	-8904	SLE QP 3	-14.4	Si
1781	199997	-117409	-8731	SLE QP 3	-17.9	Si
1810	244776	-152242	-8709	SLE QP 4	-33.9	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni									
Pilastrata 6	285	No	No										
Pilastrata 6	595	No	No										
Pilastrata 6	905	No	No										
Pilastrata 6	1215	No	No										
Pilastrata 6	1525	No	No										
Pilastrata 6	1835	No	No										

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	285	0.837	0.763	0.639	0.206	0.132	0.264	0.123	7.1	13.9	1.072	SLD 12	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	595	0.776	0.827	0.642	0.147	0.094	0.209	0.09	10	14.2	1.053	SLD 12	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	905	0.763	0.789	0.602	0.154	0.092	0.175	0.07	10	13.9	1.33	SLD 12	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	1215	0.763	0.786	0.6	0.154	0.092	0.11	0.031	10	12.8	2.985	SLD 12	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	1525	0.763	0.786	0.6	0.154	0.092	0.046	-0.008	10	12.8	1000	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	285	0.837	0.763	0.639	0.206	0.132	0.274	0.129	7.1	13.9	1.024	SLV 12	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	595	0.776	0.827	0.642	0.147	0.094	0.216	0.094	10	14.2	1.006	SLV 12	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	905	0.763	0.789	0.602	0.154	0.092	0.181	0.073	10	13.9	1.265	SLV 12	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	1215	0.763	0.786	0.6	0.154	0.092	0.114	0.033	10	12.8	2.79	SLV 12	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	1525	0.763	0.786	0.6	0.154	0.092	0.047	-0.007	10	12.8	1000	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 6	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	42	42	No	-140713	SLU 16	99988	260370	75203	146882	-99988	75203	3.04	3.04	Min	No	3.04	Si
-60	285	0	30	17	42	42	No	-140713	SLU 16	99988	260370	75203	146882	-99988	75203	3.04	3.04	X	No	3.04	Si
-60	285	202.2	30	17	52	52	No	-92100	SLD 16	58632	195768	1116872	115374	75397	1116872	4.65	3.66	Min	No	3.62	Si
-60	285	0	30	17	51	51	No	-93512	SLD 16	58632	179219	1116872	73419	-76467	-1915329	4.58		X	Si		Si
-60	285	202.2	30	17	51	51	No	-94722	SLV 14	77723	190134	2213548	94021	101988	2213548	4.52	2.49	Min	No	2.44	Si
-60	285	0	30	17	50	50	No	-98529	SLV 16	58660	179023	2198929	76937	-97097	-3812099	4.35		X	Si		Si
-60	285	0	30	17	42	42	No	-140713	SLU 16	99988	260370	75203	146882	-99988	75203	3.04	3.04	Min	No	3.04	Si
-60	285	0	30	17	42	42	No	-140713	SLU 16	99988	260370	75203	146882	-99988	75203	3.04	3.04	Y	No	3.04	Si
-60	285	0	30	17	51	51	No	-93512	SLD 16	58632	179219	1116872	73419	-76467	-1915329	2.75	Min	Si		Si	
-60	285	0	30	17	51	51	No	-93512	SLD 16	58632	179219	1116872	73419	-76467	-1915329	2.75	Y	Si		Si	
-60	285	0	30	17	56	56	No	-78047	SLV 1	75766	165895	2189274	60937	-75766	3880588	1.41	Min	Si		Si	
-60	285	0	30	17	56	56	No	-78047	SLV 1	75766	165895	2189274	60937	-75766	3880588	1.41	Y	Si		Si	
285	595	310	27	15	47	47	No	-112160	SLU 16	160638	170419	114879	94329	-369174	263112	3.66	3.82	Min	No	3.6	Si
285	595	310	27	15	47	47	No	-112160	SLU 16	160638	170419	114879	94329	-369174	263112	3.66	3.82	X	No	3.6	Si
285	595	310	27	15	59	59	No	-71910	SLD 7	114054	119293	270028	51620	-264040	619763	5.58	5.26	Min	No	4.72	Si
285	595	310	27	15	58	58	No	-74011	SLD 12	116164	122124	136858	59662	-268896	-314353	5.43	5.79	X	No	5.17	Si
285	595	454.4	27	15	62	62	No	-64952	SLV 4	106846	85319	1381542	41587	-106846	1381542	6.59	3.86	Min	No	3.75	Si
285	595	310	27	15	57	57	No	-76678	SLV 12	133967	121480	330029	53773	-311506	-757874	5.11	4.73	X	No	4.18	Si
285	595	310	27	15	47	47	No	-112160	SLU 16	160638	170419	114879	94329	-369174	263112	3.66	3.82	Min	No	3.6	Si
285	595	310	27	15	47	47	No	-112160	SLU 16	160638	170419	114879	94329	-369174	263112	3.66	3.82	Y	No	3.6	Si
285	595	310	27	15	60	60	No	-68404	SLD 3	100668	118075	732928	45178	-232181	1682329	3.32	Min	Si		Si	
285	595	310	27	15	60	60	No	-68404	SLD 3	100668	118075	732928	45178	-232181	1682329	3.32	Y	Si		Si	
285	595	310	27	15	62	62	No	-63630	SLV 1	88569	111756	1381069	41025	-190575	3170262	1.73	Min	Si		Si	
285	595	310	27	15	62	62	No	-63630	SLV 1	88569	111756	1381069	41025	-190575	3170262	1.73	Y	Si		Si	
595	905	706.7	27	18	49	49	No	-88323	SLU 16	113024	134116	84130	85447	-113024	84130	4.34	4.34	Min	No	4.34	Si
595	905	706.7	27	18	49	49	No	-88323	SLU 16	113024	134116	84130	85447	-113024	84130	4.34	4.34	X	No	4.34	Si
595	905	620	27	18	61	61	No	-57108	SLD 7	91133	91316	202612	47401	-210864	646338	6.58	5.96	Min	No	5.39	Si
595	905	620	27	18	60	60	No	-58425	SLD 12	93488	92773	110691	52749	-216461	-254638	6.43	6.75	X	No	5.99	Si
595	905	764.4	27	18	64	64	No	-52341	SLV 3	81063	69362	1057812	44103	-81063	1057812	7.32	3.98	Min	No	3.87	Si
595	905	620	27	18	59	59	No	-60429	SLV 12	116310	90905	257863	49003	-270412	-592265	5.94	5.26	X	No	4.62	Si
595	905	706.7	27	18	49	49	No	-88323	SLU 16	113024	134116	84130	85447	-113024	84130	4.34	4.34	Min	No	4.34	Si
595	905	706.7	27	18	49	49	No	-88323	SLU 16	113024	134116	84130	85447	-113024	84130	4.34	4.34	Y	No	4.34	Si
595	905	620	27	18	62	62	No	-54691	SLD 3	74541	92828	555425	42322	-171620	1273720	3.51	Min	Si		Si	
595	905	620	27	18	62	62	No	-54691	SLD 3	74541	92828	555425	42322	-171620	1273720	3.51	Y	Si		Si	
595	905	620	27	18	63	63	No	-53205	SLV 3	81063	87997	1057812	40357	-186981	2426425	1.83	Min	Si		Si	
595	905	620	27	18	63	63	No	-53205	SLV 3	81063	87997	1057812	40357	-186981	2426425	1.83	Y	Si		Si	
905	1215	930	27	18	59	59	No	-61016	SLU 16	115729	92713	97396	60342	-252815	207379	5.68	6.28	Min	No	5.44	Si
905	1215	930	27	18	59	59	No	-61016	SLU 16	115729	92713	97396	60342	-252815	207379	5.68	6.28	X	No	5.44	Si
905	1215	930	27	18	72	72	No	-40400	SLD 7	85066	65578	194158	35327	-195079	386159	8.24	7.64	Min	No	6.54	Si
905	1215	930	27	18	72	72	No	-41083	SLD 12	86466	66381	74008	48864	-198328	-113760	8.1	9.32	X	No	7.85	Si
905	1215	930	27	18	72	72	No	-41144	SLV 7	101790	63677	331126	33773	-234012	647251	7.68	5.93	Min	No	5	Si
905	1215	930	27	18	71	71	No	-42469	SLV 12	104333	65332	197832	37969	-239913	-336499	7.46	7.74	X	No	6.29	Si
905	1215	930	27	18	59	59	No	-61016	SLU 16	115729	92713	97396	60342	-252815	207379	5.68	6.28	Min	No	5.44	Si
905	1215	1016.7	27	18	59	59	No	-60711	SLU 15	112748	94012	88757	62346	-112748	88757	6.02	6.02	Y	No	6.02	Si
905	1215	1190	27	18	75	75	No	-37362	SLD 3	74373	64543	494005	29463	140972	-958432	4.31	Min	Si		Si	
905	1215	1190	27	18	75	75	No	-37362	SLD 3	74373	64543	494005	29463	140972	-958432	4.31	Y	Si		Si	
905	1215	1190	27	18	77	77	No	-35384	SLV 1	63273	62147	915502	27136	121548	-1779486	2.03	Min	Si		Si	
905	1215	1190	27	18	77	77	No	-35384	SLV 1	63273	62147	915502	27136	121548	-1779486	2.03	Y	Si		Si	
1215	1525	1240	27	18	75	75	No	-37755	SLU 16	110388	56764	105002	36578	-254174	241373	7.5	8.84	Min	No	6.64	Si
1215	1525	1240	27	18	75	75	No	-37755	SLU 16	110388	56764	105002	36578	-254174	241373	7.5	8.84	X	No	6.64	Si
1215	1525	1240	27	18	91	91	No	-25515	SLD 16	67450	43740	270936	22396	-155908	-402798	11.55	9.01	Min	No	7.41	Si
1215	1525	1240	27	18	90	90	No	-25884	SLD 12	80029	42150	54169	30786	-185036	-54169	10.66		X	Si		Si
1215	1525	1355.6	27	18	94	94	No	-23999	SLV 3	71970	40252	683364	23705	-71970	683364	14.83	6	Min	No	5.74	Si
1215	1525	1240	27	18	89	89	No	-26731	SLV 12	95314	41557	125752	29931	-220465	-145057	9.61	12.94	X	No	8.78	Si
1215	1525	1240	27	18	75	75	No	-37755	SLU 16	110388	56764	105002	36578	-254174	241373	7.5	8.84	Min	No	6.64	Si
1215	1525	1240	27	18	75	75	No	-37755	SLU 16	110388	56764	105002	36578	-254174	241373	7.5	8.84	Y	No	6.64	Si
1215	1525	1500	27	18	95	95	No	-23249	SLD 3	67527	39893	369620	18460	98262	-721724	5.63	Min	Si		Si	
1215	1525	1500	27	18	95	95	No	-23249	SLD 3	67527	39893	369620	18460	98262	-721724	5.63	Y				

TABULATO DI CALCOLO – FABBRICATO B

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
905	360	6622511	<	7331144	3756093	3575051	1.107	SLV 1		Si
1215	0	5591364	<	6023102	3123665	2899437	1.077	SLV 5		Si
1215	180	5591364	<	6023102	3123665	2899437	1.077	SLV 5		Si
1215	270	740999	<	3751402	1940514	1810888	5.063	SLV 5		Si
1525	0	4251962	<	5472936	2867953	2604983	1.287	SLV 5		Si
1525	180	4251962	<	5472936	2867953	2604983	1.287	SLV 5		Si
1525	270	740999	<	3415592	1789601	1625991	4.609	SLV 5		Si

Pilastrata 7

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	33.18	2.4	0	1,2,3,4	271212	-271212	-135606	891760	-891760	SLU 16	3.288	Si
29	33.18	2.4	0	1,2,3,4	270695	-270695	-135348	891760	-891760	SLU 16	3.294	Si
58	33.18	2.4	0	1,2,3,4	-270169	-270169	-135085	-891760	-891760	SLU 16	3.301	Si
87	33.18	1.2	0	3,4	-269644	269644	-134822	-891760	891760	SLU 16	3.307	Si
116	33.18	1.2	0	3,4	-269118	269118	-134559	-891760	891760	SLU 16	3.314	Si
144	33.18	1.2	0	3,4	-268592	268592	-134296	-891760	891760	SLU 16	3.32	Si
173	33.18	1.2	0	3,4	-268066	268066	-134033	-891760	891760	SLU 16	3.327	Si
202	33.18	1.2	0	3,4	-267540	267540	-133770	-891760	891760	SLU 16	3.333	Si
231	33.18	1.2	0	3,4	-267015	267015	-133507	-891760	891760	SLU 16	3.34	Si
260	33.18	1.2	0	3,4	-266498	266498	-133249	-891760	891760	SLU 16	3.346	Si
310	33.18	2.4	0	3,4,5,7,8,9,11	214274	-214274	-107137	891760	-891760	SLU 16	4.162	Si
339	33.18	2.4	0	3,4,5,7,8,9,11	213757	-213757	-106879	891760	-891760	SLU 16	4.172	Si
368	33.18	2.4	0	3,4,5,7,8,9,11	213237	-213237	-106618	891760	-891760	SLU 16	4.182	Si
397	33.18	1.2	0	5,7,8,9,11	212706	-212706	-106353	891760	-891760	SLU 16	4.192	Si
426	33.18	1.2	0	5,7,8,9,11	-212180	-212180	-106090	-891760	-891760	SLU 16	4.203	Si
454	33.18	1.2	0	5,7,8,9,11	-211654	-211654	-105827	-891760	-891760	SLU 16	4.213	Si
483	33.59	1.4	0	5,7,8,9,11,17	-211128	-211128	-105564	-895038	-895038	SLU 16	4.239	Si
512	35.86	1.4	0	5,7,8,9,11,17	-210603	-210603	-105301	-912795	-912795	SLU 16	4.334	Si
541	38.22	1.6	0	5,6,7,8,9,11,17	-210077	210077	-105038	-931235	931235	SLU 16	4.433	Si
570	42.84	2	0	5,6,7,8,9,10,11,17	-209560	209560	-104780	-967401	967401	SLU 16	4.616	Si
620	39.46	2.8	0	6,7,8,10,11,12,13,17	167020	-167020	-83510	846244	-846244	SLU 16	5.067	Si
649	36.64	2.8	0	6,7,8,10,11,12,13,17	166578	-166578	-83289	827817	-827817	SLU 16	4.97	Si
678	33.82	2.8	0	6,7,8,10,11,12,13,17	166131	-166131	-83066	806495	-806495	SLU 16	4.855	Si
707	28.65	1.2	0	12,13	165676	-165676	-82838	766052	-766052	SLU 16	4.624	Si
736	28.65	1.2	0	12,13	165226	-165226	-82613	766052	-766052	SLU 16	4.636	Si
764	28.65	1.2	0	12,13	-164775	164775	-82387	-766052	766052	SLU 16	4.649	Si
793	28.65	1.2	0	12,13	-164324	164324	-82162	-766052	766052	SLU 16	4.662	Si
822	28.65	1.2	0	12,13	-163874	163874	-81937	-766052	766052	SLU 16	4.675	Si
851	28.65	1.2	0	12,13	-163423	163423	-81711	-766052	766052	SLU 16	4.688	Si
880	28.65	1.2	0	12,13	-162980	162980	-81490	-766052	766052	SLU 16	4.7	Si
930	28.65	2.2	0	12,13,14	149434	-149434	-59484	915678	-1220120	SLU 16	6.128	Si
959	28.1	2.2	0	12,13,14	118801	-118801	-59262	760363	-1021191	SLU 16	6.4	Si
988	27.55	2.2	0	12,13,14	118078	-118078	-59039	757431	-767702	SLU 16	6.415	Si
1017	24.13	1	0	14	117623	-117623	-58812	730647	-730647	SLU 16	6.212	Si
1046	24.13	1	0	14	117172	-117172	-58586	730647	-730647	SLU 16	6.236	Si
1074	24.13	1	0	14	-116722	116722	-58361	-730647	730647	SLU 16	6.26	Si
1103	24.13	1	0	14	-116271	116271	-58136	-730647	730647	SLU 16	6.284	Si
1132	24.13	1	0	14	-115820	115820	-57910	-730647	730647	SLU 16	6.308	Si
1161	24.13	1	0	14	-115370	122276	-57685	-730647	774385	SLU 16	6.333	Si
1190	24.13	1	0	14	-130042	161840	-57463	-813128	1011954	SLU 16	6.253	Si
1240	24.13	2	0	14,15	167565	-191106	-35488	1373040	-1565939	SLU 16	8.194	Si
1269	24.13	2	0	14,15	133044	-150925	-35266	1197151	-1358045	SLU 16	8.998	Si
1298	24.13	2	0	14,15	94626	-96812	-36138	926046	-947435	SLU 15	9.786	Si
1327	24.13	1	0	15	71821	-71821	-35911	730647	-730647	SLU 15	10.173	Si
1356	24.13	1	0	15	71371	-71371	-35685	730647	-730647	SLU 15	10.237	Si
1384	24.13	1	0	15	-70920	70920	-35460	-730647	730647	SLU 15	10.302	Si
1413	24.13	1	0	15	-70469	70469	-35235	-730647	730647	SLU 15	10.368	Si
1442	24.13	1	0	15	-79192	70019	-35009	-826375	730647	SLU 15	10.435	Si
1471	24.13	1	0	15	-112852	135291	-33689	-1097833	1316123	SLU 16	9.728	Si
1500	24.13	1	0	15	-147372	175472	-33468	-1310320	1560160	SLU 16	8.891	Si
1550	24.13	2	0	15,16	158229	-277970	-13993	1501631	-2638010	SLU 16	9.49	Si
1579	24.13	2	0	15,16	128945	-212983	-13772	1542680	-2548109	SLU 16	11.964	Si
1608	24.13	2	0	15,16	94057	-133096	-16098	1450168	-2052080	SLU 15	15.418	Si
1637	24.13	1	0	16	69553	-57837	-15870	1363640	-1133933	SLU 15	19.606	Si
1666	24.13	1	0	16	45283	31290	-15645	1019217	704273	SLU 15	22.508	Si
1694	24.13	1	0	16	30839	91249	-15420	653285	1932965	SLU 15	21.183	Si
1723	24.13	1	0	16	-30389	165792	-15194	-536381	2926330	SLU 15	17.651	Si
1752	24.13	1	0	16	-29938	240334	-14969	-437886	3515224	SLU 15	14.626	Si
1781	24.13	1	0	16	-51799	314877	-14744	-606989	3689808	SLU 15	11.718	Si
1810	24.13	1	0	16	-75649	388130	-14522	-711486	3650403	SLU 15	9.405	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	33.18	2.4	0.0003	1,2,3,4	1065285	3874980	-54687	1150006	4183155	SLV 9-Ger.	1.08	116109	256802	SLV 8	Si
29	33.18	2.4	0.0003	1,2,3,4	72739	-3286967	-70877	126546	-5718420	SLV 14	1.74	115910	256802	SLV 8	Si
58	33.18	2.4	0.0003	1,2,3,4	-52203	2711930	-99319	-111573	5796162	SLV 3	2.137	115708	256802	SLV 8	Si
87	33.18	1.2	0.0003	3,4	-31530	2136849	-99117	-80318	5443317	SLV 3	2.547	115506	256802	SLV 8	Si
116	33.18	1.2	0.0003	3,4	-12023	1555816	-99358	-37167	4809481	SLV 4	3.091	115303	256802	SLV 8	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
144	33.18	1.2	0.0003	3,4	9295	990812	-99156	34867	3716497	SLV 4	3.751	115101	256802	SLV 8	Si
173	33.18	1.2	0.0003	3,4	7108	114315	-114899	27583	443612	SLV 8	3.881	114899	256802	SLV 8	Si
202	33.18	1.2	0.0003	3,4	45435	-58161	-114697	176628	-226097	SLV 8	3.887	114697	256802	SLV 8	Si
231	33.18	1.2	0.0003	3,4	83356	-225506	-114494	324617	-878196	SLV 8	3.894	114494	256802	SLV 8	Si
260	33.18	1.2	0.0003	3,4	94812	-1272730	-98350	319975	-4295280	SLV 4	3.375	114296	256802	SLV 8	Si
310	33.18	2.4	0.0006	3,4,5,7,8,9,11	265292	-2951549	-54709	477696	-5314691	SLV 14	1.801	95179	256802	SLV 8	Si
339	33.18	2.4	0.0006	3,4,5,7,8,9,11	211747	-2380838	-54510	493226	-5545740	SLV 14	2.329	94980	256802	SLV 8	Si
368	33.18	2.4	0.0006	3,4,5,7,8,9,11	-142839	1785216	-80748	-427374	5341350	SLV 3	2.992	94780	256802	SLV 8	Si
397	33.18	1.2	0.0006	5,7,8,9,11	-100718	-1787988	-80929	-387239	-4567585	SLV 4	3.845	94576	256802	SLV 8	Si
426	33.18	1.2	0.0006	5,7,8,9,11	-105681	166400	-94374	-499298	786175	SLV 8	4.725	94374	256802	SLV 8	Si
454	33.18	1.2	0.0006	5,7,8,9,11	-32816	-29356	-94172	-155375	-138991	SLV 8	4.735	94172	256802	SLV 8	Si
483	33.59	1.4	0.0006	5,7,8,9,11,17	41926	-235021	-93969	199669	-1119259	SLV 8	4.762	93969	256802	SLV 8	Si
512	35.86	1.4	0.0006	5,7,8,9,11,17	83768	-1165386	-80120	331884	-4617196	SLV 4	3.962	93767	256802	SLV 8	Si
541	38.22	1.6	0.0006	5,6,7,8,9,11,17	129843	-1748870	-79917	401502	-5407871	SLV 4	3.092	93565	256802	SLV 8	Si
570	42.84	2	0.0006	5,6,7,8,9,10,11,17	170427	-2329618	-79334	429567	-5871886	SLV 3	2.521	93366	256802	SLV 8	Si
620	39.46	2.8	0.0006	6,7,8,10,11,12,13,17	319083	-2336060	-41259	572497	-4191346	SLV 14	1.794	74848	220116	SLV 8	Si
649	36.64	2.8	0.0006	6,7,8,10,11,12,13,17	255376	-1871135	-41089	577843	-4233853	SLV 14	2.263	74678	220116	SLV 8	Si
678	33.82	2.8	0.0006	6,7,8,10,11,12,13,17	-136492	1415432	-63835	-410808	4260105	SLV 3	3.01	74506	220116	SLV 8	Si
707	28.65	1.2	0.0006	12,13	-95968	950848	-63660	-369351	3659530	SLV 3	3.849	74331	220116	SLV 8	Si
736	28.65	1.2	0.0006	12,13	-57875	492503	-63792	-296906	2526594	SLV 4	5.13	74158	220116	SLV 8	Si
764	28.65	1.2	0.0006	12,13	-38696	38418	-73985	-200332	198894	SLV 8	5.177	73985	220116	SLV 8	Si
793	28.65	1.2	0.0006	12,13	38585	-130569	-73811	200227	-677551	SLV 8	5.189	73811	220116	SLV 8	Si
822	28.65	1.2	0.0006	12,13	67109	-910744	-63272	267481	-3630013	SLV 4	3.986	73638	220116	SLV 8	Si
851	28.65	1.2	0.0006	12,13	-198518	1454066	-39875	-564624	4135661	SLV 14	2.844	73465	220116	SLV 8	Si
880	28.65	1.2	0.0006	12,13	-262221	1918523	-39705	-532775	3989020	SLV 14	2.032	73294	220116	SLV 8	Si
930	28.65	2.2	0.0008	12,13,14	364349	-1783919	-30052	716411	-3507679	SLV 14	1.966	53891	220116	SLV 8	Si
959	28.1	2.2	0.0008	12,13,14	291642	-1389935	-29882	764964	-3645738	SLV 14	2.623	53720	220116	SLV 8	Si
988	27.55	2.2	0.0008	12,13,14	218368	-993798	-29710	827189	-3764554	SLV 14	3.788	53549	220116	SLV 8	Si
1017	24.13	1	0.0008	14	143677	-593071	-29535	838016	-3459174	SLV 14	5.833	53374	220116	SLV 8	Si
1046	24.13	1	0.0008	14	-85857	60698	-53200	-589573	416810	SLV 8	6.867	53200	220116	SLV 8	Si
1074	24.13	1	0.0008	14	-8140	-79371	-53027	-56076	-546812	SLV 8	6.889	53027	220116	SLV 8	Si
1103	24.13	1	0.0008	14	36561	-593182	-44876	204730	-3321637	SLV 4	5.6	52854	220116	SLV 8	Si
1132	24.13	1	0.0008	14	-152346	1034329	-28842	-540403	3668978	SLV 14	3.547	52680	220116	SLV 8	Si
1161	24.13	1	0.0008	14	-226326	1434538	-28669	-524044	3321582	SLV 14	2.315	52507	220116	SLV 8	Si
1190	24.13	1	0.0008	14	-299031	1828623	-28498	-506354	3096444	SLV 14	1.693	52337	220116	SLV 8	Si
1240	24.13	2	0.0008	14,15	375380	-1224747	-18982	843123	-2750848	SLV 14	2.246	32636	220116	SLV 8	Si
1269	24.13	2	0.0008	14,15	300707	-939598	-18811	921170	-2878316	SLV 14	3.063	32466	220116	SLV 8	Si
1298	24.13	2	0.0008	14,15	225451	-653664	-18640	1049618	-3043229	SLV 14	4.656	32294	220116	SLV 8	Si
1327	24.13	1	0.0008	15	148737	-367719	-18465	1224391	-3027040	SLV 14	8.232	32119	220116	SLV 8	Si
1356	24.13	1	0.0008	15	-85841	19782	-31946	-972865	224191	SLV 8	11.333	31946	220116	SLV 8	Si
1384	24.13	1	0.0008	15	-7800	-253259	-26527	-86450	-2806950	SLV 4	11.083	31773	220116	SLV 8	Si
1413	24.13	1	0.0008	15	-79304	536935	-17945	-556843	3770144	SLV 14	7.022	31599	220116	SLV 8	Si
1442	24.13	1	0.0008	15	-155269	824850	-17771	-622045	3304555	SLV 14	4.006	31426	220116	SLV 8	Si
1471	24.13	1	0.0008	15	-231252	1114770	-17598	-622351	3000101	SLV 14	2.691	31253	220116	SLV 8	Si
1500	24.13	1	0.0008	15	-305923	1400419	-17428	-619298	2834950	SLV 14	2.024	31082	220116	SLV 8	Si
1550	24.13	2	0.0008	15,16	610181	-485875	-6470	1502049	-1196051	SLV 9	2.462	12632	220116	SLV 12	Si
1579	24.13	2	0.0008	15,16	482486	-369059	-6300	1554823	-1189300	SLV 9	3.223	12462	220116	SLV 12	Si
1608	24.13	2	0.0008	15,16	353792	-251677	-6128	1650164	-1173875	SLV 9	4.664	12290	220116	SLV 12	Si
1637	24.13	1	0.0008	16	222600	-133740	-5953	1868698	-1122734	SLV 9	8.395	12115	220116	SLV 12	Si
1666	24.13	1	0.0008	16	66438	69571	-8083	1763655	1846822	SLV 13	26.546	11942	220116	SLV 12	Si
1694	24.13	1	0.0008	16	-13710	284740	-7968	-188766	3920335	SLV 14	13.768	11768	220116	SLV 12	Si
1723	24.13	1	0.0008	16	-92783	521629	-7795	-539513	3033164	SLV 14	5.815	11595	220116	SLV 12	Si
1752	24.13	1	0.0008	16	-171837	761150	-7622	-610772	2705401	SLV 14	3.554	11422	220116	SLV 12	Si
1781	24.13	1	0.0008	16	-250894	1001473	-7448	-635458	2536501	SLV 14	2.533	11248	220116	SLV 12	Si
1810	24.13	1	0.0008	16	-328584	1237964	-7278	-648049	2441572	SLV 14	1.972	11078	220116	SLV 12	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	33.18	2.4	0.0001	1,2,3,4	-48811	1944491	-92911	-134809	5370454	SLD 3	2.762	Si
29	33.18	2.4	0.0001	1,2,3,4	-38433	1661888	-92712	-117464	5079272	SLD 3	3.056	Si
58	33.18	2.4	0.0001	1,2,3,4	-29358	1370253	-92743	-99890	4662308	SLD 4	3.403	Si
87	33.18	1.2	0.0001	3,4	-18464	1080331	-92540	-70061	4099308	SLD 4	3.794	Si
116	33.18	1.2	0.0001	3,4	-7424	789859	-92338	-31376	3338135	SLD 4	4.226	Si
144	33.18	1.2	0.0001	3,4	-18190	143204	-100834	-80435	633237	SLD 8	4.422	Si
173	33.18	1.2	0.0001	3,4	2244	60810	-100632	9941	269438	SLD 8	4.431	Si
202	33.18	1.2	0.0001	3,4	22348	-25398	-100430	99217	-112760	SLD 8	4.44	Si
231	33.18	1.2	0.0001	3,4	42351	-109182	-100227	188408	-485718	SLD 8	4.449	Si
260	33.18	1.2	0.0001	3,4	62076	-192212	-100029	276703	-856788	SLD 8	4.458	Si
310	33.18	2.4	0.0003	3,4,5,7,8,9,11	-111944	1489287	-74851	-389560	5182649	SLD 3	3.48	Si
339	33.18	2.4	0.0003	3,4,5,7,8,9,11	-91414	1195316	-74652	-364347	4764161	SLD 3	3.986	Si
368	33.18	2.4	0.0003	3,4,5,7,8,9,11	-73032	895045	-74654	-335334	4109710	SLD 4	4.592	Si
397	33.18	1.2	0.0003	5,7,8,9,11	-51255	594799	-74450	-271781	3153960	SLD 4	5.303	Si
426	33.18	1.2	0.0003	5,7,8,9,11	-57603	75747	-81707	-314343	413359	SLD 8	5.457	Si
454	33.18	1.2	0.0003	5,7,8,9,11	-20898	-25497	-81504	-114324	-139482	SLD 8	5.471	Si
483	33.59	1.4	0.0003	5,7,8,9,11,17	16463	-132061	-81302	90618	-726912	SLD 8	5.504	Si
512	35.86	1.4	0.0003	5,7,8,9,11,17	35096	-604637	-73641	190465	-3281337	SLD 4	5.427	Si
541	38.22	1.6	0.0003	5,6,7,8,9,11,17	56665	-901945	-73439	269340	-4287161	SLD 4	4.753	Si
570	42.84	2	0.0003	5,6,7,8,9,10,11,17	77864	-1194640	-73240	322277	-4944581	SLD 4	4.139	Si
620	39.46	2.8	0.0003	6,7,8,10,11,12,13,17	190886	-1186327	-46733	694505	-4316240	SLD 14	3.638	Si
649	36.64	2.8	0.0003	6,7,8,10,11,12,13,17	-72819	949309	-58533	-304006	3963197	SLD 3	4.175	Si
678	33.82	2.8	0.0003	6,7,8,10,11,12,13,17	-58016	720565	-58362	-279984	3477430	SLD 3	4.826	Si
707	28.65	1.2	0.0003	12,13	-44754	485093	-58346	-245949	2665892	SLD 4	5.496	Si
736	28.65	1.2	0.0003	12,13	-59991	104233	-63860	-359820	625179	SLD 8	5.998	Si
764	28.65	1.2	0.0003	12,13	-25211	31366	-63687	-151627	188640	SLD 8	6.014	Si
793	28.65	1.2	0.0003	12,13	10097	-52582	-63513	60892	-317101	SLD 8	6.031	Si
822	28.65	1.2	0.0003	12,13	18155	-444835	-57653	103996	-2548057	SLD 4	5.728	Si
851	28.65	1.2	0.0003	12,13	-59089	736546	-51840	-289040	3602908	SLD 16	4.892	Si
880	28.65	1.2	0.0003	12,13	-164441	994758	-45179	-659060	3986870	SLD 14	4.008	Si
930	28.65	2.2	0.0004	12,13,14	231851	-956186	-33778	922796	-3805742	SLD 14	3.98	Si
959	28.1	2.2	0.0004	12,13,14	185376	-746485	-33608	925604	-3727285	SLD 14	4.993	Si
988	27.55	2.2	0.0004	12,13,14	138538	-535657	-33436	886858	-3429028	SLD 14	6.402	Si
1017	24.13	1	0.0004	14	-71853	65296	-45920	-571636	519471	SLD 8	7.956	Si
1046	24.13	1	0.0004	14	-38855	22260	-45747	-310287	177767	SLD 8	7.986	Si
1074	24.13	1	0.0004	14	-5845	-40328	-45573	-46852	-323278	SLD 8	8.016	Si
1103	24.13	1	0.0004	14	8584	-290286	-41043	67861	-2294850	SLD 4	7.905	Si
1132	24.13	1	0.0004	14	-98411	544263	-32568	-626136	3462850	SLD 14	6.362	Si
1161	24.13	1	0.0004	14	-145701	757257	-32395	-701532	3646087	SLD 14	4.815	Si
1190	24.13	1	0.0004	14	-192175	967011	-32224	-715629	3600991	SLD 14	3.724	Si
1240	24.13	2	0.0004	14,15	243854	-668161	-20942	1111561	-3045685	SLD 14	4.558	Si
1269	24.13	2	0.0004	14,15	194917	-514209	-20772	1170943	-3089059	SLD 14	6.007	Si
1298	24.13	2	0.0004	14,15	145597	-359796	-20600	1212421	-2996099	SLD 14	8.327	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
1327	24.13	1	0.0004	15	95322	-205214	-20425	1159283	-2495759	SLD 14	12.162	Si
1356	24.13	1	0.0004	15	-38353	3478	-27519	-509144	46172	SLD 8	13.275	Si
1384	24.13	1	0.0004	15	-8382	-37392	-27346	-111972	-499527	SLD 8	13.359	Si
1413	24.13	1	0.0004	15	-28189	271973	-22776	-324611	3131904	SLD 16	11.516	Si
1442	24.13	1	0.0004	15	-103898	437895	-19732	-832036	3506759	SLD 14	8.008	Si
1471	24.13	1	0.0004	15	-153694	594419	-19559	-879473	3401400	SLD 14	5.722	Si
1500	24.13	1	0.0004	15	-202630	748624	-19388	-870957	3217777	SLD 14	4.298	Si
1550	24.13	2	0.0004	15,16	368743	-320964	-7866	1624480	-1413995	SLD 9	4.405	Si
1579	24.13	2	0.0004	15,16	292965	-243056	-7696	1723170	-1429618	SLD 9	5.882	Si
1608	24.13	2	0.0004	15,16	216593	-164700	-7524	1880361	-1429850	SLD 9	8.682	Si
1637	24.13	1	0.0004	16	138740	-85630	-7349	2168235	-1338235	SLD 9	15.628	Si
1666	24.13	1	0.0004	16	47110	35854	-8409	1593469	1212755	SLD 13	33.824	Si
1694	24.13	1	0.0004	16	11126	164298	-9239	251124	3708503	SLD 16	22.572	Si
1723	24.13	1	0.0004	16	-51758	303461	-8093	-606736	3557369	SLD 14	11.723	Si
1752	24.13	1	0.0004	16	-100900	443780	-7920	-692121	3044111	SLD 14	6.86	Si
1781	24.13	1	0.0004	16	-150043	584472	-7747	-713369	2778828	SLD 14	4.754	Si
1810	24.13	1	0.0004	16	-198337	722880	-7576	-722814	2634449	SLD 14	3.644	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8661	0.6611	0.3563	0.2356	0.415	1984	0.2128	1.107	SLV 8	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5.8	169	-56	-116094	SLU 8	1	102703	607.49	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/5.8	169	-56	-115895	SLU 8	1	102703	607.49	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/5.8	169	-56	-115693	SLU 8	1	102703	607.49	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	169	-56	-115491	SLU 8	2.5	52196	308.74	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	169	-56	-115289	SLU 8	2.5	52196	308.74	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	169	-56	-115086	SLU 8	2.5	52196	308.74	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	169	-56	-114884	SLU 8	2.5	52196	308.74	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	169	-56	-114682	SLU 8	1.5	92036	544.39	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	169	-56	-114480	SLU 8	1.5	92036	544.39	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	169	-56	-114281	SLU 8	1.5	92036	544.39	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	-554	-326	-69969	SLU 10	1.5	88968	160.73	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	-554	-326	-69711	SLU 10	1.5	88968	160.73	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	-554	-326	-69451	SLU 10	1.5	88968	160.73	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/15	-554	-326	-106353	SLU 16	2.5	31809	97.57	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/15	-554	-326	-106090	SLU 16	2.5	31809	97.57	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/15	-554	-326	-105827	SLU 16	2.5	31809	97.57	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/15	-554	-326	-105564	SLU 16	2.5	31809	97.57	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	-554	-326	-68134	SLU 10	1.5	88968	160.73	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	-554	-326	-67871	SLU 10	1.5	88968	160.73	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	-554	-326	-67612	SLU 10	1.5	88968	160.73	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	4X/5Y ø10/12	685	-732	-83510	SLU 16	1.8	69985	95.59	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	685	-732	-83289	SLU 16	1.8	69985	95.59	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	685	-732	-83066	SLU 16	1.8	69985	95.59	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	685	-732	-82838	SLU 16	2.5	27423	37.46	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	685	-732	-82613	SLU 16	2.5	27423	37.46	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	685	-732	-82387	SLU 16	2.5	27423	37.46	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	685	-732	-82162	SLU 16	2.5	27423	37.46	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	685	-732	-81937	SLU 16	2	63986	87.4	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	685	-732	-81711	SLU 16	2	63986	87.4	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	685	-732	-81490	SLU 16	2	63986	87.4	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	1394	-1079	-59484	SLU 16	1.5	73128	52.47	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	1394	-1079	-59262	SLU 16	1.5	73128	52.47	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	1394	-1079	-59039	SLU 16	1.5	73128	52.47	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	1394	-1079	-58812	SLU 16	2.5	27423	25.41	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	1394	-1079	-58586	SLU 16	2.5	27423	25.41	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	1394	-1079	-58361	SLU 16	2.5	27423	25.41	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	1394	-1079	-58136	SLU 16	2.5	27423	25.41	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	1394	-1079	-57910	SLU 16	1.5	73128	52.47	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	1394	-1079	-57685	SLU 16	1.5	73128	52.47	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	1394	-1079	-57463	SLU 16	1.5	73128	52.47	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	1415	-1216	-35488	SLU 16	1.9	59187	48.67	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	1415	-1216	-35266	SLU 16	1.9	59187	48.67	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	1415	-1216	-35043	SLU 16	1.9	59187	48.67	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	1415	-1216	-34816	SLU 16	2.5	27423	22.55	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	1415	-1216	-34590	SLU 16	2.5	27423	22.55	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	1415	-1216	-34365	SLU 16	2.5	27423	22.55	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	1415	-1216	-34140	SLU 16	2.5	27423	22.55	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	1415	-1216	-33914	SLU 16	1.9	59187	48.67	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	1415	-1216	-33689	SLU 16	1.9	59187	48.67	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	1415	-1216	-33468	SLU 16	1.9	59187	48.67	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	2580	-1032	-16542	SLU 15	1.4	68084	26.39	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	2580	-1032	-16321	SLU 15	1.4	68084	26.39	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	2580	-1032	-16098	SLU 15	1.4	68084	26.39	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	2580	-1032	-15870	SLU 15	2.5	43228	16.75	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	2580	-1032	-15645	SLU 15	2.5	43228	16.75	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	2580	-1032	-15420	SLU 15	2.5	43228	16.75	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	2580	-1032	-15194	SLU 15	2.5	43228	16.75	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	2580	-1032	-14969	SLU 15	1.4	68084	26.39	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	2580	-1032	-14744	SLU 15	1.4	68084	26.39	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	2580	-1032	-14522	SLU 15	1.4	68084	26.39	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
454	2X/2Y ø10/15	48566	28168	-94172	SLV 8-Ger.	2.5	31807	1.13	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/15	48566	28168	-93969	SLV 8-Ger.	2.5	31807	1.13	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	4X/5Y ø10/11.7	47369	27940	-80120	SLV 4-Ger.	1.5	88967	1.88	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/5Y ø10/11.7	47369	27940	-79917	SLV 4-Ger.	1.5	88967	1.88	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/5Y ø10/11.7	47369	27940	-79719	SLV 4-Ger.	1.5	88967	1.88	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/5Y ø10/12	35941	24213	-74848	SLV 8-Ger.	1.5	75647	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/5Y ø10/12	35941	24213	-74678	SLV 8-Ger.	1.5	75647	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/5Y ø10/12	35941	24213	-74506	SLV 8-Ger.	1.5	75647	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	35941	24213	-74331	SLV 8-Ger.	2.5	27420	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	35941	24213	-74158	SLV 8-Ger.	2.5	27420	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	35941	24213	-73985	SLV 8-Ger.	2.5	27420	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	35941	24213	-73811	SLV 8-Ger.	2.5	27420	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	35941	23999	-73638	SLV 8-Ger.	1.5	75647	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	35941	23999	-73465	SLV 8-Ger.	1.5	75647	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	35941	23999	-73294	SLV 8-Ger.	1.5	75647	2.1	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/4Y ø10/12	30369	19026	-53891	SLV 8-Ger.	1.5	73125	2.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	30369	19026	-53720	SLV 8-Ger.	1.5	73125	2.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	30369	19026	-53549	SLV 8-Ger.	1.5	73125	2.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	30369	19026	-53374	SLV 8-Ger.	2.5	43223	1.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	30369	19026	-53200	SLV 8-Ger.	2.5	43223	1.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	30369	19026	-53027	SLV 8-Ger.	2.5	43223	1.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	30369	19026	-52854	SLV 8-Ger.	2.5	43223	1.42	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	30369	19026	-52680	SLV 8-Ger.	1.5	73125	2.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	30369	19026	-52507	SLV 8-Ger.	1.5	73125	2.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	30369	19026	-52337	SLV 8-Ger.	1.5	73125	2.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	26028	16137	-32636	SLV 8-Ger.	1.4	70603	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	26028	16137	-32466	SLV 8-Ger.	1.4	70603	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	26028	16137	-32294	SLV 8-Ger.	1.4	70603	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	26028	16137	-32119	SLV 8-Ger.	2.5	43223	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	26028	16137	-31946	SLV 8-Ger.	2.5	43223	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	26028	16137	-31773	SLV 8-Ger.	2.5	43223	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	26028	16137	-31599	SLV 8-Ger.	2.5	43223	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	26028	16137	-31426	SLV 8-Ger.	1.4	70603	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	26028	16137	-31253	SLV 8-Ger.	1.4	70603	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	26028	16137	-31082	SLV 8-Ger.	1.4	70603	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	22487	14022	-12632	SLV 12-Ger.	1.4	68082	3.03	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	21657	14022	-8211	SLV 2-Ger.	1.3	65561	3.03	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1608	4X/4Y ø10/12	21657	14022	-8039	SLV 2-Ger.	1.3	65561	3.03	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1637	2X/2Y ø10/17.5	22487	14022	-12115	SLV 12-Ger.	2.5	43223	1.92	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1666	2X/2Y ø10/17.5	22487	14022	-11942	SLV 12-Ger.	2.5	43223	1.92	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1694	2X/2Y ø10/17.5	22487	14022	-11768	SLV 12-Ger.	2.5	43223	1.92	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1723	2X/2Y ø10/17.5	22487	14022	-11595	SLV 12-Ger.	2.5	43223	1.92	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1752	4X/4Y ø10/12	21745	14022	-7622	SLV 14-Ger.	1.3	65562	3.02	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1781	4X/4Y ø10/12	21745	13740	-7448	SLV 14-Ger.	1.3	65562	3.02	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1810	4X/4Y ø10/12	21745	13740	-7278	SLV 14-Ger.	1.3	65562	3.02	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vpl,y	Comb.
0	260	260	1.1	3208942.5		-116108.8	3198920.2		-114295.8	48268.3		SLV 8
0	260	260	1.1		5713472.6	-116108.8		5695408.4	-114295.8		27110.2	SLV 8
310	570	260	1.1	3073526.3		-95179.2	3584307.2		-93366.2	48565.9		SLV 8
310	570	260	1.1		5495119.4	-95179.2		5984100.7	-93366.2		28167.8	SLV 8
620	880	260	1.1	3170899.7		-74848.4	2552272.3		-73294.4	35941.4		SLV 8
620	880	260	1.1		4434506.5	-74848.4		4060740.9	-73294.4		24213.4	SLV 8
930	1190	260	1.1	2376623		-53890.6	2120540.2		-52336.6	30369		SLV 8
930	1190	260	1.1		3811581.9	-53890.6		3366535.2	-52336.6		19026.5	SLV 8
1240	1500	260	1.1	1915442.5		-32636.4	1898853.6		-31082.4	26027.7		SLV 8
1240	1500	260	1.1		3090753.8	-32636.4		3061250.3	-31082.4		16137.4	SLV 8
1550	1810	260	1.1	1667818.2		-12632.1	1646531.4		-11078.1	22487.2		SLV 12
1550	1810	260	1.1		2675532.9	-12632.1		2639627.9	-11078.1		14022.2	SLV 12

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5.8	10104	-726	-77885	SLD 14	1	98360	9.73	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
29	4X/4Y ø10/5.8	10104	-726	-77686	SLD 14	1	98318	9.73	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
58	4X/4Y ø10/5.8	10104	-726	-77484	SLD 14	1	98276	9.73	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
87	2X/2Y ø10/17.1	10104	-726	-77282	SLD 14	2.5	52196	5.17	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
116	2X/2Y ø10/17.1	10104	-726	-77079	SLD 14	2.5	52196	5.17	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
144	2X/2Y ø10/17.1	10104	-726	-76877	SLD 14	2.5	52196	5.17	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
173	2X/2Y ø10/17.1	10104	-726	-76675	SLD 14	2.5	52196	5.17	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
202	4X/4Y ø10/11.7	10104	-726	-76473	SLD 14	1.7	85713	8.48	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
231	4X/4Y ø10/11.7	10104	-726	-76270	SLD 14	1.7	85677	8.48	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
260	4X/4Y ø10/11.7	10104	-726	-76072	SLD 14	1.7	85640	8.48	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
310	4X/4Y ø10/11.7	-10365	-1614	-74851	SLD 3	1.7	85419	8.24	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
339	4X/4Y ø10/11.7	-10365	-1614	-74652	SLD 3	1.7	85382	8.24	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
368	4X/4Y ø10/11.7	-10365	-1614	-74452	SLD 3	1.7	85346	8.23	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
397	2X/2Y ø10/15	-10365	-1614	-74248	SLD 3	2.5	59652	5.76	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
426	2X/2Y ø10/15	-10365	-1614	-74046	SLD 3	2.5	59652	5.76	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
454	2X/2Y ø10/15	-10365	-1614	-73844	SLD 3	2.5	59652	5.76	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
483	2X/2Y ø10/15	-10365	-1614	-73641	SLD 3	2.5	59652	5.76	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
512	4X/5Y ø10/11.7	-10365	-1614	-73439	SLD 3	1.7	85162	8.22	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
541	4X/5Y ø10/11.7	-10365	-1614	-73237	SLD 3	1.7	85125	8.21	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
570	4X/5Y ø10/11.7	-10365	-1614	-73038	SLD 3	1.7	85089	8.21	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
620	4X/5Y ø10/12	8407	-2064	-46733	SLD 14	1.7	69092	8.22	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
649	4X/5Y ø10/12	8407	-2064	-46562	SLD 14	1.7	69062	8.21	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
678	4X/5Y ø10/12	8407	-2064	-46391	SLD 14	1.7	69031	8.21	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
707	2X/2Y ø10/17.5	8407	-2064	-46216	SLD 14	2.5	43227	5.14	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
736	2X/2Y ø10/17.5	8407	-2064	-46042	SLD 14	2.5	43227	5.14	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
764	2X/2Y ø10/17.5	8407	-2064	-45869	SLD 14	2.5	43227	5.14	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
793	2X/2Y ø10/17.5	8407	-2064	-45696	SLD 14	2.5	43227	5.14	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
822	4X/4Y ø10/12	8407	-2064	-45522	SLD 14	1.7	68875	8.19	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
851	4X/4Y ø10/12	8407	-2064	-45349	SLD 14	1.7	68844	8.19	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
880	4X/4Y ø10/12	8407	-2064	-45179	SLD 14	1.7	68814	8.19	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
930	4X/4Y ø10/12	7409	-2412	-33278	SLD 14	1.7	67722	9.14	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
959	4X/4Y ø10/12	7409	-2412	-33608	SLD 14	1.7	67691	9.14	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
988	4X/4Y ø10/12	7409	-2412	-33436	SLD 14	1.7	67660	9.13	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1017	2X/2Y ø10/17.5	7409	-2412	-33261	SLD 14	2.5	43227	5.83	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1046	2X/2Y ø10/17.5	7409	-2412	-33088	SLD 14	2.5	43227	5.83	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1074	2X/2Y ø10/17.5	7409	-2412	-32915	SLD 14	2.5	43227	5.83	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1103	2X/2Y ø10/17.5	7409	-2412	-32741	SLD 14	2.5	43227	5.83	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1132	4X/4Y ø10/12	7409	-2412	-32568	SLD 14	1.7	67502	9.11	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1161	4X/4Y ø10/12	7409	-2412	-32395	SLD 14	1.7	67470	9.11	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1190	4X/4Y ø10/12	7409	-2412	-32224	SLD 14	1.7	67439	9.11	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1240	4X/4Y ø10/12	5452	-2517	-20942	SLD 14	1.7	65388	11.99	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1269	4X/4Y ø10/12	5452	-2517	-20772	SLD 14	1.7	65357	11.99	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1298	4X/4Y ø10/12	5452	-2517	-20600	SLD 14	1.7	65326	11.98	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1327	2X/2Y ø10/17.5	5452	-2517	-20425	SLD 14	2.5	43227	7.93	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1356	2X/2Y ø10/17.5	5452	-2517	-20252	SLD 14	2.5	43227	7.93	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1384	2X/2Y ø10/17.5	5452	-2517	-20079	SLD 14	2.5	43227	7.93	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1413	2X/2Y ø10/17.5	5452	-2517	-19905	SLD 14	2.5	43227	7.93	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1442	4X/4Y ø10/12	5452	-2517	-19732	SLD 14	1.7	65168	11.95	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1471	4X/4Y ø10/12	5452	-2517	-19559	SLD 14	1.7	65136	11.95	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1500	4X/4Y ø10/12	5452	-2517	-19388	SLD 14	1.7	65105	11.94	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1550	4X/4Y ø10/12	4884	-2669	-9130	SLD 14	1.6	64123	13.13	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1579	4X/4Y ø10/12	4884	-2669	-8960	SLD 14	1.6	64091	13.12	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1608	4X/4Y ø10/12	4884	-2669	-8788	SLD 14	1.6	64060	13.12	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1637	2X/2Y ø10/17.5	4884	-2669	-8613	SLD 14	2.5	43227	8.85	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1666	2X/2Y ø10/17.5	4884	-2669	-8440	SLD 14	2.5	43227	8.85	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1694	2X/2Y ø10/17.5	4884	-2669	-8267	SLD 14	2.5	43227	8.85	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1723	2X/2Y ø10/17.5	4884	-2669	-8093	SLD 14	2.5	43227	8.85	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1752	4X/4Y ø10/12	4884	-2669	-7920	SLD 14	1.6	63899	13.08	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1781	4X/4Y ø10/12	4884	-2669	-7747	SLD 14	1.6	63867	13.08	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1810	4X/4Y ø10/12	4884	-2669	-7576	SLD 14	1.6	63836	13.07	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	1350	-6244	-99076	SLE RA 8	-30.3	1350	-6244	-99076	SLE RA 8	-453.2	Si
29	348	-3543	-98877	SLE RA 8	-30.1	348	-3543	-98877	SLE RA 8	-451	Si
58	-672	-794	-98675	SLE RA 8	-30	-672	-794	-98675	SLE RA 8	-449.4	Si
87	-1692	1955	-98473	SLE RA 8	-30	-1692	1955	-98473	SLE RA 8	-449.3	Si
116	-2711	4704	-98270	SLE RA 8	-30	-2711	4704	-98270	SLE RA 8	-449.7	Si
144	-3731	7453	-98068	SLE RA 8	-30.1	-3731	7453	-98068	SLE RA 8	-450.1	Si
173	-4751	10203	-97866	SLE RA 8	-30.1	-4751	10203	-97866	SLE RA 8	-450.5	Si
202	-5771	12952	-97664	SLE RA 8	-30.2	-5771	12952	-97664	SLE RA 8	-450.9	Si
231	-6790	15701	-97462	SLE RA 8	-30.2	-6790	15701	-97462	SLE RA 8	-451.3	Si
260	-7792	18402	-97263	SLE RA 8	-30.3	-7792	18402	-97263	SLE RA 8	-451.7	Si
310	24736	-24587	-78319	SLE RA 8	-25.4	24736	-24587	-78319	SLE RA 8	-375.4	Si
339	18245	-22429	-78121	SLE RA 8	-25	18245	-22429	-78121	SLE RA 8	-370.8	Si
368	11703	-20255	-77920	SLE RA 8	-24.6	11703	-20255	-77920	SLE RA 8	-366.1	Si
397	5033	-18038	-77716	SLE RA 8	-24.2	5033	-18038	-77716	SLE RA 8	-361.4	Si
426	-1572	-15843	-77514	SLE RA 8	-24	-1572	-15843	-77514	SLE RA 8	-358.2	Si
454	-8178	-13647	-77312	SLE RA 8	-24.1	-8178	-13647	-77312	SLE RA 8	-359.7	Si
483	-14783	-11451	-77110	SLE RA 8	-24.3	-14783	-11451	-77110	SLE RA 8	-360.5	Si
512	-21389	-9256	-76907	SLE RA 8	-24.2	-21389	-9256	-76907	SLE RA 8	-358.3	Si
541	-27995	-7060	-76705	SLE RA 8	-24.1	-27995	-7060	-76705	SLE RA 8	-356.1	Si
570	-34486	-4903	-76506	SLE RA 8	-24.3	-34486	-4903	-76506	SLE RA 8	-357.2	Si
620	63530	-35910	-60966	SLE RA 8	-24.6	63530	-35910	-60966	SLE RA 8	-352	Si
649	48607	-24131	-60795	SLE RA 8	-23.8	48607	-24131	-60795	SLE RA 8	-343.8	Si
678	33568	-12259	-60624	SLE RA 8	-22.9	33568	-12259	-60624	SLE RA 8	-335.4	Si
707	18237	-157	-60449	SLE RA 8	-22.3	18237	-157	-60449	SLE RA 8	-330.8	Si
736	3052	11830	-60275	SLE RA 8	-21.8	3052	11830	-60275	SLE RA 8	-325.9	Si
764	-12134	23817	-60102	SLE RA 8	-22.6	-12134	23817	-60102	SLE RA 8	-334.7	Si
793	-27319	35804	-59929	SLE RA 8	-23.8	-27319	35804	-59929	SLE RA 8	-346.9	Si
822	-42504	47791	-59755	SLE RA 8	-24.9	-42504	47791	-59755	SLE RA 8	-359.1	Si
851	-57690	59777	-59582	SLE RA 8	-26	-57690	59777	-59582	SLE RA 8	-371.4	Si
880	-72612	71557	-59412	SLE RA 8	-27.1	-72612	71557	-59412	SLE RA 8	-383.3	Si
930	107591	-137538	-43447	SLE RA 8	-25.4	107591	-137538	-43447	SLE RA 8	-344.2	Si
959	85538	-110242	-43277	SLE RA 8	-23.4	85538	-110242	-43277	SLE RA 8	-322.1	Si
988	63312	-82732	-43105	SLE RA 8	-21.4	63312	-82732	-43105	SLE RA 8	-298.7	Si
1017	40654	-54689	-42930	SLE RA 8	-19.6	40654	-54689	-42930	SLE RA 8	-279.4	Si
1046	18212	-26912	-42757	SLE RA 8	-17.4	18212	-26912	-42757	SLE RA 8	-253.9	Si
1074	-4230	865	-42584	SLE RA 8	-15.7	-4230	865	-42584	SLE RA 8	-234.1	Si
1103	-26671	28642	-42410	SLE RA 8	-17.8	-26671	28642	-42410	SLE RA 8	-257.6	Si
1132	-49113	56418	-42237	SLE RA 8	-19.9	-49113	56418	-42237	SLE RA 8	-281.2	Si
1161	-71555	84195	-42064	SLE RA 8	-21.9	-71555	84195	-42064	SLE RA 8	-304.8	Si
1190	-93609	111491	-41893	SLE RA 8	-24	-93609	111491	-41893	SLE RA 8	-328	Si
1240	120847	-130629	-25963	SLE RA 8	-20.3	120847	-130629	-25963	SLE RA 8	-265.1	Si
1269	95939	-103166	-25792	SLE RA 8	-18	95939	-103166	-25792	SLE RA 8	-238.4	Si
1298	70835	-75488	-25621	SLE RA 8	-15.7	70835	-75488	-25621	SLE RA 8	-211.4	Si
1327	43116	-43978	-26176	SLE RA 7	-13.3	43116	-43978	-26176	SLE RA 7	-185.3	Si
1356	18056	-21761	-26002	SLE RA 7	-11.1	18056	-21761	-26002	SLE RA 7	-160.7	Si
1384	-7003	456	-25829	SLE RA 7	-9.7	-7003	456	-25829	SLE RA 7	-144.5	Si
1413	-30797	36569	-24926	SLE RA 8	-11.9	-30797	36569	-24926	SLE RA 8	-168.4	Si
1442	-56144	64516	-24752	SLE RA 8	-14.2	-56144	64516	-24752	SLE RA 8	-193.7	Si
1471	-81491	92463	-24579	SLE RA 8	-16.4	-81491	92463	-24579	SLE RA 8	-219	Si
1500	-106400	119927	-24409	SLE RA 8	-18.6	-106400	119927	-24409	SLE RA 8	-243.9	Si
1550	103204	-194139	-11928	SLE RA 7	-16.5	103204	-194139	-11928	SLE RA 7	-205.3	Si
1579	85756	-143260	-11758	SLE RA 7	-13.8	85756	-143260	-11758	SLE RA 7	-173.1	Si
1608	68171	-91982	-11586	SLE RA 7	-11	68171	-91982	-11586	SLE RA 7	-140.6	Si
1637	50245	-39709	-11411	SLE RA 7	-8.2	50245	-39709	-11411	SLE RA 7	-107.5	Si
1666	29981	24351	-10493	SLE RA 6	-6.2	32489	12066	-11238	SLE RA 7	-84.8	Si
1694	14734	63841	-11064	SLE RA 7	-7	14734	63841	-11064	SLE RA 7	-95.2	Si
1723	-3022	115616	-10891	SLE RA 7	-8.1	-3022	115616	-10891	SLE RA 7	-109.2	Si
1752	-20778	167391	-10718	SLE RA 7	-10.7	-20778	167391	-10718	SLE RA 7	-140.1	Si
1781	-38533	219167	-10544	SLE RA 7	-13.4	-38533	219167	-10544	SLE RA 7	-171	Si
1810	-55981	270046	-10374	SLE RA 7	-16	-55981	270046	-10374	SLE RA 7	-201.4	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	355	-4979	-85398	SLE QP 4	-26	Si
29	-80	-2962	-85199	SLE QP 4	-25,9	Si
58	-524	-911	-84997	SLE QP 4	-25,8	Si
87	-967	1141	-84795	SLE QP 4	-25,8	Si
116	-1410	3192	-84593	SLE QP 4	-25,8	Si
144	-1853	5244	-84390	SLE QP 4	-25,8	Si
173	-2297	7296	-84188	SLE QP 4	-25,8	Si
202	-2740	9347	-83986	SLE QP 4	-25,8	Si
231	-3183	11399	-83784	SLE QP 4	-25,8	Si
260	-3619	13415	-83585	SLE QP 4	-25,8	Si
310	17042	-4253	-67928	SLE QP 4	-21,5	Si
339	12276	-7314	-67729	SLE QP 4	-21,3	Si
368	7473	-10400	-67529	SLE QP 4	-21,1	Si
397	2577	-13545	-67325	SLE QP 4	-20,9	Si
426	-2273	-16660	-67123	SLE QP 4	-20,9	Si
454	-7123	-19775	-66920	SLE QP 4	-21,1	Si
483	-11972	-22890	-66718	SLE QP 4	-21,3	Si
512	-16822	-26006	-66516	SLE QP 4	-21,3	Si
541	-21672	-29121	-66314	SLE QP 4	-21,3	Si
570	-26438	-32182	-66115	SLE QP 4	-21,6	Si
620	51689	-4895	-52718	SLE QP 4	-20,2	Si
649	39562	629	-52548	SLE QP 4	-19,8	Si
678	27340	6195	-52376	SLE QP 4	-19,6	Si
707	14881	11870	-52201	SLE QP 4	-19,6	Si
736	2540	17491	-52028	SLE QP 4	-19,1	Si
764	-9801	23111	-51855	SLE QP 4	-19,6	Si
793	-22141	28732	-51681	SLE QP 4	-20,4	Si
822	-34482	34353	-51508	SLE QP 4	-21,1	Si
851	-46823	39974	-51335	SLE QP 4	-21,9	Si
880	-58950	45497	-51164	SLE QP 4	-22,6	Si
930	88013	-101075	-37870	SLE QP 4	-21,2	Si
959	69997	-81089	-37699	SLE QP 4	-19,7	Si
988	51840	-60947	-37528	SLE QP 4	-18,1	Si
1017	33331	-40414	-37353	SLE QP 4	-16,7	Si
1046	14998	-20076	-37179	SLE QP 4	-15	Si
1074	-3335	261	-37006	SLE QP 4	-13,6	Si
1103	-21668	20599	-36833	SLE QP 4	-15,2	Si
1132	-40001	40937	-36659	SLE QP 4	-16,8	Si
1161	-58335	61274	-36486	SLE QP 4	-18,4	Si
1190	-76350	81260	-36316	SLE QP 4	-20	Si
1240	101003	-87460	-23115	SLE QP 4	-16,8	Si
1269	80019	-69670	-22944	SLE QP 4	-15	Si
1298	58872	-51741	-22773	SLE QP 4	-13,2	Si
1327	37313	-33464	-22598	SLE QP 4	-11,3	Si
1356	15960	-15360	-22424	SLE QP 4	-9,5	Si
1384	-5393	2743	-22251	SLE QP 4	-8,4	Si
1413	-26746	20846	-22078	SLE QP 4	-10,1	Si
1442	-48099	38950	-21904	SLE QP 4	-11,8	Si
1471	-69452	57053	-21731	SLE QP 4	-13,5	Si
1500	-90435	74843	-21561	SLE QP 4	-15,2	Si
1550	92268	-143203	-9484	SLE QP 4	-13,3	Si
1579	75956	-107008	-9313	SLE QP 4	-11,1	Si
1608	59515	-70530	-9142	SLE QP 4	-8,9	Si
1637	42756	-33344	-8967	SLE QP 4	-6,7	Si
1666	25081	8754	-8474	SLE QP 3	-4,7	Si
1694	9556	40321	-8620	SLE QP 4	-5	Si
1723	-7044	77153	-8447	SLE QP 4	-6,1	Si
1752	-23644	113986	-8273	SLE QP 4	-8,2	Si
1781	-40243	150818	-8100	SLE QP 4	-10,3	Si
1810	-56556	187013	-7930	SLE QP 4	-12,3	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 7	285	No	No	
Pilastrata 7	595	No	No	
Pilastrata 7	905	No	No	
Pilastrata 7	1215	No	No	
Pilastrata 7	1525	No	No	
Pilastrata 7	1835	No	No	

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	285	0.872	0.763	0.666	0.265	0.177	0.295	0.141	5.6	14.9	1.251	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	595	0.837	0.795	0.665	0.206	0.137	0.231	0.103	7.1	15	1.335	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	905	0.8	0.789	0.631	0.184	0.116	0.198	0.083	8.3	13.9	1.4	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	1215	0.763	0.786	0.6	0.154	0.092	0.12	0.037	10	12.8	2.505	SLD 8	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	1525	0.763	0.786	0.6	0.154	0.092	0.048	-0.007	10	12.8	1000	SLD 12	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	285	0.872	0.763	0.666	0.265	0.177	0.34	0.168	5.6	14.9	1.05	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	595	0.837	0.795	0.665	0.206	0.137	0.267	0.125	7.1	15	1.1	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	905	0.8	0.789	0.631	0.184	0.116	0.23	0.102	8.3	13.9	1.14	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	1215	0.763	0.786	0.6	0.154	0.092	0.139	0.048	10	12.8	1.918	SLV 8	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	1525	0.763	0.786	0.6	0.154	0.092	0.054	-0.003	10	12.8	1000	SLV 12	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 7	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	43	43	No	-135606	SLU 16	6128	234124	14169	137363	6128	-14169	3.29		Min	Si		Si
-60	285	0	30	17	43	43	No	-135606	SLU 16	6128	234124	14169	137363	6128	-14169	3.29		X	Si		Si
-60	285	0	30	17	49	49	No	-101842	SLD 8	64121	148825	340436	79497	-118216	590331	4.38		Min	Si		Si
-60	285	0	30	17	49	49	No	-101842	SLD 8	64121	148825	340436	79497	-118216	590331	4.38		X	Si		Si
-60	285	202.2	30	17	46	46	No	-114697	SLV 8	120699	171748	670887	97845	120699	-670887	3.89	3.71	Min	No	3.67	Si
-60	285	0	30	17	46	46	No	-116109	SLV 8	120699	169401	670887	90401	-221797	1169071	3.84		X	Si		Si
-60	285	0	30	17	43	43	No	-135606	SLU 16	6128	234124	14169	137363	6128	-14169		3.29	Min	Si		Si
-60	285	0	30	17	43	43	No	-135606	SLU 16	6128	234124	14169	137363	6128	-14169		3.29	Y	Si		Si
-60	285	0	30	17	52	52	No	-92911	SLD 3	28375	136438	1121076	72264	-48811	1944491		2.78	Min	Si		Si
-60	285	0	30	17	52	52	No	-92911	SLD 3	28375	136438	1121076	72264	-48811	1944491		2.78	Y	Si		Si
-60	285	0	30	17	59	59	No	-71076	SLV 14	55704	103958	2208932	55238	93978	-3850394		1.45	Min	Si		Si
-60	285	0	30	17	59	59	No	-71076	SLV 14	55704	103958	2208932	55238	93978	-3850394		1.45	Y	Si		Si
285	595	310	27	15	48	48	No	-107137	SLU 16	24450	156336	23003	105477	35698	-44937	4.16	4.16	Min	No	4.16	Si
285	595	310	27	15	48	48	No	-107137	SLU 16	24450	156336	23003	105477	35698	-44937	4.16	4.16	X	No	4.16	Si
285	595	310	27	15	55	55	No	-82512	SLD 8	88502	101098	226870	54504	-204638	478539	5.4	5.17	Min	No	4.89	Si
285	595	310	27	15	55	55	No	-82512	SLD 8	88502	101098	226870	54504	-204638	478539	5.4	5.17	X	No	4.89	Si
285	595	310	27	15	51	51	No	-95179	SLV 8	172579	114330	430313	61294	-398368	944775	4.24	3.92	Min	No	3.45	Si
285	595	310	27	15	51	51	No	-95179	SLV 8	172579	114330	430313	61294	-398368	944775	4.24	3.92	X	No	3.45	Si
285	595	310	27	15	48	48	No	-107137	SLU 16	24450	156336	23003	105477	35698	-44937	4.16	4.16	Min	No	4.16	Si
285	595	310	27	15	48	48	No	-107137	SLU 16	24450	156336	23003	105477	35698	-44937	4.16	4.16	Y	No	4.16	Si
285	595	310	27	15	57	57	No	-74851	SLD 3	48538	94776	649575	47738	-111944	1489287		3.57	Min	Si		Si
285	595	310	27	15	57	57	No	-74851	SLD 3	48538	94776	649575	47738	-111944	1489287		3.57	Y	Si		Si
285	595	310	27	15	67	67	No	-54709	SLV 14	117990	66414	1285182	34599	265292	-2951549		1.89	Min	Si		Si
285	595	310	27	15	67	67	No	-54709	SLV 14	117990	66414	1285182	34599	265292	-2951549		1.89	Y	Si		Si
595	905	706.7	27	18	51	51	No	-82838	SLU 16	51547	125248	52548	98527	51547	-52548	4.62	4.62	Min	No	4.62	Si
595	905	706.7	27	18	51	51	No	-82838	SLU 16	51547	125248	52548	98527	51547	-52548	4.62	4.62	X	No	4.62	Si
595	905	620	27	18	57	57	No	-64550	SLD 8	85960	85341	175194	50417	-199170	403929	6.25	5.87	Min	No	5.42	Si
595	905	706.7	27	18	57	57	No	-64033	SLD 8	85960	80753	175194	51444	-94923	178678	5.98	5.98	X	No	5.98	Si
595	905	620	27	18	53	53	No	-74848	SLV 8	180840	92962	345959	57007	-417802	795731	4.67	4.23	Min	No	3.55	Si
595	905	620	27	18	53	53	No	-74848	SLV 8	180840	92962	345959	57007	-417802	795731	4.67	4.23	X	No	3.55	Si
595	905	706.7	27	18	51	51	No	-82838	SLU 16	51547	125248	52548	98527	51547	-52548	4.62	4.62	Min	No	4.62	Si
595	905	706.7	27	18	51	51	No	-82838	SLU 16	51547	125248	52548	98527	51547	-52548	4.62	4.62	Y	No	4.62	Si
595	905	620	27	18	60	60	No	-58704	SLD 3	37694	89076	512255	44330	-87508	1176537		3.74	Min	Si		Si
595	905	620	27	18	60	60	No	-58704	SLD 3	37694	89076	512255	44330	-87508	1176537		3.74	Y	Si		Si
595	905	620	27	18	72	72	No	-41259	SLV 14	139303	52175	1019618	30879	319083	-2336060		1.91	Min	Si		Si
595	905	620	27	18	72	72	No	-41259	SLV 14	139303	52175	1019618	30879	319083	-2336060		1.91	Y	Si		Si
905	1215	930	27	18	60	60	No	-59484	SLU 16	68419	90189	86894	57681	149434	-199118	6.42	6.44	Min	No	6.13	Si
905	1215	1016.7	27	18	60	60	No	-58812	SLU 16	68419	89146	86894	57082	68419	-86894	6.21	6.21	X	No	6.21	Si
905	1215	930	27	18	85	85	No	-29551	SLD 10	147218	39089	208124	25077	337477	-424521	7.52	8.69	Min	No	5.62	Si
905	1215	930	27	18	85	85	No	-29303	SLD 9	151089	38645	202345	24976	346363	-410105	7.42	8.89	X	No	5.62	Si
905	1215	930	27	18	98	98	No	-21849	SLV 9	249277	27525	354623	17614	571679	-703610	4.82	6.42	Min	No	3.12	Si
905	1215	930	27	18	98	98	No	-21849	SLV 9	249277	27525	354623	17614	571679	-703610	4.82	6.42	X	No	3.12	Si
905	1215	930	27	18	60	60	No	-59484	SLU 16	68419	90189	86894	57681	149434	-199118	6.42	6.44	Min	No	6.13	Si
905	1215	1016.7	27	18	60	60	No	-58812	SLU 16	68419	89146	86894	57082	68419	-86894	6.21	6.21	Y	No	6.21	Si

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
905	1215	1190	27	18	81	81	No	-32224	SLD 14	101754	45222	499232	25115	-192175	967011		4.22	Min	Si		Si
905	1215	1190	27	18	81	81	No	-32224	SLD 14	101754	45222	499232	25115	-192175	967011		4.22	Y	Si		Si
905	1215	1190	27	18	86	86	No	-28498	SLV 14	159057	37607	942668	21134	-299031	1828623		1.84	Min	Si		Si
905	1215	1190	27	18	86	86	No	-28498	SLV 14	159057	37607	942668	21134	-299031	1828623		1.84	Y	Si		Si
1215	1525	1240	27	18	77	77	No	-35488	SLV 16	77432	54096	91702	33617	167565	-191106	9.06	9.76	Min	No	8.19	Si
1215	1525	1240	27	18	76	76	No	-36583	SLU 15	77450	56122	70024	36087	163086	-160528	8.93	9.84	X	No	8.31	Si
1215	1525	1240	27	18	101	101	No	-20942	SLD 14	107254	29595	382127	16763	243854	-668161	9.89	6.06	Min	No	4.56	Si
1215	1525	1240	27	18	108	108	No	-18020	SLD 9	157048	24047	171900	15504	359894	-330866	7.15	11.57	X	No	5.32	Si
1215	1525	1240	27	18	106	106	No	-18982	SLV 14	163830	25201	713325	14077	375380	-1224747	6.86	2.75	Min	No	2.25	Si
1215	1525	1240	27	18	125	125	No	-13593	SLV 9	255546	15891	296803	11039	585961	-557426	3.55	6.93	X	No	2.75	Si
1215	1525	1240	27	18	77	77	No	-35488	SLU 16	77432	54096	91702	33617	167565	-191106	9.06	9.76	Min	No	8.19	Si
1215	1525	1240	27	18	77	77	No	-35488	SLU 16	77432	54096	91702	33617	167565	-191106	9.06	9.76	Y	No	8.19	Si
1215	1525	1240	27	18	101	101	No	-20942	SLD 14	107254	29595	382127	16763	243854	-668161	9.89	6.06	Min	No	4.56	Si
1215	1525	1500	27	18	104	104	No	-19388	SLD 14	107254	27769	382127	15250	-202630	748624		5.25	Y	Si		Si
1215	1525	1240	27	18	106	106	No	-18982	SLV 14	163830	25201	713325	14077	375380	-1224747	6.86	2.75	Min	No	2.25	Si
1215	1525	1500	27	18	110	110	No	-17428	SLV 14	163830	23412	713325	12924	-305923	1400419		2.28	Y	Si		Si
1525	1835	1550	27	18	123	123	No	-13993	SLU 16	68655	21165	160766	13620	158229	-277970	15.11	14.1	Min	No	9.49	Si
1525	1835	1550	27	18	123	123	No	-13993	SLU 16	68655	21165	160766	13620	158229	-277970	15.11	14.1	X	No	9.49	Si
1525	1835	1810	27	18	183	183	No	-6312	SLD 9	169615	7379	198540	4681	-322605	391930	6.14	8.67	Min	No	4.39	Si
1525	1835	1550	27	18	164	164	No	-7866	SLD 9	169615	9196	198540	7412	368743	-320964	5.5	12.05	X	No	4.41	Si
1525	1835	1550	27	18	181	181	No	-6470	SLV 9	290299	7564	296436	4798	610181	-485875	2.87	6.66	Min	No	2.46	Si
1525	1835	1550	27	18	181	181	No	-6470	SLV 9	290299	7564	296436	4798	610181	-485875	2.87	6.66	X	No	2.46	Si
1525	1835	1550	27	18	123	123	No	-13993	SLV 16	68655	21165	160766	13620	158229	-277970	15.11	14.1	Min	No	9.49	Si
1525	1835	1810	27	18	121	121	No	-14522	SLU 15	61146	23386	194473	13914	-75649	388130		10.61	Y	Si		Si
1525	1835	1810	27	18	167	167	No	-7576	SLD 14	105752	10132	363304	5619	-198337	722880		4.26	Min	Si		Si
1525	1835	1810	27	18	167	167	No	-7576	SLD 14	105752	10132	363304	5619	-198337	722880		4.26	Y	Si		Si
1525	1835	1810	27	18	171	171	No	-7278	SLV 14	173030	8508	621907	5397	-328584	1237964		2.23	Min	Si		Si
1525	1835	1810	27	18	171	171	No	-7278	SLV 14	173030	8508	621907	5397	-328584	1237964		2.23	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, γrd = 1,3

Q.nodo	Angolo	γrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	180	7749959	<	9613008	4902015	4710993	1.24	SLV 9		Si
285	270	2130571	<	5217666	2676707	2540959	2.449	SLV 9		Si
285	360	7749960	<	9613008	4902015	4710993	1.24	SLV 9		Si
595	180	7750027	<	9141049	5102374	4038676	1.179	SLV 9		Si
595	270	2621879	<	5766396	3041292	2725104	2.199	SLV 9		Si
595	360	7750027	<	9141049	5102373	4038676	1.179	SLV 9		Si
905	0	6206930	<	6737824	3442792	3295032	1.086	SLV 9		Si
905	180	6206930	<	6737824	3442792	3295032	1.086	SLV 9		Si
905	270	1966259	<	4152107	2115162	2036945	2.112	SLV 9		Si
1215	0	5177955	<	5540625	2842913	2697712	1.07	SLV 9		Si
1215	180	5177955	<	5540625	2842913	2697712	1.07	SLV 9		Si
1215	270	1699836	<	3453637	1772670	1680967	2.032	SLV 9		Si
1525	0	3838962	<	5195101	2661807	2533295	1.353	SLV 9		Si
1525	180	3838962	<	5195101	2661807	2533295	1.353	SLV 9		Si
1525	270	1966259	<	3243170	1659680	1583490	1.649	SLV 9		Si

Pilastrata 8

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	33.18	2.4	0	1,2,3,4	265152	265152	-132576	891760	891760	SLU 16	3.363	Si
29	33.18	2.4	0	1,2,3,4	264636	264636	-132318	891760	891760	SLU 16	3.37	Si
58	33.18	2.4	0	1,2,3,4	-264110	264110	-132055	-891760	891760	SLU 16	3.376	Si
87	33.18	1.2	0	3,4	-263584	-263584	-131792	-891760	-891760	SLU 16	3.383	Si
116	33.18	1.2	0	3,4	-263058	-263058	-131529	-891760	-891760	SLU 16	3.39	Si
144	33.18	1.2	0	3,4	-262533	-262533	-131266	-891760	-891760	SLU 16	3.397	Si
173	33.18	1.2	0	3,4	-262007	-262007	-131003	-891760	-891760	SLU 16	3.404	Si
202	33.18	1.2	0	3,4	-261481	-261481	-130741	-891760	-891760	SLU 16	3.41	Si
231	33.18	1.2	0	3,4	-260955	-260955	-130478	-891760	-891760	SLU 16	3.417	Si
260	33.18	1.2	0	3,4	-260439	-260439	-130219	-891760	-891760	SLU 16	3.424	Si
310	33.18	2.4	0	3,4,5,6,8,9,10	208849	208849	-104424	891760	891760	SLU 16	4.27	Si
339	33.18	2.4	0	3,4,5,6,8,9,10	208332	208332	-104166	891760	891760	SLU 16	4.28	Si
368	33.18	2.4	0	3,4,5,6,8,9,10	207811	207811	-103906	891760	891760	SLU 16	4.291	Si
397	33.18	1.2	0	5,6,8,9,10	207280	207280	-103640	891760	891760	SLU 16	4.302	Si
426	33.18	1.2	0	5,6,8,9,10	-206755	206755	-103377	-891760	891760	SLU 16	4.313	Si
454	33.18	1.2	0	5,6,8,9,10	-206229	206229	-103114	-891760	891760	SLU 16	4.324	Si
483	33.59	1.4	0	5,6,8,9,10,17	-205703	205703	-102852	-895038	895038	SLU 16	4.351	Si
512	35.86	1.4	0	5,6,8,9,10,17	-205177	-205177	-102589	-912795	-912795	SLU 16	4.449	Si
541	38.22	1.6	0	5,6,7,8,9,10,17	-204652	-204652	-102326	-931235	-931235	SLU 16	4.55	Si
570	42.84	2	0	5,6,7,8,9,10,11,17	-204135	-204135	-102067	-967401	-967401	SLU 16	4.739	Si
620	39.46	2.8	0	5,7,8,9,11,12,13,17	162600	162600	-81300	846244	846244	SLU 16	5.204	Si
649	36.64	2.8	0	5,7,8,9,11,12,13,17	162157	162157	-81078	827817	827817	SLU 16	5.105	Si
678	33.82	2.8	0	5,7,8,9,11,12,13,17	161711	161711	-80855	806495	806495	SLU 16	4.987	Si
707	28.65	1.2	0	12,13	161256	161256	-80628	766052	766052	SLU 16	4.751	Si
736	28.65	1.2	0	12,13	160805	-160805	-80402	766052	-766052	SLU 16	4.764	Si
764	28.65	1.2	0	12,13	-160354	-160354	-80177	-766052	-766052	SLU 16	4.777	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
793	28.65	1.2	0	12,13	-159904	-159904	-79952	-766052	-766052	SLU 16	4.791	Si
822	28.65	1.2	0	12,13	-159453	-159453	-79726	-766052	-766052	SLU 16	4.804	Si
851	28.65	1.2	0	12,13	-159002	-159002	-79501	-766052	-766052	SLU 16	4.818	Si
880	28.65	1.2	0	12,13	-158559	-158559	-79280	-766052	-766052	SLU 16	4.831	Si
930	28.65	2.2	0	12,13,14	185336	214586	-58877	1099727	1273290	SLU 16	5.934	Si
959	28.1	2.2	0	12,13,14	146741	171095	-58656	918730	1071209	SLU 16	6.261	Si
988	27.55	2.2	0	12,13,14	116865	127263	-58433	757431	824824	SLU 16	6.481	Si
1017	24.13	1	0	14	116410	116410	-58205	730647	730647	SLU 16	6.276	Si
1046	24.13	1	0	14	115960	115960	-57980	730647	730647	SLU 16	6.301	Si
1074	24.13	1	0	14	-115509	-115509	-57754	-730647	-730647	SLU 16	6.325	Si
1103	24.13	1	0	14	-115058	-115058	-57529	-730647	-730647	SLU 16	6.35	Si
1132	24.13	1	0	14	-114608	-114608	-57304	-730647	-730647	SLU 16	6.375	Si
1161	24.13	1	0	14	-128183	-138706	-57078	-815760	-882727	SLU 16	6.364	Si
1190	24.13	1	0	14	-166778	-182197	-56857	-1005684	-1098662	SLU 16	6.03	Si
1240	24.13	2	0	14,15	198547	214607	-38303	1458145	1576091	SLU 16	7.344	Si
1269	24.13	2	0	14,15	159926	175223	-38082	1288736	1412004	SLU 16	8.058	Si
1298	24.13	2	0	14,15	121003	135531	-37859	1068654	1196961	SLU 16	8.832	Si
1327	24.13	1	0	15	78076	86246	-38347	743816	821655	SLU 15	9.527	Si
1356	24.13	1	0	15	76243	76243	-38121	730647	730647	SLU 15	9.583	Si
1384	24.13	1	0	15	75792	75792	-37896	730647	730647	SLU 15	9.64	Si
1413	24.13	1	0	15	-75341	-75341	-37671	-730647	-730647	SLU 15	9.698	Si
1442	24.13	1	0	15	-77143	-74891	-37445	-752625	-730647	SLU 15	9.756	Si
1471	24.13	1	0	15	-115948	-74440	-37220	-1082087	-694712	SLU 15	9.333	Si
1500	24.13	1	0	15	-153800	-144701	-36283	-1319021	-1240985	SLU 16	8.576	Si
1550	24.13	2	0	15,16	153064	285361	-15599	1451968	2706944	SLU 16	9.486	Si
1579	24.13	2	0	15,16	124250	218071	-15377	1467895	2576302	SLU 16	11.814	Si
1608	24.13	2	0	15,16	89150	135912	-17488	1341758	2045555	SLU 15	15.051	Si
1637	24.13	1	0	16	65482	58658	-17260	1230853	1102583	SLU 15	18.797	Si
1666	24.13	1	0	16	42039	-34070	-17035	892211	-723064	SLU 15	21.223	Si
1694	24.13	1	0	16	33619	-94378	-16809	660946	-1855473	SLU 15	19.66	Si
1723	24.13	1	0	16	-33168	-170896	-16584	-549210	-2829759	SLU 15	16.558	Si
1752	24.13	1	0	16	-32718	-247414	-16359	-453714	-3431045	SLU 15	13.868	Si
1781	24.13	1	0	16	-51730	-323932	-16133	-584616	-3660839	SLU 15	11.301	Si
1810	24.13	1	0	16	-74767	-399126	-15912	-687231	-3668626	SLU 15	9.192	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	33.18	2.4	0.0003	1,2,3,4	1065285	3874980	-39497	1089945	3964684	SLV 6-Ger.	1.023	127359	256802	SLV 11	Si
29	33.18	2.4	0.0003	1,2,3,4	119290	3283278	-44182	185372	5102083	SLV 2	1.554	127161	256802	SLV 11	Si
58	33.18	2.4	0.0003	1,2,3,4	66624	2694024	-43980	133139	5383582	SLV 2	1.998	126958	256802	SLV 11	Si
87	33.18	1.2	0.0003	3,4	-16113	-2122621	-121872	-38264	-5040817	SLV 15	2.375	126756	256802	SLV 11	Si
116	33.18	1.2	0.0003	3,4	34518	-1560342	-121670	95692	-4325631	SLV 15	2.772	126554	256802	SLV 11	Si
144	33.18	1.2	0.0003	3,4	85073	-997025	-121467	274434	-3216248	SLV 15	3.226	126352	256802	SLV 11	Si
173	33.18	1.2	0.0003	3,4	50355	-122637	-126149	177983	-433465	SLV 11	3.535	126149	256802	SLV 11	Si
202	33.18	1.2	0.0003	3,4	98804	58224	-125947	349787	206124	SLV 11	3.54	125947	256802	SLV 11	Si
231	33.18	1.2	0.0003	3,4	237259	715024	-120861	805344	2427053	SLV 15	3.394	125745	256802	SLV 11	Si
260	33.18	1.2	0.0003	3,4	287033	1271933	-120662	825372	3657478	SLV 15	2.876	125546	256802	SLV 11	Si
310	33.18	2.4	0.0006	3,4,5,6,8,9,10	633801	2965895	-35390	921502	4312207	SLV 2	1.454	103482	256802	SLV 11	Si
339	33.18	2.4	0.0006	3,4,5,6,8,9,10	507395	2388543	-35192	954019	4491009	SLV 2	1.88	103283	256802	SLV 11	Si
368	33.18	2.4	0.0006	3,4,5,6,8,9,10	380013	1807013	-34991	1004190	4775060	SLV 2	2.643	103083	256802	SLV 11	Si
397	33.18	1.2	0.0006	5,6,8,9,10	-239780	-1198786	-96389	-804747	-4040201	SLV 15	3.37	102879	256802	SLV 11	Si
426	33.18	1.2	0.0006	5,6,8,9,10	-125181	-606815	-96187	-536706	-2601693	SLV 15	4.287	102677	256802	SLV 11	Si
454	33.18	1.2	0.0006	5,6,8,9,10	-29493	37793	-102474	-128328	164442	SLV 11	4.351	102474	256802	SLV 11	Si
483	33.59	1.4	0.0006	5,6,8,9,10,17	103313	604380	-95782	448389	2623075	SLV 15	4.34	102272	256802	SLV 11	Si
512	35.86	1.4	0.0006	5,6,8,9,10,17	216917	1193336	-95580	750866	4130782	SLV 15	3.462	102070	256802	SLV 11	Si
541	38.22	1.6	0.0006	5,6,7,8,9,10,17	330674	1786749	-95378	906950	4900577	SLV 15	2.743	101868	256802	SLV 11	Si
570	42.84	2	0.0006	5,6,7,8,9,10,11,17	-519793	-2311075	-33577	-1087191	-4833806	SLV 2	2.092	101669	256802	SLV 11	Si
620	39.46	2.8	0.0006	5,7,8,9,11,12,13,17	608686	2364142	-30383	948663	3684613	SLV 1	1.559	79570	220116	SLV 11	Si
649	36.64	2.8	0.0006	5,7,8,9,11,12,13,17	486600	1893332	-30213	945952	3680640	SLV 1	1.944	79399	220116	SLV 11	Si
678	33.82	2.8	0.0006	5,7,8,9,11,12,13,17	369183	1411506	-29674	971385	3713916	SLV 2	2.631	79228	220116	SLV 11	Si
707	28.65	1.2	0.0006	12,13	-199853	-960592	-72194	-697170	-3350951	SLV 15	3.488	79053	220116	SLV 11	Si
736	28.65	1.2	0.0006	12,13	-105788	-504005	-72021	-488290	-3226362	SLV 15	4.616	78879	220116	SLV 11	Si
764	28.65	1.2	0.0006	12,13	-32460	-37411	-78706	-157969	-182061	SLV 11	4.867	78706	220116	SLV 11	Si
793	28.65	1.2	0.0006	12,13	83718	454013	-71674	401223	2175875	SLV 15	4.793	78533	220116	SLV 11	Si
822	28.65	1.2	0.0006	12,13	177821	910509	-71501	645306	3304210	SLV 15	3.629	78359	220116	SLV 11	Si
851	28.65	1.2	0.0006	12,13	-387978	-1468436	-28632	-908855	-3439871	SLV 2	2.343	78186	220116	SLV 11	Si
880	28.65	1.2	0.0006	12,13	-511712	-1936619	-28462	-857397	-3244898	SLV 2	1.676	78016	220116	SLV 11	Si
930	28.65	2.2	0.0008	12,13,14	659134	1776198	-26612	1096546	2954911	SLV 2	1.664	55499	220116	SLV 11	Si
959	28.1	2.2	0.0008	12,13,14	528474	1381966	-26442	1147384	3000425	SLV 2	2.171	55329	220116	SLV 11	Si
988	27.55	2.2	0.0008	12,13,14	396810	985578	-26270	1237038	3072499	SLV 2	3.117	55157	220116	SLV 11	Si
1017	24.13	1	0.0008	14	262640	584598	-26095	1310122	2916139	SLV 2	4.988	54982	220116	SLV 11	Si
1046	24.13	1	0.0008	14	-111093	-48275	-54809	-740479	-321775	SLV 11	6.665	54809	220116	SLV 11	Si
1074	24.13	1	0.0008	14	-7991	88147	-54635	-53430	589397	SLV 11	6.687	54635	220116	SLV 11	Si
1103	24.13	1	0.0008	14	77110	598129	-47221	411972	3195577	SLV 15	5.343	54462	220116	SLV 11	Si
1132	24.13	1	0.0008	14	-269948	-1043708	-25402	-832331	-3218064	SLV 2	3.083	54289	220116	SLV 11	Si
1161	24.13	1	0.0008	14	-402832	-1444186	-25229	-808114	-2897154	SLV 2	2.006	54115	220116	SLV 11	Si
1190	24.13	1	0.0008	14	-533471	-138525	-25058	-787193	-2712938	SLV 2	1.476	53945	220116	SLV 11	Si
1240	24.13	2	0.0008	14,15	500917	1229308	-22451	1058986	2598872	SLV 1	2.114	32732	220116	SLV 7	Si
1269	24.13	2	0.0008	14,15	422072	935715	-22150	1187041	2631617	SLV 2	2.812	32561	220116	SLV 7	Si
1298	24.13	2	0.0008	14,15	333308	654506	-21978	1355411	2661575	SLV 2	4.067	32390	220116	SLV 7	Si
1327	24.13	1	0.0008	15	242822	373132	-21803	1607201	2469702	SLV 2	6.619	32215	220116	SLV 7	Si
1356	24.13	1	0.0008	15	-122135	981	-31834	-1300456	10441	SLV 11	10.648	32041	220116	SLV 7	Si
1384	24.13	1	0.0008	15	-60137	263748	-25721	-637014	2793805	SLV 15	10.593	31868	220116	SLV 7	Si
1413	24.13	1	0.0008	15	14645	-506919	-26239	111278	-3851835	SLV 3	7.599	31695	220116	SLV 7	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
58	33.18	2.4	0.0001	1,2,3,4	-35188	-1362557	-103128	-113501	-4394991	SLD 15	3.226	Si
87	33.18	1.2	0.0001	3,4	-9646	-1076429	-102926	-34317	-3829604	SLD 15	3.558	Si
116	33.18	1.2	0.0001	3,4	15830	-793134	-102724	61773	-3094944	SLD 15	3.902	Si
144	33.18	1.2	0.0001	3,4	-3383	-152302	-105760	-14261	-642094	SLD 11	4.216	Si
173	33.18	1.2	0.0001	3,4	23432	-67335	-105558	98978	-284425	SLD 11	4.224	Si
202	33.18	1.2	0.0001	3,4	48689	22798	-105356	206057	96485	SLD 11	4.232	Si
231	33.18	1.2	0.0001	3,4	74547	110317	-105154	316098	467771	SLD 11	4.24	Si
260	33.18	1.2	0.0001	3,4	142865	634503	-101716	579141	2572119	SLD 15	4.054	Si
310	33.18	2.4	0.0003	3,4,5,6,8,9,10	-283033	-1507257	-82077	-895244	-4767517	SLD 15	3.163	Si
339	33.18	2.4	0.0003	3,4,5,6,8,9,10	-229259	-1209081	-81878	-833749	-4397079	SLD 15	3.637	Si
368	33.18	2.4	0.0003	3,4,5,6,8,9,10	-175071	-908749	-81678	-734498	-3812585	SLD 15	4.195	Si
397	33.18	1.2	0.0003	5,6,8,9,10	-119850	-603063	-81473	-582268	-2929871	SLD 15	4.858	Si
426	33.18	1.2	0.0003	5,6,8,9,10	-71109	-77232	-85220	-372048	-404086	SLD 11	5.232	Si
454	33.18	1.2	0.0003	5,6,8,9,10	-20232	27933	-85018	-106105	146494	SLD 11	5.245	Si
483	33.59	1.4	0.0003	5,6,8,9,10,17	31048	142848	-84816	163822	753716	SLD 11	5.276	Si
512	35.86	1.4	0.0003	5,6,8,9,10,17	99277	617447	-80664	494144	3073312	SLD 15	4.977	Si
541	38.22	1.6	0.0003	5,6,7,8,9,10,17	153974	920158	-80462	670154	4004893	SLD 15	4.352	Si
570	42.84	2	0.0003	5,6,7,8,9,10,11,17	207741	1218128	-80264	789417	4628901	SLD 15	3.8	Si
620	39.46	2.8	0.0003	5,7,8,9,11,12,13,17	346306	1201034	-40519	1138036	3946852	SLD 1	3.286	Si
649	36.64	2.8	0.0003	5,7,8,9,11,12,13,17	-170487	-961157	-62038	-667738	-3764522	SLD 16	3.917	Si
678	33.82	2.8	0.0003	5,7,8,9,11,12,13,17	-133904	-726935	-62059	-606421	-3292134	SLD 15	4.529	Si
707	28.65	1.2	0.0003	12,13	-92738	-494179	-61884	-479263	-2553863	SLD 15	5.168	Si
736	28.65	1.2	0.0003	12,13	-70332	-106608	-65692	-410080	-621591	SLD 11	5.831	Si
764	28.65	1.2	0.0003	12,13	-22495	-32998	-65519	-131507	-192910	SLD 11	5.846	Si
793	28.65	1.2	0.0003	12,13	23443	53451	-65345	137411	313307	SLD 11	5.862	Si
822	28.65	1.2	0.0003	12,13	70734	441426	-61191	383821	2395297	SLD 15	5.426	Si
851	28.65	1.2	0.0003	12,13	-225041	-770940	-39135	-1040150	-3563314	SLD 1	4.622	Si
880	28.65	1.2	0.0003	12,13	-298593	-1008578	-38772	-1072482	-3622591	SLD 2	3.592	Si
930	28.65	2.2	0.0004	12,13,14	394114	953915	-31799	1325959	3209353	SLD 2	3.364	Si
959	28.1	2.2	0.0004	12,13,14	311422	749073	-31762	1339817	3222704	SLD 1	4.302	Si
988	27.55	2.2	0.0004	12,13,14	233118	536257	-31590	1336917	3075398	SLD 1	5.735	Si
1017	24.13	1	0.0004	14	153322	321017	-31415	1191193	2494055	SLD 1	7.769	Si
1046	24.13	1	0.0004	14	-50793	-15943	-46388	-400012	-125557	SLD 11	7.875	Si
1074	24.13	1	0.0004	14	-7070	44147	-46215	-55890	348974	SLD 11	7.905	Si
1103	24.13	1	0.0004	14	25305	291377	-42034	195428	2250298	SLD 15	7.723	Si
1132	24.13	1	0.0004	14	-163370	-553657	-30722	-964705	-3269363	SLD 1	5.905	Si
1161	24.13	1	0.0004	14	-245457	-764895	-30416	-1046313	-3260526	SLD 2	4.263	Si
1190	24.13	1	0.0004	14	-324141	-975319	-30245	-1044756	-3143600	SLD 2	3.223	Si
1240	24.13	2	0.0004	14,15	322998	667854	-23300	1331305	2752700	SLD 2	4.122	Si
1269	24.13	2	0.0004	14,15	265863	516840	-23130	1413210	2747296	SLD 2	5.316	Si
1298	24.13	2	0.0004	14,15	208280	365359	-22958	1495029	2622536	SLD 2	7.178	Si
1327	24.13	1	0.0004	15	149581	213642	-22783	1509442	2155891	SLD 2	10.091	Si
1356	24.13	1	0.0004	15	-25111	20905	-28201	-325304	270810	SLD 7	12.954	Si
1384	24.13	1	0.0004	15	-4239	-28482	-28027	-55249	-371251	SLD 7	13.035	Si
1413	24.13	1	0.0004	15	-2996	-259583	-24920	-34200	-2962937	SLD 3	11.414	Si
1442	24.13	1	0.0004	15	-81502	-419763	-22159	-687483	-3540750	SLD 1	8.435	Si
1471	24.13	1	0.0004	15	-138701	-574681	-21985	-845166	-3501787	SLD 1	6.093	Si
1500	24.13	1	0.0004	15	-194934	-727301	-21815	-893292	-3332880	SLD 1	4.583	Si
1550	24.13	2	0.0004	15,16	333307	307667	-8847	1668541	1540187	SLD 6	5.006	Si
1579	24.13	2	0.0004	15,16	263511	232443	-8676	1768967	1560404	SLD 6	6.713	Si
1608	24.13	2	0.0004	15,16	193169	156799	-8505	1942317	1576610	SLD 6	10.055	Si
1637	24.13	1	0.0004	16	121471	80531	-8330	2159561	1431710	SLD 6	17.778	Si
1666	24.13	1	0.0004	16	-4652	-26941	-11170	-152140	-881116	SLD 7	32.706	Si
1694	24.13	1	0.0004	16	5061	-169386	-10228	109504	-3665167	SLD 3	21.638	Si
1723	24.13	1	0.0004	16	-48315	-308900	-9169	-578161	-3696488	SLD 1	11.967	Si
1752	24.13	1	0.0004	16	-86811	-450996	-8995	-620656	-3224395	SLD 1	7.149	Si
1781	24.13	1	0.0004	16	-125310	-593489	-8822	-623090	-2951066	SLD 1	4.972	Si
1810	24.13	1	0.0004	16	-163143	-733674	-8652	-622139	-2797842	SLD 1	3.813	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	a,n	a,s	a	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8847	0.6753	0.4157	0.2807	0.455	1984	0.2368	1.186	SLV 11	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.v-T	Ver.
0	4X/4Y ø10/5	-245	-80	-113506	SLU 8	1	102703	419.03	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/5	-245	-80	-113307	SLU 8	1	102703	419.03	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/5	-245	-80	-113105	SLU 8	1	102703	419.03	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/15	-245	-80	-112902	SLU 8	2.5	59653	243.39	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/15	-245	-80	-112700	SLU 8	2.5	59653	243.39	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/15	-245	-80	-112498	SLU 8	2.5	59653	243.39	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/15	-245	-80	-112296	SLU 8	2.5	59653	243.39	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	-245	-80	-112094	SLU 8	1.5	92036	375.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	-245	-80	-111891	SLU 8	1.5	92036	375.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	-245	-80	-111693	SLU 8	1.5	92036	375.51	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	595	-456	-68235	SLU 10	1.5	88968	149.46	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	595	-456	-67977	SLU 10	1.5	88968	149.46	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	595	-456	-67717	SLU 10	1.5	88968	149.46	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/15	595	-456	-103640	SLU 16	2.5	31809	69.72	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/15	595	-456	-103377	SLU 16	2.5	31809	69.72	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/15	595	-456	-103114	SLU 16	2.5	31809	69.72	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/15	595	-456	-102852	SLU 16	2.5	31809	69.72	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	595	-456	-66400	SLU 10	1.5	88968	149.46	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	595	-456	-66137	SLU 10	1.5	88968	149.46	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	595	-456	-65878	SLU 10	1.5	88968	149.46	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	4X/5Y ø10/12	-794	-912	-81300	SLU 16	1.8	69985	76.7	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	-794	-912	-81078	SLU 16	1.8	69985	76.7	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	-794	-912	-80855	SLU 16	1.8	69985	76.7	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	-794	-912	-80628	SLU 16	2.5	27423	30.05	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	-794	-912	-80402	SLU 16	2.5	27423	30.05	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	-794	-912	-80177	SLU 16	2.5	27423	30.05	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	-794	-912	-79952	SLU 16	2.5	27423	30.05	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	-794	-912	-79726	SLU 16	2	63986	70.13	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	-794	-912	-79501	SLU 16	2	63986	70.13	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	-794	-912	-79280	SLU 16	2	63986	70.13	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	-1532	-1360	-58877	SLU 16	2	62386	45.89	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	-1532	-1360	-58656	SLU 16	2	62386	45.89	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	-1532	-1360	-58433	SLU 16	2	62386	45.89	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	-1532	-1360	-58205	SLU 16	2.5	27423	20.17	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	-1532	-1360	-57980	SLU 16	2.5	27423	20.17	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	-1532	-1360	-57754	SLU 16	2.5	27423	20.17	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	-1532	-1360	-57529	SLU 16	2.5	27423	20.17	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
1132	4X/4Y ø10/12	-1532	-1360	-57304	SLU 16	2	62386	45.89	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	-1532	-1360	-57078	SLU 16	2	62386	45.89	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	-1532	-1360	-56857	SLU 16	2	62386	45.89	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	-1387	-1360	-38303	SLU 16	1.9	59187	43.51	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	-1387	-1360	-38082	SLU 16	1.9	59187	43.51	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	-1387	-1360	-37859	SLU 16	1.9	59187	43.51	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	-1387	-1360	-37631	SLU 16	2.5	27423	20.16	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	-1387	-1360	-37406	SLU 16	2.5	27423	20.16	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	-1387	-1360	-37181	SLU 16	2.5	27423	20.16	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	-1387	-1360	-36955	SLU 16	2.5	27423	20.16	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	-1387	-1360	-36730	SLU 16	1.9	59187	43.51	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	-1387	-1360	-36505	SLU 16	1.9	59187	43.51	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	-1387	-1360	-36283	SLU 16	1.9	59187	43.51	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	-2649	-1015	-17932	SLU 15	1.4	68084	25.7	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	-2649	-1015	-17711	SLU 15	1.4	68084	25.7	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	-2649	-1015	-17488	SLU 15	1.4	68084	25.7	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	-2649	-1015	-17260	SLU 15	2.5	43228	16.32	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	-2649	-1015	-17035	SLU 15	2.5	43228	16.32	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	-2649	-1015	-16809	SLU 15	2.5	43228	16.32	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	-2649	-1015	-16584	SLU 15	2.5	43228	16.32	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	-2649	-1015	-16359	SLU 15	1.4	68084	25.7	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	-2649	-1015	-16133	SLU 15	1.4	68084	25.7	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	-2649	-1015	-15912	SLU 15	1.4	68084	25.7	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	48881	27602	-127359	SLV 11-Ger.	1	102703	2.1	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
29	4X/4Y ø10/5	48881	27602	-127161	SLV 11-Ger.	1	102703	2.1	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
58	4X/4Y ø10/5	48881	27602	-126958	SLV 11-Ger.	1	102703	2.1	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
87	2X/2Y ø10/15	48881	27602	-126756	SLV 11-Ger.	2.5	31808	1.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
116	2X/2Y ø10/15	48881	27602	-126554	SLV 11-Ger.	2.5	31808	1.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/15	48881	27602	-126352	SLV 11-Ger.	2.5	31808	1.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/15	48881	27602	-126149	SLV 11-Ger.	2.5	31808	1.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	48881	27602	-125947	SLV 11-Ger.	1.5	92035	1.88	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	48881	27602	-125745	SLV 11-Ger.	1.5	92035	1.88	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	48881	27602	-125546	SLV 11-Ger.	1.5	92035	1.88	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	49167	28285	-103482	SLV 11-Ger.	1.5	92034	1.87	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	49167	28285	-103283	SLV 11-Ger.	1.5	92034	1.87	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	49167	28285	-103083	SLV 11-Ger.	1.5	92034	1.87	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/15	49167	28704	-102879	SLV 11-Ger.	2.5	31807	1.11	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/15	49167	28704	-102677	SLV 11-Ger.	2.5	31807	1.11	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/15	49167	28704	-102474	SLV 11-Ger.	2.5	31807	1.11	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/15	49167	28704	-102272	SLV 11-Ger.	2.5	31807	1.11	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	4X/5Y ø10/11.7	49167	28704	-102070	SLV 11-Ger.	1.5	92034	1.87	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/5Y ø10/11.7	49167	28704	-101868	SLV 11-Ger.	1.5	92034	1.87	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/5Y ø10/11.7	49167	28704	-101669	SLV 11-Ger.	1.5	92034	1.87	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/5Y ø10/12	36315	24077	-79570	SLV 11-Ger.	1.5	75647	2.08	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/5Y ø10/12	36315	24077	-79399	SLV 11-Ger.	1.5	75647	2.08	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/5Y ø10/12	36315	24077	-79228	SLV 11-Ger.	1.5	75647	2.08	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	36315	24515	-79053	SLV 11-Ger.	2.5	27420	1.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	36315	24515	-78879	SLV 11-Ger.	2.5	27420	1.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	36315	24515	-78706	SLV 11-Ger.	2.5	27420	1.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	36315	24515	-78533	SLV 11-Ger.	2.5	27420	1.12	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	36315	23971	-78359	SLV 11-Ger.	1.5	75647	2.08	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	36315	24053	-78186	SLV 11-Ger.	1.5	75647	2.08	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	36315	24053	-78016	SLV 11-Ger.	1.5	75647	2.08	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/4Y ø10/12	30549	18877	-55499	SLV 11-Ger.	1.5	73125	2.39	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	30549	19111	-55329	SLV 11-Ger.	1.5	73125	2.39	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	30549	19111	-55157	SLV 11-Ger.	1.5	73125	2.39	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	30549	19152	-54982	SLV 11-Ger.	2.5	43224	1.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	30549	19152	-54809	SLV 11-Ger.	2.5	43224	1.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	30549	19152	-54635	SLV 11-Ger.	2.5	43224	1.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	30549	19152	-54462	SLV 11-Ger.	2.5	43224	1.41	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	30549	19152	-54289	SLV 11-Ger.	1.5	73125	2.39	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	30549	19152	-54115	SLV 11-Ger.	1.5	73125	2.39	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
1190	4X/4Y ø10/12	30549	19152	-53945	SLV 11-Ger.	1.5	73125	2.39	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	SI
1240	4X/4Y ø10/12	26041	16146	-32732	SLV 7-Ger.	1.4	70604	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1269	4X/4Y ø10/12	26041	16146	-32561	SLV 7-Ger.	1.4	70604	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1298	4X/4Y ø10/12	26041	16146	-32390	SLV 7-Ger.	1.4	70604	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1327	2X/2Y ø10/17.5	26041	16146	-32215	SLV 7-Ger.	2.5	43224	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1356	2X/2Y ø10/17.5	26041	16146	-32041	SLV 7-Ger.	2.5	43224	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1384	2X/2Y ø10/17.5	26041	16146	-31868	SLV 7-Ger.	2.5	43224	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1413	2X/2Y ø10/17.5	26041	16146	-31695	SLV 7-Ger.	2.5	43224	1.66	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1442	4X/4Y ø10/12	26041	16146	-31521	SLV 7-Ger.	1.4	70604	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1471	4X/4Y ø10/12	26041	16146	-31348	SLV 7-Ger.	1.4	70604	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1500	4X/4Y ø10/12	26041	16146	-31178	SLV 7-Ger.	1.4	70604	2.71	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	SI
1550	4X/4Y ø10/12	22614	14097	-13279	SLV 7-Ger.	1.4	68082	3.01	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1579	4X/4Y ø10/12	22614	14097	-13109	SLV 7-Ger.	1.4	68082	3.01	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1608	4X/4Y ø10/12	22614	14097	-12937	SLV 7-Ger.	1.4	68082	3.01	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1637	2X/2Y ø10/17.5	22614	14097	-12762	SLV 7-Ger.	2.5	43224	1.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1666	2X/2Y ø10/17.5	22614	14097	-12589	SLV 7-Ger.	2.5	43224	1.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1694	2X/2Y ø10/17.5	22614	14097	-12416	SLV 7-Ger.	2.5	43224	1.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1723	2X/2Y ø10/17.5	22614	14097	-12242	SLV 7-Ger.	2.5	43224	1.91	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1752	4X/4Y ø10/12	22614	14097	-12069	SLV 7-Ger.	1.4	68082	3.01	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1781	4X/4Y ø10/12	22614	13743	-11896	SLV 7-Ger.	1.4	68082	3.01	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI
1810	4X/4Y ø10/12	22614	13752	-11725	SLV 7-Ger.	1.4	68082	3.01	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	SI

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vpl,y	Comb.
0	260	260	1.1	3264819.5		-127359.2	3259187.7		-125546.2	48881		SLV 11
0	260	260	1.1		5780492.7	-127359.2		5773195	-125546.2		27601.6	SLV 11
310	570	260	1.1	3136978.5		-103482	3647560.3		-101669	49167.1		SLV 11
310	570	260	1.1		5587736.2	-103482		6033588.8	-101669		28703.8	SLV 11
620	880	260	1.1	3206575.6		-79569.6	2587932.6		-78015.6	36315.4		SLV 11
620	880	260	1.1		4468638.3	-79569.6		4114992.1	-78015.6		24515.2	SLV 11
930	1190	260	1.1	2391667.1		-55498.9	2135083.2		-53944.9	30548.8		SLV 11
930	1190	260	1.1		3832433.8	-55498.9		3388187.6	-53944.9		19151.6	SLV 11
1240	1500	260	1.1	1916457.2		-32731.5	1899868.3		-31177.5	26041.5		SLV 7
1240	1500	260	1.1		3092085.9	-32731.5		3063176.2	-31177.5		16146	SLV 7
1550	1810	260	1.1	1676676.5		-13279.4	1655389.7		-11725.4	22613.6		SLV 7
1550	1810	260	1.1		2690474.4	-13279.4		2654569.3	-11725.4		14097.2	SLV 7

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	-10187	-968	-63619	SLD 1	1	95393	9.36	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
29	4X/4Y ø10/5	-10187	-968	-63420	SLD 1	1	95352	9.36	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
58	4X/4Y ø10/5	-10187	-968	-63218	SLD 1	1	95310	9.36	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
87	2X/2Y ø10/15	-10187	-968	-63016	SLD 1	2.5	59652	5.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
116	2X/2Y ø10/15	-10187	-968	-62813	SLD 1	2.5	59652	5.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
144	2X/2Y ø10/15	-10187	-968	-62611	SLD 1	2.5	59652	5.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
173	2X/2Y ø10/15	-10187	-968	-62409	SLD 1	2.5	59652	5.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
202	4X/4Y ø10/11.7	-10187	-968	-62207	SLD 1	1.7	84306	8.28	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
231	4X/4Y ø10/11.7	-10187	-968	-62004	SLD 1	1.7	84268	8.27	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
260	4X/4Y ø10/11.7	-10187	-968	-61806	SLD 1	1.7	84232	8.27	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	SI
310	4X/4Y ø10/11.7	-10298	-2408	-50557	SLD 1	1.7	82158	7.98	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
339	4X/4Y ø10/11.7	-10298	-2408	-50358	SLD 1	1.7	82121	7.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
368	4X/4Y ø10/11.7	-10298	-2408	-50158	SLD 1	1.7	82084	7.97	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
397	2X/2Y ø10/15	10549	-2408	-81222	SLD 16	2.5	59652	5.65	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
426	2X/2Y ø10/15	10549	-2408	-81020	SLD 16	2.5	59652	5.65	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
454	2X/2Y ø10/15	10549	-2408	-80818	SLD 16	2.5	59652	5.65	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
483	2X/2Y ø10/15	10549	-2408	-80616	SLD 16	2.5	59652	5.65	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
512	4X/5Y ø10/11.7	-10298	-2408	-49145	SLD 1	1.7	81897	7.95	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
541	4X/5Y ø10/11.7	-10298	-2408	-48942	SLD 1	1.7	81860	7.95	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
570	4X/5Y ø10/11.7	-10298	-2408	-48744	SLD 1	1.7	81824	7.95	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
620	4X/5Y ø10/12	-8533	-2714	-40519	SLD 1	1.7	68948	8.08	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
649	4X/5Y ø10/12	-8533	-2714	-40348	SLD 1	1.7	68917	8.08	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
678	4X/5Y ø10/12	-8533	-2714	-40177	SLD 1	1.7	68885	8.07	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
707	2X/2Y ø10/17.5	-8533	-2714	-40002	SLD 1	2.5	43227	5.07	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
736	2X/2Y ø10/17.5	-8533	-2714	-39828	SLD 1	2.5	43227	5.07	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
764	2X/2Y ø10/17.5	-8533	-2714	-39655	SLD 1	2.5	43227	5.07	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
793	2X/2Y ø10/17.5	-8533	-2714	-39482	SLD 1	2.5	43227	5.07	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
822	4X/4Y ø10/12	-8533	-2714	-39308	SLD 1	1.7	68727	8.05	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
851	4X/4Y ø10/12	-8533	-2714	-39135	SLD 1	1.7	68696	8.05	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
880	4X/4Y ø10/12	-8533	-2714	-38965	SLD 1	1.7	68665	8.05	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
930	4X/4Y ø10/12	-7478	-3171	-31932	SLD 1	1.7	67386	9.01	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
959	4X/4Y ø10/12	-7478	-3171	-31762	SLD 1	1.7	67355	9.01	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
988	4X/4Y ø10/12	-7478	-3171	-31590	SLD 1	1.7	67324	9	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1017	2X/2Y ø10/17.5	-7478	-3171	-31415	SLD 1	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1046	2X/2Y ø10/17.5	-7478	-3171	-31242	SLD 1	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1074	2X/2Y ø10/17.5	-7478	-3171	-31069	SLD 1	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1103	2X/2Y ø10/17.5	-7478	-3171	-30895	SLD 1	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1132	4X/4Y ø10/12	-7478	-3171	-30722	SLD 1	1.7	67166	8.98	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1161	4X/4Y ø10/12	-7478	-3171	-30549	SLD 1	1.7	67135	8.98	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1190	4X/4Y ø10/12	-7478	-3171	-30378	SLD 1	1.7	67104	8.97	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1240	4X/4Y ø10/12	-5395	-2767	-23369	SLD 1	1.7	65829	12.2	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1269	4X/4Y ø10/12	-5395	-2767	-23199	SLD 1	1.7	65798	12.2	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1298	4X/4Y ø10/12	-5395	-2767	-23027	SLD 1	1.7	65767	12.19	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1327	2X/2Y ø10/17.5	-5395	-2767	-22852	SLD 1	2.5	43227	8.01	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1356	2X/2Y ø10/17.5	-5395	-2767	-22679	SLD 1	2.5	43227	8.01	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1384	2X/2Y ø10/17.5	-5395	-2767	-22505	SLD 1	2.5	43227	8.01	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1413	2X/2Y ø10/17.5	-5395	-2767	-22332	SLD 1	2.5	43227	8.01	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1442	4X/4Y ø10/12	-5395	-2767	-22159	SLD 1	1.7	65609	12.16	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1471	4X/4Y ø10/12	-5395	-2767	-21985	SLD 1	1.7	65577	12.15	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1500	4X/4Y ø10/12	-5395	-2767	-21815	SLD 1	1.7	65546	12.15	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1550	4X/4Y ø10/12	-4947	-2459	-10206	SLD 1	1.6	64321	13	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1579	4X/4Y ø10/12	-4947	-2459	-10035	SLD 1	1.6	64289	13	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1608	4X/4Y ø10/12	-4947	-2459	-9864	SLD 1	1.6	64258	12.99	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1637	2X/2Y ø10/17.5	-4947	-2459	-9689	SLD 1	2.5	43227	8.74	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1666	2X/2Y ø10/17.5	-4947	-2459	-9515	SLD 1	2.5	43227	8.74	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1694	2X/2Y ø10/17.5	-4947	-2459	-9342	SLD 1	2.5	43227	8.74	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1723	2X/2Y ø10/17.5	-4947	-2459	-9169	SLD 1	2.5	43227	8.74	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1752	4X/4Y ø10/12	-4947	-2459	-8995	SLD 1	1.6	64098	12.96	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1781	4X/4Y ø10/12	-4947	-2459	-8822	SLD 1	1.6	64066	12.95	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1810	4X/4Y ø10/12	-4947	-2459	-8652	SLD 1	1.6	64034	12.94	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	2877	11870	-96860	SLE RA 8	-29.8	2877	11870	-96860	SLE RA 8	-445.6	Si
29	1317	7431	-96661	SLE RA 8	-29.6	1317	7431	-96661	SLE RA 8	-442.6	Si
58	-271	2914	-96459	SLE RA 8	-29.3	-271	2914	-96459	SLE RA 8	-439.8	Si
87	-1859	-1603	-96257	SLE RA 8	-29.3	-1859	-1603	-96257	SLE RA 8	-439.2	Si
116	-3447	-6120	-96055	SLE RA 8	-29.4	-3447	-6120	-96055	SLE RA 8	-440.4	Si
144	-5035	-10637	-95852	SLE RA 8	-29.5	-5035	-10637	-95852	SLE RA 8	-441.6	Si
173	-6623	-15154	-95650	SLE RA 8	-29.7	-6623	-15154	-95650	SLE RA 8	-442.8	Si
202	-8211	-19671	-95448	SLE RA 8	-29.8	-8211	-19671	-95448	SLE RA 8	-444	Si
231	-9799	-24188	-95246	SLE RA 8	-29.9	-9799	-24188	-95246	SLE RA 8	-445.3	Si
260	-11359	-28627	-95047	SLE RA 8	-30	-11359	-28627	-95047	SLE RA 8	-446.4	Si
310	36128	20568	-76339	SLE RA 8	-25.2	36128	20568	-76339	SLE RA 8	-370.5	Si
339	26916	18194	-76141	SLE RA 8	-24.7	26916	18194	-76141	SLE RA 8	-364.5	Si
368	17632	15801	-75940	SLE RA 8	-24.2	17632	15801	-75940	SLE RA 8	-358.5	Si
397	8168	13362	-75736	SLE RA 8	-23.7	8168	13362	-75736	SLE RA 8	-352.4	Si
426	-1206	10947	-75534	SLE RA 8	-23.2	-1206	10947	-75534	SLE RA 8	-347.5	Si
454	-10580	8531	-75332	SLE RA 8	-23.5	-10580	8531	-75332	SLE RA 8	-350.2	Si
483	-19954	6115	-75130	SLE RA 8	-23.8	-19954	6115	-75130	SLE RA 8	-352.3	Si
512	-29329	3700	-74927	SLE RA 8	-23.8	-29329	3700	-74927	SLE RA 8	-351.3	Si
541	-38703	1284	-74725	SLE RA 8	-23.8	-38703	1284	-74725	SLE RA 8	-350.4	Si
570	-47914	-1090	-74526	SLE RA 8	-24.2	-47914	-1090	-74526	SLE RA 8	-352.5	Si
620	81901	39477	-59362	SLE RA 8	-25	81901	39477	-59362	SLE RA 8	-354.6	Si
649	63223	25535	-59191	SLE RA 8	-24	63223	25535	-59191	SLE RA 8	-343.8	Si
678	44399	11485	-59020	SLE RA 8	-22.9	44399	11485	-59020	SLE RA 8	-332.5	Si
707	25209	-2839	-58845	SLE RA 8	-22.2	25209	-2839	-58845	SLE RA 8	-326.9	Si
736	6201	-17026	-58671	SLE RA 8	-21.6	6201	-17026	-58671	SLE RA 8	-321.2	Si
764	-12806	-31213	-58498	SLE RA 8	-22.4	-12806	-31213	-58498	SLE RA 8	-329.5	Si
793	-31813	-45400	-58325	SLE RA 8	-23.7	-31813	-45400	-58325	SLE RA 8	-344.7	Si
822	-50821	-59587	-58151	SLE RA 8	-25.1	-50821	-59587	-58151	SLE RA 8	-359.9	Si
851	-69828	-73774	-57978	SLE RA 8	-26.5	-69828	-73774	-57978	SLE RA 8	-375.1	Si
880	-88506	-87716	-57808	SLE RA 8	-27.9	-88506	-87716	-57808	SLE RA 8	-390	Si
930	133962	147904	-42997	SLE RA 8	-27	133962	147904	-42997	SLE RA 8	-360.5	Si
959	106061	117954	-42826	SLE RA 8	-24.6	106061	117954	-42826	SLE RA 8	-334.3	Si
988	77942	87770	-42655	SLE RA 8	-22.1	77942	87770	-42655	SLE RA 8	-306.5	Si
1017	49277	56999	-42480	SLE RA 8	-20	49277	56999	-42480	SLE RA 8	-282.9	Si
1046	20884	26522	-42306	SLE RA 8	-17.3	20884	26522	-42306	SLE RA 8	-252.9	Si
1074	-7508	-3956	-42133	SLE RA 8	-15.8	-7508	-3956	-42133	SLE RA 8	-234.8	Si
1103	-35901	-34433	-41960	SLE RA 8	-18.3	-35901	-34433	-41960	SLE RA 8	-262.9	Si
1132	-64293	-64911	-41786	SLE RA 8	-20.8	-64293	-64911	-41786	SLE RA 8	-291.1	Si
1161	-92686	-95388	-41613	SLE RA 8	-23.3	-92686	-95388	-41613	SLE RA 8	-319.2	Si
1190	-120587	-125338	-41443	SLE RA 8	-25.8	-120587	-125338	-41443	SLE RA 8	-346.8	Si
1240	143508	146938	-27943	SLE RA 8	-22.8	143508	146938	-27943	SLE RA 8	-295.7	Si
1269	115611	120101	-27773	SLE RA 8	-20.4	115611	120101	-27773	SLE RA 8	-267.5	Si
1298	87497	93055	-27601	SLE RA 8	-17.9	87497	93055	-27601	SLE RA 8	-239.1	Si
1327	58836	65483	-27426	SLE RA 8	-15.3	58836	65483	-27426	SLE RA 8	-210.2	Si
1356	28614	38184	-27730	SLE RA 7	-12.9	28614	38184	-27730	SLE RA 7	-183	Si
1384	557	16767	-27556	SLE RA 7	-10.6	557	16767	-27556	SLE RA 7	-157	Si
1413	-26326	-16445	-26906	SLE RA 8	-11.7	-26326	-16445	-26906	SLE RA 8	-168.1	Si
1442	-54714	-43754	-26733	SLE RA 8	-14.1	-54714	-43754	-26733	SLE RA 8	-194.9	Si
1471	-83101	-71063	-26559	SLE RA 8	-16.5	-83101	-71063	-26559	SLE RA 8	-221.8	Si
1500	-110997	-97899	-26389	SLE RA 8	-18.8	-110997	-97899	-26389	SLE RA 8	-248.1	Si
1550	110016	197905	-11355	SLE RA 8	-16.8	98242	198923	-12911	SLE RA 7	-209.8	Si
1579	89343	150929	-11185	SLE RA 8	-14	81421	146677	-12740	SLE RA 7	-177.3	Si
1608	64468	94022	-12569	SLE RA 7	-11.2	64468	94022	-12569	SLE RA 7	-144.6	Si
1637	47186	40344	-12394	SLE RA 7	-8.4	47186	40344	-12394	SLE RA 7	-111.3	Si
1666	30069	-12823	-12220	SLE RA 7	-6.5	30069	-12823	-12220	SLE RA 7	-89	Si
1694	12951	-65989	-12047	SLE RA 7	-7.3	12951	-65989	-12047	SLE RA 7	-100.5	Si
1723	-4166	-119156	-11874	SLE RA 7	-8.6	-4166	-119156	-11874	SLE RA 7	-116.7	Si
1752	-21284	-172322	-11700	SLE RA 7	-11.3	-21284	-172322	-11700	SLE RA 7	-147.8	Si
1781	-38401	-225489	-11527	SLE RA 7	-14	-38401	-225489	-11527	SLE RA 7	-178.9	Si
1810	-55223	-277735	-11357	SLE RA 7	-16.6	-55223	-277735	-11357	SLE RA 7	-209.5	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	1919	8604	-83428	SLE QP 4	-25.6	Si
29	909	5266	-83229	SLE QP 4	-25.4	Si
58	-120	1869	-83027	SLE QP 4	-25.2	Si
87	-1148	-1527	-82825	SLE QP 4	-25.2	Si
116	-2176	-4924	-82623	SLE QP 4	-25.3	Si
144	-3205	-8321	-82420	SLE QP 4	-25.3	Si
173	-4233	-11717	-82218	SLE QP 4	-25.4	Si
202	-5261	-15114	-82016	SLE QP 4	-25.5	Si
231	-6289	-18511	-81814	SLE QP 4	-25.5	Si
260	-7300	-21849	-81615	SLE QP 4	-25.6	Si
310	27820	-2671	-66191	SLE QP 4	-21.4	Si
339	20534	897	-65992	SLE QP 4	-20.9	Si
368	13192	4494	-65792	SLE QP 4	-20.6	Si
397	5706	8160	-65588	SLE QP 4	-20.3	Si
426	-1708	11791	-65386	SLE QP 4	-20.2	Si
454	-9122	15423	-65184	SLE QP 4	-20.5	Si
483	-16536	19054	-64981	SLE QP 4	-20.9	Si
512	-23950	22686	-64779	SLE QP 4	-21	Si
541	-31364	26317	-64577	SLE QP 4	-21.1	Si
570	-38649	29885	-64378	SLE QP 4	-21.5	Si
620	68297	5636	-51364	SLE QP 4	-20.6	Si
649	52755	-978	-51193	SLE QP 4	-19.9	Si
678	37092	-7644	-51022	SLE QP 4	-19.6	Si
707	21124	-14439	-50847	SLE QP 4	-19.5	Si
736	5308	-21169	-50673	SLE QP 4	-18.9	Si
764	-10508	-27899	-50500	SLE QP 4	-19.3	Si
793	-26323	-34629	-50327	SLE QP 4	-20.3	Si
822	-42139	-41360	-50153	SLE QP 4	-21.3	Si
851	-57955	-49090	-49980	SLE QP 4	-22.2	Si
880	-73497	-54704	-49810	SLE QP 4	-23.2	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Verifica
930	112196	105055	-37435	SLE QP 4	-22.5	Si
959	88823	83900	-37265	SLE QP 4	-20.6	Si
988	65266	62578	-37093	SLE QP 4	-18.7	Si
1017	41253	40843	-36918	SLE QP 4	-17	Si
1046	17467	19315	-36745	SLE QP 4	-14.9	Si
1074	-6318	-2213	-36571	SLE QP 4	-13.7	Si
1103	-30103	-23742	-36398	SLE QP 4	-15.6	Si
1132	-53888	-45270	-36225	SLE QP 4	-17.6	Si
1161	-77673	-66798	-36051	SLE QP 4	-19.5	Si
1190	-101047	-87954	-35881	SLE QP 4	-21.4	Si
1240	121271	97030	-24452	SLE QP 4	-18.7	Si
1269	97671	80060	-24282	SLE QP 4	-16.8	Si
1298	73887	62957	-24110	SLE QP 4	-14.8	Si
1327	49641	45521	-23935	SLE QP 4	-12.9	Si
1356	25626	28252	-23762	SLE QP 4	-10.9	Si
1384	1611	10983	-23589	SLE QP 4	-9	Si
1413	-22404	-6286	-23415	SLE QP 4	-9.9	Si
1442	-46419	-23555	-23242	SLE QP 4	-11.7	Si
1471	-70435	-40825	-23069	SLE QP 4	-13.5	Si
1500	-94034	-57795	-22898	SLE QP 4	-15.3	Si
1550	87096	146900	-10233	SLE QP 4	-13.4	Si
1579	71475	109703	-10063	SLE QP 4	-11.2	Si
1608	55732	72215	-9891	SLE QP 4	-9	Si
1637	39683	33999	-9716	SLE QP 4	-6.8	Si
1666	23788	-3853	-9543	SLE QP 4	-4.9	Si
1694	7892	-41705	-9370	SLE QP 4	-5.2	Si
1723	-8004	-79557	-9196	SLE QP 4	-6.5	Si
1752	-23900	-117409	-9023	SLE QP 4	-8.6	Si
1781	-39795	-155260	-8850	SLE QP 4	-10.7	Si
1810	-55416	-192457	-8679	SLE QP 4	-12.7	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 8	285	No	No	
Pilastrata 8	595	No	No	
Pilastrata 8	905	No	No	
Pilastrata 8	1215	No	No	
Pilastrata 8	1525	No	No	
Pilastrata 8	1835	No	No	

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	285	0.885	0.763	0.675	0.295	0.199	0.307	0.149	5	14.9	1.339	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	595	0.837	0.795	0.665	0.206	0.137	0.237	0.107	7.1	15	1.286	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	905	0.8	0.789	0.631	0.184	0.116	0.201	0.085	8.3	13.9	1.373	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	1215	0.763	0.786	0.6	0.154	0.092	0.123	0.039	10	12.8	2.392	SLD 7	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	1525	0.763	0.786	0.6	0.154	0.092	0.051	-0.005	10	12.8	1000	SLD 7	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	285	0.885	0.763	0.675	0.295	0.199	0.37	0.186	5	14.9	1.07	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	595	0.837	0.795	0.665	0.206	0.137	0.284	0.135	7.1	15	1.018	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	905	0.8	0.789	0.631	0.184	0.116	0.236	0.106	8.3	13.9	1.096	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	1215	0.763	0.786	0.6	0.154	0.092	0.139	0.048	10	12.8	1.908	SLV 7	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	1525	0.763	0.786	0.6	0.154	0.092	0.057	-0.001	10	12.8	1000	SLV 7	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 8	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	43	43	No	-132576	SLU 16	8131	234350	21111	133106	8131	21111	3.36		Min	Si		Si
-60	285	0	30	17	43	43	No	-132576	SLU 16	8131	234350	21111	133106	8131	21111	3.36		X	Si		Si
-60	285	202.2	30	17	49	49	No	-102117	SLD 15	70557	152680	1118691	89987	92343	1118691	4.37	3.53	Min	No	3.48	Si
-60	285	0	30	17	48	48	No	-106768	SLD 11	74598	156553	343614	83649	-132264	-596299	4.18		X	Si		Si
-60	285	202.2	30	17	45	45	No	-121063	SLV 15	141467	178631	2205832	99817	186629	2205832	3.68	2.33	Min	No	2.27	Si
-60	285	0	30	17	44	44	No	-127359	SLV 11	142049	186146	676373	99345	-250475	-1182887	3.5		X	Si		Si
-60	285	0	30	17	43	43	No	-132576	SLU 16	8131	234350	21111	133106	8131	21111		3.36	Min	Si		Si
-60	285	0	30	17	43	43	No	-132576	SLU 16	8131	234350	21111	133106	8131	21111		3.36	Y	Si		Si
-60	285	0	30	17	49	49	No	-103237	SLD 16	69845	151979	1122159	80388	-83436	-1943828		2.68	Min	Si		Si
-60	285	0	30	17	49	49	No	-103237	SLD 16	69845	151979	1122159	80388	-83436	-1943828		2.68	Y	Si		Si
-60	285	0	30	17	74	74	No	-44938	SLV 1	147031	65800	2210254	34897	166782	3859417		1.29	Min	Si		Si
-60	285	0	30	17	74	74	No	-44938	SLV 1	147031	65800	2210254	34897	166782	3859417		1.29	Y	Si		Si
285	595	310	27	15	49	49	No	-104424	SLU 16	33747	156506	17280	106902	51124	40406	4.27	4.27	Min	No	4.27	Si
285	595	310	27	15	49	49	No	-104424	SLU 16	33747	156506	17280	106902	51124	40406	4.27	4.27	X	No	4.27	Si
285	595	310	27	15	54	54	No	-86026	SLD 11	118781	106333	245061	57113	-274019	-515666	4.97	4.93	Min	No	4.51	Si
285	595	310	27	15	54	54	No	-86026	SLD 11	118781	106333	245061	57113	-274019	-515666	4.97	4.93	X	No	4.51	Si
285	595	310	27	15	49	49	No	-103482	SLV 11	235565	124825	464964	66836	-542563	-1008113	3.66	3.63	Min	No	3.02	Si
285	595	310	27	15	49	49	No	-103482	SLV 11	235565	124825	464964	66836	-542563	-1008113	3.66	3.63	X	No	3.02	Si
285	595	310	27	15	49	49	No	-104424	SLU 16	33747	156506	17280	106902	51124	40406	4.27	4.27	Min	No	4.27	Si
285	595	310	27	15	49	49	No	-104424	SLU 16	33747	156506	17280	106902	51124	40406	4.27	4.27	Y	No	4.27	Si
285	595	310	27	15	55	55	No	-81826	SLD 16	121260	101056	660204	52333	-278882	-1513464		3.42	Min	Si		Si
285	595	310	27	15	55	55	No	-81826	SLD 16	121260	101056	660204	52333	-278882	-1513464		3.42	Y	Si		Si
285	595	310	27	15	83	83	No	-35869	SLV 1	273236	43121	1297232	22489	625884	2977734		1.68	Min	Si		Si
285	595	310	27	15	83	83	No	-35869	SLV 1	273236	43121	1297232	22489	625884	2977734		1.68	Y	Si		Si
595	905	706.7	27	18	51	51	No	-80628	SLU 16	62945	122831	64889	95898	62945	64889	4.75		Min	Si		Si
595	905	706.7	27	18	51	51	No	-80628	SLU 16	62945	122831	64889	95898	62945	64889	4.75		X	Si		Si
595	905	620	27	18	56	56	No	-66382	SLD 11	111040	88024	179137	51855	-256553	-413029	5.81	5.72	Min	No	5.09	Si
595	905	620	27	18	56	56	No	-66382	SLD 11	111040	88024	179137	51855	-256553	-413029	5.81	5.72	X	No	5.09	Si
595	905	620	27	18	96	96	No	-23158	SLV 6	296035	28444	375863	17632	679905	824929	4.99	5.65	Min	No	3.09	Si
595	905	620	27	18	52	52	No	-79570	SLV 11	235704	98918	353875	60606	-543310	-813658	4.09	4.05	X	No	3.2	Si
595	905	706.7	27	18	51	51	No	-80628	SLU 16	62945	122831	64889	95898	62945	64889		4.75	Min	Si		Si
595	905	706.7	27	18	51	51	No	-80628	SLU 16	62945	122831	64889	95898	62945	64889		4.75	Y	Si		Si
595	905	620	27	18	58	58	No	-62209	SLD 16	91070	84670	517798	46988	-209712	-1189763		3.64	Min	Si		Si
595	905	620	27	18	58	58	No	-62209	SLD 16	91070	84670	517798	46988	-209712	-1189763		3.64	Y	Si		Si
595	905	620	27	18	83	83	No	-30383	SLV 1	267574	37529	1031928	22532	608686	2364142		1.81	Min	Si		Si
595	905	620	27	18	83	83	No	-30383	SLV 1	267574	37529	1031928	22532	608686	2364142		1.81	Y	Si		Si
905	1215	930	27	18	60	60	No	-58877	SLU 16	87376	89840	96165	56616	185336	214586	6.24	6.51	Min	No	5.93	Si
905	1215	930	27	18	60	60	No	-58877	SLU 16	87376	89840	96165	56616	185336	214586	6.24	6.51	X	No	5.93	Si
905	1215	1190	27	18	84	84	No	-30245	SLD 2	172061	40918	502913	23657	-324141	-975319	7.25	4.15	Min	No	3.22	Si
905	1215	930	27	18	87	87	No	-27791	SLD 6	196694	36569	210193	23816	450509	409284	6.22	9.12	X	No	4.76	Si
905	1215	930	27	18	89	89	No	-26612	SLV 2	287588	33781	946763	19736	659134	1776198	4.21	2.18	Min	No	1.66	Si
905	1215	930	27	18	105	105	No	-19371	SLV 6	326743	24357	366303	15674	748739	698726	3.3	6.39	X	No	2.5	Si
905	1215	930	27	18	60	60	No	-58877	SLU 16	87376	89840	96165	56616	185336	214586	6.24	6.51	Min	No	5.93	Si
905	1215	1016.7	27	18	60	60	No	-58205	SLU 16	87376	88724	96165	56056	87376	96165	6.28	6.28	Y	No	6.28	Si
905	1215	1190	27	18	84	84	No	-30245	SLD 2	172061	40918	502913	23657	-324141	-975319	7.25	4.15	Min	No	3.22	Si
905	1215	1190	27	18	83	83	No	-30378	SLD 1	169885	41168	505642	23754	-320097	-980394	7.3	4.13	Y	No	3.23	Si
905	1215	930	27	18	89	89	No	-26612	SLV 2	287588	33781	946763	19736	659134	1776198	4.21	2.18	Min	No	1.66	Si
905	1215	1190	27	18	91	91	No	-25312	SLV 1	283438	32459	951969	18771	-525757	-1848208		1.76	Y	Si		Si
1215	1525	1240	27	18	74	74	No	-38303	SLV 16	86493	58566	93057	36185	198547	214607	8.15	8.97	Min	No	7.34	Si
1215	1525	1240	27	18	74	74	No	-39019	SLU 15	84512	60002	77392	38414	193818	179423	8.11	9.15	X	No	7.51	Si
1215	1525	1240	27	18	95	95	No	-23300	SLD 2	139665	32395	369783	18800	322998	667854	7.83	6.14	Min	No	4.12	Si
1215	1525	1240	27	18	103	103	No	-20120	SLD 6	183350	26925	152453	17708	422409	314630	6.05	11.49	X	No	4.82	Si
1215	1525	1240	27	18	97	97	No	-22451	SLV 1	216186	29449	702252	17446	500917	1229308	5.05	2.87	Min	No	2.11	Si
1215	1525	1240	27	18	114	114	No	-16380	SLV 6	297724	19149	266888	13523	686349	519124	3.06	7.81	X	No	2.52	Si
1215	1525	1240	27	18	74	74	No	-38303	SLU 16	86493	58566	93057	36185	198547	214607	8.15	8.97	Min	No	7.34	Si
1215	1525	1240	27	18	74	74	No	-38303	SLU 16	86493	58566	93057	36185	198547	214607	8.15	8.97	Y	No	7.34	Si
1215	1525	1240	27	18	95	95	No	-23300	SLD 2	139665	32395	369783	18800	322998	667854	7.83	6.14	Min	No	4.12	Si
1215	1525	1500	27	18	98	98	No	-21815	SLV 1	137565	31710	372746	16958	-194934	-727301		5.54	Y	Si		Si
1215	1525	1240	27	18	97	97	No	-22451	SLV 1	216186	29449	702252	17446	500917	1229308	5.05	2.87	Min	No	2.11	Si
1215	1525	1500	27	18	101	101	No	-20897	SLV 1	216186	28468	702252	15497	-287040	-1375640		2.43	Y	Si		Si
1525	1835	1550	27	18	116	116	No	-15599	SLU 16	66503	23465	167443	15180	153064	285361	14.88	13.4	Min	No	9.49	Si
1525	1835	1550	27	18	116	116	No	-15599	SLU 16	66503	23465	167443	15180	153064	285361	14.88	13.4	X	No	9.49	

Verifiche di gerarchia delle resistenze nei nodi trave pilastro**Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3**

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	0	7749960	<	9190671	4664114	4526557	1.186	SLV 6		Si
285	180	7749960	<	9190671	4664114	4526557	1.186	SLV 6		Si
285	270	2130572	<	4917536	2507645	2409891	2.308	SLV 6		Si
595	180	7749984	<	8865968	4919849	3946119	1.144	SLV 6		Si
595	270	2621749	<	5547506	2906754	2640752	2.116	SLV 6		Si
595	360	7749983	<	8865969	4919849	3946120	1.144	SLV 6		Si
905	180	6206930	<	6534029	3289962	3244066	1.053	SLV 6		Si
905	270	1966260	<	4040266	2034261	2006006	2.055	SLV 6		Si
905	360	6206930	<	6534029	3289962	3244066	1.053	SLV 6		Si
1215	180	5177956	<	5554815	2792761	2762055	1.073	SLV 6		Si
1215	270	2010398	<	3457872	1738758	1719114	1.72	SLV 6		Si
1215	360	5177955	<	5554816	2792761	2762055	1.073	SLV 6		Si
1525	180	4251963	<	5271202	2721362	2549840	1.24	SLV 10		Si
1525	270	1966259	<	3288288	1694989	1593299	1.672	SLV 10		Si
1525	360	4251963	<	5271202	2721362	2549840	1.24	SLV 10		Si

Pilastrata 9**Dati della pilastrata****Campate costituenti la pilastrata**

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni**Verifica a pressoflessione in SLU**

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0	1,2,3,4	-293157	-293157	-146578	-856356	-856356	SLU 16	2.921	Si
29	28.65	2	0	1,2,3,4	-292640	-292640	-146320	-856356	-856356	SLU 16	2.926	Si
58	28.65	2	0	1,2,3,4	-292114	-292114	-146057	-856356	-856356	SLU 16	2.932	Si
87	28.65	1	0	3,4	291589	291589	-145794	856356	856356	SLU 16	2.937	Si
116	28.65	1	0	3,4	291063	291063	-145531	856356	856356	SLU 16	2.942	Si
144	28.65	1	0	3,4	290537	290537	-145268	856356	856356	SLU 16	2.947	Si
173	28.65	1	0	3,4	290011	290011	-145006	856356	856356	SLU 16	2.953	Si
202	28.65	1	0	3,4	289485	289485	-144743	856356	856356	SLU 16	2.958	Si
231	28.65	1	0	3,4	288960	288960	-144480	856356	856356	SLU 16	2.964	Si
260	28.65	1	0	3,4	288443	288443	-144221	856356	856356	SLU 16	2.969	Si
310	28.65	2	0	3,4,5,6,7	-367342	-246958	-118203	-1271483	-854797	SLU 16	3.461	Si
339	28.65	2	0	3,4,5,6,7	-297208	-235890	-117945	-1070166	-849377	SLU 16	3.601	Si
368	28.65	2	0	3,4,5,6,7	-235369	-235369	-117685	-856356	-856356	SLU 16	3.638	Si
397	28.65	1	0	5,6,7	-234838	-234838	-117419	-856356	-856356	SLU 16	3.647	Si
426	28.65	1	0	5,6,7	-234313	-234313	-117156	-856356	-856356	SLU 16	3.655	Si
454	28.65	1	0	5,6,7	-233787	-233787	-116893	-856356	-856356	SLU 16	3.663	Si
483	28.65	1	0	5,6,7	233261	233261	-116631	856356	856356	SLU 16	3.671	Si
512	28.65	1	0	5,6,7	232735	232735	-116368	856356	856356	SLU 16	3.68	Si
541	28.65	1	0	5,6,7	232210	232210	-116105	856356	856356	SLU 16	3.688	Si
570	28.65	1	0	5,6,7	272513	231693	-115846	1007229	856356	SLU 16	3.696	Si
620	28.65	2.4	0	5,6,7,8,9	-262285	-181732	-90866	-1060664	-734914	SLU 16	4.044	Si
649	28.65	2.4	0	5,6,7,8,9	-210426	-181289	-90645	-760836	-760836	SLU 16	4.197	Si
678	28.65	2.4	0	5,6,7,8,9	-180843	-180843	-90421	-766052	-766052	SLU 16	4.236	Si
707	28.65	1.2	0	8,9	-180388	-180388	-90194	-766052	-766052	SLU 16	4.247	Si
736	28.65	1.2	0	8,9	-179937	179937	-89969	-766052	766052	SLU 16	4.257	Si
764	28.65	1.2	0	8,9	179486	179486	-89743	766052	766052	SLU 16	4.268	Si
793	28.65	1.2	0	8,9	179036	179036	-89518	766052	766052	SLU 16	4.279	Si
822	28.65	1.2	0	8,9	178585	178585	-89293	766052	766052	SLU 16	4.29	Si
851	28.65	1.2	0	8,9	178134	180095	-89067	766052	774484	SLU 16	4.3	Si
880	28.65	1.2	0	8,9	210836	222030	-88846	891687	939028	SLU 16	4.229	Si
930	28.65	2.2	0	8,9,10	-261563	-287661	-68045	-1270897	-1397699	SLU 16	4.859	Si
959	28.1	2.2	0	8,9,10	-209096	-239001	-67824	-1079154	-1233495	SLU 16	5.161	Si
988	27.55	2.2	0	8,9,10	-156218	-189961	-67600	-855621	-1040434	SLU 16	5.477	Si
1017	24.13	1	0	10	-134746	-139968	-67373	-730647	-758963	SLU 16	5.422	Si
1046	24.13	1	0	10	-134295	-134295	-67148	-730647	-730647	SLU 16	5.441	Si
1074	24.13	1	0	10	133845	-133845	-66922	730647	-730647	SLU 16	5.459	Si
1103	24.13	1	0	10	133394	133394	-66697	730647	730647	SLU 16	5.477	Si
1132	24.13	1	0	10	132943	132943	-66472	730647	730647	SLU 16	5.496	Si
1161	24.13	1	0	10	164645	132493	-66246	897563	722285	SLU 16	5.452	Si
1190	24.13	1	0	10	217112	156275	-66025	1123521	808696	SLU 16	5.175	Si
1240	24.13	2	0	10,11	-243248	-106225	-42582	-1675549	-731704	SLU 16	6.888	Si
1269	24.13	2	0	10,11	-197317	-84721	-42361	-1470814	-631517	SLU 16	7.454	Si
1298	24.13	2	0	10,11	-138879	-86374	-43187	-1110129	-690429	SLU 15	7.994	Si
1327	24.13	1	0	11	-101872	-85919	-42959	-862422	-727366	SLU 15	8.466	Si
1356	24.13	1	0	11	-85468	-85468	-42734	-730647	-730647	SLU 15	8.549	Si
1384	24.13	1	0	11	-85017	-85017	-42509	-730647	-730647	SLU 15	8.594	Si
1413	24.13	1	0	11	84567	84567	-42283	730647	730647	SLU 15	8.64	Si
1442	24.13	1	0	11	84116	84116	-42058	730647	730647	SLU 15	8.686	Si
1471	24.13	1	0	11	129864	81566	-40783	1101380	691766	SLU 16	8.481	Si
1500	24.13	1	0	11	175795	100713	-40562	1385990	794030	SLU 16	7.884	Si
1550	24.13	2	0	11,12	-310018	-137449	-19795	-2327349	-1031852	SLU 15	7.507	Si
1579	24.13	2	0	11,12	-226745	-97486	-19573	-2249013	-966934	SLU 15	9.919	Si
1608	24.13	2	0	11,12	-142820	-57210	-19350	-1931948	-773885	SLU 15	13.527	Si
1637	24.13	1	0	12	-57266	-38245	-19123	-1047998	-699917	SLU 15	18.301	Si
1666	24.13	1	0	12	37795	37795	-18897	730647	730647	SLU 15	19.332	Si
1694	24.13	1	0	12	132370	82051	-17178	1900766	1178214	SLU 14	14.36	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
1723	24.13	1	0	12	214853	125185	-16952	2193929	1278302	SLU 14	10.211	Si
1752	24.13	1	0	12	297337	168319	-16727	2221320	1257466	SLU 14	7.471	Si
1781	24.13	1	0	12	379820	211453	-16502	2147986	1195826	SLU 14	5.655	Si
1810	24.13	1	0	12	460876	253841	-16280	2048917	1128500	SLU 14	4.446	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	28.65	2	0.0003	1,2,3,4	379708	4080164	-81551	481253	5171311	SLV 14-Ger.	1.267	100099	256802	SLV 3	Si
29	28.65	2	0.0003	1,2,3,4	16561	-3323942	-81352	28430	-5706150	SLV 14	1.717	99900	256802	SLV 3	Si
58	28.65	2	0.0003	1,2,3,4	-58426	2712203	-99698	-122597	5691096	SLV 3	2.098	99698	256802	SLV 3	Si
87	28.65	1	0.0003	3,4	-33681	2142740	-99496	-83807	5331690	SLV 3	2.488	99496	256802	SLV 3	Si
116	28.65	1	0.0003	3,4	-8947	1573556	-99293	-26842	4720880	SLV 3	3	99293	256802	SLV 3	Si
144	28.65	1	0.0003	3,4	15770	1005273	-99091	57204	3646470	SLV 3	3.627	99091	256802	SLV 3	Si
173	28.65	1	0.0003	3,4	40458	444872	-98889	175178	1926241	SLV 3	4.33	98889	256802	SLV 3	Si
202	28.65	1	0.0003	3,4	65083	-133203	-98687	282378	-577933	SLV 3	4.339	98687	256802	SLV 3	Si
231	28.65	1	0.0003	3,4	90597	-700207	-98484	361434	-2793442	SLV 3	3.989	98484	256802	SLV 3	Si
260	28.65	1	0.0003	3,4	114100	-1253602	-98286	376632	-4134728	SLV 3	3.298	98286	256802	SLV 3	Si
310	28.65	2	0.0006	3,4,5,6,7	-239341	-3211208	-69435	-400308	-5370867	SLV 16	1.673	80251	256802	SLV 3	Si
339	28.65	2	0.0006	3,4,5,6,7	-195852	-2589810	-69237	-421886	-5578712	SLV 16	2.154	80052	256802	SLV 3	Si
368	28.65	2	0.0006	3,4,5,6,7	-152020	-1963866	-69036	-430499	-5561389	SLV 16	2.832	79852	256802	SLV 3	Si
397	28.65	1	0.0006	5,6,7	-107325	-1326604	-68832	-404840	-5004053	SLV 16	3.772	79648	256802	SLV 3	Si
426	28.65	1	0.0006	5,6,7	-67514	605784	-79446	-328674	2949096	SLV 3	4.868	79446	256802	SLV 3	Si
454	28.65	1	0.0006	5,6,7	-20793	36848	-79243	-112351	199099	SLV 3	5.403	79243	256802	SLV 3	Si
483	28.65	1	0.0006	5,6,7	24665	-573142	-79041	123071	-2859788	SLV 3	4.99	79041	256802	SLV 3	Si
512	28.65	1	0.0006	5,6,7	70401	-1145367	-78839	274309	-4462751	SLV 3	3.896	78839	256802	SLV 3	Si
541	28.65	1	0.0006	5,6,7	113423	1846100	-67821	342088	5567903	SLV 16	3.016	78637	256802	SLV 3	Si
570	28.65	1	0.0006	5,6,7	156638	2467114	-67622	358706	5649757	SLV 16	2.29	78438	256802	SLV 3	Si
620	28.65	2.4	0.0006	5,6,7,8,9	-181458	-2443220	-54821	-312886	-4212817	SLV 16	1.724	61353	220116	SLV 7	Si
649	28.65	2.4	0.0006	5,6,7,8,9	-147559	-1959674	-54651	-328795	-4366603	SLV 16	2.228	61183	220116	SLV 7	Si
678	28.65	2.4	0.0006	5,6,7,8,9	-113400	-1472806	-54479	-336289	-4367613	SLV 16	2.966	61011	220116	SLV 7	Si
707	28.65	1.2	0.0006	8,9	-87655	932673	-60578	-348855	3711913	SLV 3	3.98	60836	220116	SLV 7	Si
736	28.65	1.2	0.0006	8,9	-51680	498458	-60404	-274528	2647866	SLV 3	5.312	60663	220116	SLV 7	Si
764	28.65	1.2	0.0006	8,9	-43557	47665	-60490	-275808	301817	SLV 7	6.332	60490	220116	SLV 7	Si
793	28.65	1.2	0.0006	8,9	20082	-417563	-60058	113674	-2363645	SLV 3	5.661	60316	220116	SLV 7	Si
822	28.65	1.2	0.0006	8,9	58551	1007603	-53611	234466	4034890	SLV 16	4.004	60143	220116	SLV 7	Si
851	28.65	1.2	0.0006	8,9	96309	1497963	-53438	283629	4411476	SLV 16	2.945	59970	220116	SLV 7	Si
880	28.65	1.2	0.0006	8,9	129008	1981034	-53267	282978	4345392	SLV 16	2.193	59799	220116	SLV 7	Si
930	28.65	2.2	0.0008	8,9,10	-179274	-1786450	-41976	-415227	-4137697	SLV 16	2.316	45693	220116	SLV 7	Si
959	28.1	2.2	0.0008	8,9,10	-143899	-1394706	-41806	-436923	-4234781	SLV 16	3.036	45522	220116	SLV 7	Si
988	27.55	2.2	0.0008	8,9,10	-108265	-1000875	-41634	-447617	-4138082	SLV 16	4.134	45351	220116	SLV 7	Si
1017	24.13	1	0.0008	10	-71973	-602691	-41459	-405676	-3397088	SLV 16	5.637	45176	220116	SLV 7	Si
1046	24.13	1	0.0008	10	-57942	14804	-45002	-470360	120174	SLV 7	8.118	45002	220116	SLV 7	Si
1074	24.13	1	0.0008	10	535	-272178	-43881	4096	-2084816	SLV 3	7.66	44829	220116	SLV 7	Si
1103	24.13	1	0.0008	10	38940	-593443	-43708	220310	-3574780	SLV 3	5.658	44656	220116	SLV 7	Si
1132	24.13	1	0.0008	10	72617	1016507	-40766	285464	3995966	SLV 16	3.931	44482	220116	SLV 7	Si
1161	24.13	1	0.0008	10	108133	1414455	-40593	296883	3883436	SLV 16	2.746	44309	220116	SLV 7	Si
1190	24.13	1	0.0008	10	143195	1806327	-40422	288951	3644971	SLV 16	2.018	44139	220116	SLV 7	Si
1240	24.13	2	0.0008	10,11	-156292	-1136987	-27019	-488168	-3551307	SLV 16	3.123	29007	220116	SLV 7	Si
1269	24.13	2	0.0008	10,11	-128395	-870762	-26848	-551988	-3743528	SLV 16	4.299	28837	220116	SLV 7	Si
1298	24.13	2	0.0008	10,11	-100283	-603931	-26677	-617377	-3717997	SLV 16	6.156	28665	220116	SLV 7	Si
1327	24.13	1	0.0008	11	-71634	-337538	-26502	-659742	-3108710	SLV 16	9.21	28490	220116	SLV 7	Si
1356	24.13	1	0.0008	11	-61182	-6012	-28317	-789323	-77557	SLV 7	12.901	28317	220116	SLV 7	Si
1384	24.13	1	0.0008	11	-15687	-249811	-27219	-171257	-2727276	SLV 3	10.917	28143	220116	SLV 7	Si
1413	24.13	1	0.0008	11	14332	1502030	-25982	108738	3871057	SLV 16	7.587	27970	220116	SLV 7	Si
1442	24.13	1	0.0008	11	42177	778789	-25808	212770	4011817	SLV 16	5.151	27797	220116	SLV 7	Si
1471	24.13	1	0.0008	11	70502	1049427	-25635	253042	3766551	SLV 16	3.589	27623	220116	SLV 7	Si
1500	24.13	1	0.0008	11	98379	1316155	-25465	261400	3497106	SLV 16	2.657	27453	220116	SLV 7	Si
1550	24.13	2	0.0008	11,12	-200635	-851975	-11944	-673165	-2858518	SLV 16	3.355	12311	220116	SLV 11	Si
1579	24.13	2	0.0008	11,12	-150248	-628895	-11774	-728771	-3050417	SLV 16	4.85	12140	220116	SLV 11	Si
1608	24.13	2	0.0008	11,12	-99459	-405366	-11602	-827547	-3372828	SLV 16	8.32	11969	220116	SLV 11	Si
1637	24.13	1	0.0008	12	-48044	-184599	-11427	-852087	-3273941	SLV 16	17.735	11794	220116	SLV 11	Si
1666	24.13	1	0.0008	12	3509	87501	-11282	98151	-2447363	SLV 15	27.97	11620	220116	SLV 11	Si
1694	24.13	1	0.0008	12	54804	297148	-11081	679093	3682073	SLV 16	12.391	11447	220116	SLV 11	Si
1723	24.13	1	0.0008	12	106076	521272	-10907	658367	3235303	SLV 16	6.207	11274	220116	SLV 11	Si
1752	24.13	1	0.0008	12	157348	747885	-10734	616690	2931171	SLV 16	3.919	11100	220116	SLV 11	Si
1781	24.13	1	0.0008	12	208619	975226	-10561	592856	2771415	SLV 16	2.842	10927	220116	SLV 11	Si
1810	24.13	1	0.0008	12	259002	1198938	-10390	572587	2650546	SLV 16	2.211	10757	220116	SLV 11	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0.0001	1,2,3,4	-81795	1930489	-95563	-218870	5165684	SLD 3	2.676	Si
29	28.65	2	0.0001	1,2,3,4	-59846	1653433	-95364	-176576	4878501	SLD 3	2.951	Si
58	28.65	2	0.0001	1,2,3,4	-37512	1371529	-95162	-122620	4483320	SLD 3	3.269	Si
87	28.65	1	0.0001	3,4	-15181	1089686	-94959	-54982	3946595	SLD 3	3.622	Si
116	28.65	1	0.0001	3,4	7146	807980	-94757	28597	3233381	SLD 3	4.002	Si
144	28.65	1	0.0001	3,4	29466	526716	-94555	129721	2318805	SLD 3	4.402	Si
173	28.65	1	0.0001	3,4	51774	249372	-94353	234953	1131660	SLD 3	4.538	Si
202	28.65	1	0.0001	3,4	74055	-36305	-94151	336789	-165106	SLD 3	4.548	Si
231	28.65	1	0.0001	3,4	96827	-316790	-93948	441297	-1443795	SLD 3	4.558	Si
260	28.65	1	0.0001	3,4	117788	780414	-85785	500323	3314945	SLD 15	4.248	Si
310	28.65	2	0.0003	3,4,5,6,7	-229906	-1695848	-71555	-699272	-5158014	SLD 16	3.042	Si
339	28.65	2	0.0003	3,4,5,6,7	-187134	-1369394	-71356	-665367	-4868973	SLD 16	3.556	Si
368	28.65	2	0.0003	3,4,5,6,7	-144024	-1040554	-71156	-603768	-4362132	SLD 16	4.192	Si
397	28.65	1	0.0003	5,6,7	-101689	-702723	-71051	-507182	-3504892	SLD 15	4.988	Si
426	28.65	1	0.0003	5,6,7	-58867	284279	-76232	-330643	1596738	SLD 3	5.617	Si
454	28.65	1	0.0003	5,6,7	-14051	8072	-76029	-79134	45460	SLD 3	5.632	Si
483	28.65	1	0.0003	5,6,7	30089	-289917	-75827	169904	-1637088	SLD 3	5.647	Si
512	28.65	1	0.0003	5,6,7	74377	-567946	-75625	380861	-2908268	SLD 3	5.121	Si
541	28.65	1	0.0003	5,6,7	117321	961038	-69940	520183	4261080	SLD 16	4.434	Si
570	28.65	1	0.0003	5,6,7	159996	1287289	-69742	600564	4832000	SLD 16	3.754	Si
620	28.65	2.4	0.0003	5,6,7,8,9	-169396	-1280252	-55903	-546748	-4132196	SLD 16	3.228	Si
649	28.65	2.4	0.0003	5,6,7,8,9	-137075	-1024462	-55732	-521172	-3895107	SLD 16	3.802	Si
678	28.65	2.4	0.0003	5,6,7,8,9	-104503	-766928	-55561	-476545	-3497286	SLD 16	4.56	Si
707	28.65	1.2	0.0003	8,9	-75971	462665	-58576	-418137	2546478	SLD 3	5.504	Si
736	28.65	1.2	0.0003	8,9	-42309	254427	-58403	-271035	1629892	SLD 3	6.406	Si
764	28.65	1.2	0.0003	8,9	-23564	37266	-58431	-154468	244284	SLD 7	6.555	Si
793	28.65	1.2	0.0003	8,9	15328	-15918	-58258	100775	-104654	SLD 7	6.575	Si
822	28.65	1.2	0.0003	8,9	59948	545622	-54692	327374	2979593	SLD 16	5.461	Si
851	28.65	1.2	0.0003	8,9	94155	804966	-54519	423689	3622265	SLD 16	4.5	Si
880	28.65	1.2	0.0003	8,9	125943	1060491	-54349	472911	3982083	SLD 16	3.755	Si
930	28.65	2.2	0.0004	8,9,10	-167624	-982000	-42288	-684692	-4011162	SLD 16	4.085	Si
959	28.1	2.2	0.0004	8,9,10	-134082	-770348	-42118	-656606	-3772429	SLD 16	4.897	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
988	27.55	2.2	0.0004	8,9,10	-100285	-557580	-41946	-601802	-3345975	SLD 16	6.001	Si
1017	24.13	1	0.0004	10	-65847	-342491	-41771	-476276	-2477263	SLD 16	7.233	Si
1046	24.13	1	0.0004	10	-43335	-13827	-43553	-363492	-115976	SLD 7	8.388	Si
1074	24.13	1	0.0004	10	-3729	-52383	-43380	-31407	-441136	SLD 7	8.421	Si
1103	24.13	1	0.0004	10	37879	-295730	-42676	286733	-2238604	SLD 3	7.57	Si
1132	24.13	1	0.0004	10	70830	532661	-41078	428907	3225513	SLD 16	6.055	Si
1161	24.13	1	0.0004	10	104751	747649	-40904	507879	3624945	SLD 16	4.848	Si
1190	24.13	1	0.0004	10	138137	959369	-40734	545830	3790813	SLD 16	3.951	Si
1240	24.13	2	0.0004	10,11	-148570	-610403	-27027	-849452	-3489997	SLD 16	5.718	Si
1269	24.13	2	0.0004	10,11	-121966	-468872	-26857	-867513	-3334979	SLD 16	7.113	Si
1298	24.13	2	0.0004	10,11	-95154	-326994	-26685	-857016	-2945100	SLD 16	9.007	Si
1327	24.13	1	0.0004	11	-67825	-185230	-26510	-785835	-2146118	SLD 16	11.586	Si
1356	24.13	1	0.0004	11	-50217	-8877	-27396	-669631	-118366	SLD 7	13.335	Si
1384	24.13	1	0.0004	11	-14076	-125850	-26722	-186795	-1670110	SLD 3	13.271	Si
1413	24.13	1	0.0004	11	13694	264957	-25990	150351	2909073	SLD 16	10.979	Si
1442	24.13	1	0.0004	11	40550	407738	-25817	350733	3526695	SLD 16	8.649	Si
1471	24.13	1	0.0004	11	67602	551608	-25644	464845	3792990	SLD 16	6.876	Si
1500	24.13	1	0.0004	11	94199	693393	-25473	520908	3834356	SLD 16	5.53	Si
1550	24.13	2	0.0004	11,12	-193054	-471191	-11664	-1133008	-2770056	SLD 16	5.869	Si
1579	24.13	2	0.0004	11,12	-144483	-348758	-11493	-1210753	-2922564	SLD 16	8.38	Si
1608	24.13	2	0.0004	11,12	-95527	-225166	-11322	-1262815	-2976574	SLD 16	13.219	Si
1637	24.13	1	0.0004	12	-45810	-102520	-11147	-1082743	-2423119	SLD 16	23.636	Si
1666	24.13	1	0.0004	12	4950	13196	-11177	161802	431315	SLD 11	32.685	Si
1694	24.13	1	0.0004	12	53192	161258	-10800	1011801	3067396	SLD 16	19.022	Si
1723	24.13	1	0.0004	12	102619	285312	-10627	1122838	3121842	SLD 16	10.942	Si
1752	24.13	1	0.0004	12	152044	410530	-10453	1073337	2898096	SLD 16	7.059	Si
1781	24.13	1	0.0004	12	201468	536089	-10280	1015875	2703152	SLD 16	5.042	Si
1810	24.13	1	0.0004	12	250037	659617	-10110	978665	2581796	SLD 16	3.914	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω _{wd}	αω _{wd}	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8403	0.6414	0.2969	0.1905	0.349	1984	0.1736	1.097	SLV 7	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	889	1145	-146578	SLU 16	1.6	85010	74.27	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/7	889	1145	-146320	SLU 16	1.6	85010	74.27	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/7	889	1145	-146057	SLU 16	1.6	85010	74.27	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	889	1145	-145794	SLU 16	2.5	27994	24.46	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	889	1145	-145531	SLU 16	2.5	27994	24.46	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	889	1145	-145268	SLU 16	2.5	27994	24.46	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	889	1145	-145006	SLU 16	2.5	27994	24.46	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	889	1145	-144743	SLU 16	2.2	72396	63.25	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	889	1145	-144480	SLU 16	2.2	72396	63.25	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	889	1145	-144221	SLU 16	2.2	72396	63.25	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	1430	2470	-118203	SLU 16	2.2	72396	29.3	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	1430	2470	-117945	SLU 16	2.2	72396	29.3	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	1430	2470	-117685	SLU 16	2.2	72396	29.3	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	1430	2470	-117419	SLU 16	2.5	27994	11.33	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	1430	2470	-117156	SLU 16	2.5	27994	11.33	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	1430	2470	-116893	SLU 16	2.5	27994	11.33	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	1430	2470	-116631	SLU 16	2.5	27994	11.33	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/4Y ø10/11.7	1430	2470	-116368	SLU 16	2.2	72396	29.3	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/4Y ø10/11.7	1430	2470	-116105	SLU 16	2.2	72396	29.3	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/4Y ø10/11.7	1430	2470	-115846	SLU 16	2.2	72396	29.3	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
620	4X/4Y ø10/12	1477	1827	-90866	SLU 16	2	63986	35.03	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/4Y ø10/12	1477	1827	-90645	SLU 16	2	63986	35.03	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/4Y ø10/12	1477	1827	-90421	SLU 16	2	63986	35.03	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	1477	1827	-90194	SLU 16	2.5	27423	15.01	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	1477	1827	-89969	SLU 16	2.5	27423	15.01	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	1477	1827	-89743	SLU 16	2.5	27423	15.01	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	1477	1827	-89518	SLU 16	2.5	27423	15.01	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	1477	1827	-89293	SLU 16	2	63986	35.03	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	1477	1827	-89067	SLU 16	2	63986	35.03	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	1477	1827	-88846	SLU 16	2	63986	35.03	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	1714	1848	-68045	SLU 16	2	62386	33.76	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	1714	1848	-67824	SLU 16	2	62386	33.76	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	1714	1848	-67600	SLU 16	2	62386	33.76	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	1714	1848	-67373	SLU 16	2.5	27423	14.84	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	1714	1848	-67148	SLU 16	2.5	27423	14.84	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	1714	1848	-66922	SLU 16	2.5	27423	14.84	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	1714	1848	-66697	SLU 16	2.5	27423	14.84	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	1714	1848	-66472	SLU 16	2	62386	33.76	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	1714	1848	-66246	SLU 16	2	62386	33.76	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	1714	1848	-66025	SLU 16	2	62386	33.76	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	799	1618	-42582	SLU 16	1.9	60787	37.57	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	799	1618	-42361	SLU 16	1.9	60787	37.57	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	799	1618	-42137	SLU 16	1.9	60787	37.57	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	799	1618	-41910	SLU 16	2.5	27423	16.95	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	799	1618	-41685	SLU 16	2.5	27423	16.95	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	799	1618	-41459	SLU 16	2.5	27423	16.95	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	799	1618	-41234	SLU 16	2.5	27423	16.95	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	799	1618	-41009	SLU 16	1.9	60787	37.57	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	799	1618	-40783	SLU 16	1.9	60787	37.57	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	799	1618	-40562	SLU 16	1.9	60787	37.57	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	1493	2933	-19795	SLU 15	1.8	57587	19.63	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	1493	2933	-19573	SLU 15	1.8	57587	19.63	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	1493	2933	-19350	SLU 15	1.8	57587	19.63	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	1493	2933	-19123	SLU 15	2.5	27422	9.35	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	1493	2933	-18897	SLU 15	2.5	27422	9.35	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	1493	2933	-18672	SLU 15	2.5	27422	9.35	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	1493	2933	-18447	SLU 15	2.5	27422	9.35	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	1493	2933	-18221	SLU 15	1.8	57587	19.63	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	1493	2933	-17996	SLU 15	1.8	57587	19.63	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	1493	2933	-17775	SLU 15	1.8	57587	19.63	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
116	2X/2Y ø10/17.1	45210	24148	-99293	SLV 3-Ger.	2.5	52195	1.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/17.1	45210	24148	-99091	SLV 3-Ger.	2.5	52195	1.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/17.1	45210	24148	-98889	SLV 3-Ger.	2.5	52195	1.15	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	45210	23995	-98687	SLV 3-Ger.	1.5	92035	2.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	45210	23995	-98484	SLV 3-Ger.	1.5	92035	2.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	45210	23995	-98286	SLV 3-Ger.	1.5	92035	2.04	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	42820	22592	-80251	SLV 3-Ger.	1.5	88967	2.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	42820	22681	-80052	SLV 3-Ger.	1.5	88967	2.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	42820	22681	-79852	SLV 3-Ger.	1.5	88967	2.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/17.1	42820	22780	-79648	SLV 3-Ger.	2.5	52195	1.22	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/17.1	42820	22780	-79446	SLV 3-Ger.	2.5	52195	1.22	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/17.1	42820	22780	-79243	SLV 3-Ger.	2.5	52195	1.22	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/17.1	42820	22780	-79041	SLV 3-Ger.	2.5	52195	1.22	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	2X/2Y ø10/11.7	42820	22780	-78839	SLV 3-Ger.	1.5	88967	2.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/4Y ø10/11.7	42820	22780	-78637	SLV 3-Ger.	1.5	88967	2.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/4Y ø10/11.7	42820	22780	-78438	SLV 3-Ger.	1.5	88967	2.08	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/4Y ø10/12	32808	20122	-59518	SLV 11-Ger.	1.5	73126	2.23	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/4Y ø10/12	32978	20134	-60865	SLV 8-Ger.	1.5	73125	2.22	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/4Y ø10/12	32985	20134	-60753	SLV 3-Ger.	1.5	73127	2.22	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	33014	20639	-60836	SLV 7-Ger.	2.5	43225	1.31	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	33014	20639	-60663	SLV 7-Ger.	2.5	43225	1.31	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	33014	20639	-60490	SLV 7-Ger.	2.5	43225	1.31	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	33014	20639	-60316	SLV 7-Ger.	2.5	43225	1.31	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	33014	20134	-60143	SLV 7-Ger.	1.5	73126	2.22	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	33014	20134	-59970	SLV 7-Ger.	1.5	73126	2.22	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	33014	20134	-59799	SLV 7-Ger.	1.5	73126	2.22	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
930	4X/4Y ø10/12	28975	18339	-42093	SLV 15-Ger.	1.4	70605	2.44	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	28975	18339	-41923	SLV 15-Ger.	1.4	70605	2.44	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	29091	18339	-42731	SLV 2-Ger.	1.4	70605	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	29401	18339	-45176	SLV 7-Ger.	2.5	43224	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	29401	18339	-45002	SLV 7-Ger.	2.5	43224	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	29401	18339	-44829	SLV 7-Ger.	2.5	43224	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	29401	18339	-44656	SLV 7-Ger.	2.5	43224	1.47	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	29105	18339	-41979	SLV 1-Ger.	1.4	70605	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	29105	17869	-41806	SLV 1-Ger.	1.4	70605	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	29105	17869	-41636	SLV 1-Ger.	1.4	70605	2.43	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	24761	15810	-25193	SLV 9-Ger.	1.4	68082	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	24786	15810	-25166	SLV 6-Ger.	1.4	68082	2.75	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	24812	15810	-25147	SLV 5-Ger.	1.4	68082	2.74	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	25415	15810	-28490	SLV 7-Ger.	2.5	43224	1.7	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	25415	15810	-28317	SLV 7-Ger.	2.5	43224	1.7	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	25415	15810	-28143	SLV 7-Ger.	2.5	43224	1.7	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	25415	15810	-27970	SLV 7-Ger.	2.5	43224	1.7	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	24906	15810	-24828	SLV 13-Ger.	1.4	68083	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	24906	15446	-24654	SLV 13-Ger.	1.4	68083	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	24906	15476	-24484	SLV 13-Ger.	1.4	68083	2.73	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	22424	13985	-12311	SLV 11-Ger.	1.4	68082	3.04	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	22424	13985	-12140	SLV 11-Ger.	1.4	68082	3.04	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1608	4X/4Y ø10/12	22424	13985	-11969	SLV 11-Ger.	1.4	68082	3.04	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1637	2X/2Y ø10/17.5	22424	13985	-11794	SLV 11-Ger.	2.5	43224	1.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1666	2X/2Y ø10/17.5	22424	13985	-11620	SLV 11-Ger.	2.5	43224	1.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1694	2X/2Y ø10/17.5	22424	13985	-11447	SLV 11-Ger.	2.5	43224	1.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1723	2X/2Y ø10/17.5	22424	13985	-11274	SLV 11-Ger.	2.5	43224	1.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1752	4X/4Y ø10/12	22424	13985	-11100	SLV 11-Ger.	1.4	68082	3.04	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1781	4X/4Y ø10/12	22424	13985	-10927	SLV 11-Ger.	1.4	68082	3.04	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1810	4X/4Y ø10/12	22424	13985	-10757	SLV 11-Ger.	1.4	68082	3.04	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luca	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl,x	Vpl,y	Comb.
0	260	260	1.1	2860723.3		-100098.7	2846867.8		-98285.7	45210.1		SLV 3
0	260	260	1.1		5355281.4	-100098.7		5330737.1	-98285.7		24147.5	SLV 3
310	570	260	1.1	2700730.1		-80251	2683679.5		-78438	42819.7		SLV 3
310	570	260	1.1		5074433.8	-80251		5046577.3	-78438		22780.2	SLV 3
620	880	260	1.1	2446431.9		-61353.3	2431880.5		-59799.3	33013.8		SLV 7
620	880	260	1.1		3915085.2	-61353.3		3888168.6	-59799.3		20639	SLV 7
930	1190	260	1.1	2296553		-45692.7	2038082		-44138.7	29401.2		SLV 7
930	1190	260	1.1		3697616.3	-45692.7		3251761	-44138.7		18338.8	SLV 7
1240	1500	260	1.1	1876740.8		-29007.1	1860151.8		-27453.1	25414.5		SLV 7
1240	1500	260	1.1		3019277.9	-29007.1		2987793.7	-27453.1		15809.9	SLV 7
1550	1810	260	1.1	1663418.5		-12310.6	1642131.9		-10756.6	22424.4		SLV 11
1550	1810	260	1.1		2668111.9	-12310.6		2632207.1	-10756.6		13985	SLV 11

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/7	10734	954	-87487	SLD 16	1.2	99384	9.26	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
29	4X/4Y ø10/7	10734	954	-87288	SLD 16	1.2	99344	9.25	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
58	4X/4Y ø10/7	10734	954	-87086	SLD 16	1.2	99302	9.25	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
87	2X/2Y ø10/17.1	10734	954	-86884	SLD 16	2.5	52196	4.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
116	2X/2Y ø10/17.1	10734	954	-86682	SLD 16	2.5	52196	4.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
144	2X/2Y ø10/17.1	10734	954	-86479	SLD 16	2.5	52196	4.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
173	2X/2Y ø10/17.1	10734	954	-86277	SLD 16	2.5	52196	4.86	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
202	4X/4Y ø10/11.7	10734	954	-86075	SLD 16	1.7	87459	8.15	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
231	4X/4Y ø10/11.7	10734	954	-85873	SLD 16	1.7	87422	8.14	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
260	4X/4Y ø10/11.7	10734	954	-85674	SLD 16	1.7	87386	8.14	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
310	4X/4Y ø10/11.7	11508	1639	-71555	SLD 16	1.7	84819	7.37	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
339	4X/4Y ø10/11.7	11508	1639	-71356	SLD 16	1.7	84783	7.37	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
368	4X/4Y ø10/11.7	11508	1639	-71156	SLD 16	1.7	84747	7.36	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
397	2X/2Y ø10/17.1	11508	1639	-70951	SLD 16	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
426	2X/2Y ø10/17.1	11508	1639	-70749	SLD 16	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
454	2X/2Y ø10/17.1	11508	1639	-70547	SLD 16	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
483	2X/2Y ø10/17.1	11508	1639	-70345	SLD 16	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
512	4X/4Y ø10/11.7	11508	1639	-70142	SLD 16	1.7	84563	7.35	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
541	4X/4Y ø10/11.7	11508	1639	-69940	SLD 16	1.7	84526	7.34	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
570	4X/4Y ø10/11.7	11508	1639	-69742	SLD 16	1.7	84490	7.34	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	SI
620	4X/4Y ø10/12	9024	1354	-55903	SLD 16	1.7	70736	7.84	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
649	4X/4Y ø10/12	9024	1354	-55732	SLD 16	1.7	70706	7.84	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
678	4X/4Y ø10/12	9024	1354	-55561	SLD 16	1.7	70675	7.83	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
707	2X/2Y ø10/17.5	9024	1354	-55386	SLD 16	2.5	43227	4.79	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
736	2X/2Y ø10/17.5	9024	1354	-55212	SLD 16	2.5	43227	4.79	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
764	2X/2Y ø10/17.5	9024	1354	-55039	SLD 16	2.5	43227	4.79	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
793	2X/2Y ø10/17.5	9024	1354	-54866	SLD 16	2.5	43227	4.79	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
822	4X/4Y ø10/12	9024	1354	-54692	SLD 16	1.7	70519	7.81	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
851	4X/4Y ø10/12	9024	1354	-54519	SLD 16	1.7	70488	7.81	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
880	4X/4Y ø10/12	9024	1354	-54349	SLD 16	1.7	70458	7.81	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	SI
930	4X/4Y ø10/12	7479	1386	-42288	SLD 16	1.7	68295	9.13	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
959	4X/4Y ø10/12	7479	1386	-42118	SLD 16	1.7	68265	9.13	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
988	4X/4Y ø10/12	7435	1386	-42007	SLD 15	1.7	68245	9.18	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1017	2X/2Y ø10/17.5	7479	1386	-41771	SLD 16	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1046	2X/2Y ø10/17.5	7479	1386	-41598	SLD 16	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1074	2X/2Y ø10/17.5	7479	1386	-41424	SLD 16	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1103	2X/2Y ø10/17.5	7479	1386	-41251	SLD 16	2.5	43227	5.78	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1132	4X/4Y ø10/12	7479	1386	-41078	SLD 16	1.7	69049	9.23	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1161	4X/4Y ø10/12	7479	1386	-40904	SLD 16	1.7	69018	9.23	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1190	4X/4Y ø10/12	7479	1383	-40734	SLD 16	1.7	68987	9.22	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	SI
1240	4X/4Y ø10/12	5015	1133	-27027	SLD 16	1.7	66494	13.26	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1269	4X/4Y ø10/12	5015	1133	-26857	SLD 16	1.7	66463	13.25	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1298	4X/4Y ø10/12	5015	1133	-26685	SLD 16	1.7	66432	13.25	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1327	2X/2Y ø10/17.5	5015	1133	-26510	SLD 16	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1356	2X/2Y ø10/17.5	5015	1133	-26337	SLD 16	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1384	2X/2Y ø10/17.5	5015	1133	-26164	SLD 16	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1413	2X/2Y ø10/17.5	5015	1133	-25990	SLD 16	2.5	43227	8.62	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1442	4X/4Y ø10/12	5015	1133	-25817	SLD 16	1.7	66274	13.22	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1471	4X/4Y ø10/12	5015	1133	-25644	SLD 16	1.7	66243	13.21	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1500	4X/4Y ø10/12	5015	1133	-25473	SLD 16	1.7	66212	13.2	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	SI
1550	4X/4Y ø10/12	4360	2031	-11664	SLD 16	1.6	64590	14.82	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1579	4X/4Y ø10/12	4360	2031	-11493	SLD 16	1.6	64558	14.81	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1608	4X/4Y ø10/12	4360	2031	-11322	SLD 16	1.6	64527	14.8	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1637	2X/2Y ø10/17.5	4360	2031	-11147	SLD 16	2.5	43227	9.92	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1666	2X/2Y ø10/17.5	4360	2031	-10973	SLD 16	2.5	43227	9.92	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1694	2X/2Y ø10/17.5	4360	2031	-10800	SLD 16	2.5	43227	9.92	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1723	2X/2Y ø10/17.5	4360	2031	-10627	SLD 16	2.5	43227	9.92	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1752	4X/4Y ø10/12	4360	2031	-10453	SLD 16	1.6	64367	14.76	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1781	4X/4Y ø10/12	4360	2031	-10280	SLD 16	1.6	64335	14.76	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI
1810	4X/4Y ø10/12	4360	2031	-10110	SLD 16	1.6	64303	14.75	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	SI

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	-63609	-44505	-106473	SLE RA 8	-36.9	-63609	-44505	-106473	SLE RA 8	-539	SI
29	-40420	-26721	-106274	SLE RA 8	-35.4	-40420	-26721	-106274	SLE RA 8	-521.3	SI
58	-16823	-8625	-106072	SLE RA 8	-33.8	-16823	-8625	-106072	SLE RA 8	-503.4	SI
87	6774	9471	-105870	SLE RA 8	-33.3	6774	9471	-105870	SLE RA 8	-497.9	SI
116	30371	27567	-105668	SLE RA 8	-34.8	30371	27567	-105668	SLE RA 8	-513.9	SI
144	53969	45664	-105466	SLE RA 8	-36.2	53969	45664	-105466	SLE RA 8	-530	SI
173	77566	63760	-105263	SLE RA 8	-37.7	77566	63760	-105263	SLE RA 8	-546	SI
202	101163	81856	-105061	SLE RA 8	-39.1	101163	81856	-105061	SLE RA 8	-562.1	SI
231	124760	99953	-104859	SLE RA 8	-40.6	124760	99953	-104859	SLE RA 8	-578.1	SI
260	147949	117736	-104660	SLE RA 8	-42	147949	117736	-104660	SLE RA 8	-593.9	SI
310	-262366	-174448	-85895	SLE RA 8	-42.8	-262366	-174448	-85895	SLE RA 8	-579.5	SI
339	-212249	-145790	-85696	SLE RA 8	-39.8	-212249	-145790	-85696	SLE RA 8	-545.5	SI
368	-161739	-116909	-85496	SLE RA 8	-36.7	-161739	-116909	-85496	SLE RA 8	-511.3	SI
397	-110248	-87467	-85292	SLE RA 8	-33.6	-110248	-87467	-85292	SLE RA 8	-476.4	SI
426	-59248	-58305	-85089	SLE RA 8	-30.5	-59248	-58305	-85089	SLE RA 8	-441.8	SI
454	-8248	-29143	-84887	SLE RA 8	-27.4	-8248	-29143	-84887	SLE RA 8	-407.2	SI
483	42753	19	-84685	SLE RA 8	-28.2	42753	19	-84685	SLE RA 8	-414.7	SI
512	93753	29181	-84483	SLE RA 8	-31.1	93753	29181	-84483	SLE RA 8	-446.7	SI
541	144753	58343	-84280	SLE RA 8	-34.1	144753	58343	-84280	SLE RA 8	-479.4	SI
570	194871	87000	-84082	SLE RA 8	-37	194871	87000	-84082	SLE RA 8	-511.5	SI
620	-187032	-112913	-66043	SLE RA 8	-36.7	-187032	-112913	-66043	SLE RA 8	-497.7	SI
649	-150116	-83426	-65873	SLE RA 8	-33.8	-150116	-83426	-65873	SLE RA 8	-464.9	SI
678	-112911	-53709	-65701	SLE RA 8	-30.8	-112911	-53709	-65701	SLE RA 8	-431.8	SI
707	-74984	-23414	-65526	SLE RA 8	-27.8	-74984	-23414	-65526	SLE RA 8	-397.9	SI
736	-37417	6592	-65353	SLE RA 8	-25.2	-37417	6592	-65353	SLE RA 8	-369.6	SI
764	149	36598	-65179	SLE RA 8	-24.2	149	36598	-65179	SLE RA 8	-360.4	SI
793	37715	66604	-65006	SLE RA 8	-27.1	37715	66604	-65006	SLE RA 8	-391.8	SI
822	75282	96610	-64833	SLE RA 8	-30	75282	96610	-64833	SLE RA 8	-423.5	SI
851	112848	126616	-64659	SLE RA 8	-32.8	112848	126616	-64659	SLE RA 8	-455.2	SI
880	149764	156103	-64489	SLE RA 8	-35.7	149764	156103	-64489	SLE RA 8	-486.3	SI
930	-185821	-202553	-49421	SLE RA 8	-33.7	-185821	-202553	-49421	SLE RA 8	-444.8	SI
959	-148484	-168247	-49251	SLE RA 8	-30.7	-148484	-168247	-49251	SLE RA 8	-412.3	SI
988	-110853	-133671	-49079	SLE RA 8	-27.6	-110853	-133671	-49079	SLE RA 8	-377.8	SI
1017	-72493	-98425	-48904	SLE RA 8	-25	-72493	-98425	-48904	SLE RA 8	-348.4	SI
1046	-34497	-63514	-48731	SLE RA 8	-21.7	-34497	-63514	-48731	SLE RA 8	-311.1	SI
1074	3499	-28603	-48558	SLE RA 8	-18.8	3499	-28603	-48558	SLE RA 8	-277.7	SI
1103	43528	9529	-47843	SLE RA 7	-20	41494	6308	-48384	SLE RA 8	-289.3	SI
1132	79490	41219	-48211	SLE RA 8	-23.1	79490	41219	-48211	SLE RA 8	-324.8	SI
1161	117485	76130	-48038	SLE RA 8	-26.3	117485	76130	-48038	SLE RA 8	-360.3	SI
1190	154823	110436	-47867	SLE RA 8	-29.4	154823	110436	-47867	SLE RA 8	-395.2	SI
1240	-172450	-74915	-30952	SLE RA 8	-23	-172450	-74915	-30952	SLE RA 8	-298.6	SI
1269	-140050	-58967	-30782	SLE RA 8	-20.7	-140050	-58967	-30782	SLE RA 8	-272.4	SI
1298	-107396	-42894	-30610	SLE RA 8	-18.3	-107396	-42894	-30610	SLE RA 8	-246	SI
1327	-72798	-27089	-31135	SLE RA 7	-16.1	-72798	-27089	-31135	SLE RA 7	-222.3	SI
1356	-46551	-15649	-30961	SLE RA 7	-14.2	-46551	-15649	-30961	SLE RA 7	-201.5	SI
1384	-20304	-4210	-30788	SLE RA 7	-12.4	-20304	-4210	-30788	SLE RA 7	-180.7	SI
1413	24805	22179	-29915	SLE RA 8	-12.9	24805	22179	-29915	SLE RA 8	-186	SI
1442	57776	38408	-29742	SLE RA 8	-15.2	57776	38408	-29742	SLE RA 8	-210.8	SI

TABULATO DI CALCOLO – FABBRICATO B

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
1471	90747	54637	-29568	SLE RA 8	-17.4	90747	54637	-29568	SLE RA 8	-235.6	Si
1500	123147	70586	-29398	SLE RA 8	-19.7	123147	70586	-29398	SLE RA 8	-260	Si
1550	-221218	-96624	-14259	SLE RA 7	-20.3	-221218	-96624	-14259	SLE RA 7	-245.1	Si
1579	-161864	-68700	-14089	SLE RA 7	-16.1	-161864	-68700	-14089	SLE RA 7	-198.3	Si
1608	-102046	-40557	-13917	SLE RA 7	-11.9	-102046	-40557	-13917	SLE RA 7	-151.2	Si
1637	-59668	-26430	-11840	SLE RA 8	-8.4	-59668	-26430	-11840	SLE RA 8	-109.7	Si
1666	34274	26150	-12572	SLE RA 6	-7.3	34274	26150	-12572	SLE RA 6	-98.9	Si
1694	93169	56211	-12399	SLE RA 6	-11.4	93169	56211	-12399	SLE RA 6	-144.4	Si
1723	152064	86272	-12226	SLE RA 6	-15.5	152064	86272	-12226	SLE RA 6	-189.9	Si
1752	210959	116333	-12052	SLE RA 6	-19.6	210959	116333	-12052	SLE RA 6	-235.4	Si
1781	269854	146394	-11879	SLE RA 6	-35.1	269854	146394	-11879	SLE RA 6	512	Si
1810	327729	175935	-11709	SLE RA 6	-43.5	327729	175935	-11709	SLE RA 6	729.1	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	-52586	-34876	-90825	SLE QP 4	-31.4	Si
29	-33308	-21075	-90626	SLE QP 4	-30.1	Si
58	-13691	-7030	-90424	SLE QP 4	-28.8	Si
87	5926	7014	-90221	SLE QP 4	-28.4	Si
116	25544	21058	-90019	SLE QP 4	-29.5	Si
144	45161	35102	-89817	SLE QP 4	-30.7	Si
173	64778	49147	-89615	SLE QP 4	-31.9	Si
202	84396	63191	-89413	SLE QP 4	-33.1	Si
231	104013	77235	-89210	SLE QP 4	-34.2	Si
260	123291	91036	-89012	SLE QP 4	-35.4	Si
310	-218708	-139644	-73661	SLE QP 4	-36.2	Si
339	-176816	-116317	-73462	SLE QP 4	-33.6	Si
368	-134596	-92807	-73262	SLE QP 4	-31.1	Si
397	-91557	-68840	-73057	SLE QP 4	-28.5	Si
426	-48927	-45102	-72855	SLE QP 4	-25.9	Si
454	-6298	-21364	-72653	SLE QP 4	-23.3	Si
483	36332	2374	-72451	SLE QP 4	-24.1	Si
512	78961	26113	-72249	SLE QP 4	-26.6	Si
541	121591	49851	-72046	SLE QP 4	-29.1	Si
570	163482	73178	-71848	SLE QP 4	-31.5	Si
620	-155091	-87214	-56964	SLE QP 4	-31	Si
649	-124637	-64995	-56794	SLE QP 4	-28.6	Si
678	-93945	-42602	-56622	SLE QP 4	-26.3	Si
707	-62657	-19774	-56447	SLE QP 4	-23.8	Si
736	-31666	2837	-56274	SLE QP 4	-21.6	Si
764	-676	25448	-56101	SLE QP 4	-20.7	Si
793	30314	48058	-55927	SLE QP 4	-22.9	Si
822	61304	70669	-55754	SLE QP 4	-25.2	Si
851	92295	93280	-55581	SLE QP 4	-27.5	Si
880	122748	115499	-55410	SLE QP 4	-29.7	Si
930	-154208	-152598	-42583	SLE QP 4	-28	Si
959	-122808	-126021	-42413	SLE QP 4	-25.6	Si
988	-91162	-99237	-42241	SLE QP 4	-23.1	Si
1017	-58902	-71932	-42066	SLE QP 4	-20.8	Si
1046	-26949	-44887	-41893	SLE QP 4	-18.1	Si
1074	5005	-17843	-41719	SLE QP 4	-16	Si
1103	36958	9202	-41546	SLE QP 4	-17.3	Si
1132	68911	36247	-41373	SLE QP 4	-19.9	Si
1161	100864	63291	-41199	SLE QP 4	-22.5	Si
1190	132265	89868	-41029	SLE QP 4	-25	Si
1240	-139491	-63110	-27023	SLE QP 4	-19.4	Si
1269	-114426	-50533	-26853	SLE QP 4	-17.6	Si
1298	-89166	-37858	-26681	SLE QP 4	-15.7	Si
1327	-63414	-24937	-26506	SLE QP 4	-13.8	Si
1356	-37908	-12140	-26333	SLE QP 4	-12	Si
1384	-12403	658	-26159	SLE QP 4	-10.2	Si
1413	13103	13456	-25986	SLE QP 4	-10.6	Si
1442	38609	26254	-25813	SLE QP 4	-12.3	Si
1471	64115	39052	-25639	SLE QP 4	-14.1	Si
1500	89180	51628	-25469	SLE QP 4	-15.8	Si
1550	-183963	-77230	-11360	SLE QP 4	-16.6	Si
1579	-137594	-57872	-11190	SLE QP 4	-13.4	Si
1608	-90862	-38362	-11018	SLE QP 4	-10.2	Si
1637	-43222	-18474	-10843	SLE QP 4	-6.9	Si
1666	10367	5339	-10243	SLE QP 3	-4.4	Si
1694	56908	25743	-10070	SLE QP 3	-7.6	Si
1723	103449	46146	-9896	SLE QP 3	-10.7	Si
1752	149991	66550	-9723	SLE QP 3	-13.8	Si
1781	196532	86954	-9550	SLE QP 3	-16.9	Si
1810	242268	107004	-9379	SLE QP 3	-30.4	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 9	285	No	No	
Pilastrata 9	595	No	No	
Pilastrata 9	905	No	No	
Pilastrata 9	1215	No	No	
Pilastrata 9	1525	No	No	
Pilastrata 9	1835	No	No	

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	285	0.857	0.763	0.654	0.236	0.154	0.274	0.129	6.3	13.9	1.198	SLD 7	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	595	0.811	0.793	0.644	0.177	0.114	0.212	0.092	8.3	13.9	1.243	SLD 7	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	905	0.763	0.789	0.602	0.154	0.092	0.188	0.078	10	13.9	1.192	SLD 7	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	1215	0.763	0.786	0.6	0.154	0.092	0.12	0.036	10	12.8	2.526	SLD 7	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	1525	0.763	0.786	0.6	0.154	0.092	0.051	-0.005	10	12.8	1000	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	285	0.857	0.763	0.654	0.236	0.154	0.284	0.134	6.3	13.9	1.146	SLV 7	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	595	0.811	0.793	0.644	0.177	0.114	0.219	0.096	8.3	13.9	1.186	SLV 7	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	905	0.763	0.789	0.602	0.154	0.092	0.195	0.081	10	13.9	1.138	SLV 7	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	1215	0.763	0.786	0.6	0.154	0.092	0.124	0.039	10	12.8	2.374	SLV 7	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	1525	0.763	0.786	0.6	0.154	0.092	0.052	-0.004	10	12.8	1000	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 9	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	41	41	No	-146578	SLU 16	100306	271186	80386	152675	-100306	-80386	2.92	2.92	Min	No	2.92	Si
-60	285	0	30	17	41	41	No	-146578	SLU 16	100306	271186	80386	152675	-100306	-80386	2.92	2.92	X	No	2.92	Si
-60	285	202.2	30	17	51	51	No	-94151	SLD 3	58896	200126	1117154	117942	74055	-1117154	4.55	3.61	Min	No	3.57	Si
-60	285	0	30	17	51	51	No	-95563	SLD 3	58896	180270	1117154	75037	-81795	1930489	4.48		X	Si		Si
-60	285	202.2	30	17	51	51	No	-96080	SLV 1	72966	194639	2213287	95225	98968	-2213287	4.46	2.48	Min	No	2.43	Si
-60	285	0	30	17	50	50	No	-100099	SLV 3	63746	178330	2199083	78167	-107506	3841590	4.28		X	Si		Si
-60	285	0	30	17	41	41	No	-146578	SLU 16	100306	271186	80386	152675	-100306	-80386	2.92	2.92	Min	No	2.92	Si
-60	285	0	30	17	41	41	No	-146578	SLU 16	100306	271186	80386	152675	-100306	-80386	2.92	2.92	Y	No	2.92	Si
-60	285	0	30	17	51	51	No	-95563	SLD 3	58896	180270	1117154	75037	-81795	1930489		2.71	Min	Si		Si
-60	285	0	30	17	51	51	No	-95563	SLD 3	58896	180270	1117154	75037	-81795	1930489		2.71	Y	Si		Si
-60	285	0	30	17	55	55	No	-81551	SLV 14	80571	173343	2188620	63677	80571	-3911342		1.41	Min	Si		Si
-60	285	0	30	17	55	55	No	-81551	SLV 14	80571	173343	2188620	63677	80571	-3911342		1.41	Y	Si		Si
285	595	310	27	15	46	46	No	-118203	SLU 16	159783	179656	106218	100707	-367342	-246958	3.51	3.62	Min	No	3.46	Si
285	595	310	27	15	46	46	No	-118203	SLU 16	159783	179656	106218	100707	-367342	-246958	3.51	3.62	X	No	3.46	Si
285	595	310	27	15	57	57	No	-74866	SLD 12	113420	124275	277314	53460	-262529	-637935	5.41	5.07	Min	No	4.59	Si
285	595	310	27	15	57	57	No	-76690	SLD 7	115805	126505	138703	62183	-268213	302231	5.28	5.58	X	No	5.06	Si
285	595	454.4	27	15	56	56	No	-79243	SLV 3	108350	106735	1264094	67912	-108350	1264094	5.4	3.75	Min	No	3.66	Si
285	595	310	27	15	56	56	No	-79392	SLV 7	133639	125716	320573	55780	-310969	734830	4.98	4.67	X	No	4.15	Si
285	595	310	27	15	46	46	No	-118203	SLU 16	159783	179656	106218	100707	-367342	-246958	3.51	3.62	Min	No	3.46	Si
285	595	310	27	15	46	46	No	-118203	SLU 16	159783	179656	106218	100707	-367342	-246958	3.51	3.62	Y	No	3.46	Si
285	595	310	27	15	59	59	No	-71555	SLD 16	99797	123763	738148	47208	-229906	-1695848		3.26	Min	Si		Si
285	595	310	27	15	59	59	No	-71555	SLD 16	99797	123763	738148	47208	-229906	-1695848		3.26	Y	Si		Si
285	595	310	27	15	60	60	No	-69435	SLV 16	103702	118563	1398328	44736	-239341	-3211208		1.74	Min	Si		Si
285	595	310	27	15	60	60	No	-69435	SLV 16	103702	118563	1398328	44736	-239341	-3211208		1.74	Y	Si		Si
595	905	620	27	18	48	48	No	-90866	SLU 16	114413	137891	111264	89589	-262285	-160548	4.11	4.22	Min	No	4.06	Si
595	905	620	27	18	48	48	No	-90866	SLU 16	114413	137891	111264	89589	-262285	-160548	4.11	4.22	X	No	4.06	Si
595	905	620	27	18	60	60	No	-58192	SLD 12	91139	93276	219893	48057	-210671	-465664	6.14	5.63	Min	No	5.09	Si
595	905	620	27	18	60	60	No	-59295	SLD 7	94339	94150	111856	52949	-218249	259151	6.01	6.33	X	No	5.61	Si

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
595	905	764.4	27	18	63	63	No	-53958	SLV 16	78793	70238	1065892	64176	-78793	-1065892	7.1	3.92	Min	No	3.82	Si
595	905	620	27	18	59	59	No	-61353	SLV 7	117404	92283	259237	49527	-272765	597576	5.55	5	X	No	4.36	Si
595	905	620	27	18	48	48	No	-90866	SLU 16	114413	137891	111264	89589	-262285	-160548	4.11	4.22	Min	No	4.06	Si
595	905	620	27	18	48	48	No	-90866	SLU 16	114413	137891	111264	89589	-262285	-160548	4.11	4.22	Y	No	4.06	Si
595	905	620	27	18	62	62	No	-55903	SLD 16	73679	95516	561163	43170	-169396	-1280252		3.44	Min	Si		Si
595	905	620	27	18	62	62	No	-55903	SLD 16	73679	95516	561163	43170	-169396	-1280252		3.44	Y	Si		Si
595	905	620	27	18	63	63	No	-52834	SLV 14	60699	92795	1057822	40036	-115133	-2425018		1.78	Min	Si		Si
595	905	620	27	18	63	63	No	-52834	SLV 14	60699	92795	1057822	40036	-115133	-2425018		1.78	Y	Si		Si
905	1215	930	27	18	56	56	No	-68045	SLU 16	114937	103193	123977	66675	-261563	-287661	5.19	5.55	Min	No	4.86	Si
905	1215	930	27	18	56	56	No	-68045	SLU 16	114937	103193	123977	66675	-261563	-287661	5.19	5.55	X	No	4.86	Si
905	1215	930	27	18	70	70	No	-43706	SLD 12	86219	71167	195604	39521	-197909	-421390	7.75	7.04	Min	No	6.11	Si
905	1215	930	27	18	69	69	No	-44244	SLD 7	88104	71603	75474	52623	-202282	85001	7.64	8.66	X	No	7.5	Si
905	1215	930	27	18	69	69	No	-44657	SLV 12	102520	69415	336048	37618	-235858	-680152	7.25	5.57	Min	No	4.76	Si
905	1215	930	27	18	68	68	No	-45693	SLV 7	106027	70438	198663	43784	-243995	316400	7.06	7.47	X	No	6.13	Si
905	1215	930	27	18	56	56	No	-68045	SLU 16	114937	103193	123977	66675	-261563	-287661	5.19	5.55	Min	No	4.86	Si
905	1215	1016.7	27	18	56	56	No	-67373	SLU 16	114937	101541	123977	65468	-114937	-139968	5.42	5.42	Y	No	5.42	Si
905	1215	1190	27	18	72	72	No	-40734	SLD 16	73194	70622	497230	31926	138137	959369		4.25	Min	Si		Si
905	1215	1190	27	18	72	72	No	-40734	SLD 16	73194	70622	497230	31926	138137	959369		4.25	Y	Si		Si
905	1215	1190	27	18	72	72	No	-40422	SLV 16	78191	69275	932568	30882	143195	1806327		2.08	Min	Si		Si
905	1215	1190	27	18	72	72	No	-40422	SLV 16	78191	69275	932568	30882	143195	1806327		2.08	Y	Si		Si
1215	1525	1240	27	18	71	71	No	-42582	SLU 16	105712	64167	52430	42947	-243248	-106225	7.1	8.58	Min	No	6.89	Si
1215	1525	1240	27	18	71	71	No	-42582	SLU 16	105712	64167	52430	42947	-243248	-106225	7.1	8.58	X	No	6.89	Si
1215	1525	1240	27	18	88	88	No	-27586	SLD 3	66445	47017	296160	22090	-153510	479132	11.06	7.84	Min	No	6.65	Si
1215	1525	1240	27	18	87	87	No	-28086	SLD 7	78093	45622	68423	28977	-180503	97755	10.29	13.01	X	No	9.8	Si
1215	1525	1355.6	27	18	90	90	No	-26328	SLV 16	67627	44323	669497	23803	-67627	-669497	13.88	6.17	Min	No	5.86	Si
1215	1525	1240	27	18	85	85	No	-29007	SLV 7	93511	44935	161390	24767	-216232	252662	9.33	10.51	X	No	7.71	Si
1215	1525	1240	27	18	71	71	No	-42582	SLU 16	105712	64167	52430	42947	-243248	-106225	7.1	8.58	Min	No	6.89	Si
1215	1525	1240	27	18	70	70	No	-43631	SLU 15	91078	67985	37128	46801	-211200	-85665	7.31	8.37	Y	No	7.16	Si
1215	1525	1500	27	18	91	91	No	-25473	SLD 16	64301	44013	353388	19744	94199	693393		5.93	Min	Si		Si
1215	1525	1500	27	18	91	91	No	-25473	SLD 16	64301	44013	353388	19744	94199	693393		5.93	Y	Si		Si
1215	1525	1500	27	18	93	93	No	-24409	SLV 14	48983	42871	664840	18535	73324	1307189		2.71	Min	Si		Si
1215	1525	1500	27	18	93	93	No	-24409	SLV 14	48983	42871	664840	18535	73324	1307189		2.71	Y	Si		Si
1525	1835	1810	27	18	114	114	No	-16280	SLU 14	227750	24075	125434	15157	460876	253841	5.18	14.23	Min	No	4.45	Si
1525	1835	1810	27	18	114	114	No	-16280	SLU 14	227750	24075	125434	15157	460876	253841	5.18	14.23	X	No	4.45	Si
1525	1835	1810	27	18	145	145	No	-10110	SLD 16	126019	17591	330030	7497	250037	659617	9.92	5.08	Min	No	3.91	Si
1525	1835	1810	27	18	144	144	No	-10206	SLD 7	149989	16824	23669	12139	297790	-46306	7.94	35.05	X	No	7.74	Si
1525	1835	1550	27	18	137	137	No	-11266	SLV 3	141043	18893	484106	8938	-213650	671406	12.12	5.12	Min	No	4.13	Si
1525	1835	1810	27	18	142	142	No	-10545	SLV 7	175563	16645	93374	10507	348629	-188693	6.5	20.11	X	No	5.65	Si
1525	1835	1810	27	18	114	114	No	-16280	SLU 14	227750	24075	125434	15157	460876	253841	5.18	14.23	Min	No	4.45	Si
1525	1835	1810	27	18	114	114	No	-16280	SLU 14	227750	24075	125434	15157	460876	253841	5.18	14.23	Y	No	4.45	Si
1525	1835	1810	27	18	145	145	No	-10110	SLD 16	126019	17591	330030	7497	250037	659617	9.92	5.08	Min	No	3.91	Si
1525	1835	1810	27	18	145	145	No	-10110	SLD 16	126019	17591	330030	7497	250037	659617	9.92	5.08	Y	No	3.91	Si
1525	1835	1810	27	18	143	143	No	-10390	SLV 16	130577	17874	599450	7705	259002	1198938		2.46	Min	Si		Si
1525	1835	1810	27	18	143	143	No	-10390	SLV 16	130577	17874	599450	7705	259002	1198938		2.46	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	180	8160328	<	9938458	5066547	4871911	1.218	SLV 14		Si
285	270	759417	<	5272671	2695902	2576769	6.943	SLV 14		Si
285	360	8160328	<	9938458	5066547	4871911	1.218	SLV 14		Si
595	180	8160328	<	8639605	4842730	3796875	1.059	SLV 14		Si
595	270	759417	<	4926459	2559718	2366740	6.487	SLV 14		Si
595	360	8160328	<	8639605	4842730	3796875	1.059	SLV 14		Si
905	180	7072483	<	7382743	3772198	3610545	1.044	SLV 10		Si
905	270	740999	<	4578609	2349771	2228838	6.179	SLV 10		Si
905	360	7072483	<	7382743	3772198	3610545	1.044	SLV 10		Si
1215	180	5148416	<	6103654	3164689	2938965	1.186	SLV 10		Si
1215	270	740999	<	3806188	1971761	1834427	5.137	SLV 10		Si
1215	360	5148416	<	6103654	3164689	2938965	1.186	SLV 10		Si
1525	180	4251962	<	5536610	2907481	2629129	1.302	SLV 10		Si
1525	270	740999	<	3456635	1816328	1640307	4.665	SLV 10		Si
1525	360	4251962	<	5536610	2907481	2629129	1.302	SLV 10		Si

Pilastrata 10

Dati della pilastrata

Campate costituenti la pilastrata

Q.inf.	Q.sup.	Sezione	Esistente	Secondaria	Dissipativa	Interna a parete	Sovraresistenza	Materiale CLS	Materiale Acciaio	FC
0	280	R 70x40	No	No	Si	No		C25/30	B450C	
330	590	R 70x40	No	No	Si	No		C25/30	B450C	
640	900	R 60x40	No	No	Si	No		C25/30	B450C	
950	1210	R 60x40	No	No	Si	No		C25/30	B450C	
1260	1520	R 60x40	No	No	Si	No		C25/30	B450C	
1570	1830	R 60x40	No	No	Si	No		C25/30	B450C	

Controlli geometrici NTC18

Nessuna anomalia

Verifiche delle sezioni

Verifica a pressoflessione in SLU

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0	1,2,3,4	-363284	363284	-181642	-856356	856356	SLU 16	2.357	Si
29	28.65	2	0	1,2,3,4	-362767	362767	-181383	-856356	856356	SLU 16	2.361	Si
58	28.65	2	0	1,2,3,4	-362241	362241	-181121	-856356	856356	SLU 16	2.364	Si
87	28.65	1	0	3,4	361715	-361715	-180858	856356	-856356	SLU 16	2.367	Si
116	28.65	1	0	3,4	361190	-361190	-180595	856356	-856356	SLU 16	2.371	Si
144	28.65	1	0	3,4	360664	-360664	-180332	856356	-856356	SLU 16	2.374	Si
173	28.65	1	0	3,4	360138	-360138	-180069	856356	-856356	SLU 16	2.378	Si
202	28.65	1	0	3,4	359612	-359612	-179806	856356	-935546	SLU 16	2.381	Si
231	28.65	1	0	3,4	359086	-480579	-179543	856356	-1146094	SLU 16	2.385	Si
260	28.65	1	0	3,4	358570	-566774	-179285	856356	-1353601	SLU 16	2.388	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
310	28.65	2	0	3,4,5,6,7	-367098	781582	-146241	-993028	2114237	SLU 16	2.705	Si
339	28.65	2	0	3,4,5,6,7	-296680	650840	-145983	-842472	1848165	SLU 16	2.84	Si
368	28.65	2	0	3,4,5,6,7	-291445	519073	-145723	-850118	1514088	SLU 16	2.917	Si
397	28.65	1	0	5,6,7	-290914	384749	-145457	-856356	1132573	SLU 16	2.944	Si
426	28.65	1	0	5,6,7	-290389	290389	-145194	-856356	856356	SLU 16	2.949	Si
454	28.65	1	0	5,6,7	-289863	289863	-144931	-856356	856356	SLU 16	2.954	Si
483	29.07	1.2	0	5,6,7,13	289337	-289337	-144668	859634	-859634	SLU 16	2.971	Si
512	31.34	1.2	0	5,6,7,13	288811	-288811	-144406	877391	-877391	SLU 16	3.038	Si
541	33.61	1.2	0	5,6,7,13	288285	-288285	-144143	895148	-895148	SLU 16	3.105	Si
570	34.93	1.2	0	5,6,7,13	287769	-411221	-143884	904243	-1292162	SLU 16	3.142	Si
620	34.93	2.6	0	5,6,7,8,9,13	-255054	459718	-118323	-827101	1490794	SLU 16	3.243	Si
649	32.67	2.6	0	5,6,7,8,9,13	-236204	338457	-118102	-784069	1123495	SLU 16	3.319	Si
678	30.4	2.6	0	5,6,7,8,9,13	-235757	235757	-117879	-779711	779711	SLU 16	3.307	Si
707	28.65	1.2	0	8,9	-235302	235302	-117651	-766052	766052	SLU 16	3.256	Si
736	28.65	1.2	0	8,9	-234852	-234852	-117426	-766052	-766052	SLU 16	3.262	Si
764	28.65	1.2	0	8,9	-234401	-234401	-117200	-766052	-766052	SLU 16	3.268	Si
793	28.65	1.2	0	8,9	233950	-278529	-116975	766052	-912020	SLU 16	3.274	Si
822	28.65	1.2	0	8,9	233500	-401926	-116750	745966	-1284040	SLU 16	3.195	Si
851	28.65	1.2	0	8,9	233049	-525323	-116524	720143	-1623297	SLU 16	3.09	Si
880	28.65	1.2	0	8,9	232606	-646584	-116303	692504	-1924981	SLU 16	2.977	Si
930	28.65	2.2	0	8,9,10	-232560	904750	-85989	-757893	2948497	SLU 16	3.259	Si
959	28.1	2.2	0	8,9,10	-185533	735372	-85768	-660678	2618641	SLU 16	3.561	Si
988	27.55	2.2	0	8,9,10	-171089	564670	-85545	-658766	2174219	SLU 16	3.85	Si
1017	24.13	1	0	10	-170634	390652	-85317	-687595	1574190	SLU 16	4.03	Si
1046	24.13	1	0	10	-170183	218292	-85092	-730647	937191	SLU 16	4.293	Si
1074	24.13	1	0	10	169733	169733	-84866	730647	730647	SLU 16	4.305	Si
1103	24.13	1	0	10	169282	-169282	-84641	730647	-730647	SLU 16	4.316	Si
1132	24.13	1	0	10	168831	-298789	-84416	712624	-1261164	SLU 16	4.221	Si
1161	24.13	1	0	10	168381	-471149	-84190	661405	-1850686	SLU 16	3.928	Si
1190	24.13	1	0	10	196482	-640526	-83969	707024	-2304873	SLU 16	3.598	Si
1240	24.13	2	0	10,11	-225450	637255	-52523	-1004683	2839830	SLU 16	4.456	Si
1269	24.13	2	0	10,11	-182639	516612	-52302	-922176	2608465	SLU 16	5.049	Si
1298	24.13	2	0	10,11	-139493	395024	-52079	-800327	2266415	SLU 16	5.737	Si
1327	24.13	1	0	11	-106794	253869	-53397	-683215	1624136	SLU 15	6.398	Si
1356	24.13	1	0	11	-106343	150172	-53171	-728197	1028321	SLU 15	6.848	Si
1384	24.13	1	0	11	-105892	105892	-52946	-730647	730647	SLU 15	6.9	Si
1413	24.13	1	0	11	105442	-105442	-52721	730647	-730647	SLU 15	6.929	Si
1442	24.13	1	0	11	101900	-219998	-50950	694216	-1498788	SLU 16	6.813	Si
1471	24.13	1	0	11	122318	-342766	-50725	751399	-2105620	SLU 16	6.143	Si
1500	24.13	1	0	11	165129	-463410	-50503	896001	-2514497	SLU 16	5.426	Si
1550	24.13	2	0	11,12	-291361	645680	-25586	-1298417	2877398	SLU 15	4.456	Si
1579	24.13	2	0	11,12	-213186	490081	-25365	-1282799	2948950	SLU 15	6.017	Si
1608	24.13	2	0	11,12	-143470	349709	-21109	-1214032	2959205	SLU 16	8.462	Si
1637	24.13	1	0	12	-80474	219362	-20881	-978788	2668066	SLU 16	12.163	Si
1666	24.13	1	0	12	49378	49378	-24689	730647	730647	SLU 15	14.797	Si
1694	24.13	1	0	12	125855	-172541	-22316	1442661	-1977819	SLU 14	11.463	Si
1723	24.13	1	0	12	204111	-322018	-22091	1570310	-2477414	SLU 14	7.693	Si
1752	24.13	1	0	12	282368	-471495	-21865	1529201	-2553445	SLU 14	5.416	Si
1781	24.13	1	0	12	360625	-620973	-21640	1449723	-2496331	SLU 14	4.02	Si
1810	24.13	1	0	12	437527	-767863	-21418	1378232	-2418807	SLU 14	3.15	Si

Verifica a pressoflessione in SLV

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
0	28.65	2	0.0003	1,2,3,4	379708	4192307	-71643	448565	4952543	SLV 2-Ger.	1.181	150703	256802	SLV 15	Si
29	28.65	2	0.0003	1,2,3,4	-64575	-3143879	-150190	-108261	-5270760	SLV 16	1.677	150504	256802	SLV 15	Si
58	28.65	2	0.0003	1,2,3,4	-52754	-2646499	-150302	-98342	-4933494	SLV 15	1.864	150302	256802	SLV 15	Si
87	28.65	1	0.0003	3,4	-29225	-2165728	-150100	-60715	-4499344	SLV 15	2.078	150100	256802	SLV 15	Si
116	28.65	1	0.0003	3,4	-5694	-1686918	-149898	-13175	-3903266	SLV 15	2.314	149898	256802	SLV 15	Si
144	28.65	1	0.0003	3,4	17848	-1199676	-149695	45949	-3088527	SLV 15	2.574	149695	256802	SLV 15	Si
173	28.65	1	0.0003	3,4	41326	-715551	-149493	118048	-2043965	SLV 15	2.856	149493	256802	SLV 15	Si
202	28.65	1	0.0003	3,4	63842	-277171	-149291	183103	-794946	SLV 15	2.868	149291	256802	SLV 15	Si
231	28.65	1	0.0003	3,4	87665	724618	-149089	251771	788692	SLV 15	2.872	149089	256802	SLV 15	Si
260	28.65	1	0.0003	3,4	110614	750120	-148890	313714	2127415	SLV 15	2.836	148890	256802	SLV 15	Si
310	28.65	2	0.0006	3,4,5,6,7	-246817	2994435	-62914	-436654	5297585	SLV 3	1.769	120031	256802	SLV 15	Si
339	28.65	2	0.0006	3,4,5,6,7	-202255	2427440	-62715	-460171	5522921	SLV 3	2.275	119833	256802	SLV 15	Si
368	28.65	2	0.0006	3,4,5,6,7	-152067	-1248790	-119364	-444559	-3650762	SLV 16	2.923	119632	256802	SLV 15	Si
397	28.65	1	0.0006	5,6,7	-110818	-826196	-119428	-366851	-2735036	SLV 15	3.31	119428	256802	SLV 15	Si
426	28.65	1	0.0006	5,6,7	-64882	-424011	-119226	-233013	-1522753	SLV 15	3.591	119226	256802	SLV 15	Si
454	28.65	1	0.0006	5,6,7	-18907	-15481	-119024	-68017	-55692	SLV 15	3.597	119024	256802	SLV 15	Si
483	29.07	1.2	0.0006	5,6,7,13	27076	423572	-118822	97941	1532194	SLV 15	3.617	118822	256802	SLV 15	Si
512	31.34	1.2	0.0006	5,6,7,13	73042	822868	-118619	249055	2805779	SLV 15	3.41	118619	256802	SLV 15	Si
541	33.61	1.2	0.0006	5,6,7,13	120691	1237045	-118148	368482	3776825	SLV 16	3.053	118417	256802	SLV 15	Si
570	34.93	1.2	0.0006	5,6,7,13	155615	-2191747	-61101	403183	-5678618	SLV 3	2.591	118218	256802	SLV 15	Si
620	34.93	2.6	0.0006	5,6,7,8,9,13	-195436	2261327	-54555	-374870	4337500	SLV 3	1.918	92330	220116	SLV 15	Si
649	32.67	2.6	0.0006	5,6,7,8,9,13	-159482	1805049	-54384	-388196	4393686	SLV 3	2.434	92159	220116	SLV 15	Si
678	30.4	2.6	0.0006	5,6,7,8,9,13	-112035	-1051110	-91741	-346759	-3253298	SLV 16	3.095	91988	220116	SLV 15	Si
707	28.65	1.2	0.0006	8,9	-81633	-734436	-91566	-288442	-2595064	SLV 16	3.533	91813	220116	SLV 15	Si
736	28.65	1.2	0.0006	8,9	-54551	-422827	-91639	-220797	-1711407	SLV 15	4.048	91639	220116	SLV 15	Si
764	28.65	1.2	0.0006	8,9	-22388	-122254	-91466	-93753	-511951	SLV 15	4.188	91466	220116	SLV 15	Si
793	28.65	1.2	0.0006	8,9	9629	241521	-91293	40398	1013316	SLV 15	4.196	91293	220116	SLV 15	Si
822	28.65	1.2	0.0006	8,9	42120	550613	-90872	162823	2128515	SLV 16	3.866	91119	220116	SLV 15	Si
851	28.65	1.2	0.0006	8,9	99333	-1462650	-53171	298705	-4398372	SLV 3	3.007	90946	220116	SLV 15	Si
880	28.65	1.2	0.0006	8,9	133938	-1918247	-53001	303842	-4351597	SLV 3	2.269	90776	220116	SLV 15	Si
930	28.65	2.2	0.0008	8,9,10	-188903	1802434	-42251	-431939	4121386	SLV 3	2.287	65208	220116	SLV 15	Si
959	28.1	2.2	0.0008	8,9,10	-151940	1408079	-42081	-455184	4218348	SLV 3	2.996	65037	220116	SLV 15	Si
988	27.55	2.2	0.0008	8,9,10	-114699	1012222	-41909	-468000	4130131	SLV 3	4.08	64866	220116	SLV 15	Si
1017	24.13	1	0.0008	10	-76757	614368	-41734	-425548	3406095	SLV 3	5.544	64691	220116	SLV 15	Si
1046	24.13	1	0.0008	10	-27464	87411	-64517	-155512	494953	SLV 15	5.662	64517	220116	SLV 15	Si
1074	24.13	1	0.0008	10	2304	286412	-64344	12853	1597508	SLV 15	5.578	64344	220116	SLV 15	Si
1103	24.13	1	0.0008	10	34102	468868	-63982	170559	2344982	SLV 16	5.001	64171	220116	SLV 15	Si
1132	24.13	1	0.0008	10	74691	-1027661	-41041	290231	-3993235	SLV 3	3.886	63997	220116	SLV 15	Si
1161	24.13	1	0.0008	10	111997	-1428384	-40868	303956	-3876574	SLV 3	2.714	63824	220116	SLV 15	Si
1190	24.13	1	0.0008	10	148871	-1823169	-40697	296907	-3636120	SLV 3	1.994	63654	220116	SLV 15	Si
1240	24.13	2	0.0008	10,11	-166010	1209537	-27695	-481810	3510438	SLV 3	2.902	39413	220116	SLV 15	Si
1269	24.13	2	0.0008	10,11	-136153	931588	-27525	-544311	3724309	SLV 3	3.998	39243	220116	SLV 15	Si
1298	24.13	2	0.0008	10,11	-106066	654296	-27353	-606216	3739598	SLV 3	5.715	39071	220116	SLV 15	Si
1327	24.13	1	0.0008	11	-75405	383953	-27178	-639611	3256804	SLV 3	8.482	38896	220116	SLV 15	Si
1356	24.13	1	0.0008	11	-40091	202439	-38723	-356578	1800517	SLV 15	8.894	38723	220116	SLV 15	Si
1384	24.13	1	0.0008	11	-14445	284743	-38550	-119870	2362875	SLV 15	8.298	38550	220116	SLV 15	Si
1413	24.13	1	0.0008	11	12105	405897	-38247	89099	2987691	SLV 16	7.361	38376	220116	SLV 15	Si
1442	24.13	1	0.0008	11	46417	-802847	-26485	231485	-4903852	SLV 3	4.987	38203	220116	SLV 15	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	C.S.	Nmin	Nlim	Comb.Nmin	Ver.
1471	24.13	1	0.0008	11	76732	-1086141	-26311	264932	-3750100	SLV 3	3.453	38030	220116	SLV 15	Si
1500	24.13	1	0.0008	11	106569	-1365422	-26141	271489	-3478484	SLV 3	2.548	37859	220116	SLV 15	Si
1550	24.13	2	0.0008	11,12	-208157	962733	-12499	-618683	2861431	SLV 3	2.972	16507	220116	SLV 15	Si
1579	24.13	2	0.0008	11,12	-155921	718462	-12329	-659566	3039180	SLV 3	4.23	16336	220116	SLV 15	Si
1608	24.13	2	0.0008	11,12	-103279	475205	-12157	-733859	3376605	SLV 3	7.106	16165	220116	SLV 15	Si
1637	24.13	1	0.0008	12	-49624	245366	-11982	-722060	3570192	SLV 3	14.55	15990	220116	SLV 15	Si
1666	24.13	1	0.0008	12	5357	157177	-15816	97964	2874465	SLV 15	18.288	15816	220116	SLV 15	Si
1694	24.13	1	0.0008	12	56783	-306074	-11635	682483	-3678730	SLV 3	12.019	15643	220116	SLV 15	Si
1723	24.13	1	0.0008	12	109899	-551899	-11462	645305	-3240652	SLV 3	5.872	15470	220116	SLV 15	Si
1752	24.13	1	0.0008	12	163049	-800576	-11289	598074	-2936558	SLV 3	3.668	15296	220116	SLV 15	Si
1781	24.13	1	0.0008	12	216204	-1050229	-11115	570238	-2769978	SLV 3	2.637	15123	220116	SLV 15	Si
1810	24.13	1	0.0008	12	268440	-1295997	-10945	549478	-2652816	SLV 3	2.047	14953	220116	SLV 15	Si

Verifica a pressoflessione in SLD

Quota	As	%	At	Pos.	Mx	My	N	MRdx	MRdy	Comb.	Coeff.s.	Verifica
0	28.65	2	0.0001	1,2,3,4	-70705	-1777416	-131078	-172269	-4330574	SLD 16	2.436	Si
29	28.65	2	0.0001	1,2,3,4	-50070	-1557264	-130879	-129436	-4025715	SLD 16	2.585	Si
58	28.65	2	0.0001	1,2,3,4	-34572	-1328913	-130841	-94847	-3645824	SLD 15	2.743	Si
87	28.65	1	0.0001	3,4	-12935	-1109293	-130639	-37584	-3223136	SLD 15	2.906	Si
116	28.65	1	0.0001	3,4	8704	-890737	-130437	26717	-2734094	SLD 15	3.069	Si
144	28.65	1	0.0001	3,4	30352	-667702	-130235	98436	-2165465	SLD 15	3.243	Si
173	28.65	1	0.0001	3,4	51968	-446165	-130032	171124	-1469155	SLD 15	3.293	Si
202	28.65	1	0.0001	3,4	73067	-247474	-129830	240972	-816164	SLD 15	3.298	Si
231	28.65	1	0.0001	3,4	94888	7380	-129628	313425	24378	SLD 15	3.303	Si
260	28.65	1	0.0001	3,4	116117	224960	-129429	384138	744211	SLD 15	3.308	Si
310	28.65	2	0.0003	3,4,5,6,7	-233733	1740578	-76321	-687834	5122208	SLD 3	2.943	Si
339	28.65	2	0.0003	3,4,5,6,7	-190330	1414300	-76122	-648596	4819579	SLD 3	3.408	Si
368	28.65	2	0.0003	3,4,5,6,7	-147297	1085704	-75922	-586291	4321470	SLD 3	3.98	Si
397	28.65	1	0.0003	5,6,7	-101630	-312439	-104656	-415797	-1278274	SLD 15	4.091	Si
426	28.65	1	0.0003	5,6,7	-57167	-148495	-104454	-234340	-608708	SLD 15	4.099	Si
454	28.65	1	0.0003	5,6,7	-12680	18589	-104252	-52079	76348	SLD 15	4.107	Si
483	29.07	1.2	0.0003	5,6,7,13	31815	202176	-104050	131423	835165	SLD 15	4.131	Si
512	31.34	1.2	0.0003	5,6,7,13	76307	364649	-103847	322350	1540427	SLD 15	4.224	Si
541	33.61	1.2	0.0003	5,6,7,13	121691	534907	-103504	506785	2227624	SLD 16	4.165	Si
570	34.93	1.2	0.0003	5,6,7,13	160223	-1243160	-74508	613149	-4757381	SLD 3	3.827	Si
620	34.93	2.6	0.0003	5,6,7,8,9,13	-174783	1282908	-63277	-558267	4097677	SLD 3	3.194	Si
649	32.67	2.6	0.0003	5,6,7,8,9,13	-142092	1017391	-63107	-528389	3783305	SLD 3	3.719	Si
678	30.4	2.6	0.0003	5,6,7,8,9,13	-103323	-463806	-81972	-449390	-2017270	SLD 16	4.349	Si
707	28.65	1.2	0.0003	8,9	-76037	-335326	-81926	-349661	-1542010	SLD 15	4.599	Si
736	28.65	1.2	0.0003	8,9	-44722	-216969	-81753	-209529	-1016536	SLD 15	4.685	Si
764	28.65	1.2	0.0003	8,9	-13679	-100102	-81579	-64224	-469990	SLD 15	4.695	Si
793	28.65	1.2	0.0003	8,9	17302	50854	-81406	81408	239273	SLD 15	4.705	Si
822	28.65	1.2	0.0003	8,9	48113	168366	-81233	226861	793873	SLD 15	4.715	Si
851	28.65	1.2	0.0003	8,9	91945	-883740	-61893	373091	-3586005	SLD 3	4.058	Si
880	28.65	1.2	0.0003	8,9	124023	-1148877	-61723	425943	-3945683	SLD 3	3.434	Si
930	28.65	2.2	0.0004	8,9,10	-165060	1160740	-47457	-587356	4130432	SLD 3	3.558	Si
959	28.1	2.2	0.0004	8,9,10	-132117	914319	-47286	-562676	3894016	SLD 3	4.259	Si
988	27.55	2.2	0.0004	8,9,10	-98921	666842	-47115	-515603	3475774	SLD 3	5.212	Si
1017	24.13	1	0.0004	10	-55281	21102	-58612	-344561	131524	SLD 15	6.233	Si
1046	24.13	1	0.0004	10	-25639	101151	-58439	-160280	632331	SLD 15	6.251	Si
1074	24.13	1	0.0004	10	3949	155210	-58266	24762	973155	SLD 15	6.27	Si
1103	24.13	1	0.0004	10	34313	197295	-58092	215785	1240718	SLD 15	6.289	Si
1132	24.13	1	0.0004	10	69364	-605717	-46246	373187	-3258829	SLD 3	5.38	Si
1161	24.13	1	0.0004	10	102773	-856149	-46073	441224	-3675605	SLD 3	4.293	Si
1190	24.13	1	0.0004	10	135684	-1102802	-45903	474345	-3855351	SLD 3	3.496	Si
1240	24.13	2	0.0004	10,11	-148942	797824	-30279	-686096	3675143	SLD 3	4.606	Si
1269	24.13	2	0.0004	10,11	-122141	622419	-30109	-704649	3590809	SLD 3	5.769	Si
1298	24.13	2	0.0004	10,11	-95132	447090	-29937	-700851	3293761	SLD 3	7.367	Si
1327	24.13	1	0.0004	11	-67602	274591	-29762	-645544	2622106	SLD 3	9.549	Si
1356	24.13	1	0.0004	11	-37818	146229	-35561	-382626	1479496	SLD 15	10.118	Si
1384	24.13	1	0.0004	11	-12925	152377	-35387	-131669	1552264	SLD 15	10.187	Si
1413	24.13	1	0.0004	11	14539	-290310	-29242	143499	-2865295	SLD 3	9.87	Si
1442	24.13	1	0.0004	11	41588	-467878	-29069	316724	-3563255	SLD 3	7.616	Si
1471	24.13	1	0.0004	11	68838	-646587	-28896	410475	-3855553	SLD 3	5.963	Si
1500	24.13	1	0.0004	11	95632	-822669	-28725	451795	-3886551	SLD 3	4.724	Si
1550	24.13	2	0.0004	11,12	-191666	679973	-13345	-837028	2969514	SLD 3	4.367	Si
1579	24.13	2	0.0004	11,12	-143469	513266	-13175	-889801	3183295	SLD 3	6.202	Si
1608	24.13	2	0.0004	11,12	-94895	346629	-13003	-928395	3391194	SLD 3	9.783	Si
1637	24.13	1	0.0004	12	-45382	185512	-12828	-783767	3203854	SLD 3	17.27	Si
1666	24.13	1	0.0004	12	4599	97875	-14699	103046	2193101	SLD 15	22.407	Si
1694	24.13	1	0.0004	12	52752	-179428	-12481	913033	-3105560	SLD 3	17.308	Si
1723	24.13	1	0.0004	12	101779	-347786	-12308	969697	-3313507	SLD 3	9.527	Si
1752	24.13	1	0.0004	12	150823	-517479	-12135	899204	-3085195	SLD 3	5.962	Si
1781	24.13	1	0.0004	12	199869	-687628	-11961	832734	-2864932	SLD 3	4.166	Si
1810	24.13	1	0.0004	12	248067	-855036	-11791	788947	-2719342	SLD 3	3.18	Si

Verifica di duttilità secondo D.M. 17-01-18 NTC §7.4.6.2.2

Quota	α,n	α,s	α	ω,wd	αω,wd	v,d	Ac	lim. [7.4.29]	coeff. [7.4.29]	comb. [7.4.29]	Verifica
0	0.7633	0.8847	0.6753	0.4157	0.2807	0.457	1984	0.2383	1.178	SLV 11	Si

Verifica a taglio-torsione in famiglia SLU

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	-3036	1134	-181642	SLU 16	1	102703	33.83	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
29	4X/4Y ø10/5	-3036	1134	-181383	SLU 16	1	102703	33.83	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
58	4X/4Y ø10/5	-3036	1134	-181121	SLU 16	1	102703	33.83	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
87	2X/2Y ø10/17.1	-3036	1134	-180858	SLU 16	2.5	52196	17.19	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
116	2X/2Y ø10/17.1	-3036	1134	-180595	SLU 16	2.5	52196	17.19	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
144	2X/2Y ø10/17.1	-3036	1134	-180332	SLU 16	2.5	52196	17.19	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
173	2X/2Y ø10/17.1	-3036	1134	-180069	SLU 16	2.5	52196	17.19	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
202	4X/4Y ø10/11.7	-3036	1134	-179806	SLU 16	1.5	92036	30.31	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
231	4X/4Y ø10/11.7	-3036	1134	-179543	SLU 16	1.5	92036	30.31	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
260	4X/4Y ø10/11.7	-3036	1134	-179285	SLU 16	1.5	92036	30.31	-0.1	0	0	SLU 4	1402519.2	1.1	1.1	1.02	Si
310	4X/4Y ø10/11.7	-4605	2480	-146241	SLU 16	1.5	92036	19.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
339	4X/4Y ø10/11.7	-4605	2480	-145983	SLU 16	1.5	92036	19.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
368	4X/4Y ø10/11.7	-4605	2480	-145723	SLU 16	1.5	92036	19.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
397	2X/2Y ø10/17.1	-4605	2480	-145457	SLU 16	2.5	27994	11.29	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
426	2X/2Y ø10/17.1	-4605	2480	-145194	SLU 16	2.5	27994	11.29	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
454	2X/2Y ø10/17.1	-4605	2480	-144931	SLU 16	2.5	27994	11.29	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
483	2X/2Y ø10/17.1	-4605	2480	-144668	SLU 16	2.5	27994	11.29	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
512	4X/5Y ø10/11.7	-4605	2480	-144406	SLU 16	1.5	92036	19.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
541	4X/5Y ø10/11.7	-4605	2480	-144143	SLU 16	1.5	92036	19.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si
570	4X/5Y ø10/11.7	-4605	2480	-143884	SLU 16	1.5	92036	19.98	-0.1	0	0	SLU 3	1402519.2	1.1	1.1	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
620	4X/5Y ø10/12	-4271	1732	-118323	SLU 16	1.6	78171	18.3	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
649	4X/5Y ø10/12	-4271	1732	-118102	SLU 16	1.6	78171	18.3	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
678	4X/5Y ø10/12	-4271	1732	-117879	SLU 16	1.6	78171	18.3	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
707	2X/2Y ø10/17.5	-4271	1732	-117651	SLU 16	2.5	43228	10.12	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
736	2X/2Y ø10/17.5	-4271	1732	-117426	SLU 16	2.5	43228	10.12	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
764	2X/2Y ø10/17.5	-4271	1732	-117200	SLU 16	2.5	43228	10.12	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
793	2X/2Y ø10/17.5	-4271	1732	-116975	SLU 16	2.5	43228	10.12	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
822	4X/4Y ø10/12	-4271	1732	-116750	SLU 16	1.6	78171	18.3	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
851	4X/4Y ø10/12	-4271	1732	-116524	SLU 16	1.6	78171	18.3	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
880	4X/4Y ø10/12	-4271	1732	-116303	SLU 16	1.6	78171	18.3	-0.1	0	0	SLU 4	1137830.4	1.1	1.1	1.02	Si
930	4X/4Y ø10/12	-5966	1657	-85989	SLU 16	1.6	78171	13.1	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
959	4X/4Y ø10/12	-5966	1657	-85768	SLU 16	1.6	78171	13.1	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
988	4X/4Y ø10/12	-5966	1657	-85545	SLU 16	1.6	78171	13.1	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1017	2X/2Y ø10/17.5	-5966	1657	-85317	SLU 16	2.5	43228	7.25	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1046	2X/2Y ø10/17.5	-5966	1657	-85092	SLU 16	2.5	43228	7.25	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1074	2X/2Y ø10/17.5	-5966	1657	-84866	SLU 16	2.5	43228	7.25	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1103	2X/2Y ø10/17.5	-5966	1657	-84641	SLU 16	2.5	43228	7.25	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1132	4X/4Y ø10/12	-5966	1657	-84416	SLU 16	1.6	78171	13.1	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1161	4X/4Y ø10/12	-5966	1657	-84190	SLU 16	1.6	78171	13.1	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1190	4X/4Y ø10/12	-5966	1657	-83969	SLU 16	1.6	78171	13.1	-0.1	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1240	4X/4Y ø10/12	-4250	1508	-52523	SLU 16	1.5	73127	17.21	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1269	4X/4Y ø10/12	-4250	1508	-52302	SLU 16	1.5	73127	17.21	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1298	4X/4Y ø10/12	-4250	1508	-52079	SLU 16	1.5	73127	17.21	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1327	2X/2Y ø10/17.5	-4250	1508	-51851	SLU 16	2.5	43228	10.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1356	2X/2Y ø10/17.5	-4250	1508	-51626	SLU 16	2.5	43228	10.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1384	2X/2Y ø10/17.5	-4250	1508	-51401	SLU 16	2.5	43228	10.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1413	2X/2Y ø10/17.5	-4250	1508	-51175	SLU 16	2.5	43228	10.17	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1442	4X/4Y ø10/12	-4250	1508	-50950	SLU 16	1.5	73127	17.21	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1471	4X/4Y ø10/12	-4250	1508	-50725	SLU 16	1.5	73127	17.21	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1500	4X/4Y ø10/12	-4250	1508	-50503	SLU 16	1.5	73127	17.21	-0.3	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1550	4X/4Y ø10/12	-5481	2709	-25586	SLU 15	1.4	70606	12.88	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1579	4X/4Y ø10/12	-5481	2709	-25365	SLU 15	1.4	70606	12.88	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1608	4X/4Y ø10/12	-5481	2709	-25142	SLU 15	1.4	68084	12.42	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1637	2X/2Y ø10/17.5	-5481	2754	-24914	SLU 15	2.5	43228	7.89	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1666	2X/2Y ø10/17.5	-5481	2754	-24689	SLU 15	2.5	43228	7.89	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1694	2X/2Y ø10/17.5	-5481	2754	-24464	SLU 15	2.5	43228	7.89	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1723	2X/2Y ø10/17.5	-5481	2754	-24238	SLU 15	2.5	43228	7.89	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1752	4X/4Y ø10/12	-5481	2709	-24013	SLU 15	1.4	68084	12.42	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1781	4X/4Y ø10/12	-5481	2754	-23788	SLU 15	1.4	68084	12.42	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si
1810	4X/4Y ø10/12	-5481	2754	-23566	SLU 15	1.4	68084	12.42	-0.5	0	0	SLU 1	1137830.4	1.1	1.1	1.02	Si

Verifica a taglio-torsione in famiglia SLV

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	48771	26076	-150703	SLV 15-Ger.	1	102703	2.11	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
29	4X/4Y ø10/5	48771	26076	-150504	SLV 15-Ger.	1	102703	2.11	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
58	4X/4Y ø10/5	48771	26076	-150302	SLV 15-Ger.	1	102703	2.11	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
87	2X/2Y ø10/17.1	48771	26076	-150100	SLV 15-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
116	2X/2Y ø10/17.1	48771	26076	-149898	SLV 15-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
144	2X/2Y ø10/17.1	48771	26076	-149695	SLV 15-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
173	2X/2Y ø10/17.1	48771	26076	-149493	SLV 15-Ger.	2.5	52195	1.07	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
202	4X/4Y ø10/11.7	48771	26076	-149291	SLV 15-Ger.	1.5	92035	1.89	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
231	4X/4Y ø10/11.7	48771	26076	-149089	SLV 15-Ger.	1.5	92035	1.89	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
260	4X/4Y ø10/11.7	48771	26076	-148890	SLV 15-Ger.	1.5	92035	1.89	7.6	0	0.0001	SLV 1	1402519.2	7.6	7.6	1.02	Si
310	4X/4Y ø10/11.7	47494	26683	-120031	SLV 15-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
339	4X/4Y ø10/11.7	47494	26683	-119833	SLV 15-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
368	4X/4Y ø10/11.7	47494	26683	-119632	SLV 15-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
397	2X/2Y ø10/17.1	47494	26683	-119428	SLV 15-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
426	2X/2Y ø10/17.1	47494	26683	-119226	SLV 15-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
454	2X/2Y ø10/17.1	47494	26683	-119024	SLV 15-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
483	2X/2Y ø10/17.1	47494	26683	-118822	SLV 15-Ger.	2.5	27993	1.05	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
512	4X/5Y ø10/11.7	47494	26683	-118619	SLV 15-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
541	4X/5Y ø10/11.7	47494	26683	-118417	SLV 15-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
570	4X/5Y ø10/11.7	47494	26683	-118218	SLV 15-Ger.	1.5	92034	1.94	14.2	0	0.0002	SLV 1	1402519.2	14.2	14.2	1.02	Si
620	4X/5Y ø10/12	36623	24195	-92330	SLV 15-Ger.	1.6	78170	2.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
649	4X/5Y ø10/12	36623	24195	-92159	SLV 15-Ger.	1.6	78170	2.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
678	4X/5Y ø10/12	36623	24195	-91988	SLV 15-Ger.	1.6	78170	2.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
707	2X/2Y ø10/17.5	36623	24195	-91813	SLV 15-Ger.	2.5	27421	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
736	2X/2Y ø10/17.5	36623	24195	-91639	SLV 15-Ger.	2.5	27421	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
764	2X/2Y ø10/17.5	36623	24195	-91466	SLV 15-Ger.	2.5	27421	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
793	2X/2Y ø10/17.5	36623	24195	-91293	SLV 15-Ger.	2.5	27421	1.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
822	4X/4Y ø10/12	36623	24195	-91119	SLV 15-Ger.	1.6	78170	2.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
851	4X/4Y ø10/12	36623	24195	-90946	SLV 15-Ger.	1.6	78170	2.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si
880	4X/4Y ø10/12	36623	24195	-90776	SLV 15-Ger.	1.6	78170	2.13	16.2	0	0.0002	SLV 1	1137830.4	16.2	16.2	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
930	4X/4Y ø10/12	30960	19907	-59245	SLV 11-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
959	4X/4Y ø10/12	30960	19907	-59075	SLV 11-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
988	4X/4Y ø10/12	30960	19907	-58903	SLV 11-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1017	2X/2Y ø10/17.5	31614	19907	-64691	SLV 15-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1046	2X/2Y ø10/17.5	31614	19907	-64517	SLV 15-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1074	2X/2Y ø10/17.5	31614	19907	-64344	SLV 15-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1103	2X/2Y ø10/17.5	31614	19907	-64171	SLV 15-Ger.	2.5	43226	1.37	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1132	4X/4Y ø10/12	30960	19907	-58035	SLV 11-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1161	4X/4Y ø10/12	30960	19907	-57861	SLV 11-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1190	4X/4Y ø10/12	30960	19907	-57691	SLV 11-Ger.	1.5	73125	2.36	18.9	0	0.0003	SLV 1	1137830.4	18.9	18.9	1.02	Si
1240	4X/4Y ø10/12	26863	16648	-39413	SLV 15-Ger.	1.4	70605	2.63	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1269	4X/4Y ø10/12	26863	16737	-39243	SLV 15-Ger.	1.4	70605	2.63	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1298	4X/4Y ø10/12	26863	16749	-39071	SLV 15-Ger.	1.4	70605	2.63	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1327	2X/2Y ø10/17.5	26863	16749	-38896	SLV 15-Ger.	2.5	43226	1.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1356	2X/2Y ø10/17.5	26863	16749	-38723	SLV 15-Ger.	2.5	43226	1.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1384	2X/2Y ø10/17.5	26863	16749	-38550	SLV 15-Ger.	2.5	43226	1.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1413	2X/2Y ø10/17.5	26863	16749	-38376	SLV 15-Ger.	2.5	43226	1.61	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1442	4X/4Y ø10/12	26863	16749	-38203	SLV 15-Ger.	1.4	70605	2.63	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1471	4X/4Y ø10/12	26863	16749	-38030	SLV 15-Ger.	1.4	70605	2.63	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1500	4X/4Y ø10/12	26863	16749	-37859	SLV 15-Ger.	1.4	70605	2.63	19.8	0	0.0003	SLV 1	1137830.4	19.8	19.8	1.02	Si
1550	4X/4Y ø10/12	23244	14471	-16507	SLV 15-Ger.	1.4	68083	2.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1579	4X/4Y ø10/12	23244	14471	-16336	SLV 15-Ger.	1.4	68083	2.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1608	4X/4Y ø10/12	23244	14471	-16165	SLV 15-Ger.	1.4	68083	2.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1637	2X/2Y ø10/17.5	23244	14471	-15990	SLV 15-Ger.	2.5	43226	1.86	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1666	2X/2Y ø10/17.5	23244	14471	-15816	SLV 15-Ger.	2.5	43226	1.86	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1694	2X/2Y ø10/17.5	23244	14471	-15643	SLV 15-Ger.	2.5	43226	1.86	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1723	2X/2Y ø10/17.5	23244	14471	-15470	SLV 15-Ger.	2.5	43226	1.86	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1752	4X/4Y ø10/12	23244	14471	-15296	SLV 15-Ger.	1.4	68083	2.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1781	4X/4Y ø10/12	23244	14471	-15123	SLV 15-Ger.	1.4	68083	2.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si
1810	4X/4Y ø10/12	23244	14471	-14953	SLV 15-Ger.	1.4	68083	2.93	19.3	0	0.0003	SLV 1	1137830.4	19.3	19.3	1.02	Si

Tagli plastici secondo §7.4.4.2.1 [7.4.5] in combinazione SLV

Q.inf.	Q.sup.	Luce	yRd	MRdx,inf	MRdy,inf	N,inf	MRdx,sup	MRdy,sup	N,sup	Vpl.x	Vpl.y	Comb.
0	260	260	1.1	3083696.2		-150703.1	3079690.9		-148890.1	48770.7		SLV 15
0	260	260	1.1		5767144.8	-150703.1		5760474.7	-148890.1		26075.9	SLV 15
310	570	260	1.1	2980146.6		-120031.4	3326633.1		-118218.4	47493.5		SLV 15
310	570	260	1.1		5582563.6	-120031.4		5643179.3	-118218.4		26682.5	SLV 15
620	880	260	1.1	3041873		-92329.6	2677016.9		-90775.6	36623		SLV 15
620	880	260	1.1		4399963.6	-92329.6		4256387.6	-90775.6		24195.3	SLV 15
930	1190	260	1.1	2482484.8		-65207.8	2222876.6		-63653.8	31613.9		SLV 15
930	1190	260	1.1		3958312.2	-65207.8		3514066.3	-63653.8		19907.3	SLV 15
1240	1500	260	1.1	1987708.5		-39413.2	1971119.6		-37859.2	26863.2		SLV 15
1240	1500	260	1.1		3185631.2	-39413.2		3163846.3	-37859.2		16748.9	SLV 15
1550	1810	260	1.1	1720843.1		-16506.6	1699556.3		-14952.6	23244		SLV 15
1550	1810	260	1.1		2764971.1	-16506.6		2729066.1	-14952.6		14470.9	SLV 15

Verifica a taglio-torsione in famiglia SLD Resistenza

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.V	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
0	4X/4Y ø10/5	-11165	949	-92949	SLD 3	1	101493	9.09	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
29	4X/4Y ø10/5	-11165	949	-92750	SLD 3	1	101451	9.09	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
58	4X/4Y ø10/5	-11165	949	-92548	SLD 3	1	101409	9.08	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
87	2X/2Y ø10/17.1	-11165	956	-92345	SLD 3	2.5	52196	4.68	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
116	2X/2Y ø10/17.1	-11165	956	-92143	SLD 3	2.5	52196	4.68	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
144	2X/2Y ø10/17.1	-11165	956	-91941	SLD 3	2.5	52196	4.68	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
173	2X/2Y ø10/17.1	-11165	956	-91739	SLD 3	2.5	52196	4.68	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
202	4X/4Y ø10/11.7	-11165	949	-91536	SLD 3	1.7	88451	7.92	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
231	4X/4Y ø10/11.7	-11165	949	-91334	SLD 3	1.7	88415	7.92	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
260	4X/4Y ø10/11.7	-11165	949	-91136	SLD 3	1.7	88379	7.92	4	0	0.0001	SLD 1	1402519.2	4	4	1.02	Si
310	4X/4Y ø10/11.7	-11506	1642	-76321	SLD 3	1.7	85686	7.45	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
339	4X/4Y ø10/11.7	-11506	1642	-76122	SLD 3	1.7	85650	7.44	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
368	4X/4Y ø10/11.7	-11506	1642	-75922	SLD 3	1.7	85613	7.44	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
397	2X/2Y ø10/17.1	-11506	1648	-75718	SLD 3	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
426	2X/2Y ø10/17.1	-11506	1648	-75516	SLD 3	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
454	2X/2Y ø10/17.1	-11506	1648	-75314	SLD 3	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
483	2X/2Y ø10/17.1	-11506	1648	-75111	SLD 3	2.5	52195	4.54	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
512	4X/5Y ø10/11.7	-11506	1648	-74909	SLD 3	1.7	85429	7.42	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
541	4X/5Y ø10/11.7	-11506	1648	-74707	SLD 3	1.7	85392	7.42	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
570	4X/5Y ø10/11.7	-11506	1648	-74508	SLD 3	1.7	85356	7.42	7.5	0	0.0001	SLD 1	1402519.2	7.5	7.5	1.02	Si
620	4X/5Y ø10/12	-9371	1321	-63277	SLD 3	1.7	72058	7.69	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
649	4X/5Y ø10/12	-9371	1321	-63107	SLD 3	1.7	72028	7.69	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
678	4X/5Y ø10/12	-9371	1321	-62935	SLD 3	1.7	71997	7.68	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
707	2X/2Y ø10/17.5	-9371	1321	-62760	SLD 3	2.5	43227	4.61	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
736	2X/2Y ø10/17.5	-9371	1321	-62587	SLD 3	2.5	43227	4.61	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
764	2X/2Y ø10/17.5	-9371	1321	-62413	SLD 3	2.5	43227	4.61	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si

TABULATO DI CALCOLO – FABBRICATO B

Quota	Staffe	Ved.x	Ved.y	Ned	Comb.V	Cot	Vres	c.s.v	Mt	As,t	Al,t	Comb.Tor.	Trcd	Trsd	Trld	c.s.V-T	Ver.
793	2X/2Y ø10/17.5	-9371	1321	-62240	SLD 3	2.5	43227	4.61	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
822	4X/4Y ø10/12	-9371	1321	-62067	SLD 3	1.7	71841	7.67	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
851	4X/4Y ø10/12	-9371	1321	-61893	SLD 3	1.7	71810	7.66	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
880	4X/4Y ø10/12	-9371	1321	-61723	SLD 3	1.7	71780	7.66	8.5	0	0.0001	SLD 1	1137830.4	8.5	8.5	1.02	Si
930	4X/4Y ø10/12	-8715	1308	-47457	SLD 3	1.7	69222	7.94	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
959	4X/4Y ø10/12	-8715	1308	-47286	SLD 3	1.7	69191	7.94	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
988	4X/4Y ø10/12	-8715	1308	-47115	SLD 3	1.7	69161	7.94	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1017	2X/2Y ø10/17.5	-8715	1308	-46940	SLD 3	2.5	43227	4.96	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1046	2X/2Y ø10/17.5	-8715	1308	-46766	SLD 3	2.5	43227	4.96	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1074	2X/2Y ø10/17.5	-8715	1308	-46593	SLD 3	2.5	43227	4.96	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1103	2X/2Y ø10/17.5	-8715	1308	-46420	SLD 3	2.5	43227	4.96	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1132	4X/4Y ø10/12	-8715	1308	-46246	SLD 3	1.7	69005	7.92	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1161	4X/4Y ø10/12	-8715	1308	-46073	SLD 3	1.7	68974	7.91	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1190	4X/4Y ø10/12	-8715	1308	-45903	SLD 3	1.7	68943	7.91	9.9	0	0.0001	SLD 1	1137830.4	9.9	9.9	1.02	Si
1240	4X/4Y ø10/12	-6229	1090	-30279	SLD 3	1.7	67086	10.77	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1269	4X/4Y ø10/12	-6229	1090	-30109	SLD 3	1.7	67055	10.77	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1298	4X/4Y ø10/12	-6229	1090	-29937	SLD 3	1.7	67023	10.76	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1327	2X/2Y ø10/17.5	-6229	1090	-29762	SLD 3	2.5	43227	6.94	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1356	2X/2Y ø10/17.5	-6229	1090	-29589	SLD 3	2.5	43227	6.94	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1384	2X/2Y ø10/17.5	-6229	1090	-29416	SLD 3	2.5	43227	6.94	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1413	2X/2Y ø10/17.5	-6229	1090	-29242	SLD 3	2.5	43227	6.94	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1442	4X/4Y ø10/12	-6229	1090	-29069	SLD 3	1.7	66865	10.74	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1471	4X/4Y ø10/12	-6229	1090	-28896	SLD 3	1.7	66834	10.73	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1500	4X/4Y ø10/12	-6229	1090	-28725	SLD 3	1.7	66803	10.73	10.2	0	0.0001	SLD 1	1137830.4	10.2	10.2	1.02	Si
1550	4X/4Y ø10/12	-5910	1947	-13345	SLD 3	1.6	64900	10.98	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1579	4X/4Y ø10/12	-5910	1947	-13175	SLD 3	1.6	64868	10.98	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1608	4X/4Y ø10/12	-5910	1947	-13003	SLD 3	1.6	64837	10.97	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1637	2X/2Y ø10/17.5	-5910	1947	-12828	SLD 3	2.5	43227	7.31	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1666	2X/2Y ø10/17.5	-5910	1947	-12655	SLD 3	2.5	43227	7.31	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1694	2X/2Y ø10/17.5	-5910	1947	-12481	SLD 3	2.5	43227	7.31	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1723	2X/2Y ø10/17.5	-5910	1947	-12308	SLD 3	2.5	43227	7.31	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1752	4X/4Y ø10/12	-5910	1947	-12135	SLD 3	1.6	64677	10.94	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1781	4X/4Y ø10/12	-5910	1947	-11961	SLD 3	1.6	64645	10.94	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si
1810	4X/4Y ø10/12	-5910	1947	-11791	SLD 3	1.6	64613	10.93	9.8	0	0.0001	SLD 1	1137830.4	9.8	9.8	1.02	Si

Verifica delle tensioni in combinazioni rara

Tensione limite del calcestruzzo 149.4 daN/cm²

Tensione limite dell'acciaio 3600 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Mx	My	N	Comb.	σf,max	Verifica
0	-63000	156235	-131587	SLE RA 8	-47.4	-63000	156235	-131587	SLE RA 8	-689.7	Si
29	-40030	94889	-131388	SLE RA 8	-44.8	-40030	94889	-131388	SLE RA 8	-658.8	Si
58	-16656	32464	-131186	SLE RA 8	-42.2	-16656	32464	-131186	SLE RA 8	-627.3	Si
87	6718	-29962	-130984	SLE RA 8	-41.6	6718	-29962	-130984	SLE RA 8	-620.8	Si
116	30092	-92388	-130781	SLE RA 8	-44.1	30092	-92388	-130781	SLE RA 8	-650.4	Si
144	53466	-154814	-130579	SLE RA 8	-46.7	53466	-154814	-130579	SLE RA 8	-680	Si
173	76840	-217240	-130377	SLE RA 8	-49.2	76840	-217240	-130377	SLE RA 8	-709.6	Si
202	100215	-279666	-130175	SLE RA 8	-51.7	100215	-279666	-130175	SLE RA 8	-739.2	Si
231	123589	-342092	-129972	SLE RA 8	-54.3	123589	-342092	-129972	SLE RA 8	-768.7	Si
260	146558	-403438	-129774	SLE RA 8	-56.8	146558	-403438	-129774	SLE RA 8	-797.8	Si
310	-262206	558289	-105973	SLE RA 8	-58.4	-262206	558289	-105973	SLE RA 8	-790.9	Si
339	-211884	464545	-105774	SLE RA 8	-53.8	-211884	464545	-105774	SLE RA 8	-736.8	Si
368	-161168	370066	-105574	SLE RA 8	-49.1	-161168	370066	-105574	SLE RA 8	-682.2	Si
397	-109468	273753	-105370	SLE RA 8	-44.3	-109468	273753	-105370	SLE RA 8	-626.6	Si
426	-58260	178358	-105168	SLE RA 8	-39.6	-58260	178358	-105168	SLE RA 8	-571.5	Si
454	-7052	82962	-104965	SLE RA 8	-34.9	-7052	82962	-104965	SLE RA 8	-516.4	Si
483	44156	-12434	-104763	SLE RA 8	-34.7	44156	-12434	-104763	SLE RA 8	-510.7	Si
512	95364	-107830	-104561	SLE RA 8	-38.9	95364	-107830	-104561	SLE RA 8	-558.1	Si
541	146572	-203225	-104359	SLE RA 8	-43	146572	-203225	-104359	SLE RA 8	-604.8	Si
570	196894	-296970	-104160	SLE RA 8	-47.2	196894	-296970	-104160	SLE RA 8	-652.6	Si
620	-181914	329640	-85595	SLE RA 8	-49	-181914	329640	-85595	SLE RA 8	-665	Si
649	-146896	243107	-85424	SLE RA 8	-44.9	-146896	243107	-85424	SLE RA 8	-618.2	Si
678	-111603	155897	-85253	SLE RA 8	-40.7	-111603	155897	-85253	SLE RA 8	-570.3	Si
707	-75626	66993	-85078	SLE RA 8	-36.2	-75626	66993	-85078	SLE RA 8	-519.2	Si
736	-39991	-21064	-84904	SLE RA 8	-32.8	-39991	-21064	-84904	SLE RA 8	-480.4	Si
764	-4356	-109121	-84731	SLE RA 8	-33.8	-4356	-109121	-84731	SLE RA 8	-494.9	Si
793	31279	-197177	-84558	SLE RA 8	-38	31279	-197177	-84558	SLE RA 8	-543.9	Si
822	66915	-285234	-84384	SLE RA 8	-42.7	66915	-285234	-84384	SLE RA 8	-597.6	Si
851	102550	-373291	-84211	SLE RA 8	-47.3	102550	-373291	-84211	SLE RA 8	-651.3	Si
880	137568	-459824	-84041	SLE RA 8	-51.9	137568	-459824	-84041	SLE RA 8	-704.1	Si
930	-165250	642666	-62219	SLE RA 8	-51.6	-165250	642666	-62219	SLE RA 8	-767.4	Si
959	-131771	522240	-62049	SLE RA 8	-46.1	-131771	522240	-62049	SLE RA 8	-613.3	Si
988	-98029	400872	-61877	SLE RA 8	-40.4	-98029	400872	-61877	SLE RA 8	-546.8	Si
1017	-63632	277146	-61702	SLE RA 8	-35.3	-63632	277146	-61702	SLE RA 8	-487.5	Si
1046	-29563	154600	-61529	SLE RA 8	-29.2	-29563	154600	-61529	SLE RA 8	-415.8	Si
1074	4506	32053	-61355	SLE RA 8	-23.6	4506	32053	-61355	SLE RA 8	-349.2	Si
1103	38575	-90494	-61182	SLE RA 8	-27.3	38575	-90494	-61182	SLE RA 8	-392.3	Si
1132	72644	-213041	-61009	SLE RA 8	-33.3	72644	-213041	-61009	SLE RA 8	-462.2	Si
1161	106713	-335587	-60835	SLE RA 8	-39.3	106713	-335587	-60835	SLE RA 8	-532	Si
1190	140193	-456013	-60665	SLE RA 8	-45.1	140193	-456013	-60665	SLE RA 8	-600.7	Si
1240	-159800	454920	-38058	SLE RA 8	-37.9	-159800	454920	-38058	SLE RA 8	-488.8	Si
1269	-129621	368782	-37888	SLE RA 8	-33.3	-129621	368782	-37888	SLE RA 8	-434.5	Si
1298	-99207	281970	-37716	SLE RA 8	-28.6	-99207	281970	-37716	SLE RA 8	-379.8	Si
1327	-68202	193473	-37541	SLE RA 8	-23.9	-67366	182002	-38571	SLE RA 7	-324.3	Si
1356	-42940	107061	-38398	SLE RA 7	-19.9	-42940	107061	-38398	SLE RA 7	-278	Si
1384	-18514	32120	-38225	SLE RA 7	-15.9	-18514	32120	-38225	SLE RA 7	-231.7	Si
1413	23927	-69492	-37021	SLE RA 8	-17.1	23927	-69492	-37021	SLE RA 8	-243.9	Si
1442	54636	-157147	-36848	SLE RA 8	-21.7	54636	-157147	-36848	SLE RA 8	-297.2	Si
1471	85346	-244802	-36674	SLE RA 8	-26.2	85346	-244802	-36674	SLE RA 8	-350.6	Si
1500	115524	-330940	-36504	SLE RA 8	-30.8	115524	-330940	-36504	SLE RA 8	-403	Si
1550	-207912	461571	-18332	SLE RA 7	-46.6	-191393	434079	-15644	SLE RA 8	571.4	Si
1579	-152165	351090	-18162	SLE RA 7	-33.3	-152165	351090	-18162	SLE RA 7	-398.4	Si
1608	-95982	239743	-17990	SLE RA 7	-19.9	-95982	239743	-17990	SLE RA 7	-253.1	Si
1637	-56303	156876	-15127	SLE RA 8	-13.9	-56303	156876	-15127	SLE RA 8	-180.1	Si
1666	-11012	63939	-14953	SLE RA 8	-8.2	-11012	63939	-14953	SLE RA 8	-114.3	Si
1694	88637	-118127	-16037	SLE RA 6	-14.6	88637	-118127	-16037	SLE RA 6	-187.5	Si
1723	144502	-224646	-15863	SLE RA 6	-21.2	144502	-224646	-15863	SLE RA 6	-263.2	Si
1752	200367	-331165	-15690	SLE RA 6	-37.8	200367	-331165	-15690	SLE RA 6	-436	Si
1781	256232	-437684	-15517	SLE RA 6	-51.6	256232	-437684	-15517	SLE RA 6	720.8	Si
1810	311130	-542359	-15346	SLE RA 6	-65.2	311130	-542359	-15346	SLE RA 6	1035.1	Si

Verifica delle tensioni sul calcestruzzo in combinazioni quasi permanenti

Tensione limite del calcestruzzo 112.1 daN/cm²

Coefficiente di omogeneizzazione impiegato 15

Quota	Mx	My	N	Comb.	σc,max	Verifica
0	-52143	121356	-111173	SLE QP 4	-39.8	Si
29	-33025	73573	-110974	SLE QP 4	-37.7	Si
58	-13570	24948	-110772	SLE QP 4	-35.5	Si
87	5885	-23677	-110570	SLE QP 4	-35.1	Si
116	25340	-72301	-110368	SLE QP 4	-37.1	Si
144	44795	-120926	-110165	SLE QP 4	-39.1	Si
173	64250	-169550	-109963	SLE QP 4	-41.1	Si
202	83704	-218175	-109761	SLE QP 4	-43.2	Si
231	103159	-266800	-109559	SLE QP 4	-45.2	Si
260	122277	-314583	-109360	SLE QP 4	-47.1	Si
310	-218639	452984	-90002	SLE QP 4	-48.9	Si
339	-176585	374104	-89804	SLE QP 4	-45	Si
368	-134203	294606	-89603	SLE QP 4	-41.1	Si
397	-90997	213564	-89399	SLE QP 4	-37.1	Si
426	-48202	133295	-89197	SLE QP 4	-33.1	Si
454	-5408	53025	-88995	SLE QP 4	-29.1	Si
483	37386	-27245	-88792	SLE QP 4	-29.8	Si
512	80181	-107514	-88590	SLE QP 4	-33.3	Si
541	122975	-187784	-88388	SLE QP 4	-36.8	Si
570	165029	-266665	-88189	SLE QP 4	-40.3	Si
620	-151366	278557	-72188	SLE QP 4	-41.2	Si
649	-122304	208732	-72018	SLE QP 4	-37.9	Si
678	-93014	138359	-71846	SLE QP 4	-34.4	Si
707	-63155	66621	-71671	SLE QP 4	-30.8	Si
736	-33581	-4434	-71498	SLE QP 4	-27.1	Si
764	-4006	-75490	-71325	SLE QP 4	-27.9	Si
793	25568	-146545	-71151	SLE QP 4	-31.3	Si
822	55143	-217600	-70978	SLE QP 4	-35.1	Si
851	84717	-288656	-70805	SLE QP 4	-38.9	Si
880	113779	-358481	-70634	SLE QP 4	-42.6	Si
930	-138983	496878	-52790	SLE QP 4	-42.2	Si
959	-110449	402650	-52619	SLE QP 4	-37.7	Si
988	-81691	307684	-52448	SLE QP 4	-33.1	Si
1017	-52375	210875	-52273	SLE QP 4	-29	Si
1046	-23338	114988	-52099	SLE QP 4	-24.1	Si
1074	5699	19100	-51926	SLE QP 4	-19.8	Si
1103	34736	-76787	-51753	SLE QP 4	-23.2	Si
1132	63773	-172675	-51579	SLE QP 4	-28	Si
1161	92810	-268562	-51406	SLE QP 4	-32.8	Si
1190	121345	-362790	-51236	SLE QP 4	-37.5	Si
1240	-130056	367102	-32932	SLE QP 4	-31.5	Si
1269	-106643	298107	-32762	SLE QP 4	-27.8	Si
1298	-83047	228572	-32590	SLE QP 4	-24.1	Si
1327	-58993	157687	-32415	SLE QP 4	-20.3	Si
1356	-35168	87476	-32242	SLE QP 4	-16.6	Si
1384	-11343	17266	-32068	SLE QP 4	-12.8	Si
1413	12482	-52944	-31895	SLE QP 4	-14	Si
1442	36307	-123154	-31722	SLE QP 4	-17.7	Si
1471	60132	-193365	-31548	SLE QP 4	-21.3	Si
1500	83545	-262360	-31378	SLE QP 4	-24.8	Si
1550	-173202	385132	-14212	SLE QP 4	-39.4	Si
1579	-129543	299609	-14041	SLE QP 4	-28.9	Si
1608	-85543	213418	-13870	SLE QP 4	-16.9	Si
1637	-40688	125552	-13695	SLE QP 4	-11.4	Si
1666	3740	38523	-13521	SLE QP 4	-6.4	Si
1694	54120	-56865	-12734	SLE QP 3	-9.5	Si
1723	98177	-141362	-12561	SLE QP 3	-14.6	Si
1752	142235	-225858	-12388	SLE QP 3	-19.8	Si
1781	186292	-310355	-12214	SLE QP 3	-36.5	Si
1810	229587	-393389	-12044	SLE QP 3	-47.3	Si

Verifica di apertura delle fessure nella famiglia di combinazioni frequente

Fessurazione non presente

Verifica di apertura delle fessure nella famiglia di combinazioni quasi permanente

Fessurazione non presente

Verifiche nodi trave colonna

Riepilogo dei dati per le diverse tipologie di verifica eseguite per i nodi

Pilastrata	Q.Nodo	Escluso	Confinato	Segnalazioni
Pilastrata 10	285	No	No	
Pilastrata 10	595	No	No	
Pilastrata 10	905	No	No	
Pilastrata 10	1215	No	No	
Pilastrata 10	1525	No	No	
Pilastrata 10	1835	No	No	

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	285	0.885	0.763	0.675	0.295	0.199	0.346	0.172	5	13.9	1.158	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	595	0.837	0.827	0.692	0.206	0.143	0.276	0.13	7.1	14.2	1.1	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD

Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	905	0.8	0.789	0.631	0.184	0.116	0.239	0.108	8.3	13.9	1.079	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	1215	0.763	0.786	0.6	0.154	0.092	0.149	0.054	10	12.8	1.713	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	1525	0.763	0.786	0.6	0.154	0.092	0.064	0.003	10	12.8	28.647	SLD 11	Si

Verifiche nodi trave colonna in combinazioni SLD**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLD 1	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	285	0.885	0.763	0.675	0.295	0.199	0.369	0.185	5	13.9	1.073	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	595	0.837	0.827	0.692	0.206	0.143	0.292	0.14	7.1	14.2	1.022	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	905	0.8	0.789	0.631	0.184	0.116	0.252	0.116	8.3	13.9	1.006	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	1215	0.763	0.786	0.6	0.154	0.092	0.156	0.058	10	12.8	1.579	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	1525	0.763	0.786	0.6	0.154	0.092	0.067	0.005	10	12.8	18.208	SLV 11	Si

Verifiche nodi trave colonna in combinazioni SLV**Riepilogo dei dati per la verifica del nodo secondo EC8 §5.4.3.3**

Pilastrata	Q.Nodo	α,s	α,n	α	ω,wd	αω,wd	v,d	lim. [5.15]	passo	passo limite	c.s.	Comb.	Verifica
Pilastrata 10	1835	0.719	0.786	0.565	0.154	0.087	0	-0.035	10	12.8	1000	SLV 1	Si

Verifica di instabilità

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
-60	285	0	30	17	37	37	No	-181642	SLU 16	99355	313418	272860	176387	-99355	272860	2.36	2.36	Min	No	2.36	Si
-60	285	0	30	17	37	37	No	-181642	SLU 16	99355	313418	272860	176387	-99355	272860	2.36	2.36	X	No	2.36	Si
-60	285	260	30	17	44	44	No	-129265	SLD 16	57750	274764	1138943	161929	117173	1138943	3.31	2.91	Min	No	2.87	Si
-60	285	0	30	17	43	43	No	-131242	SLD 15	57663	250278	1135597	106228	-77469	-1770976	3.26		X	Si		Si
-60	285	231.1	30	17	41	41	No	-145647	SLV 14	80677	298105	2237043	175905	116738	2237043	2.94	2.08	Min	No	2.06	Si
-60	285	0	30	17	40	40	No	-150703	SLV 15	59476	272121	2223415	119456	-99407	-3612273	2.84		X	Si		Si
-60	285	0	30	17	37	37	No	-181642	SLU 16	99355	313418	272860	176387	-99355	272860	2.36	2.36	Min	No	2.36	Si
-60	285	0	30	17	37	37	No	-181642	SLU 16	99355	313418	272860	176387	-99355	272860	2.36	2.36	Y	No	2.36	Si
-60	285	0	30	17	43	43	No	-131078	SLD 16	57750	255720	1138943	106079	-70705	-1777416		2.45	Min	Si		Si
-60	285	0	30	17	43	43	No	-131078	SLD 16	57750	255720	1138943	106079	-70705	-1777416		2.45	Y	Si		Si
-60	285	0	30	17	59	59	No	-71957	SLV 1	71957	152951	2194787	56961	-71957	3867269		1.38	Min	Si		Si
-60	285	0	30	17	59	59	No	-71957	SLV 1	71957	152951	2194787	56961	-71957	3867269		1.38	Y	Si		Si
285	595	310	27	15	41	41	No	-146241	SLU 16	159738	222289	336581	125421	-367098	781582	2.93	2.87	Min	No	2.71	Si
285	595	310	27	15	41	41	No	-146241	SLU 16	159738	222289	336581	125421	-367098	781582	2.93	2.87	X	No	2.71	Si
285	595	310	27	15	48	48	No	-105260	SLD 15	101973	180778	365606	89437	-234939	-809478	4.07		Min	Si		Si
285	595	310	27	15	48	48	No	-105260	SLD 15	101973	180778	365606	89437	-234939	-809478	4.07		X	Si		Si
285	595	454.4	27	15	46	46	No	-118755	SLV 16	105110	163459	898071	121573	-105110	-898071	3.61	3.3	Min	No	3.26	Si
285	595	310	27	15	45	45	No	-120031	SLV 15	107891	202410	889855	58559	-249086	-2040986	3.57		X	Si		Si
285	595	310	27	15	41	41	No	-146241	SLU 16	159738	222289	336581	125421	-367098	781582	2.93	2.87	Min	No	2.71	Si
285	595	310	27	15	41	41	No	-146241	SLU 16	159738	222289	336581	125421	-367098	781582	2.93	2.87	Y	No	2.71	Si
285	595	310	27	15	57	57	No	-76321	SLD 3	101432	131294	756012	55756	-233733	1740578		3.14	Min	Si		Si
285	595	310	27	15	57	57	No	-76321	SLD 3	101432	131294	756012	55756	-233733	1740578		3.14	Y	Si		Si
285	595	310	27	15	63	63	No	-62914	SLV 3	106866	106391	1301663	43233	-246817	2994435		1.85	Min	Si		Si
285	595	310	27	15	63	63	No	-62914	SLV 3	106866	106391	1301663	43233	-246817	2994435		1.85	Y	Si		Si
595	905	880	27	18	43	43	No	-112437	SLU 15	102040	174426	290202	114701	175588	-578284	3.41	3.24	Min	No	3.17	Si
595	905	706.7	27	18	42	42	No	-117651	SLU 16	111030	178793	323559	125540	-111030	323559	3.26	3.26	X	No	3.26	Si
595	905	620	27	18	54	54	No	-71472	SLD 7	93439	113010	322144	67611	-216436	613033	5.46	4.68	Min	No	4.35	Si
595	905	706.7	27	18	51	51	No	-81926	SLD 15	72854	135739	302207	68045	-76037	-335326	4.68		X	Si		Si
595	905	764.4	27	18	63	63	No	-53691	SLV 3	84763	73436	1011610	63859	-84763	-1011610	7.13	4.06	Min	No	3.95	Si
595	905	706.7	27	18	48	48	No	-91813	SLV 15	78753	146367	718654	71855	-87242	-727125	4.17		X	Si		Si
595	905	880	27	18	43	43	No	-116303	SLU 16	111030	176279	323559	115223	193640	-646584		3.09	Min	Si		Si
595	905	880	27	18	43	43	No	-116303	SLU 16	111030	176279	323559	115223	193640	-646584		3.09	Y	Si		Si
595	905	620	27	18	58	58	No	-63277	SLD 3	75903	106266	601720	53106	-174783	1282908		3.36	Min	Si		Si
595	905	620	27	18	58	58	No	-63277	SLD 3	75903	106266	601720	53106	-174783	1282908		3.36	Y	Si		Si
595	905	620	27	18	62	62	No	-54555	SLV 3	84763	88676	1011610	43480	-195436	2261327		1.98	Min	Si		Si
595	905	620	27	18	62	62	No	-54555	SLV 3	84763	88676	1011610	43480	-195436	2261327		1.98	Y	Si		Si
905	1215	1190	27	18	50	50	No	-83969	SLU 16	103772	128746	392925	83665	196482	-640526	4.35	3.79	Min	No	3.6	Si
905	1215	1016.7	27	18	50	50	No	-85317	SLU 16	103772	128956	392925	83894	-103772	392925	4.28		X	Si		Si
905	1215	1190	27	18	61	61	No	-57476	SLD 16	63526	100948	192062	68361	120602	357335	6.36	5.85	Min	No	5.6	Si
905	1215	1016.7	27	18	60	60	No	-58612	SLD 15	64567	101134	189969	69713	-64567	189969	6.23	6.23	X	No	6.23	Si
905	1215	1016.7	27	18	57	57	No	-64502	SLV 16	62852	112221	529663	76717	-62852	-529663	5.66	4.82	Min	No	4.75	Si

TABULATO DI CALCOLO – FABBRICATO B

Q.inf.	Q.sup.	Quota	λ,x	λ,y	λ,limX	λ,limY	M 2° ord.	Nsd	Comb.	M0ed,x	M2,x	M0ed,y	M2,y	Mver,x	Mver,y	C.s x	C.s y	Risultato	(5.38)	(5.39)	Ver.
905	1215	1016.7	27	18	57	57	No	-64691	SLV 15	64838	110298	520872	76942	-64838	-520872	5.65	4.83	X	No	4.76	Si
905	1215	930	27	18	50	50	No	-85989	SLU 16	103772	130815	392925	84987	-232560	904750		3.46	Min	Si		Si
905	1215	930	27	18	50	50	No	-85989	SLU 16	103772	130815	392925	84987	-232560	904750		3.46	Y	Si		Si
905	1215	1190	27	18	68	68	No	-45903	SLD 3	72058	77872	573340	40834	135684	-1102802		3.71	Min	Si		Si
905	1215	1190	27	18	68	68	No	-45903	SLD 3	72058	77872	573340	40834	135684	-1102802		3.71	Y	Si		Si
905	1215	1190	27	18	72	72	No	-40697	SLV 3	82332	67140	940925	33824	148871	-1823169		2.06	Min	Si		Si
905	1215	1190	27	18	72	72	No	-40697	SLV 3	82332	67140	940925	33824	148871	-1823169		2.06	Y	Si		Si
1215	1525	1240	27	18	63	63	No	-52523	SLU 16	98022	79253	277000	52545	-225450	637255	6.28	5.06	Min	No	4.46	Si
1215	1525	1240	27	18	63	63	No	-52523	SLU 16	98022	79253	277000	52545	-225450	637255	6.28	5.06	X	No	4.46	Si
1215	1525	1240	27	18	80	80	No	-33104	SLD 7	74973	53340	250145	34378	-173271	555540	9.4	6.68	Min	No	5.74	Si
1215	1525	1240	27	18	78	78	No	-34896	SLD 11	73439	56547	133363	41505	-169749	310155	9.13	8.67	X	No	7.35	Si
1215	1525	1268.9	27	18	80	80	No	-32995	SLV 7	91279	50476	352417	32098	-173602	577316	9.42	6.52	Min	No	5.61	Si
1215	1525	1240	27	18	76	76	No	-36681	SLV 11	88261	56651	128390	43627	-204117	249103	8.32	8.96	X	No	7.22	Si
1215	1525	1240	27	18	63	63	No	-52523	SLU 16	98022	79253	277000	52545	-225450	637255	6.28	5.06	Min	No	4.46	Si
1215	1525	1240	27	18	63	63	No	-52523	SLU 16	98022	79253	277000	52545	-225450	637255	6.28	5.06	Y	No	4.46	Si
1215	1525	1500	27	18	86	86	No	-28725	SLD 3	64486	48392	423487	25424	95632	-822669		4.98	Min	Si		Si
1215	1525	1500	27	18	86	86	No	-28725	SLD 3	64486	48392	423487	25424	95632	-822669		4.98	Y	Si		Si
1215	1525	1500	27	18	90	90	No	-26141	SLV 3	71873	42655	695973	21646	106569	-1365422		2.62	Min	Si		Si
1215	1525	1500	27	18	90	90	No	-26141	SLV 3	71873	42655	695973	21646	106569	-1365422		2.62	Y	Si		Si
1525	1835	1810	27	18	99	99	No	-21418	SLU 14	216186	31662	385793	20838	437527	-767863	5.87	5.19	Min	No	3.15	Si
1525	1835	1810	27	18	99	99	No	-21418	SLU 14	216186	31662	385793	20838	437527	-767863	5.87	5.19	X	No	3.15	Si
1525	1835	1810	27	18	128	128	No	-12849	SLD 7	143673	21116	308730	13302	285189	-604783	8.89	6.11	Min	No	4.16	Si
1525	1835	1810	27	18	128	128	No	-12849	SLD 7	143673	21116	308730	13302	285189	-604783	8.89	6.11	X	No	4.16	Si
1525	1835	1810	27	18	128	128	No	-12985	SLV 7	169877	20389	405756	9630	337218	-798894	7.26	4.26	Min	No	3.14	Si
1525	1835	1810	27	18	128	128	No	-12985	SLV 7	169877	20389	405756	9630	337218	-798894	7.26	4.26	X	No	3.14	Si
1525	1835	1810	27	18	99	99	No	-21418	SLU 14	216186	31662	385793	20838	437527	-767863	5.87	5.19	Min	No	3.15	Si
1525	1835	1810	27	18	99	99	No	-21418	SLU 14	216186	31662	385793	20838	437527	-767863	5.87	5.19	Y	No	3.15	Si
1525	1835	1810	27	18	134	134	No	-11791	SLD 3	125033	20215	431714	8744	248067	-855036		3.82	Min	Si		Si
1525	1835	1810	27	18	134	134	No	-11791	SLD 3	125033	20215	431714	8744	248067	-855036		3.82	Y	Si		Si
1525	1835	1810	27	18	139	139	No	-10945	SLV 3	135345	18311	650129	8117	268440	-1295997		2.26	Min	Si		Si
1525	1835	1810	27	18	139	139	No	-10945	SLV 3	135345	18311	650129	8117	268440	-1295997		2.26	Y	Si		Si

Verifiche di gerarchia delle resistenze nei nodi trave pilastro

Verifiche della gerarchia resistenza nodi trave-pilastro D.M. 17-01-18 (N.T.C.) D.M. 17-01-18 (N.T.C.) In combinazioni SLV, yrd = 1,3

Q.nodo	Angolo	yrd * Σ(Mb,rd)	Verifica	Σ(Mc,rd)	Mc,inf	Mc,sup	c.s.	Comb.	Segnalazioni	Verifica
285	180	8384614	<	9668731	4914312	4754419	1.153	SLV 2		Si
285	270	759417	<	5111719	2602722	2508997	6.731	SLV 2		Si
285	360	8384614	<	9668731	4914312	4754419	1.153	SLV 2		Si
595	180	9014695	<	9199084	5100975	4098110	1.02	SLV 2		Si
595	270	759417	<	5554976	2842343	2712633	7.315	SLV 2		Si
595	360	9014695	<	9199084	5100975	4098110	1.02	SLV 2		Si
905	180	6447088	<	7387922	3764803	3623119	1.146	SLV 2		Si
905	270	740999	<	4583447	2344830	2238617	6.185	SLV 2		Si
905	360	6447088	<	7387922	3764803	3623119	1.146	SLV 2		Si
1215	180	5591364	<	6144807	3177264	2967543	1.099	SLV 2		Si
1215	270	740999	<	3830823	1981339	1849483	5.17	SLV 2		Si
1215	360	5591364	<	6144807	3177264	2967543	1.099	SLV 2		Si
1525	180	4251962	<	5595079	2936059	2659020	1.316	SLV 2		Si
1525	270	740999	<	3490923	1832894	1658028	4.711	SLV 2		Si
1525	360	4251962	<	5595079	2936059	2659020	1.316	SLV 2		Si

3.3 Verifiche travate C.A.

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

N°: indice progressivo della sezione.

Descrizione: descrizione della sezione.

Tipo: tipo di sezione.

Base: base della sezione. [cm]

Altezza: altezza della sezione. [cm]

Copriferro sup.: distanza del bordo della staffa dalla superficie superiore del getto. [cm]

Copriferro inf.: distanza del bordo della staffa dalla superficie inferiore del getto. [cm]

Copriferro lat.: distanza del bordo della staffa dalle superfici laterali del getto. [cm]

x: distanza da asse appoggio sinistro. [cm]

A sup.: area efficace di armatura longitudinale superiore. [cm²]

C.b. sup.: distanza dal bordo del baricentro dell'armatura longitudinale superiore. [cm]

A inf.: area efficace di armatura longitudinale inferiore. [cm²]

C.b. inf.: distanza dal bordo del baricentro dell'armatura longitudinale inferiore. [cm]

M+ela: momento flettente desunto dal solutore che tende le fibre inferiori. [daN*cm]

Comb.: combinazione.

M+des: momento flettente di progetto che tende le fibre inferiori. [daN*cm]

M+ult: momento ultimo per trazione delle fibre inferiori. [daN*cm]

x/d: rapporto tra posizione asse neutro e altezza utile.

M-ela: momento flettente desunto dal solutore che tende le fibre superiori. [daN*cm]

M-des: momento flettente di progetto che tende le fibre superiori. [daN*cm]

M-ult: momento ultimo per trazione delle fibre superiori. [daN*cm]

Verifica: stato di verifica.

A st: area di staffe per unità di lunghezza. [cm²]

A sl: area di armatura longitudinale tesa per valutazione resistenza taglio in assenza di armature a taglio. [cm²]

A sag: area equivalente di barre piegate per unità di lunghezza. [cm²]

Vela: taglio elastico. [daN]

Vdes: taglio di progetto. [daN]

Vrd: resistenza a taglio della sezione senza armature. [daN]

Vrcd: sforzo di taglio che produce il cedimento delle bielle. [daN]

Vrsd: resistenza a taglio per la presenza delle armature. [daN]

Vult: taglio ultimo. [daN]

cotgθ: cotg dell'angolo di inclinazione dei puntoni in calcestruzzo.

Rara: famiglia di combinazione di verifica.

Mela: momento elastico. [daN*cm]

Mdes: momento di progetto. [daN*cm]

σ c: tensione di compressione nel calcestruzzo. [daN/cm²]

σ c lim.: tensione limite di compressione nel calcestruzzo. [daN/cm²]

σ f: tensione di trazione nell'acciaio. [daN/cm²]

σ f lim.: tensione limite di trazione nell'acciaio. [daN/cm²]

Elastica+: massima freccia a sezione interamente reagente di solo calcestruzzo. [cm]

Elastica-: minima freccia a sezione interamente reagente di solo calcestruzzo. [cm]

Fess.+:: massima freccia a sezione fessurata ed omogeneizzata. [cm]

Fess.-: minima freccia a sezione fessurata ed omogeneizzata. [cm]

Quasi permanente: famiglia di combinazione di verifica.

σ FRP: tensione di trazione nell'FRP. [daN/cm²]

σ FRP lim.: tensione limite di trazione nell'FRP. [daN/cm²]

Fess. viscosa+: massima freccia a sezione fessurata ed omogeneizzata a viscosità esaurita. [cm]

Fess. viscosa-: minima freccia a sezione fessurata ed omogeneizzata a viscosità esaurita. [cm]

l/f: rapporto luce su freccia in combinazione quasi permanente.

Frequente: famiglia di combinazione di verifica.

Ascissa: ascissa sezione di verifica. [cm]

Lv: luce di taglio considerata. [cm]

x: altezza della zona compressa della sezione. [cm]

h: altezza totale della sezione. [cm]

p,tot: percentuale geometrica totale di armatura longitudinale.

θ,m: rotazione massima per la combinazione considerata.

θ,y: rotazione di prima plasticizzazione.

μΔ,pl: parte plastica della domanda di duttilità.

Vrd: resistenza a taglio del calcestruzzo non staffato per la verifica nella direzione considerata. [daN]

VRcd(cotθ=1): resistenza a taglio delle bielle compresse per la verifica nella direzione considerata considerando il valore di cotθ unitario. [daN]

VRsd: resistenza a taglio delle staffe per la verifica nella direzione considerata. [daN]

Vw: contributo dell'armatura trasversale per la resistenza a taglio. [daN]

Vr: resistenza a taglio in condizioni cicliche (formula [C8.7.2.8]). [daN]

Vu: resistenza a taglio in condizioni sismiche. [daN]

Ved: sollecitazione tagliante. [daN]

Ned: sollecitazione di sforzo normale. [daN]

Comb.: combinazione di verifica.

x: ascissa relativa. [cm]

taglio negativo: valori per taglio negativo.

contr. grav.: contributo azioni gravitazionali. [daN]

contr. mom. res.: contributo dei momenti resistenti. [daN]

taglio positivo: valori per taglio positivo.

campata: campata.

appoggio: appoggio.

momento positivo: momento resistente positivo. [daN*cm]

momento negativo: momento resistente negativo. [daN*cm]

Bordo: bordo interessato dalla fessura.

Rara: famiglia di combinazione per verifica inferiore.

Dmax: distanza massima tra le fessure. [cm]

Esm: dilatazione media delle barre di armatura.

Wd: valore di calcolo di apertura delle fessure. [cm]

Comb: combinazione.

Frequente: famiglia di combinazione per verifica inferiore.

Quasi permanente: famiglia di combinazione per verifica inferiore.

Trave a "Primo Impalcato" Parete 1 - Parete 2

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 1, sezione R 40x50, asta 496; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3						-1023559	SLU 16	-901847	-2496297	0.184	Si
20	15.71	5.3	9.42	5.3						-788347	SLU 16	-788347	-2496297	0.184	Si
307	12.57	5.3	9.42	5.3	734297	SLU 16	908147	1531525	0.133						Si
580	21.99	5.3	18.85	5.3						-1038175	SLU 16	-1038175	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3						-1490415	SLU 16	-1252312	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3	844672	SLV 13	844672	1531215	0.131	-2128457	SLV 4	-2000569	-2496297	0.184	Si
20	15.71	5.3	9.42	5.3	889426	SLV 13	923797	1531215	0.131	-1877842	SLV 4	-1877842	-2496297	0.184	Si
307	12.57	5.3	9.42	5.3	557000	SLV 4	645323	1531525	0.133						Si
580	21.99	5.3	18.85	5.3	844143	SLV 4	889995	2984929	0.16	-2152679	SLV 13	-2152679	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3	739915	SLV 4	739915	2984929	0.16	-2617162	SLV 13	-2377391	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3	112570	SLD 13	112570	1531215	0.131	-1396355	SLD 4	-1293814	-2496297	0.184	Si
20	15.71	5.3	9.42	5.3	208018	SLD 13	293373	1531215	0.131	-1196434	SLD 4	-1196434	-2496297	0.184	Si
307	12.57	5.3	9.42	5.3	509650	SLD 4	547011	1531525	0.133						Si
580	21.99	5.3	18.85	5.3	106124	SLD 4	202961	2984929	0.16	-1414659	SLD 13	-1414659	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3						-1790428	SLD 13	-1595015	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	12192	SLU 16	12192	10015	56765	0	10015	1	Si
20	0.157	15.71	0	11350	SLU 16	11350	10015	56765	24728	24728	1	Si
307	0.109	9.42	0	-759	SLU 16	-759	-8447	-56765	-17202	-17202	1	Si
580	0.157	21.99	0	-12236	SLU 16	-12236	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-13711	SLU 16	-13711	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	12802	Ger.	18905	10015	56765	0	10015	1	Si
0	0	9.42	0	2509	Ger.	-1676	-8447	-56765	0	-8447	1	Si
20	0.157	15.71	0	12273	Ger.	18375	10015	56765	24728	24728	1	Si
20	0.157	9.42	0	1980	Ger.	-2205	-8447	-56765	-24728	-24728	1	Si
307	0.109	9.42	0	4664	Ger.	10767	8447	56765	17202	17202	1	Si
307	0.109	9.42	0	-5629	Ger.	-9814	-8447	-56765	-17202	-17202	1	Si
580	0.157	18.85	0	-2548	Ger.	3555	10642	56765	24728	24728	1	Si
580	0.157	21.99	0	-12841	Ger.	-17025	-11203	-56765	-24728	-24728	1	Si
615	0	18.85	0	-3474	Ger.	2629	10642	56765	0	10642	1	Si
615	0	21.99	0	-13767	Ger.	-17952	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	10267	SLD 4	10267	10015	56765	0	10015	1	Si
20	0.157	15.71	0	9738	SLD 4	9738	10015	56765	24728	24728	1	Si
307	0.109	9.42	0	2129	SLD 4	2129	8447	56765	17202	17202	1	Si
307	0.109	9.42	0	-3094	SLD 13	-3094	-8447	-56765	-17202	-17202	1	Si
580	0.157	21.99	0	-10306	SLD 13	-10306	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-11232	SLD 13	-11232	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-741373	8	-653182	39.8	149.4	1057	3600	-641893	4	-565470	34.4	112.1	0	+∞	Si
20	-570943	8	-570943	34.8	149.4	923.9	3600	-494208	4	-494208	30.1	112.1	0	+∞	Si
307	532022	8	536834	37	149.4	1417.9	3600	460958	4	465206	32.1	112.1	0	+∞	Si
580	-753088	8	-753088	35.9	149.4	874.5	3600	-654268	4	-654268	31.2	112.1	0	+∞	Si
615	-1080912	8	-908316	43.3	149.4	1054.8	3600	-938623	4	-788916	37.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	25.1	0.00031	0.0077	8	25.1	0.00028	0.007	4	25.1	0.00027	0.0067	4	Si
580	superiore	22.1	0.00025	0.0056	8	22.1	0.00023	0.0051	4	22.1	0.00022	0.0049	4	Si
615	superiore	22.1	0.00031	0.0068	8	22.1	0.00029	0.0064	4	22.1	0.00027	0.006	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.007	0.004	0.005	0.003	0.006	0.004	0.005	0.003	0.006	0.004	0.011	4	0.008	4	9999
287	0.111	0.067	0.093	0.056	0.101	0.067	0.084	0.056	0.096	0.067	0.198	4	0.137	4	3101
307	0.111	0.066	0.093	0.056	0.1	0.066	0.084	0.056	0.096	0.066	0.198	4	0.137	4	3113
580	0.006	0.004	0.004	0.003	0.006	0.004	0.003	0.003	0.005	0.004	0.01	4	0.008	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	364.5	5.8	50	0.013	0.00234	0.01277	0	8447	56765	24728	24728	23851	24728	18375	0	SLV 13	Si
600	250.5	8.3	50	0.022	0.00258	0.01606	0	11203	56765	24728	24728	25694	25694	-17025	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	8138	-1676	-8921	2509	8138	18905	9788	12802	8138	18905	9788	12802	8138	18905	9788	12802
20	7609	-2205	-8921	1980	7609	18375	9788	12273	7609	18375	9788	12273	7609	18375	9788	12273
307	0	-9814	-8921	-5629	0	10767	9788	4664	0	10767	9788	4664	0	10767	9788	4664
580	-7212	-17025	-8921	-12841	-7212	3555	9788	-2548	-7212	3555	9788	-2548	-7212	3555	9788	-2548
615	-8138	-17952	-8921	-13767	-8138	2629	9788	-3474	-8138	2629	9788	-3474	-8138	2629	9788	-3474

Campata 2 tra i fili 1 - 2, sezione R 40x50, asta 524; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-293556	SLU 16	-238053	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-191802	SLU 16	-191802	-3464774	0.185	Si
198	12.57	5.3	21.46	5.3	60370	SLU 10	126360	3372265	0.215						Si
360	21.99	5.3	18.85	5.3						-156719	SLU 16	-156719	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3						-250916	SLU 16	-199192	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	2683163	SLV 15	2468176	2984929	0.16	-3108953	SLV 2	-2809237	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	2249626	SLV 15	2249626	2984929	0.16	-2520190	SLV 2	-2520190	-3464774	0.185	Si
198	12.57	5.3	21.46	5.3	46342	SLV 16	335491	3372265	0.215	21308	SLV 1	-275798	-2016285	0.138	Si
360	21.99	5.3	18.85	5.3	2247373	SLV 4	2247373	2984929	0.16	-2476196	SLV 13	-2476196	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	2685394	SLV 4	2469953	2984929	0.16	-3060453	SLV 13	-2764778	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	1255246	SLD 15	1167116	2984929	0.16	-1681036	SLD 2	-1508177	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	1073744	SLD 15	1073744	2984929	0.16	-1344307	SLD 2	-1344307	-3464774	0.185	Si
198	12.57	5.3	21.46	5.3	40229	SLD 16	184837	3372265	0.215	27422	SLD 1	-125144	-2016285	0.138	Si
360	21.99	5.3	18.85	5.3	1082790	SLD 4	1082790	2984929	0.16	-1311612	SLD 13	-1311612	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	1268781	SLD 4	1179349	2984929	0.16	-1643840	SLD 13	-1474174	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	3189	SLU 16	3189	11203	56765	0	11203	1	Si
35	0.157	21.99	0	2643	SLU 16	2643	11203	56765	24728	24728	1	Si
198	0.154	18.85	0	108	SLU 16	108	10642	56765	24178	24178	1	Si
360	0.157	21.99	0	-2483	SLU 10	-2483	-11203	-56765	-24728	-24728	1	Si
395	0	21.99	0	-3029	SLU 10	-3029	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	17039	Ger.	24200	11203	56765	0	11203	1	Si
0	0	18.85	0	-12170	Ger.	-19460	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	16619	Ger.	23780	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-12590	Ger.	-19880	-10642	-56765	-24728	-24728	1	Si
198	0.154	18.85	0	14669	Ger.	21830	10642	56765	24178	24178	1	Si
198	0.154	18.85	0	-14540	Ger.	-21830	-10642	-56765	-24178	-24178	1	Si
360	0.157	18.85	0	12719	Ger.	19880	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-16490	Ger.	-23780	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	12299	Ger.	19460	10642	56765	0	10642	1	Si
395	0	21.99	0	-16910	Ger.	-24200	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	9838	SLD 4	9838	11203	56765	0	11203	1	Si
0	0	18.85	0	-4969	SLD 13	-4969	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	9418	SLD 4	9418	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-5389	SLD 13	-5389	-10642	-56765	-24728	-24728	1	Si
198	0.154	18.85	0	7468	SLD 4	7468	10642	56765	24178	24178	1	Si
198	0.154	18.85	0	-7339	SLD 13	-7339	-10642	-56765	-24178	-24178	1	Si
360	0.157	18.85	0	5518	SLD 4	5518	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-9289	SLD 13	-9289	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	5098	SLD 4	5098	10642	56765	0	10642	1	Si
395	0	21.99	0	-9709	SLD 13	-9709	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-221971	8	-179361	8.6	149.4	208.3	3600	-212895	4	-170530	8.1	112.1	0	+∞	Si
35	-143867	8	-143867	6.9	149.4	167.1	3600	-135282	4	-135282	6.5	112.1	0	+∞	Si
198	46424	2	46424	2.4	149.4	55.5	3600	46328	1	46328	2.4	112.1	0	+∞	Si
360	-118438	8	-118438	5.6	149.4	137.5	3600	-114411	4	-114411	5.5	112.1	0	+∞	Si
395	-191066	8	-151194	7.2	149.4	175.6	3600	-187530	4	-147412	7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
35	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.003	1	9999	Si
66	0	-0.002	-0.001	-0.002	0	-0.002	-0.001	-0.002	0	-0.002	-0.001	1	-0.003	1	9999	Si
198	0.002	-0.001	0.001	-0.001	0.002	0	0.001	-0.001	0.002	0	0.002	1	-0.001	1	9999	Si
360	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	1	-0.002	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
670	196	8.3	50	0.022	0.00249	0.0147	0	11203	56765	24728	24728	29313	29313	23780	0	SLV 1	Si
995	194.6	8.3	50	0.022	0.00267	0.0147	0	11203	56765	24728	24728	29410	29410	-23780	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2370	-19460	-19845	-12170	2370	24200	19845	17039
35	1950	-19880	-19845	-12590	1950	23780	19845	16619
198	0	-21830	-19845	-14540	0	21830	19845	14669
360	-1950	-23780	-19845	-16490	-1950	19880	19845	12719
395	-2370	-24200	-19845	-16910	-2370	19460	19845	12299

Campata 3 tra i fili 2 - 15, sezione R 40x50, asta 528; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-748326	SLU 16	-578208	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-432856	SLU 16	-432856	-3464774	0.185	Si
227	9.31	5.3	9.42	5.3	386674	SLU 16	480644	1531893	0.137	-480019	SLU 16	-480019	-2499740	0.173	Si
435	15.71	5.3	11.44	5.3						-658223	SLU 16	-565435	-2499740	0.173	Si
455	15.71	5.3	11.44	5.3											

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	1592884	SLV 15	1561478	2984929	0.16	-2520644	SLV 2	-2277130	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	1514511	SLV 15	1514511	2984929	0.16	-2049177	SLV 2	-2049177	-3464774	0.185	Si
227	9.31	5.3	9.42	5.3	508183	SLV 15	658616	1531893	0.137	-31407	SLV 2	-196963	-1513472	0.136	Si
435	15.71	5.3	11.44	5.3	1043970	SLV 2	1043970	1843573	0.139	-1676252	SLV 15	-1676252	-2499740	0.173	Si
455	15.71	5.3	11.44	5.3	1088135	SLV 2	1068369	1843573	0.139	-1946281	SLV 15	-1808951	-2499740	0.173	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	579391	SLD 15	579391	2984929	0.16	-1507150	SLD 2	-1331370	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	636484	SLD 15	654941	2984929	0.16	-1171150	SLD 2	-1171150	-3464774	0.185	Si
227	9.31	5.3	9.42	5.3	375219	SLD 15	447800	1531893	0.137						Si
435	15.71	5.3	11.44	5.3	373797	SLD 2	397184	1843573	0.139	-1006079	SLD 15	-1006079	-2499740	0.173	Si
455	15.71	5.3	11.44	5.3	340553	SLD 2	340553	1843573	0.139	-1198699	SLD 15	-1100073	-2499740	0.173	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	9780	SLU 16	9780	11203	56765	0	11203	1	Si
35	0.157	21.99	0	8306	SLU 16	8306	11203	56765	24728	24728	1	Si
227	0.126	9.42	0	203	SLU 8	203	8447	56765	19782	19782	1	Si
227	0.126	9.42	0	-33	SLU 10	-33	-8447	-56765	-19782	-19782	1	Si
435	0.157	15.71	0	-8542	SLU 16	-8542	-10015	-56765	-24728	-24728	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
455	0	15.71	0	-9384	SLU 16	-9384	-10015	-56765	0	-10015	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13952	Ger.	20619	11203	56765	0	11203	1	Si
0	0	18.85	0	-1758	Ger.	-9062	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	13026	Ger.	19692	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-2684	Ger.	-9988	-10642	-56765	-24728	-24728	1	Si
227	0.126	9.94	0	7931	Ger.	14598	8597	56765	19782	19782	1	Si
227	0.126	9.42	0	-7778	Ger.	-15083	-8447	-56765	-19782	-19782	1	Si
435	0.157	11.44	0	2440	Ger.	9106	9012	56809	24747	24747	1	Si
435	0.157	15.71	0	-13270	Ger.	-20574	-10015	-56765	-24728	-24728	1	Si
455	0	11.44	0	1911	Ger.	8577	9012	56809	0	9012	1	Si
455	0	15.71	0	-13799	Ger.	-21104	-10015	-56765	0	-10015	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	10082	SLD 2	10082	11203	56765	0	11203	1	Si
35	0.157	21.99	0	9155	SLD 2	9155	11203	56765	24728	24728	1	Si
227	0.126	9.42	0	4061	SLD 2	4061	8447	56765	19782	19782	1	Si
227	0.126	9.42	0	-3908	SLD 15	-3908	-8447	-56765	-19782	-19782	1	Si
435	0.157	15.71	0	-9399	SLD 15	-9399	-10015	-56765	-24728	-24728	1	Si
455	0	15.71	0	-9929	SLD 15	-9929	-10015	-56765	0	-10015	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-540737	8	-417684	19.9	149.4	485	3600	-463880	4	-357826	17.1	112.1	0	+∞	Si
35	-312579	8	-312579	14.9	149.4	363	3600	-267333	4	-267333	12.7	112.1	0	+∞	Si
227	278748	8	278748	20.2	149.4	737.1	3600	238388	4	238388	17.3	112.1	0	+∞	Si
435	-352203	8	-352203	20.7	149.4	568.6	3600	-316141	4	-316141	18.6	112.1	0	+∞	Si
455	-481627	8	-414244	24.4	149.4	668.8	3600	-429073	4	-370291	21.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
35	0.003	0.002	0.002	0.001	0.003	0.002	0.002	0.001	0.003	0.002	0.006	4	0.003	4	9999
227	0.032	0.017	0.026	0.014	0.029	0.017	0.023	0.014	0.027	0.017	0.053	4	0.033	4	8563
435	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.003	4	0.001	4	9999
455	0	0	0	0	0	0	0	0	0	0	0	3	0	3	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1065	326.4	7.2	50	0.022	0.00062	0.01522	0	10642	56765	24728	24728	25694	25694	19692	0	SLV 9	Si
1465	271	6.2	50	0.014	0.00004	0.01084	0	9012	56809	24747	24747	24058	24747	-20574	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	6021	-9062	-13712	-1758	6021	20619	13271	13952
35	5095	-9988	-13712	-2684	5095	19692	13271	13026
227	0	-15083	-13712	-7778	0	14598	13271	7931
435	-5491	-20574	-13712	-13270	-5491	9106	13271	2440
455	-6021	-21104	-13712	-13799	-6021	8577	13271	1911

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	11	1531215	-2496297
1	580	1	2984929	-3464774
2	35	1	2984929	-3464774
2	360	2	2984929	-3464774
3	35	2	2984929	-3464774
3	435	15	1843573	-2499740

Trave a "Primo Impalcato" Parete 1-Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 12 - 5, sezione R 40x50, asta 483; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	12.57	5.3						-1410553	SLU 16	-1240915	-2637123	0.176	Si
20	16.59	5.3	12.57	5.3						-1082779	SLU 16	-1082779	-2637123	0.176	Si
308	12.57	5.3	12.57	5.3	1026304	SLU 16	1271764	2016674	0.15						Si
580	21.99	5.3	18.85	5.3						-1477862	SLU 16	-1477862	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3						-2114002	SLU 16	-1779151	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	12.57	5.3	670011	SLV 16	670011	2017702	0.142	-2295107	SLV 1	-2146206	-2637123	0.176	Si
20	16.59	5.3	12.57	5.3	755854	SLV 16	828557	2017702	0.142	-2003916	SLV 1	-2003916	-2637123	0.176	Si
308	12.57	5.3	12.57	5.3	685891	SLV 1	769019	2016674	0.15						Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
580	21.99	5.3	18.85	5.3	646703	SLV 1	735495	2984929	0.16	-2343281	SLV 16	-2343281	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3	460887	SLV 1	460887	2984929	0.16	-2888456	SLV 16	-2606222	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	12.57	5.3						-1565182	SLD 1	-1441557	-2637123	0.176	Si
20	16.59	5.3	12.57	5.3	76483	SLD 16	200030	2017702	0.142	-1324544	SLD 1	-1324544	-2637123	0.176	Si
308	12.57	5.3	12.57	5.3	638532	SLD 1	670830	2016674	0.15						Si
580	21.99	5.3	18.85	5.3	-89425	SLD 1	50210	2984929	0.16	-1607152	SLD 16	-1607152	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3						-2063859	SLD 16	-1825860	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	16993	SLU 16	16993	10203	56826	0	10203	1	Si
20	0.157	16.59	0	15814	SLU 16	15814	10203	56826	24755	24755	1	Si
308	0.12	12.57	0	-1144	SLU 16	-1144	-9297	-56765	-18815	-18815	1	Si
580	0.157	21.99	0	-17217	SLU 16	-17217	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-19281	SLU 16	-19281	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	14907	Ger.	21469	10203	56826	0	10203	1	Si
0	0	12.57	0	4640	Ger.	-343	-9297	-56765	0	-9297	1	Si
20	0.157	16.59	0	14229	Ger.	20791	10203	56826	24755	24755	1	Si
20	0.157	12.57	0	3962	Ger.	-1021	-9297	-56765	-24728	-24728	1	Si
308	0.12	12.57	0	4481	Ger.	11043	9297	56765	18815	18815	1	Si
308	0.12	12.57	0	-5786	Ger.	-10769	-9297	-56765	-18815	-18815	1	Si
580	0.157	17.65	0	-4758	Ger.	1804	10412	56765	24728	24728	1	Si
580	0.157	21.99	0	-15025	Ger.	-20008	-11203	-56765	-24728	-24728	1	Si
615	0	18.85	0	-5945	Ger.	618	10642	56765	0	10642	1	Si
615	0	21.99	0	-16212	Ger.	-21195	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	12379	SLD 1	12379	10203	56826	0	10203	1	Si
20	0.157	16.59	0	11701	SLD 1	11701	10203	56826	24755	24755	1	Si
308	0.12	12.57	0	1954	SLD 1	1954	9297	56765	18815	18815	1	Si
308	0.12	12.57	0	-3258	SLD 16	-3258	-9297	-56765	-18815	-18815	1	Si
580	0.157	21.99	0	-12498	SLD 16	-12498	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-13684	SLD 16	-13684	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1011678	8	-890011	50.6	149.4	1368.2	3600	-812548	4	-714984	40.6	112.1	0	+∞	Si
20	-776593	8	-776593	44.1	149.4	1193.9	3600	-624031	4	-624031	35.5	112.1	0	+∞	Si
308	736000	8	743790	46.4	149.4	1487.5	3600	599799	4	599532	37.1	112.1	0	+∞	Si
580	-1060237	8	-1060237	50.6	149.4	1231.2	3600	-848289	4	-848289	40.4	112.1	0	+∞	Si
615	-1516523	8	-1276344	60.9	149.4	1482.2	3600	-1213784	4	-1021391	48.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	24.1	0.0004	0.0096	8	24.1	0.00036	0.0087	4	24.1	0.00032	0.0078	4	Si
20	superiore	24.1	0.00035	0.0084	8	24.1	0.0003	0.0072	4	24.1	0.00028	0.0067	4	Si
287	inferiore	28.2	0.00043	0.0122	8	28.2	0.00037	0.0105	4	28.2	0.00035	0.0098	4	Si
308	inferiore	28.2	0.00043	0.0122	8	28.2	0.00037	0.0105	4	28.2	0.00035	0.0098	4	Si
580	superiore	22.1	0.00036	0.0079	8	22.1	0.00034	0.0075	4	22.1	0.0003	0.0067	4	Si
615	superiore	22.1	0.00046	0.0101	8	22.1	0.00044	0.0098	4	22.1	0.0004	0.0089	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente					Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	
20	0.01	0.005	0.009	0.004	0.008	0.005	0.007	0.004	0.008	0.005	0.016	4	0.01	4
287	0.154	0.081	0.157	0.067	0.132	0.081	0.115	0.067	0.123	0.081	0.272	4	0.16	4
308	0.153	0.081	0.156	0.067	0.131	0.081	0.114	0.067	0.123	0.081	0.27	4	0.159	4
580	0.008	0.004	0.004	0.002	0.007	0.004	0.003	0.002	0.006	0.004	0.011	4	0.008	4
615	0	0	0	0	0	0	0	0	0	0	0	1	0	1

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	381.3	6.3	50	0.015	0.00219	0.01213	0	9297	56765	24728	24728	24227	24728	20791	0	SLV 13	Si
600	415.8	7.2	50	0.022	0.00258	0.0144	0	10412	56765	24728	24728	25694	25694	-20008	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	10426	-343	-9790	4640	10426	21469	10039	16993
20	9748	-1021	-9790	3962	9748	20791	10039	15814
308	0	-10769	-9790	-5786	0	11043	10039	4481
580	-9239	-20008	-9790	-17217	-9239	1804	10039	-4758
615	-10426	-21195	-9790	-19281	-10426	618	10039	-5945

Campata 2 tra i fili 5 - 6, sezione R 40x50, asta 523; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-548806	SLU 16	-434623	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-339690	SLU 16	-339690	-3464774	0.185	Si
197	12.57	5.3	7.23	5.3	116730	SLU 12	262958	1192006	0.123						Si
360	21.99	5.3	18.85	5.3						-291171	SLU 16	-291171	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3						-489836	SLU 16	-380878	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	2562254	SLV 14	2376840	2984929	0.16	-3211236	SLV 3	-2889450	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	2179881	SLV 14	2179881	2984929	0.16	-2579174	SLV 3	-2579174	-3464774	0.185	Si
197	12.57	5.3	7.23	5.3	97018	SLV 13	381149	1192006	0.123	43332	SLV 4	-252667	-2015322	0.168	Si
360	21.99	5.3	18.85	5.3	2156565	SLV 3	2156565	2984929	0.16	-2504763	SLV 14	-2504763	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	2544446	SLV 3	2356275	2984929	0.16	-3131328	SLV 14	-2812287	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	1138707	SLD 14	1078348	2984929	0.16	-1787689	SLD 3	-1590958	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	1006452	SLD 14	1006452	2984929	0.16	-1405746	SLD 3	-1405746	-3464774	0.185	Si
197	12.57	5.3	7.23	5.3	83822	SLD 13	224878	1192006	0.123	56527	SLD 4	-96396	-2015322	0.168	Si
360	21.99	5.3	18.85	5.3	1007313	SLD 3	1007313	2984929	0.16	-1355511	SLD 14	-1355511	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	1145073	SLD 3	1081960	2984929	0.16	-1731955	SLD 14	-1537972	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	6561	SLU 16	6561	11203	56765	0	11203	1	Si
35	0.188	21.99	0	5425	SLU 16	5425	11203	56765	29673	29673	1	Si
197	0.154	12.57	0	149	SLU 16	149	9297	56765	24178	24178	1	Si
360	0.188	21.99	0	-5126	SLU 16	-5126	-11203	-56765	-29673	-29673	1	Si
395	0	21.99	0	-6262	SLU 16	-6262	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	18410	Ger.	25669	11203	56765	0	11203	1	Si
0	0	18.85	0	-10574	Ger.	-17990	-10642	-56765	0	-10642	1	Si
35	0.188	21.99	0	17730	Ger.	24989	11203	56765	29673	29673	1	Si
35	0.188	18.85	0	-11255	Ger.	-18671	-10642	-56765	-29673	-29673	1	Si
197	0.154	12.57	0	14571	Ger.	21830	9297	56765	24178	24178	1	Si
197	0.154	12.57	0	-14414	Ger.	-21830	-9297	-56765	-24178	-24178	1	Si
360	0.188	18.71	0	11412	Ger.	18671	10615	56765	29673	29673	1	Si
360	0.188	21.99	0	-17573	Ger.	-24989	-11203	-56765	-29673	-29673	1	Si
395	0	18.85	0	10732	Ger.	17990	10642	56765	0	10642	1	Si
395	0	21.99	0	-18253	Ger.	-25669	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	11264	SLD 3	11264	11203	56765	0	11203	1	Si
0	0	18.85	0	-3428	SLD 14	-3428	-10642	-56765	0	-10642	1	Si
35	0.188	21.99	0	10584	SLD 3	10584	11203	56765	29673	29673	1	Si
35	0.188	18.85	0	-4108	SLD 14	-4108	-10642	-56765	-29673	-29673	1	Si
197	0.154	12.57	0	7425	SLD 3	7425	9297	56765	24178	24178	1	Si
197	0.154	12.57	0	-7267	SLD 14	-7267	-9297	-56765	-24178	-24178	1	Si
360	0.188	18.71	0	4266	SLD 3	4266	10615	56765	29673	29673	1	Si
360	0.188	21.99	0	-10426	SLD 14	-10426	-11203	-56765	-29673	-29673	1	Si
395	0	18.85	0	3585	SLD 3	3585	10642	56765	0	10642	1	Si
395	0	21.99	0	-11107	SLD 14	-11107	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-400138	8	-316549	15.1	149.4	367.6	3600	-324491	4	-256305	12.2	112.1	0	+∞	Si
35	-247062	8	-247062	11.8	149.4	286.9	3600	-199647	4	-199647	9.5	112.1	0	+∞	Si
197	86606	4	86606	6.6	149.4	295.8	3600	72109	2	72109	5.5	112.1	0	+∞	Si
360	-212463	8	-212463	10.1	149.4	246.7	3600	-174099	4	-174099	8.3	112.1	0	+∞	Si
395	-358087	8	-278224	13.3	149.4	323.1	3600	-293441	4	-228006	10.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
35	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.002	1	-0.003	1	9999 Si
197	0.004	0.002	0.002	0.001	0.004	0.002	0.002	0.001	0.003	0.002	0.005	2	0.003	2	9999 Si
360	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
670	194.5	8.3	50	0.022	0.00249	0.01404		11203	56765	29673	29673	33715	33715	24989	0	SLV 4	Si
995	191	8.3	50	0.022	0.00254	0.01404	0	11203	56765	29673	29673	33951	33951	-24989	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3839	-17990	-19845	-10574	3839	25669	19845	18410
35	3159	-18671	-19845	-11255	3159	24989	19845	17730
197	0	-21830	-19845	-14414	0	21830	19845	14571
360	-3159	-24989	-19845	-17573	-3159	18671	19845	11412
395	-3839	-25669	-19845	-18253	-3839	17990	19845	10732

Campata 3 tra i fili 6 - 7, sezione R 40x50, asta 522; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-965038	SLU 16	-742939	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-555464	SLU 16	-555464	-3464774	0.185	Si
220	12.57	5.3	12.57	5.3	418585	SLU 16	604663	2016674	0.15						Si
405	21.99	5.3	15.71	5.3						-629050	SLU 16	-629050	-3460407	0.199	Si
440	21.99	5.3	15.71	5.3						-1052545	SLU 16	-823486	-3460407	0.199	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	2020976	SLV 14	1943335	2984929	0.16	-3129026	SLV 3	-2796225	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	1845790	SLV 14	1845790	2984929	0.16	-2483324	SLV 3	-2483324	-3464774	0.185	Si
220	12.57	5.3	12.57	5.3	245998	SLV 2	471200	2016674	0.15	234416	SLV 15	-11011	-2016674	0.15	Si
405	21.99	5.3	15.71	5.3	1811542	SLV 3	1811542	2501100	0.148	-2537436	SLV 14	-2537436	-3460407	0.199	Si
440	21.99	5.3	15.71	5.3	1978370	SLV 3	1904909	2501100	0.148	-3191495	SLV 14	-2854516	-3460407	0.199	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	751040	SLD 14	751040	2984929	0.16	-1859091	SLD 3	-1627502	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	778279	SLD 14	779657	2984929	0.16	-1415813	SLD 3	-1415813	-3464774	0.185	Si
220	12.57	5.3	12.57	5.3	243158	SLD 2	352288	2016674	0.15						Si
405	21.99	5.3	15.71	5.3	739107	SLD 3	742635	2501100	0.148	-1465001	SLD 14	-1465001	-3460407	0.199	Si
440	21.99	5.3	15.71	5.3	703510	SLD 3	703510	2501100	0.148	-1916636	SLD 14	-1680868	-3460407	0.199	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	12777	SLU 16	12777	11203	56765	0	11203	1	Si
35	0.157	21.99	0	10713	SLU 16	10713	11203	56765	24728	24728	1	Si
220	0.151	12.57	0	-199	SLU 16	-199	-9297	-56765	-23812	-23812	1	Si
405	0.188	21.99	0	-11111	SLU 16	-11111	-11203	-56765	-29673	-29673	1	Si
440	0	21.99	0	-13175	SLU 16	-13175	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	19067	Ger.	25195	11203	56765	0	11203	1	Si
0	0	18.85	0	-4387	Ger.	-11703	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	17880	Ger.	24009	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-5574	Ger.	-12889	-10642	-56765	-24728	-24728	1	Si
220	0.151	12.57	0	11608	Ger.	17736	9297	56765	23812	23812	1	Si
220	0.151	12.57	0	-11846	Ger.	-19162	-9297	-56765	-23812	-23812	1	Si
405	0.188	15.71	0	5335	Ger.	11464	10015	56765	29673	29673	1	Si
405	0.188	21.99	0	-18119	Ger.	-25434	-11203	-56765	-29673	-29673	1	Si
440	0	15.71	0	4149	Ger.	10277	10015	56765	0	10015	1	Si
440	0	21.99	0	-19306	Ger.	-26621	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13283	SLD 3	13283	11203	56765	0	11203	1	Si
35	0.157	21.99	0	12096	SLD 3	12096	11203	56765	24728	24728	1	Si
220	0.151	12.57	0	5824	SLD 3	5824	9297	56765	23812	23812	1	Si
220	0.151	12.57	0	-6063	SLD 14	-6063	-9297	-56765	-23812	-23812	1	Si
405	0.188	21.99	0	-12335	SLD 14	-12335	-11203	-56765	-29673	-29673	1	Si
440	0	21.99	0	-13522	SLD 14	-13522	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-692731	8	-533417	25.4	149.4	619.4	3600	-554025	4	-426445	20.3	112.1	0	+∞	Si
35	-398935	8	-398935	19	149.4	463.3	3600	-318767	4	-318767	15.2	112.1	0	+∞	Si
220	299861	8	299861	18.7	149.4	599.7	3600	240207	4	240207	15	112.1	0	+∞	Si
405	-451388	8	-451388	22.5	149.4	525.7	3600	-362947	4	-362947	18.1	112.1	0	+∞	Si
440	-755108	8	-590832	29.5	149.4	688.2	3600	-606563	4	-474804	23.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f		
35	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.003	4	0.002	4		9999	Si
220	0.028	0.014	0.021	0.011	0.024	0.014	0.018	0.011	0.022	0.014	0.041	4	0.026	4		9999	Si
405	0.001	0.001	0	0	0.001	0.001	0	0	0.001	0.001	0.001	4	0.001	4		9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1065	272.1	7.2	50	0.022	0.00076	0.01371	0	10642	56765	24728	24728	25694	25694	24009	0	SLV 9	Si
1435	276.7	6.6	50	0.021	0.00085	0.0133	0	10015	56765	29673	29673	29701	29701	-25434	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7459	-11703	-17420	-4387	7459	25195	16124	19067								
35	6272	-12889	-17420	-5574	6272	24009	16124	17880								
220	0	-19162	-17420	-11846	0	17736	16124	11608								
405	-6272	-25434	-17420	-18119	-6272	11464	16124	5335								
440	-7459	-26621	-17420	-19306	-7459	10277	16124	4149								

Campata 4 tra i fili 7 - 8, sezione R 40x50, aste 512, 513, 514, 515, 516, 517, 518, 519, 520, 521; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3						-871152	SLU 16	-700543	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3						-552791	SLU 16	-552791	-3460407	0.199	Si
265	12.57	5.3	10.19	5.3	304864	SLU 16	518880	1649889	0.137						Si
283	12.57	5.3	7.14	5.3	302819	SLU 16	510356	1178149	0.123						Si
495	21.99	5.3	15.71	5.3						-562616	SLU 16	-562616	-3460407	0.199	Si
530	21.99	5.3	15.71	5.3						-880132	SLU 16	-709945	-3460407	0.199	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	1984713	SLV 14	1834257	2501100	0.148	-3034334	SLV 3	-2678436	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	1670241	SLV 14	1670241	2501100	0.148	-2336036	SLV 3	-2336036	-3460407	0.199	Si
265	12.57	5.3	10.19	5.3	245789	SLV 4	357339	1649889	0.137						Si
495	21.99	5.3	15.71	5.3	1582891	SLV 1	1582891	2501100	0.148	-2263259	SLV 16	-2263259	-3460407	0.199	Si
530	21.99	5.3	15.71	5.3	1860219	SLV 1	1728331	2501100	0.148	-2924198	SLV 16	-2586976	-3460407	0.199	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	747480	SLD 14	721825	2501100	0.148	-1797100	SLD 3	-1566005	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	682627	SLD 14	682627	2501100	0.148	-1348422	SLD 3	-1348422	-3460407	0.199	Si
265	12.57	5.3	10.19	5.3	216103	SLD 4	271477	1649889	0.137						Si
495	21.99	5.3	15.71	5.3	634983	SLD 1	634983	2501100	0.148	-1315351	SLD 16	-1315351	-3460407	0.199	Si
530	21.99	5.3	15.71	5.3	681147	SLD 1	664835	2501100	0.148	-1745126	SLD 16	-1523480	-3460407	0.199	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	9977	SLU 16	9977	11203	56765	0	11203	1	Si
35	0.157	21.99	0	8443	SLU 16	8443	11203	56765	24728	24728	1	Si
265	0.113	12.57	0	192	SLU 12	192	9297	56765	17859	17859	1	Si
495	0.157	21.99	0	-8419	SLU 16	-8419	-11203	-56765	-24728	-24728	1	Si
530	0	21.99	0	-9953	SLU 16	-9953	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	20463	SLV 3	20463	11203	56765	0	11203	1	Si
0	0	15.71	0	-8475	Ger.	-8736	-10015	-56765	0	-10015	1	Si
35	0.157	21.99	0	19566	SLV 3	19566	11203	56765	24728	24728	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
35	0.157	15.23	0	-9372	Ger.	-9633	-9913	-56765	-24728	-24728	1	Si
265	0.113	12.57	0	5808	Ger.	14255	9297	56765	17859	17859	1	Si
265	0.113	12.57	0	-5612	Ger.	-14257	-9297	-56765	-17859	-17859	1	Si
495	0.157	15.71	0	8311	Ger.	9637	10015	56765	24728	24728	1	Si
495	0.157	21.99	0	-18498	Ger.	-18875	-11203	-56765	-24728	-24728	1	Si
530	0	15.71	0	7413	Ger.	8740	10015	56765	0	10015	1	Si
530	0	21.99	0	-19395	Ger.	-19772	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13331	SLD 3	13331	11203	56765	0	11203	1	Si
0	0	15.71	0	-1343	SLD 14	-1343	-10015	-56765	0	-10015	1	Si
35	0.157	21.99	0	12433	SLD 3	12433	11203	56765	24728	24728	1	Si
35	0.157	15.23	0	-2240	SLD 14	-2240	-9913	-56765	-24728	-24728	1	Si
265	0.113	12.57	0	2992	SLD 1	2992	9297	56765	17859	17859	1	Si
265	0.113	12.57	0	-2797	SLD 16	-2797	-9297	-56765	-17859	-17859	1	Si
495	0.157	15.71	0	1706	SLD 1	1706	10015	56765	24728	24728	1	Si
495	0.157	21.99	0	-11893	SLD 16	-11893	-11203	-56765	-24728	-24728	1	Si
530	0	15.71	0	808	SLD 1	808	10015	56765	0	10015	1	Si
530	0	21.99	0	-12790	SLD 16	-12790	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-634988	8	-510556	25.5	149.4	594.7	3600	-524810	4	-422090	21	112.1	0	+∞	Si
35	-402767	8	-402767	20.1	149.4	469.1	3600	-332897	4	-332897	16.6	112.1	0	+∞	Si
265	222849	8	222849	14.9	149.4	545.7	3600	184960	4	184960	12.4	112.1	0	+∞	Si
495	-410122	8	-410122	20.4	149.4	477.7	3600	-340184	4	-340184	17	112.1	0	+∞	Si
530	-641802	8	-517641	25.8	149.4	602.9	3600	-531990	4	-429323	21.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
35	0.001	0.001	0	0	0.001	0.001	0	0	0.001	0.001	0.001	2	0.001	2	9999
265	0.03	0.02	0.023	0.016	0.026	0.02	0.02	0.016	0.025	0.02	0.047	4	0.038	4	9999
495	0.001	0.001	0	0	0.001	0.001	0	0	0.001	0.001	0.001	2	0.001	2	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1505	323.9	6.6	50	0.021	0.00071	0.01573	0	9913	56765	24728	24728	25401	25401	18879	0	SLV 9	Si
1965	329.4	6.6	50	0.021	0.0007	0.01573	0	10015	56765	24728	24728	25401	25401	-18875	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	5520	-8736	-12960	-8475	5520	20463	12960	20463
35	4623	-9633	-12960	-9372	4623	19566	12960	19566
265	-1	-14257	-12960	-5612	-1	14255	12960	5808
495	-4619	-18875	-12960	-18498	-4619	9637	12960	8311
530	-5516	-19772	-12960	-19395	-5516	8740	12960	7413

Campata 5 tra i fili 8 - 9, sezione R 40x50, asta 511; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3						-1068077	SLU 16	-837616	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3						-641777	SLU 16	-641777	-3460407	0.199	Si
220	12.57	5.3	15.71	5.3	420685	SLU 16	604663	2499469	0.17						Si
405	21.99	5.3	17.72	5.3						-538537	SLU 16	-538537	-3464900	0.189	Si
440	21.99	5.3	17.72	5.3						-945306	SLU 16	-724610	-3464900	0.189	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	2020289	SLV 16	1943603	2501100	0.148	-3245156	SLV 1	-2903871	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	1847014	SLV 16	1847014	2501100	0.148	-2582488	SLV 1	-2582488	-3460407	0.199	Si
220	12.57	5.3	15.71	5.3	247596	SLV 13	476102	2499469	0.17	234660	SLV 4	-15313	-2016586	0.144	Si
405	21.99	5.3	17.72	5.3	1891676	SLV 1	1891676	2812275	0.156	-2515946	SLV 16	-2515946	-3464900	0.189	Si
440	21.99	5.3	17.72	5.3	2075470	SLV 1	1993524	2812275	0.156	-3168095	SLV 16	-2832070	-3464900	0.189	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	722285	SLD 16	722285	2501100	0.148	-1947152	SLD 1	-1708901	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	755079	SLD 16	757885	2501100	0.148	-1490552	SLD 1	-1490552	-3460407	0.199	Si
220	12.57	5.3	15.71	5.3	244420	SLD 13	355473	2499469	0.17						Si
405	21.99	5.3	17.72	5.3	805167	SLD 1	805269	2812275	0.156	-1429437	SLD 16	-1429437	-3464900	0.189	Si
440	21.99	5.3	17.72	5.3	782893	SLD 1	782893	2812275	0.156	-1875518	SLD 16	-1642526	-3464900	0.189	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13255	SLU 16	13255	11203	56765	0	11203	1	Si
35	0.188	21.99	0	11191	SLU 16	11191	11203	56765	29673	29673	1	Si
220	0.151	15.71	0	279	SLU 16	279	10015	56765	23812	23812	1	Si
405	0.157	21.99	0	-10633	SLU 16	-10633	-11203	-56765	-24728	-24728	1	Si
440	0	21.99	0	-12697	SLU 16	-12697	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	19551	Ger.	26108	11203	56765	0	11203	1	Si
0	0	15.71	0	-4333	Ger.	-10278	-10015	-56765	0	-10015	1	Si
35	0.188	21.99	0	18365	Ger.	24921	11203	56765	29673	29673	1	Si
35	0.188	15.71	0	-5519	Ger.	-11464	-10015	-56765	-29673	-29673	1	Si
220	0.151	15.71	0	12092	Ger.	18649	10015	56765	23812	23812	1	Si
220	0.151	15.71	0	-11792	Ger.	-17737	-10015	-56765	-23812	-23812	1	Si
405	0.157	17.72	0	5820	Ger.	12376	10427	56793	24740	24740	1	Si
405	0.157	21.99	0	-18064	Ger.	-24009	-11203	-56765	-24728	-24728	1	Si
440	0	17.72	0	4633	Ger.	11189	10427	56793	0	10427	1	Si
440	0	21.99	0	-19251	Ger.	-25196	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13664	SLD 1	13664	11203	56765	0	11203	1	Si
35	0.188	21.99	0	12477	SLD 1	12477	11203	56765	29673	29673	1	Si
220	0.151	15.71	0	6205	SLD 1	6205	10015	56765	23812	23812	1	Si
220	0.151	15.71	0	-5904	SLD 16	-5904	-10015	-56765	-23812	-23812	1	Si
405	0.157	21.99	0	-12177	SLD 16	-12177	-11203	-56765	-24728	-24728	1	Si
440	0	21.99	0	-13363	SLD 16	-13363	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-765780	8	-600538	29.9	149.4	699.5	3600	-612433	4	-480134	23.9	112.1	0	+∞	Si
35	-460129	8	-460129	22.9	149.4	535.9	3600	-367737	4	-367737	18.3	112.1	0	+∞	Si
220	301327	8	301327	17.5	149.4	486.1	3600	241128	4	241128	14	112.1	0	+∞	Si
405	-387263	8	-387263	18.7	149.4	450.1	3600	-312135	4	-312135	15.1	112.1	0	+∞	Si
440	-679128	8	-520779	25.2	149.4	605.2	3600	-546312	4	-419273	20.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
35	0.001	0.001	0	0	0.001	0.001	0	0	0.001	0.001	0.001	4	0	4	9999
220	0.028	0.014	0.021	0.011	0.024	0.014	0.018	0.011	0.022	0.014	0.039	4	0.025	4	9999
405	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.003	4	0.001	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2035	279.8	6.6	50	0.021	0.00069	0.01343	0	10015	56765	29673	29673	29701	29701	24921	0	SLV 9	Si
2405	269.3	7	50	0.022	0.0006	0.01366	0	10427	56793	24740	24740	25602	25602	-24009	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7459	-10278	-16124	-4333	7459	26108	16953	19551
35	6272	-11464	-16124	-5519	6272	24921	16953	18365
220	0	-17737	-16124	-11792	0	18649	16953	12092
405	-6272	-24009	-16124	-18064	-6272	12376	16953	5820
440	-7459	-25196	-16124	-19251	-7459	11189	16953	4633

Campata 6 tra i fili 9 - 10, sezione R 40x50, asta 510; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	17.72	5.3						-478796	SLU 16	-371467	-3464900	0.189	Si
35	21.99	5.3	17.72	5.3						-283389	SLU 16	-283389	-3464900	0.189	Si
197	12.57	5.3	22.92	5.3	110396	SLU 12	262958	3590158	0.228						Si
360	21.99	5.3	18.85	5.3						-362156	SLU 16	-362156	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3						-574529	SLU 16	-458717	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	17.72	5.3	2550657	SLV 14	2359497	2812275	0.156	-3123611	SLV 3	-2803387	-3464900	0.189	Si
35	21.99	5.3	17.72	5.3	2160641	SLV 14	2160641	2812275	0.156	-2498524	SLV 3	-2498524	-3464900	0.189	Si
197	12.57	5.3	22.92	5.3	94605	SLV 2	378818	3590158	0.228	39281	SLV 15	-258876	-2016180	0.136	Si
360	21.99	5.3	18.85	5.3	2172294	SLV 1	2172294	2984929	0.16	-2594828	SLV 16	-2594828	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	2553198	SLV 1	2368512	2984929	0.16	-3229034	SLV 16	-2906170	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	17.72	5.3	1151678	SLD 14	1086553	2812275	0.156	-1724631	SLD 3	-1530443	-3464900	0.189	Si
35	21.99	5.3	17.72	5.3	1011926	SLD 14	1011926	2812275	0.156	-1349810	SLD 3	-1349810	-3464900	0.189	Si
197	12.57	5.3	22.92	5.3	81011	SLD 2	221640	3590158	0.228	52876	SLD 15	-101698	-2016180	0.136	Si
360	21.99	5.3	18.85	5.3	997042	SLD 1	997042	2984929	0.16	-1419576	SLD 16	-1419576	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	1127680	SLD 1	1068126	2984929	0.16	-1803516	SLD 16	-1605784	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	6169	SLU 16	6169	11203	56765	0	11203	1	Si
35	0.188	21.61	0	5033	SLU 16	5033	11138	56765	29673	29673	1	Si
197	0.154	12.57	0	-242	SLU 16	-242	-9297	-56765	-24178	-24178	1	Si
360	0.157	21.99	0	-5518	SLU 16	-5518	-11203	-56765	-24728	-24728	1	Si
395	0	21.99	0	-6654	SLU 16	-6654	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	18211	Ger.	25670	11203	56765	0	11203	1	Si
0	0	17.72	0	-10793	Ger.	-17406	-10427	-56793	0	-10427	1	Si
35	0.188	21.61	0	17531	Ger.	24989	11138	56765	29673	29673	1	Si
35	0.188	17.72	0	-11473	Ger.	-18086	-10427	-56793	-29688	-29688	1	Si
197	0.154	12.57	0	14372	Ger.	21830	9297	56765	24178	24178	1	Si
197	0.154	12.57	0	-14632	Ger.	-21245	-9297	-56765	-24178	-24178	1	Si
360	0.157	18.85	0	11213	Ger.	18671	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-17791	Ger.	-24404	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	10532	Ger.	17991	10642	56765	0	10642	1	Si
395	0	21.99	0	-18471	Ger.	-25085	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	11060	SLD 1	11060	11203	56765	0	11203	1	Si
0	0	17.72	0	-3642	SLD 16	-3642	-10427	-56793	0	-10427	1	Si
35	0.188	21.61	0	10380	SLD 1	10380	11138	56765	29673	29673	1	Si
35	0.188	17.72	0	-4322	SLD 16	-4322	-10427	-56793	-29688	-29688	1	Si
197	0.154	12.57	0	7221	SLD 1	7221	9297	56765	24178	24178	1	Si
197	0.154	12.57	0	-7481	SLD 16	-7481	-9297	-56765	-24178	-24178	1	Si
360	0.157	18.85	0	4062	SLD 1	4062	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-10640	SLD 16	-10640	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	3382	SLD 1	3382	10642	56765	0	10642	1	Si
395	0	21.99	0	-11321	SLD 16	-11321	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-350019	8	-271325	13.1	149.4	315.3	3600	-286477	4	-221945	10.7	112.1	0	+∞	Si
35	-206733	8	-206733	10	149.4	240.3	3600	-168942	4	-168942	8.2	112.1	0	+∞	Si
197	82151	4	82188	4.2	149.4	92.3	3600	69550	2	69550	3.6	112.1	0	+∞	Si
360	-263046	8	-263046	12.5	149.4	305.5	3600	-211267	4	-211267	10.1	112.1	0	+∞	Si
395	-418461	8	-333703	15.9	149.4	387.5	3600	-337918	4	-268829	12.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
35	0	-0.001	-0.001	-0.002	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si
197	0.003	0.002	0.002	0	0.003	0.002	0.002	0.001	0.003	0.002	0.004	2	0.002	2	9999 Si
342	-0.001	-0.002	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1	9999 Si
360	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2475	191.2	8.4	50	0.022	0.00239	0.01399	0	11138	56765	29673	29673	33736	33736	24989	0	SLV 3	Si
2800	194.8	8.3	50	0.022	0.00283	0.01423	0	11203	56765	24728	24728	29395	29395	-24404	0	SLV 15	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.				Vdes				contr. grav.				Vdes			
0	3839				-17406				3839				25670			
35	3159				-18086				3159				24989			
197	0				-21245				0				21830			
360	-3159				-24404				-3159				18671			
395	-3839				-25085				-3839				17991			

Campata 7 tra i fili 10 - 29, sezione R 40x50, asta 509; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-2098165	SLU 16	-1763905	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-1463207	SLU 16	-1463207	-3464774	0.185	Si
308	12.57	5.3	12.57	5.3	1031754	SLU 16	1271770	2016674	0.15						Si
595	16.59	5.3	12.57	5.3						-1087065	SLU 16	-1087065	-2637123	0.176	Si
615	16.59	5.3	12.57	5.3						-1415313	SLU 16	-1245520	-2637123	0.176	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	467774	SLV 14	467774	2984929	0.16	-2878936	SLV 3	-2597094	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	653069	SLV 14	741562	2984929	0.16	-2334544	SLV 3	-2334544	-3464774	0.185	Si
308	12.57	5.3	12.57	5.3	688223	SLV 14	771635	2016674	0.15						Si
595	16.59	5.3	12.57	5.3	752057	SLV 3	825209	2017702	0.142	-2005898	SLV 14	-2005898	-2637123	0.176	Si
615	16.59	5.3	12.57	5.3	665855	SLV 3	665855	2017702	0.142	-2297297	SLV 14	-2148328	-2637123	0.176	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-2054731	SLD 3	-1817105	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	-82704	SLD 14	56611	2984929	0.16	-1598770	SLD 3	-1598770	-3464774	0.185	Si
308	12.57	5.3	12.57	5.3	640920	SLD 14	673533	2016674	0.15						Si
595	16.59	5.3	12.57	5.3	72920	SLD 3	196895	2017702	0.142	-1326761	SLD 14	-1326761	-2637123	0.176	Si
615	16.59	5.3	12.57	5.3						-1567628	SLD 14	-1443925	-2637123	0.176	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	19247	SLU 16	19247	11203	56765	0	11203	1	Si
35	0.157	21.99	0	17183	SLU 16	17183	11203	56765	24728	24728	1	Si
308	0.12	12.57	0	1110	SLU 16	1110	9297	56765	18815	18815	1	Si
595	0.157	16.59	0	-15845	SLU 16	-15845	-10203	-56826	-24755	-24755	1	Si
615	0	16.59	0	-16943	SLU 16	-16943	-10203	-56826	0	-10203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	16190	Ger.	21195	11203	56765	0	11203	1	Si
0	0	18.85	0	5930	Ger.	-618	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	15003	Ger.	20008	11203	56765	24728	24728	1	Si
35	0.157	17.52	0	4743	Ger.	-1804	-10385	-56765	-24728	-24728	1	Si
308	0.12	12.57	0	5764	Ger.	10769	9297	56765	18815	18815	1	Si
308	0.12	12.57	0	-4496	Ger.	-11043	-9297	-56765	-18815	-18815	1	Si
595	0.157	12.57	0	-3983	Ger.	1021	9297	56765	24728	24728	1	Si
595	0.157	16.59	0	-14243	Ger.	-20791	-10203	-56826	-24755	-24755	1	Si
615	0	12.57	0	-4625	Ger.	380	9297	56765	0	9297	1	Si
615	0	16.59	0	-14885	Ger.	-21432	-10203	-56826	0	-10203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13663	SLD 3	13663	11203	56765	0	11203	1	Si
35	0.157	21.99	0	12476	SLD 3	12476	11203	56765	24728	24728	1	Si
308	0.12	12.57	0	3237	SLD 3	3237	9297	56765	18815	18815	1	Si
308	0.12	12.57	0	-1970	SLD 14	-1970	-9297	-56765	-18815	-18815	1	Si
595	0.157	16.59	0	-11716	SLD 14	-11716	-10203	-56826	-24755	-24755	1	Si
615	0	16.59	0	-12358	SLD 14	-12358	-10203	-56826	0	-10203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	σc lim.	$\sigma f.$	σf lim.	Mela	Comb.	Mdes	σc	σc lim.	σFRP	σFRP lim.	
0	-1505254	8	-1265499	60.3	149.4	1469.6	3600	-1205581	4	-1013513	48.3	112.1	0	$+\infty$	Si
35	-1049815	8	-1049815	50.1	149.4	1219.1	3600	-840737	4	-840737	40.1	112.1	0	$+\infty$	Si
308	739820	8	747121	46.6	149.4	1494.2	3600	592277	4	598035	37.3	112.1	0	$+\infty$	Si
595	-779757	8	-779757	44.3	149.4	1198.8	3600	-626921	4	-626921	35.6	112.1	0	$+\infty$	Si
615	-1015186	8	-893404	50.8	149.4	1373.5	3600	-815721	4	-718051	40.8	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

x	Bordo	Rara	Frequente	Quasi permanente	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.1	0.00045	0.01	8	22.1	0.00044	0.0097	4	22.1	0.0004	0.0088	4	Si
35	superiore	22.1	0.00036	0.0078	8	22.1	0.00033	0.0074	4	22.1	0.0003	0.0066	4	Si
308	inferiore	28.2	0.00044	0.0123	8	28.2	0.00037	0.0105	4	28.2	0.00035	0.0098	4	Si
328	inferiore	28.2	0.00044	0.0123	8	28.2	0.00037	0.0105	4	28.2	0.00035	0.0098	4	Si
595	superiore	24.1	0.00035	0.0084	8	24.1	0.0003	0.0072	4	24.1	0.00028	0.0068	4	Si
615	superiore	24.1	0.0004	0.0096	8	24.1	0.00036	0.0087	4	24.1	0.00033	0.0078	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
35	0.009	0.004	0.005	0.003	0.007	0.004	0.003	0.003	0.007	0.004	0.012	4	0.008	4	9999 Si
308	0.155	0.081	0.159	0.067	0.132	0.081	0.115	0.067	0.124	0.081	0.272	4	0.16	4	2258 Si
328	0.155	0.082	0.16	0.067	0.133	0.082	0.116	0.067	0.124	0.082	0.274	4	0.161	4	2244 Si
595	0.01	0.005	0.009	0.004	0.008	0.005	0.007	0.004	0.008	0.005	0.016	4	0.01	4	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2870	416.7	7.2	50	0.022	0.0027	0.0144	0	10385	56765	24728	24728	25694	25694	20008	0	SLV 13	Si
3430	380.6	6.3	50	0.015	0.00217	0.01214	0	9297	56765	24728	24728	24227	24728	-20791	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	10426	-618	-10039	5930		10426	21195	9790	19247	
35	9239	-1804	-10039	4743		9239	20008	9790	17183	
308	0	-11043	-10039	-4496		0	10769	9790	5764	
595	-9748	-20791	-10039	-15845		-9748	1021	9790	-3983	
615	-10389	-21432	-10039	-16943		-10389	380	9790	-4625	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	12	2017702	-2637123
1	580	5	2984929	-3464774
2	35	5	2984929	-3464774
2	360	6	2984929	-3464774
3	35	6	2984929	-3464774
3	405	7	2501100	-3460407
4	35	7	2501100	-3460407
4	495	8	2501100	-3460407
5	35	8	2501100	-3460407
5	405	9	2812275	-3464900
6	35	9	2812275	-3464900
6	360	10	2984929	-3464774
7	35	10	2984929	-3464774
7	595	29	2017702	-2637123

Trave a "Primo Impalcato" Parete 2 - Parete 3

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 18 - 24, sezione R 30x50, asta 529; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-370813	SLU 16	-336297	-993776	0.126	Si
20	6.03	5.1	6.03	5.1						-304266	SLU 16	-304266	-993776	0.126	Si
250	6.03	5.1	6.03	5.1	110700	SLU 9	201240	993776	0.126						Si
480	6.03	5.1	6.03	5.1						-309392	SLU 16	-309392	-993776	0.126	Si
500	6.03	5.1	6.03	5.1						-376384	SLU 16	-341646	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	159286	SLV 13	159286	993776	0.126	-699518	SLV 4	-655880	-993776	0.126	Si
20	6.03	5.1	6.03	5.1	176397	SLV 13	189398	993776	0.126	-614222	SLV 4	-614222	-993776	0.126	Si
250	6.03	5.1	6.03	5.1	79154	SLV 6	101200	993776	0.126						Si
480	6.03	5.1	6.03	5.1	178699	SLV 2	191665	993776	0.126	-623778	SLV 15	-623778	-993776	0.126	Si
500	6.03	5.1	6.03	5.1	161614	SLV 2	161614	993776	0.126	-709731	SLV 15	-665803	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-487965	SLD 4	-452748	-993776	0.126	Si
20	6.03	5.1	6.03	5.1	-18348	SLD 13	11551	993776	0.126	-419476	SLD 4	-419476	-993776	0.126	Si
250	6.03	5.1	6.03	5.1	72048	SLD 6	81656	993776	0.126						Si
480	6.03	5.1	6.03	5.1	-18840	SLD 2	11187	993776	0.126	-426239	SLD 15	-426239	-993776	0.126	Si
500	6.03	5.1	6.03	5.1						-495228	SLD 15	-459780	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	3485	SLU 9	3485	6021	42764	0	6021	1	Si
20	0.157	6.03	0	3206	SLU 9	3206	6021	42764	24838	24838	1	Si
250	0.052	6.03	0	-11	SLU 16	-11	-6021	-42764	-8279	-8279	1	Si
480	0.157	6.03	0	-3225	SLU 16	-3225	-6021	-42764	-24838	-24838	1	Si
500	0	6.03	0	-3505	SLU 16	-3505	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	4402	Ger.	7440	6021	42764	0	6021	1	Si
0	0	6.03	0	958	Ger.	-2065	-6021	-42764	0	-6021	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
20	0.157	6.03	0	4187	Ger.	7225	6021	42764	24838	24838	1	Si
20	0.157	6.03	0	743	Ger.	-2280	-6021	-42764	-24838	-24838	1	Si
250	0.052	6.03	0	1714	Ger.	4753	6021	42764	8279	8279	1	Si
250	0.052	6.03	0	-1730	Ger.	-4753	-6021	-42764	-8279	-8279	1	Si
480	0.157	6.03	0	-758	Ger.	2280	6021	42764	24838	24838	1	Si
480	0.157	6.03	0	-4202	Ger.	-7225	-6021	-42764	-24838	-24838	1	Si
500	0	6.03	0	-973	Ger.	2065	6021	42764	0	6021	1	Si
500	0	6.03	0	-4417	Ger.	-7440	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	3553	SLD 2	3553	6021	42764	0	6021	1	Si
20	0.157	6.03	0	3338	SLD 2	3338	6021	42764	24838	24838	1	Si
250	0.052	6.03	0	866	SLD 2	866	6021	42764	8279	8279	1	Si
250	0.052	6.03	0	-882	SLD 15	-882	-6021	-42764	-8279	-8279	1	Si
480	0.157	6.03	0	-3354	SLD 15	-3354	-6021	-42764	-24838	-24838	1	Si
500	0	6.03	0	-3569	SLD 15	-3569	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-280424	8	-253871	26.3	149.4	1037.6	3600	-270116	4	-243558	25.2	112.1	0	$+\infty$	Si
20	-229229	8	-229229	23.7	149.4	936.9	3600	-218912	4	-218912	22.6	112.1	0	$+\infty$	Si
250	85154	1	85154	8.8	149.4	348	3600	85154	1	85154	8.8	112.1	0	$+\infty$	Si
480	-233055	8	-233055	24.1	149.4	952.5	3600	-222539	4	-222539	23	112.1	0	$+\infty$	Si
500	-284583	8	-257864	26.7	149.4	1053.9	3600	-274058	4	-247343	25.6	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f		
20	0	-0.002	-0.001	-0.002	0	-0.002	-0.001	-0.002	0	-0.001	-0.002	1	-0.004	1	9999	Si	
250	0.011	0.001	0.008	-0.001	0.011	0.003	0.008	0.001	0.011	0.004	0.021	1	0.006	1	9999	Si	
480	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.005	1	9999	Si	

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	213.6	5.7	50	0.008	0.00071	0.01748	0	6021	42764	24838	24838	23391	24838	7225	0	SLV 1	Si
500	286.4	5.7	50	0.008	0.00101	0.01748	0	6021	42764	24838	24838	22731	24838	-7225	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2688	-2065	-4321	958	2688	7440	4321	4402
20	2473	-2280	-4321	743	2473	7225	4321	4187
250	0	-4753	-4321	-1730	0	4753	4321	1714
480	-2473	-7225	-4321	-4202	-2473	2280	4321	-758
500	-2688	-7440	-4321	-4417	-2688	2065	4321	-973

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	18	993776	-993776
1	480	24	993776	-993776

Trave a "Primo Impalcato" Parete 2-Pil.7

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 15 - 16, sezione R 40x50, aste 449, 450, 451, 452, 453, 454, 455, 456

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	200755	SLU 16	140557	1638899	0.136						Si
20	10.05	5.1	10.05	5.1	79060	SLU 16	79060	1638899	0.136						Si
115	10.05	5.1	10.05	5.1						-8638	SLU 16	-8638	-1638899	0.136	Si
215	10.05	5.1	10.05	5.1						-123674	SLU 16	-145804	-1638899	0.136	Si
230	10.05	5.1	10.05	5.1						-145804	SLU 16	-145804	-1638899	0.136	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

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

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	177680	SLV 16	122903	1574884	0.267						Si
20	10.05	5.1	10.05	5.1	67263	SLV 16	67263	1574884	0.267	46112	SLV 1	-8848	-1574884	0.267	Si
115	10.05	5.1	10.05	5.1	630	SLV 5	2896	1574884	0.267	-12398	SLV 12	-13617	-1574884	0.267	Si
215	10.05	5.1	10.05	5.1	256050	SLV 8	309320	1574884	0.267	-418548	SLV 9	-500398	-1574884	0.267	Si
230	10.05	5.1	10.05	5.1	309320	SLV 8	309320	1574884	0.267	-500398	SLV 9	-500398	-1574884	0.267	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

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

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	159632	SLD 16	111334	1574884	0.267						
20	10.05	5.1	10.05	5.1	62101	SLD 12	62101	1574884	0.267	51273	SLD 5	-2497	-1574884	0.267	Si
115	10.05	5.1	10.05	5.1						-9306	SLD 12	-9696	-1574884	0.267	Si
215	10.05	5.1	10.05	5.1	98543	SLD 8	120252	1574884	0.267	-261041	SLD 9	-311331	-1574884	0.267	Si
230	10.05	5.1	10.05	5.1	120252	SLD 8	120252	1574884	0.267	-311331	SLD 9	-311331	-1574884	0.267	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	-6020	SLU 16	-6020	-8648	-57019	0	-8648	1	Si
15	0	10.05	0	-6119	SLU 16	-6119	-8648	-57019	0	-8648	1	Si
20	0.067	10.05	0	-6150	SLU 16	-6150	-8648	-57019	-10645	-10645	1	Si
115	0.067	10.05	0	-104	SLU 14	-104	-8648	-57019	-10645	-10645	1	Si
230	0.157	10.05	0	-1493	SLU 16	-1493	-8648	-57019	-24838	-24838	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	-5484	SLV 14	-5484	-8648	-57019	0	-8648	1	Si
15	0	10.05	0	-5560	SLV 14	-5560	-8648	-57019	0	-8648	1	Si
20	0.067	10.05	0	-5584	SLV 14	-5584	-8648	-57019	-10645	-10645	1	Si
115	0.067	10.05	0	651	SLV 5	651	8648	57019	10645	10645	1	Si
115	0.067	10.05	0	-807	SLV 12	-807	-8648	-57019	-10645	-10645	1	Si
230	0.157	10.05	0	3436	SLV 8	3436	8648	57019	24838	24838	1	Si
230	0.157	10.05	0	-5376	SLV 9	-5376	-8648	-57019	-24838	-24838	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	-4832	SLD 14	-4832	-8648	-57019	0	-8648	1	Si
15	0	10.05	0	-4909	SLD 14	-4909	-8648	-57019	0	-8648	1	Si
20	0.067	10.05	0	-4932	SLD 14	-4932	-8648	-57019	-10645	-10645	1	Si
115	0.067	10.05	0	305	SLD 5	305	8648	57019	10645	10645	1	Si
115	0.067	10.05	0	-461	SLD 12	-461	-8648	-57019	-10645	-10645	1	Si
230	0.157	10.05	0	1377	SLD 8	1377	8648	57019	24838	24838	1	Si
230	0.157	10.05	0	-3318	SLD 9	-3318	-8648	-57019	-24838	-24838	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	150163	8	105331	7.3	149.4	260	3600	140984	4	99335	6.9	112.1	0	+∞	Si
20	59500	8	59500	4.1	149.4	146.9	3600	56687	4	56687	3.9	112.1	0	+∞	Si
115	-6398	8	-6398	0.4	149.4	15.8	3600	-5884	4	-5884	0.4	112.1	0	+∞	Si
230	-107219	8	-107219	7.4	149.4	264.7	3600	-95539	4	-95539	6.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
20	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si
115	-0.001	-0.001	0	0	-0.001	-0.001	0	0	-0.001	-0.001	-0.001	1	-0.001	1	9999 Si
169	0	-0.001	0	-0.001	0	-0.001	0	0	0	-0.001	-0.001	1	-0.001	1	9999 Si

Campata 2 tra i fili 16 - , sezione R 40x50, asta 457; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1						-170664	SLU 16	-170664	-1638899	0.136	Si
68	10.05	5.1	10.05	5.1						-68868	SLU 16	-95614	-1638899	0.136	Si
137	10.05	5.1	10.05	5.1	13414	SLU 9	13414	1638899	0.136	-666	SLU 8	-15896	-1638899	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	364953	SLV 8	364953	1638899	0.136	-588373	SLV 9	-588373	-1638899	0.136	Si
68	10.05	5.1	10.05	5.1	248650	SLV 8	285219	1638899	0.136	-329819	SLV 9	-403320	-1638899	0.136	Si
137	10.05	5.1	10.05	5.1	124314	SLV 4	152380	1638899	0.136	-110153	SLV 13	-161372	-1638899	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	142417	SLD 8	142417	1638899	0.136	-365838	SLD 9	-365838	-1638899	0.136	Si
68	10.05	5.1	10.05	5.1	113353	SLD 8	124306	1638899	0.136	-194522	SLD 9	-242406	-1638899	0.136	Si
137	10.05	5.1	10.05	5.1	67131	SLD 4	78689	1638899	0.136	-52971	SLD 13	-87681	-1638899	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	10.05	0	1709	SLU 16	1709	8648	57019	24838	24838	1	Si
50	0.108	10.05	0	1382	SLU 16	1382	8648	57019	17130	17130	1	Si
68	0.108	10.05	0	1263	SLU 16	1263	8648	57019	17130	17130	1	Si
137	0.108	10.05	0	818	SLU 16	818	8648	57019	17130	17130	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	10.05	0	3947	Ger.	11842	8648	57019	24838	24838	1	Si
0	0.157	10.05	0	-1528	Ger.	-10010	-8648	-57019	-24838	-24838	1	Si
50	0.108	10.05	0	3696	Ger.	11590	8648	57019	17130	17130	1	Si
50	0.108	10.05	0	-1779	Ger.	-10261	-8648	-57019	-17130	-17130	1	Si
68	0.108	10.05	0	3605	Ger.	11499	8648	57019	17130	17130	1	Si
68	0.108	10.05	0	-1870	Ger.	-10353	-8648	-57019	-17130	-17130	1	Si
137	0.108	10.05	0	3262	Ger.	11149	8648	57019	17130	17130	1	Si
137	0.108	10.05	0	-2213	Ger.	-10703	-8648	-57019	-17130	-17130	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	10.05	0	2673	SLD 9	2673	8648	57019	24838	24838	1	Si
0	0.157	10.05	0	-254	SLD 8	-254	-8648	-57019	-24838	-24838	1	Si
50	0.108	10.05	0	2422	SLD 9	2422	8648	57019	17130	17130	1	Si
50	0.108	10.05	0	-505	SLD 8	-505	-8648	-57019	-17130	-17130	1	Si
68	0.108	10.05	0	2330	SLD 9	2330	8648	57019	17130	17130	1	Si
68	0.108	10.05	0	-596	SLD 8	-596	-8648	-57019	-17130	-17130	1	Si
137	0.108	10.05	0	1988	SLD 9	1988	8648	57019	17130	17130	1	Si
137	0.108	10.05	0	-939	SLD 8	-939	-8648	-57019	-17130	-17130	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-125476	8	-125476	8.7	149.4	309.7	3600	-111710	4	-111710	7.7	112.1	0	+∞	Si
68	-49510	8	-69397	4.8	149.4	171.3	3600	-40585	4	-59050	4.1	112.1	0	+∞	Si
137	10319	1	10319	0.7	149.4	25.5	3600	10319	1	10319	0.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
68	0	0	0	0	0	0	0	0	0	0	0.001	1	0	1	9999
137	0.002	0.002	0.002	0.001	0.002	0.002	0.002	0.001	0.002	0.002	0.004	3	0.004	3	9999

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	916		-10010		-9933		-1528		916		11842		9933		3947	
68	573		-10353		-9933		-1870		573		11499		9933		3605	
137	223		-10703		-9933		-2213		223		11149		9933		3262	

Campata 3 tra i fili - 7, sezione R 40x50, aste 458, 459, 460, 461; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	14338	SLU 9	31770	1638899	0.136						Si
99	10.05	5.1	10.05	5.1	91651	SLU 16	95033	1638899	0.136						Si
107	10.05	5.1	10.05	5.1	94084	SLU 16	95033	1638899	0.136						Si
193	10.05	5.1	10.05	5.1	70203	SLU 16	78716	1638899	0.136						Si
213	10.05	5.1	10.05	5.1	59099	SLU 16	59099	1638899	0.136						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	116274	SLV 4	116274	1638899	0.136	-99590	SLV 13	-99590	-1638899	0.136	Si
107	10.05	5.1	10.05	5.1	239268	SLV 9	310790	1638899	0.136	-116651	SLV 8	-191477	-1638899	0.136	Si
193	10.05	5.1	10.05	5.1	542178	SLV 9	542178	1638899	0.136	-467479	SLV 8	-467479	-1638899	0.136	Si
213	10.05	5.1	10.05	5.1	619869	SLV 9	581530	1638899	0.136	-565433	SLV 8	-515964	-1638899	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	63614	SLD 4	63614	1638899	0.136	-46929	SLD 13	-46929	-1638899	0.136	Si
107	10.05	5.1	10.05	5.1	156042	SLD 9	193303	1638899	0.136	-33425	SLD 8	-73991	-1638899	0.136	Si
193	10.05	5.1	10.05	5.1	306278	SLD 9	306278	1638899	0.136	-231579	SLD 8	-231579	-1638899	0.136	Si
213	10.05	5.1	10.05	5.1	343074	SLD 9	325179	1638899	0.136	-288637	SLD 8	-259613	-1638899	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	10.05	0	1284	SLU 16	1284	8648	57019	17130	17130	1	Si
7	0.088	10.05	0	1238	SLU 16	1238	8648	57019	13895	13895	1	Si
107	0.088	10.05	0	320	SLU 16	320	8648	57019	13895	13895	1	Si
193	0.157	10.05	0	-632	SLU 13	-632	-8648	-57019	-24838	-24838	1	Si
213	0	10.05	0	-762	SLU 13	-762	-8648	-57019	0	-8648	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	10.05	0	3215	Ger.	11149	8648	57019	17130	17130	1	Si
0	0.108	10.05	0	-1586	Ger.	-10703	-8648	-57019	-17130	-17130	1	Si
107	0.088	10.05	0	2589	Ger.	10559	8648	57019	13895	13895	1	Si
107	0.088	10.05	0	-2315	Ger.	-11293	-8648	-57019	-13895	-13895	1	Si
193	0.157	10.05	0	3935	Ger.	10071	8648	57019	24838	24838	1	Si
193	0.157	10.05	0	-4848	Ger.	-11781	-8648	-57019	-24838	-24838	1	Si
213	0	10.05	0	3835	Ger.	9961	8648	57019	0	8648	1	Si
213	0	10.05	0	-4948	Ger.	-11891	-8648	-57019	0	-8648	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	10.05	0	2087	SLD 9	2087	8648	57019	17130	17130	1	Si
0	0.108	10.05	0	-459	SLD 8	-459	-8648	-57019	-17130	-17130	1	Si
107	0.088	10.05	0	1439	SLD 9	1439	8648	57019	13895	13895	1	Si
107	0.088	10.05	0	-1165	SLD 8	-1165	-8648	-57019	-13895	-13895	1	Si
193	0.157	10.05	0	1890	SLD 9	1890	8648	57019	24838	24838	1	Si
193	0.157	10.05	0	-2803	SLD 9	-2803	-8648	-57019	-24838	-24838	1	Si
213	0	10.05	0	1790	SLD 9	1790	8648	57019	0	8648	1	Si
213	0	10.05	0	-2903	SLD 8	-2903	-8648	-57019	0	-8648	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	11029	1	24181	1.7	149.4	59.7	3600	11029	1	24181	1.7	112.1	0	+∞	Si
107	69026	8	69580	4.8	149.4	171.8	3600	61308	4	61308	4.2	112.1	0	+∞	Si
193	49643	8	56460	3.9	149.4	139.4	3600	37349	4	45496	3.1	112.1	0	+∞	Si
213	40833	8	40833	2.8	149.4	100.8	3600	27218	4	27218	1.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
0	0.002	0.002	0.002	0.001	0.002	0.002	0.002	0.001	0.002	0.002	0.004	3	0.004	3	9999
92	0.004	0.003	0.003	0.002	0.004	0.003	0.003	0.002	0.004	0.003	0.007	4	0.006	4	9999
107	0.004	0.003	0.003	0.002	0.004	0.003	0.003	0.002	0.003	0.003	0.007	4	0.006	4	9999
193	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	4	0.001	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	ρ_{tot}	θ_m	θ_y	$\mu\Delta_{pl}$	Vrd	$VRcd(cot\theta=1)$	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	191.6	6.1	50	0.01	0.00052	0.01121	0	8648	57019	24838	24838	25250	25250	-11781	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	223	-10703	-9933	-1586		223	11149	9933		3215
107	-367	-11293	-9933	-2315		-367	10559	9933		2589
193	-855	-11781	-9933	-4848		-855	10071	9933		3935
213	-965	-11891	-9933	-4948		-965	9961	9933		3835

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
2	0	16	1638899	-1638899
3	193	7	1638899	-1638899

Trave a "Primo Impalcato" Parete 3 - Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 23 - 3, sezione R 40x50, asta 527; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3						-654260	SLU 16	-561619	-2499740	0.173	Si
20	15.71	5.3	11.44	5.3						-476350	SLU 16	-476350	-2499740	0.173	Si
228	12.57	5.3	9.42	5.3	387306	SLU 16	480644	1531525	0.133						Si
420	21.99	5.3	18.85	5.3						-435041	SLU 16	-435041	-3464774	0.185	Si
455	21.99	5.3	18.85	5.3						-751024	SLU 16	-580650	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3	1093887	SLV 13	1073961	1843573	0.139	-1945279	SLV 4	-1808062	-2499740	0.173	Si
20	15.71	5.3	11.44	5.3	1049402	SLV 13	1049402	1843573	0.139	-1675476	SLV 4	-1675476	-2499740	0.173	Si
228	12.57	5.3	9.42	5.3	506625	SLV 4	656828	1531525	0.133	-29306	SLV 13	-195181	-2016246	0.159	Si
303	17.21	5.3	9.42	5.3	1019516	SLV 4	1129357	1531080	0.13	-708061	SLV 13	-914314	-2723273	0.198	Si
420	21.99	5.3	18.85	5.3	1510773	SLV 4	1510773	2984929	0.16	-2050150	SLV 13	-2050150	-3464774	0.185	Si
455	21.99	5.3	18.85	5.3	1588751	SLV 4	1557543	2984929	0.16	-2522178	SLV 13	-2278384	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3	344861	SLD 13	344861	1843573	0.139	-1196252	SLD 4	-1097764	-2499740	0.173	Si
20	15.71	5.3	11.44	5.3	377834	SLD 13	400948	1843573	0.139	-1003908	SLD 4	-1003908	-2499740	0.173	Si
228	12.57	5.3	9.42	5.3	374547	SLD 4	446850	1531525	0.133						Si
420	21.99	5.3	18.85	5.3	633166	SLD 4	651899	2984929	0.16	-1172544	SLD 13	-1172544	-3464774	0.185	Si
455	21.99	5.3	18.85	5.3	575591	SLD 4	575591	2984929	0.16	-1509018	SLD 13	-1333000	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	15.71	0	9369	SLU 16	9369	10015	56765	0	10015	1	Si
20	0.157	15.71	0	8527	SLU 16	8527	10015	56765	24728	24728	1	Si
228	0.126	9.42	0	16	SLU 10	16	8447	56765	19782	19782	1	Si
228	0.126	9.42	0	-214	SLU 8	-214	-8447	-56765	-19782	-19782	1	Si
420	0.157	21.99	0	-8320	SLU 16	-8320	-11203	-56765	-24728	-24728	1	Si
455	0	21.99	0	-9795	SLU 16	-9795	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	15.71	0	13788	Ger.	21104	10015	56765	0	10015	1	Si
0	0	11.44	0	-1927	Ger.	-8577	-9012	-56809	0	-9012	1	Si
20	0.157	15.71	0	13259	Ger.	20574	10015	56765	24728	24728	1	Si
20	0.157	11.44	0	-2456	Ger.	-9106	-9012	-56809	-24747	-24747	1	Si
228	0.126	9.42	0	7767	Ger.	15083	8447	56765	19782	19782	1	Si
228	0.126	12.57	0	-7947	Ger.	-14598	-9297	-56765	-19782	-19782	1	Si
420	0.157	18.85	0	2673	Ger.	9988	10642	56765	24728	24728	1	Si
420	0.157	21.99	0	-13042	Ger.	-19692	-11203	-56765	-24728	-24728	1	Si
455	0	18.85	0	1746	Ger.	9062	10642	56765	0	10642	1	Si
455	0	21.99	0	-13968	Ger.	-20619	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	15.71	0	9915	SLD 4	9915	10015	56765	0	10015	1	Si
20	0.157	15.71	0	9386	SLD 4	9386	10015	56765	24728	24728	1	Si
228	0.126	9.42	0	3894	SLD 4	3894	8447	56765	19782	19782	1	Si
228	0.126	9.42	0	-4074	SLD 13	-4074	-8447	-56765	-19782	-19782	1	Si
420	0.157	21.99	0	-9169	SLD 13	-9169	-11203	-56765	-24728	-24728	1	Si
455	0	21.99	0	-10095	SLD 13	-10095	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-478578	8	-411310	24.2	149.4	664.1	3600	-425696	4	-367050	21.6	112.1	0	+∞	Si
20	-349384	8	-349384	20.6	149.4	564.1	3600	-313037	4	-313037	18.4	112.1	0	+∞	Si
228	279191	8	279191	19.3	149.4	737.4	3600	238660	4	238660	16.5	112.1	0	+∞	Si
420	-314341	8	-314341	15	149.4	365	3600	-269689	4	-269689	12.9	112.1	0	+∞	Si
455	-542900	8	-419646	20	149.4	487.3	3600	-466713	4	-360421	17.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica		
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f	
20	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.003	4	0.001	4	9999	Si	
228	0.032	0.017	0.026	0.014	0.029	0.017	0.023	0.014	0.027	0.017	0.052	4	0.033	4	8707	Si	
420	0.003	0.002	0.002	0.001	0.003	0.002	0.002	0.001	0.003	0.003	0.002	0.005	4	0.003	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	271.7	6.2	50	0.014	0.00056	0.01234	0	9012	56809	24747	24747	24058	24747	20574	0	SLV 9	Si
440	315.5	7.2	50	0.022	0.00049	0.01522	0	10642	56765	24728	24728	25694	25694	-19692	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	6021		-8577		-13271		-1927		6021		21104		13712		13788	
20	5491		-9106		-13271		-2456		5491		20574		13712		13259	
228	0		-14598		-13271		-7947		0		15083		13712		7767	
420	-5095		-19692		-13271		-13042		-5095		9988		13712		2673	
455	-6021		-20619		-13271		-13968		-6021		9062		13712		1746	

Campata 2 tra i fili 3 - 4, sezione R 40x50, asta 526; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-248563	SLU 16	-197051	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-154789	SLU 16	-154789	-3464774	0.185	Si
197	12.57	5.3	21.51	5.3	60337	SLU 10	126360	3379644	0.215						Si
360	21.99	5.3	18.85	5.3						-193802	SLU 16	-193802	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3						-295980	SLU 16	-240265	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	2688820	SLV 13	2465730	2984929	0.16	-3057700	SLV 4	-2754928	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	2244579	SLV 15	2244579	2984929	0.16	-2468327	SLV 2	-2468327	-3464774	0.185	Si
197	12.57	5.3	21.51	5.3	46580	SLV 3	334139	3379644	0.215	21015	SLV 14	-275137	-2016248	0.138	Si
360	21.99	5.3	18.85	5.3	2243327	SLV 4	2243327	2984929	0.16	-2519076	SLV 13	-2519076	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	2675954	SLV 4	2463214	2984929	0.16	-3108035	SLV 13	-2810014	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	1272095	SLD 13	1178507	2984929	0.16	-1640975	SLD 4	-1467705	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	1082566	SLD 15	1082566	2984929	0.16	-1306314	SLD 2	-1306314	-3464774	0.185	Si
197	12.57	5.3	21.51	5.3	40332	SLD 3	183935	3379644	0.215	27263	SLD 14	-124933	-2016248	0.138	Si
360	21.99	5.3	18.85	5.3	1069114	SLD 4	1069114	2984929	0.16	-1344863	SLD 13	-1344863	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	1249871	SLD 4	1163059	2984929	0.16	-1681952	SLD 13	-1509858	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	3006	SLU 10	3006	11203	56765	0	11203	1	Si
35	0.157	21.99	0	2460	SLU 10	2460	11203	56765	24728	24728	1	Si
197	0.154	18.85	0	-120	SLU 16	-120	-10642	-56765	-24178	-24178	1	Si
360	0.157	21.99	0	-2655	SLU 16	-2655	-11203	-56765	-24728	-24728	1	Si
395	0	21.99	0	-3201	SLU 16	-3201	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	16885	Ger.	24200	11203	56765	0	11203	1	Si
0	0	18.85	0	-12305	Ger.	-19460	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	16465	Ger.	23780	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-12725	Ger.	-19880	-10642	-56765	-24728	-24728	1	Si
197	0.154	18.85	0	14515	Ger.	21830	10642	56765	24178	24178	1	Si
197	0.154	18.85	0	-14675	Ger.	-21830	-10642	-56765	-24178	-24178	1	Si
360	0.157	18.85	0	12565	Ger.	19880	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-16625	Ger.	-23780	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	12145	Ger.	19460	10642	56765	0	10642	1	Si
395	0	21.99	0	-17045	Ger.	-24200	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	9688	SLD 4	9688	11203	56765	0	11203	1	Si
0	0	18.85	0	-5108	SLD 13	-5108	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	9268	SLD 4	9268	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-5528	SLD 13	-5528	-10642	-56765	-24728	-24728	1	Si
197	0.154	18.85	0	7318	SLD 4	7318	10642	56765	24178	24178	1	Si
197	0.154	18.85	0	-7478	SLD 13	-7478	-10642	-56765	-24178	-24178	1	Si
360	0.157	18.85	0	5368	SLD 4	5368	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-9428	SLD 13	-9428	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	4948	SLD 4	4948	10642	56765	0	10642	1	Si
395	0	21.99	0	-9848	SLD 13	-9848	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-189073	8	-149380	7.1	149.4	173.5	3600	-184440	4	-144599	6.9	112.1	0	+∞	Si
35	-116803	8	-116803	5.6	149.4	135.6	3600	-111874	4	-111874	5.3	112.1	0	+∞	Si
197	46398	2	46398	2.4	149.4	55.4	3600	46303	1	46303	2.4	112.1	0	+∞	Si
360	-145556	8	-145556	6.9	149.4	169	3600	-137875	4	-137875	6.6	112.1	0	+∞	Si
395	-224018	8	-181229	8.6	149.4	210.5	3600	-216041	4	-173400	8.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
35	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	1	-0.002	1	9999	Si
197	0.002	-0.001	0.001	-0.001	0.002	0	0.001	-0.001	0.002	0	0.002	1	-0.001	1	9999	Si
329	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1	9999	Si

TABULATO DI CALCOLO – FABBRICATO B

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
360	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.003	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
510	194.6	8.3	50	0.022	0.00244	0.0147	0	11203	56765	24728	24728	29411	29411	23780	0	SLV 2	Si
835	196.1	8.3	50	0.022	0.0028	0.0147	0	11203	56765	24728	24728	29312	29312	-23780	0	SLV 14	Si

Valutazione dei tagli secondo gerachria delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	2370		-19460		-19845		-12305		2370		24200		19845		16885	
35	1950		-19880		-19845		-12725		1950		23780		19845		16465	
197	0		-21830		-19845		-14675		0		21830		19845		14515	
360	-1950		-23780		-19845		-16625		-1950		19880		19845		12565	
395	-2370		-24200		-19845		-17045		-2370		19460		19845		12145	

Campata 3 tra i fili 4 - 28, sezione R 40x50, asta 525; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-1488871	SLU 16	-1250850	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-1036794	SLU 16	-1036794	-3464774	0.185	Si
308	12.57	5.3	9.42	5.3	734409	SLU 16	908153	1531525	0.133						Si
595	15.71	5.3	9.42	5.3						-789594	SLU 16	-789594	-2496297	0.184	Si
615	15.71	5.3	9.42	5.3						-1024901	SLU 16	-903141	-2496297	0.184	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	741592	SLV 15	741592	2984929	0.16	-2615022	SLV 2	-2375373	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	845658	SLV 15	891416	2984929	0.16	-2150783	SLV 2	-2150783	-3464774	0.185	Si
308	12.57	5.3	9.42	5.3	557228	SLV 15	645658	1531525	0.133						Si
595	15.71	5.3	9.42	5.3	887413	SLV 2	921925	1531215	0.131	-1878948	SLV 15	-1878948	-2496297	0.184	Si
615	15.71	5.3	9.42	5.3	842518	SLV 2	842518	1531215	0.131	-2129656	SLV 15	-2001722	-2496297	0.184	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-1788613	SLD 2	-1593300	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	107921	SLD 15	204640	2984929	0.16	-1413046	SLD 2	-1413046	-3464774	0.185	Si
308	12.57	5.3	9.42	5.3	509841	SLD 15	547325	1531525	0.133						Si
595	15.71	5.3	9.42	5.3	206401	SLD 2	291873	1531215	0.131	-1197935	SLD 15	-1197935	-2496297	0.184	Si
615	15.71	5.3	9.42	5.3	110836	SLD 2	110836	1531215	0.131	-1397974	SLD 15	-1295375	-2496297	0.184	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13706	SLU 16	13706	11203	56765	0	11203	1	Si
35	0.157	21.99	0	12232	SLU 16	12232	11203	56765	24728	24728	1	Si
308	0.109	9.42	0	754	SLU 16	754	8447	56765	17202	17202	1	Si
595	0.157	15.71	0	-11355	SLU 16	-11355	-10015	-56765	-24728	-24728	1	Si
615	0	15.71	0	-12197	SLU 16	-12197	-10015	-56765	0	-10015	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13760	Ger.	17952	11203	56765	0	11203	1	Si
0	0	18.85	0	3469	Ger.	-2629	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	12834	Ger.	17025	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	2543	Ger.	-3555	-10642	-56765	-24728	-24728	1	Si
308	0.109	9.42	0	5622	Ger.	9814	8447	56765	17202	17202	1	Si
308	0.109	9.42	0	-4669	Ger.	-10767	-8447	-56765	-17202	-17202	1	Si
595	0.157	9.42	0	-1987	Ger.	2205	8447	56765	24728	24728	1	Si
595	0.157	15.71	0	-12277	Ger.	-18375	-10015	-56765	-24728	-24728	1	Si
615	0	9.42	0	-2516	Ger.	1676	8447	56765	0	8447	1	Si
615	0	15.71	0	-12807	Ger.	-18905	-10015	-56765	0	-10015	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	11227	SLD 2	11227	11203	56765	0	11203	1	Si
35	0.157	21.99	0	10300	SLD 2	10300	11203	56765	24728	24728	1	Si
308	0.109	9.42	0	3089	SLD 2	3089	8447	56765	17202	17202	1	Si
308	0.109	9.42	0	-2135	SLD 15	-2135	-8447	-56765	-17202	-17202	1	Si
595	0.157	15.71	0	-9744	SLD 15	-9744	-10015	-56765	-24728	-24728	1	Si
615	0	15.71	0	-10273	SLD 15	-10273	-10015	-56765	0	-10015	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1079626	8	-907097	43.3	149.4	1053.4	3600	-936715	4	-787109	37.5	112.1	0	+∞	Si
35	-751938	8	-751938	35.9	149.4	873.2	3600	-652563	4	-652563	31.1	112.1	0	+∞	Si
308	532114	8	536847	37	149.4	1418	3600	461081	4	465212	32.1	112.1	0	+∞	Si
595	-571985	8	-571985	34.8	149.4	925.6	3600	-495767	4	-495767	30.2	112.1	0	+∞	Si
615	-742493	8	-654263	39.8	149.4	1058.7	3600	-643569	4	-567088	34.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.1	0.00031	0.0068	8	22.1	0.00029	0.0064	4	22.1	0.00027	0.006	4	Si
35	superiore	22.1	0.00025	0.0056	8	22.1	0.00023	0.0051	4	22.1	0.00022	0.0049	4	Si
615	superiore	25.1	0.00031	0.0077	8	25.1	0.00028	0.007	4	25.1	0.00027	0.0067	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
35	0.006	0.004	0.004	0.003	0.006	0.004	0.004	0.003	0.005	0.004	0.011	4	0.008	4	9999	Si
308	0.111	0.066	0.093	0.056	0.1	0.066	0.084	0.056	0.096	0.066	0.199	4	0.138	4	3091	Si
328	0.111	0.067	0.093	0.056	0.101	0.067	0.085	0.056	0.096	0.067	0.2	4	0.138	4	3081	Si
595	0.007	0.004	0.005	0.003	0.006	0.004	0.005	0.003	0.006	0.004	0.011	4	0.008	4	9999	Si
615	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
905	250.4	8.3	50	0.022	0.00237	0.01606	0	11203	56765	24728	24728	25694	25694	17025	0	SLV 2	Si
1465	365.3	5.8	50	0.013	0.00188	0.01277	0	8447	56765	24728	24728	23851	24728	-18375	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	8138	-2629	-9788	3469	8138	17952	8921	13760
35	7212	-3555	-9788	2543	7212	17025	8921	12834
308	0	-10767	-9788	-4669	0	9814	8921	5622
595	-7609	-18375	-9788	-12277	-7609	2205	8921	-1987
615	-8138	-18905	-9788	-12807	-8138	1676	8921	-2516

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	23	1843573	-2499740
1	420	3	2984929	-3464774
2	35	3	2984929	-3464774
2	360	4	2984929	-3464774
3	35	4	2984929	-3464774
3	595	28	1531215	-2496297

Trave a "Primo Impalcato" Parete 3-Pil.8**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 23 - 25, sezione R 40x50, aste 462, 463, 464, 465, 466, 467, 468, 469****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	201867	SLU 16	141655	1638899	0.136						Si
20	10.05	5.1	10.05	5.1	80143	SLU 16	80143	1638899	0.136						Si
115	10.05	5.1	10.05	5.1						-8512	SLU 16	-8512	-1638899	0.136	Si
230	10.05	5.1	10.05	5.1						-132410	SLU 16	-132410	-1638899	0.136	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	176665	SLV 3	121199	1574884	0.267						Si
20	10.05	5.1	10.05	5.1	66065	SLV 7	66065	1574884	0.267	48749	SLV 10	-8707	-1574884	0.267	Si
115	10.05	5.1	10.05	5.1	6271	SLV 2	18296	1574884	0.267	-17748	SLV 15	-28043	-1574884	0.267	Si
222	10.05	5.1	10.05	5.1	499289	SLV 3	532151	1574884	0.267	-655066	SLV 14	-701358	-1574884	0.267	Si
230	10.05	5.1	10.05	5.1	532151	SLV 3	532151	1574884	0.267	-701358	SLV 14	-701358	-1574884	0.267	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	159474	SLD 3	110815	1574884	0.267						Si
20	10.05	5.1	10.05	5.1	61954	SLD 7	61954	1574884	0.267	52860	SLD 10	-2302	-1574884	0.267	Si
115	10.05	5.1	10.05	5.1	370	SLD 2	6853	1574884	0.267	-11847	SLD 15	-16601	-1574884	0.267	Si
222	10.05	5.1	10.05	5.1	216779	SLD 3	230334	1574884	0.267	-372556	SLD 14	-399541	-1574884	0.267	Si
230	10.05	5.1	10.05	5.1	230334	SLD 3	230334	1574884	0.267	-399541	SLD 14	-399541	-1574884	0.267	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	-6021	SLU 16	-6021	-8648	-57019	0	-8648	1	Si
15	0	10.05	0	-6121	SLU 16	-6121	-8648	-57019	0	-8648	1	Si
20	0.067	10.05	0	-6151	SLU 16	-6151	-8648	-57019	-10645	-10645	1	Si
115	0.067	10.05	0	-110	SLU 16	-110	-8648	-57019	-10645	-10645	1	Si
230	0.157	10.05	0	-1403	SLU 16	-1403	-8648	-57019	-24838	-24838	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	-5571	SLV 3	-5571	-8648	-57019	0	-8648	1	Si
15	0	10.05	0	-5647	SLV 3	-5647	-8648	-57019	0	-8648	1	Si
20	0.067	10.05	0	-5671	SLV 3	-5671	-8648	-57019	-10645	-10645	1	Si
115	0.067	10.05	0	588	SLV 6	588	8648	57019	10645	10645	1	Si
115	0.067	10.05	0	-748	SLV 11	-748	-8648	-57019	-10645	-10645	1	Si
230	0.157	10.05	0	4267	SLV 3	4267	8648	57019	24838	24838	1	Si
230	0.157	10.05	0	-6057	SLV 14	-6057	-8648	-57019	-24838	-24838	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	-4877	SLD 3	-4877	-8648	-57019	0	-8648	1	Si
15	0	10.05	0	-4954	SLD 3	-4954	-8648	-57019	0	-8648	1	Si
20	0.067	10.05	0	-4977	SLD 3	-4977	-8648	-57019	-10645	-10645	1	Si
115	0.067	10.05	0	269	SLD 6	269	8648	57019	10645	10645	1	Si
115	0.067	10.05	0	-430	SLD 11	-430	-8648	-57019	-10645	-10645	1	Si
230	0.157	10.05	0	1749	SLD 3	1749	8648	57019	24838	24838	1	Si
230	0.157	10.05	0	-3539	SLD 14	-3539	-8648	-57019	-24838	-24838	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	150984	8	106142	7.3	149.4	262	3600	141711	4	100059	6.9	112.1	0	+∞	Si
20	60301	8	60301	4.2	149.4	148.9	3600	57407	4	57407	4	112.1	0	+∞	Si
115	-6294	8	-6294	0.4	149.4	15.5	3600	-5738	4	-5738	0.4	112.1	0	+∞	Si

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	σc lim.	σf .	σf lim.	Mela	Comb.	Mdes	σc	σc lim.	σ FRP	σ FRP lim.	
230	-97123	8	-97123	6.7	149.4	239.7	3600	-84604	4	-84604	5.9	112.1	0	+	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
20	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
115	-0.001	-0.001	0	0	-0.001	-0.001	0	0	-0.001	-0.001	-0.001	1	-0.001	1	9999
169	0	-0.001	0	0	0	-0.001	0	0	0	-0.001	-0.001	1	-0.001	1	9999

Campata 2 tra i fili 25 - , sezione R 40x50, asta 470; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1						-153932	SLU 16	-153932	-1638899	0.136	Si
68	10.05	5.1	10.05	5.1						-63865	SLU 16	-87166	-1638899	0.136	Si
137	10.05	5.1	10.05	5.1	3851	SLU 9	3851	1638899	0.136	-5595	SLU 7	-18642	-1638899	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	624149	SLV 3	624149	1638899	0.136	-820701	SLV 14	-820701	-1638899	0.136	Si
68	10.05	5.1	10.05	5.1	267837	SLV 11	470038	1638899	0.136	-343768	SLV 6	-519487	-1638899	0.136	Si
119	10.05	5.1	10.05	5.1	833465	SLV 15	1051685	1638899	0.136	-850763	SLV 2	-1053918	-1638899	0.136	Si
137	10.05	5.1	10.05	5.1	1051685	SLV 15	1051685	1638899	0.136	-1053918	SLV 2	-1053918	-1638899	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	270650	SLD 3	270650	1638899	0.136	-467201	SLD 14	-467201	-1638899	0.136	Si
68	10.05	5.1	10.05	5.1	124311	SLD 11	227991	1638899	0.136	-200243	SLD 6	-277440	-1638899	0.136	Si
119	10.05	5.1	10.05	5.1	419824	SLD 15	533963	1638899	0.136	-437123	SLD 2	-536196	-1638899	0.136	Si
137	10.05	5.1	10.05	5.1	533963	SLD 15	533963	1638899	0.136	-536196	SLD 2	-536196	-1638899	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotg θ	Verifica
0	0.157	10.05	0	1537	SLU 16	1537	8648	57019	24838	24838	1	Si
50	0.108	10.05	0	1211	SLU 16	1211	8648	57019	17130	17130	1	Si
68	0.108	10.05	0	1092	SLU 16	1092	8648	57019	17130	17130	1	Si
137	0.108	10.05	0	647	SLU 16	647	8648	57019	17130	17130	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotg θ	Verifica
0	0.157	10.05	0	13222	SLV 14	13222	8648	57019	24838	24838	1	Si
0	0.157	10.05	0	-11118	SLV 3	-11118	-8648	-57019	-24838	-24838	1	Si
50	0.108	10.05	0	12970	SLV 14	12970	8648	57019	17130	17130	1	Si
50	0.108	10.05	0	-11369	SLV 3	-11369	-8648	-57019	-17130	-17130	1	Si
68	0.108	10.05	0	12879	SLV 14	12879	8648	57019	17130	17130	1	Si
68	0.108	10.05	0	-11461	SLV 3	-11461	-8648	-57019	-17130	-17130	1	Si
137	0.108	10.05	0	12537	SLV 14	12537	8648	57019	17130	17130	1	Si
137	0.108	10.05	0	-11803	SLV 3	-11803	-8648	-57019	-17130	-17130	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotg θ	Verifica
0	0.157	10.05	0	7228	SLD 14	7228	8648	57019	24838	24838	1	Si
0	0.157	10.05	0	-5124	SLD 3	-5124	-8648	-57019	-24838	-24838	1	Si
50	0.108	10.05	0	6976	SLD 14	6976	8648	57019	17130	17130	1	Si
50	0.108	10.05	0	-5375	SLD 3	-5375	-8648	-57019	-17130	-17130	1	Si
68	0.108	10.05	0	6885	SLD 14	6885	8648	57019	17130	17130	1	Si
68	0.108	10.05	0	-5467	SLD 3	-5467	-8648	-57019	-17130	-17130	1	Si
137	0.108	10.05	0	6543	SLD 14	6543	8648	57019	17130	17130	1	Si
137	0.108	10.05	0	-5809	SLD 3	-5809	-8648	-57019	-17130	-17130	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	σc lim.	σf .	σf lim.	Mela	Comb.	Mdes	σc	σc lim.	σ FRP	σ FRP lim.	
0	-112890	8	-112890	7.8	149.4	278.7	3600	-98276	4	-98276	6.8	112.1	0	+	Si
68	-45949	8	-63186	4.4	149.4	156	3600	-37966	4	-53255	3.7	112.1	0	+	Si
137	2963	1	2963	0.2	149.4	7.3	3600	2963	1	2963	0.2	112.1	0	+	Si
137	-2743	7	-12817	0.9	149.4	31.6	3600	-1117	4	-9517	0.7	112.1	0	+	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
68	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
137	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	2	0.002	2	9999

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela		
0	909	-11118	-9933	-11118	909	13222	9933	13222		
68	566	-11461	-9933	-11461	566	12879	9933	12879		
137	219	-11803	-9933	-11803	219	12537	9933	12537		

Campata 3 tra i fili - 8, sezione R 40x50, aste 471, 472, 473, 474; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	4332	SLU 9	16676	1638899	0.136	-4676	SLU 7	-4676	-1638899	0.136	Si
107	10.05	5.1	10.05	5.1	82949	SLU 16	87262	1638899	0.136						Si
149	10.05	5.1	10.05	5.1	89017	SLU 16	89017	1638899	0.136						Si
193	10.05	5.1	10.05	5.1	84307	SLU 16	85811	1638899	0.136						Si
213	10.05	5.1	10.05	5.1	80172	SLU 16	80172	1638899	0.136						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	1000060	SLV 15	1000060	1638899	0.136	-1000996	SLV 2	-1000996	-1638899	0.136	Si
107	10.05	5.1	10.05	5.1	209375	SLV 10	296122	1638899	0.136	-101533	SLV 7	-203595	-1638899	0.136	Si
193	10.05	5.1	10.05	5.1	820992	SLV 2	820992	1638899	0.136	-725511	SLV 15	-725511	-1638899	0.136	Si
213	10.05	5.1	10.05	5.1	1003217	SLV 2	912604	1638899	0.136	-918413	SLV 15	-821464	-1638899	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1	508038	SLD 15	508038	1638899	0.136	-508973	SLD 2	-508973	-1638899	0.136	Si
107	10.05	5.1	10.05	5.1	136870	SLD 10	182433	1638899	0.136	-29029	SLD 7	-80935	-1638899	0.136	Si
193	10.05	5.1	10.05	5.1	444013	SLD 2	444013	1638899	0.136	-348532	SLD 15	-348532	-1638899	0.136	Si
213	10.05	5.1	10.05	5.1	534633	SLD 2	489823	1638899	0.136	-449829	SLD 15	-398682	-1638899	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	10.05	0	976	SLU 16	976	8648	57019	17130	17130	1	Si
7	0.099	10.05	0	930	SLU 16	930	8648	57019	15632	15632	1	Si
107	0.099	10.05	0	281	SLU 16	281	8648	57019	15632	15632	1	Si
193	0.157	10.05	0	-383	SLU 9	-383	-8648	-57019	-24838	-24838	1	Si
213	0	10.05	0	-513	SLU 9	-513	-8648	-57019	0	-8648	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	10.05	0	9487	Ger.	11145	8648	57019	17130	17130	1	Si
0	0.108	10.05	0	-8162	Ger.	-10707	-8648	-57019	-17130	-17130	1	Si
107	0.099	10.05	0	8080	Ger.	10566	8648	57019	15632	15632	1	Si
107	0.099	10.05	0	-7789	Ger.	-11286	-8648	-57019	-15632	-15632	1	Si
193	0.157	10.05	0	9161	Ger.	10074	8648	57019	24838	24838	1	Si
193	0.157	10.05	0	-9595	Ger.	-11778	-8648	-57019	-24838	-24838	1	Si
213	0	10.05	0	9061	Ger.	9964	8648	57019	0	8648	1	Si
213	0	10.05	0	-9695	Ger.	-11888	-8648	-57019	0	-8648	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	10.05	0	5155	SLD 2	5155	8648	57019	17130	17130	1	Si
0	0.108	10.05	0	-3830	SLD 15	-3830	-8648	-57019	-17130	-17130	1	Si
107	0.099	10.05	0	4195	SLD 2	4195	8648	57019	15632	15632	1	Si
107	0.099	10.05	0	-3905	SLD 15	-3905	-8648	-57019	-15632	-15632	1	Si
193	0.157	10.05	0	4581	SLD 2	4581	8648	57019	24838	24838	1	Si
193	0.157	10.05	0	-5015	SLD 15	-5015	-8648	-57019	-24838	-24838	1	Si
213	0	10.05	0	4481	SLD 2	4481	8648	57019	0	8648	1	Si
213	0	10.05	0	-5115	SLD 15	-5115	-8648	-57019	0	-8648	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	3332	1	12828	0.9	149.4	31.7	3600	3332	1	12828	0.9	112.1	0	+∞	Si
0	-2006	7	-2006	0.1	149.4	5	3600	-468	4	-468	0	112.1	0	+∞	Si
107	60854	8	63798	4.4	149.4	157.5	3600	53921	4	55811	3.9	112.1	0	+∞	Si
193	60135	8	61790	4.3	149.4	152.5	3600	47740	4	51066	3.5	112.1	0	+∞	Si
213	56458	8	56458	3.9	149.4	139.4	3600	42402	4	42402	2.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	2	0.002	2	9999	Si
99	0.003	0.002	0.003	0.002	0.003	0.002	0.002	0.002	0.003	0.002	0.006	4	0.005	4	9999	Si
107	0.003	0.002	0.003	0.002	0.003	0.002	0.002	0.002	0.003	0.002	0.006	4	0.005	4	9999	Si
193	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	4	0.001	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	247.5	6.1	50	0.01	0.00056	0.01121	0	8648	57019	24838	24838	23562	24838	-11778	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	219	-10707	-9933	-8162	219	11145	9933	9487
107	-360	-11286	-9933	-7789	-360	10566	9933	8080
193	-852	-11778	-9933	-9595	-852	10074	9933	9161
213	-962	-11888	-9933	-9695	-962	9964	9933	9061

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
2	0	25	1638899	-1638899
3	193	8	1638899	-1638899

Trave a "Primo Impalcato" Pil.1-Pil.5**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 1 - 5, sezione R 70x25, asta 475; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-658096	SLU 16	-591104	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-528587	SLU 16	-528587	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	317723	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-519834	SLU 16	-519834	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-648695	SLU 16	-582027	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-477322	SLV 9	-434538	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-394413	SLV 9	-394413	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188866	SLV 13	190352	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-390581	SLV 8	-390581	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-473203	SLV 8	-430562	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-436971	SLD 9	-395579	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-356846	SLD 9	-356846	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188824	SLD 13	189106	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-352991	SLD 8	-352991	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-432829	SLD 8	-391580	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6714	SLU 16	6714	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6252	SLU 16	6252	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	16	SLU 16	16	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6219	SLU 16	-6219	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6681	SLU 16	-6681	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4287	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	4012	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	307	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-293	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3998	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4273	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4148	SLD 9	4148	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3873	SLD 9	3873	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	168	SLD 9	168	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-153	SLD 8	-153	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3859	SLD 8	-3859	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4133	SLD 8	-4133	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-469796	8	-421968	97.4	149.4	2998.9	3600	-390386	4	-350601	80.9	112.1	0	+∞	Si
20	-377335	8	-377335	87.1	149.4	2681.7	3600	-313475	4	-313475	72.3	112.1	0	+∞	Si
290	226839	8	226839	58.9	149.4	2115.5	3600	188781	4	188781	49	112.1	0	+∞	Si
560	-371222	8	-371222	85.6	149.4	2638.3	3600	-309595	4	-309595	71.4	112.1	0	+∞	Si
580	-463230	8	-415628	95.9	149.4	2953.9	3600	-386219	4	-346578	80	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00094	0.0282	8	29.9	0.00094	0.0281	4	29.9	0.00087	0.026	4	Si
20	superiore	29.9	0.00079	0.0236	8	29.9	0.0008	0.024	4	29.9	0.00074	0.0221	4	Si
290	inferiore	35.4	0.00062	0.0218	8	35.4	0.00054	0.0192	4	35.4	0.00051	0.0182	4	Si
560	superiore	29.9	0.00077	0.023	8	29.9	0.00079	0.0235	4	29.9	0.00073	0.0217	4	Si
580	superiore	29.9	0.00092	0.0276	8	29.9	0.00092	0.0276	4	29.9	0.00085	0.0255	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.005	0.002	0.001	-0.008	0.004	0.002	0.001	-0.005	0.004	0.002	0.002	4	-0.014	4	9999	Si
290	0.167	0.083	0.153	0.077	0.147	0.083	0.129	0.077	0.139	0.083	0.33	4	0.212	4	1758	Si
560	0.005	0.002	0.001	-0.007	0.004	0.002	0.001	-0.004	0.004	0.002	0.002	4	-0.013	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	130.8	4.6	25	0.008	0.00045	0.00609	0	8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	117.6	4.6	25	0.008	0.00104	0.00609	0	8129	44224	52841	52841	47398	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3980	0	-1942	2380	3980	6714	1942	6714	3980	6714	1942	6714	3980	6714	1942	6714
20	3705	0	-1942	2216	3705	6252	1942	6252	3705	6252	1942	6252	3705	6252	1942	6252
290	0	-2136	-1942	-293	0	2136	1942	307	0	2136	1942	307	0	2136	1942	307
560	-3705	-6219	-1942	-6219	-3705	0	1942	-2208	-3705	0	1942	-2208	-3705	0	1942	-2208
580	-3980	-6681	-1942	-6681	-3980	0	1942	-2372	-3980	0	1942	-2372	-3980	0	1942	-2372

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
	1	20	1	-584167
	1	560	5	-584167

Trave a "Primo Impalcato" Pil.2-Pil.6**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 2 - 6, sezione R 70x25, asta 476; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-654939	SLU 16	-588056	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-525648	SLU 16	-525648	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	317714	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-522790	SLU 16	-522790	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-651869	SLU 16	-585092	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-472809	SLV 5	-430182	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-390214	SLV 5	-390214	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188826	SLV 4	190197	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-389191	SLV 12	-389191	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-471711	SLV 12	-429121	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-433863	SLD 5	-392579	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-353953	SLD 5	-353953	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188806	SLD 4	189004	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-352934	SLD 12	-352934	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-432768	SLD 12	-391521	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6703	SLU 16	6703	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6241	SLU 16	6241	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	5	SLU 16	5	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6230	SLU 16	-6230	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6692	SLU 16	-6692	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4271	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3997	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	291	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-288	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3993	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4268	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4137	SLD 5	4137	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3863	SLD 5	3863	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	157	SLD 5	157	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-153	SLD 12	-153	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3859	SLD 12	-3859	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4133	SLD 12	-4133	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-467577	8	-419825	96.9	149.4	2983.7	3600	-388845	4	-349112	80.5	112.1	0	+∞	Si
20	-375269	8	-375269	86.6	149.4	2667	3600	-312039	4	-312039	72	112.1	0	+∞	Si
290	226834	8	226834	58.9	149.4	2115.5	3600	188785	4	188785	49	112.1	0	+∞	Si
560	-373297	8	-373297	86.1	149.4	2653	3600	-311024	4	-311024	71.8	112.1	0	+∞	Si
580	-465458	8	-417780	96.4	149.4	2969.2	3600	-387754	4	-348059	80.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00094	0.028	8	29.9	0.00093	0.0279	4	29.9	0.00086	0.0258	4	Si
20	superiore	29.9	0.00078	0.0234	8	29.9	0.0008	0.0238	4	29.9	0.00074	0.022	4	Si
290	inferiore	35.4	0.00062	0.0218	8	35.4	0.00054	0.0192	4	35.4	0.00051	0.0182	4	Si
560	superiore	29.9	0.00078	0.0232	8	29.9	0.00079	0.0237	4	29.9	0.00073	0.0219	4	Si
580	superiore	29.9	0.00093	0.0278	8	29.9	0.00093	0.0278	4	29.9	0.00086	0.0257	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
20	0.005	0.002	0.001	-0.007	0.004	0.002	0.001	-0.004	0.004	0.002	0.002	4	-0.014	4	9999
290	0.167	0.083	0.153	0.077	0.147	0.083	0.129	0.077	0.139	0.083	0.33	4	0.212	4	1758
560	0.005	0.002	0.001	-0.007	0.004	0.002	0.001	-0.004	0.004	0.002	0.002	4	-0.014	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	131.1	4.6	25	0.008	0.00045	0.00609		8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	117.2	4.6	25	0.008	0.00102	0.00609		8129	44224	52841	52841	47414	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3980	0	-1942	2377	3980	6703	1942	6703
20	3705	0	-1942	2213	3705	6241	1942	6241
290	0	-2136	-1942	-288	0	2136	1942	291

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
560	-3705	-6230	-1942	-6230	-3705	0	1942	-2211
580	-3980	-6692	-1942	-6692	-3980	0	1942	-2375

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	2	464394	-584167
1	560	6	464394	-584167

Trave a "Primo Impalcato" Pil.3-Pil.9

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 3 - 9, sezione R 70x25, asta 478; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-656192	SLU 16	-589264	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-526812	SLU 16	-526812	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	317754	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-521548	SLU 16	-521548	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-650538	SLU 16	-583805	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-474006	SLV 10	-431336	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-391325	SLV 10	-391325	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188846	SLV 15	190256	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-389273	SLV 7	-389273	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-471799	SLV 7	-429206	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-434715	SLD 10	-393400	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-354745	SLD 10	-354745	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188824	SLD 15	189050	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-352683	SLD 7	-352683	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-432500	SLD 7	-391261	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6707	SLU 16	6707	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6245	SLU 16	6245	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	10	SLU 16	10	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6226	SLU 16	-6226	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6688	SLU 16	-6688	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4276	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	4001	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	296	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-288	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3993	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4268	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4140	SLD 10	4140	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3866	SLD 10	3866	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	160	SLD 10	160	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-152	SLD 7	-152	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3858	SLD 7	-3858	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4132	SLD 7	-4132	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-468452	8	-420669	97.1	149.4	2989.7	3600	-389394	4	-349642	80.7	112.1	0	+∞	Si
20	-376082	8	-376082	86.8	149.4	2672.8	3600	-312550	4	-312550	72.1	112.1	0	+∞	Si
290	226862	8	226862	58.9	149.4	2115.7	3600	188802	4	188802	49	112.1	0	+∞	Si
560	-372429	8	-372429	85.9	149.4	2646.9	3600	-310478	4	-310478	71.6	112.1	0	+∞	Si
580	-464529	8	-416881	96.2	149.4	2962.8	3600	-387169	4	-347494	80.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00094	0.0281	8	29.9	0.00094	0.028	4	29.9	0.00087	0.0259	4	Si
20	superiore	29.9	0.00079	0.0235	8	29.9	0.0008	0.0239	4	29.9	0.00074	0.022	4	Si
290	inferiore	35.4	0.00062	0.0218	8	35.4	0.00054	0.0192	4	35.4	0.00051	0.0182	4	Si
560	superiore	29.9	0.00077	0.0231	8	29.9	0.00079	0.0237	4	29.9	0.00073	0.0218	4	Si
580	superiore	29.9	0.00093	0.0277	8	29.9	0.00093	0.0277	4	29.9	0.00086	0.0256	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.005	0.002	0.001	-0.008	0.004	0.002	0.001	-0.005	0.004	0.002	0.002	4	-0.014	4	9999	Si
290	0.167	0.083	0.153	0.077	0.147	0.083	0.129	0.077	0.139	0.083	0.33	4	0.212	4	1757	Si

TABULATO DI CALCOLO – FABBRICATO B

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
560	0.005	0.002	0.001	-0.007	0.004	0.002	0.001	-0.004	0.004	0.002	0.002	4	-0.013	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	128.8	4.6	25	0.008	0.00041	0.00609	0	8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	119.8	4.6	25	0.008	0.001	0.00609	0	8129	44224	52841	52841	47314	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	3980		0		-1942		2378		3980		6707		1942		6707	
20	3705		0		-1942		2214		3705		6245		1942		6245	
290	0		-2136		-1942		-288		0		2136		1942		296	
560	-3705		-6226		-1942		-6226		-3705		0		1942		-2210	
580	-3980		-6688		-1942		-6688		-3980		0		1942		-2374	

Momenti resistenti a filo appoggi

campata	x		appoggio	momento positivo		momento negativo	
1	20		3	464394		-584167	
1	560		9	464394		-584167	

Trave a "Primo Impalcato" Pil.4-Pil.10

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 4 - 10, sezione R 70x25, asta 477; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-658950	SLU 16	-591930	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-529385	SLU 16	-529385	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	317685	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-519112	SLU 16	-519112	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-647916	SLU 16	-581277	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-476705	SLV 10	-433945	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-393844	SLV 10	-393844	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188849	SLV 4	190275	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-389249	SLV 7	-389249	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-471773	SLV 7	-429181	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-436824	SLD 10	-395438	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-356712	SLD 10	-356712	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	188807	SLD 4	189063	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-352139	SLD 7	-352139	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-431914	SLD 7	-390697	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6716	SLU 16	6716	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6255	SLU 16	6255	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	19	SLU 16	19	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6216	SLU 16	-6216	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6678	SLU 16	-6678	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4285	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	4010	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	305	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-288	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3993	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4268	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4147	SLD 10	4147	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3873	SLD 10	3873	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	167	SLD 10	167	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-150	SLD 7	-150	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3856	SLD 7	-3856	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4130	SLD 7	-4130	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-470392	8	-422544	97.5	149.4	3003	3600	-390763	4	-350966	81	112.1	0	+∞	Si
20	-377892	8	-377892	87.2	149.4	2685.7	3600	-313827	4	-313827	72.4	112.1	0	+∞	Si
290	226813	8	226813	58.8	149.4	2115.3	3600	188764	4	188764	49	112.1	0	+∞	Si
560	-370717	8	-370717	85.5	149.4	2634.7	3600	-309276	4	-309276	71.4	112.1	0	+∞	Si
580	-462686	8	-415104	95.8	149.4	2950.2	3600	-385875	4	-346246	79.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00095	0.0283	8	29.9	0.00094	0.0281	4	29.9	0.00087	0.026	4	Si
20	superiore	29.9	0.00079	0.0237	8	29.9	0.0008	0.0241	4	29.9	0.00074	0.0222	4	Si
290	inferiore	35.4	0.00062	0.0218	8	35.4	0.00054	0.0192	4	35.4	0.00051	0.0182	4	Si
560	superiore	29.9	0.00077	0.0229	8	29.9	0.00079	0.0235	4	29.9	0.00073	0.0217	4	Si
580	superiore	29.9	0.00092	0.0275	8	29.9	0.00092	0.0275	4	29.9	0.00085	0.0255	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.005	0.002	0.001	-0.008	0.004	0.002	0.001	-0.005	0.004	0.002	0.002	4	-0.014	4	9999	Si
290	0.167	0.083	0.153	0.077	0.147	0.083	0.129	0.077	0.139	0.083	0.33	4	0.212	4	1758	Si
560	0.005	0.002	0.001	-0.007	0.004	0.002	0.001	-0.004	0.004	0.002	0.002	4	-0.013	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	129.5	4.6	25	0.008	0.00042	0.00609	0	8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	119	4.6	25	0.008	0.00098	0.00609	0	8129	44224	52841	52841	47346	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3980	0	-1942	2381	3980	6716	1942	6716
20	3705	0	-1942	2217	3705	6255	1942	6255
290	0	-2136	-1942	-288	0	2136	1942	305
560	-3705	-6216	-1942	-6216	-3705	0	1942	-2208
580	-3980	-6678	-1942	-6678	-3980	0	1942	-2372

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	4	464394	-584167
1	560	10	464394	-584167

Trave a "Primo Impalcato" su Parete 1**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 12, sezione R 40x50, aste 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	135889	SLU 16	93785	692902	0.099						Si
20	4.02	5.1	4.02	5.1	50381	SLU 16	50381	692902	0.099	22212	SLU 1	-12786	-692902	0.099	Si
290	4.02	5.1	4.02	5.1						-4039	SLU 16	-4039	-692902	0.099	Si
560	4.02	5.1	4.02	5.1	69488	SLU 16	69488	692902	0.099	26812	SLU 1	-18835	-692902	0.099	Si
580	4.02	5.1	4.02	5.1	188601	SLU 16	129695	692902	0.099						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	148190	SLV 4	103475	651898	0.185						Si
20	4.02	5.1	4.02	5.1	57751	SLV 4	57751	651898	0.185	5773	SLV 13	-54377	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	53876	SLV 9	53876	651898	0.185	-59107	SLV 8	-59107	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	64982	SLV 1	64982	651898	0.185	15464	SLV 16	-58009	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	170005	SLV 1	117999	651898	0.185						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	117397	SLD 4	81725	651898	0.185						Si
20	4.02	5.1	4.02	5.1	45050	SLD 4	45050	651898	0.185	18473	SLD 13	-32584	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	27354	SLD 9	27354	651898	0.185	-32586	SLD 8	-32586	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	52891	SLD 1	52891	651898	0.185	27555	SLD 16	-35678	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	139947	SLD 1	96921	651898	0.185						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-4210	SLU 16	-4210	-6754	-57019	0	-6754	1	Si
20	0.061	4.02	0	-4340	SLU 16	-4340	-6754	-57019	-9659	-9659	1	Si
290	0.061	4.02	0	-185	SLU 16	-185	-6754	-57019	-9659	-9659	1	Si
560	0.061	4.02	0	6021	SLU 16	6021	6754	57019	9659	9659	1	Si
561	0	4.02	0	6016	SLU 16	6016	6754	57019	0	6754	1	Si
580	0	4.02	0	5891	SLU 16	5891	6754	57019	0	6754	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-4472	SLV 4	-4472	-6754	-57019	0	-6754	1	Si
20	0.061	4.02	0	-4572	SLV 4	-4572	-6754	-57019	-9659	-9659	1	Si
290	0.061	4.02	0	2157	SLV 9	2157	6754	57019	9659	9659	1	Si
290	0.061	4.02	0	-2431	SLV 8	-2431	-6754	-57019	-9659	-9659	1	Si
560	0.061	4.02	0	5302	SLV 1	5302	6754	57019	9659	9659	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
561	0	4.02	0	5298	SLV 1	5298	6754	57019	0	6754	1	Si
580	0	4.02	0	5202	SLV 1	5202	6754	57019	0	6754	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3567	SLD 4	-3567	-6754	-57019	0	-6754	1	Si
20	0.061	4.02	0	-3667	SLD 4	-3667	-6754	-57019	-9659	-9659	1	Si
290	0.061	4.02	0	1080	SLD 9	1080	6754	57019	9659	9659	1	Si
290	0.061	4.02	0	-1354	SLD 8	-1354	-6754	-57019	-9659	-9659	1	Si
560	0.061	4.02	0	4403	SLD 1	4403	6754	57019	9659	9659	1	Si
561	0	4.02	0	4400	SLD 1	4400	6754	57019	0	6754	1	Si
580	0	4.02	0	4303	SLD 1	4303	6754	57019	0	6754	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	98502	8	68025	7.4	149.4	408.1	3600	85434	4	59098	6.5	112.1	0	+∞	Si
20	36549	8	36549	4	149.4	219.3	3600	31762	4	31762	3.5	112.1	0	+∞	Si
290	-2972	8	-2972	0.3	149.4	17.8	3600	-2616	4	-2616	0.3	112.1	0	+∞	Si
560	49901	8	49901	5.4	149.4	299.4	3600	40223	4	40223	4.4	112.1	0	+∞	Si
580	135328	8	93114	10.2	149.4	558.7	3600	108723	4	74973	8.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
290	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
309	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
560	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Trave a "Primo Impalcato" su Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 28 - 29, sezione R 40x50, aste 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	135918	SLU 16	93799	692902	0.099						Si
20	4.02	5.1	4.02	5.1	50379	SLU 16	50379	692902	0.099	22229	SLU 1	-12857	-692902	0.099	Si
290	4.02	5.1	4.02	5.1						-3973	SLU 16	-3973	-692902	0.099	Si
560	4.02	5.1	4.02	5.1	69280	SLU 16	69280	692902	0.099	26785	SLU 1	-18791	-692902	0.099	Si
580	4.02	5.1	4.02	5.1	188040	SLU 16	129310	692902	0.099						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	147214	SLV 15	102542	651898	0.185						Si
20	4.02	5.1	4.02	5.1	56860	SLV 15	56860	651898	0.185	6689	SLV 2	-54823	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	52562	SLV 6	52562	651898	0.185	-57722	SLV 11	-57722	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	65721	SLV 14	65721	651898	0.185	14577	SLV 3	-56847	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	170694	SLV 14	118712	651898	0.185						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	116934	SLD 15	81272	651898	0.185						Si
20	4.02	5.1	4.02	5.1	44606	SLD 15	44606	651898	0.185	18943	SLD 2	-32813	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	26692	SLD 6	26692	651898	0.185	-31852	SLD 11	-31852	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	53224	SLD 14	53224	651898	0.185	27073	SLD 3	-35065	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	140185	SLD 14	97206	651898	0.185						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-4212	SLU 16	-4212	-6754	-57019	0	-6754	1	Si
20	0.061	4.02	0	-4342	SLU 16	-4342	-6754	-57019	-9659	-9659	1	Si
290	0.061	4.02	0	-182	SLU 16	-182	-6754	-57019	-9659	-9659	1	Si
560	0.061	4.02	0	6003	SLU 16	6003	6754	57019	9659	9659	1	Si
561	0	4.02	0	5999	SLU 16	5999	6754	57019	0	6754	1	Si
580	0	4.02	0	5873	SLU 16	5873	6754	57019	0	6754	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-4468	SLV 15	-4468	-6754	-57019	0	-6754	1	Si
20	0.061	4.02	0	-4568	SLV 15	-4568	-6754	-57019	-9659	-9659	1	Si
290	0.061	4.02	0	2119	SLV 10	2119	6754	57019	9659	9659	1	Si
290	0.061	4.02	0	-2391	SLV 7	-2391	-6754	-57019	-9659	-9659	1	Si
560	0.061	4.02	0	5299	SLV 14	5299	6754	57019	9659	9659	1	Si
561	0	4.02	0	5296	SLV 14	5296	6754	57019	0	6754	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
580	0	4.02	0	5199	SLV 14	5199	6754	57019	0	6754	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3567	SLD 15	-3567	-6754	-57019	0	-6754	1	Si
20	0.061	4.02	0	-3667	SLD 15	-3667	-6754	-57019	-9659	-9659	1	Si
290	0.061	4.02	0	1061	SLD 10	1061	6754	57019	9659	9659	1	Si
290	0.061	4.02	0	-1333	SLD 7	-1333	-6754	-57019	-9659	-9659	1	Si
560	0.061	4.02	0	4398	SLD 14	4398	6754	57019	9659	9659	1	Si
561	0	4.02	0	4395	SLD 14	4395	6754	57019	0	6754	1	Si
580	0	4.02	0	4298	SLD 14	4298	6754	57019	0	6754	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	98529	8	68039	7.4	149.4	408.2	3600	85487	4	59131	6.5	112.1	0	+∞	Si
20	36550	8	36550	4	149.4	219.3	3600	31775	4	31775	3.5	112.1	0	+∞	Si
290	-2924	8	-2924	0.3	149.4	17.5	3600	-2580	4	-2580	0.3	112.1	0	+∞	Si
560	49758	8	49758	5.4	149.4	298.5	3600	40149	4	40149	4.4	112.1	0	+∞	Si
580	134943	8	92850	10.1	149.4	557.1	3600	108520	4	74834	8.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
290	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
309	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
560	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Trave a "Primo Impalcato" vano ascensore

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 20 - 22, sezione R 30x50, aste 479, 480, 481, 482; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-22780	SLU 16	-22780	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3						-29685	SLU 16	-40677	-1512506	0.15	Si
23	9.42	5.3	9.42	5.3						-33637	SLU 16	-43423	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	-4098	SLU 1	7320	1512506	0.15	-13434	SLU 16	-21044	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3						-18518	SLU 16	-33512	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3						-8627	SLU 16	-8627	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	1518864	SLV 16	1388198	1512506	0.15	-1546753	SLV 1	-1419520	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	1257846	SLV 16	1257846	1512506	0.15	-1293444	SLV 1	-1293444	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	130949	SLV 16	399112	1512506	0.15	-144829	SLV 1	-422474	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3	938028	SLV 1	938028	1512506	0.15	-960978	SLV 16	-960978	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3	1148462	SLV 1	1043497	1512506	0.15	-1160477	SLV 16	-1060559	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	763100	SLD 16	696093	1512506	0.15	-790989	SLD 1	-727415	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	629027	SLD 16	629027	1512506	0.15	-664625	SLD 1	-664625	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	63204	SLD 16	196855	1512506	0.15	-77083	SLD 1	-220218	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3	469967	SLD 1	469967	1512506	0.15	-492917	SLD 16	-492917	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3	579502	SLD 1	524965	1512506	0.15	-591517	SLD 16	-542027	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-424	SLU 16	-424	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	-497	SLU 16	-497	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	328	SLU 16	328	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	696	SLU 16	696	6972	42573	24728	24728	1	Si
159	0	9.42	0	678	SLU 16	678	6972	42573	0	6972	1	Si
170	0	9.42	0	623	SLU 16	623	6972	42573	0	6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	17380	Ger.	24087	6972	42573	0	6972	1	Si
0	0	9.42	0	-17837	Ger.	-23449	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	17323	Ger.	24030	6972	42573	24728	24728	1	Si
15	0.157	9.42	0	-17894	Ger.	-23505	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	13770	Ger.	23768	6972	42573	24728	24728	1	Si
85	0.157	9.42	0	-13376	Ger.	-23768	-6972	-42573	-24728	-24728	1	Si
155	0.157	9.42	0	14063	Ger.	23505	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	-13277	Ger.	-24030	-6972	-42573	-24728	-24728	1	Si
170	0	9.42	0	14006	Ger.	23449	6972	42573	0	6972	1	Si
170	0	9.42	0	-13334	Ger.	-24087	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	8703	SLD 3	8703	6972	42573	0	6972	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-9161	SLD 14	-9161	-6972	-42573	0	-6972	1	Si
11	0	9.42	0	8661	SLD 3	8661	6972	42573	0	6972	1	Si
11	0	9.42	0	-9203	SLD 14	-9203	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	8647	SLD 3	8647	6972	42573	24728	24728	1	Si
15	0.157	9.42	0	-9217	SLD 14	-9217	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	7080	SLD 1	7080	6972	42573	24728	24728	1	Si
85	0.157	9.42	0	-6686	SLD 16	-6686	-6972	-42573	-24728	-24728	1	Si
155	0.157	9.42	0	7333	SLD 1	7333	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	-6548	SLD 16	-6548	-6972	-42573	-24728	-24728	1	Si
170	0	9.42	0	7277	SLD 1	7277	6972	42573	0	6972	1	Si
170	0	9.42	0	-6604	SLD 16	-6604	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-16579	8	-16579	1.4	149.4	44.2	3600	-13944	4	-13944	1.2	112.1	0	+∞	Si
15	-21503	8	-29438	2.4	149.4	78.5	3600	-17799	4	-24299	2	112.1	0	+∞	Si
85	-9502	8	-15035	1.2	149.4	40.1	3600	-6940	4	-11681	1	112.1	0	+∞	Si
155	-13484	8	-24288	2	149.4	64.8	3600	-11475	4	-20139	1.7	112.1	0	+∞	Si
170	-6421	8	-6421	0.5	149.4	17.1	3600	-6007	4	-6007	0.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
79	0	-0.001	0	-0.001	0	-0.001	0	0	0	-0.001	-0.001	1	-0.001	1	9999
85	0	-0.001	0	-0.001	0	-0.001	0	0	0	0	-0.001	1	-0.001	1	9999
155	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	95.9	6.7	50	0.013	0.00033	0.01123	0	6972	42573	24728	24728	27606	27606	24030	0	SLV 5	Si
170	84.3	6.7	50	0.013	0.00031	0.01123	0	6972	42573	24728	24728	27934	27934	-24030	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	319	-23449	-21607	-17837	319	24087	21607	17380
15	263	-23505	-21607	-17894	263	24030	21607	17323
85	0	-23768	-21607	-13376	0	23768	21607	13770
155	-263	-24030	-21607	-13277	-263	23505	21607	14063
170	-319	-24087	-21607	-13334	-319	23449	21607	14006

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	20	1512506	-1512506
1	155	22	1512506	-1512506

Trave a "Quarto Impalcato" Parete 1 - Parete 2

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 1, sezione R 30x50, asta 215; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-910489	SLV 16	-823465	-1620182	0.156	Si
15	10.05	5.1	8.04	5.1						-739320	SLV 16	-739320	-1620182	0.156	Si
310	8.04	5.1	8.04	5.1	783173	SLV 16	916939	1307565	0.138						Si
590	13.19	5.1	12.06	5.1						-1085260	SLV 16	-1085260	-2106167	0.164	Si
620	13.19	5.1	12.06	5.1						-1474221	SLV 16	-1271577	-2106167	0.164	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1	272435	SLV 13	272435	1307401	0.134	-1408446	SLV 4	-1331260	-1620182	0.156	Si
15	10.05	5.1	8.04	5.1	333077	SLV 13	406758	1307401	0.134	-1255865	SLV 4	-1255865	-1620182	0.156	Si
310	8.04	5.1	8.04	5.1	597257	SLV 4	642296	1307565	0.138						Si
590	13.19	5.1	12.06	5.1	293767	SLV 4	382377	1932432	0.153	-1641579	SLV 13	-1641579	-2106167	0.164	Si
620	13.19	5.1	12.06	5.1	143755	SLV 4	143755	1932432	0.153	-1975466	SLV 13	-1803441	-2106167	0.164	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-995826	SLD 4	-929923	-1620182	0.156	Si
15	10.05	5.1	8.04	5.1	-56976	SLD 13	46966	1307401	0.134	-865812	SLD 4	-865812	-1620182	0.156	Si
310	8.04	5.1	8.04	5.1	543504	SLD 4	558282	1307565	0.138						Si
590	13.19	5.1	12.06	5.1						-1166589	SLD 13	-1166589	-2106167	0.164	Si
620	13.19	5.1	12.06	5.1						-1455344	SLD 13	-1305885	-2106167	0.164	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	11836	SLV 16	11836	7139	42764	0	7139	1	Si
15	0.157	10.05	0	11219	SLV 16	11219	7139	42764	24838	24838	1	Si
310	0.083	8.04	0	-909	SLV 16	-909	-6627	-42764	-13073	-13073	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
590	0.157	13.19	0	-12421	SLU 16	-12421	-7812	-42719	-24812	-24812	1	Si
620	0	13.19	0	-13655	SLU 16	-13655	-7812	-42719	0	-7812	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	10436	Ger.	14729	7139	42764	0	7139	1	Si
15	0.157	10.05	0	10053	Ger.	14345	7139	42764	24838	24838	1	Si
310	0.083	8.04	0	2504	Ger.	6796	6627	42764	13073	13073	1	Si
310	0.083	8.04	0	-3626	Ger.	-6530	-6627	-42764	-13073	-13073	1	Si
590	0.157	13.19	0	-10791	Ger.	-13696	-7812	-42719	-24812	-24812	1	Si
620	0	13.19	0	-11559	Ger.	-14463	-7812	-42719	0	-7812	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	8932	SLD 4	8932	7139	42764	0	7139	1	Si
15	0.157	10.05	0	8548	SLD 4	8548	7139	42764	24838	24838	1	Si
310	0.083	8.04	0	999	SLD 4	999	6627	42764	13073	13073	1	Si
310	0.083	8.04	0	-2121	SLD 13	-2121	-6627	-42764	-13073	-13073	1	Si
590	0.157	13.19	0	-9286	SLD 13	-9286	-7812	-42719	-24812	-24812	1	Si
620	0	13.19	0	-10054	SLD 13	-10054	-7812	-42719	0	-7812	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-658268	8	-595362	49.2	149.4	1484.5	3600	-568005	4	-513804	42.5	112.1	0	+∞	Si
15	-534536	8	-534536	44.2	149.4	1332.8	3600	-461394	4	-461394	38.2	112.1	0	+∞	Si
310	566024	8	573068	51.1	149.4	1771.5	3600	487669	4	493635	44	112.1	0	+∞	Si
590	-784608	8	-784608	54.8	149.4	1503.1	3600	-673906	4	-673906	47.1	112.1	0	+∞	Si
620	-1065776	8	-919291	64.3	149.4	1761.2	3600	-915856	4	-789800	55.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	24.8	0.00043	0.0107	8	24.8	0.0004	0.01	4	24.8	0.00037	0.0093	4	Si
15	superiore	24.8	0.00039	0.0096	8	24.8	0.00035	0.0087	4	24.8	0.00034	0.0083	4	Si
289	inferiore	27.6	0.00052	0.0143	8	27.6	0.00048	0.0131	4	27.6	0.00044	0.0123	4	Si
310	inferiore	27.6	0.00052	0.0143	8	27.6	0.00048	0.0131	4	27.6	0.00044	0.0123	4	Si
590	superiore	22.7	0.00044	0.0099	8	22.7	0.00045	0.0103	4	22.7	0.00042	0.0096	4	Si
620	superiore	22.7	0.00055	0.0125	8	22.7	0.00057	0.0128	4	22.7	0.00053	0.0121	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0.009	0.005	0.01	0.004	0.008	0.005	0.008	0.004	0.008	0.005	0.021	4	0.01	4	9999
289	0.169	0.098	0.192	0.083	0.152	0.098	0.153	0.083	0.145	0.098	0.403	4	0.202	4	1537
310	0.168	0.098	0.19	0.082	0.151	0.098	0.152	0.082	0.145	0.098	0.401	4	0.201	4	1547
590	0.009	0.005	0.006	0.003	0.008	0.005	0.005	0.003	0.008	0.005	0.02	4	0.009	4	9999
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	391	6	50	0.012	0.00192	0.01253		6627	42764	24838	24838	23297	24838	14345	0	SLV 13	Si
605	310	6.9	50	0.02	0.00005	0.01482	0	7586	42764	24838	24838	24347	24838	-13696	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7933	0	-5937	4307	7933	14729	6178	11836
15	7549	0	-5937	3923	7549	14345	6178	11219
310	0	-6530	-5937	-3626	0	6796	6178	2504
590	-7165	-13696	-5937	-12421	-7165	0	6178	-4662
620	-7933	-14463	-5937	-13655	-7933	0	6178	-5429

Campata 2 tra i fili 1 - 2, sezione R 30x50, asta 219; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1						-203917	SLU 16	-165540	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1						-133208	SLU 16	-133208	-2106167	0.164	Si
198	8.04	5.1	11.15	5.1	56550	SLU 9	116364	1789585	0.166						Si
365	13.19	5.1	12.06	5.1						-195301	SLU 16	-195301	-2106167	0.164	Si
395	13.19	5.1	12.06	5.1						-277321	SLU 15	-233268	-2106167	0.164	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1	1528756	SLV 13	1431600	1932432	0.153	-1836908	SLV 4	-1679994	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1	1329689	SLV 13	1329689	1932432	0.153	-1527625	SLV 4	-1527625	-2106167	0.164	Si
198	8.04	5.1	11.15	5.1	45771	SLV 16	214622	1789585	0.166	18512	SLV 1	-150378	-1307339	0.132	Si
365	13.19	5.1	12.06	5.1	1272869	SLV 4	1272869	1932432	0.153	-1550326	SLV 13	-1550326	-2106167	0.164	Si
395	13.19	5.1	12.06	5.1	1464891	SLV 4	1371220	1932432	0.153	-1866807	SLV 13	-1706256	-2106167	0.164	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1	699852	SLD 13	665268	1932432	0.153	-1008004	SLD 4	-913662	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1	625976	SLD 13	625976	1932432	0.153	-823912	SLD 4	-823912	-2106167	0.164	Si
198	8.04	5.1	11.15	5.1	39139	SLD 16	124781	1789585	0.166	25144	SLD 1	-60537	-1307339	0.132	Si
365	13.19	5.1	12.06	5.1	577717	SLD 4	577717	1932432	0.153	-855174	SLD 13	-855174	-2106167	0.164	Si
395	13.19	5.1	12.06	5.1	644514	SLD 4	613448	1932432	0.153	-1046430	SLD 13	-948484	-2106167	0.164	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	2655	SLU 9	2655	7812	42719	0	7812	1	Si
30	0.157	13.19	0	2235	SLU 9	2235	7812	42719	24812	24812	1	Si
198	0.094	11.09	0	-193	SLU 15	-193	-7377	-42764	-14797	-14797	1	Si
365	0.157	13.19	0	-2534	SLU 15	-2534	-7812	-42719	-24812	-24812	1	Si
395	0	13.19	0	-2953	SLU 15	-2953	-7812	-42719	0	-7812	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	10480	Ger.	15384	7812	42719	0	7812	1	Si
0	0	12.06	0	-6472	Ger.	-11138	-7586	-42764	0	-7586	1	Si
30	0.157	13.19	0	10158	Ger.	15062	7812	42719	24812	24812	1	Si
30	0.157	12.06	0	-6794	Ger.	-11460	-7586	-42764	-24838	-24838	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
198	0.094	11.09	0	8357	Ger.	13261	7377	42764	14797	14797	1	Si
198	0.094	11.09	0	-8595	Ger.	-13261	-7377	-42764	-14797	-14797	1	Si
365	0.157	12.06	0	6557	Ger.	11460	7586	42764	24838	24838	1	Si
365	0.157	13.19	0	-10395	Ger.	-15062	-7812	-42719	-24812	-24812	1	Si
395	0	12.06	0	6234	Ger.	11138	7586	42764	0	7586	1	Si
395	0	13.19	0	-10718	Ger.	-15384	-7812	-42719	0	-7812	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	6306	SLD 4	6306	7812	42719	0	7812	1	Si
0	0	12.06	0	-2297	SLD 13	-2297	-7586	-42764	0	-7586	1	Si
30	0.157	13.19	0	5983	SLD 4	5983	7812	42719	24812	24812	1	Si
30	0.157	12.06	0	-2619	SLD 13	-2619	-7586	-42764	-24838	-24838	1	Si
198	0.094	11.09	0	4183	SLD 4	4183	7377	42764	14797	14797	1	Si
198	0.094	11.09	0	-4420	SLD 13	-4420	-7377	-42764	-14797	-14797	1	Si
365	0.157	12.06	0	2382	SLD 4	2382	7586	42764	24838	24838	1	Si
365	0.157	13.19	0	-6221	SLD 13	-6221	-7812	-42719	-24812	-24812	1	Si
395	0	12.06	0	2060	SLD 4	2060	7586	42764	0	7586	1	Si
395	0	13.19	0	-6543	SLD 13	-6543	-7812	-42719	0	-7812	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-155961	8	-126317	8.8	149.4	242	3600	-154076	4	-124197	8.7	112.1	0	+∞	Si
30	-101324	8	-101324	7.1	149.4	194.1	3600	-98968	4	-98968	6.9	112.1	0	+∞	Si
198	43500	1	43637	3.5	149.4	98.5	3600	43500	1	43637	3.5	112.1	0	+∞	Si
365	-146346	8	-146346	10.2	149.4	280.4	3600	-138728	4	-138728	9.7	112.1	0	+∞	Si
395	-209174	7	-175421	12.3	149.4	336.1	3600	-200958	4	-167518	11.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si
198	0.003	0	0.002	-0.001	0.003	0	0.002	-0.001	0.003	0.001	0.004	1	-0.001	1	9999 Si
329	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.005	1	9999 Si
365	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.003	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRSd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	195.3	7.4	50	0.02	0.00199	0.01564	0	7812	42719	24812	24812	26725	26725	15062	0	SLV 1	Si
1000	192.9	7.4	50	0.02	0.00252	0.01564	0	7812	42719	24812	24812	26829	26829	-15062	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2123	-11138	-12056	-6472	2123	15384	12056	10480								
30	1801	-11460	-12056	-6794	1801	15062	12056	10158								
198	0	-13261	-12056	-8595	0	13261	12056	8357								
365	-1801	-15062	-12056	-10395	-1801	11460	12056	6557								
395	-2123	-15384	-12056	-10718	-2123	11138	12056	6234								

Campata 3 tra i fili 2 - 17, sezione R 30x50, asta 223; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1						-755332	SLU 16	-605649	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1						-474266	SLU 16	-474266	-2106167	0.164	Si
230	11.36	5.1	8.04	5.1	455422	SLU 16	491409	1307286	0.132						Si
445	10.05	5.1	8.04	5.1						-379680	SLU 16	-379680	-1620182	0.156	Si
460	10.05	5.1	8.04	5.1						-508754	SLU 16	-441956	-1620182	0.156	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1	974124	SLV 15	974124	1932432	0.153	-1911714	SLV 2	-1736404	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1	984359	SLV 15	984452	1932432	0.153	-1572484	SLV 2	-1572484	-2106167	0.164	Si
230	11.36	5.1	8.04	5.1	464999	SLV 15	562891	1307286	0.132	101421	SLV 2	-21261	-1821777	0.168	Si
445	10.05	5.1	8.04	5.1	759087	SLV 2	759087	1307401	0.134	-1235195	SLV 15	-1235195	-1620182	0.156	Si
460	10.05	5.1	8.04	5.1	760894	SLV 2	760894	1307401	0.134	-1397886	SLV 15	-1315133	-1620182	0.156	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1	264364	SLD 15	264364	1932432	0.153	-1201955	SLD 2	-1067106	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1	355522	SLD 15	403363	1932432	0.153	-943647	SLD 2	-943647	-2106167	0.164	Si
230	11.36	5.1	8.04	5.1	375634	SLD 15	419272	1307286	0.132						Si
445	10.05	5.1	8.04	5.1	268494	SLD 2	310821	1307401	0.134	-744602	SLD 15	-744602	-1620182	0.156	Si
460	10.05	5.1	8.04	5.1	229840	SLD 2	229840	1307401	0.134	-866831	SLD 15	-804309	-1620182	0.156	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	9992	SLU 16	9992	7812	42719	0	7812	1	Si
30	0.157	13.19	0	8759	SLU 16	8759	7812	42719	24812	24812	1	Si
230	0.085	8.04	0	536	SLU 16	536	6627	42764	13405	13405	1	Si
445	0.157	10.05	0	-8303	SLU 16	-8303	-7139	-42764	-24838	-24838	1	Si
460	0	10.05	0	-8920	SLU 16	-8920	-7139	-42764	0	-7139	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	11696	Ger.	14934	7812	42719	0	7812	1	Si
0	0	12.06	0	729	Ger.	-3531	-7586	-42764	0	-7586	1	Si
30	0.157	13.19	0	10928	Ger.	14166	7812	42719	24812	24812	1	Si
30	0.157	12.06	0	-39	Ger.	-4299	-7586	-42764	-24838	-24838	1	Si
230	0.085	8.04	0	5810	Ger.	9048	6627	42764	13405	13405	1	Si
230	0.085	8.04	0	-5157	Ger.	-9417	-6627	-42764	-13405	-13405	1	Si
445	0.157	8.04	0	308	Ger.	3546	6627	42764	24838	24838	1	Si
445	0.157	10.05	0	-10658	Ger.	-14918	-7139	-42764	-24838	-24838	1	Si
460	0	8.04	0	-76	Ger.	3162	6627	42764	0	6627	1	Si
460	0	10.05	0	-11042	Ger.	-15302	-7139	-42764	0	-7139	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	8998	SLD 2	8998	7812	42719	0	7812	1	Si
30	0.157	13.19	0	8231	SLD 2	8231	7812	42719	24812	24812	1	Si
230	0.085	8.04	0	3113	SLD 2	3113	6627	42764	13405	13405	1	Si
230	0.085	8.04	0	-2459	SLD 15	-2459	-6627	-42764	-13405	-13405	1	Si
445	0.157	10.05	0	-7961	SLD 15	-7961	-7139	-42764	-24838	-24838	1	Si
460	0	10.05	0	-8345	SLD 15	-8345	-7139	-42764	0	-7139	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-546482	8	-438267	30.6	149.4	839.6	3600	-468795	4	-375734	26.3	112.1	0	+∞	Si
30	-343280	8	-343280	24	149.4	657.7	3600	-294063	4	-294063	20.6	112.1	0	+∞	Si
230	328950	8	331412	27.6	149.4	1022.2	3600	283210	4	285212	23.8	112.1	0	+∞	Si
445	-274517	8	-274517	22.7	149.4	684.5	3600	-238054	4	-238054	19.7	112.1	0	+∞	Si
460	-367807	8	-319527	26.4	149.4	796.7	3600	-318496	4	-276867	22.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
30	0.006	0.003	0.004	0.002	0.005	0.003	0.004	0.002	0.005	0.003	0.01	4	0.006	4	9999
230	0.057	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.049	0.033	0.096	4	0.064	4	4775
245	0.057	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.049	0.033	0.097	4	0.065	4	4759
445	0.004	0.002	0.003	0.002	0.004	0.002	0.003	0.002	0.004	0.002	0.007	4	0.005	4	9999
460	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	340.4	6.9	50	0.02	0.0012	0.01491	0	7586	42764	24838	24838	24347	24838	14166	0	SLV 11	Si
1475	250.2	6	50	0.012	0.00081	0.01256	0	6627	42764	24838	24838	23297	24838	-14918	0	SLV 3	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo							taglio positivo						
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes
0	5886	-3531	-8561	729	5886	14934	8225	11696	5886	14934	8225	11696	5886	14934
30	5118	-4299	-8561	-39	5118	14166	8225	10928	5118	14166	8225	10928	5118	14166
230	0	-9417	-8561	-5157	0	9048	8225	5810	0	9048	8225	5810	0	9048
445	-5502	-14918	-8561	-10658	-5502	3546	8225	308	-5502	3546	8225	308	-5502	3546
460	-5886	-15302	-8561	-11042	-5886	3162	8225	-76	-5886	3162	8225	-76	-5886	3162

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	11	1307401	-1620182
1	590	1	1932432	-2106167
2	30	1	1932432	-2106167
2	365	2	1932432	-2106167
3	30	2	1932432	-2106167
3	445	17	1307401	-1620182

Trave a "Quarto Impalcato" Parete 1-Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 12 - 5, sezione R 30x50, aste 228, 229; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.44	5.3	9.42	5.3						-995054	SLU 16	-902899	-1823106	0.166	Si
15	11.44	5.3	9.42	5.3						-814855	SLU 16	-814855	-1823106	0.166	Si
310	9.42	5.3	9.42	5.3	859220	SLU 16	1005371	1512506	0.15						Si
590	13.45	5.2	11.44	5.3						-1251087	SLU 16	-1251087	-2134883	0.173	Si
620	13.45	5.2	11.44	5.3						-1742554	SLU 16	-1483988	-2134883	0.173	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.44	5.3	9.42	5.3	219341	SLV 16	219341	1513053	0.144	-1429569	SLV 1	-1350359	-1823106	0.166	Si
15	11.44	5.3	9.42	5.3	285100	SLV 16	363410	1513053	0.144	-1273708	SLV 1	-1273708	-1823106	0.166	Si
310	9.42	5.3	9.42	5.3	627753	SLV 1	675993	1512506	0.15						Si
590	13.45	5.2	11.44	5.3	200694	SLV 1	314951	1825436	0.151	-1694448	SLV 16	-1694448	-2134883	0.173	Si
620	13.45	5.2	11.44	5.3	3267	SLV 1	3267	1825436	0.151	-2072081	SLV 16	-1875954	-2134883	0.173	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.44	5.3	9.42	5.3						-1024712	SLD 1	-956562	-1823106	0.166	Si
15	11.44	5.3	9.42	5.3	-97637	SLD 16	10337	1513053	0.144	-890972	SLD 1	-890972	-1823106	0.166	Si
310	9.42	5.3	9.42	5.3	575453	SLD 1	594031	1512506	0.15						Si
590	13.45	5.2	11.44	5.3						-1229237	SLD 16	-1229237	-2134883	0.173	Si
620	13.45	5.2	11.44	5.3						-1562629	SLD 16	-1388622	-2134883	0.173	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.44	0	12356	SLU 16	12356	7439	42607	0	7439	1	Si
15	0.157	11.44	0	11739	SLU 16	11739	7439	42607	24747	24747	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
310	0.089	9.42	0	-471	SLU 13	-471	-6972	-42573	-14056	-14056	1	Si
590	0.157	13.45	0	-15527	SLU 16	-15527	-7854	-42630	-24761	-24761	1	Si
620	0	13.45	0	-17266	SLU 16	-17266	-7854	-42630	0	-7854	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.44	0	10604	Ger.	15273	7439	42607	0	7439	1	Si
15	0.157	11.44	0	10220	Ger.	14889	7439	42607	24747	24747	1	Si
310	0.089	9.42	0	2671	Ger.	7340	6972	42573	14056	14056	1	Si
310	0.089	9.42	0	-3336	Ger.	-6619	-6972	-42573	-14056	-14056	1	Si
590	0.157	13.45	0	-12100	Ger.	-15383	-7854	-42630	-24761	-24761	1	Si
620	0	13.45	0	-13091	Ger.	-16374	-7854	-42630	0	-7854	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.44	0	9129	SLD 1	9129	7439	42607	0	7439	1	Si
15	0.157	11.44	0	8745	SLD 1	8745	7439	42607	24747	24747	1	Si
310	0.089	9.42	0	1196	SLD 1	1196	6972	42573	14056	14056	1	Si
310	0.089	9.42	0	-1861	SLD 16	-1861	-6972	-42573	-14056	-14056	1	Si
590	0.157	13.45	0	-10626	SLD 16	-10626	-7854	-42630	-24761	-24761	1	Si
620	0	13.45	0	-11617	SLD 16	-11617	-7854	-42630	0	-7854	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-717291	8	-650771	50.7	149.4	1447.4	3600	-605114	4	-548429	42.7	112.1	0	+∞	Si
15	-587223	8	-587223	45.7	149.4	1306	3600	-494304	4	-494304	38.5	112.1	0	+∞	Si
310	619131	8	619131	51.5	149.4	1650.9	3600	521141	4	522578	43.4	112.1	0	+∞	Si
590	-900445	8	-900445	63.9	149.4	1707.2	3600	-746877	4	-746877	53	112.1	0	+∞	Si
620	-1253267	8	-1067670	75.7	149.4	2024.3	3600	-1034407	4	-883331	62.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	25.1	0.00042	0.0106	8	25.1	0.0004	0.01	4	25.1	0.00037	0.0092	4	Si
15	superiore	25.1	0.00038	0.0096	8	25.1	0.00034	0.0085	4	25.1	0.00032	0.008	4	Si
289	inferiore	28.2	0.00048	0.0136	8	28.2	0.00045	0.0127	4	28.2	0.00041	0.0117	4	Si
310	inferiore	28.2	0.00048	0.0136	8	28.2	0.00045	0.0127	4	28.2	0.00041	0.0117	4	Si
590	superiore	23.3	0.00053	0.0123	8	23.3	0.00053	0.0123	4	23.3	0.00049	0.0113	4	Si
620	superiore	23.3	0.00068	0.0159	8	23.3	0.00066	0.0154	4	23.3	0.00061	0.0143	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0.009	0.005	0.01	0.004	0.008	0.005	0.008	0.004	0.008	0.005	0.02	4	0.01	4	9999	Si
289	0.187	0.104	0.216	0.086	0.165	0.104	0.166	0.086	0.157	0.104	0.416	4	0.204	4	1492	Si
310	0.186	0.104	0.215	0.086	0.165	0.104	0.166	0.086	0.157	0.104	0.415	4	0.203	4	1494	Si
590	0.01	0.005	0.006	0.003	0.009	0.005	0.004	0.003	0.008	0.005	0.02	4	0.007	4	9999	Si
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	410.7	6.4	50	0.014	0.0017	0.01368	0	6972	42573	24728	24728	23452	24728	14889	0	SLV 13	Si
605	450.3	6.8	50	0.019	0.00209	0.01423	0	7439	42607	24747	24747	24222	24747	-15383	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela				
0	8293	0	-6344	4597	8293	15273	6345	12356								
15	7909	0	-6344	4213	7909	14889	6345	11739								
310	360	-6619	-6344	-3336	360	7340	6345	2671								
590	-8405	-15527	-6344	-15527	-8405	0	6345	-5955								
620	-9395	-17266	-6344	-17266	-9395	0	6345	-6596								

Campata 2 tra i fili 5 - 6, sezione R 30x50, aste 236, 237; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.45	5.2	11.44	5.3						-219617	SLU 16	-160048	-2134883	0.173	Si
30	13.45	5.2	11.44	5.3						-114872	SLU 13	-114872	-2134883	0.173	Si
197	11.74	5.3	10.79	5.3	55459	SLU 9	126275	1723482	0.153						
365	15.71	5.3	11.44	5.3						-275528	SLU 16	-275528	-2476976	0.193	Si
395	15.71	5.3	11.44	5.3						-371224	SLU 16	-320274	-2476976	0.193	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.45	5.2	11.44	5.3	1558388	SLV 14	1468522	1825436	0.151	-1874789	SLV 3	-1706693	-2134883	0.173	Si
30	13.45	5.2	11.44	5.3	1370476	SLV 14	1370476	1825436	0.151	-1546751	SLV 3	-1546751	-2134883	0.173	Si
197	11.74	5.3	10.79	5.3	49701	SLV 13	226329	1723482	0.153	11655	SLV 4	-156430	-1868418	0.163	Si
365	15.71	5.3	11.44	5.3	1246693	SLV 3	1246693	1824073	0.148	-1598406	SLV 14	-1598406	-2476976	0.193	Si
395	15.71	5.3	11.44	5.3	1435868	SLV 3	1343686	1824073	0.148	-1925133	SLV 14	-1759402	-2476976	0.193	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.45	5.2	11.44	5.3	712949	SLD 14	686613	1825436	0.151	-1029351	SLD 3	-924783	-2134883	0.173	Si
30	13.45	5.2	11.44	5.3	652102	SLD 14	652102	1825436	0.151	-828377	SLD 3	-828377	-2134883	0.173	Si
197	11.74	5.3	10.79	5.3	40395	SLD 13	132122	1723482	0.153	20961	SLD 4	-62223	-1868418	0.163	Si
365	15.71	5.3	11.44	5.3	545976	SLD 3	545976	1824073	0.148	-897689	SLD 14	-897689	-2476976	0.193	Si
395	15.71	5.3	11.44	5.3	608098	SLD 3	579433	1824073	0.148	-1097363	SLD 14	-995149	-2476976	0.193	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.45	0	3973	SLU 16	3973	7854	42630	0	7854	1	Si
30	0.157	13.45	0	3048	SLU 16	3048	7854	42630	24761	24761	1	Si
197	0.1	9.42	0	-642	SLU 16	-642	-6972	-42573	-15784	-15784	1	Si
365	0.157	15.71	0	-2983	SLU 16	-2983	-8267	-42573	-24728	-24728	1	Si
395	0	15.71	0	-3402	SLU 16	-3402	-8267	-42573	0	-8267	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.45	0	11208	Ger.	15827	7854	42630	0	7854	1	Si
0	0	11.44	0	-5991	Ger.	-11300	-7439	-42607	0	-7439	1	Si
30	0.157	13.45	0	10663	Ger.	15282	7854	42630	24761	24761	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
30	0.157	11.44	0	-6536	Ger.	-11845	-7439	-42607	-24747	-24747	1	Si
197	0.1	9.42	0	8267	Ger.	12886	6972	42573	15784	15784	1	Si
197	0.1	9.42	0	-8932	Ger.	-14241	-6972	-42573	-15784	-15784	1	Si
365	0.157	11.44	0	6466	Ger.	11085	7439	42607	24747	24747	1	Si
365	0.157	15.71	0	-10733	Ger.	-16042	-8267	-42573	-24728	-24728	1	Si
395	0	11.44	0	6144	Ger.	10762	7439	42607	0	7439	1	Si
395	0	15.71	0	-11056	Ger.	-16364	-8267	-42573	0	-8267	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.45	0	6973	SLD 3	6973	7854	42630	0	7854	1	Si
0	0	11.44	0	-1755	SLD 14	-1755	-7439	-42607	0	-7439	1	Si
30	0.157	13.45	0	6427	SLD 3	6427	7854	42630	24761	24761	1	Si
30	0.157	11.44	0	-2301	SLD 14	-2301	-7439	-42607	-24747	-24747	1	Si
197	0.1	9.42	0	4031	SLD 3	4031	6972	42573	15784	15784	1	Si
197	0.1	9.42	0	-4697	SLD 14	-4697	-6972	-42573	-15784	-15784	1	Si
365	0.157	11.44	0	2230	SLD 3	2230	7439	42607	24747	24747	1	Si
365	0.157	15.71	0	-6497	SLD 14	-6497	-8267	-42573	-24728	-24728	1	Si
395	0	11.44	0	1908	SLD 3	1908	7439	42607	0	7439	1	Si
395	0	15.71	0	-6820	SLD 14	-6820	-8267	-42573	0	-8267	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-166654	8	-122210	8.7	149.4	231.7	3600	-158201	4	-119085	8.4	112.1	0	+	Si
30	-88247	5	-88247	6.3	149.4	167.3	3600	-88247	3	-88247	6.3	112.1	0	+	Si
197	42661	1	44371	3.4	149.4	103.6	3600	42661	1	44371	3.4	112.1	0	+	Si
365	-202568	8	-202568	13.7	149.4	329.7	3600	-175856	4	-175856	11.9	112.1	0	+	Si
395	-275004	8	-236399	16	149.4	384.7	3600	-244633	4	-207858	14.1	112.1	0	+	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
30	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999
197	0.003	-0.001	0.001	-0.002	0.003	0	0.001	-0.001	0.003	0	0.003	1	-0.001	1	9999
316	-0.001	-0.004	-0.001	-0.004	-0.001	-0.003	-0.001	-0.004	-0.001	-0.003	-0.003	1	-0.007	1	9999
365	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	1	-0.005	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	196.1	7.7	50	0.019	0.00203	0.01578	0	7854	42630	24761	24761	26568	26568	15282	0	SLV 4	Si
1000	192.5	8.6	50	0.021	0.00232	0.01728	0	8267	42573	24728	24728	27095	27095	-16042	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo				Verifica
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	
0	2828	-11300	-12843	-5991	2828	15827	11818	11208	
30	2282	-11845	-12843	-6536	2282	15282	11818	10663	
197	-114	-14241	-12843	-8932	-114	12886	11818	8267	
365	-1915	-16042	-12843	-10733	-1915	11085	11818	6466	
395	-2237	-16364	-12843	-11056	-2237	10762	11818	6144	

Campata 3 tra i fili 6 - 7, sezione R 30x50, aste 243, 244; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3						-877226	SLU 16	-713174	-2476976	0.193	Si
30	15.71	5.3	11.44	5.3						-567582	SLU 16	-567582	-2476976	0.193	Si
223	9.42	5.3	9.42	5.3	432203	SLU 16	615362	1512506	0.15						Si
415	15.71	5.3	9.42	5.3						-662790	SLU 16	-662790	-2470811	0.21	Si
445	15.71	5.3	9.42	5.3						-1026079	SLU 16	-831778	-2470811	0.21	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3	1135568	SLV 14	1121656	1824073	0.148	-2152812	SLV 3	-1945463	-2476976	0.193	Si
30	15.71	5.3	11.44	5.3	1096254	SLV 14	1096254	1824073	0.148	-1749603	SLV 3	-1749603	-2476976	0.193	Si
223	9.42	5.3	9.42	5.3	251293	SLV 10	391141	1512506	0.15						Si
415	15.71	5.3	9.42	5.3	1034501	SLV 3	1034501	1512231	0.138	-1798682	SLV 14	-1798682	-2470811	0.21	Si
445	15.71	5.3	9.42	5.3	1048164	SLV 3	1048164	1512231	0.138	-2227541	SLV 14	-2005901	-2470811	0.21	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3	326224	SLD 14	326224	1824073	0.148	-1343468	SLD 3	-1190579	-2476976	0.193	Si
30	15.71	5.3	11.44	5.3	395831	SLD 14	428962	1824073	0.148	-1049180	SLD 3	-1049180	-2476976	0.193	Si
223	9.42	5.3	9.42	5.3	248726	SLD 10	316587	1512506	0.15						Si
415	15.71	5.3	9.42	5.3	337115	SLD 3	384036	1512231	0.138	-1101296	SLD 14	-1101296	-2470811	0.21	Si
445	15.71	5.3	9.42	5.3	241858	SLD 3	241858	1512231	0.138	-1421235	SLD 14	-1254055	-2470811	0.21	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	10940	SLU 16	10940	8267	42573	0	8267	1	Si
30	0.157	15.71	0	9706	SLU 16	9706	8267	42573	24728	24728	1	Si
223	0.11	9.42	0	-136	SLU 14	-136	-6972	-42573	-17353	-17353	1	Si
415	0.157	15.71	0	-11266	SLU 16	-11266	-8267	-42573	-24728	-24728	1	Si
445	0	15.71	0	-13005	SLU 16	-13005	-8267	-42573	0	-8267	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	13825	Ger.	18030	8267	42573	0	8267	1	Si
0	0	11.44	0	-926	Ger.	-5639	-7439	-42607	0	-7439	1	Si
30	0.157	15.71	0	13057	Ger.	17262	8267	42573	24728	24728	1	Si
30	0.157	11.44	0	-1693	Ger.	-6407	-7439	-42607	-24747	-24747	1	Si
223	0.11	9.42	0	7294	Ger.	11499	6972	42573	17353	17353	1	Si
223	0.11	9.42	0	-7456	Ger.	-12170	-6972	-42573	-17353	-17353	1	Si
415	0.157	9.42	0	936	Ger.	5141	6972	42573	24728	24728	1	Si
415	0.157	15.71	0	-13815	Ger.	-18528	-8267	-42573	-24728	-24728	1	Si
445	0	9.42	0	-55	Ger.	4150	6972	42573	0	6972	1	Si
445	0	15.71	0	-14806	Ger.	-19519	-8267	-42573	0	-8267	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	10194	SLD 3	10194	8267	42573	0	8267	1	Si
30	0.157	15.71	0	9427	SLD 3	9427	8267	42573	24728	24728	1	Si
223	0.11	9.42	0	3664	SLD 3	3664	6972	42573	17353	17353	1	Si
223	0.11	9.42	0	-3826	SLD 14	-3826	-6972	-42573	-17353	-17353	1	Si
415	0.157	15.71	0	-10184	SLD 14	-10184	-8267	-42573	-24728	-24728	1	Si
445	0	15.71	0	-11175	SLD 14	-11175	-8267	-42573	0	-8267	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-630236	8	-512314	34.7	149.4	833.8	3600	-508622	4	-411903	27.9	112.1	0	+∞	Si
30	-407738	8	-407738	27.7	149.4	663.6	3600	-326675	4	-326675	22.2	112.1	0	+∞	Si
223	309018	8	309018	25.7	149.4	824	3600	245785	4	245785	20.4	112.1	0	+∞	Si
415	-474576	8	-474576	33.6	149.4	774.9	3600	-382090	4	-382090	27	112.1	0	+∞	Si
445	-734585	8	-595521	42.1	149.4	972.4	3600	-589688	4	-478679	33.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
30	0.003	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.003	4	0.002	4	9999	Si
223	0.04	0.02	0.03	0.015	0.035	0.02	0.026	0.015	0.032	0.02	0.057	4	0.036	4	7783	Si
415	0.002	0.001	0	0	0.001	0.001	0	0	0.001	0.001	0.001	4	0.001	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	290.5	6.6	50	0.021	0.00087	0.01551	0	7439	42607	24747	24747	24434	24747	17262	0	SLV 9	Si
1445	222.5	6.2	50	0.019	0.00018	0.01483	0	6972	42573	24728	24728	25425	25425	-18528	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	6632		-5639		-11156		-926		6632		18030		10362		13825	
30	5864		-6407		-11156		-1693		5864		17262		10362		13057	
223	101		-12170		-11156		-7456		101		11499		10362		7294	
415	-6257		-18528		-11156		-13815		-6257		5141		10362		936	
445	-7248		-19519		-11156		-14806		-7248		4150		10362		-55	

Campata 4 tra i fili 7 - 8, sezione R 30x50, aste 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3						-516668	SLU 16	-418697	-2470811	0.21	Si
30	15.71	5.3	9.42	5.3						-337657	SLU 16	-337657	-2470811	0.21	Si
260	9.42	5.3	9.42	5.3	136525	SLU 16	265921	1512506	0.15						Si
277	9.42	5.3	7.75	5.3	129962	SLU 16	255361	1254762	0.138						Si
490	15.71	5.3	9.42	5.3						-332387	SLU 16	-332387	-2470811	0.21	Si
520	15.71	5.3	9.42	5.3						-473927	SLU 16	-395858	-2470811	0.21	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3	1315361	SLV 14	1231737	1512231	0.138	-1975162	SLV 3	-1769847	-2470811	0.21	Si
30	15.71	5.3	9.42	5.3	1138256	SLV 14	1138256	1512231	0.138	-1574385	SLV 3	-1574385	-2470811	0.21	Si
260	9.42	5.3	9.42	5.3	169928	SLV 8	214939	1512506	0.15	23502	SLV 9	-29704	-1512506	0.15	Si
490	15.71	5.3	9.42	5.3	1048896	SLV 1	1048896	1512231	0.138	-1491359	SLV 16	-1491359	-2470811	0.21	Si
520	15.71	5.3	9.42	5.3	1212899	SLV 1	1135316	1512231	0.138	-1847628	SLV 16	-1665087	-2470811	0.21	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3	505972	SLD 14	493399	1512231	0.138	-1165773	SLD 3	-1031509	-2470811	0.21	Si
30	15.71	5.3	9.42	5.3	470971	SLD 14	470971	1512231	0.138	-907100	SLD 3	-907100	-2470811	0.21	Si
260	9.42	5.3	9.42	5.3	135931	SLD 8	155294	1512506	0.15						Si
490	15.71	5.3	9.42	5.3	423655	SLD 1	423655	1512231	0.138	-866118	SLD 16	-866118	-2470811	0.21	Si
520	15.71	5.3	9.42	5.3	459674	SLD 1	446080	1512231	0.138	-1094403	SLD 16	-975851	-2470811	0.21	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	6735	SLU 16	6735	8267	42573	0	8267	1	Si
30	0.157	15.71	0	5403	SLU 16	5403	8267	42573	24728	24728	1	Si
260	0.079	7.7	0	-322	SLU 16	-322	-6518	-42573	-12364	-12364	1	Si
490	0.157	15.62	0	-4231	SLU 16	-4231	-8251	-42573	-24728	-24728	1	Si
520	0	15.71	0	-5479	SLU 16	-5479	-8267	-42573	0	-8267	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	13799	SLV 3	13799	8267	42573	0	8267	1	Si
0	0	9.42	0	-5464	SLV 14	-5464	-6972	-42573	0	-6972	1	Si
30	0.157	15.71	0	13031	SLV 3	13031	8267	42573	24728	24728	1	Si
30	0.157	9.42	0	-6232	SLV 14	-6232	-6972	-42573	-24728	-24728	1	Si
260	0.079	7.7	0	3242	Ger.	9305	6518	42573	12364	12364	1	Si
260	0.079	7.7	0	-3614	Ger.	-9744	-6518	-42573	-12364	-12364	1	Si
490	0.157	9.42	0	5761	Ger.	6695	6972	42573	24728	24728	1	Si
490	0.157	15.62	0	-11582	Ger.	-12354	-8251	-42573	-24728	-24728	1	Si
520	0	9.42	0	5030	Ger.	5965	6972	42573	0	6972	1	Si
520	0	15.71	0	-12313	Ger.	-13085	-8267	-42573	0	-8267	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	9062	SLD 3	9062	8267	42573	0	8267	1	Si
0	0	9.42	0	-727	SLD 14	-727	-6972	-42573	0	-6972	1	Si
30	0.157	15.71	0	8294	SLD 3	8294	8267	42573	24728	24728	1	Si
30	0.157	9.42	0	-1495	SLD 14	-1495	-6972	-42573	-24728	-24728	1	Si
260	0.079	7.7	0	1555	SLD 3	1555	6518	42573	12364	12364	1	Si
260	0.079	7.7	0	-1926	SLD 14	-1926	-6518	-42573	-12364	-12364	1	Si
490	0.157	9.42	0	1495	SLD 1	1495	6972	42573	24728	24728	1	Si
490	0.157	15.62	0	-7316	SLD 16	-7316	-8251	-42573	-24728	-24728	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
520	0	9.42	0	764	SLD 1	764	6972	42573	0	6972	1	Si
520	0	15.71	0	-8046	SLD 16	-8046	-8267	-42573	0	-8267	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.			
0	-380187	8	-308379	21.8	149.4	503.5	3600	-329900	4	-269055	19	112.1	0	+∞	Si		
30	-248844	8	-248844	17.6	149.4	406.3	3600	-218064	4	-218064	15.4	112.1	0	+∞	Si		
260	102743	8	105201	8.7	149.4	280.5	3600	96715	4	98320	8.2	112.1	0	+∞	Si		
490	-246024	8	-246024	17.4	149.4	401.7	3600	-221231	4	-221231	15.6	112.1	0	+∞	Si		
520	-351315	8	-293348	20.7	149.4	479	3600	-317364	4	-264886	18.7	112.1	0	+∞	Si		

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
30	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
243	0.017	0.015	0.013	0.012	0.017	0.015	0.013	0.012	0.016	0.015	0.03	4	0.029	4	9999	Si
260	0.017	0.015	0.013	0.012	0.016	0.015	0.012	0.012	0.016	0.015	0.03	4	0.029	4	9999	Si
490	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	0	0	1	-0.002	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1505	347.1	6.2	50	0.019	0.00054	0.01846	0	6972	42573	24728	24728	24227	24728	13018	0	SLV 11	Si
1965	244.8	9.4	50	0.019	0.00089	0.01924	0	8251	42573	24728	24728	24453	24728	-12354	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela				
0	4262	-5464	-8659	-5464	4262	13799	8659	13799								
30	3494	-6232	-8659	-6232	3494	13031	8659	13031								
260	-219	-9744	-8659	-3614	-219	9305	8659	3242								
490	-2829	-12354	-8659	-11582	-2829	6695	8659	5761								
520	-3560	-13085	-8659	-12313	-3560	5965	8659	5030								

Campata 5 tra i fili 8 - 9, sezione R 30x50, aste 293, 294; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3						-995205	SLU 16	-803140	-2470811	0.21	Si
30	15.71	5.3	9.42	5.3						-637166	SLU 16	-637166	-2470811	0.21	Si
223	9.42	5.3	9.42	5.3	418081	SLU 16	601772	1512506	0.15						Si
415	13.45	5.2	11.44	5.3						-562653	SLU 16	-562653	-2134883	0.173	Si
445	13.45	5.2	11.44	5.3						-860603	SLU 16	-702417	-2134883	0.173	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3	1108575	SLV 16	1104942	1512231	0.138	-2257887	SLV 1	-2034192	-2470811	0.21	Si
30	15.71	5.3	9.42	5.3	1086444	SLV 16	1086444	1512231	0.138	-1825361	SLV 1	-1825361	-2470811	0.21	Si
223	9.42	5.3	9.42	5.3	245328	SLV 5	387004	1512506	0.15						Si
415	13.45	5.2	11.44	5.3	1135847	SLV 1	1135847	1825436	0.151	-1787132	SLV 16	-1787132	-2134883	0.173	Si
445	13.45	5.2	11.44	5.3	1186209	SLV 1	1166761	1825436	0.151	-2191427	SLV 16	-1983547	-2134883	0.173	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	9.42	5.3	279760	SLD 16	279760	1512231	0.138	-1429071	SLD 1	-1261341	-2470811	0.21	Si
30	15.71	5.3	9.42	5.3	369558	SLD 16	411972	1512231	0.138	-1108474	SLD 1	-1108474	-2470811	0.21	Si
223	9.42	5.3	9.42	5.3	242647	SLD 5	310617	1512506	0.15						Si
415	13.45	5.2	11.44	5.3	416301	SLD 1	444050	1825436	0.151	-1067587	SLD 16	-1067587	-2134883	0.173	Si
445	13.45	5.2	11.44	5.3	354734	SLD 1	354734	1825436	0.151	-1359952	SLD 16	-1208037	-2134883	0.173	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	12804	SLU 16	12804	8267	42573	0	8267	1	Si
30	0.157	15.71	0	11065	SLU 16	11065	8267	42573	24728	24728	1	Si
223	0.11	9.42	0	40	SLU 6	40	6972	42573	17353	17353	1	Si
223	0.11	9.42	0	-145	SLU 12	-145	-6972	-42573	-17353	-17353	1	Si
415	0.157	13.45	0	-9318	SLU 16	-9318	-7854	-42630	-24761	-24761	1	Si
445	0	13.45	0	-10551	SLU 16	-10551	-7854	-42630	0	-7854	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	14913	Ger.	19448	8267	42573	0	8267	1	Si
0	0	9.42	0	-242	Ger.	-3247	-6972	-42573	0	-6972	1	Si
30	0.157	15.71	0	13922	Ger.	18458	8267	42573	24728	24728	1	Si
30	0.157	9.42	0	-1233	Ger.	-4238	-6972	-42573	-24728	-24728	1	Si
223	0.11	9.42	0	7564	Ger.	12099	6972	42573	17353	17353	1	Si
223	0.11	9.42	0	-7591	Ger.	-10596	-6972	-42573	-17353	-17353	1	Si
415	0.157	11.44	0	2061	Ger.	6596	7439	42607	24747	24747	1	Si
415	0.157	13.45	0	-13094	Ger.	-16099	-7854	-42630	-24761	-24761	1	Si
445	0	11.44	0	1293	Ger.	5829	7439	42607	0	7439	1	Si
445	0	13.45	0	-13862	Ger.	-16867	-7854	-42630	0	-7854	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	11182	SLD 1	11182	8267	42573	0	8267	1	Si
30	0.157	15.71	0	10191	SLD 1	10191	8267	42573	24728	24728	1	Si
223	0.11	9.42	0	3833	SLD 1	3833	6972	42573	17353	17353	1	Si
223	0.11	9.42	0	-3860	SLD 16	-3860	-6972	-42573	-17353	-17353	1	Si
415	0.157	13.45	0	-9363	SLD 16	-9363	-7854	-42630	-24761	-24761	1	Si
445	0	13.45	0	-10131	SLD 16	-10131	-7854	-42630	0	-7854	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.			
0	-712803	8	-575303	40.7	149.4	939.4	3600	-574656	4	-464625	32.8	112.1	0	+∞	Si		
30	-456476	8	-456476	32.3	149.4	745.4	3600	-369458	4	-369458	26.1	112.1	0	+∞	Si		
223	299156	8	299156	24.9	149.4	797.7	3600	239562	4	239562	19.9	112.1	0	+∞	Si		

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
415	-404468	8	-404468	28.7	149.4	766.9	3600	-325643	4	-325643	23.1	112.1	0	+∞	Si
445	-618825	8	-504988	35.8	149.4	957.5	3600	-502609	4	-408393	29	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	0.002	0.001	0	0	0.001	0.001	0	0	0.001	0.001	0.001	4	0.001	4	9999 Si
223	0.039	0.02	0.029	0.015	0.033	0.02	0.025	0.015	0.031	0.02	0.056	4	0.035	4	7971 Si
415	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.002	4	0.001	4	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2025	222.5	6.2	50	0.019	0.00023	0.01486	0	6972	42573	24728	24728	25425	25425	18458	0	SLV 12	Si
2410	288.9	6.8	50	0.019	0.00035	0.01458	0	7439	42607	24747	24747	24222	24747	-16099	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo				Verifica
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	
0	7173	-3247	-9473	-242	7173	19448	11159	14913	
30	6183	-4238	-9473	-1233	6183	18458	11159	13922	
223	-176	-10596	-9473	-7591	-176	12099	11159	7564	
415	-5679	-16099	-9473	-13094	-5679	6596	11159	2061	
445	-6446	-16867	-9473	-13862	-6446	5829	11159	1293	

Campata 6 tra i fili 9 - 10, sezione R 30x50, asta 301; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.45	5.2	11.44	5.3						-522598	SLV 16	-431398	-2134883	0.173	Si
30	13.45	5.2	11.44	5.3						-350157	SLV 16	-350157	-2134883	0.173	Si
197	11.14	5.3	5.44	5.3	125551	SLV 12	256781	896631	0.123						Si
365	15.71	5.3	11.44	5.3						-266233	SLV 16	-266233	-2476976	0.193	Si
395	15.71	5.3	11.44	5.3						-427024	SLV 16	-339958	-2476976	0.193	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.45	5.2	11.44	5.3	545222	SLV 14	1298965	1825436	0.151	-1990270	SLV 3	-1807090	-2134883	0.173	Si
30	13.45	5.2	11.44	5.3	1217866	SLV 14	1217866	1825436	0.151	-1630257	SLV 3	-1630257	-2134883	0.173	Si
197	11.14	5.3	5.44	5.3	93529	SLV 2	263997	896631	0.123	53395	SLV 15	-119414	-1772766	0.19	Si
365	15.71	5.3	11.44	5.3	1298974	SLV 3	1298974	1824073	0.148	-1614688	SLV 14	-1614688	-2476976	0.193	Si
395	15.71	5.3	11.44	5.3	1461887	SLV 3	1384402	1824073	0.148	-1967490	SLV 14	-1787192	-2476976	0.193	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.45	5.2	11.44	5.3	545222	SLD 14	534041	1825436	0.151	-1161834	SLD 3	-1042166	-2134883	0.173	Si
30	13.45	5.2	11.44	5.3	516468	SLD 14	516468	1825436	0.151	-928859	SLD 3	-928859	-2134883	0.173	Si
197	11.14	5.3	5.44	5.3	83708	SLD 2	169603	896631	0.123	63216	SLD 15	-25020	-1772766	0.19	Si
365	15.71	5.3	11.44	5.3	581327	SLD 3	581327	1824073	0.148	-897041	SLD 14	-897041	-2476976	0.193	Si
395	15.71	5.3	11.44	5.3	617222	SLD 3	603229	1824073	0.148	-1122825	SLD 14	-1006019	-2476976	0.193	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.45	0	6004	SLV 16	6004	7854	42630	0	7854	1	Si
30	0.157	13.45	0	5416	SLV 16	5416	7854	42630	24761	24761	1	Si
197	0.107	9.42	0	251	SLV 15	251	6972	42573	16836	16836	1	Si
365	0.157	15.71	0	-4915	SLV 16	-4915	-8267	-42573	-24728	-24728	1	Si
395	0	15.71	0	-5840	SLV 16	-5840	-8267	-42573	0	-8267	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.45	0	12186	Ger.	16447	7854	42630	0	7854	1	Si
0	0	11.44	0	-5010	Ger.	-10680	-7439	-42607	0	-7439	1	Si
30	0.157	13.45	0	11789	Ger.	16050	7854	42630	24761	24761	1	Si
30	0.157	11.44	0	-5407	Ger.	-11077	-7439	-42607	-24747	-24747	1	Si
197	0.107	9.42	0	8742	Ger.	13003	6972	42573	16836	16836	1	Si
197	0.107	9.42	0	-8453	Ger.	-14124	-6972	-42573	-16836	-16836	1	Si
365	0.157	11.44	0	5695	Ger.	9957	7439	42607	24747	24747	1	Si
365	0.157	15.71	0	-11500	Ger.	-17170	-8267	-42573	-24728	-24728	1	Si
395	0	11.44	0	5149	Ger.	9411	7439	42607	0	7439	1	Si
395	0	15.71	0	-12046	Ger.	-17716	-8267	-42573	0	-8267	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.45	0	7951	SLD 3	7951	7854	42630	0	7854	1	Si
0	0	11.44	0	-775	SLD 14	-775	-7439	-42607	0	-7439	1	Si
30	0.157	13.45	0	7554	SLD 3	7554	7854	42630	24761	24761	1	Si
30	0.157	11.44	0	-1172	SLD 14	-1172	-7439	-42607	-24747	-24747	1	Si
197	0.107	9.42	0	4507	SLD 3	4507	6972	42573	16836	16836	1	Si
197	0.107	9.42	0	-4218	SLD 14	-4218	-6972	-42573	-16836	-16836	1	Si
365	0.157	11.44	0	1460	SLD 3	1460	7439	42607	24747	24747	1	Si
365	0.157	15.71	0	-7265	SLD 14	-7265	-8267	-42573	-24728	-24728	1	Si
395	0	11.44	0	914	SLD 3	914	7439	42607	0	7439	1	Si
395	0	15.71	0	-7811	SLD 14	-7811	-8267	-42573	0	-8267	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-380260	8	-313588	22.2	149.4	594.6	3600	-308306	4	-254062	18	112.1	0	+∞	Si
30	-254300	8	-254300	18	149.4	482.2	3600	-206196	4	-206196	14.6	112.1	0	+∞	Si
197	92484	4	92488	9.1	149.4	419.9	3600	73859	2	73859	7.3	112.1	0	+∞	Si
365	-194418	8	-194418	13.2	149.4	316.4	3600	-157857	4	-157857	10.7	112.1	0	+∞	Si
395	-312015	8	-248344	16.8	149.4	404.2	3600	-252802	4	-201395	13.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
30	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.002	1	-0.004	1	9999	Si
197	0.007	0.004	0.004	0.002	0.006	0.004	0.004	0.002	0.006	0.004	0.009	2	0.006	2	9999	Si
211	0.007	0.004	0.004	0.002	0.006	0.004	0.004	0.002	0.006	0.004	0.009	2	0.006	2	9999	Si
365	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2470	225.6	6.8	50	0.019	0.00055	0.01533	0	7439	42607	24747	24747	25275	25275	16050	0	SLV 9	Si
2805	227.6	6.6	50	0.021	0.00062	0.01623	0	7439	42607	24747	24747	25476	25476	-17170	0	SLV 6	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo				Verifica
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	
0	3447	-10680	-12843	-5010	3447	16447	11818	12186	
30	3051	-11077	-12843	-5407	3051	16050	11818	11789	
197	4	-14124	-12843	-8453	4	13003	11818	8742	
365	-3043	-17170	-12843	-11500	-3043	9957	11818	5695	
395	-3589	-17716	-12843	-12046	-3589	9411	11818	5149	

Campata 7 tra i fili 10 - 29, sezione R 30x50, aste 305, 306; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3						-1986787	SLU 16	-1706486	-2476976	0.193	Si
30	15.71	5.3	11.44	5.3						-1451425	SLU 16	-1451425	-2476976	0.193	Si
310	9.42	5.3	9.42	5.3	1036656	SLU 16	1236313	1512506	0.15						Si
605	11.44	5.3	9.42	5.3						-937319	SLU 16	-937319	-1823106	0.166	Si
620	11.44	5.3	9.42	5.3						-1137501	SLU 16	-1035159	-1823106	0.166	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3						-2190222	SLV 3	-1984117	-2476976	0.193	Si
30	15.71	5.3	11.44	5.3	124921	SLV 14	251516	1824073	0.148	-1792391	SLV 3	-1792391	-2476976	0.193	Si
310	9.42	5.3	9.42	5.3	707542	SLV 14	752053	1512506	0.15						Si
605	11.44	5.3	9.42	5.3	238649	SLV 3	328100	1513053	0.144	-1337798	SLV 14	-1337798	-1823106	0.166	Si
620	11.44	5.3	9.42	5.3	164448	SLV 3	164448	1513053	0.144	-1503141	SLV 14	-1419068	-1823106	0.166	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	11.44	5.3						-1674886	SLD 3	-1491153	-2476976	0.193	Si
30	15.71	5.3	11.44	5.3						-1321799	SLD 3	-1321799	-2476976	0.193	Si
310	9.42	5.3	9.42	5.3	654565	SLD 14	669074	1512506	0.15						Si
605	11.44	5.3	9.42	5.3						-950786	SLD 14	-950786	-1823106	0.166	Si
620	11.44	5.3	9.42	5.3						-1093756	SLD 14	-1020870	-1823106	0.166	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	18743	SLU 16	18743	8267	42573	0	8267	1	Si
30	0.157	15.71	0	17004	SLU 16	17004	8267	42573	24728	24728	1	Si
310	0.096	9.42	0	770	SLU 16	770	6972	42573	15097	15097	1	Si
605	0.157	11.44	0	-13045	SLU 16	-13045	-7439	-42607	-24747	-24747	1	Si
620	0	11.44	0	-13662	SLU 16	-13662	-7439	-42607	0	-7439	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	13773	Ger.	17608	8267	42573	0	8267	1	Si
30	0.157	15.71	0	12782	Ger.	16617	8267	42573	24728	24728	1	Si
310	0.096	9.42	0	3533	Ger.	7369	6972	42573	15097	15097	1	Si
310	0.096	9.42	0	-2543	Ger.	-7242	-6972	-42573	-15097	-15097	1	Si
605	0.157	11.44	0	-10836	Ger.	-15535	-7439	-42607	-24747	-24747	1	Si
620	0	11.44	0	-11220	Ger.	-15919	-7439	-42607	0	-7439	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	12281	SLD 3	12281	8267	42573	0	8267	1	Si
30	0.157	15.71	0	11290	SLD 3	11290	8267	42573	24728	24728	1	Si
310	0.096	9.42	0	2042	SLD 3	2042	6972	42573	15097	15097	1	Si
310	0.096	9.42	0	-1051	SLD 14	-1051	-6972	-42573	-15097	-15097	1	Si
605	0.157	11.44	0	-9345	SLD 14	-9345	-7439	-42607	-24747	-24747	1	Si
620	0	11.44	0	-9728	SLD 14	-9728	-7439	-42607	0	-7439	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1423601	8	-1222841	82.9	149.4	1990.2	3600	-1140425	4	-979890	66.5	112.1	0	+∞	Si
30	-1040148	8	-1040148	70.5	149.4	1692.9	3600	-833735	4	-833735	56.5	112.1	0	+∞	Si
310	743094	8	745952	62	149.4	1989.1	3600	599538	4	602817	50.1	112.1	0	+∞	Si
605	-672963	8	-672963	52.4	149.4	1496.7	3600	-549574	4	-549574	42.8	112.1	0	+∞	Si
620	-817010	8	-743360	57.9	149.4	1653.3	3600	-669346	4	-608059	47.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.4	0.0007	0.0157	8	22.4	0.00065	0.0146	4	22.4	0.0006	0.0133	4	Si
30	superiore	22.4	0.00055	0.0124	8	22.4	0.00053	0.0118	4	22.4	0.00048	0.0108	4	Si
310	inferiore	28.2	0.00058	0.0163	8	28.2	0.00057	0.0161	4	28.2	0.00052	0.0146	4	Si
331	inferiore	28.2	0.00058	0.0163	8	28.2	0.00057	0.0161	4	28.2	0.00052	0.0146	4	Si
605	superiore	25.1	0.00044	0.011	8	25.1	0.00041	0.0102	4	25.1	0.00037	0.0093	4	Si
620	superiore	25.1	0.00048	0.0121	8	25.1	0.00047	0.0119	4	25.1	0.00043	0.0109	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.011	0.006	0.012	0.003	0.009	0.006	0.008	0.003	0.009	0.006	0.028	4	0.009	4	9999	Si
310	0.216	0.114	0.309	0.094	0.187	0.114	0.226	0.094	0.175	0.114	0.515	4	0.224	4	1204	Si
331	0.217	0.115	0.31	0.094	0.188	0.115	0.227	0.094	0.176	0.115	0.516	4	0.225	4	1201	Si
605	0.011	0.006	0.015	0.005	0.009	0.006	0.011	0.005	0.009	0.006	0.025	4	0.011	4	9999	Si
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2865	214.2	8.6	50	0.021	0.00211	0.01504	0	8267	42573	24728	24728	26083	26083	16617	0	SLV 3	Si
3440	413	6.4	50	0.014	0.00207	0.01336	0	6972	42573	24728	24728	23452	24728	-15535	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	9975	0	-6343	6942	9975	18743	6939	18743
30	8984	0	-6343	6301	8984	17004	6939	17004
310	-265	-7242	-6343	-2543	-265	7369	6939	3533
605	-8558	-15535	-6343	-13045	-8558	0	6939	-4760
620	-8942	-15919	-6343	-13662	-8942	0	6939	-5144

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	12	1513053	-1823106
1	590	5	1825436	-2134883
2	30	5	1825436	-2134883
2	365	6	1824073	-2476976
3	30	6	1824073	-2476976
3	415	7	1512231	-2470811
4	30	7	1512231	-2470811
4	490	8	1512231	-2470811
5	30	8	1512231	-2470811
5	415	9	1825436	-2134883
6	30	9	1825436	-2134883
6	365	10	1824073	-2476976
7	30	10	1824073	-2476976
7	605	29	1513053	-1823106

Trave a "Quarto Impalcato" Parete 2 - Parete 3

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 20x50	Rettangolare	20	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 18 - 24, sezione R 20x50, asta 375; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	4.02	5.1						-219505	SLU 9	-197126	-975766	0.156	Si
15	6.03	5.1	4.02	5.1						-176013	SLU 9	-176013	-975766	0.156	Si
245	4.02	5.1	4.02	5.1	144927	SLU 9	174154	662517	0.126						Si
475	6.03	5.1	4.02	5.1						-193851	SLU 16	-193851	-975766	0.156	Si
490	6.03	5.1	4.02	5.1						-238328	SLU 16	-215457	-975766	0.156	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	4.02	5.1	563550	SLV 13	558608	662303	0.123	-900704	SLV 4	-861425	-975766	0.156	Si
15	6.03	5.1	4.02	5.1	552687	SLV 13	552687	662303	0.123	-823113	SLV 4	-823113	-975766	0.156	Si
245	4.02	5.1	4.02	5.1	120931	SLV 14	177949	662517	0.126						Si
475	6.03	5.1	4.02	5.1	521767	SLV 4	521767	662303	0.123	-815823	SLV 13	-815823	-975766	0.156	Si
490	6.03	5.1	4.02	5.1	531858	SLV 4	527303	662303	0.123	-894182	SLV 13	-854520	-975766	0.156	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	4.02	5.1	202933	SLD 13	202933	662303	0.123	-540087	SLD 4	-511698	-975766	0.156	Si
15	6.03	5.1	4.02	5.1	213853	SLD 13	225204	662303	0.123	-484280	SLD 4	-484280	-975766	0.156	Si
245	4.02	5.1	4.02	5.1	115672	SLD 14	143791	662517	0.126						Si
475	6.03	5.1	4.02	5.1	192385	SLD 4	204770	662303	0.123	-486441	SLD 13	-486441	-975766	0.156	Si
490	6.03	5.1	4.02	5.1	180693	SLD 4	180693	662303	0.123	-543017	SLD 13	-514245	-975766	0.156	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	3000	SLU 9	3000	4595	28509	0	4595	1	Si
15	0.157	5.64	0	2815	SLU 9	2815	4493	28509	24838	24838	1	Si
245	0.052	4.02	0	-40	SLU 16	-40	-4014	-28509	-8279	-8279	1	Si
475	0.157	5.64	0	-2881	SLU 16	-2881	-4493	-28509	-24838	-24838	1	Si
490	0	6.03	0	-3066	SLU 16	-3066	-4595	-28509	0	-4595	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	5251	Ger.	6245	4595	28509	0	4595	1	Si
0	0	4.02	0	-647	Ger.	-1590	-4014	-28509	0	-4014	1	Si
15	0.157	5.64	0	5108	Ger.	6102	4493	28509	24838	24838	1	Si
15	0.157	4.02	0	-790	Ger.	-1732	-4014	-28509	-24838	-24838	1	Si
245	0.052	4.02	0	2923	Ger.	3917	4014	28509	8279	8279	1	Si
245	0.052	4.02	0	-2975	Ger.	-3917	-4014	-28509	-8279	-8279	1	Si
475	0.157	4.02	0	738	Ger.	1732	4014	28509	24838	24838	1	Si
475	0.157	5.64	0	-5160	Ger.	-6102	-4493	-28509	-24838	-24838	1	Si
490	0	4.02	0	596	Ger.	1590	4014	28509	0	4014	1	Si
490	0	6.03	0	-5302	Ger.	-6245	-4595	-28509	0	-4595	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	3798	SLD 4	3798	4595	28509	0	4595	1	Si
15	0.157	5.64	0	3656	SLD 4	3656	4493	28509	24838	24838	1	Si
245	0.052	4.02	0	1471	SLD 4	1471	4014	28509	8279	8279	1	Si
245	0.052	4.02	0	-1522	SLD 13	-1522	-4014	-28509	-8279	-8279	1	Si
475	0.157	5.64	0	-3707	SLD 13	-3707	-4493	-28509	-24838	-24838	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
490	0	6.03	0	-3850	SLD 13	-3850	-4595	-28509	0	-4595	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-168850	1	-151635	20.4	149.4	629.1	3600	-168850	1	-151635	20.4	112.1	0	+∞	Si
15	-135394	1	-135394	18.2	149.4	561.7	3600	-135394	1	-135394	18.2	112.1	0	+∞	Si
245	111483	1	111483	17.3	149.4	683.5	3600	111483	1	111483	17.3	112.1	0	+∞	Si
475	-148485	8	-148485	20	149.4	616	3600	-147028	4	-147028	19.8	112.1	0	+∞	Si
490	-182675	8	-165093	22.2	149.4	684.9	3600	-181162	4	-163608	22	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0.002	0.002	0.001	0.001	0.002	0.002	0.001	0.001	0.002	0.002	0.003	1	0.003	1	9999
245	0.032	0.031	0.027	0.026	0.032	0.031	0.027	0.026	0.032	0.031	0.068	1	0.066	1	7233
475	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	1	0.003	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	211.6	7	50	0.01	0.0017	0.02496	0	4493	28509	24838	24838	23122	24838	6102	0	SLV 1	Si
490	334.7	5.5	50	0.01	0.00085	0.02496	0	4014	28509	24838	24838	22542	24838	-6102	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2328	-1590	-3561	-647	2328	6245	3561	5251
15	2185	-1732	-3561	-790	2185	6102	3561	5108
245	0	-3917	-3561	-2975	0	3917	3561	2923
475	-2185	-6102	-3561	-5160	-2185	1732	3561	738
490	-2328	-6245	-3561	-5302	-2328	1590	3561	596

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	18	662303	-975766
1	475	24	662303	-975766

Trave a "Quarto Impalcato" Parete 2-Pil.7

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 17 - 18, sezione R 30x50, asta 74

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	85020	SLU 16	68742	1307565	0.138						Si
15	8.04	5.1	8.04	5.1	51917	SLU 16	51917	1307565	0.138						Si
18	8.04	5.1	8.04	5.1	44037	SLU 16	51917	1307565	0.138						Si
27	8.04	5.1	8.04	5.1	24649	SLU 16	51917	1307565	0.138						Si
37	8.04	5.1	8.04	5.1	5791	SLU 9	5791	1307565	0.138						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	96407	SLV 15	75101	1256910	0.274						Si
15	8.04	5.1	8.04	5.1	53370	SLV 15	53370	1256910	0.274						Si
18	8.04	5.1	8.04	5.1	43234	SLV 16	53370	1256910	0.274						Si
27	8.04	5.1	8.04	5.1	20569	SLV 12	53370	1256910	0.274						Si
37	8.04	5.1	8.04	5.1	17358	SLV 4	17358	1256910	0.274	-12391	SLV 13	-3910	-1256910	0.274	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	75483	SLD 15	59793	1256910	0.274						Si
15	8.04	5.1	8.04	5.1	43681	SLD 15	43681	1256910	0.274						Si
18	8.04	5.1	8.04	5.1	36154	SLD 16	43681	1256910	0.274						Si
27	8.04	5.1	8.04	5.1	18830	SLD 12	43681	1256910	0.274						Si
37	8.04	5.1	8.04	5.1	10040	SLD 4	10040	1256910	0.274	-5073	SLD 13	-5073	-1256910	0.274	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	-2170	SLU 16	-2170	-6627	-42764	0	-6627	1	Si
15	0.131	8.04	0	-2243	SLU 16	-2243	-6627	-42764	-20701	-20701	1	Si
18	0.131	8.04	0	-2260	SLU 16	-2260	-6627	-42764	-20701	-20701	1	Si
27	0.131	8.04	0	-2302	SLU 16	-2302	-6627	-42764	-20701	-20701	1	Si
37	0	8.04	0	-2351	SLU 16	-2351	-6627	-42764	0	-6627	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	205	SLV 2	205	6627	42764	0	6627	1	Si
0	0	8.04	0	-2841	SLV 15	-2841	-6627	-42764	0	-6627	1	Si
15	0.131	8.04	0	149	SLV 2	149	6627	42764	20701	20701	1	Si
15	0.131	8.04	0	-2897	SLV 15	-2897	-6627	-42764	-20701	-20701	1	Si
18	0.131	8.04	0	136	SLV 2	136	6627	42764	20701	20701	1	Si
18	0.131	8.04	0	-2911	SLV 15	-2911	-6627	-42764	-20701	-20701	1	Si
27	0.131	8.04	0	104	SLV 2	104	6627	42764	20701	20701	1	Si
27	0.131	8.04	0	-2942	SLV 15	-2942	-6627	-42764	-20701	-20701	1	Si
37	0	8.04	0	67	SLV 2	67	6627	42764	0	6627	1	Si
37	0	8.04	0	-2980	SLV 15	-2980	-6627	-42764	0	-6627	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	-2092	SLD 15	-2092	-6627	-42764	0	-6627	1	Si
15	0.131	8.04	0	-2148	SLD 15	-2148	-6627	-42764	-20701	-20701	1	Si
18	0.131	8.04	0	-2161	SLD 15	-2161	-6627	-42764	-20701	-20701	1	Si
27	0.131	8.04	0	-2193	SLD 15	-2193	-6627	-42764	-20701	-20701	1	Si
37	0	8.04	0	-2231	SLD 15	-2231	-6627	-42764	0	-6627	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.			
0	61708	8	50027	4.5	149.4	154.6	3600	53813	4	43928	3.9	112.1	0	+∞			Si
15	37924	8	37924	3.4	149.4	117.2	3600	33621	4	33621	3	112.1	0	+∞			Si
18	32255	8	37924	3.4	149.4	117.2	3600	28790	4	33621	3	112.1	0	+∞			Si
27	18292	8	37924	3.4	149.4	117.2	3600	16863	4	33621	3	112.1	0	+∞			Si
37	4454	1	4454	0.4	149.4	13.8	3600	4454	1	4454	0.4	112.1	0	+∞			Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
18	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
27	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
37	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Campata 2 tra i fili 18 - 16, sezione R 30x50, aste 75, 76, 77, 78

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	2120	SLU 10	1436	1256910	0.138	-5758	SLU 8	-5758	-1256910	0.138	Si
10	8.04	5.1	8.04	5.1	514	SLU 9	514	1307565	0.138	-6690	SLU 8	-10692	-1307565	0.138	Si
99	8.04	5.1	8.04	5.1						-4094	SLU 13	-12216	-1307565	0.138	Si
178	8.04	5.1	8.04	5.1						-150676	SLU 16	-193274	-1307565	0.138	Si
198	8.04	5.1	8.04	5.1						-193274	SLU 16	-193274	-1307565	0.138	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	19368	SLV 4	16585	1256910	0.274	-22602	SLV 13	-20742	-1256910	0.274	Si
10	8.04	5.1	8.04	5.1	13613	SLV 4	13613	1256910	0.274	-19068	SLV 13	-19068	-1256910	0.274	Si
99	8.04	5.1	8.04	5.1	18264	SLV 9	18264	1256910	0.274	-24478	SLV 8	-31180	-1256910	0.274	Si
178	8.04	5.1	8.04	5.1	335498	SLV 8	429777	1256910	0.274	-524314	SLV 9	-672167	-1256910	0.274	Si
198	8.04	5.1	8.04	5.1	429777	SLV 8	429777	1256910	0.274	-672167	SLV 9	-672167	-1256910	0.274	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	9065	SLD 4	7422	1256910	0.274	-12300	SLD 13	-11580	-1256910	0.274	Si
10	8.04	5.1	8.04	5.1	5591	SLD 4	5591	1256910	0.274	-11046	SLD 13	-11046	-1256910	0.274	Si
99	8.04	5.1	8.04	5.1	8231	SLD 9	8231	1256910	0.274	-14445	SLD 8	-20365	-1256910	0.274	Si
178	8.04	5.1	8.04	5.1	135176	SLD 8	172994	1256910	0.274	-323992	SLD 9	-415384	-1256910	0.274	Si
198	8.04	5.1	8.04	5.1	172994	SLD 8	172994	1256910	0.274	-415384	SLD 9	-415384	-1256910	0.274	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	-137	SLU 10	-137	-6627	-42764	0	-6627	1	Si
10	0.063	8.04	0	-186	SLU 10	-186	-6627	-42764	-9935	-9935	1	Si
99	0.068	8.04	0	-78	SLU 10	-78	-6627	-42764	-10799	-10799	1	Si
191	0.068	8.04	0	-2168	SLU 16	-2168	-6627	-42764	-10799	-10799	1	Si
198	0.157	8.04	0	-2200	SLU 16	-2200	-6627	-42764	-24838	-24838	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	372	SLV 13	372	6627	42764	0	6627	1	Si
0	0	8.04	0	-557	SLV 4	-557	-6627	-42764	0	-6627	1	Si
10	0.063	8.04	0	335	SLV 13	335	6627	42764	9935	9935	1	Si
10	0.063	8.04	0	-594	SLV 4	-594	-6627	-42764	-9935	-9935	1	Si
99	0.068	8.04	0	406	SLV 9	406	6627	42764	10799	10799	1	Si
99	0.068	8.04	0	-506	SLV 8	-506	-6627	-42764	-10799	-10799	1	Si
191	0.068	8.04	0	4749	SLV 8	4749	6627	42764	10799	10799	1	Si
191	0.068	8.04	0	-7480	SLV 9	-7480	-6627	-42764	-10799	-10799	1	Si
198	0.157	8.04	0	4724	SLV 8	4724	6627	42764	24838	24838	1	Si
198	0.157	8.04	0	-7504	SLV 9	-7504	-6627	-42764	-24838	-24838	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	144	SLD 13	144	6627	42764	0	6627	1	Si
0	0	8.04	0	-329	SLD 4	-329	-6627	-42764	0	-6627	1	Si
10	0.063	8.04	0	107	SLD 13	107	6627	42764	9935	9935	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
10	0.063	8.04	0	-366	SLD 4	-366	-6627	-42764	-9935	-9935	1	Si
99	0.068	8.04	0	193	SLD 9	193	6627	42764	10799	10799	1	Si
99	0.068	8.04	0	-293	SLD 8	-293	-6627	-42764	-10799	-10799	1	Si
191	0.068	8.04	0	1898	SLD 8	1898	6627	42764	10799	10799	1	Si
191	0.068	8.04	0	-4628	SLD 9	-4628	-6627	-42764	-10799	-10799	1	Si
198	0.157	8.04	0	1873	SLD 8	1873	6627	42764	24838	24838	1	Si
198	0.157	8.04	0	-4653	SLD 9	-4653	-6627	-42764	-24838	-24838	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	1630	2	1104	0.1	149.4	3.4	3600	1626	1	1104	0.1	112.1	0	+∞	Si
0	-3296	8	-3296	0.3	149.4	10.2	3600	-1617	4	-1617	0.1	112.1	0	+∞	Si
10	395	1	395	0	149.4	1.2	3600	395	1	395	0	112.1	0	+∞	Si
10	-4328	8	-7559	0.7	149.4	23.4	3600	-2727	4	-6115	0.5	112.1	0	+∞	Si
99	-3120	5	-8940	0.8	149.4	27.6	3600	-3120	3	-7868	0.7	112.1	0	+∞	Si
198	-140720	8	-140720	12.6	149.4	435	3600	-121195	4	-121195	10.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si
10	0	-0.001	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999 Si
99	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999 Si
145	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.002	1	9999 Si

Campata 3 tra i fili 16 - , sezione R 30x50, asta 79; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1						-259113	SLU 16	-259113	-1307565	0.138	Si
5	8.04	5.1	8.04	5.1						-250771	SLU 16	-259113	-1307565	0.138	Si
68	8.04	5.1	8.04	5.1						-144656	SLU 16	-175907	-1307565	0.138	Si
137	8.04	5.1	8.04	5.1						-53074	SLU 16	-77608	-1307565	0.138	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	582584	SLV 8	582584	1307565	0.138	-907264	SLV 9	-907264	-1307565	0.138	Si
5	8.04	5.1	8.04	5.1	567924	SLV 8	582584	1307565	0.138	-881601	SLV 9	-907264	-1307565	0.138	Si
68	8.04	5.1	8.04	5.1	354480	SLV 8	423278	1307565	0.138	-530529	SLV 9	-639342	-1307565	0.138	Si
137	8.04	5.1	8.04	5.1	108806	SLV 8	182758	1307565	0.138	-171416	SLV 9	-275049	-1307565	0.138	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	235477	SLD 8	235477	1307565	0.138	-560157	SLD 9	-560157	-1307565	0.138	Si
5	8.04	5.1	8.04	5.1	230200	SLD 8	235477	1307565	0.138	-543877	SLD 9	-560157	-1307565	0.138	Si
68	8.04	5.1	8.04	5.1	148120	SLD 8	175588	1307565	0.138	-324170	SLD 9	-391652	-1307565	0.138	Si
137	8.04	5.1	8.04	5.1	43181	SLD 8	75809	1307565	0.138	-105792	SLD 9	-168100	-1307565	0.138	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	8.04	0	1838	SLU 16	1838	6627	42764	24838	24838	1	Si
50	0.09	8.04	0	1593	SLU 16	1593	6627	42764	14275	14275	1	Si
68	0.09	8.04	0	1504	SLU 16	1504	6627	42764	14275	14275	1	Si
137	0.09	8.04	0	1170	SLU 16	1170	6627	42764	14275	14275	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	8.04	0	5628	Ger.	9414	6627	42764	24838	24838	1	Si
0	0.157	8.04	0	-3202	Ger.	-8021	-6627	-42764	-24838	-24838	1	Si
50	0.09	8.04	0	5440	Ger.	9225	6627	42764	14275	14275	1	Si
50	0.09	8.04	0	-3390	Ger.	-8209	-6627	-42764	-14275	-14275	1	Si
68	0.09	8.04	0	5372	Ger.	9157	6627	42764	14275	14275	1	Si
68	0.09	8.04	0	-3459	Ger.	-8278	-6627	-42764	-14275	-14275	1	Si
137	0.09	8.04	0	5115	Ger.	8892	6627	42764	14275	14275	1	Si
137	0.09	8.04	0	-3716	Ger.	-8542	-6627	-42764	-14275	-14275	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	8.04	0	3574	SLD 9	3574	6627	42764	24838	24838	1	Si
0	0.157	8.04	0	-1147	SLD 8	-1147	-6627	-42764	-24838	-24838	1	Si
50	0.09	8.04	0	3385	SLD 9	3385	6627	42764	14275	14275	1	Si
50	0.09	8.04	0	-1335	SLD 8	-1335	-6627	-42764	-14275	-14275	1	Si
68	0.09	8.04	0	3317	SLD 9	3317	6627	42764	14275	14275	1	Si
68	0.09	8.04	0	-1404	SLD 8	-1404	-6627	-42764	-14275	-14275	1	Si
137	0.09	8.04	0	3060	SLD 9	3060	6627	42764	14275	14275	1	Si
137	0.09	8.04	0	-1661	SLD 8	-1661	-6627	-42764	-14275	-14275	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-188628	8	-188628	16.8	149.4	583.1	3600	-162340	4	-162340	14.5	112.1	0	+∞	Si
68	-104570	8	-127439	11.4	149.4	394	3600	-88025	4	-108032	9.6	112.1	0	+∞	Si
137	-38107	8	-55809	5	149.4	172.5	3600	-31305	4	-46146	4.1	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
64	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	1	-0.005	1	9999 Si
68	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	1	-0.005	1	9999 Si
137	0	-0.001	0	-0.001	0	0	0	0	0	0	0	1	-0.001	1	9999 Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	696	-8021	-7925	-3202	696	9414	7925	5628				
68	440	-8278	-7925	-3459	440	9157	7925	5372				
137	175	-8542	-7925	-3716	175	8892	7925	5115				

Campata 4 tra i fili - 7, sezione R 30x50, aste 80, 81, 82, 83; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1						-45366	SLU 16	-45366	-1307565	0.138	Si
107	8.04	5.1	8.04	5.1	112875	SLU 16	138343	1307565	0.138						Si
193	8.04	5.1	8.04	5.1	210908	SLU 16	210908	1307565	0.138						Si
213	8.04	5.1	8.04	5.1	237502	SLU 16	224692	1307565	0.138						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	96224	SLV 8	96224	1307565	0.138	-149354	SLV 9	-149354	-1307565	0.138	Si
107	8.04	5.1	8.04	5.1	335117	SLV 9	466560	1307565	0.138	-192081	SLV 8	-293351	-1307565	0.138	Si
193	8.04	5.1	8.04	5.1	939741	SLV 9	939741	1307565	0.138	-685011	SLV 8	-685011	-1307565	0.138	Si
213	8.04	5.1	8.04	5.1	1123240	SLV 9	1031867	1307565	0.138	-839394	SLV 8	-761830	-1307565	0.138	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	38700	SLD 8	38700	1307565	0.138	-91831	SLD 9	-91831	-1307565	0.138	Si
107	8.04	5.1	8.04	5.1	212193	SLD 9	289360	1307565	0.138	-69157	SLD 8	-116152	-1307565	0.138	Si
193	8.04	5.1	8.04	5.1	561164	SLD 9	561164	1307565	0.138	-306435	SLD 8	-306435	-1307565	0.138	Si
213	8.04	5.1	8.04	5.1	666078	SLD 9	613997	1307565	0.138	-382232	SLD 8	-343960	-1307565	0.138	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.09	8.04	0	1771	SLU 16	1771	6627	42764	14275	14275	1	Si
107	0.088	8.04	0	1035	SLU 16	1035	6627	42764	13895	13895	1	Si
193	0.157	8.04	0	1378	SLU 16	1378	6627	42764	24838	24838	1	Si
199	0	8.04	0	1350	SLU 16	1350	6627	42764	0	6627	1	Si
213	0	8.04	0	1281	SLU 16	1281	6627	42764	0	6627	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.09	8.04	0	4458	Ger.	8892	6627	42764	14275	14275	1	Si
0	0.09	8.04	0	-2203	Ger.	-8542	-6627	-42764	-14275	-14275	1	Si
107	0.088	8.04	0	4142	Ger.	8451	6627	42764	13895	13895	1	Si
107	0.088	8.04	0	-2918	Ger.	-8983	-6627	-42764	-13895	-13895	1	Si
193	0.157	8.04	0	9213	SLV 9	9213	6627	42764	24838	24838	1	Si
193	0.157	8.04	0	-7682	Ger.	-9377	-6627	-42764	-24838	-24838	1	Si
213	0	8.04	0	9138	SLV 9	9138	6627	42764	0	6627	1	Si
213	0	8.04	0	-7757	Ger.	-9452	-6627	-42764	0	-6627	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.09	8.04	0	2902	SLD 9	2902	6627	42764	14275	14275	1	Si
0	0.09	8.04	0	-647	SLD 8	-647	-6627	-42764	-14275	-14275	1	Si
107	0.088	8.04	0	2494	SLD 9	2494	6627	42764	13895	13895	1	Si
107	0.088	8.04	0	-1270	SLD 8	-1270	-6627	-42764	-13895	-13895	1	Si
193	0.157	8.04	0	5283	SLD 9	5283	6627	42764	24838	24838	1	Si
193	0.157	8.04	0	-3753	SLD 8	-3753	-6627	-42764	-24838	-24838	1	Si
199	0	8.04	0	5262	SLD 9	5262	6627	42764	0	6627	1	Si
199	0	8.04	0	-3774	SLD 8	-3774	-6627	-42764	0	-6627	1	Si
213	0	8.04	0	5208	SLD 9	5208	6627	42764	0	6627	1	Si
213	0	8.04	0	-3828	SLD 8	-3828	-6627	-42764	0	-6627	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-32524	8	-32524	2.9	149.4	100.5	3600	-26565	4	-26565	2.4	112.1	0	+∞	Si
107	82253	8	100558	9	149.4	310.9	3600	71518	4	86604	7.7	112.1	0	+∞	Si
193	152152	8	152152	13.6	149.4	470.3	3600	127365	4	127365	11.4	112.1	0	+∞	Si
213	170960	8	161931	14.4	149.4	500.6	3600	141923	4	135019	12	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
0	0	-0.001	0	-0.001	0	0	0	0	0	0	0	1	-0.001	1	9999	Si
107	0.004	0.003	0.004	0.003	0.004	0.003	0.003	0.003	0.004	0.003	0.008	4	0.006	4	9999	Si
128	0.005	0.003	0.004	0.003	0.004	0.003	0.004	0.003	0.004	0.003	0.008	4	0.006	4	9999	Si
193	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.004	4	0.003	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	184.2	6.2	50	0.011	0.00098	0.01491	0	6627	42764	24838	24838	24699	24838	-9377	0	SLV 8	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	175	-8542	-7925	-2203	175	8892	7925	4458				
107	-266	-8983	-7925	-2918	-266	8451	7925	4142				
193	-660	-9377	-7925	-7682	-660	9213	7925	9213				
213	-735	-9452	-7925	-7757	-735	9138	7925	9138				

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
3	0	16	1307565	-1307565
4	193	7	1307565	-1307565

Trave a "Quarto Impalcato" Parete 3 - Parete 4**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 23 - 3, sezione R 30x50, asta 315; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-495263	SLU 16	-428933	-1620182	0.156	Si
15	10.05	5.1	8.04	5.1						-367126	SLU 16	-367126	-1620182	0.156	Si
230	8.04	5.1	8.04	5.1	454529	SLU 16	491409	1307565	0.138						Si
430	13.19	5.1	12.06	5.1						-487668	SLU 16	-487668	-2106167	0.164	Si
460	13.19	5.1	12.06	5.1						-770610	SLU 16	-619989	-2106167	0.164	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1	745860	SLV 13	745860	1307401	0.134	-1365945	SLV 4	-1283907	-1620182	0.156	Si
15	10.05	5.1	8.04	5.1	744325	SLV 13	744325	1307401	0.134	-1204683	SLV 4	-1204683	-1620182	0.156	Si
230	8.04	5.1	8.04	5.1	475031	SLV 4	571013	1307565	0.138	90565	SLV 13	-31758	-1307565	0.138	Si
430	13.19	5.1	12.06	5.1	975363	SLV 4	975520	1932432	0.153	-1579730	SLV 13	-1579730	-2106167	0.164	Si
460	13.19	5.1	12.06	5.1	962272	SLV 4	962272	1932432	0.153	-1918417	SLV 13	-1743378	-2106167	0.164	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1	226548	SLD 13	226548	1307401	0.134	-846633	SLD 4	-784609	-1620182	0.156	Si
15	10.05	5.1	8.04	5.1	265043	SLD 13	307157	1307401	0.134	-725401	SLD 4	-725401	-1620182	0.156	Si
230	8.04	5.1	8.04	5.1	380531	SLD 4	422834	1307565	0.138						Si
430	13.19	5.1	12.06	5.1	347124	SLD 4	396302	1932432	0.153	-951491	SLD 13	-951491	-2106167	0.164	Si
460	13.19	5.1	12.06	5.1	253972	SLD 4	253972	1932432	0.153	-1210116	SLD 13	-1075108	-2106167	0.164	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	8858	SLU 16	8858	7139	42764	0	7139	1	Si
15	0.157	10.05	0	8241	SLU 16	8241	7139	42764	24838	24838	1	Si
230	0.085	8.04	0	-599	SLU 16	-599	-6627	-42764	-13405	-13405	1	Si
430	0.157	13.19	0	-8821	SLU 16	-8821	-7812	-42719	-24812	-24812	1	Si
460	0	13.19	0	-10055	SLU 16	-10055	-7812	-42719	0	-7812	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	10947	Ger.	15302	7139	42764	0	7139	1	Si
0	0	8.04	0	94	Ger.	-3162	-6627	-42764	0	-6627	1	Si
15	0.157	10.05	0	10563	Ger.	14918	7139	42764	24838	24838	1	Si
15	0.157	8.04	0	-290	Ger.	-3546	-6627	-42764	-24838	-24838	1	Si
230	0.085	8.04	0	5061	Ger.	9417	6627	42764	13405	13405	1	Si
230	0.085	8.04	0	-5792	Ger.	-9048	-6627	-42764	-13405	-13405	1	Si
430	0.157	12.06	0	-57	Ger.	4299	7586	42764	24838	24838	1	Si
430	0.157	13.19	0	-10910	Ger.	-14166	-7812	-42719	-24812	-24812	1	Si
460	0	12.06	0	-824	Ger.	3531	7586	42764	0	7586	1	Si
460	0	13.19	0	-11678	Ger.	-14934	-7812	-42719	0	-7812	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	8278	SLD 4	8278	7139	42764	0	7139	1	Si
15	0.157	10.05	0	7894	SLD 4	7894	7139	42764	24838	24838	1	Si
230	0.085	8.04	0	2393	SLD 4	2393	6627	42764	13405	13405	1	Si
230	0.085	8.04	0	-3123	SLD 13	-3123	-6627	-42764	-13405	-13405	1	Si
430	0.157	13.19	0	-8241	SLD 13	-8241	-7812	-42719	-24812	-24812	1	Si
460	0	13.19	0	-9009	SLD 13	-9009	-7812	-42719	0	-7812	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-357977	8	-310038	25.6	149.4	773	3600	-310042	4	-268703	22.2	112.1	0	+∞	Si
15	-265368	8	-265368	21.9	149.4	661.7	3600	-230179	4	-230179	19	112.1	0	+∞	Si
230	328331	8	331489	29.6	149.4	1024.7	3600	282798	4	285391	25.5	112.1	0	+∞	Si
430	-352985	8	-352985	24.7	149.4	676.2	3600	-302183	4	-302183	21.1	112.1	0	+∞	Si
460	-557550	8	-448653	31.4	149.4	859.5	3600	-478072	4	-384433	26.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0.004	0.003	0.003	0.002	0.004	0.003	0.003	0.002	0.004	0.003	0.007	4	0.005	4	9999	Sì
215	0.057	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.049	0.033	0.098	4	0.066	4	4672	Sì
230	0.057	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.049	0.033	0.098	4	0.066	4	4687	Sì
430	0.006	0.003	0.004	0.002	0.005	0.003	0.004	0.002	0.005	0.003	0.009	4	0.006	4	9999	Sì

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	289.7	6	50	0.012	0.00074	0.01256	0	6627	42764	24838	24838	23297	24838	14918	0	SLV 9	Si
445	310.3	6.9	50	0.02	0.0021	0.01491	0	7586	42764	24838	24838	24347	24838	-14166	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	5886	-3162	-8225	94	5886	15302	8561	10947
15	5502	-3546	-8225	290	5502	14918	8561	10563
230	0	-9048	-8225	-5792	0	9417	8561	5061

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
430	-5118	-14166	-8225	-10910	-5118	4299	8561	-57
460	-5886	-14934	-8225	-11678	-5886	3531	8561	-824

Campata 2 tra i fili 3 - 4, sezione R 30x50, asta 319; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1						-256987	SLU 15	-214491	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1						-178041	SLU 15	-178041	-2106167	0.164	Si
197	8.04	5.1	11.16	5.1	56437	SLU 9	116364	1791441	0.166						Si
365	13.19	5.1	12.06	5.1						-151895	SLU 16	-151895	-2106167	0.164	Si
395	13.19	5.1	12.06	5.1						-225922	SLU 16	-185886	-2106167	0.164	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1	1473372	SLV 13	1378750	1932432	0.153	-1850021	SLV 4	-1690454	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1	1279418	SLV 13	1279418	1932432	0.153	-1535479	SLV 4	-1535479	-2106167	0.164	Si
197	8.04	5.1	11.16	5.1	45839	SLV 3	214334	1791441	0.166	18222	SLV 14	-152909	-1307304	0.132	Si
365	13.19	5.1	12.06	5.1	1322854	SLV 4	1322854	1932432	0.153	-1542630	SLV 13	-1542630	-2106167	0.164	Si
395	13.19	5.1	12.06	5.1	1520101	SLV 4	1423811	1932432	0.153	-1853965	SLV 13	-1695980	-2106167	0.164	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1	654930	SLD 13	622902	1932432	0.153	-1031579	SLD 4	-934607	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1	586193	SLD 13	586193	1932432	0.153	-842254	SLD 4	-842254	-2106167	0.164	Si
197	8.04	5.1	11.16	5.1	39115	SLD 3	123969	1791441	0.166	24946	SLD 14	-62543	-1307304	0.132	Si
365	13.19	5.1	12.06	5.1	617301	SLD 4	617301	1932432	0.153	-837076	SLD 13	-837076	-2106167	0.164	Si
395	13.19	5.1	12.06	5.1	689309	SLD 4	655634	1932432	0.153	-1023173	SLD 13	-927804	-2106167	0.164	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	2849	SLU 15	2849	7812	42719	0	7812	1	Si
30	0.157	13.19	0	2430	SLU 15	2430	7812	42719	24812	24812	1	Si
197	0.094	11.15	0	89	SLU 15	89	7390	42764	14797	14797	1	Si
365	0.157	13.19	0	-2293	SLU 9	-2293	-7812	-42719	-24812	-24812	1	Si
395	0	13.19	0	-2713	SLU 9	-2713	-7812	-42719	0	-7812	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	10654	Ger.	15384	7812	42719	0	7812	1	Si
0	0	12.06	0	-6300	Ger.	-11138	-7586	-42764	0	-7586	1	Si
30	0.157	13.19	0	10332	Ger.	15062	7812	42719	24812	24812	1	Si
30	0.157	12.06	0	-6622	Ger.	-11460	-7586	-42764	-24838	-24838	1	Si
197	0.094	11.15	0	8531	Ger.	13261	7390	42764	14797	14797	1	Si
197	0.094	11.15	0	-8423	Ger.	-13261	-7390	-42764	-14797	-14797	1	Si
365	0.157	12.06	0	6730	Ger.	11460	7586	42764	24838	24838	1	Si
365	0.157	13.19	0	-10223	Ger.	-15062	-7812	-42719	-24812	-24812	1	Si
395	0	12.06	0	6408	Ger.	11138	7586	42764	0	7586	1	Si
395	0	13.19	0	-10546	Ger.	-15384	-7812	-42719	0	-7812	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	6479	SLD 4	6479	7812	42719	0	7812	1	Si
0	0	12.06	0	-2125	SLD 13	-2125	-7586	-42764	0	-7586	1	Si
30	0.157	13.19	0	6157	SLD 4	6157	7812	42719	24812	24812	1	Si
30	0.157	12.06	0	-2447	SLD 13	-2447	-7586	-42764	-24838	-24838	1	Si
197	0.094	11.15	0	4356	SLD 4	4356	7390	42764	14797	14797	1	Si
197	0.094	11.15	0	-4248	SLD 13	-4248	-7390	-42764	-14797	-14797	1	Si
365	0.157	12.06	0	2556	SLD 4	2556	7586	42764	24838	24838	1	Si
365	0.157	13.19	0	-6049	SLD 13	-6049	-7812	-42719	-24812	-24812	1	Si
395	0	12.06	0	2233	SLD 4	2233	7586	42764	0	7586	1	Si
395	0	13.19	0	-6371	SLD 13	-6371	-7812	-42719	0	-7812	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-194453	7	-161828	11.3	149.4	310	3600	-188324	4	-155852	10.9	112.1	0	$+\infty$	Si
30	-133854	7	-133854	9.4	149.4	256.4	3600	-128031	4	-128031	8.9	112.1	0	$+\infty$	Si
197	43413	1	43413	3.5	149.4	97.9	3600	43413	1	43413	3.5	112.1	0	$+\infty$	Si
365	-114791	8	-114791	8	149.4	219.9	3600	-109888	4	-109888	7.7	112.1	0	$+\infty$	Si
395	-171818	8	-140979	9.9	149.4	270.1	3600	-166932	4	-136085	9.5	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f		
30	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.003	1		9999	Si
66	0	-0.002	-0.001	-0.002	0	-0.002	-0.001	-0.002	0	-0.002	-0.001	1	-0.004	1		9999	Si
197	0.003	0	-0.001	-0.001	0.003	0	0.002	-0.001	0.003	0.001	0.004	1	-0.001	1		9999	Si
365	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1		9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
505	192.8	7.4	50	0.02	0.00197	0.01564	0	7812	42719	24812	24812	26833	26833	15062	0	SLV 2	Si
840	195.3	7.4	50	0.02	0.00273	0.01564	0	7812	42719	24812	24812	26722	26722	-15062	0	SLV 14	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2123	-11138	-12056	-6300	2123	15384	12056	10654
30	1801	-11460	-12056	-6622	1801	15062	12056	10332
197	0	-13261	-12056	-8423	0	13261	12056	8531
365	-1801	-15062	-12056	-10223	-1801	11460	12056	6730
395	-2123	-15384	-12056	-10546	-2123	11138	12056	6408

Campata 3 tra i fili 4 - 28, sezione R 30x50, asta 311; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1						-1463267	SLU 16	-1261101	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1						-1075262	SLU 16	-1075262	-2106167	0.164	Si
310	8.04	5.1	8.04	5.1	784241	SLU 16	916944	1307565	0.138						Si
605	10.05	5.1	8.04	5.1						-747680	SLU 16	-747680	-1620182	0.156	Si
620	10.05	5.1	8.04	5.1						-919328	SLU 16	-832065	-1620182	0.156	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1	135604	SLV 15	135604	1932432	0.153	-1954051	SLV 2	-1782949	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1	286305	SLV 15	375377	1932432	0.153	-1622010	SLV 2	-1622010	-2106167	0.164	Si
310	8.04	5.1	8.04	5.1	596227	SLV 15	640804	1307565	0.138						Si
605	10.05	5.1	8.04	5.1	317250	SLV 2	392169	1307401	0.134	-1250134	SLV 15	-1250134	-1620182	0.156	Si
620	10.05	5.1	8.04	5.1	255684	SLV 2	255684	1307401	0.134	-1402370	SLV 15	-1325357	-1620182	0.156	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	13.19	5.1	12.06	5.1						-1441041	SLD 2	-1292201	-2106167	0.164	Si
30	13.19	5.1	12.06	5.1						-1153523	SLD 2	-1153523	-2106167	0.164	Si
310	8.04	5.1	8.04	5.1	543287	SLD 15	558012	1307565	0.138						Si
605	10.05	5.1	8.04	5.1	-67622	SLD 2	37150	1307401	0.134	-865262	SLD 15	-865262	-1620182	0.156	Si
620	10.05	5.1	8.04	5.1						-995237	SLD 15	-929354	-1620182	0.156	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	13623	SLU 16	13623	7812	42719	0	7812	1	Si
30	0.157	13.19	0	12389	SLU 16	12389	7812	42719	24812	24812	1	Si
310	0.083	8.04	0	877	SLU 16	877	6627	42764	13073	13073	1	Si
605	0.157	10.05	0	-11251	SLU 16	-11251	-7139	-42764	-24838	-24838	1	Si
620	0	10.05	0	-11868	SLU 16	-11868	-7139	-42764	0	-7139	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	11497	Ger.	14463	7812	42719	0	7812	1	Si
30	0.157	13.19	0	10729	Ger.	13696	7812	42719	24812	24812	1	Si
310	0.083	8.04	0	3564	Ger.	6530	6627	42764	13073	13073	1	Si
310	0.083	8.04	0	-2481	Ger.	-6796	-6627	-42764	-13073	-13073	1	Si
605	0.157	10.05	0	-10030	Ger.	-14345	-7139	-42764	-24838	-24838	1	Si
620	0	10.05	0	-10414	Ger.	-14729	-7139	-42764	0	-7139	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	13.19	0	10013	SLD 2	10013	7812	42719	0	7812	1	Si
30	0.157	13.19	0	9245	SLD 2	9245	7812	42719	24812	24812	1	Si
310	0.083	8.04	0	2080	SLD 2	2080	6627	42764	13073	13073	1	Si
310	0.083	8.04	0	-996	SLD 15	-996	-6627	-42764	-13073	-13073	1	Si
605	0.157	10.05	0	-8546	SLD 15	-8546	-7139	-42764	-24838	-24838	1	Si
620	0	10.05	0	-8929	SLD 15	-8929	-7139	-42764	0	-7139	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1057845	8	-911706	63.7	149.4	1746.6	3600	-909223	4	-783457	54.8	112.1	0	+∞	Si
30	-777369	8	-777369	54.3	149.4	1489.3	3600	-667852	4	-667852	46.7	112.1	0	+∞	Si
310	566799	8	573378	51.1	149.4	1772.5	3600	488323	4	493901	44.1	112.1	0	+∞	Si
605	-540586	8	-540586	44.7	149.4	1347.9	3600	-466442	4	-466442	38.6	112.1	0	+∞	Si
620	-664666	8	-601586	49.7	149.4	1500	3600	-573343	4	-518997	42.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.7	0.00054	0.0123	8	22.7	0.00056	0.0127	4	22.7	0.00053	0.0119	4	Si
30	superiore	22.7	0.00043	0.0098	8	22.7	0.00045	0.0101	4	22.7	0.00042	0.0095	4	Si
310	inferiore	27.6	0.00052	0.0143	8	27.6	0.00048	0.0131	4	27.6	0.00044	0.0123	4	Si
331	inferiore	27.6	0.00052	0.0143	8	27.6	0.00048	0.0131	4	27.6	0.00044	0.0123	4	Si
605	superiore	24.8	0.00039	0.0097	8	24.8	0.00035	0.0088	4	24.8	0.00034	0.0084	4	Si
620	superiore	24.8	0.00044	0.0108	8	24.8	0.00041	0.0101	4	24.8	0.00038	0.0094	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.009	0.005	0.007	0.003	0.009	0.005	0.005	0.004	0.008	0.005	0.02	4	0.009	4	9999	Si
310	0.168	0.098	0.191	0.082	0.152	0.098	0.152	0.082	0.145	0.098	0.4	4	0.2	4	1551	Si
331	0.169	0.098	0.192	0.083	0.152	0.098	0.153	0.083	0.146	0.098	0.402	4	0.201	4	1541	Si
605	0.009	0.005	0.01	0.004	0.008	0.005	0.008	0.004	0.008	0.005	0.02	4	0.01	4	9999	Si

Verifiche ciclo ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
900	454.3	6.9	50	0.02	0.00227	0.01482	0	7586	42764	24838	24838	24347	24838	13696	0	SLV 13	Si
1475	394.4	6	50	0.012	0.00128	0.01253	0	6627	42764	24838	24838	23297	24838	-14345	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7933	0	-6178	5452	7933	14463	5937	13623
30	7165	0	-6178	4685	7165	13696	5937	12389
310	0	-6796	-6178	-2481	0	6530	5937	3564
605	-7549	-14345	-6178	-11251	-7549	0	5937	-3985
620	-7933	-14729	-6178	-11868	-7933	0	5937	-4369

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	23	1307401	-1620182
1	430	3	1932432	-2106167
2	30	3	1932432	-2106167
2	365	4	1932432	-2106167
3	30	4	1932432	-2106167
3	605	28	1307401	-1620182

Trave a "Quarto Impalcato" Parete 3-Pil.8**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 23 - 24, sezione R 30x50, asta 107****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	84285	SLU 16	68144	1307565	0.138						Si
15	8.04	5.1	8.04	5.1	51455	SLU 16	51455	1307565	0.138						Si
18	8.04	5.1	8.04	5.1	43640	SLU 16	51455	1307565	0.138						Si
27	8.04	5.1	8.04	5.1	24406	SLU 16	51455	1307565	0.138						Si
37	8.04	5.1	8.04	5.1	5779	SLU 9	5779	1307565	0.138	-8	SLU 8	-8	-1307565	0.138	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	97520	SLV 4	75589	1256910	0.274						Si
15	8.04	5.1	8.04	5.1	53233	SLV 4	53233	1256910	0.274						Si
18	8.04	5.1	8.04	5.1	42782	SLV 4	53233	1256910	0.274						Si
27	8.04	5.1	8.04	5.1	18868	SLV 11	53233	1256910	0.274						Si
37	8.04	5.1	8.04	5.1	18269	SLV 15	18152	1256910	0.274	-13357	SLV 2	-2710	-1256910	0.274	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	75790	SLD 4	59831	1256910	0.274						Si
15	8.04	5.1	8.04	5.1	43448	SLD 4	43448	1256910	0.274						Si
18	8.04	5.1	8.04	5.1	35783	SLD 4	43448	1256910	0.274						Si
27	8.04	5.1	8.04	5.1	17866	SLD 11	43448	1256910	0.274						Si
37	8.04	5.1	8.04	5.1	10477	SLD 15	10477	1256910	0.274	-5565	SLD 2	-5499	-1256910	0.274	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	-2152	SLU 16	-2152	-6627	-42764	0	-6627	1	Si
15	0.131	8.04	0	-2225	SLU 16	-2225	-6627	-42764	-20701	-20701	1	Si
18	0.131	8.04	0	-2242	SLU 16	-2242	-6627	-42764	-20701	-20701	1	Si
27	0.131	8.04	0	-2284	SLU 16	-2284	-6627	-42764	-20701	-20701	1	Si
37	0	8.04	0	-2332	SLU 16	-2332	-6627	-42764	0	-6627	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	314	SLV 13	314	6627	42764	0	6627	1	Si
0	0	8.04	0	-2925	SLV 4	-2925	-6627	-42764	0	-6627	1	Si
15	0.131	8.04	0	258	SLV 13	258	6627	42764	20701	20701	1	Si
15	0.131	8.04	0	-2981	SLV 4	-2981	-6627	-42764	-20701	-20701	1	Si
18	0.131	8.04	0	245	SLV 13	245	6627	42764	20701	20701	1	Si
18	0.131	8.04	0	-2994	SLV 4	-2994	-6627	-42764	-20701	-20701	1	Si
27	0.131	8.04	0	213	SLV 13	213	6627	42764	20701	20701	1	Si
27	0.131	8.04	0	-3026	SLV 4	-3026	-6627	-42764	-20701	-20701	1	Si
37	0	8.04	0	175	SLV 13	175	6627	42764	0	6627	1	Si
37	0	8.04	0	-3063	SLV 4	-3063	-6627	-42764	0	-6627	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	-2128	SLD 4	-2128	-6627	-42764	0	-6627	1	Si
15	0.131	8.04	0	-2184	SLD 4	-2184	-6627	-42764	-20701	-20701	1	Si
18	0.131	8.04	0	-2198	SLD 4	-2198	-6627	-42764	-20701	-20701	1	Si
27	0.131	8.04	0	-2229	SLD 4	-2229	-6627	-42764	-20701	-20701	1	Si
37	0	8.04	0	-2267	SLD 4	-2267	-6627	-42764	0	-6627	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	61163	8	49584	4.4	149.4	153.3	3600	53316	4	43526	3.9	112.1	0	+∞	Si
15	37583	8	37583	3.4	149.4	116.2	3600	33315	4	33315	3	112.1	0	+∞	Si
18	31961	8	37583	3.4	149.4	116.2	3600	28528	4	33315	3	112.1	0	+∞	Si
27	18115	8	37583	3.4	149.4	116.2	3600	16708	4	33315	3	112.1	0	+∞	Si
37	4445	1	4445	0.4	149.4	13.7	3600	4445	1	4445	0.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
18	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
27	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
37	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Campata 2 tra i fili 24 - 25, sezione R 30x50, aste 108, 109, 110, 111**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	2194	SLV 9	1529	1307565	0.138	-5551	SLV 8	-5551	-1307565	0.138	Si
10	8.04	5.1	8.04	5.1	620	SLV 9	620	1307565	0.138	-6461	SLV 8	-10380	-1307565	0.138	Si
99	8.04	5.1	8.04	5.1						-3009	SLV 16	-7371	-1307565	0.138	Si
178	8.04	5.1	8.04	5.1						-95300	SLV 16	-124523	-1307565	0.138	Si
198	8.04	5.1	8.04	5.1						-124523	SLV 16	-124523	-1307565	0.138	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_c=0.002$, $\epsilon_{yd}=0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	15718	SLV 15	13663	1256910	0.274	-18740	SLV 2	-17582	-1256910	0.274	Si
10	8.04	5.1	8.04	5.1	11404	SLV 15	11404	1256910	0.274	-16595	SLV 2	-16595	-1256910	0.274	Si
99	8.04	5.1	8.04	5.1	14336	SLV 3	30113	1256910	0.274	-18611	SLV 14	-39260	-1256910	0.274	Si
178	8.04	5.1	8.04	5.1	280382	SLV 7	354853	1256910	0.274	-395917	SLV 10	-506272	-1256910	0.274	Si
198	8.04	5.1	8.04	5.1	354853	SLV 7	354853	1256910	0.274	-506272	SLV 10	-506272	-1256910	0.274	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_c=0.002$, $\epsilon_{yd}=0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	7309	SLD 15	6035	1256910	0.274	-10331	SLD 2	-9954	-1256910	0.274	Si
10	8.04	5.1	8.04	5.1	4565	SLD 15	4565	1256910	0.274	-9756	SLD 2	-9778	-1256910	0.274	Si
99	8.04	5.1	8.04	5.1	6239	SLD 3	13179	1256910	0.274	-10514	SLD 14	-22326	-1256910	0.274	Si
178	8.04	5.1	8.04	5.1	121858	SLD 7	153139	1256910	0.274	-237394	SLD 10	-304558	-1256910	0.274	Si
198	8.04	5.1	8.04	5.1	153139	SLD 7	153139	1256910	0.274	-304558	SLD 10	-304558	-1256910	0.274	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	-133	SLV 10	-133	-6627	-42764	0	-6627	1	Si
10	0.063	8.04	0	-182	SLV 10	-182	-6627	-42764	-9935	-9935	1	Si
99	0.057	8.04	0	-168	SLV 16	-168	-6627	-42764	-8999	-8999	1	Si
191	0.057	8.04	0	-1492	SLV 16	-1492	-6627	-42764	-8999	-8999	1	Si
198	0.157	8.04	0	-1524	SLV 16	-1524	-6627	-42764	-24838	-24838	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	235	SLV 2	235	6627	42764	0	6627	1	Si
0	0	8.04	0	-414	SLV 15	-414	-6627	-42764	0	-6627	1	Si
10	0.063	8.04	0	198	SLV 2	198	6627	42764	9935	9935	1	Si
10	0.063	8.04	0	-452	SLV 15	-452	-6627	-42764	-9935	-9935	1	Si
99	0.057	8.04	0	825	SLV 3	825	6627	42764	8999	8999	1	Si
99	0.057	8.04	0	-991	SLV 14	-991	-6627	-42764	-8999	-8999	1	Si
191	0.057	8.04	0	3749	SLV 7	3749	6627	42764	8999	8999	1	Si
191	0.057	8.04	0	-5586	SLV 10	-5586	-6627	-42764	-8999	-8999	1	Si
198	0.157	8.04	0	3724	SLV 7	3724	6627	42764	24838	24838	1	Si
198	0.157	8.04	0	-5611	SLV 10	-5611	-6627	-42764	-24838	-24838	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	77	SLD 2	77	6627	42764	0	6627	1	Si
0	0	8.04	0	-257	SLD 15	-257	-6627	-42764	0	-6627	1	Si
10	0.063	8.04	0	40	SLD 2	40	6627	42764	9935	9935	1	Si
10	0.063	8.04	0	-294	SLD 15	-294	-6627	-42764	-9935	-9935	1	Si
99	0.057	8.04	0	384	SLD 3	384	6627	42764	8999	8999	1	Si
99	0.057	8.04	0	-551	SLD 14	-551	-6627	-42764	-8999	-8999	1	Si
191	0.057	8.04	0	1567	SLD 7	1567	6627	42764	8999	8999	1	Si
191	0.057	8.04	0	-3405	SLD 10	-3405	-6627	-42764	-8999	-8999	1	Si
198	0.157	8.04	0	1543	SLD 7	1543	6627	42764	24838	24838	1	Si
198	0.157	8.04	0	-3429	SLD 10	-3429	-6627	-42764	-24838	-24838	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	1688	1	1176	0.1	149.4	3.6	3600	1688	1	1176	0.1	112.1	0	+∞	Si
0	-3138	8	-3138	0.3	149.4	9.7	3600	-1511	4	-1511	0.1	112.1	0	+∞	Si
10	477	1	477	0	149.4	1.5	3600	477	1	477	0	112.1	0	+∞	Si
10	-4148	8	-7335	0.7	149.4	22.7	3600	-2595	4	-5931	0.5	112.1	0	+∞	Si
99	-2269	8	-5377	0.5	149.4	16.6	3600	-2138	4	-4573	0.4	112.1	0	+∞	Si
198	-90374	8	-90374	8.1	149.4	279.4	3600	-75710	4	-75710	6.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
10	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
99	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999
145	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999

Campata 3 tra i fili 25 - , sezione R 30x50, asta 112; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1						-165565	SLV 16	-165565	-1307565	0.138	Si
9	8.04	5.1	8.04	5.1						-160911	SLV 16	-165565	-1307565	0.138	Si
68	8.04	5.1	8.04	5.1						-140576	SLV 16	-145554	-1307565	0.138	Si
137	8.04	5.1	8.04	5.1						-138462	SLV 16	-138462	-1307565	0.138	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	482062	SLV 7	482062	1307565	0.138	-683064	SLV 10	-683064	-1307565	0.138	Si
68	8.04	5.1	8.04	5.1	348434	SLV 11	371203	1307565	0.138	-520310	SLV 6	-541230	-1307565	0.138	Si
137	8.04	5.1	8.04	5.1	683932	SLV 15	683932	1307565	0.138	-861874	SLV 2	-861874	-1307565	0.138	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	209120	SLD 7	209120	1307565	0.138	-410122	SLD 10	-410122	-1307565	0.138	Si
68	8.04	5.1	8.04	5.1	145915	SLD 11	157219	1307565	0.138	-317791	SLD 6	-327245	-1307565	0.138	Si
137	8.04	5.1	8.04	5.1	306165	SLD 15	306165	1307565	0.138	-484106	SLD 2	-484106	-1307565	0.138	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	8.04	0	544	SLU 12	544	6627	42764	24838	24838	1	Si
50	0.072	8.04	0	299	SLU 12	299	6627	42764	11420	11420	1	Si
68	0.072	8.04	0	210	SLU 12	210	6627	42764	11420	11420	1	Si
137	0.077	8.04	0	-287	SLU 14	-287	-6627	-42764	-12159	-12159	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	8.04	0	8387	Ger.	10201	6627	42764	24838	24838	1	Si
0	0.157	8.04	0	-7705	Ger.	-8029	-6627	-42764	-24838	-24838	1	Si
50	0.072	8.04	0	8199	Ger.	10012	6627	42764	11420	11420	1	Si
50	0.072	8.04	0	-7893	Ger.	-8217	-6627	-42764	-11420	-11420	1	Si
68	0.072	8.04	0	8130	Ger.	9944	6627	42764	11420	11420	1	Si
68	0.072	8.04	0	-7962	Ger.	-8286	-6627	-42764	-11420	-11420	1	Si
137	0.077	8.04	0	7873	Ger.	9683	6627	42764	12159	12159	1	Si
137	0.077	8.04	0	-8219	Ger.	-8547	-6627	-42764	-12159	-12159	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	8.04	0	4439	SLD 14	4439	6627	42764	24838	24838	1	Si
0	0.157	8.04	0	-3757	SLD 3	-3757	-6627	-42764	-24838	-24838	1	Si
68	0.072	8.04	0	4182	SLD 14	4182	6627	42764	11420	11420	1	Si
68	0.072	8.04	0	-4013	SLD 3	-4013	-6627	-42764	-11420	-11420	1	Si
132	0.072	8.04	0	3942	SLD 14	3942	6627	42764	11420	11420	1	Si
132	0.072	8.04	0	-4253	SLD 3	-4253	-6627	-42764	-11420	-11420	1	Si
137	0.077	8.04	0	3925	SLD 14	3925	6627	42764	12159	12159	1	Si
137	0.077	8.04	0	-4270	SLD 3	-4270	-6627	-42764	-12159	-12159	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	$\sigma_{c \text{ lim.}}$	σ_f	$\sigma_{f \text{ lim.}}$	Mela	Comb.	Mdes	σ_c	$\sigma_{c \text{ lim.}}$	σ_{FRP}	$\sigma_{FRP \text{ lim.}}$	
0	-120129	8	-120129	10.7	149.4	371.4	3600	-100501	4	-100501	9	112.1	0	$+\infty$	Si
68	-101678	8	-105281	9.4	149.4	325.5	3600	-85938	4	-88399	7.9	112.1	0	$+\infty$	Si
137	-100824	8	-100824	9	149.4	311.7	3600	-88971	4	-88971	7.9	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
68	-0.003	-0.005	-0.003	-0.005	-0.003	-0.005	-0.003	-0.004	-0.003	-0.005	-0.007	1	-0.009	1	9999	Si
105	-0.004	-0.006	-0.003	-0.005	-0.004	-0.006	-0.003	-0.005	-0.004	-0.005	-0.007	1	-0.011	1	9999	Si
137	-0.004	-0.006	-0.003	-0.005	-0.004	-0.005	-0.003	-0.004	-0.004	-0.005	-0.007	1	-0.01	1	9999	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela			contr. grav.	Vdes	contr. mom. res.	Vela		
0	687	-8029	-7924	-7705	687	10201	8649	8387				
68	430	-8286	-7924	-7962	430	9944	8649	8130				
137	169	-8547	-7924	-8219	169	9683	8649	7873				

Campata 4 tra i fili - 8, sezione R 30x50, aste 113, 114, 115, 116; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1						-133225	SLU 16	-133225	-1307565	0.138	Si
107	8.04	5.1	8.04	5.1	79357	SLU 16	126573	1307565	0.138						Si
193	8.04	5.1	9.58	5.1	271987	SLU 16	271987	1546459	0.151						Si
213	8.04	5.1	9.58	5.1	323917	SLU 16	298439	1546459	0.151						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	641806	SLV 15	641806	1307565	0.138	-812700	SLV 2	-812700	-1307565	0.138	Si
107	8.04	5.1	8.04	5.1	231386	SLV 10	431403	1307565	0.138	-130996	SLV 7	-272881	-1307565	0.138	Si
193	8.04	5.1	9.58	5.1	1153177	SLV 6	1153177	1546459	0.151	-820082	SLV 11	-820082	-1307276	0.135	Si
213	8.04	5.1	9.58	5.1	1422202	SLV 6	1288066	1546459	0.151	-1027717	SLV 11	-923527	-1307276	0.135	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	286353	SLD 15	286353	1307565	0.138	-457247	SLD 2	-457247	-1307565	0.138	Si
107	8.04	5.1	8.04	5.1	147344	SLD 10	267327	1307565	0.138	-46955	SLD 7	-108806	-1307565	0.138	Si
193	8.04	5.1	9.58	5.1	691885	SLD 6	691885	1546459	0.151	-358790	SLD 11	-358790	-1307276	0.135	Si
213	8.04	5.1	9.58	5.1	849426	SLD 6	771031	1546459	0.151	-454941	SLD 11	-406492	-1307276	0.135	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.077	8.04	0	1899	SLU 16	1899	6627	42764	12159	12159	1	Si
107	0.077	8.04	0	1824	SLU 16	1824	6627	42764	12159	12159	1	Si
193	0.157	9.27	0	2645	SLU 16	2645	6949	42749	24830	24830	1	Si
199	0	9.49	0	2617	SLU 16	2617	7002	42749	0	7002	1	Si
213	0	9.58	0	2548	SLU 16	2548	7024	42749	0	7024	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.077	8.04	0	8346	Ger.	9683	6627	42764	12159	12159	1	Si
0	0.077	8.04	0	-5840	Ger.	-8547	-6627	-42764	-12159	-12159	1	Si
107	0.077	8.04	0	7638	Ger.	9255	6627	42764	12159	12159	1	Si
107	0.077	8.04	0	-5387	Ger.	-8974	-6627	-42764	-12159	-12159	1	Si
193	0.157	9.27	0	13489	SLV 6	13489	6949	42749	24830	24830	1	Si
193	0.157	8.04	0	-10344	SLV 11	-10344	-6627	-42764	-24838	-24838	1	Si
199	0	9.49	0	13467	SLV 6	13467	7002	42749	0	7002	1	Si
199	0	8.04	0	-10366	SLV 11	-10366	-6627	-42764	0	-6627	1	Si
213	0	9.58	0	13414	SLV 6	13414	7024	42749	0	7024	1	Si
213	0	8.04	0	-10419	SLV 11	-10419	-6627	-42764	0	-6627	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.077	8.04	0	4886	SLD 2	4886	6627	42764	12159	12159	1	Si
0	0.077	8.04	0	-2380	SLD 15	-2380	-6627	-42764	-12159	-12159	1	Si
107	0.077	8.04	0	4471	SLD 2	4471	6627	42764	12159	12159	1	Si
107	0.077	8.04	0	-2220	SLD 15	-2220	-6627	-42764	-12159	-12159	1	Si
193	0.157	9.27	0	7915	SLD 6	7915	6949	42749	24830	24830	1	Si
193	0.157	8.04	0	-4770	SLD 11	-4770	-6627	-42764	-24838	-24838	1	Si
199	0	9.49	0	7893	SLD 6	7893	7002	42749	0	7002	1	Si
199	0	8.04	0	-4792	SLD 11	-4792	-6627	-42764	0	-6627	1	Si
213	0	9.58	0	7840	SLD 6	7840	7024	42749	0	7024	1	Si
213	0	8.04	0	-4845	SLD 11	-4845	-6627	-42764	0	-6627	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-96984	8	-96984	8.7	149.4	299.8	3600	-85447	4	-85447	7.6	112.1	0	+∞	Si
107	57824	8	92004	8.2	149.4	284.4	3600	50195	4	79261	7.1	112.1	0	+∞	Si
193	196711	8	196711	16.5	149.4	514.1	3600	166547	4	166547	14	112.1	0	+∞	Si
213	233985	8	215723	18.1	149.4	563.8	3600	197243	4	182270	15.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
0	-0.004	-0.006	-0.003	-0.005	-0.004	-0.005	-0.003	-0.004	-0.004	-0.005	-0.007	1	-0.01	1	9999	Si
107	0	0	0.001	0	0	0	0.001	0	0	0	0.001	2	0.001	2	9999	Si
193	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	4	0.002	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	147.3	6.8	50	0.012	0.00015	0.01488	0	6949	42749	24830	24830	25962	25962	13489	0	SLV 6	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	169		-8547		-7924		-5840		169		9683		8649		8346	
107	-258		-8974		-7924		-5387		-258		9255		8649		7638	
193	-651		-10344		-7924		-10344		-651		13489		8649		13489	
213	-726		-10419		-7924		-10419		-726		13414		8649		13414	

Momenti resistenti a filo appoggi

campata		x		appoggio		momento positivo		momento negativo	
		3		0		1307565		-1307565	
		4		193		1546459		-1307276	

Trave a "Quarto Impalcato" Pil.1-Pil.5

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 1 - 5, sezione R 60x25, asta 155; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-648932	SLU 16	-583685	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-522786	SLU 16	-522786	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	303902	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-505174	SLU 16	-505174	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-630016	SLU 16	-565421	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-534122	SLV 9	-490434	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-449308	SLV 9	-449308	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179770	SLV 13	183157	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-442050	SLV 8	-442050	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-526307	SLV 8	-482898	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-462920	SLD 9	-421690	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-383022	SLD 9	-383022	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179552	SLD 13	180911	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-375638	SLD 8	-375638	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-454981	SLD 8	-414029	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6539	SLU 16	6539	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6090	SLU 16	6090	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	33	SLU 16	33	6664	37907	13929	13929	1	Si
560	0.754	8.04	0	-6025	SLU 16	-6025	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6473	SLU 16	-6473	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4377	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4113	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	544	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-516	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4085	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4349	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4131	SLD 9	4131	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3867	SLD 9	3867	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	299	SLD 9	299	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-271	SLD 8	-271	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3839	SLD 8	-3839	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4103	SLD 8	-4103	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-462083	8	-415610	104.7	149.4	2982.5	3600	-380449	4	-342065	86.2	112.1	0	+∞	Si
20	-372234	8	-372234	93.8	149.4	2671.2	3600	-306242	4	-306242	77.1	112.1	0	+∞	Si
290	216506	8	216506	61.2	149.4	2039.1	3600	179327	4	179327	50.7	112.1	0	+∞	Si
560	-359986	8	-359986	90.7	149.4	2583.3	3600	-298732	4	-298732	75.2	112.1	0	+∞	Si
580	-448928	8	-402908	101.5	149.4	2891.3	3600	-372383	4	-334277	84.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.001	0.0276	8	27.6	0.00097	0.0266	4	27.6	0.00089	0.0246	4	Si
20	superiore	27.6	0.00085	0.0234	8	27.6	0.00083	0.023	4	27.6	0.00077	0.0212	4	Si
290	inferiore	32.3	0.00059	0.0192	8	32.3	0.00052	0.0168	4	32.3	0.00049	0.0159	4	Si
560	superiore	27.6	0.00081	0.0222	8	27.6	0.0008	0.0221	4	27.6	0.00074	0.0205	4	Si
580	superiore	27.6	0.00096	0.0263	8	27.6	0.00093	0.0258	4	27.6	0.00087	0.0239	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.004	0.002	0.001	-0.012	0.004	0.002	0.001	-0.008	0.004	0.002	0.001	4	-0.019	4	9999	Si
290	0.184	0.089	0.182	0.081	0.161	0.089	0.141	0.081	0.152	0.089	0.351	4	0.221	4	1654	Si
560	0.005	0.002	0.001	-0.009	0.004	0.002	0.001	-0.006	0.004	0.002	0.002	4	-0.016	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	137.5	4.9	25	0.009	0.00065	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	112.8	4.9	25	0.009	0.00143	0.00648	0	7335	37907	52841	52841	47579	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerachia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2236	3833	6539	1889	6539
20	3568	0	-1889	2082	3568	6090	1889	6090
290	0	-2078	-1889	-516	0	2078	1889	544
560	-3568	-6025	-1889	-6025	-3568	0	1889	-2068
580	-3833	-6473	-1889	-6473	-3833	0	1889	-2222

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	1	450306	-569999
1	560	5	450306	-569999

Trave a "Quarto Impalcato" Pil.2-Pil.6

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 2 - 6, sezione R 60x25, asta 159; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-640467	SLU 16	-575491	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-514861	SLU 16	-514861	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	304535	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-511832	SLU 16	-511832	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-637214	SLU 16	-572350	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-525234	SLV 5	-481846	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-441018	SLV 5	-441018	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179838	SLV 4	183120	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-440691	SLV 12	-440691	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-524882	SLV 12	-481506	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-456240	SLD 5	-415231	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-376782	SLD 5	-376782	-569999	0.246	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
290	6.03	5.1	6.03	5.1	179756	SLD 4	180999	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-376446	SLD 12	-376446	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-455878	SLD 12	-414881	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6512	SLU 16	6512	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6063	SLU 16	6063	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	6	SLU 4	6	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-1	SLU 14	-1	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-6052	SLU 16	-6052	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6500	SLU 16	-6500	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4347	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4083	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	514	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-513	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4081	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4346	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4109	SLD 5	4109	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3845	SLD 5	3845	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	276	SLD 5	276	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-275	SLD 12	-275	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3844	SLD 12	-3844	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4108	SLD 12	-4108	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-456125	8	-409842	103.2	149.4	2941.1	3600	-376257	4	-338006	85.1	112.1	0	+∞	Si
20	-366656	8	-366656	92.3	149.4	2631.2	3600	-302316	4	-302316	76.1	112.1	0	+∞	Si
290	216956	8	216956	61.3	149.4	2043.3	3600	179670	4	179670	50.8	112.1	0	+∞	Si
560	-364665	8	-364665	91.8	149.4	2616.9	3600	-301973	4	-301973	76.1	112.1	0	+∞	Si
580	-453987	8	-407777	102.7	149.4	2926.3	3600	-375889	4	-337650	85	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.00098	0.027	8	27.6	0.00095	0.0262	4	27.6	0.00088	0.0242	4	Si
20	superiore	27.6	0.00083	0.0229	8	27.6	0.00082	0.0226	4	27.6	0.00075	0.0208	4	Si
290	inferiore	32.3	0.0006	0.0192	8	32.3	0.00052	0.0169	4	32.3	0.00049	0.0159	4	Si
560	superiore	27.6	0.00082	0.0227	8	27.6	0.00082	0.0225	4	27.6	0.00075	0.0208	4	Si
580	superiore	27.6	0.00097	0.0268	8	27.6	0.00095	0.0261	4	27.6	0.00088	0.0242	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.005	0.002	0.001	-0.01	0.004	0.002	0.001	-0.007	0.004	0.002	0.002	4	-0.017	4	9999
290	0.184	0.089	0.184	0.082	0.162	0.089	0.142	0.082	0.153	0.089	0.352	4	0.222	4	1646
560	0.005	0.002	0.001	-0.01	0.004	0.002	0.001	-0.007	0.004	0.002	0.002	4	-0.017	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	137.3	4.9	25	0.009	0.00065	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	112.2	4.9	25	0.009	0.00142	0.00648	0	7335	37907	52841	52841	47600	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	3833	0	-1889	2228		3833	6512	1889	6512	
20	3568	0	-1889	2074		3568	6063	1889	6063	
290	0	-2078	-1889	-513		0	2078	1889	514	
560	-3568	-6052	-1889	-6052		-3568	0	1889	-2076	
580	-3833	-6500	-1889	-6500		-3833	0	1889	-2229	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	2	450306	-569999
1	560	6	450306	-569999

Trave a "Quarto Impalcato" Pil.3-Pil.9

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 3 - 9, sezione R 60x25, asta 151; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-643606	SLU 16	-578530	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-517801	SLU 16	-517801	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	304263	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-509436	SLU 16	-509436	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-634620	SLU 16	-569854	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-527346	SLV 10	-483888	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-442990	SLV 10	-442990	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179703	SLV 15	183077	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-440398	SLV 7	-440398	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-524557	SLV 7	-481197	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-457932	SLD 10	-416868	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-378365	SLD 10	-378365	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179629	SLD 15	180936	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-375737	SLD 7	-375737	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-455107	SLD 7	-414142	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6522	SLU 16	6522	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6073	SLU 16	6073	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	15	SLU 16	15	6664	37907	13929	13929	1	Si
560	0.754	8.04	0	-6042	SLU 16	-6042	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6491	SLU 16	-6491	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4354	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4090	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	521	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-511	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4080	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4344	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4115	SLD 10	4115	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3850	SLD 10	3850	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	282	SLD 10	282	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-272	SLD 7	-272	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3840	SLD 7	-3840	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4105	SLD 7	-4105	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	$\sigma_{clim.}$	σ_f	$\sigma_{flim.}$	Mela	Comb.	Mdes	σ_c	$\sigma_{clim.}$	σ_{FRP}	$\sigma_{FRP lim.}$	
0	-458315	8	-411963	103.8	149.4	2956.3	3600	-377623	4	-339329	85.5	112.1	0	$+\infty$	Si
20	-368707	8	-368707	92.9	149.4	2645.9	3600	-303596	4	-303596	76.5	112.1	0	$+\infty$	Si
290	216766	8	216766	61.3	149.4	2041.5	3600	179551	4	179551	50.7	112.1	0	$+\infty$	Si
560	-362993	8	-362993	91.4	149.4	2604.9	3600	-300932	4	-300932	75.8	112.1	0	$+\infty$	Si
580	-452177	8	-406037	102.3	149.4	2913.8	3600	-374762	4	-336566	84.8	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.00099	0.0272	8	27.6	0.00096	0.0263	4	27.6	0.00088	0.0244	4	Si
20	superiore	27.6	0.00084	0.0231	8	27.6	0.00082	0.0227	4	27.6	0.00076	0.0209	4	Si
290	inferiore	32.3	0.00059	0.0192	8	32.3	0.00052	0.0168	4	32.3	0.00049	0.0159	4	Si
560	superiore	27.6	0.00082	0.0225	8	27.6	0.00081	0.0224	4	27.6	0.00075	0.0207	4	Si
580	superiore	27.6	0.00097	0.0266	8	27.6	0.00094	0.026	4	27.6	0.00087	0.0241	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		l/f
20	0.005	0.002	0.001	-0.011	0.004	0.002	0.001	-0.007	0.004	0.002	0.001	4	-0.018	4	9999	Si
290	0.184	0.089	0.183	0.082	0.162	0.089	0.141	0.082	0.153	0.089	0.352	4	0.221	4	1649	Si
560	0.005	0.002	0.001	-0.01	0.004	0.002	0.001	-0.007	0.004	0.002	0.002	4	-0.017	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	133.2	4.9	25	0.009	0.0006	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	117.1	4.9	25	0.009	0.00137	0.00648	0	7335	37907	52841	52841	47417	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	3833	0	-1889	2230		3833	6522	1889	6522	
20	3568	0	-1889	2077		3568	6073	1889	6073	
290	0	-2078	-1889	-511		0	2078	1889	521	
560	-3568	-6042	-1889	-6042		-3568	0	1889	-2073	
580	-3833	-6491	-1889	-6491		-3833	0	1889	-2227	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	3	450306	-569999
1	560	9	450306	-569999

Trave a "Quarto Impalcato" Pil.4-Pil.10

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettagonale	60	25	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 4 - 10, sezione R 60x25, asta 163; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-651756	SLU 16	-586417	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-525424	SLU 16	-525424	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	303765	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-502809	SLU 16	-502809	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-627466	SLU 16	-562964	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-533501	SLV 10	-489846	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-448751	SLV 10	-448751	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179707	SLV 4	183009	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-438836	SLV 7	-438836	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-522868	SLV 7	-479572	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-463164	SLD 10	-421932	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-383261	SLD 10	-383261	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179490	SLD 4	180822	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-373457	SLD 7	-373457	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-452642	SLD 7	-411769	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6548	SLU 16	6548	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6099	SLU 16	6099	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	42	SLU 16	42	6664	37907	13929	13929	1	Si
560	0.754	8.04	0	-6015	SLU 16	-6015	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6464	SLU 16	-6464	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4374	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4109	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	541	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-505	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4074	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4338	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4131	SLD 10	4131	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3867	SLD 10	3867	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	299	SLD 10	299	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-263	SLD 7	-263	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3831	SLD 7	-3831	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4096	SLD 7	-4096	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-464054	8	-417517	105.2	149.4	2996.1	3600	-381683	4	-343259	86.5	112.1	0	+∞	Si
20	-374076	8	-374076	94.2	149.4	2684.4	3600	-307395	4	-307395	77.4	112.1	0	+∞	Si
290	216410	8	216410	61.1	149.4	2038.2	3600	179266	4	179266	50.7	112.1	0	+∞	Si
560	-358335	8	-358335	90.3	149.4	2571.5	3600	-297702	4	-297702	75	112.1	0	+∞	Si
580	-447148	8	-401193	101	149.4	2879	3600	-371271	4	-333206	83.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.00101	0.0278	8	27.6	0.00097	0.0268	4	27.6	0.0009	0.0247	4	Si
20	superiore	27.6	0.00086	0.0236	8	27.6	0.00084	0.0231	4	27.6	0.00077	0.0213	4	Si
290	inferiore	32.3	0.00059	0.0192	8	32.3	0.00052	0.0168	4	32.3	0.00049	0.0159	4	Si
560	superiore	27.6	0.0008	0.0221	8	27.6	0.0008	0.022	4	27.6	0.00074	0.0204	4	Si
580	superiore	27.6	0.00095	0.0262	8	27.6	0.00093	0.0256	4	27.6	0.00086	0.0238	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.004	0.002	0.001	-0.012	0.004	0.002	0	-0.008	0.004	0.002	0.001	4	-0.019	4	9999	Si
290	0.183	0.089	0.182	0.081	0.161	0.089	0.14	0.081	0.152	0.089	0.35	4	0.221	4	1655	Si
560	0.005	0.002	0.001	-0.009	0.005	0.002	0.001	-0.006	0.004	0.002	0.002	4	-0.016	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	134.8	4.9	25	0.009	0.00059	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	115	4.9	25	0.009	0.00135	0.00648	0	7335	37907	52841	52841	47496	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2238	3833	6548	1889	6548				
20	3568	0	-1889	2085	3568	6099	1889	6099				
290	0	-2078	-1889	-505	0	2078	1889	541				
560	-3568	-6015	-1889	-6015	-3568	0	1889	-2066				
580	-3833	-6464	-1889	-6464	-3833	0	1889	-2220				

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
	1	20	450306	-569999
	1	560	450306	-569999

Trave a "Quarto Impalcato" su Parete 1**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 12, sezione R 30x50, aste 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	108500	SLU 16	84642	678504	0.11						Si
15	4.02	5.1	4.02	5.1	60236	SLU 16	60236	678504	0.11	25776	SLU 1	-5802	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-4051	SLU 16	-4051	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	62708	SLU 16	62708	678504	0.11	26339	SLU 1	-6556	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	113096	SLU 16	88176	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	98544	SLV 4	77345	645082	0.208						Si
15	4.02	5.1	4.02	5.1	55722	SLV 4	55722	645082	0.208	19622	SLV 13	-27989	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	30509	SLV 9	30509	645082	0.208	-35777	SLV 8	-35777	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	55975	SLV 1	55975	645082	0.208	21513	SLV 16	-28868	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	99438	SLV 1	77918	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	83453	SLD 4	65399	645082	0.208						Si
15	4.02	5.1	4.02	5.1	46922	SLD 4	46922	645082	0.208	28422	SLD 13	-16653	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	15081	SLD 9	15081	645082	0.208	-20349	SLD 8	-20349	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	47577	SLD 1	47577	645082	0.208	29911	SLD 16	-17288	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	84891	SLD 1	66445	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3181	SLU 16	-3181	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-3254	SLU 16	-3254	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	-157	SLU 16	-157	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	3396	SLU 16	3396	5260	42764	8427	8427	1	Si
590	0	4.02	0	3323	SLU 16	3323	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2827	SLV 4	-2827	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-2883	SLV 4	-2883	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	1235	SLV 9	1235	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-1466	SLV 8	-1466	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	2926	SLV 1	2926	5260	42764	8427	8427	1	Si
590	0	4.02	0	2869	SLV 1	2869	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2407	SLD 4	-2407	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-2464	SLD 4	-2464	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	607	SLD 9	607	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-837	SLD 8	-837	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	2516	SLD 1	2516	5260	42764	8427	8427	1	Si
590	0	4.02	0	2459	SLD 1	2459	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	78463	8	61239	7.7	149.4	370.7	3600	67669	4	52881	6.7	112.1	0	+∞	Si
15	43594	8	43594	5.5	149.4	263.9	3600	37672	4	37672	4.8	112.1	0	+∞	Si
295	-2972	8	-2972	0.4	149.4	18	3600	-2634	4	-2634	0.3	112.1	0	+∞	Si
575	45317	8	45317	5.7	149.4	274.4	3600	38744	4	38744	4.9	112.1	0	+∞	Si
590	81669	8	63704	8.1	149.4	385.7	3600	69674	4	54420	6.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
295	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.002	1	9999	Si
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Trave a "Quarto Impalcato" su parete 4**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 28 - 29, sezione R 30x50, aste 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	108850	SLU 16	84923	678504	0.11						Si
15	4.02	5.1	4.02	5.1	60448	SLU 16	60448	678504	0.11	25859	SLU 1	-5652	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-4310	SLU 16	-4310	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	69089	SLU 16	69089	678504	0.11	27891	SLU 1	-7556	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	124833	SLU 16	97235	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	97923	SLV 15	76785	645082	0.208						Si
15	4.02	5.1	4.02	5.1	55225	SLV 15	55225	645082	0.208	20363	SLV 2	-27800	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	29345	SLV 6	29345	645082	0.208	-34862	SLV 11	-34862	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	59299	SLV 14	59299	645082	0.208	23865	SLV 3	-28486	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	105313	SLV 14	82518	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	83233	SLD 15	65190	645082	0.208						Si
15	4.02	5.1	4.02	5.1	46726	SLD 15	46726	645082	0.208	28862	SLD 2	-16506	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	14408	SLD 6	14408	645082	0.208	-19925	SLD 11	-19925	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	50661	SLD 14	50661	645082	0.208	32503	SLD 3	-17298	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	90444	SLD 14	70764	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3190	SLU 16	-3190	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-3263	SLU 16	-3263	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	-165	SLU 16	-165	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	3753	SLU 16	3753	5260	42764	8427	8427	1	Si
590	0	4.02	0	3680	SLU 16	3680	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2818	SLV 15	-2818	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-2875	SLV 15	-2875	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	1196	SLV 10	1196	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-1434	SLV 7	-1434	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	3096	SLV 14	3096	5260	42764	8427	8427	1	Si
590	0	4.02	0	3039	SLV 14	3039	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2406	SLD 15	-2406	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-2462	SLD 15	-2462	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	584	SLD 10	584	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-822	SLD 7	-822	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	2680	SLD 14	2680	5260	42764	8427	8427	1	Si
590	0	4.02	0	2624	SLD 14	2624	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	78715	8	61441	7.8	149.4	372	3600	67873	4	53044	6.7	112.1	0	+∞	Si
15	43746	8	43746	5.5	149.4	264.8	3600	37794	4	37794	4.8	112.1	0	+∞	Si
295	-3155	8	-3155	0.4	149.4	19.1	3600	-2758	4	-2758	0.3	112.1	0	+∞	Si
575	49778	8	49778	6.3	149.4	301.4	3600	41582	4	41582	5.3	112.1	0	+∞	Si
590	89874	8	70037	8.9	149.4	424	3600	74895	4	58449	7.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si
295	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.002	1	9999 Si
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si

Trave a "Quarto Impalcato" vano ascensore**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 20 - 22, sezione R 30x50, aste 125, 126, 127, 128; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.5	9.42	5.5	9650	SLU 15	2863	1502285	0.154						Si
15	9.42	5.5	9.42	5.5						-15234	SLU 16	-49411	-1502285	0.154	Si
85	9.42	5.5	9.42	5.5	-14001	SLU 1	7320	1502285	0.154	-36324	SLU 16	-44839	-1502285	0.154	Si
119	9.42	5.5	9.42	5.5	-20644	SLU 1	3093	1502285	0.154	-50183	SLU 16	-66312	-1502285	0.154	Si
155	9.42	5.5	9.42	5.5						-33176	SLU 16	-59987	-1502285	0.154	Si
170	9.42	5.5	9.42	5.5						-14475	SLU 16	-14475	-1502285	0.154	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.5	9.42	5.5	1354060	SLV 16	1239431	1502285	0.154	-1342360	SLV 1	-1242264	-1502285	0.154	Si
15	9.42	5.5	9.42	5.5	1124853	SLV 16	1124853	1502285	0.154	-1143060	SLV 1	-1143060	-1502285	0.154	Si
85	9.42	5.5	9.42	5.5	129985	SLV 16	364099	1502285	0.154	-172536	SLV 1	-411966	-1502285	0.154	Si
155	9.42	5.5	9.42	5.5	797125	SLV 1	797125	1502285	0.154	-836682	SLV 16	-836682	-1502285	0.154	Si
170	9.42	5.5	9.42	5.5	1001880	SLV 1	899758	1502285	0.154	-1018415	SLV 16	-927384	-1502285	0.154	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.5	9.42	5.5	689879	SLD 16	628292	1502285	0.154	-678179	SLD 1	-631125	-1502285	0.154	Si
15	9.42	5.5	9.42	5.5	566519	SLD 16	566519	1502285	0.154	-584726	SLD 1	-584726	-1502285	0.154	Si
85	9.42	5.5	9.42	5.5	55947	SLD 16	173515	1502285	0.154	-98498	SLD 1	-221382	-1502285	0.154	Si
155	9.42	5.5	9.42	5.5	394900	SLD 1	394900	1502285	0.154	-434457	SLD 16	-434457	-1502285	0.154	Si
170	9.42	5.5	9.42	5.5	504778	SLD 1	450071	1502285	0.154	-521313	SLD 16	-477696	-1502285	0.154	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-1576	SLU 16	-1576	-6958	-42383	0	-6958	1	Si
11	0	9.42	0	-1632	SLU 16	-1632	-6958	-42383	0	-6958	1	Si
15	0.157	9.42	0	-1649	SLU 16	-1649	-6958	-42383	-24617	-24617	1	Si
85	0.157	9.42	0	146	SLU 16	146	6958	42383	24617	24617	1	Si
155	0.157	9.42	0	1283	SLU 16	1283	6958	42383	24617	24617	1	Si
170	0	9.42	0	1210	SLU 16	1210	6958	42383	0	6958	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	14437	Ger.	23926	6958	42383	0	6958	1	Si
0	0	9.42	0	-16374	Ger.	-23289	-6958	-42383	0	-6958	1	Si
15	0.157	9.42	0	14381	Ger.	23870	6958	42383	24617	24617	1	Si
15	0.157	9.42	0	-16430	Ger.	-23345	-6958	-42383	-24617	-24617	1	Si
85	0.157	9.42	0	11869	Ger.	23607	6958	42383	24617	24617	1	Si
85	0.157	9.42	0	-11682	Ger.	-23607	-6958	-42383	-24617	-24617	1	Si
155	0.157	9.42	0	13684	Ger.	23345	6958	42383	24617	24617	1	Si
155	0.157	9.42	0	-12094	Ger.	-23870	-6958	-42383	-24617	-24617	1	Si
170	0	9.42	0	13628	Ger.	23289	6958	42383	0	6958	1	Si
170	0	9.42	0	-12150	Ger.	-23926	-6958	-42383	0	-6958	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	6862	SLD 3	6862	6958	42383	0	6958	1	Si
0	0	9.42	0	-8800	SLD 14	-8800	-6958	-42383	0	-6958	1	Si
11	0	9.42	0	6820	SLD 3	6820	6958	42383	0	6958	1	Si
11	0	9.42	0	-8842	SLD 14	-8842	-6958	-42383	0	-6958	1	Si
15	0.157	9.42	0	6806	SLD 3	6806	6958	42383	24617	24617	1	Si
15	0.157	9.42	0	-8856	SLD 14	-8856	-6958	-42383	-24617	-24617	1	Si
85	0.157	9.42	0	6073	SLD 1	6073	6958	42383	24617	24617	1	Si
85	0.157	9.42	0	-5886	SLD 16	-5886	-6958	-42383	-24617	-24617	1	Si
155	0.157	9.42	0	7356	SLD 1	7356	6958	42383	24617	24617	1	Si
155	0.157	9.42	0	-5765	SLD 16	-5765	-6958	-42383	-24617	-24617	1	Si
170	0	9.42	0	7300	SLD 1	7300	6958	42383	0	6958	1	Si
170	0	9.42	0	-5822	SLD 16	-5822	-6958	-42383	0	-6958	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	6986	7	2027	0.2	149.4	5.4	3600	5850	4	1416	0.1	112.1	0	+∞	Si
15	-11002	8	-35839	3	149.4	96.2	3600	-9104	4	-30488	2.6	112.1	0	+∞	Si
85	-26083	8	-32273	2.7	149.4	86.6	3600	-21276	4	-26545	2.2	112.1	0	+∞	Si
155	-23971	8	-43452	3.7	149.4	116.6	3600	-19779	4	-36547	3.1	112.1	0	+∞	Si
170	-10436	8	-10436	0.9	149.4	28	3600	-8268	4	-8268	0.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999
85	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
91	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
155	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	111.5	6.9	50	0.013	0.00036	0.01123	0	6958	42383	24617	24617	27046	27046	23870	0	SLV 6	Si
170	101.4	6.9	50	0.013	0.00055	0.01123	0	6958	42383	24617	24617	27329	27329	-23870	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	319	-23289	-21461	-16374	319	23926	21461	14437	319	23926	21461	14437	319	23926	21461	14437
15	262	-23345	-21461	-16430	262	23870	21461	14381	262	23870	21461	14381	262	23870	21461	14381
85	0	-23607	-21461	-11682	0	23607	21461	11869	0	23607	21461	11869	0	23607	21461	11869
155	-262	-23870	-21461	-12094	-262	23345	21461	13684	-262	23345	21461	13684	-262	23345	21461	13684
170	-319	-23926	-21461	-12150	-319	23289	21461	13628	-319	23289	21461	13628	-319	23289	21461	13628

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	20	1502285	-1502285
1	155	22	1502285	-1502285

Trave a "Quinto Impalcato" Parete 1 - Parete 2**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 11 - 1, sezione R 30x50, asta 216; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-920901	SLU 16	-833533	-1307541	0.145	Si
15	8.04	5.1	6.03	5.1						-749043	SLU 16	-749043	-1307541	0.145	Si
310	8.04	5.1	6.03	5.1	786993	SLU 16	916939	993531	0.124						Si
590	10.05	5.1	8.04	5.1						-1068584	SLU 16	-1068584	-1620182	0.156	Si
620	10.05	5.1	8.04	5.1						-1456168	SLU 16	-1254213	-1620182	0.156	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1	58826	SLV 13	58826	993531	0.124	-1210604	SLV 4	-1138764	-1307541	0.145	Si
15	8.04	5.1	6.03	5.1	130932	SLV 13	219985	993531	0.124	-1068716	SLV 4	-1068716	-1307541	0.145	Si
310	8.04	5.1	6.03	5.1	574118	SLV 4	604817	993531	0.124						Si
590	10.05	5.1	8.04	5.1	71026	SLV 4	173975	1307401	0.134	-1404291	SLV 13	-1404291	-1620182	0.156	Si
620	10.05	5.1	8.04	5.1						-1715252	SLV 13	-1554691	-1620182	0.156	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-900206	SLD 4	-836897	-1307541	0.145	Si
15	8.04	5.1	6.03	5.1						-775380	SLD 4	-775380	-1307541	0.145	Si
310	8.04	5.1	6.03	5.1	531905	SLD 4	539725	993531	0.124						Si
590	10.05	5.1	8.04	5.1						-1043597	SLD 13	-1043597	-1620182	0.156	Si
620	10.05	5.1	8.04	5.1						-1320434	SLD 13	-1176935	-1620182	0.156	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	11882	SLU 16	11882	6627	42764	0	6627	1	Si
15	0.101	8.04	0	11265	SLU 16	11265	6627	42764	15897	15897	1	Si
310	0.074	6.03	0	-863	SLU 16	-863	-6021	-42764	-11713	-11713	1	Si
590	0.101	10.05	0	-12375	SLU 16	-12375	-7139	-42764	-15897	-15897	1	Si
620	0	10.05	0	-13609	SLU 16	-13609	-7139	-42764	0	-7139	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	9724	Ger.	12935	6627	42764	0	6627	1	Si
15	0.101	8.04	0	9340	Ger.	12552	6627	42764	15897	15897	1	Si
310	0.074	6.03	0	1791	Ger.	5002	6021	42764	11713	11713	1	Si
310	0.074	6.03	0	-2861	Ger.	-5000	-6021	-42764	-11713	-11713	1	Si
590	0.101	10.05	0	-10027	Ger.	-12165	-7139	-42764	-15897	-15897	1	Si
620	0	10.05	0	-10794	Ger.	-12933	-7139	-42764	0	-7139	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	8586	SLD 4	8586	6627	42764	0	6627	1	Si
15	0.101	8.04	0	8202	SLD 4	8202	6627	42764	15897	15897	1	Si
310	0.074	6.03	0	653	SLD 4	653	6021	42764	11713	11713	1	Si
310	0.074	6.03	0	-1724	SLD 13	-1724	-6021	-42764	-11713	-11713	1	Si
590	0.101	10.05	0	-8889	SLD 13	-8889	-7139	-42764	-15897	-15897	1	Si
620	0	10.05	0	-9657	SLD 13	-9657	-7139	-42764	0	-7139	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-665777	8	-602625	56.2	149.4	1866.4	3600	-575889	4	-521495	48.6	112.1	0	+∞	Si
15	-541553	8	-541553	50.5	149.4	1677.2	3600	-468892	4	-468892	43.7	112.1	0	+∞	Si
310	568689	8	575072	56.9	149.4	2348.2	3600	487749	4	493199	48.8	112.1	0	+∞	Si
590	-772753	8	-772753	63.9	149.4	1926.8	3600	-666633	4	-666633	55.1	112.1	0	+∞	Si
620	-1052937	8	-906944	75	149.4	2261.4	3600	-907811	4	-782141	64.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.8	0.00054	0.0146	8	26.8	0.00052	0.014	4	26.8	0.00049	0.0131	4	Si
15	superiore	26.8	0.00049	0.0131	8	26.8	0.00044	0.0118	4	26.8	0.00042	0.0113	4	Si
289	inferiore	31.8	0.00068	0.0217	8	31.8	0.00064	0.0202	4	31.8	0.00059	0.0188	4	Si
310	inferiore	31.8	0.00068	0.0217	8	31.8	0.00064	0.0202	4	31.8	0.00059	0.0187	4	Si
590	superiore	24.1	0.00056	0.0136	8	24.1	0.0006	0.0144	4	24.1	0.00056	0.0135	4	Si
620	superiore	24.1	0.00073	0.0175	8	24.1	0.00074	0.0179	4	24.1	0.0007	0.0169	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
15	0.009	0.005	0.011	0.004	0.008	0.005	0.008	0.004	0.008	0.005	0.023	4	0.01	4	9999
289	0.17	0.097	0.213	0.082	0.152	0.098	0.166	0.084	0.145	0.098	0.471	4	0.208	4	1316
310	0.169	0.096	0.211	0.082	0.152	0.098	0.164	0.083	0.145	0.098	0.468	4	0.207	4	1324
590	0.01	0.005	0.006	0.003	0.009	0.005	0.004	0.003	0.008	0.005	0.023	4	0.007	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	407.4	5.6	50	0.009	0.00151	0.01191	0	6021	42764	15897	15897	15144	15897	12552	0	SLV 13	Si
605	212.6	7	50	0.015	0.00151	0.01338	0	7139	42764	15897	15897	17142	17142	-12165	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7933	0	-4546	5006	7933	12935	4548	11882								
15	7549	0	-4546	4688	7549	12552	4548	11265								
310	0	-5000	-4546	-2861	0	5002	4548	1791								
590	-7165	-12375	-4546	-12375	-7165	0	4548	-5197								
620	-7933	-13609	-4546	-13609	-7933	0	4548	-5716								

Campata 2 tra i fili 1 - 2, sezione R 30x50, asta 220; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-211389	SLV 12	-171750	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1						-138156	SLV 12	-138156	-1620182	0.156	Si
198	8.04	5.1	7.36	5.1	69003	SLV 10	116364	1200345	0.133						Si
365	10.05	5.1	8.04	5.1						-192420	SLV 16	-192420	-1620182	0.156	Si
395	10.05	5.1	8.04	5.1						-273900	SLV 16	-230137	-1620182	0.156	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1	1008731	SLV 13	951152	1307401	0.134	-1303896	SLV 4	-1186923	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1	888889	SLV 13	888889	1307401	0.134	-1074568	SLV 4	-1074568	-1620182	0.156	Si
198	8.04	5.1	7.36	5.1	46887	SLV 16	162559	1200345	0.133	25578	SLV 1	-89645	-1307585	0.14	Si
365	10.05	5.1	8.04	5.1	831766	SLV 4	831766	1307401	0.134	-1105118	SLV 13	-1105118	-1620182	0.156	Si
395	10.05	5.1	8.04	5.1	943778	SLV 4	890103	1307401	0.134	-1342319	SLV 13	-1221399	-1620182	0.156	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1	441278	SLD 13	426525	1307401	0.134	-736443	SLD 4	-662297	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1	407104	SLD 13	407104	1307401	0.134	-592782	SLD 4	-592782	-1620182	0.156	Si
198	8.04	5.1	7.36	5.1	41706	SLD 16	100691	1200345	0.133	30759	SLD 1	-27776	-1307585	0.14	Si
365	10.05	5.1	8.04	5.1	356633	SLD 4	356633	1307401	0.134	-629984	SLD 13	-629984	-1620182	0.156	Si
395	10.05	5.1	8.04	5.1	382967	SLD 4	372128	1307401	0.134	-781508	SLD 13	-703424	-1620182	0.156	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	2659	SLV 12	2659	7139	42764	0	7139	1	Si
30	0.101	10.05	0	2240	SLV 12	2240	7139	42764	15897	15897	1	Si
198	0.073	7.31	0	-248	SLV 14	-248	-6420	-42764	-11500	-11500	1	Si
365	0.101	10.05	0	-2589	SLV 14	-2589	-7139	-42764	-15897	-15897	1	Si
395	0	10.05	0	-3008	SLV 14	-3008	-7139	-42764	0	-7139	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	7813	Ger.	11736	7139	42764	0	7139	1	Si
0	0	8.04	0	-3828	Ger.	-7490	-6627	-42764	0	-6627	1	Si
30	0.101	10.05	0	7490	Ger.	11414	7139	42764	15897	15897	1	Si
30	0.101	8.04	0	-4151	Ger.	-7812	-6627	-42764	-15897	-15897	1	Si
198	0.073	7.31	0	5690	Ger.	9613	6420	42764	11500	11500	1	Si
198	0.073	7.31	0	-5951	Ger.	-9613	-6420	-42764	-11500	-11500	1	Si
365	0.101	8.04	0	3889	Ger.	7812	6627	42764	15897	15897	1	Si
365	0.101	10.05	0	-7752	Ger.	-11414	-7139	-42764	-15897	-15897	1	Si
395	0	8.04	0	3567	Ger.	7490	6627	42764	0	6627	1	Si
395	0	10.05	0	-8075	Ger.	-11736	-7139	-42764	0	-7139	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	4957	SLD 4	4957	7139	42764	0	7139	1	Si
0	0	8.04	0	-972	SLD 13	-972	-6627	-42764	0	-6627	1	Si
30	0.101	10.05	0	4634	SLD 4	4634	7139	42764	15897	15897	1	Si
30	0.101	8.04	0	-1295	SLD 13	-1295	-6627	-42764	-15897	-15897	1	Si
198	0.073	7.31	0	2834	SLD 4	2834	6420	42764	11500	11500	1	Si
198	0.073	7.31	0	-3095	SLD 13	-3095	-6420	-42764	-11500	-11500	1	Si
365	0.101	8.04	0	1033	SLD 4	1033	6627	42764	15897	15897	1	Si
365	0.101	10.05	0	-4896	SLD 13	-4896	-7139	-42764	-15897	-15897	1	Si
395	0	8.04	0	711	SLD 4	711	6627	42764	0	6627	1	Si
395	0	10.05	0	-5218	SLD 13	-5218	-7139	-42764	0	-7139	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	$\sigma_{c\ lim.}$	σ_f	$\sigma_{f\ lim.}$	Mela	Comb.	Mdes	σ_c	$\sigma_{c\ lim.}$	σ_{FRP}	$\sigma_{FRP\ lim.}$	
0	-160631	4	-130152	10.8	149.4	324.5	3600	-151643	2	-121222	10	112.1	0	+∞	Si
30	-104324	4	-104324	8.6	149.4	260.1	3600	-95451	2	-95451	7.9	112.1	0	+∞	Si
198	52034	2	52791	4.9	149.4	177.9	3600	45236	1	45413	4.2	112.1	0	+∞	Si
365	-144261	8	-144261	11.9	149.4	359.7	3600	-136676	4	-136676	11.3	112.1	0	+∞	Si
395	-206740	8	-173175	14.3	149.4	431.8	3600	-199270	4	-165648	13.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999	Si
184	0.005	0	0.003	-0.001	0.003	0.001	0.002	0	0.003	0.001	0.005	1	0.001	1	9999	Si
198	0.004	0	0.003	-0.001	0.003	0.001	0.002	0	0.003	0.001	0.005	1	0.001	1	9999	Si
365	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.002	1	-0.004	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	222.9	6	50	0.015	0.00037	0.01554	0	6627	42764	15897	15897	16798	16798	11414	0	SLV 12	Si
1000	220.8	6	50	0.015	0.00061	0.01554	0	6627	42764	15897	15897	16868	16868	-11414	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	2123	-7490	-8739	-3828		2123	11736	8739	7813	
30	1801	-7812	-8739	-4151		1801	11414	8739	7490	
198	0	-9613	-8739	-5951		0	9613	8739	5690	
365	-1801	-11414	-8739	-7752		-1801	7812	8739	3889	
395	-2123	-11736	-8739	-8075		-2123	7490	8739	3567	

Campata 3 tra i fili 2 - 17, sezione R 30x50, asta 224; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-742849	SLU 16	-593928	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1						-463308	SLU 16	-463308	-1620182	0.156	Si
230	11.36	5.1	6.03	5.1	456212	SLU 16	491409	993277	0.121						Si
445	10.05	5.1	6.03	5.1						-389822	SLU 16	-389822	-1618995	0.167	Si
460	10.05	5.1	6.03	5.1						-519659	SLU 16	-452479	-1618995	0.167	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1	664449	SLV 15	664449	1307401	0.134	-1591136	SLV 2	-1433932	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1	709203	SLV 15	725932	1307401	0.134	-1288117	SLV 2	-1288117	-1620182	0.156	Si
230	11.36	5.1	6.03	5.1	419969	SLV 15	494719	993277	0.121						Si
445	10.05	5.1	6.03	5.1	542528	SLV 2	554877	993360	0.122	-1032829	SLV 15	-1032829	-1618995	0.167	Si
460	10.05	5.1	6.03	5.1	526229	SLV 2	526229	993360	0.122	-1178260	SLV 15	-1104137	-1618995	0.167	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1	111074	SLD 15	111074	1307401	0.134	-1037761	SLD 2	-912244	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1	219202	SLD 15	278423	1307401	0.134	-798116	SLD 2	-798116	-1620182	0.156	Si
230	11.36	5.1	6.03	5.1	352453	SLD 15	384714	993277	0.121						Si
445	10.05	5.1	6.03	5.1	155852	SLD 2	210694	993360	0.122	-646154	SLD 15	-646154	-1618995	0.167	Si
460	10.05	5.1	6.03	5.1	107867	SLD 2	107867	993360	0.122	-759898	SLD 15	-701618	-1618995	0.167	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	9941	SLU 16	9941	7139	42764	0	7139	1	Si
30	0.101	10.05	0	8708	SLU 16	8708	7139	42764	15897	15897	1	Si
230	0.077	6.03	0	485	SLU 16	485	6021	42764	12112	12112	1	Si
445	0.101	10.05	0	-8354	SLU 16	-8354	-7139	-42764	-15897	-15897	1	Si
460	0	10.05	0	-8971	SLU 16	-8971	-7139	-42764	0	-7139	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	10489	Ger.	12813	7139	42764	0	7139	1	Si
0	0	8.04	0	1880	Ger.	-1871	-6627	-42764	0	-6627	1	Si
30	0.101	10.05	0	9721	Ger.	12045	7139	42764	15897	15897	1	Si
30	0.101	8.04	0	1112	Ger.	-2639	-6627	-42764	-15897	-15897	1	Si
230	0.077	6.03	0	4603	Ger.	6927	6021	42764	12112	12112	1	Si
230	0.077	6.03	0	-4006	Ger.	-7757	-6021	-42764	-12112	-12112	1	Si
445	0.101	6.03	0	-899	Ger.	1426	6021	42764	15897	15897	1	Si
445	0.101	10.05	0	-9508	Ger.	-13259	-7139	-42764	-15897	-15897	1	Si
460	0	6.03	0	-1283	Ger.	1042	6021	42764	0	6021	1	Si
460	0	10.05	0	-9892	Ger.	-13642	-7139	-42764	0	-7139	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	8376	SLD 2	8376	7139	42764	0	7139	1	Si
30	0.101	10.05	0	7608	SLD 2	7608	7139	42764	15897	15897	1	Si
230	0.077	6.03	0	2490	SLD 2	2490	6021	42764	12112	12112	1	Si
230	0.077	6.03	0	-1893	SLD 15	-1893	-6021	-42764	-12112	-12112	1	Si
445	0.101	10.05	0	-7395	SLD 15	-7395	-7139	-42764	-15897	-15897	1	Si
460	0	10.05	0	-7779	SLD 15	-7779	-7139	-42764	0	-7139	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-537551	8	-429887	35.5	149.4	1071.9	3600	-463344	4	-370705	30.7	112.1	0	+∞	Si
30	-335451	8	-335451	27.7	149.4	836.4	3600	-289457	4	-289457	23.9	112.1	0	+∞	Si
230	329441	8	331340	30.7	149.4	1351.8	3600	282176	4	283745	26.3	112.1	0	+∞	Si
445	-281915	8	-281915	24.4	149.4	704.8	3600	-245151	4	-245151	21.2	112.1	0	+∞	Si
460	-375755	8	-327200	28.3	149.4	818	3600	-326015	4	-284176	24.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.006	0.003	0.004	0.002	0.005	0.003	0.004	0.002	0.005	0.003	0.009	4	0.006	4	9999	Si
230	0.057	0.032	0.047	0.026	0.051	0.033	0.042	0.027	0.049	0.033	0.099	4	0.066	4	4652	Si
245	0.058	0.032	0.047	0.026	0.052	0.033	0.042	0.027	0.049	0.033	0.099	4	0.066	4	4639	Si
445	0.004	0.002	0.003	0.002	0.004	0.002	0.003	0.002	0.004	0.002	0.007	4	0.005	4	9999	Si
460	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pi	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	348.2	6	50	0.015	0.00105	0.01377	0	6627	42764	15897	15897	15899	15899	12045	0	SLV 11	Si
1475	259.4	5.5	50	0.011	0.00013	0.01332	0	6021	42764	15897	15897	15333	15897	-13259	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	5886	-1871	-7052	1880	5886	12813	6298	10489
30	5118	-2639	-7052	1112	5118	12045	6298	9721
230	0	-7757	-7052	-4006	0	6927	6298	4603
445	-5502	-13259	-7052	-9508	-5502	1426	6298	-899
460	-5886	-13642	-7052	-9892	-5886	1042	6298	-1283

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
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campata	x	appoggio	momento positivo	momento negativo
1	15	11	993531	-1307541
1	590	1	1307401	-1620182
2	30	1	1307401	-1620182
2	365	2	1307401	-1620182
3	30	2	1307401	-1620182
3	445	17	993360	-1618995

Trave a "Quinto Impalcato" Parete 1-Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 12 - 5, sezione R 30x50, aste 230, 231; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1						-1249570	SLU 16	-1133204	-1620614	0.148	Si
15	10.05	5.1	10.05	5.1						-1021436	SLU 16	-1021436	-1620614	0.148	Si
310	6.03	5.1	10.05	5.1	1099432	SLU 16	1291382	1618995	0.167						Si
590	12.32	5.2	10.05	5.1						-1531262	SLU 16	-1531262	-1966428	0.166	Si
620	12.32	5.2	10.05	5.1						-2080309	SLU 16	-1793868	-1966428	0.166	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1						-1337390	SLV 1	-1252967	-1620614	0.148	Si
15	10.05	5.1	10.05	5.1	-5615	SLV 16	115996	1620614	0.148	-1171405	SLV 1	-1171405	-1620614	0.148	Si
310	6.03	5.1	10.05	5.1	708547	SLV 1	732190	1618995	0.167						Si
590	12.32	5.2	10.05	5.1						-1585970	SLV 16	-1585970	-1966428	0.166	Si
620	12.32	5.2	10.05	5.1						-1966232	SLV 16	-1769311	-1966428	0.166	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	10.05	5.1						-1035691	SLD 1	-959549	-1620614	0.148	Si
15	10.05	5.1	10.05	5.1						-886268	SLD 1	-886268	-1620614	0.148	Si
310	6.03	5.1	10.05	5.1	667952	SLD 1	669386	1618995	0.167						Si
590	12.32	5.2	10.05	5.1						-1236211	SLD 16	-1236211	-1966428	0.166	Si
620	12.32	5.2	10.05	5.1						-1583348	SLD 16	-1402990	-1966428	0.166	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	10.05	0	15519	SLU 16	15519	7139	42764	0	7139	1	Si
15	0.121	10.05	0	14902	SLU 16	14902	7139	42764	19076	19076	1	Si
310	0.099	10.05	0	-1273	SLU 16	-1273	-7139	-42764	-15729	-15729	1	Si
590	0.121	12.32	0	-17507	SLU 16	-17507	-7630	-42667	-19033	-19033	1	Si
620	0	12.32	0	-19246	SLU 16	-19246	-7630	-42667	0	-7630	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	10.05	0	11259	Ger.	15945	7139	42764	0	7139	1	Si
15	0.121	10.05	0	10875	Ger.	15562	7139	42764	19076	19076	1	Si
310	0.099	10.05	0	1540	Ger.	6227	7139	42764	15729	15729	1	Si
310	0.099	10.05	0	-2974	Ger.	-6833	-7139	-42764	-15729	-15729	1	Si
590	0.121	12.32	0	-12223	Ger.	-16081	-7630	-42667	-19033	-19033	1	Si
620	0	12.32	0	-13214	Ger.	-17072	-7630	-42667	0	-7630	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	10.05	0	10155	SLD 1	10155	7139	42764	0	7139	1	Si
15	0.121	10.05	0	9771	SLD 1	9771	7139	42764	19076	19076	1	Si
310	0.099	10.05	0	436	SLD 1	436	7139	42764	15729	15729	1	Si
310	0.099	10.05	0	-1870	SLD 16	-1870	-7139	-42764	-15729	-15729	1	Si
590	0.121	12.32	0	-11119	SLD 16	-11119	-7630	-42667	-19033	-19033	1	Si
620	0	12.32	0	-12110	SLD 16	-12110	-7630	-42667	0	-7630	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.			
0	-895296	8	-811848	64.3	149.4	2019.9	3600	-720634	4	-653141	51.8	112.1	0	+∞	Si		
15	-731723	8	-731723	58	149.4	1820.6	3600	-588510	4	-588510	46.6	112.1	0	+∞	Si		
310	786914	8	796928	68.9	149.4	1992.3	3600	625502	4	633309	54.8	112.1	0	+∞	Si		
590	-1096009	8	-1096009	81.7	149.4	2256.3	3600	-870854	4	-870854	64.9	112.1	0	+∞	Si		
620	-1489001	8	-1283974	95.7	149.4	2643.3	3600	-1183394	4	-1020335	76	112.1	0	+∞	Si		

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	24.2	0.00061	0.0147	8	24.2	0.00059	0.0144	4	24.2	0.00054	0.0131	4	Si
15	superiore	24.2	0.00053	0.0128	8	24.2	0.00051	0.0124	4	24.2	0.00046	0.0112	4	Si
310	inferiore	24	0.0006	0.0144	8	24	0.00058	0.0139	4	24	0.00052	0.0125	4	Si
579	superiore	23	0.00078	0.0179	8	23	0.00072	0.0166	4	23	0.00066	0.0152	4	Si
590	superiore	23	0.00078	0.0179	8	23	0.00072	0.0166	4	23	0.00066	0.0152	4	Si
620	superiore	23	0.00096	0.0222	8	23	0.00088	0.0203	4	23	0.00081	0.0186	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
15	0.012	0.006	0.018	0.005	0.01	0.006	0.013	0.005	0.01	0.006	0.029	4	0.012	4	9999
289	0.234	0.119	0.36	0.099	0.2	0.12	0.259	0.101	0.186	0.12	0.57	4	0.245	4	1089
310	0.233	0.118	0.357	0.098	0.199	0.12	0.257	0.1	0.185	0.12	0.566	4	0.244	4	1095
590	0.012	0.006	0.011	0.003	0.01	0.006	0.007	0.003	0.01	0.006	0.025	4	0.007	4	9999

TABULATO DI CALCOLO – FABBRICATO B

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	144.3	6.6	50	0.013	0.00099	0.01194	0	7139	42764	19076	19076	21666	21666	15562	0	SLV 1	Si
605	198	7.5	50	0.018	0.00143	0.01293	0	7630	42667	19033	19033	21077	21077	-16081	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo				Verifica
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	
0	9748	0	-6238	5873	9748	15945	5634	15519	
15	9364	0	-6238	5613	9364	15562	5634	14902	
310	29	-6833	-6238	-2974	29	6227	5634	1540	
590	-9219	-17507	-6238	-17507	-9219	0	5634	-6423	
620	-10210	-19246	-6238	-19246	-10210	0	5634	-7064	

Campata 2 tra i fili 5 - 6, sezione R 30x50, aste 238, 239; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	10.05	5.1						-226707	SLU 12	-169418	-1966428	0.166	Si
30	12.32	5.2	10.05	5.1						-124918	SLU 12	-124918	-1966428	0.166	Si
197	9.04	5.1	6.03	5.1	65636	SLU 10	124784	993452	0.123	11658	SLU 8	-1921	-1461781	0.155	Si
365	12.32	5.2	8.04	5.1						-274853	SLU 16	-274853	-1964389	0.179	Si
395	12.32	5.2	8.04	5.1						-369860	SLU 16	-319243	-1964389	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	10.05	5.1	1049628	SLV 14	997778	1619082	0.144	-1349197	SLV 3	-1220613	-1966428	0.166	Si
30	12.32	5.2	10.05	5.1	937766	SLV 14	937766	1619082	0.144	-1100182	SLV 3	-1100182	-1966428	0.166	Si
197	9.04	5.1	6.03	5.1	44773	SLV 13	169855	993452	0.123	20609	SLV 4	-95322	-1461781	0.155	Si
365	12.32	5.2	8.04	5.1	820340	SLV 3	820340	1306351	0.133	-1171874	SLV 14	-1171874	-1964389	0.179	Si
395	12.32	5.2	8.04	5.1	931621	SLV 3	878382	1306351	0.133	-1421454	SLV 14	-1294275	-1964389	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	10.05	5.1	460965	SLD 14	453396	1619082	0.144	-760535	SLD 3	-676231	-1966428	0.166	Si
30	12.32	5.2	10.05	5.1	437667	SLD 14	437667	1619082	0.144	-600083	SLD 3	-600083	-1966428	0.166	Si
197	9.04	5.1	6.03	5.1	38888	SLD 13	104816	993452	0.123	26495	SLD 4	-33326	-1461781	0.155	Si
365	12.32	5.2	8.04	5.1	331391	SLD 3	331391	1306351	0.133	-682925	SLD 14	-682925	-1964389	0.179	Si
395	12.32	5.2	8.04	5.1	354112	SLD 3	345150	1306351	0.133	-843945	SLD 14	-761043	-1964389	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	3912	SLU 16	3912	7630	42667	0	7630	1	Si
30	0.101	12.32	0	2987	SLU 16	2987	7630	42667	15860	15860	1	Si
197	0.086	6.03	0	-647	SLU 15	-647	-6021	-42764	-13529	-13529	1	Si
365	0.101	12.32	0	-2987	SLU 15	-2987	-7630	-42667	-15860	-15860	1	Si
395	0	12.32	0	-3407	SLU 15	-3407	-7630	-42667	0	-7630	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	8574	Ger.	13547	7630	42667	0	7630	1	Si
0	0	10.05	0	-3455	Ger.	-8966	-7139	-42764	0	-7139	1	Si
30	0.101	12.32	0	8029	Ger.	13001	7630	42667	15860	15860	1	Si
30	0.101	10.05	0	-4001	Ger.	-9512	-7139	-42764	-15897	-15897	1	Si
197	0.086	6.03	0	5670	Ger.	10643	6021	42764	13529	13529	1	Si
197	0.086	6.03	0	-6359	Ger.	-11870	-6021	-42764	-13529	-13529	1	Si
365	0.101	8.04	0	3870	Ger.	8842	6627	42764	15897	15897	1	Si
365	0.101	12.32	0	-8160	Ger.	-13671	-7630	-42667	-15860	-15860	1	Si
395	0	8.04	0	3547	Ger.	8519	6627	42764	0	6627	1	Si
395	0	12.32	0	-8483	Ger.	-13994	-7630	-42667	0	-7630	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	5622	SLD 3	5622	7630	42667	0	7630	1	Si
0	0	10.05	0	-503	SLD 14	-503	-7139	-42764	0	-7139	1	Si
30	0.101	12.32	0	5077	SLD 3	5077	7630	42667	15860	15860	1	Si
30	0.101	10.05	0	-1049	SLD 14	-1049	-7139	-42764	-15897	-15897	1	Si
197	0.086	6.03	0	2718	SLD 3	2718	6021	42764	13529	13529	1	Si
197	0.086	6.03	0	-3407	SLD 14	-3407	-6021	-42764	-13529	-13529	1	Si
365	0.101	8.04	0	917	SLD 3	917	6627	42764	15897	15897	1	Si
365	0.101	12.32	0	-5208	SLD 14	-5208	-7630	-42667	-15860	-15860	1	Si
395	0	8.04	0	595	SLD 3	595	6627	42764	0	6627	1	Si
395	0	12.32	0	-5530	SLD 14	-5530	-7630	-42667	0	-7630	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-170940	4	-128061	9.5	149.4	263.6	3600	-155243	2	-117775	8.8	112.1	0	$+\infty$	Si
30	-94592	4	-94592	7	149.4	194.7	3600	-87770	2	-87770	6.5	112.1	0	$+\infty$	Si
197	49548	2	52435	5.1	149.4	214	3600	43431	1	45194	4.4	112.1	0	$+\infty$	Si
365	-202042	8	-202042	15.7	149.4	417.1	3600	-175767	4	-175767	13.7	112.1	0	$+\infty$	Si
395	-274028	8	-235640	18.3	149.4	486.5	3600	-244917	4	-207946	16.2	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
30	0	-0.001	0	-0.001	0	0	0	-0.001	0	0	-0.001	1	-0.001	1	9999	Si
197	0.004	-0.001	0.003	-0.002	0.003	0	0.001	-0.001	0.003	0.001	0.004	1	-0.001	1	9999	Si
329	-0.001	-0.004	-0.001	-0.005	-0.001	-0.003	-0.001	-0.004	-0.001	-0.003	-0.003	1	-0.007	1	9999	Si
365	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	1	-0.005	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	216	6.5	50	0.018	0.00045	0.01612	0	7139	42764	15897	15897	17646	17646	13001	0	SLV 9	Si

TABULATO DI CALCOLO – FABBRICATO B

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1000	222.7	6	50	0.016	0.00052	0.01593	0	6627	42764	15897	15897	17112	17112	-13671	0	SLV 6	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	2800		-8966		-10697		-3455		2800		13547		9769		8574	
30	2255		-9512		-10697		-4001		2255		13001		9769		8029	
197	-104		-11870		-10697		-6359		-104		10643		9769		5670	
365	-1904		-13671		-10697		-8160		-1904		8842		9769		3870	
395	-2227		-13994		-10697		-8483		-2227		8519		9769		3547	

Campata 3 tra i fili 6 - 7, sezione R 30x50, aste 245, 246; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1						-894072	SLU 16	-728897	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1						-582183	SLU 16	-582183	-1964389	0.179	Si
223	6.03	5.1	6.03	5.1	432003	SLU 16	615363	993776	0.126						Si
415	12.32	5.2	6.03	5.1						-648592	SLU 16	-648592	-1959948	0.197	Si
445	12.32	5.2	6.03	5.1						-1009637	SLU 16	-816458	-1959948	0.197	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1	709633	SLV 14	709633	1306351	0.133	-1746377	SLV 3	-1566690	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1	727670	SLV 14	728149	1306351	0.133	-1398493	SLV 3	-1398493	-1964389	0.179	Si
223	6.03	5.1	6.03	5.1	250126	SLV 10	352093	993776	0.126						Si
415	12.32	5.2	6.03	5.1	675610	SLV 3	686595	993099	0.123	-1431287	SLV 14	-1431287	-1959948	0.197	Si
445	12.32	5.2	6.03	5.1	633948	SLV 3	633948	993099	0.123	-1802797	SLV 14	-1609832	-1959948	0.197	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1	107037	SLD 14	107037	1306351	0.133	-1143781	SLD 3	-1004561	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1	206008	SLD 14	258829	1306351	0.133	-876831	SLD 3	-876831	-1964389	0.179	Si
223	6.03	5.1	6.03	5.1	247047	SLD 10	295495	993776	0.126						Si
415	12.32	5.2	6.03	5.1	158604	SLD 3	223856	993099	0.123	-914281	SLD 14	-914281	-1959948	0.197	Si
445	12.32	5.2	6.03	5.1	36007	SLD 3	36007	993099	0.123	-1204856	SLD 14	-1052358	-1959948	0.197	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	11014	SLU 16	11014	7630	42667	0	7630	1	Si
30	0.101	12.32	0	9781	SLU 16	9781	7630	42667	15860	15860	1	Si
223	0.092	6.03	0	45	SLU 4	45	6021	42764	14502	14502	1	Si
223	0.092	6.03	0	-93	SLU 14	-93	-6021	-42764	-14502	-14502	1	Si
415	0.121	12.32	0	-11191	SLU 16	-11191	-7630	-42667	-19033	-19033	1	Si
445	0	12.32	0	-12930	SLU 16	-12930	-7630	-42667	0	-7630	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	11981	Ger.	15082	7630	42667	0	7630	1	Si
0	0	8.04	0	986	Ger.	-2700	-6627	-42764	0	-6627	1	Si
30	0.101	12.32	0	11213	Ger.	14314	7630	42667	15860	15860	1	Si
30	0.101	8.04	0	218	Ger.	-3468	-6627	-42764	-15897	-15897	1	Si
223	0.092	6.03	0	5450	Ger.	8551	6021	42764	14502	14502	1	Si
223	0.092	6.03	0	-5545	Ger.	-9231	-6021	-42764	-14502	-14502	1	Si
415	0.121	6.03	0	-908	Ger.	2193	6021	42764	19076	19076	1	Si
415	0.121	12.32	0	-11903	Ger.	-15589	-7630	-42667	-19033	-19033	1	Si
445	0	6.03	0	-1899	Ger.	1202	6021	42764	0	6021	1	Si
445	0	12.32	0	-12894	Ger.	-16580	-7630	-42667	0	-7630	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	9283	SLD 3	9283	7630	42667	0	7630	1	Si
30	0.101	12.32	0	8515	SLD 3	8515	7630	42667	15860	15860	1	Si
223	0.092	6.03	0	2752	SLD 3	2752	6021	42764	14502	14502	1	Si
223	0.092	6.03	0	-2847	SLD 14	-2847	-6021	-42764	-14502	-14502	1	Si
415	0.121	12.32	0	-9205	SLD 14	-9205	-7630	-42667	-19033	-19033	1	Si
445	0	12.32	0	-10196	SLD 14	-10196	-7630	-42667	0	-7630	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-642262	8	-523549	40.7	149.4	1080.9	3600	-518372	4	-421147	32.7	112.1	0	+∞	Si
30	-418181	8	-418181	32.5	149.4	863.3	3600	-335412	4	-335412	26.1	112.1	0	+∞	Si
223	308727	8	308727	31.9	149.4	1261.8	3600	243543	4	243543	25.2	112.1	0	+∞	Si
415	-464717	8	-464717	37.8	149.4	962.7	3600	-377839	4	-377839	30.7	112.1	0	+∞	Si
445	-723144	8	-584872	47.6	149.4	1211.6	3600	-584425	4	-473921	38.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.9	0.00031	0.0072	8	22.9	0.00027	0.0062	4	22.9	0.00025	0.0058	4	Si
401	superiore	22.8	0.00028	0.0064	8	22.8	0.00024	0.0055	4	22.8	0.00023	0.0052	4	Si
415	superiore	22.8	0.00028	0.0064	8	22.8	0.00024	0.0055	4	22.8	0.00023	0.0052	4	Si
445	superiore	22.8	0.00035	0.0081	8	22.8	0.00031	0.007	4	22.8	0.00029	0.0065	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.003	4	0.002	4	9999	Si
223	0.04	0.019	0.031	0.015	0.034	0.02	0.027	0.016	0.032	0.02	0.064	4	0.04	4	6984	Si
415	0.002	0.001	0.001	0	0.001	0.001	0	0	0.001	0.001	0.001	4	0.001	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	262.7	6	50	0.016	0.00172	0.01439	0	6627	42764	15897	15897	16111	16111	14314	0	SLV 13	Si
1445	263.6	5.5	50	0.015	0.00156	0.01361	0	6021	42764	19076	19076	18687	19076	-15589	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	6632	-2700	-8484	986	6632	15082	7682	11981
30	5864	-3468	-8484	218	5864	14314	7682	11213
223	101	-9231	-8484	-5545	101	8551	7682	5450

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
415	-6257	-15589	-8484	-11903	-6257	2193	7682	-908
445	-7248	-16580	-8484	-12930	-7248	1202	7682	-1899

Campata 4 tra i fili 7 - 8, sezione R 30x50, aste 279, 280, 281, 282, 283, 284, 285, 286, 287, 288; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	6.03	5.1						-413311	SLU 16	-342461	-1959948	0.197	Si
30	12.32	5.2	6.03	5.1						-282843	SLU 16	-282843	-1959948	0.197	Si
260	6.03	5.1	6.03	5.1	122822	SLU 16	230312	993776	0.126						Si
490	12.32	5.2	8.04	5.1						-293899	SLU 16	-293899	-1964389	0.179	Si
520	12.32	5.2	8.04	5.1						-454530	SLU 16	-365764	-1964389	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	6.03	5.1	880284	SLV 14	826609	993099	0.123	-1444653	SLV 3	-1293072	-1959948	0.197	Si
30	12.32	5.2	6.03	5.1	765595	SLV 14	765595	993099	0.123	-1148828	SLV 3	-1148828	-1959948	0.197	Si
260	6.03	5.1	6.03	5.1	158490	SLV 8	171737	993776	0.126						Si
490	12.32	5.2	8.04	5.1	733063	SLV 1	733063	1306351	0.133	-1133077	SLV 16	-1133077	-1964389	0.179	Si
520	12.32	5.2	8.04	5.1	822251	SLV 1	782590	1306351	0.133	-1433506	SLV 16	-1278387	-1964389	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	6.03	5.1	310251	SLD 14	306880	993099	0.123	-874620	SLD 3	-773342	-1959948	0.197	Si
30	12.32	5.2	6.03	5.1	296168	SLD 14	296168	993099	0.123	-679402	SLD 3	-679402	-1959948	0.197	Si
260	6.03	5.1	6.03	5.1	127672	SLD 8	133258	993776	0.126						Si
490	12.32	5.2	8.04	5.1	275099	SLD 1	275099	1306351	0.133	-675112	SLD 16	-675112	-1964389	0.179	Si
520	12.32	5.2	8.04	5.1	268751	SLD 1	268751	1306351	0.133	-880007	SLD 16	-772648	-1964389	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	5054	SLU 16	5054	7630	42667	0	7630	1	Si
30	0.101	12.32	0	3975	SLU 16	3975	7630	42667	15860	15860	1	Si
260	0.064	6.03	0	86	SLU 11	86	6021	42764	10156	10156	1	Si
490	0.101	12.22	0	-4791	SLU 16	-4791	-7611	-42667	-15860	-15860	1	Si
520	0	12.32	0	-6123	SLU 16	-6123	-7630	-42667	0	-7630	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	10273	Ger.	11128	7630	42667	0	7630	1	Si
0	0	6.03	0	-3411	Ger.	-3755	-6021	-42764	0	-6021	1	Si
30	0.101	12.32	0	9616	Ger.	10471	7630	42667	15860	15860	1	Si
30	0.101	6.03	0	-4068	Ger.	-4412	-6021	-42764	-15897	-15897	1	Si
260	0.064	6.03	0	2474	Ger.	7857	6021	42764	10156	10156	1	Si
260	0.064	6.03	0	-2359	Ger.	-7026	-6021	-42764	-10156	-10156	1	Si
490	0.101	8.04	0	3302	Ger.	4848	6627	42764	15897	15897	1	Si
490	0.101	12.22	0	-9687	Ger.	-10035	-7611	-42667	-15860	-15860	1	Si
520	0	8.04	0	2533	Ger.	4080	6627	42764	0	6627	1	Si
520	0	12.32	0	-10456	Ger.	-10803	-7630	-42667	0	-7630	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	6919	SLD 3	6919	7630	42667	0	7630	1	Si
0	0	6.03	0	-57	SLD 14	-57	-6021	-42764	0	-6021	1	Si
30	0.101	12.32	0	6263	SLD 3	6263	7630	42667	15860	15860	1	Si
30	0.101	6.03	0	-714	SLD 14	-714	-6021	-42764	-15897	-15897	1	Si
260	0.064	6.03	0	1287	SLD 1	1287	6021	42764	10156	10156	1	Si
260	0.064	6.03	0	-1173	SLD 16	-1173	-6021	-42764	-10156	-10156	1	Si
490	0.101	8.04	0	117	SLD 1	117	6627	42764	15897	15897	1	Si
490	0.101	12.22	0	-6502	SLD 16	-6502	-7611	-42667	-15860	-15860	1	Si
520	0	12.32	0	-7271	SLD 16	-7271	-7630	-42667	0	-7630	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-308018	8	-255098	20.8	149.4	528.5	3600	-282184	4	-233231	19	112.1	0	+∞	Si
30	-210468	8	-210468	17.1	149.4	436	3600	-191617	4	-191617	15.6	112.1	0	+∞	Si
260	93326	8	93326	9.7	149.4	381.4	3600	92023	4	92023	9.5	112.1	0	+∞	Si
490	-218722	8	-218722	17	149.4	451.6	3600	-200007	4	-200007	15.6	112.1	0	+∞	Si
520	-337682	8	-272076	21.2	149.4	561.7	3600	-305628	4	-247899	19.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.001	0	0	-0.001	0	0	0	0	0	0	0	1	-0.001	1	9999	Si
260	0.016	0.015	0.013	0.011	0.016	0.015	0.013	0.012	0.016	0.015	0.032	3	0.031	3	9999	Si
490	0	0	0	-0.001	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1505	235.8	8.8	50	0.015	0.00144	0.01775	0	7630	42667	15860	15860	16364	16364	10471	0	SLV 1	Si
1965	289.2	6	50	0.016	0.00032	0.018	0	6627	42764	15897	15897	16111	16111	-10035	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3317	-3755	-6429	-3411	3317	11128	7101	10273
30	2661	-4412	-6429	-4068	2661	10471	7101	9616
260	46	-7026	-6429	-2359	46	7857	7101	2474
490	-2963	-10035	-6429	-9687	-2963	4848	7101	3302
520	-3731	-10803	-6429	-10456	-3731	4080	7101	2533

Campata 5 tra i fili 8 - 9, sezione R 30x50, aste 295, 296; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1						-1029553	SLU 16	-835382	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1						-667300	SLU 16	-667300	-1964389	0.179	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
223	6.03	5.1	6.03	5.1	414986	SLV 16	601771	993776	0.126						Si
415	12.32	5.2	8.04	5.1						-538701	SLV 16	-538701	-1964389	0.179	Si
445	12.32	5.2	8.04	5.1						-832436	SLV 16	-676358	-1964389	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1	669902	SLV 16	669902	1306351	0.133	-1858826	SLV 1	-1662225	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1	706306	SLV 16	712919	1306351	0.133	-1480486	SLV 1	-1480486	-1964389	0.179	Si
223	6.03	5.1	6.03	5.1	240772	SLV 5	347837	993776	0.126						Si
415	12.32	5.2	8.04	5.1	785326	SLV 1	785326	1306351	0.133	-1416067	SLV 16	-1416067	-1964389	0.179	Si
445	12.32	5.2	8.04	5.1	781503	SLV 1	781503	1306351	0.133	-1761826	SLV 16	-1583213	-1964389	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1	49085	SLD 16	49085	1306351	0.133	-1238008	SLD 1	-1083378	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1	169431	SLD 16	232328	1306351	0.133	-943612	SLD 1	-943612	-1964389	0.179	Si
223	6.03	5.1	6.03	5.1	238485	SLD 5	289790	993776	0.126						Si
415	12.32	5.2	8.04	5.1	244933	SLD 1	290248	1306351	0.133	-875673	SLD 16	-875673	-1964389	0.179	Si
445	12.32	5.2	8.04	5.1	157167	SLD 1	157167	1306351	0.133	-1137489	SLD 16	-1000848	-1964389	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	12945	SLV 16	12945	7630	42667	0	7630	1	Si
30	0.121	12.32	0	11205	SLV 16	11205	7630	42667	19033	19033	1	Si
223	0.092	6.03	0	109	SLV 14	109	6021	42764	14502	14502	1	Si
223	0.092	6.03	0	-37	SLV 4	-37	-6021	-42764	-14502	-14502	1	Si
415	0.101	12.32	0	-9177	SLV 16	-9177	-7630	-42667	-15860	-15860	1	Si
445	0	12.32	0	-10410	SLV 16	-10410	-7630	-42667	0	-7630	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	13107	Ger.	16518	7630	42667	0	7630	1	Si
0	0	8.04	0	1709	Ger.	-2172	-6627	-42764	0	-6627	1	Si
30	0.121	12.32	0	12116	Ger.	15528	7630	42667	19033	19033	1	Si
30	0.121	8.04	0	718	Ger.	-3162	-6627	-42764	-19076	-19076	1	Si
223	0.092	6.03	0	5758	Ger.	9169	6021	42764	14502	14502	1	Si
223	0.092	6.03	0	-5640	Ger.	-9521	-6021	-42764	-14502	-14502	1	Si
415	0.101	8.04	0	255	Ger.	3666	6627	42764	15897	15897	1	Si
415	0.101	12.32	0	-11143	Ger.	-15024	-7630	-42667	-15860	-15860	1	Si
445	0	8.04	0	-513	Ger.	2899	6627	42764	0	6627	1	Si
445	0	12.32	0	-11911	Ger.	-15791	-7630	-42667	0	-7630	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	10309	SLD 1	10309	7630	42667	0	7630	1	Si
30	0.121	12.32	0	9318	SLD 1	9318	7630	42667	19033	19033	1	Si
223	0.092	6.03	0	2960	SLD 1	2960	6021	42764	14502	14502	1	Si
223	0.092	6.03	0	-2842	SLD 16	-2842	-6021	-42764	-14502	-14502	1	Si
415	0.101	12.32	0	-8345	SLD 16	-8345	-7630	-42667	-15860	-15860	1	Si
445	0	12.32	0	-9113	SLD 16	-9113	-7630	-42667	0	-7630	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-737265	8	-598272	46.5	149.4	1235.1	3600	-594462	4	-483344	37.6	112.1	0	+∞	Si
30	-477955	8	-477955	37.2	149.4	986.7	3600	-387090	4	-387090	30.1	112.1	0	+∞	Si
223	296817	8	296817	30.7	149.4	1213.1	3600	235881	4	235881	24.4	112.1	0	+∞	Si
415	-387663	8	-387663	30.1	149.4	800.3	3600	-315370	4	-315370	24.5	112.1	0	+∞	Si
445	-599037	8	-486691	37.8	149.4	1004.8	3600	-490161	4	-397033	30.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.9	0.00036	0.0082	8	22.9	0.00031	0.0071	4	22.9	0.00029	0.0067	4	Si
30	superiore	22.9	0.00029	0.0066	8	22.9	0.00025	0.0057	4	22.9	0.00023	0.0053	4	Si
445	superiore	22.9	0.00029	0.0067	8	22.9	0.00025	0.0058	4	22.9	0.00024	0.0055	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.001	0	0	-0.001	0.001	0	0	0	0.001	0	0.001	4	0	4	9999	Si
223	0.038	0.018	0.029	0.014	0.032	0.019	0.025	0.015	0.03	0.019	0.06	4	0.038	4	7468	Si
415	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.003	4	0.002	4	9999	Si

Verifica taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2025	261.4	6	50	0.016	0.0016	0.01365	0	6627	42764	19076	19076	18876	19076	15528	0	SLV 13	Si
2410	261	6	50	0.016	0.00148	0.01407	0	6627	42764	15897	15897	16111	16111	-15024	0	SLV 4	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7173	-2172	-8495	1709	7173	16518	8495	13107
30	6183	-3162	-8495	718	6183	15528	8495	12116
223	-176	-9521	-8495	-5640	-176	9169	8495	5758
415	-5679	-15024	-8495	-11143	-5679	3666	8495	255
445	-6446	-15791	-8495	-11911	-6446	2899	8495	-513

Campata 6 tra i fili 9 - 10, sezione R 30x50, asta 302; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1						-577136	SLV 16	-481109	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1						-395042	SLV 16	-395042	-1964389	0.179	Si
197	8.91	5.1	6.03	5.1	133960	SLV 16	256781	993451	0.123						Si
365	12.32	5.2	8.04	5.1						-203339	SLV 16	-203339	-1964389	0.179	Si
395	12.32	5.2	8.04	5.1						-354478	SLV 16	-272238	-1964389	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1	844312	SLV 14	810883	1306351	0.133	-1515534	SLV 3	-1368326	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1	771067	SLV 14	771067	1306351	0.133	-1227487	SLV 3	-1227487	-1964389	0.179	Si
197	8.91	5.1	6.03	5.1	93887	SLV 2	215890	993451	0.123	68081	SLV 15	-49169	-1443057	0.154	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
365	12.32	5.2	8.04	5.1	897458	SLV 3	897458	1306351	0.133	-1139056	SLV 14	-1139056	-1964389	0.179	Si
395	12.32	5.2	8.04	5.1	988434	SLV 3	946893	1306351	0.133	-1409341	SLV 14	-1270277	-1964389	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1	265191	SLD 14	265191	1306351	0.133	-936413	SLD 3	-833540	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1	280618	SLD 14	283078	1306351	0.133	-737038	SLD 3	-737038	-1964389	0.179	Si
197	8.91	5.1	6.03	5.1	87596	SLD 2	150843	993451	0.123						Si
365	12.32	5.2	8.04	5.1	397584	SLD 3	397584	1306351	0.133	-639181	SLD 14	-639181	-1964389	0.179	Si
395	12.32	5.2	8.04	5.1	399895	SLD 3	399895	1306351	0.133	-820802	SLD 14	-726064	-1964389	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	6325	SLU 16	6325	7630	42667	0	7630	1	Si
30	0.101	12.32	0	5738	SLU 16	5738	7630	42667	15860	15860	1	Si
197	0.086	6.03	0	605	SLU 15	605	6021	42764	13529	13529	1	Si
365	0.101	12.32	0	-4593	SLU 16	-4593	-7630	-42667	-15860	-15860	1	Si
395	0	12.32	0	-5518	SLU 16	-5518	-7630	-42667	0	-7630	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	9786	Ger.	14187	7630	42667	0	7630	1	Si
0	0	8.04	0	-2258	Ger.	-7292	-6627	-42764	0	-6627	1	Si
30	0.101	12.32	0	9389	Ger.	13790	7630	42667	15860	15860	1	Si
30	0.101	8.04	0	-2654	Ger.	-7689	-6627	-42764	-15897	-15897	1	Si
197	0.086	6.03	0	6342	Ger.	10744	6021	42764	13529	13529	1	Si
197	0.086	6.03	0	-5701	Ger.	-10736	-6021	-42764	-13529	-13529	1	Si
365	0.101	8.04	0	3296	Ger.	7697	6627	42764	15897	15897	1	Si
365	0.101	12.32	0	-8748	Ger.	-13783	-7630	-42667	-15860	-15860	1	Si
395	0	8.04	0	2750	Ger.	7151	6627	42764	0	6627	1	Si
395	0	12.32	0	-9294	Ger.	-14328	-7630	-42667	0	-7630	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	6830	SLD 3	6830	7630	42667	0	7630	1	Si
30	0.101	12.32	0	6433	SLD 3	6433	7630	42667	15860	15860	1	Si
197	0.086	6.03	0	3387	SLD 3	3387	6021	42764	13529	13529	1	Si
197	0.086	6.03	0	-2745	SLD 14	-2745	-6021	-42764	-13529	-13529	1	Si
365	0.101	8.04	0	340	SLD 3	340	6627	42764	15897	15897	1	Si
365	0.101	12.32	0	-5792	SLD 14	-5792	-7630	-42667	-15860	-15860	1	Si
395	0	12.32	0	-6338	SLD 14	-6338	-7630	-42667	0	-7630	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-418708	8	-348620	27.1	149.4	719.7	3600	-335611	4	-278722	21.7	112.1	0	+∞	Si
30	-285918	8	-285918	22.2	149.4	590.3	3600	-228210	4	-228210	17.7	112.1	0	+∞	Si
197	98596	8	101993	9.9	149.4	416.4	3600	80984	4	83629	8.1	112.1	0	+∞	Si
365	-149783	8	-149783	11.6	149.4	309.2	3600	-120799	4	-120799	9.4	112.1	0	+∞	Si
395	-260551	8	-200294	15.6	149.4	413.5	3600	-210453	4	-161692	12.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f		
30	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1		9999	Si
197	0.008	0.006	0.006	0.004	0.007	0.006	0.004	0.004	0.004	0.006	0.011	2	0.01	2		9999	Si
211	0.008	0.006	0.006	0.004	0.007	0.006	0.004	0.004	0.004	0.006	0.011	2	0.01	2		9999	Si
365	0.001	0	0	0	0	0	0	0	0	0	0	4		4		9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2470	242.3	6	50	0.016	0.00037	0.01555	0	6627	42764	15897	15897	16395	16395	13790	0	SLV 9	Si
2805	236.9	6	50	0.016	0.00045	0.01543	0	6627	42764	15897	15897	16593	16593	-13783	0	SLV 6	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3447	-7292	-9763	-2258	3447	14187	9763	9786
30	3051	-7689	-9763	-2654	3051	13790	9763	9389
197	4	-10736	-9763	-5701	4	10744	9763	6342
365	-3043	-13783	-9763	-8748	-3043	7697	9763	3296
395	-3589	-14328	-9763	-9294	-3589	7151	9763	2750

Campata 7 tra i fili 10 - 29, sezione R 30x50, aste 307, 308; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1						-1641912	SLU 16	-1393516	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1						-1170920	SLU 16	-1170920	-1964389	0.179	Si
310	6.03	5.1	6.03	5.1	822812	SLU 16	959426	993776	0.126						Si
605	9.17	5.2	6.03	5.1						-805236	SLU 16	-805236	-1480616	0.157	Si
620	9.17	5.2	6.03	5.1						-983390	SLU 16	-892115	-1480616	0.157	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1						-1785761	SLV 3	-1604815	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1	16270	SLV 14	138430	1306351	0.133	-1438567	SLV 3	-1438567	-1964389	0.179	Si
310	6.03	5.1	6.03	5.1	589066	SLV 14	620698	993776	0.126						Si
605	9.17	5.2	6.03	5.1	99272	SLV 3	190496	993335	0.124	-1086383	SLV 14	-1086383	-1480616	0.157	Si
620	9.17	5.2	6.03	5.1	23652	SLV 3	23652	993335	0.124	-1230885	SLV 14	-1157266	-1480616	0.157	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.32	5.2	8.04	5.1						-1396372	SLD 3	-1232268	-1964389	0.179	Si
30	12.32	5.2	8.04	5.1						-1082863	SLD 3	-1082863	-1964389	0.179	Si
310	6.03	5.1	6.03	5.1	546757	SLD 14	556804	993776	0.126						Si
605	9.17	5.2	6.03	5.1						-796451	SLD 14	-796451	-1480616	0.157	Si
620	9.17	5.2	6.03	5.1						-924110	SLD 14	-858912	-1480616	0.157	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	16579	SLU 16	16579	7630	42667	0	7630	1	Si
30	0.101	12.32	0	14840	SLU 16	14840	7630	42667	15860	15860	1	Si
310	0.078	6.03	0	545	SLU 16	545	6021	42764	12383	12383	1	Si
605	0.101	9.17	0	-11584	SLU 16	-11584	-6919	-42699	-15872	-15872	1	Si
620	0	9.17	0	-12200	SLU 16	-12200	-6919	-42699	0	-6919	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	12074	Ger.	14814	7630	42667	0	7630	1	Si
30	0.101	12.32	0	11083	Ger.	13823	7630	42667	15860	15860	1	Si
310	0.078	6.03	0	2690	Ger.	5430	6021	42764	12383	12383	1	Si
310	0.078	6.03	0	-1902	Ger.	-5560	-6021	-42764	-12383	-12383	1	Si
605	0.101	9.17	0	-9451	Ger.	-13109	-6919	-42699	-15872	-15872	1	Si
620	0	9.17	0	-9835	Ger.	-13493	-6919	-42699	0	-6919	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.32	0	10951	SLD 3	10951	7630	42667	0	7630	1	Si
30	0.101	12.32	0	9960	SLD 3	9960	7630	42667	15860	15860	1	Si
310	0.078	6.03	0	1567	SLD 3	1567	6021	42764	12383	12383	1	Si
310	0.078	6.03	0	-779	SLD 14	-779	-6021	-42764	-12383	-12383	1	Si
605	0.101	9.17	0	-8328	SLD 14	-8328	-6919	-42699	-15872	-15872	1	Si
620	0	9.17	0	-8712	SLD 14	-8712	-6919	-42699	0	-6919	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1182690	8	-1004208	78.1	149.4	2073.2	3600	-989460	4	-842955	65.5	112.1	0	+∞	Si
30	-844194	8	-844194	65.6	149.4	1742.9	3600	-711149	4	-711149	55.3	112.1	0	+∞	Si
310	593699	8	595198	61.5	149.4	2432.6	3600	503546	4	505801	52.3	112.1	0	+∞	Si
605	-580764	8	-580764	51.9	149.4	1591.3	3600	-493556	4	-493556	44.1	112.1	0	+∞	Si
620	-709423	8	-643504	57.5	149.4	1763.2	3600	-603617	4	-547218	48.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.9	0.00069	0.0158	8	22.9	0.00068	0.0156	4	22.9	0.00063	0.0145	4	Si
30	superiore	22.9	0.00053	0.0122	8	22.9	0.00054	0.0124	4	22.9	0.0005	0.0115	4	Si
310	inferiore	31.6	0.00071	0.0224	8	31.6	0.00067	0.0212	4	31.6	0.00062	0.0196	4	Si
331	inferiore	31.6	0.00071	0.0224	8	31.6	0.00067	0.0212	4	31.6	0.00062	0.0196	4	Si
605	superiore	25.8	0.00046	0.012	8	25.8	0.00042	0.011	4	25.8	0.00039	0.0102	4	Si
620	superiore	25.8	0.00051	0.0133	8	25.8	0.0005	0.0129	4	25.8	0.00046	0.012	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.01	0.005	0.01	0.004	0.009	0.005	0.007	0.004	0.008	0.005	0.03	4	0.01	4	9999	Si
310	0.179	0.1	0.243	0.086	0.159	0.101	0.186	0.088	0.151	0.101	0.518	4	0.223	4	1197	Si
331	0.179	0.1	0.244	0.086	0.159	0.102	0.186	0.088	0.151	0.102	0.52	4	0.224	4	1193	Si
605	0.009	0.005	0.012	0.004	0.008	0.005	0.009	0.004	0.008	0.005	0.026	4	0.011	4	9999	Si
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2865	205.9	8	50	0.016	0.00163	0.01399	0	7630	42667	15860	15860	17686	17686	13823	0	SLV 3	Si
3440	414.1	5.6	50	0.01	0.001	0.01254	0	6021	42764	15897	15897	15250	15897	-13109	0	SLV 3	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	9156	0	-4847	6425	9156	16579	5144	16579
30	8165	0	-4847	5784	8165	14840	5144	14840
310	-228	-5560	-4847	-1902	-228	5430	5144	2690
605	-7777	-13109	-4847	-11584	-7777	0	5144	-4822
620	-8161	-13493	-4847	-12200	-8161	0	5144	-5082

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	12	1620614	-1620614
1	590	5	1619082	-1966428
2	30	5	1619082	-1966428
2	365	6	1306351	-1964389
3	30	6	1306351	-1964389
3	415	7	993099	-1959948
4	30	7	993099	-1959948
4	490	8	1306351	-1964389
5	30	8	1306351	-1964389
5	415	9	1306351	-1964389
6	30	9	1306351	-1964389
6	365	10	1306351	-1964389
7	30	10	1306351	-1964389
7	605	29	993335	-1480616

Trave a "Quinto Impalcato" Parete 2 - Parete 3

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 20x50	Rettangolare	20	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 18 - 24, sezione R 20x50, asta 376; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	5.15	5.1	4.02	5.1						-227259	SLU 16	-204663	-839980	0.142	Si
15	5.15	5.1	4.02	5.1						-183332	SLU 16	-183332	-839980	0.142	Si
245	4.02	5.1	4.02	5.1	149059	SLU 10	174154	662517	0.126						Si
475	5.15	5.1	4.02	5.1						-181694	SLU 16	-181694	-839980	0.142	Si
490	5.15	5.1	4.02	5.1						-225514	SLU 16	-202971	-839980	0.142	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	5.15	5.1	4.02	5.1	340318	SLV 13	340318	662514	0.123	-688267	SLV 4	-655803	-839980	0.142	Si
15	5.15	5.1	4.02	5.1	344012	SLV 13	345829	662514	0.123	-624313	SLV 4	-624313	-839980	0.142	Si
245	4.02	5.1	4.02	5.1	134671	SLV 13	172745	662517	0.126						Si
475	5.15	5.1	4.02	5.1	302011	SLV 4	303650	662514	0.123	-577670	SLV 13	-577670	-839980	0.142	Si
490	5.15	5.1	4.02	5.1	298468	SLV 4	298468	662514	0.123	-641473	SLV 13	-609085	-839980	0.142	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	5.15	5.1	4.02	5.1	88332	SLD 13	88332	662514	0.123	-436282	SLD 4	-411198	-839980	0.142	Si
15	5.15	5.1	4.02	5.1	106788	SLD 13	128243	662514	0.123	-387088	SLD 4	-387088	-839980	0.142	Si
245	4.02	5.1	4.02	5.1	123721	SLD 13	142041	662517	0.126						Si
475	5.15	5.1	4.02	5.1	86557	SLD 4	107809	662514	0.123	-362216	SLD 13	-362216	-839980	0.142	Si
490	5.15	5.1	4.02	5.1	68253	SLD 4	68253	662514	0.123	-411258	SLD 13	-386251	-839980	0.142	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	5.15	0	3036	SLU 14	3036	4362	28537	0	4362	1	Si
15	0.121	5.15	0	2851	SLU 14	2851	4362	28537	19095	19095	1	Si
245	0.036	4.02	0	11	SLU 14	11	4014	28509	5740	5740	1	Si
475	0.121	5.15	0	-2837	SLU 12	-2837	-4362	-28537	-19095	-19095	1	Si
490	0	5.15	0	-3023	SLU 12	-3023	-4362	-28537	0	-4362	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	5.15	0	4341	Ger.	5920	4362	28537	0	4362	1	Si
0	0	4.02	0	324	Ger.	-1265	-4014	-28509	0	-4014	1	Si
15	0.121	5.15	0	4199	Ger.	5778	4362	28537	19095	19095	1	Si
15	0.121	4.02	0	181	Ger.	-1408	-4014	-28509	-19076	-19076	1	Si
245	0.036	4.02	0	2014	Ger.	3593	4014	28509	5740	5740	1	Si
245	0.036	4.02	0	-2004	Ger.	-3593	-4014	-28509	-5740	-5740	1	Si
475	0.121	4.02	0	-171	Ger.	1408	4014	28509	19076	19076	1	Si
475	0.121	5.15	0	-4189	Ger.	-5778	-4362	-28537	-19095	-19095	1	Si
490	0	4.02	0	-314	Ger.	1265	4014	28509	0	4014	1	Si
490	0	5.15	0	-4331	Ger.	-5920	-4362	-28537	0	-4362	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	5.15	0	3357	SLD 4	3357	4362	28537	0	4362	1	Si
15	0.121	5.15	0	3215	SLD 4	3215	4362	28537	19095	19095	1	Si
245	0.036	4.02	0	1030	SLD 4	1030	4014	28509	5740	5740	1	Si
245	0.036	4.02	0	-1020	SLD 13	-1020	-4014	-28509	-5740	-5740	1	Si
475	0.121	5.15	0	-3205	SLD 13	-3205	-4362	-28537	-19095	-19095	1	Si
490	0	5.15	0	-3347	SLD 13	-3347	-4362	-28537	0	-4362	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-174604	8	-157219	22.3	149.4	761.9	3600	-173975	4	-156575	22.2	112.1	0	+∞	Si
15	-140808	8	-140808	19.9	149.4	682.4	3600	-140150	4	-140150	19.9	112.1	0	+∞	Si
245	114474	2	114474	17.8	149.4	701.8	3600	113258	1	113258	17.6	112.1	0	+∞	Si
475	-139372	8	-139372	19.7	149.4	675.4	3600	-137830	4	-137830	19.5	112.1	0	+∞	Si
490	-173074	8	-155736	22.1	149.4	754.7	3600	-171503	4	-154179	21.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0.002	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.002	0.003	1	0.003	1	9999	Si
245	0.033	0.031	0.028	0.026	0.032	0.032	0.027	0.027	0.032	0.032	0.069	1	0.069	1	7057	Si
475	0.002	0.001	0.001	0.001	0.002	0.002	0.001	0.001	0.002	0.002	0.003	1	0.003	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	ρ _{tot}	θ _m	θ _y	μΔ _{pl}	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	342	5.5	50	0.009	0.00064	0.0231	0	4014	28509	19076	19076	17449	19076	5778	0	SLV 9	Si
490	288.9	5.5	50	0.009	0.00191	0.0231	0	4014	28509	19076	19076	17449	19076	-5778	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2328	-1265	-3266	324	2328	5920	3266	4341	2328	5920	3266	4341	2328	5920	3266	4341
15	2185	-1408	-3266	181	2185	5778	3266	4199	2185	5778	3266	4199	2185	5778	3266	4199
245	0	-3593	-3266	-2004	0	3593	3266	2014	0	3593	3266	2014	0	3593	3266	2014
475	-2185	-5778	-3266	-4189	-2185	1408	3266	-171	-2185	1408	3266	-171	-2185	1408	3266	-171
490	-2328	-5920	-3266	-4331	-2328	1265	3266	-314	-2328	1265	3266	-314	-2328	1265	3266	-314

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	18	662514	-839980
1	475	24	662514	-839980

Trave a "Quinto Impalcato" Parete 2-Pil.7**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 17 - 18, sezione R 30x50, asta 129****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	84538	SLU 16	68356	1512506	0.15						Si
15	9.42	5.3	9.42	5.3	51626	SLU 16	51626	1512506	0.15						Si
18	9.42	5.3	9.42	5.3	43791	SLU 16	51626	1512506	0.15						Si
27	9.42	5.3	9.42	5.3	24511	SLU 16	51626	1512506	0.15						Si
37	9.42	5.3	9.42	5.3	5718	SLU 9	5718	1512506	0.15						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	84693	SLV 15	66525	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	47927	SLV 15	47927	1455249	0.292						Si
18	9.42	5.3	9.42	5.3	39232	SLV 15	47927	1455249	0.292						Si
27	9.42	5.3	9.42	5.3	19822	SLV 12	47927	1455249	0.292						Si
37	9.42	5.3	9.42	5.3	13611	SLV 4	13611	1455249	0.292	-8683	SLV 13	-5767	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	69338	SLD 15	55276	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	40788	SLD 15	40788	1455249	0.292						Si
18	9.42	5.3	9.42	5.3	34009	SLD 15	40788	1455249	0.292						Si
27	9.42	5.3	9.42	5.3	18368	SLD 12	40788	1455249	0.292						Si
37	9.42	5.3	9.42	5.3	8147	SLD 4	8147	1455249	0.292	-3219	SLD 13	-3219	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2158	SLU 16	-2158	-6972	-42573	0	-6972	1	Si
15	0.084	9.42	0	-2231	SLU 16	-2231	-6972	-42573	-13190	-13190	1	Si
18	0.084	9.42	0	-2248	SLU 16	-2248	-6972	-42573	-13190	-13190	1	Si
27	0.084	9.42	0	-2289	SLU 16	-2289	-6972	-42573	-13190	-13190	1	Si
37	0	9.42	0	-2338	SLU 16	-2338	-6972	-42573	0	-6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2424	SLV 15	-2424	-6972	-42573	0	-6972	1	Si
15	0.084	9.42	0	-2480	SLV 15	-2480	-6972	-42573	-13190	-13190	1	Si
18	0.084	9.42	0	-2493	SLV 15	-2493	-6972	-42573	-13190	-13190	1	Si
27	0.084	9.42	0	-2525	SLV 15	-2525	-6972	-42573	-13190	-13190	1	Si
37	0	9.42	0	-2562	SLV 15	-2562	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-1875	SLD 15	-1875	-6972	-42573	0	-6972	1	Si
15	0.084	9.42	0	-1932	SLD 15	-1932	-6972	-42573	-13190	-13190	1	Si
18	0.084	9.42	0	-1945	SLD 15	-1945	-6972	-42573	-13190	-13190	1	Si
27	0.084	9.42	0	-1977	SLD 15	-1977	-6972	-42573	-13190	-13190	1	Si
37	0	9.42	0	-2014	SLD 15	-2014	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	61336	8	49727	4.1	149.4	132.6	3600	53403	4	43597	3.6	112.1	0	+∞	Si
15	37697	8	37697	3.1	149.4	100.5	3600	33370	4	33370	2.8	112.1	0	+∞	Si
18	32062	8	37697	3.1	149.4	100.5	3600	28575	4	33370	2.8	112.1	0	+∞	Si
27	18181	8	37697	3.1	149.4	100.5	3600	16738	4	33370	2.8	112.1	0	+∞	Si
37	4399	1	4399	0.4	149.4	11.7	3600	4399	1	4399	0.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
18	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
27	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
37	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Campata 2 tra i fili 18 - 16, sezione R 30x50, aste 130, 131, 132, 133**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	1139	SLU 10	584	1512506	0.15	-6801	SLU 8	-6801	-1512506	0.15	Si
10	9.42	5.3	9.42	5.3						-7524	SLU 16	-10981	-1512506	0.15	Si
99	9.42	5.3	9.42	5.3						-2515	SLU 16	-11354	-1512506	0.15	Si
185	9.42	5.3	9.42	5.3						-174360	SLU 16	-205039	-1512506	0.15	Si
198	9.42	5.3	9.42	5.3						-205039	SLU 16	-205039	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	20395	SLV 2	17372	1455249	0.292	-25469	SLV 15	-23134	-1455249	0.292	Si
10	9.42	5.3	9.42	5.3	14463	SLV 2	14463	1455249	0.292	-21288	SLV 15	-21288	-1455249	0.292	Si
99	9.42	5.3	9.42	5.3	6026	SLV 13	16949	1455249	0.292	-9736	SLV 4	-31321	-1455249	0.292	Si
185	9.42	5.3	9.42	5.3	366108	SLV 8	428920	1455249	0.292	-583074	SLV 9	-684302	-1455249	0.292	Si
198	9.42	5.3	9.42	5.3	428920	SLV 8	428920	1455249	0.292	-684302	SLV 9	-684302	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	9095	SLD 2	7405	1455249	0.292	-14169	SLD 15	-13167	-1455249	0.292	Si
10	9.42	5.3	9.42	5.3	5657	SLD 2	5657	1455249	0.292	-12481	SLD 15	-12481	-1455249	0.292	Si
99	9.42	5.3	9.42	5.3	2160	SLD 13	5764	1455249	0.292	-5870	SLD 4	-20136	-1455249	0.292	Si
185	9.42	5.3	9.42	5.3	144841	SLD 8	169395	1455249	0.292	-361807	SLD 9	-424776	-1455249	0.292	Si
198	9.42	5.3	9.42	5.3	169395	SLD 8	169395	1455249	0.292	-424776	SLD 9	-424776	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-111	SLU 10	-111	-6972	-42573	0	-6972	1	Si
10	0.06	9.42	0	-160	SLU 10	-160	-6972	-42573	-9495	-9495	1	Si
99	0.066	9.42	0	-390	SLU 16	-390	-6972	-42573	-10321	-10321	1	Si
191	0.066	9.42	0	-2324	SLU 16	-2324	-6972	-42573	-10321	-10321	1	Si
198	0.101	9.42	0	-2356	SLU 16	-2356	-6972	-42573	-15826	-15826	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	438	SLV 13	438	6972	42573	0	6972	1	Si
0	0	9.42	0	-576	SLV 4	-576	-6972	-42573	0	-6972	1	Si
10	0.06	9.42	0	401	SLV 13	401	6972	42573	9495	9495	1	Si
10	0.06	9.42	0	-613	SLV 4	-613	-6972	-42573	-9495	-9495	1	Si
99	0.066	9.42	0	1120	SLV 8	1120	6972	42573	10321	10321	1	Si
99	0.066	9.42	0	-1575	SLV 9	-1575	-6972	-42573	-10321	-10321	1	Si
191	0.066	9.42	0	4759	SLV 8	4759	6972	42573	10321	10321	1	Si
191	0.066	9.42	0	-7669	SLV 9	-7669	-6972	-42573	-10321	-10321	1	Si
198	0.101	9.42	0	4734	SLV 8	4734	6972	42573	15826	15826	1	Si
198	0.101	9.42	0	-7694	SLV 9	-7694	-6972	-42573	-15826	-15826	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	189	SLD 13	189	6972	42573	0	6972	1	Si
0	0	9.42	0	-326	SLD 4	-326	-6972	-42573	0	-6972	1	Si
10	0.06	9.42	0	151	SLD 13	151	6972	42573	9495	9495	1	Si
10	0.06	9.42	0	-364	SLD 4	-364	-6972	-42573	-9495	-9495	1	Si
99	0.066	9.42	0	493	SLD 8	493	6972	42573	10321	10321	1	Si
99	0.066	9.42	0	-947	SLD 9	-947	-6972	-42573	-10321	-10321	1	Si
191	0.066	9.42	0	1860	SLD 8	1860	6972	42573	10321	10321	1	Si
191	0.066	9.42	0	-4770	SLD 9	-4770	-6972	-42573	-10321	-10321	1	Si
198	0.101	9.42	0	1835	SLD 8	1835	6972	42573	15826	15826	1	Si
198	0.101	9.42	0	-4795	SLD 9	-4795	-6972	-42573	-15826	-15826	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	871	2	444	0	149.4	1.2	3600	832	1	407	0	112.1	0	+∞	Si
0	-4257	8	-4257	0.4	149.4	11.4	3600	-2537	4	-2537	0.2	112.1	0	+∞	Si
10	-5043	8	-7780	0.6	149.4	20.7	3600	-3412	4	-6328	0.5	112.1	0	+∞	Si
99	-1917	8	-8293	0.7	149.4	22.1	3600	-1855	4	-7186	0.6	112.1	0	+∞	Si
198	-149154	8	-149154	12.4	149.4	397.7	3600	-127691	4	-127691	10.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
10	0	-0.001	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999
99	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
145	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.002	1	9999

Campata 3 tra i fili 16 - , sezione R 30x50, asta 134; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-277272	SLU 16	-277272	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3						-156940	SLU 16	-189916	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3						-61579	SLU 15	-85742	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	582731	SLV 8	582731	1512506	0.15	-927847	SLV 9	-927847	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	349502	SLV 8	419801	1512506	0.15	-541535	SLV 9	-653156	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	98823	SLV 8	174212	1512506	0.15	-172961	SLV 9	-279340	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	230567	SLD 8	230567	1512506	0.15	-575684	SLD 9	-575684	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	141685	SLD 8	169598	1512506	0.15	-333717	SLD 9	-402953	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	35282	SLD 8	68323	1512506	0.15	-109421	SLD 9	-173451	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.101	9.42	0	1924	SLU 16	1924	6972	42573	15826	15826	1	Si
50	0.081	9.42	0	1679	SLU 16	1679	6972	42573	12734	12734	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
68	0.081	9.42	0	1590	SLU 16	1590	6972	42573	12734	12734	1	Si
137	0.081	9.42	0	1256	SLU 16	1256	6972	42573	12734	12734	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.101	9.42	0	5769	Ger.	10779	6972	42573	15826	15826	1	Si
0	0.101	9.42	0	-3277	Ger.	-9388	-6972	-42573	-15826	-15826	1	Si
50	0.081	9.42	0	5581	Ger.	10591	6972	42573	12734	12734	1	Si
50	0.081	9.42	0	-3466	Ger.	-9576	-6972	-42573	-12734	-12734	1	Si
68	0.081	9.42	0	5512	Ger.	10522	6972	42573	12734	12734	1	Si
68	0.081	9.42	0	-3534	Ger.	-9644	-6972	-42573	-12734	-12734	1	Si
137	0.081	9.42	0	5255	Ger.	10258	6972	42573	12734	12734	1	Si
137	0.081	9.42	0	-3791	Ger.	-9909	-6972	-42573	-12734	-12734	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.101	9.42	0	3661	SLD 9	3661	6972	42573	15826	15826	1	Si
0	0.101	9.42	0	-1170	SLD 8	-1170	-6972	-42573	-15826	-15826	1	Si
50	0.081	9.42	0	3473	SLD 9	3473	6972	42573	12734	12734	1	Si
50	0.081	9.42	0	-1358	SLD 8	-1358	-6972	-42573	-12734	-12734	1	Si
68	0.081	9.42	0	3404	SLD 9	3404	6972	42573	12734	12734	1	Si
68	0.081	9.42	0	-1426	SLD 8	-1426	-6972	-42573	-12734	-12734	1	Si
137	0.081	9.42	0	3148	SLD 9	3148	6972	42573	12734	12734	1	Si
137	0.081	9.42	0	-1683	SLD 8	-1683	-6972	-42573	-12734	-12734	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-201683	8	-201683	16.8	149.4	537.8	3600	-172558	4	-172558	14.3	112.1	0	+∞	Si
68	-113509	8	-137586	11.4	149.4	366.9	3600	-96016	4	-116677	9.7	112.1	0	+∞	Si
137	-44328	7	-61841	5.1	149.4	164.9	3600	-37069	4	-52564	4.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
68	-0.002	-0.003	-0.002	-0.003	-0.002	-0.003	-0.002	-0.003	-0.002	-0.003	-0.004	1	-0.006	1	9999 Si
137	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	696	-9388	-9167	-3277	696	10779	9167	5769				
68	439	-9644	-9167	-3534	439	10522	9167	5512				
137	174	-9909	-9167	-3791	174	10258	9167	5255				

Campata 4 tra i fili - 7, sezione R 30x50, aste 135, 136, 137, 138; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-53338	SLU 15	-53338	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	116351	SLU 16	144638	1512506	0.15						Si
193	9.42	5.3	9.42	5.3	227426	SLU 16	227426	1512506	0.15						Si
213	9.42	5.3	9.42	5.3	257770	SLU 16	243085	1512506	0.15						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	86815	SLV 8	86815	1512506	0.15	-150533	SLV 9	-150533	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	347667	SLV 9	483683	1512506	0.15	-202614	SLV 8	-304910	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	978367	SLV 9	978367	1512506	0.15	-705798	SLV 8	-705798	-1512506	0.15	Si
213	9.42	5.3	9.42	5.3	1169931	SLV 9	1074528	1512506	0.15	-863846	SLV 8	-784452	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	31319	SLD 8	31319	1512506	0.15	-95036	SLD 9	-95036	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	219344	SLD 9	299789	1512506	0.15	-74290	SLD 8	-121016	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	585845	SLD 9	585845	1512506	0.15	-313276	SLD 8	-313276	-1512506	0.15	Si
213	9.42	5.3	9.42	5.3	696020	SLD 9	641309	1512506	0.15	-389936	SLD 8	-351233	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.081	9.42	0	1850	SLU 16	1850	6972	42573	12734	12734	1	Si
107	0.077	9.42	0	1125	SLU 16	1125	6972	42573	12174	12174	1	Si
193	0.141	9.42	0	1566	SLU 16	1566	6972	42573	22156	22156	1	Si
199	0	9.42	0	1538	SLU 16	1538	6972	42573	0	6972	1	Si
213	0	9.42	0	1468	SLU 16	1468	6972	42573	0	6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.081	9.42	0	4561	Ger.	10258	6972	42573	12734	12734	1	Si
0	0.081	9.42	0	-2194	Ger.	-9909	-6972	-42573	-12734	-12734	1	Si
107	0.077	9.42	0	4293	Ger.	9818	6972	42573	12174	12174	1	Si
107	0.077	9.42	0	-2951	Ger.	-10348	-6972	-42573	-12174	-12174	1	Si
193	0.141	9.42	0	9616	SLV 9	9616	6972	42573	22156	22156	1	Si
193	0.141	9.42	0	-7865	Ger.	-10744	-6972	-42573	-22156	-22156	1	Si
213	0	9.42	0	9541	SLV 9	9541	6972	42573	0	6972	1	Si
213	0	9.42	0	-7940	Ger.	-10819	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.081	9.42	0	2984	SLD 9	2984	6972	42573	12734	12734	1	Si
0	0.081	9.42	0	-617	SLD 8	-617	-6972	-42573	-12734	-12734	1	Si
107	0.077	9.42	0	2603	SLD 9	2603	6972	42573	12174	12174	1	Si
107	0.077	9.42	0	-1261	SLD 8	-1261	-6972	-42573	-12174	-12174	1	Si
193	0.141	9.42	0	5546	SLD 9	5546	6972	42573	22156	22156	1	Si
193	0.141	9.42	0	-3796	SLD 8	-3796	-6972	-42573	-22156	-22156	1	Si
199	0	9.42	0	5525	SLD 9	5525	6972	42573	0	6972	1	Si
199	0	9.42	0	-3818	SLD 8	-3818	-6972	-42573	0	-6972	1	Si
213	0	9.42	0	5471	SLD 9	5471	6972	42573	0	6972	1	Si

TABULATO DI CALCOLO – FABBRICATO B													
x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica	
213	0	9.42	0	-3871	SLD 8	-3871	-6972	-42573	0	-6972	1	Si	

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	$\sigma c \text{ lim.}$	$\sigma f.$	$\sigma f \text{ lim.}$	Mela	Comb.	Mdes	σc	$\sigma c \text{ lim.}$	σFRP	$\sigma FRP \text{ lim.}$	
0	-38345	7	-38345	3.2	149.4	102.2	3600	-31859	4	-31859	2.6	112.1	0	+	Si
107	84685	8	105049	8.7	149.4	280.1	3600	72527	4	89387	7.4	112.1	0	+	Si
193	164071	8	164071	13.6	149.4	437.5	3600	136285	4	136285	11.3	112.1	0	+	Si
213	185604	8	175212	14.6	149.4	467.2	3600	153042	4	145038	12.1	112.1	0	+	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
0	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999	Si
107	0.004	0.003	0.004	0.002	0.004	0.003	0.003	0.002	0.004	0.003	0.007	4	0.006	4	9999	Si
128	0.005	0.003	0.004	0.002	0.004	0.003	0.004	0.003	0.004	0.003	0.008	4	0.006	4	9999	Si
193	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.004	4	0.003	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	191.1	6.7	50	0.013	0.00146	0.01567	0	6972	42573	22156	22156	22687	22687	-10744	0	SLV 12	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	174	-9909	-9167	-2194	174	10258	9167	4561
107	-265	-10348	-9167	-2951	-265	9818	9167	4293
193	-661	-10744	-9167	-7865	-661	9616	9167	9616
213	-736	-10819	-9167	-7940	-736	9541	9167	9541

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
3	0	16	1512506	-1512506
4	193	7	1512506	-1512506

Trave a "Quinto Impalcato" Parete 3 - Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 23 - 3, sezione R 30x50, asta 316; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.3						-524312	SLU 16	-456985	-1305676	0.148	Si
15	8.04	5.1	6.03	5.3						-394181	SLU 16	-394181	-1305676	0.148	Si
230	8.04	5.1	6.03	5.3	456054	SLU 16	491409	988824	0.124						Si
430	10.05	5.1	8.04	5.2						-459556	SLU 16	-459556	-1617741	0.159	Si
460	10.05	5.1	8.04	5.3						-738510	SLU 16	-589883	-1617741	0.159	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.3	463427	SLV 13	463427	988824	0.124	-1123308	SLV 4	-1050303	-1305676	0.148	Si
15	8.04	5.1	6.03	5.3	482378	SLV 13	498284	988824	0.124	-980113	SLV 4	-980113	-1305676	0.148	Si
230	8.04	5.1	6.03	5.3	440636	SLV 4	512393	988824	0.124						Si
430	10.05	5.1	8.04	5.2	700082	SLV 4	719807	1302680	0.135	-1274876	SLV 13	-1274876	-1617741	0.159	Si
460	10.05	5.1	8.04	5.3	650858	SLV 4	650858	1302680	0.135	-1572590	SLV 13	-1418037	-1617741	0.159	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.3	74540	SLD 13	74540	988824	0.124	-734421	SLD 4	-676643	-1305676	0.148	Si
15	8.04	5.1	6.03	5.3	123946	SLD 13	180693	988824	0.124	-621680	SLD 4	-621680	-1305676	0.148	Si
230	8.04	5.1	6.03	5.3	362537	SLD 4	393454	988824	0.124						Si
430	10.05	5.1	8.04	5.2	215913	SLD 4	276478	1302680	0.135	-790706	SLD 13	-790706	-1617741	0.159	Si
460	10.05	5.1	8.04	5.3	105777	SLD 4	105777	1302680	0.135	-1027509	SLD 13	-903412	-1617741	0.159	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	8991	SLU 16	8991	6627	42764	0	6627	1	Si
15	0.101	8.04	0	8374	SLU 16	8374	6627	42764	15897	15897	1	Si
230	0.07	6.03	0	-466	SLU 16	-466	-6009	-42573	-11053	-11053	1	Si
430	0.101	10.05	0	-8688	SLU 16	-8688	-7139	-42764	-15897	-15897	1	Si
460	0	10.05	0	-9922	SLU 16	-9922	-7139	-42764	0	-7139	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	9743	Ger.	12799	6627	42764	0	6627	1	Si
0	0	6.03	0	1460	Ger.	-1023	-6009	-42573	0	-6009	1	Si
15	0.101	8.04	0	9359	Ger.	12416	6627	42764	15897	15897	1	Si
15	0.101	6.03	0	1076	Ger.	-1407	-6009	-42573	-15826	-15826	1	Si
230	0.07	6.03	0	3857	Ger.	6914	6009	42573	11053	11053	1	Si
230	0.07	6.03	0	-4426	Ger.	-6909	-6009	-42573	-11053	-11053	1	Si
430	0.101	8.04	0	-1261	Ger.	1796	6617	42621	15843	15843	1	Si
430	0.101	10.05	0	-9544	Ger.	-12027	-7139	-42764	-15897	-15897	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
460	0	8.04	0	-2029	Ger.	1028	6617	42621	0	6617	1	Si
460	0	10.05	0	-10312	Ger.	-12795	-7139	-42764	0	-7139	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	7712	SLD 4	7712	6627	42764	0	6627	1	Si
15	0.101	8.04	0	7328	SLD 4	7328	6627	42764	15897	15897	1	Si
230	0.07	6.03	0	1827	SLD 4	1827	6009	42573	11053	11053	1	Si
230	0.07	6.03	0	-2396	SLD 13	-2396	-6009	-42573	-11053	-11053	1	Si
430	0.101	10.05	0	-7514	SLD 13	-7514	-7139	-42764	-15897	-15897	1	Si
460	0	10.05	0	-8281	SLD 13	-8281	-7139	-42764	0	-7139	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-379367	8	-330702	31	149.4	1025.4	3600	-329940	4	-287996	27	112.1	0	+∞	Si
15	-285306	8	-285306	26.7	149.4	884.7	3600	-248867	4	-248867	23.3	112.1	0	+∞	Si
230	329216	8	330890	33	149.4	1357.6	3600	281452	4	282808	28.2	112.1	0	+∞	Si
430	-332729	8	-332729	27.6	149.4	830.5	3600	-287397	4	-287397	23.9	112.1	0	+∞	Si
460	-534388	8	-426944	35.4	149.4	1065.7	3600	-460866	4	-368436	30.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0.004	0.002	0.003	0.002	0.004	0.002	0.003	0.002	0.004	0.002	0.007	4	0.005	4	9999 Si
215	0.057	0.032	0.048	0.026	0.051	0.033	0.043	0.027	0.049	0.033	0.101	4	0.067	4	4557 Si
230	0.057	0.032	0.048	0.026	0.051	0.033	0.043	0.027	0.049	0.033	0.101	4	0.067	4	4562 Si
430	0.006	0.003	0.005	0.002	0.005	0.003	0.004	0.002	0.005	0.003	0.01	4	0.006	4	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	298.2	5.6	50	0.009	0.0007	0.01221	0	6009	42573	15826	15826	15077	15826	12416	0	SLV 9	Si
445	323	6	50	0.015	0.00145	0.01377	0	6617	42621	15843	15843	15846	15846	-12027	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	5886	-1023	-6281	1460	5886	12799	6285	9743
15	5502	-1407	-6281	1076	5502	12416	6285	9359
230	0	-6909	-6281	-4426	0	6914	6285	3857
430	-5118	-12027	-6281	-9544	-5118	1796	6285	-1261
460	-5886	-12795	-6281	-10312	-5886	1028	6285	-2029

Campata 2 tra i fili 3 - 4, sezione R 30x50, asta 320; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.3						-277572	SLU 16	-233522	-1617741	0.159	Si
30	10.05	5.1	8.04	5.3						-195519	SLU 16	-195519	-1617741	0.159	Si
197	8.04	5.1	7.36	5.1	69167	SLU 10	116364	1201830	0.133						Si
365	10.05	5.1	8.04	5.1						-135015	SLU 12	-135015	-1620182	0.156	Si
395	10.05	5.1	8.04	5.1						-207701	SLU 12	-168335	-1620182	0.156	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.3	944950	SLV 13	891041	1302680	0.135	-1344774	SLV 4	-1223507	-1617741	0.159	Si
30	10.05	5.1	8.04	5.3	832454	SLV 13	832454	1302680	0.135	-1106862	SLV 4	-1106862	-1617741	0.159	Si
197	8.04	5.1	7.36	5.1	46819	SLV 7	163217	1201830	0.133	25852	SLV 10	-89944	-1307559	0.14	Si
365	10.05	5.1	8.04	5.1	895212	SLV 4	895212	1307401	0.134	-1079420	SLV 13	-1079420	-1620182	0.156	Si
395	10.05	5.1	8.04	5.1	1015805	SLV 4	957838	1307401	0.134	-1309274	SLV 13	-1192026	-1620182	0.156	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.3	383182	SLD 13	372248	1302680	0.135	-783006	SLD 4	-704714	-1617741	0.159	Si
30	10.05	5.1	8.04	5.3	356650	SLD 13	356650	1302680	0.135	-631058	SLD 4	-631058	-1617741	0.159	Si
197	8.04	5.1	7.36	5.1	41900	SLD 7	101158	1201830	0.133	30771	SLD 10	-27885	-1307559	0.14	Si
365	10.05	5.1	8.04	5.1	410834	SLD 4	410834	1307401	0.134	-595042	SLD 13	-595042	-1620182	0.156	Si
395	10.05	5.1	8.04	5.1	445454	SLD 4	430472	1307401	0.134	-738923	SLD 13	-664660	-1620182	0.156	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	3015	SLU 15	3015	7139	42764	0	7139	1	Si
30	0.101	10.05	0	2596	SLU 15	2596	7139	42764	15897	15897	1	Si
197	0.068	7.36	0	255	SLU 15	255	6434	42764	10823	10823	1	Si
365	0.101	10.05	0	-2232	SLU 9	-2232	-7139	-42764	-15897	-15897	1	Si
395	0	10.05	0	-2651	SLU 9	-2651	-7139	-42764	0	-7139	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	8099	Ger.	11728	7139	42764	0	7139	1	Si
0	0	8.04	0	-3583	Ger.	-7474	-6617	-42621	0	-6617	1	Si
30	0.101	10.05	0	7776	Ger.	11406	7139	42764	15897	15897	1	Si
30	0.101	8.04	0	-3906	Ger.	-7797	-6617	-42621	-15843	-15843	1	Si
197	0.068	7.36	0	5976	Ger.	9605	6434	42764	10823	10823	1	Si
197	0.068	7.36	0	-5706	Ger.	-9597	-6434	-42764	-10823	-10823	1	Si
365	0.101	8.04	0	4175	Ger.	7804	6627	42764	15897	15897	1	Si
365	0.101	10.05	0	-7507	Ger.	-11398	-7139	-42764	-15897	-15897	1	Si
395	0	8.04	0	3853	Ger.	7482	6627	42764	0	6627	1	Si
395	0	10.05	0	-7830	Ger.	-11721	-7139	-42764	0	-7139	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	5233	SLD 4	5233	7139	42764	0	7139	1	Si
0	0	8.04	0	-717	SLD 13	-717	-6617	-42621	0	-6617	1	Si
30	0.101	10.05	0	4910	SLD 4	4910	7139	42764	15897	15897	1	Si
30	0.101	8.04	0	-1040	SLD 13	-1040	-6617	-42621	-15843	-15843	1	Si
197	0.068	7.36	0	3110	SLD 4	3110	6434	42764	10823	10823	1	Si
197	0.068	7.36	0	-2841	SLD 13	-2841	-6434	-42764	-10823	-10823	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
365	0.101	8.04	0	1309	SLD 4	1309	6627	42764	15897	15897	1	Si
365	0.101	10.05	0	-4641	SLD 13	-4641	-7139	-42764	-15897	-15897	1	Si
395	0	8.04	0	987	SLD 4	987	6627	42764	0	6627	1	Si
395	0	10.05	0	-4964	SLD 13	-4964	-7139	-42764	0	-7139	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-209158	8	-175403	14.6	149.4	437.8	3600	-199912	4	-166233	13.8	112.1	0	+∞	Si
30	-146299	8	-146299	12.1	149.4	365.2	3600	-137204	4	-137204	11.4	112.1	0	+∞	Si
197	52157	2	52897	4.9	149.4	178	3600	45342	1	45511	4.2	112.1	0	+∞	Si
365	-102229	4	-102229	8.5	149.4	254.9	3600	-94821	2	-94821	7.8	112.1	0	+∞	Si
395	-158175	4	-127877	10.6	149.4	318.8	3600	-150918	2	-120545	10	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
30	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.002	1	-0.004	1	9999
197	0.005	0	0.003	-0.001	0.003	0.001	0.002	0	0.003	0.001	0.005	1	0.001	1	9999
211	0.005	0	0.003	-0.001	0.003	0.001	0.002	0	0.003	0.001	0.005	1	0.001	1	9999
365	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
505	224.7	6	50	0.015	0.00032	0.01553	0	6617	42621	15843	15843	16682	16682	11406	0	SLV 12	Si
840	215.2	6	50	0.015	0.00034	0.01555	0	6627	42764	15897	15897	17056	17056	-11398	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo								Verifica
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela		
0	2123		-7474		-8725		-3583		2123		11728		8732		8099		
30	1801		-7797		-8725		-3906		1801		11406		8732		7776		
197	0		-9597		-8725		-5706		0		9605		8732		5976		
365	-1801		-11398		-8725		-7507		-1801		7804		8732		4175		
395	-2123		-11721		-8725		-7830		-2123		7482		8732		3853		

Campata 3 tra i fili 4 - 28, sezione R 30x50, asta 312; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-1458910	SLU 16	-1256837	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1						-1071091	SLU 16	-1071091	-1620182	0.156	Si
310	8.04	5.1	6.03	5.1	786675	SLU 16	916944	993531	0.124						
605	8.04	5.1	6.03	5.1						-747077	SLU 16	-747077	-1307541	0.145	Si
620	8.04	5.1	6.03	5.1						-918818	SLU 16	-831508	-1307541	0.145	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-1698887	SLV 2	-1539024	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1	54899	SLV 15	158856	1307401	0.134	-1389323	SLV 2	-1389323	-1620182	0.156	Si
310	8.04	5.1	6.03	5.1	572023	SLV 15	601715	993531	0.124						
605	8.04	5.1	6.03	5.1	119112	SLV 2	209103	993531	0.124	-1056038	SLV 15	-1056038	-1307541	0.145	Si
620	8.04	5.1	6.03	5.1	46307	SLV 2	46307	993531	0.124	-1197174	SLV 15	-1125711	-1307541	0.145	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	10.05	5.1	8.04	5.1						-1312223	SLD 2	-1169074	-1620182	0.156	Si
30	10.05	5.1	8.04	5.1						-1036087	SLD 2	-1036087	-1620182	0.156	Si
310	8.04	5.1	6.03	5.1	530779	SLD 15	538058	993531	0.124						
605	8.04	5.1	6.03	5.1						-768572	SLD 15	-768572	-1307541	0.145	Si
620	8.04	5.1	6.03	5.1						-892994	SLD 15	-829887	-1307541	0.145	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	13616	SLU 16	13616	7139	42764	0	7139	1	Si
30	0.101	10.05	0	12383	SLU 16	12383	7139	42764	15897	15897	1	Si
310	0.07	6.03	0	871	SLU 16	871	6021	42764	11044	11044	1	Si
605	0.101	8.04	0	-11258	SLU 16	-11258	-6627	-42764	-15897	-15897	1	Si
620	0	8.04	0	-11874	SLU 16	-11874	-6627	-42764	0	-6627	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	10748	Ger.	12933	7139	42764	0	7139	1	Si
30	0.101	10.05	0	9980	Ger.	12165	7139	42764	15897	15897	1	Si
310	0.07	6.03	0	2815	Ger.	5000	6021	42764	11044	11044	1	Si
310	0.07	6.03	0	-1741	Ger.	-5002	-6021	-42764	-11044	-11044	1	Si
605	0.101	8.04	0	-9290	Ger.	-12552	-6627	-42764	-15897	-15897	1	Si
620	0	8.04	0	-9674	Ger.	-12935	-6627	-42764	0	-6627	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	10.05	0	9633	SLD 2	9633	7139	42764	0	7139	1	Si
30	0.101	10.05	0	8866	SLD 2	8866	7139	42764	15897	15897	1	Si
310	0.07	6.03	0	1701	SLD 2	1701	6021	42764	11044	11044	1	Si
310	0.07	6.03	0	-626	SLD 15	-626	-6021	-42764	-11044	-11044	1	Si
605	0.101	8.04	0	-8175	SLD 15	-8175	-6627	-42764	-15897	-15897	1	Si
620	0	8.04	0	-8559	SLD 15	-8559	-6627	-42764	0	-6627	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1054767	8	-908696	75.1	149.4	2265.7	3600	-908444	4	-782747	64.7	112.1	0	+∞	Si
30	-774427	8	-774427	64	149.4	1930.9	3600	-667212	4	-667212	55.2	112.1	0	+∞	Si
310	568475	8	574963	56.9	149.4	2347.8	3600	487668	4	493153	48.8	112.1	0	+∞	Si
605	-540243	8	-540243	50.4	149.4	1673.2	3600	-468463	4	-468463	43.7	112.1	0	+∞	Si
620	-664390	8	-601277	56.1	149.4	1862.2	3600	-575433	4	-521052	48.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	24.1	0.00073	0.0176	8	24.1	0.00074	0.0179	4	24.1	0.0007	0.0169	4	Si
30	superiore	24.1	0.00057	0.0136	8	24.1	0.0006	0.0144	4	24.1	0.00056	0.0135	4	Si
310	inferiore	31.8	0.00068	0.0217	8	31.8	0.00064	0.0202	4	31.8	0.00059	0.0187	4	Si
331	inferiore	31.8	0.00068	0.0217	8	31.8	0.00064	0.0202	4	31.8	0.00059	0.0187	4	Si
605	superiore	26.8	0.00049	0.0131	8	26.8	0.00044	0.0118	4	26.8	0.00042	0.0113	4	Si
620	superiore	26.8	0.00054	0.0145	8	26.8	0.00052	0.014	4	26.8	0.00049	0.013	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
30	0.01	0.005	0.006	0.002	0.009	0.005	0.004	0.003	0.008	0.005	0.022	4	0.007	4	9999	Si
310	0.169	0.096	0.21	0.082	0.152	0.098	0.164	0.083	0.145	0.098	0.466	4	0.206	4	1330	Si
331	0.17	0.097	0.212	0.082	0.152	0.098	0.165	0.084	0.145	0.098	0.469	4	0.207	4	1322	Si
605	0.009	0.005	0.011	0.004	0.008	0.005	0.008	0.004	0.008	0.005	0.023	4	0.01	4	9999	Si
620	0	0	0	0	0	0	0	0	0	0	0	3	0	3	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
900	211.3	7	50	0.015	0.00156	0.01338	0	7139	42764	15897	15897	17184	17184	12165	0	SLV 2	Si
1475	411.5	5.6	50	0.009	0.00102	0.01191	0	6021	42764	15897	15897	15144	15897	-12552	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7933	0	-4548	5716	7933	13616	4546	13616
30	7165	0	-4548	5196	7165	12383	4546	12383
310	0	-5002	-4548	-1741	0	5000	4546	2815
605	-7549	-12552	-4548	-11258	-7549	0	4546	-4734
620	-7933	-12935	-4548	-11874	-7933	0	4546	-5006

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	23	988824	-1305676
1	430	3	1302680	-1617741
2	30	3	1302680	-1617741
2	365	4	1307401	-1620182
3	30	4	1307401	-1620182
3	605	28	993531	-1307541

Trave a "Quinto Impalcato" Parete 3-Pil.8**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 23 - 24, sezione R 30x50, asta 139****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	85742	SLU 16	69294	1512506	0.15						Si
15	9.42	5.3	9.42	5.3	52297	SLU 16	52297	1512506	0.15						Si
18	9.42	5.3	9.42	5.3	44338	SLU 16	52297	1512506	0.15						Si
27	9.42	5.3	9.42	5.3	24756	SLU 16	52297	1512506	0.15						Si
37	9.42	5.3	9.42	5.3	5683	SLU 9	5683	1512506	0.15	-46	SLU 8	-46	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	94132	SLV 4	73777	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	52997	SLV 4	52997	1455249	0.292						Si
18	9.42	5.3	9.42	5.3	43287	SLV 3	52997	1455249	0.292						Si
27	9.42	5.3	9.42	5.3	20600	SLV 7	52997	1455249	0.292						Si
37	9.42	5.3	9.42	5.3	13965	SLV 15	13965	1455249	0.292	-9162	SLV 2	-5632	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	74570	SLD 4	59301	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	43607	SLD 4	43607	1455249	0.292						Si
18	9.42	5.3	9.42	5.3	36267	SLD 3	43607	1455249	0.292						Si
27	9.42	5.3	9.42	5.3	18860	SLD 7	43607	1455249	0.292						Si
37	9.42	5.3	9.42	5.3	8282	SLD 15	8282	1455249	0.292	-3480	SLD 2	-3480	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2193	SLU 16	-2193	-6972	-42573	0	-6972	1	Si
15	0.084	9.42	0	-2266	SLU 16	-2266	-6972	-42573	-13190	-13190	1	Si
18	0.084	9.42	0	-2283	SLU 16	-2283	-6972	-42573	-13190	-13190	1	Si
27	0.084	9.42	0	-2325	SLU 16	-2325	-6972	-42573	-13190	-13190	1	Si
37	0	9.42	0	-2373	SLU 16	-2373	-6972	-42573	0	-6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	54	SLV 13	54	6972	42573	0	6972	1	Si
0	0	9.42	0	-2715	SLV 4	-2715	-6972	-42573	0	-6972	1	Si
15	0.084	9.42	0	-2771	SLV 4	-2771	-6972	-42573	-13190	-13190	1	Si
18	0.084	9.42	0	-2784	SLV 4	-2784	-6972	-42573	-13190	-13190	1	Si
27	0.084	9.42	0	-2816	SLV 4	-2816	-6972	-42573	-13190	-13190	1	Si
37	0	9.42	0	-2853	SLV 4	-2853	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2036	SLD 4	-2036	-6972	-42573	0	-6972	1	Si
15	0.084	9.42	0	-2092	SLD 4	-2092	-6972	-42573	-13190	-13190	1	Si
18	0.084	9.42	0	-2106	SLD 4	-2106	-6972	-42573	-13190	-13190	1	Si
27	0.084	9.42	0	-2137	SLD 4	-2137	-6972	-42573	-13190	-13190	1	Si
37	0	9.42	0	-2175	SLD 4	-2175	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	62218	8	50415	4.2	149.4	134.4	3600	54190	4	44212	3.7	112.1	0	+∞	Si
15	38190	8	38190	3.2	149.4	101.8	3600	33812	4	33812	2.8	112.1	0	+∞	Si
18	32464	8	38190	3.2	149.4	101.8	3600	28937	4	33812	2.8	112.1	0	+∞	Si
27	18363	8	38190	3.2	149.4	101.8	3600	16905	4	33812	2.8	112.1	0	+∞	Si
37	4372	1	4372	0.4	149.4	11.7	3600	4372	1	4372	0.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
18	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
27	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
37	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Campata 2 tra i fili 24 - 25, sezione R 30x50, aste 140, 141, 142, 143

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	1732	SLU 10	1084	1512506	0.15	-6280	SLU 8	-6280	-1512506	0.15	Si
10	9.42	5.3	9.42	5.3	192	SLU 10	192	1512506	0.15	-7105	SLU 8	-10950	-1512506	0.15	Si
99	9.42	5.3	9.42	5.3						-2353	SLU 16	-11778	-1512506	0.15	Si
198	9.42	5.3	9.42	5.3						-205110	SLU 16	-205110	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	5205	SLV 7	3394	1455249	0.292	-9375	SLV 10	-8397	-1455249	0.292	Si
10	9.42	5.3	9.42	5.3	1960	SLV 11	1960	1455249	0.292	-8171	SLV 6	-10473	-1455249	0.292	Si
99	9.42	5.3	9.42	5.3	998	SLV 6	16481	1455249	0.292	-4550	SLV 11	-31414	-1455249	0.292	Si
178	9.42	5.3	9.42	5.3	323638	SLV 11	416578	1455249	0.292	-520247	SLV 6	-671201	-1455249	0.292	Si
198	9.42	5.3	9.42	5.3	416578	SLV 11	416578	1455249	0.292	-671201	SLV 6	-671201	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	1716	SLD 7	571	1455249	0.292	-5886	SLD 10	-5509	-1455249	0.292	Si
10	9.42	5.3	9.42	5.3						-5735	SLD 6	-8426	-1455249	0.292	Si
99	9.42	5.3	9.42	5.3	-290	SLD 6	5551	1455249	0.292	-3262	SLD 11	-20230	-1455249	0.292	Si
178	9.42	5.3	9.42	5.3	127382	SLD 11	163599	1455249	0.292	-323991	SLD 6	-418222	-1455249	0.292	Si
198	9.42	5.3	9.42	5.3	163599	SLD 11	163599	1455249	0.292	-418222	SLD 6	-418222	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-130	SLU 10	-130	-6972	-42573	0	-6972	1	Si
10	0.06	9.42	0	-178	SLU 10	-178	-6972	-42573	-9495	-9495	1	Si
99	0.079	9.42	0	-419	SLU 16	-419	-6972	-42573	-12434	-12434	1	Si
198	0.079	9.42	0	-2402	SLU 16	-2402	-6972	-42573	-12434	-12434	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	182	SLV 10	182	6972	42573	0	6972	1	Si
0	0	9.42	0	-349	SLV 7	-349	-6972	-42573	0	-6972	1	Si
10	0.06	9.42	0	145	SLV 10	145	6972	42573	9495	9495	1	Si
10	0.06	9.42	0	-386	SLV 7	-386	-6972	-42573	-9495	-9495	1	Si
99	0.079	9.42	0	1082	SLV 11	1082	6972	42573	12434	12434	1	Si
99	0.079	9.42	0	-1572	SLV 6	-1572	-6972	-42573	-12434	-12434	1	Si
198	0.079	9.42	0	4657	SLV 11	4657	6972	42573	12434	12434	1	Si
198	0.079	9.42	0	-7661	SLV 6	-7661	-6972	-42573	-12434	-12434	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	56	SLD 10	56	6972	42573	0	6972	1	Si
0	0	9.42	0	-222	SLD 7	-222	-6972	-42573	0	-6972	1	Si
10	0.06	9.42	0	18	SLD 10	18	6972	42573	9495	9495	1	Si
10	0.06	9.42	0	-260	SLD 7	-260	-6972	-42573	-9495	-9495	1	Si
99	0.079	9.42	0	463	SLD 11	463	6972	42573	12434	12434	1	Si
99	0.079	9.42	0	-953	SLD 6	-953	-6972	-42573	-12434	-12434	1	Si
198	0.079	9.42	0	1792	SLD 11	1792	6972	42573	12434	12434	1	Si
198	0.079	9.42	0	-4796	SLD 6	-4796	-6972	-42573	-12434	-12434	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
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TABULATO DI CALCOLO – FABBRICATO B

	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	1319	2	821	0.1	149.4	2.2	3600	1229	1	740	0.1	112.1	0	+∞	Si
0	-3777	8	-3777	0.3	149.4	10.1	3600	-2085	4	-2085	0.2	112.1	0	+∞	Si
10	136	2	136	0	149.4	0.4	3600	64	1	64	0	112.1	0	+∞	Si
10	-4715	8	-7758	0.6	149.4	20.7	3600	-3106	4	-6314	0.5	112.1	0	+∞	Si
99	-1801	8	-8606	0.7	149.4	22.9	3600	-1776	4	-7466	0.6	112.1	0	+∞	Si
198	-149149	8	-149149	12.4	149.4	397.7	3600	-127311	4	-127311	10.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
10	0	-0.001	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999
99	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
145	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.002	1	9999

Campata 3 tra i fili 25 - , sezione R 30x50, asta 144; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-270704	SLU 16	-270704	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3						-155365	SLU 16	-186874	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3						-64328	SLU 15	-87693	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	554759	SLV 11	554759	1512506	0.15	-890572	SLV 6	-890572	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	323010	SLV 11	392860	1512506	0.15	-511687	SLV 6	-621113	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	74441	SLV 11	148976	1512506	0.15	-151173	SLV 6	-254950	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	218672	SLD 11	218672	1512506	0.15	-554486	SLD 6	-554486	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	128937	SLD 11	157093	1512506	0.15	-317614	SLD 6	-385346	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	22020	SLD 11	55087	1512506	0.15	-98752	SLD 6	-161061	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	9.42	0	1851	SLU 16	1851	6972	42573	12434	12434	1	Si
68	0.083	9.42	0	1517	SLU 16	1517	6972	42573	13033	13033	1	Si
137	0.083	9.42	0	1183	SLU 16	1183	6972	42573	13033	13033	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	9.42	0	5662	Ger.	10784	6972	42573	12434	12434	1	Si
0	0.079	9.42	0	-3257	Ger.	-9383	-6972	-42573	-12434	-12434	1	Si
68	0.083	9.42	0	5405	Ger.	10527	6972	42573	13033	13033	1	Si
68	0.083	9.42	0	-3514	Ger.	-9640	-6972	-42573	-13033	-13033	1	Si
137	0.083	9.42	0	5148	Ger.	10262	6972	42573	13033	13033	1	Si
137	0.083	9.42	0	-3771	Ger.	-9905	-6972	-42573	-13033	-13033	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	9.42	0	3588	SLD 6	3588	6972	42573	12434	12434	1	Si
0	0.079	9.42	0	-1183	SLD 11	-1183	-6972	-42573	-12434	-12434	1	Si
68	0.083	9.42	0	3331	SLD 6	3331	6972	42573	13033	13033	1	Si
68	0.083	9.42	0	-1440	SLD 11	-1440	-6972	-42573	-13033	-13033	1	Si
137	0.083	9.42	0	3074	SLD 6	3074	6972	42573	13033	13033	1	Si
137	0.083	9.42	0	-1697	SLD 11	-1697	-6972	-42573	-13033	-13033	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-196826	8	-196826	16.4	149.4	524.8	3600	-167907	4	-167907	14	112.1	0	+∞	Si
68	-112257	8	-135275	11.2	149.4	360.7	3600	-94338	4	-114126	9.5	112.1	0	+∞	Si
137	-46235	7	-63135	5.2	149.4	168.4	3600	-38366	4	-52987	4.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
68	-0.002	-0.003	-0.001	-0.003	-0.002	-0.003	-0.001	-0.002	-0.002	-0.003	-0.004	1	-0.006	1	9999
137	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes
0	700	-9383	-9167	-3257	700	10784	9167	5662				
68	443	-9640	-9167	-3514	443	10527	9167	5405				
137	179	-9905	-9167	-3771	179	10262	9167	5148				

Campata 4 tra i fili - 8, sezione R 30x50, aste 145, 146, 147, 148; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-55618	SLU 15	-55618	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	119039	SLU 16	148256	1512506	0.15						Si
193	9.42	5.3	9.42	5.3	228267	SLU 16	228267	1512506	0.15						Si
213	9.42	5.3	9.42	5.3	257247	SLU 16	243244	1512506	0.15						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	64176	SLV 11	64176	1512506	0.15	-129949	SLV 6	-129949	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	348134	SLV 6	476964	1512506	0.15	-199787	SLV 11	-294279	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	927567	SLV 6	927567	1512506	0.15	-656020	SLV 11	-656020	-1512506	0.15	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
213	9.42	5.3	9.42	5.3	1100919	SLV 6	1014621	1512506	0.15	-797962	SLV 11	-726620	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	19077	SLD 11	19077	1512506	0.15	-84850	SLD 6	-84850	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	220531	SLD 6	297416	1512506	0.15	-72183	SLD 11	-114731	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	559235	SLD 6	559235	1512506	0.15	-287689	SLD 11	-287689	-1512506	0.15	Si
213	9.42	5.3	9.42	5.3	659362	SLD 6	609675	1512506	0.15	-356405	SLD 11	-321674	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.083	9.42	0	1923	SLU 16	1923	6972	42573	13033	13033	1	Si
107	0.07	9.42	0	1142	SLU 16	1142	6972	42573	11067	11067	1	Si
193	0.101	9.42	0	1498	SLU 16	1498	6972	42573	15826	15826	1	Si
199	0	9.42	0	1469	SLU 16	1469	6972	42573	0	6972	1	Si
213	0	9.42	0	1400	SLU 16	1400	6972	42573	0	6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.083	9.42	0	4433	Ger.	10262	6972	42573	13033	13033	1	Si
0	0.083	9.42	0	-1989	Ger.	-9905	-6972	-42573	-13033	-13033	1	Si
107	0.07	9.42	0	4021	Ger.	9820	6972	42573	11067	11067	1	Si
107	0.07	9.42	0	-2674	Ger.	-10346	-6972	-42573	-11067	-11067	1	Si
193	0.101	9.42	0	8705	Ger.	9408	6972	42573	15826	15826	1	Si
193	0.101	9.42	0	-7060	Ger.	-10759	-6972	-42573	-15826	-15826	1	Si
213	0	9.42	0	8630	Ger.	9333	6972	42573	0	6972	1	Si
213	0	9.42	0	-7135	Ger.	-10834	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.083	9.42	0	2938	SLD 6	2938	6972	42573	13033	13033	1	Si
0	0.083	9.42	0	-494	SLD 11	-494	-6972	-42573	-13033	-13033	1	Si
107	0.07	9.42	0	2463	SLD 6	2463	6972	42573	11067	11067	1	Si
107	0.07	9.42	0	-1116	SLD 11	-1116	-6972	-42573	-11067	-11067	1	Si
193	0.101	9.42	0	5044	SLD 6	5044	6972	42573	15826	15826	1	Si
193	0.101	9.42	0	-3399	SLD 11	-3399	-6972	-42573	-15826	-15826	1	Si
199	0	9.42	0	5022	SLD 6	5022	6972	42573	0	6972	1	Si
199	0	9.42	0	-3420	SLD 11	-3420	-6972	-42573	0	-6972	1	Si
213	0	9.42	0	4969	SLD 6	4969	6972	42573	0	6972	1	Si
213	0	9.42	0	-3474	SLD 11	-3474	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-39917	7	-39917	3.3	149.4	106.4	3600	-32886	4	-32886	2.7	112.1	0	+∞	Si
107	86643	8	107641	8.9	149.4	287	3600	74174	4	91342	7.6	112.1	0	+∞	Si
193	164540	8	164540	13.7	149.4	438.8	3600	135773	4	135773	11.3	112.1	0	+∞	Si
213	185057	8	175173	14.6	149.4	467.1	3600	151479	4	144001	12	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
0	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999	Si
107	0.004	0.003	0.004	0.002	0.004	0.003	0.003	0.003	0.004	0.003	0.008	4	0.006	4	9999	Si
128	0.005	0.003	0.004	0.003	0.004	0.003	0.004	0.003	0.004	0.003	0.008	4	0.006	4	9999	Si
193	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.004	4	0.003	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	195.8	6.7	50	0.013	0.00026	0.01566	0	6972	42573	15826	15826	17050	17050	-10759	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	179		-9905		-9167		-1989		179		10262		9167		4433	
107	-263		-10346		-9167		-2674		-263		9820		9167		4021	
193	-675		-10759		-9167		-7060		-675		9408		9167		8705	
213	-750		-10834		-9167		-7135		-750		9333		9167		8630	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
3	0	25	1512506	-1512506
4	193	8	1512506	-1512506

Trave a "Quinto Impalcato" Pil.1-Pil.5

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 1 - 5, sezione R 60x25, asta 156; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-654269	SLU 16	-588950	-569999	0.246	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
20	8.04	5.1	6.03	5.1						-527979	SLU 16	-527979	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	300656	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-506473	SLU 16	-506473	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-631171	SLU 16	-566648	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-545923	SLV 9	-501947	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-460533	SLV 9	-460533	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176240	SLV 13	179971	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-451547	SLV 8	-451547	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-536258	SLV 8	-492622	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-471199	SLD 9	-429802	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-390965	SLD 9	-390965	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176086	SLD 13	177639	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-381893	SLD 8	-381893	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-461448	SLD 8	-420390	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6546	SLU 16	6546	7335	37907	0	7335	1	Si
20	0.483	8.04	0	6097	SLU 16	6097	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	40	SLU 16	40	6664	37907	8915	8915	1	Si
560	0.483	8.04	0	-6018	SLU 16	-6018	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-6466	SLU 16	-6466	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4406	Ger.	5911	7335	37907	0	7335	1	Si
20	0.483	8.04	0	4141	Ger.	5647	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	573	Ger.	2078	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-539	Ger.	-2078	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-4108	Ger.	-5647	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4372	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4148	SLD 9	4148	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3884	SLD 9	3884	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	315	SLD 9	315	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-281	SLD 8	-281	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3850	SLD 8	-3850	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4114	SLD 8	-4114	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-466036	8	-419513	105.7	149.4	3010.5	3600	-384735	4	-346320	87.2	112.1	0	+∞	Si
20	-376086	8	-376086	94.7	149.4	2698.8	3600	-310467	4	-310467	78.2	112.1	0	+∞	Si
290	214005	8	214005	60.5	149.4	2015.5	3600	175927	4	175927	49.7	112.1	0	+∞	Si
560	-361135	8	-361135	91	149.4	2591.5	3600	-301307	4	-301307	75.9	112.1	0	+∞	Si
580	-449977	8	-404008	101.8	149.4	2899.2	3600	-374897	4	-336822	84.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.9	0.00101	0.0273	8	26.9	0.00098	0.0264	4	26.9	0.00091	0.0244	4	Si
20	superiore	26.9	0.00086	0.0232	8	26.9	0.00085	0.0228	4	26.9	0.00078	0.0211	4	Si
290	inferiore	31.6	0.00059	0.0185	8	31.6	0.00051	0.0162	4	31.6	0.00048	0.0152	4	Si
560	superiore	26.9	0.00081	0.0218	8	26.9	0.00081	0.0218	4	26.9	0.00075	0.0202	4	Si
580	superiore	26.9	0.00096	0.0258	8	26.9	0.00094	0.0253	4	26.9	0.00087	0.0235	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente				Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Fess. viscosa-	
20	0.004	0.001	0	-0.013	0.003	0.002	0	-0.009	0.003	0.002	0	4	9999 Si
290	0.179	0.081	0.174	0.074	0.156	0.084	0.133	0.077	0.146	0.084	0.335	4	1732 Si
560	0.005	0.001	0	-0.01	0.004	0.002	0	-0.007	0.004	0.002	0	4	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	139.9	4.9	25	0.009	0.00068	0.00648	0	7335	37907	33818	33818	30578	33818	5647	0	SLV 1	Si
580	113.3	4.9	25	0.009	0.0014	0.00648	0	7335	37907	33818	33818	31016	33818	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2238	3833	6546	1889	6546
20	3568	0	-1889	2084	3568	6097	1889	6097
290	0	-2078	-1889	-539	0	2078	1889	573
560	-3568	-6018	-1889	-6018	-3568	0	1889	-2066
580	-3833	-6466	-1889	-6466	-3833	0	1889	-2220

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	1	450306	-569999
1	560	5	450306	-569999

Trave a "Quinto Impalcato" Pil.2-Pil.6

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 2 - 6, sezione R 60x25, asta 160; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-642977	SLU 16	-578036	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-517442	SLU 16	-517442	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	300989	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-516344	SLU 16	-516344	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-641798	SLU 16	-576897	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-535700	SLV 5	-492073	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-451008	SLV 5	-451008	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176193	SLV 4	179753	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-451767	SLV 12	-451767	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-536513	SLV 12	-492859	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-463200	SLD 5	-422074	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-383509	SLD 5	-383509	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176145	SLD 4	177534	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-384252	SLD 12	-384252	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-463998	SLD 12	-422844	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6508	SLU 16	6508	7335	37907	0	7335	1	Si
20	0.483	8.04	0	6059	SLU 16	6059	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	4	SLU 4	4	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-4	SLU 14	-4	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-6055	SLU 16	-6055	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-6504	SLU 16	-6504	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4371	Ger.	5911	7335	37907	0	7335	1	Si
20	0.483	8.04	0	4107	Ger.	5647	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	538	Ger.	2078	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-541	Ger.	-2078	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-4109	Ger.	-5647	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4374	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4121	SLD 5	4121	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3857	SLD 5	3857	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	288	SLD 5	288	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-291	SLD 12	-291	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3859	SLD 12	-3859	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4124	SLD 12	-4124	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-458097	8	-411840	103.7	149.4	2955.4	3600	-379256	4	-341024	85.9	112.1	0	+∞	Si
20	-368679	8	-368679	92.9	149.4	2645.7	3600	-305354	4	-305354	76.9	112.1	0	+∞	Si
290	214244	8	214244	60.5	149.4	2017.8	3600	176096	4	176096	49.8	112.1	0	+∞	Si
560	-368064	8	-368064	92.7	149.4	2641.3	3600	-306084	4	-306084	77.1	112.1	0	+∞	Si
580	-457437	8	-411202	103.6	149.4	2950.8	3600	-380039	4	-341781	86.1	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.9	0.00099	0.0265	8	26.9	0.00096	0.0258	4	26.9	0.00089	0.0239	4	Si
20	superiore	26.9	0.00084	0.0225	8	26.9	0.00083	0.0223	4	26.9	0.00077	0.0206	4	Si
290	inferiore	31.6	0.00059	0.0186	8	31.6	0.00051	0.0162	4	31.6	0.00048	0.0153	4	Si
560	superiore	26.9	0.00083	0.0224	8	26.9	0.00083	0.0223	4	26.9	0.00077	0.0206	4	Si
580	superiore	26.9	0.00098	0.0265	8	26.9	0.00096	0.0258	4	26.9	0.00089	0.024	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.004	0.001	0	-0.012	0.004	0.002	0	-0.008	0.003	0.002	0	4	-0.02	4	9999	Si
290	0.18	0.081	0.175	0.074	0.156	0.084	0.134	0.077	0.147	0.084	0.336	4	0.21	4	1728	Si
560	0.004	0.001	0	-0.011	0.004	0.002	0	-0.008	0.003	0.002	0	4	-0.02	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	139.6	4.9	25	0.009	0.00068	0.00648	0	7335	37907	33818	33818	30578	33818	5647	0	SLV 1	Si
580	113.2	4.9	25	0.009	0.00139	0.00648	0	7335	37907	33818	33818	31022	33818	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	3833	0	-1889	2227		3833	6508	1889	6508	
20	3568	0	-1889	2073		3568	6059	1889	6059	
290	0	-2078	-1889	-541		0	2078	1889	538	
560	-3568	-6055	-1889	-6055		-3568	0	1889	-2077	
580	-3833	-6504	-1889	-6504		-3833	0	1889	-2231	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
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TABULATO DI CALCOLO – FABBRICATO B

campata	x	appoggio	momento positivo	momento negativo
1	20	2	450306	-569999
1	560	6	450306	-569999

Trave a "Quinto Impalcato" Pil.3-Pil.9

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 3 - 9, sezione R 60x25, asta 152; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-647890	SLU 16	-582780	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-522016	SLU 16	-522016	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	300990	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-511768	SLU 16	-511768	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-636883	SLU 16	-572151	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-538617	SLV 10	-494890	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-453724	SLV 10	-453724	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176213	SLV 15	179843	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-450493	SLV 7	-450493	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-535145	SLV 7	-491539	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-465684	SLD 10	-424472	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-385821	SLD 10	-385821	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176157	SLD 15	177604	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-382573	SLD 7	-382573	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-462195	SLD 7	-421104	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6525	SLU 16	6525	7335	37907	0	7335	1	Si
20	0.483	8.04	0	6076	SLU 16	6076	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	19	SLU 16	19	6664	37907	8915	8915	1	Si
560	0.483	8.04	0	-6038	SLU 16	-6038	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-6487	SLU 16	-6487	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4381	Ger.	5911	7335	37907	0	7335	1	Si
20	0.483	8.04	0	4117	Ger.	5647	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	548	Ger.	2078	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-536	Ger.	-2078	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-4105	Ger.	-5647	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4369	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4129	SLD 10	4129	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3865	SLD 10	3865	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	297	SLD 10	297	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-285	SLD 7	-285	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3853	SLD 7	-3853	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4117	SLD 7	-4117	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-461526	8	-415150	104.6	149.4	2979.2	3600	-381399	4	-343093	86.4	112.1	0	+∞	Si
20	-371871	8	-371871	93.7	149.4	2668.6	3600	-307349	4	-307349	77.4	112.1	0	+∞	Si
290	214245	8	214245	60.5	149.4	2017.8	3600	176098	4	176098	49.8	112.1	0	+∞	Si
560	-364871	8	-364871	91.9	149.4	2618.3	3600	-304085	4	-304085	76.6	112.1	0	+∞	Si
580	-454007	8	-407890	102.7	149.4	2927.1	3600	-377893	4	-339708	85.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.9	0.001	0.0268	8	26.9	0.00097	0.026	4	26.9	0.0009	0.0241	4	Si
20	superiore	26.9	0.00085	0.0228	8	26.9	0.00084	0.0225	4	26.9	0.00077	0.0208	4	Si
290	inferiore	31.6	0.00059	0.0186	8	31.6	0.00051	0.0162	4	31.6	0.00048	0.0153	4	Si
560	superiore	26.9	0.00082	0.0221	8	26.9	0.00082	0.0221	4	26.9	0.00076	0.0205	4	Si
580	superiore	26.9	0.00097	0.0262	8	26.9	0.00095	0.0256	4	26.9	0.00088	0.0238	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.004	0.001	0	-0.012	0.003	0.002	0	-0.009	0.003	0.002	0	4	-0.02	4	9999	Si
290	0.18	0.081	0.175	0.074	0.156	0.084	0.134	0.077	0.147	0.084	0.336	4	0.21	4	1728	Si
560	0.004	0.001	0	-0.011	0.004	0.002	0	-0.008	0.003	0.002	0	4	-0.019	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	135	4.9	25	0.009	0.00059	0.00648	0	7335	37907	33818	33818	30578	33818	5647	0	SLV 1	Si
580	118.3	4.9	25	0.009	0.00134	0.00648	0	7335	37907	33818	33818	30831	33818	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2231	3833	6525	1889	6525
20	3568	0	-1889	2077	3568	6076	1889	6076
290	0	-2078	-1889	-536	0	2078	1889	548
560	-3568	-6038	-1889	-6038	-3568	0	1889	-2073
580	-3833	-6487	-1889	-6487	-3833	0	1889	-2227

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	3	450306	-569999
1	560	9	450306	-569999

Trave a "Quinto Impalcato" Pil.4-Pil.10

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 4 - 10, sezione R 60x25, asta 164; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-657683	SLU 16	-592244	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-531153	SLU 16	-531153	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	300718	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-503174	SLU 16	-503174	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-627632	SLU 16	-563229	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-545397	SLV 10	-501445	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-460053	SLV 10	-460053	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176271	SLV 4	179928	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-447904	SLV 7	-447904	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-532360	SLV 7	-488852	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-471616	SLD 10	-430206	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-391357	SLD 10	-391357	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	176116	SLD 4	177651	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-379287	SLD 7	-379287	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-458657	SLD 7	-417691	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	8.04	0	6558	SLU 16	6558	7335	37907	0	7335	1	Si
20	0.483	8.04	0	6109	SLU 16	6109	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	52	SLU 16	52	6664	37907	8915	8915	1	Si
560	0.483	8.04	0	-6006	SLU 16	-6006	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-6454	SLU 16	-6454	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	8.04	0	4404	Ger.	5911	7335	37907	0	7335	1	Si
20	0.483	8.04	0	4139	Ger.	5647	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	571	Ger.	2078	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-526	Ger.	-2078	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-4095	Ger.	-5647	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4359	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	8.04	0	4149	SLD 10	4149	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3885	SLD 10	3885	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	317	SLD 10	317	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-272	SLD 7	-272	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3840	SLD 7	-3840	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-4105	SLD 7	-4105	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	$\sigma_{c\ lim.}$	σ_f	$\sigma_{f\ lim.}$	Mela	Comb.	Mdes	σ_c	$\sigma_{c\ lim.}$	σ_{FRP}	$\sigma_{FRP\ lim.}$	
0	-468419	8	-421812	106.2	149.4	3027	3600	-386229	4	-347762	87.6	112.1	0	+∞	Si
20	-378302	8	-378302	95.3	149.4	2714.7	3600	-311856	4	-311856	78.5	112.1	0	+∞	Si
290	214049	8	214049	60.5	149.4	2016	3600	175955	4	175955	49.7	112.1	0	+∞	Si
560	-358832	8	-358832	90.4	149.4	2575	3600	-299864	4	-299864	75.5	112.1	0	+∞	Si
580	-447506	8	-401621	101.2	149.4	2882.1	3600	-373348	4	-335325	84.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.9	0.00102	0.0275	8	26.9	0.00099	0.0265	4	26.9	0.00091	0.0245	4	Si
20	superiore	26.9	0.00087	0.0234	8	26.9	0.00085	0.023	4	26.9	0.00079	0.0212	4	Si
290	inferiore	31.6	0.00059	0.0186	8	31.6	0.00051	0.0162	4	31.6	0.00048	0.0153	4	Si
560	superiore	26.9	0.0008	0.0216	8	26.9	0.0008	0.0216	4	26.9	0.00075	0.0201	4	Si
580	superiore	26.9	0.00095	0.0256	8	26.9	0.00094	0.0252	4	26.9	0.00087	0.0234	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						l/f	Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		
20	0.003	0.001	0	-0.014	0.003	0.002	0	-0.01	0.003	0.002	-0.001	4	-0.025	4	9999	Si
290	0.179	0.081	0.174	0.074	0.156	0.084	0.133	0.077	0.147	0.084	0.33	4	0.21	4	1758	Si
560	0.005	0.002	0	-0.01	0.004	0.002	0	-0.007	0.004	0.002	0.001	4	-0.018	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	137.2	4.9	25	0.009	0.00062	0.00648	0	7335	37907	33818	33818	30578	33818	5647	0	SLV 1	Si
580	115.7	4.9	25	0.009	0.00128	0.00648	0	7335	37907	33818	33818	30928	33818	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	3833		0		-1889		2240		3833		6558		1889		6558	
20	3568		0		-1889		2087		3568		6109		1889		6109	
290	0		-2078		-1889		-526		0		2078		1889		571	
560	-3568		-6006		-1889		-6006		-3568		0		1889		-2064	
580	-3833		-6454		-1889		-6454		-3833		0		1889		-2217	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	4	450306	-569999
1	560	10	450306	-569999

Trave a "Quinto Impalcato" su Parete 1**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 11 - 12, sezione R 30x50, aste 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	109051	SLU 16	85092	678504	0.11						Si
15	4.02	5.1	4.02	5.1	60585	SLU 16	60585	678504	0.11	25892	SLU 1	-5150	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-4879	SLU 16	-4879	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	78076	SLU 16	78076	678504	0.11	30026	SLU 1	-8828	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	141424	SLU 16	110024	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	90865	SLV 4	71182	645082	0.208						Si
15	4.02	5.1	4.02	5.1	51071	SLV 4	51071	645082	0.208	24702	SLV 13	-17613	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	16840	SLV 9	16840	645082	0.208	-22989	SLV 8	-22989	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	58225	SLV 1	58225	645082	0.208	32929	SLV 16	-19513	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	104283	SLV 1	81468	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	79708	SLD 4	62390	645082	0.208						Si
15	4.02	5.1	4.02	5.1	44647	SLD 4	44647	645082	0.208	31126	SLD 13	-10769	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	7401	SLD 9	7401	645082	0.208	-13550	SLD 8	-13550	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	52062	SLD 1	52062	645082	0.208	39092	SLD 16	-12567	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	93531	SLD 1	73008	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3194	SLU 16	-3194	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-3268	SLU 16	-3268	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	-182	SLU 16	-182	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	4260	SLU 16	4260	5260	42764	7381	7381	1	Si
590	0	4.02	0	4187	SLU 16	4187	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2625	SLV 4	-2625	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-2681	SLV 4	-2681	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	683	SLV 9	683	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-937	SLV 8	-937	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	3099	SLV 1	3099	5260	42764	7381	7381	1	Si
590	0	4.02	0	3043	SLV 1	3043	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2309	SLD 4	-2309	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-2366	SLD 4	-2366	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	299	SLD 9	299	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-554	SLD 8	-554	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	2793	SLD 1	2793	5260	42764	7381	7381	1	Si
590	0	4.02	0	2737	SLD 1	2737	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	78855	8	61559	7.8	149.4	372.7	3600	67995	4	53151	6.7	112.1	0	+∞	Si
15	43843	8	43843	5.5	149.4	265.4	3600	37886	4	37886	4.8	112.1	0	+∞	Si
295	-3558	8	-3558	0.5	149.4	21.5	3600	-3074	4	-3074	0.4	112.1	0	+∞	Si
575	56054	8	56054	7.1	149.4	339.4	3600	45577	4	45577	5.8	112.1	0	+∞	Si
590	101460	8	78968	10	149.4	478.1	3600	82247	4	64123	8.1	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
295	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.003	1	9999	Si
315	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.003	1	9999	Si
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Trave a "Quinto Impalcato" su parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 28 - 29, sezione R 30x50, aste 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	108832	SLU 16	84898	678504	0.11						Si
15	4.02	5.1	4.02	5.1	60416	SLU 16	60416	678504	0.11	25862	SLU 1	-5562	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-4290	SLU 16	-4290	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	61803	SLU 16	61803	678504	0.11	26144	SLU 1	-6529	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	111537	SLU 16	86944	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	90206	SLV 15	70635	645082	0.208						Si
15	4.02	5.1	4.02	5.1	50636	SLV 15	50636	645082	0.208	25007	SLV 2	-17636	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	16569	SLV 6	16569	645082	0.208	-22210	SLV 11	-22210	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	51317	SLV 14	51317	645082	0.208	25491	SLV 3	-18102	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	91540	SLV 14	71642	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	79327	SLD 15	62070	645082	0.208						Si
15	4.02	5.1	4.02	5.1	44389	SLD 15	44389	645082	0.208	31253	SLD 2	-10856	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	7368	SLD 6	7368	645082	0.208	-13009	SLD 11	-13009	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	45025	SLD 14	45025	645082	0.208	31783	SLD 3	-11337	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	80579	SLD 14	63014	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3191	SLU 16	-3191	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-3264	SLU 16	-3264	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	-166	SLU 16	-166	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	3352	SLU 16	3352	5260	42764	7381	7381	1	Si
590	0	4.02	0	3279	SLU 16	3279	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2610	SLV 15	-2610	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-2667	SLV 15	-2667	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	669	SLV 6	669	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-911	SLV 11	-911	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	2710	SLV 14	2710	5260	42764	7381	7381	1	Si
590	0	4.02	0	2654	SLV 14	2654	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2301	SLD 15	-2301	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-2357	SLD 15	-2357	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	294	SLD 6	294	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-536	SLD 11	-536	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	2399	SLD 14	2399	5260	42764	7381	7381	1	Si
590	0	4.02	0	2342	SLD 14	2342	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	$\sigma_{c\ lim.}$	σ_f	$\sigma_{f\ lim.}$	Mela	Comb.	Mdes	σ_c	$\sigma_{c\ lim.}$	σ_{FRP}	$\sigma_{FRP\ lim.}$	

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	78704	8	61425	7.8	149.4	371.9	3600	67915	4	53079	6.7	112.1	0	+∞	Si
15	43726	8	43726	5.5	149.4	264.7	3600	37821	4	37821	4.8	112.1	0	+∞	Si
295	-3148	8	-3148	0.4	149.4	19.1	3600	-2821	4	-2821	0.4	112.1	0	+∞	Si
575	44688	8	44688	5.7	149.4	270.5	3600	38404	4	38404	4.9	112.1	0	+∞	Si
590	80586	8	62847	8	149.4	380.5	3600	69074	4	53950	6.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si
295	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.002	1	9999 Si
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si

Trave a "Quinto Impalcato" vano ascensore

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 20 - 22, sezione R 30x50, aste 369, 370, 371, 372; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	14199	SLU 14	3381	993776	0.126						Si
15	6.03	5.1	6.03	5.1						-14734	SLU 16	-50936	-993776	0.126	Si
23	6.03	5.1	6.03	5.1						-28294	SLU 16	-59387	-993776	0.126	Si
85	6.03	5.1	6.03	5.1	-14469	SLU 1	7320	993776	0.126	-37729	SLU 16	-41981	-993776	0.126	Si
155	6.03	5.1	6.03	5.1						-24957	SLU 16	-50700	-993776	0.126	Si
170	6.03	5.1	6.03	5.1						-7051	SLU 16	-7051	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	895043	SLV 14	816291	993776	0.126	-877819	SLV 3	-814963	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	740911	SLV 16	740911	993776	0.126	-756320	SLV 1	-756320	-993776	0.126	Si
85	6.03	5.1	6.03	5.1	126237	SLV 16	267938	993776	0.126	-170646	SLV 1	-317686	-993776	0.126	Si
155	6.03	5.1	6.03	5.1	452595	SLV 3	452595	993776	0.126	-483672	SLV 14	-483672	-993776	0.126	Si
170	6.03	5.1	6.03	5.1	586991	SLV 1	516324	993776	0.126	-596222	SLV 16	-536057	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	459781	SLD 14	415881	993776	0.126	-442556	SLD 3	-414553	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	373571	SLD 16	373571	993776	0.126	-388981	SLD 1	-388981	-993776	0.126	Si
85	6.03	5.1	6.03	5.1	53984	SLD 16	124842	993776	0.126	-98393	SLD 1	-174590	-993776	0.126	Si
155	6.03	5.1	6.03	5.1	222797	SLD 3	222797	993776	0.126	-253875	SLD 14	-253875	-993776	0.126	Si
170	6.03	5.1	6.03	5.1	296655	SLD 1	257976	993776	0.126	-305885	SLD 16	-277709	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	-1678	SLU 15	-1678	-6021	-42764	0	-6021	1	Si
11	0	6.03	0	-1733	SLU 15	-1733	-6021	-42764	0	-6021	1	Si
15	0.101	6.03	0	-1751	SLU 15	-1751	-6021	-42764	-15897	-15897	1	Si
85	0.101	6.03	0	161	SLU 16	161	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	1230	SLU 16	1230	6021	42764	15897	15897	1	Si
170	0	6.03	0	1157	SLU 16	1157	6021	42764	0	6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	9323	Ger.	15935	6021	42764	0	6021	1	Si
0	0	6.03	0	-11442	Ger.	-15298	-6021	-42764	0	-6021	1	Si
15	0.101	6.03	0	9266	Ger.	15879	6021	42764	15897	15897	1	Si
15	0.101	6.03	0	-11498	Ger.	-15354	-6021	-42764	-15897	-15897	1	Si
85	0.101	6.03	0	7275	Ger.	15616	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	-7086	Ger.	-15616	-6021	-42764	-15897	-15897	1	Si
155	0.101	6.03	0	9396	Ger.	15354	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	-7883	Ger.	-15879	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	9340	Ger.	15298	6021	42764	0	6021	1	Si
170	0	6.03	0	-7939	Ger.	-15935	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	4243	SLD 3	4243	6021	42764	0	6021	1	Si
0	0	6.03	0	-6362	SLD 14	-6362	-6021	-42764	0	-6021	1	Si
11	0	6.03	0	4200	SLD 3	4200	6021	42764	0	6021	1	Si
11	0	6.03	0	-6404	SLD 14	-6404	-6021	-42764	0	-6021	1	Si
15	0.101	6.03	0	4186	SLD 3	4186	6021	42764	15897	15897	1	Si
15	0.101	6.03	0	-6418	SLD 14	-6418	-6021	-42764	-15897	-15897	1	Si
85	0.101	6.03	0	3751	SLD 1	3751	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	-3563	SLD 16	-3563	-6021	-42764	-15897	-15897	1	Si
155	0.101	6.03	0	5171	SLD 1	5171	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	-3658	SLD 16	-3658	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	5115	SLD 1	5115	6021	42764	0	6021	1	Si
170	0	6.03	0	-3715	SLD 16	-3715	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
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TABULATO DI CALCOLO – FABBRICATO B

	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	10352	6	2401	0.2	149.4	9.8	3600	8789	3	1345	0.1	112.1	0	+∞	Si
15	-10472	8	-36842	3.8	149.4	150.6	3600	-7705	4	-30918	3.2	112.1	0	+∞	Si
85	-27082	8	-30212	3.1	149.4	123.5	3600	-22204	4	-25118	2.6	112.1	0	+∞	Si
155	-18117	8	-36777	3.8	149.4	150.3	3600	-15539	4	-31519	3.3	112.1	0	+∞	Si
170	-5196	8	-5196	0.5	149.4	21.2	3600	-4615	4	-4615	0.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999
85	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999
155	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	104.4	5.7	50	0.008	0.00059	0.01054	0	6021	42764	15897	15897	17592	17592	15879	0	SLV 2	Si
170	120.1	5.7	50	0.008	0.00054	0.01054	0	6021	42764	15897	15897	17309	17309	15354	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes	contr. mom. res.		Vela			contr. grav.		Vdes	contr. mom. res.		Vela		
0	319		-15298	-14197		-11442			319		15935	14197		9323		
15	263		-15354	-14197		-11498			263		15879	14197		9266		
85	0		-15616	-14197		-7086			0		15616	14197		7275		
155	-263		-15879	-14197		-7883			-263		15354	14197		9396		
170	-319		-15935	-14197		-7939			-319		15298	14197		9340		

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	20	993776	-993776
1	155	22	993776	-993776

Trave a "Secondo Impalcato" Parete 1 - Parete 2

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 1, sezione R 40x50, asta 213; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	14.58	5.3	12.57	5.3						-1014296	SLU 16	-892456	-2327550	0.162	Si
20	14.58	5.3	12.57	5.3						-778830	SLU 16	-778830	-2327550	0.162	Si
307	12.57	5.3	12.57	5.3	747451	SLU 16	908147	2016674	0.15						Si
580	21.99	5.3	18.85	5.3						-1021573	SLU 16	-1021573	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3						-1473369	SLU 16	-1235488	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	14.58	5.3	12.57	5.3	803694	SLV 13	803694	2017239	0.145	-2083140	SLV 4	-1955036	-2327550	0.162	Si
20	14.58	5.3	12.57	5.3	848595	SLV 13	883170	2017239	0.145	-1831957	SLV 4	-1831957	-2327550	0.162	Si
307	12.57	5.3	12.57	5.3	614294	SLV 4	703310	2016674	0.15						Si
580	21.99	5.3	18.85	5.3	910794	SLV 4	955946	2984929	0.16	-2194250	SLV 13	-2194250	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3	807784	SLV 4	807784	2984929	0.16	-2658699	SLV 13	-2418952	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	14.58	5.3	12.57	5.3	91429	SLD 13	91429	2017239	0.145	-1370875	SLD 4	-1268157	-2327550	0.162	Si
20	14.58	5.3	12.57	5.3	187179	SLD 13	272865	2017239	0.145	-1170541	SLD 4	-1170541	-2327550	0.162	Si
307	12.57	5.3	12.57	5.3	542858	SLD 4	580686	2016674	0.15						Si
580	21.99	5.3	18.85	5.3	145668	SLD 4	242034	2984929	0.16	-1429124	SLD 13	-1429124	-3464774	0.185	Si
615	21.99	5.3	18.85	5.3						-1804462	SLD 13	-1609266	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	14.58	0	12205	SLU 16	12205	9771	56800	0	9771	1	Si
20	0.157	14.58	0	11363	SLU 16	11363	9771	56800	24743	24743	1	Si
307	0.106	12.57	0	-746	SLU 16	-746	-9297	-56765	-16664	-16664	1	Si
580	0.157	21.99	0	-12224	SLU 16	-12224	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-13698	SLU 16	-13698	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	14.58	0	12837	Ger.	18573	9771	56800	0	9771	1	Si
0	0	12.57	0	2510	Ger.	-2630	-9297	-56765	0	-9297	1	Si
20	0.157	14.58	0	12308	Ger.	18044	9771	56800	24743	24743	1	Si
20	0.157	12.57	0	1980	Ger.	-3160	-9297	-56765	-24728	-24728	1	Si
307	0.106	12.57	0	4699	Ger.	10435	9297	56765	16664	16664	1	Si
307	0.106	12.57	0	-5628	Ger.	-10768	-9297	-56765	-16664	-16664	1	Si
580	0.157	18.85	0	-2513	Ger.	3224	10642	56765	24728	24728	1	Si
580	0.157	21.99	0	-12840	Ger.	-17980	-11203	-56765	-24728	-24728	1	Si
615	0	18.85	0	-3439	Ger.	2297	10642	56765	0	10642	1	Si
615	0	21.99	0	-13766	Ger.	-18906	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	14.58	0	10291	SLD 4	10291	9771	56800	0	9771	1	Si
20	0.157	14.58	0	9762	SLD 4	9762	9771	56800	24743	24743	1	Si
307	0.106	12.57	0	2153	SLD 4	2153	9297	56765	16664	16664	1	Si
307	0.106	12.57	0	-3082	SLD 13	-3082	-9297	-56765	-16664	-16664	1	Si
580	0.157	21.99	0	-10294	SLD 13	-10294	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-11220	SLD 13	-11220	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-735545	8	-647239	38.4	149.4	1127.8	3600	-639723	4	-563122	33.4	112.1	0	+∞	Si
20	-564886	8	-564886	33.5	149.4	984.3	3600	-491681	4	-491681	29.1	112.1	0	+∞	Si
307	541381	8	545962	34	149.4	1091.9	3600	468625	4	472514	29.5	112.1	0	+∞	Si
580	-740600	8	-740600	35.3	149.4	860	3600	-641728	4	-641728	30.6	112.1	0	+∞	Si
615	-1068022	8	-895627	42.7	149.4	1040	3600	-925458	4	-776063	37	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	25.8	0.00033	0.0085	8	25.8	0.0003	0.0077	4	25.8	0.00029	0.0074	4	Si
580	superiore	22.1	0.00025	0.0055	8	22.1	0.00023	0.005	4	22.1	0.00022	0.0048	4	Si
615	superiore	22.1	0.0003	0.0067	8	22.1	0.00028	0.0063	4	22.1	0.00026	0.0058	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.007	0.004	0.005	0.003	0.006	0.004	0.005	0.003	0.006	0.004	0.011	4	0.008	4	9999
287	0.115	0.068	0.094	0.056	0.104	0.068	0.085	0.056	0.099	0.068	0.195	4	0.134	4	3154
307	0.114	0.068	0.094	0.056	0.103	0.068	0.085	0.056	0.099	0.068	0.194	4	0.134	4	3164
580	0.007	0.004	0.004	0.003	0.006	0.004	0.004	0.003	0.006	0.004	0.011	4	0.008	4	9999
615	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	358.5	6.5	50	0.014	0.00218	0.01236		0	9297	56765	24728	24728	24039	24728	18044	0	SLV 13
600	256.5	8.3	50	0.022	0.00281	0.01558		0	11203	56765	24728	24728	25694	25694	-17980	0	SLV 13

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	8138	-2630	-9789	2510	8138	18573	9487	12837
20	7609	-3160	-9789	1980	7609	18044	9487	12308
307	0	-10768	-9789	-5628	0	10435	9487	4699
580	-7212	-17980	-9789	-12840	-7212	3224	9487	-2513
615	-8138	-18906	-9789	-13766	-8138	2297	9487	-3439

Campata 2 tra i fili 1 - 2, sezione R 40x50, asta 217; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-249178	SLU 16	-196561	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-153195	SLU 16	-153195	-3464774	0.185	Si
198	12.57	5.3	22.33	5.3	66987	SLU 10	126360	3502446	0.223						Si
360	21.99	5.3	18.85	5.3						-171696	SLU 16	-171696	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3						-271664	SLU 16	-217055	-3464774	0.185	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	2803320	SLV 13	2580253	2984929	0.16	-3173461	SLV 4	-2869285	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	2350045	SLV 13	2350045	2984929	0.16	-2572200	SLV 4	-2572200	-3464774	0.185	Si
198	12.57	5.3	22.33	5.3	55242	SLV 16	355759	3502446	0.223	27196	SLV 1	-277117	-2016205	0.137	Si
360	21.99	5.3	18.85	5.3	2311744	SLV 4	2311744	2984929	0.16	-2559400	SLV 13	-2559400	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	2762253	SLV 4	2540580	2984929	0.16	-3163387	SLV 13	-2857858	-3464774	0.185	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	1328726	SLD 13	1235745	2984929	0.16	-1698867	SLD 4	-1524777	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	1135635	SLD 13	1135635	2984929	0.16	-1357791	SLD 4	-1357791	-3464774	0.185	Si
198	12.57	5.3	22.33	5.3	48378	SLD 16	199662	3502446	0.223	34059	SLD 1	-121020	-2016205	0.137	Si
360	21.99	5.3	18.85	5.3	1109858	SLD 4	1109858	2984929	0.16	-1357514	SLD 13	-1357514	-3464774	0.185	Si
395	21.99	5.3	18.85	5.3	1300191	SLD 4	1208595	2984929	0.16	-1701325	SLD 13	-1525874	-3464774	0.185	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	3053	SLU 9	3053	11203	56765	0	11203	1	Si
35	0.157	21.99	0	2507	SLU 9	2507	11203	56765	24728	24728	1	Si
198	0.154	18.85	0	-71	SLU 15	-71	-10642	-56765	-24178	-24178	1	Si
360	0.157	21.99	0	-2606	SLU 15	-2606	-11203	-56765	-24728	-24728	1	Si
395	0	21.99	0	-3152	SLU 15	-3152	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	17396	Ger.	24200	11203	56765	0	11203	1	Si
0	0	18.85	0	-12735	Ger.	-19460	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	16976	Ger.	23780	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-13155	Ger.	-19880	-10642	-56765	-24728	-24728	1	Si
198	0.154	18.85	0	15026	Ger.	21830	10642	56765	24178	24178	1	Si
198	0.154	18.85	0	-15105	Ger.	-21830	-10642	-56765	-24178	-24178	1	Si
360	0.157	18.85	0	13076	Ger.	19880	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-17055	Ger.	-23780	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	12656	Ger.	19460	10642	56765	0	10642	1	Si
395	0	21.99	0	-17475	Ger.	-24200	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	9962	SLD 4	9962	11203	56765	0	11203	1	Si
0	0	18.85	0	-5301	SLD 13	-5301	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	9542	SLD 4	9542	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-5721	SLD 13	-5721	-10642	-56765	-24728	-24728	1	Si
198	0.154	18.85	0	7592	SLD 4	7592	10642	56765	24178	24178	1	Si
198	0.154	18.85	0	-7671	SLD 13	-7671	-10642	-56765	-24178	-24178	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
360	0.157	18.85	0	5642	SLD 4	5642	10642	56765	24728	24728	1	Si
360	0.157	21.99	0	-9621	SLD 13	-9621	-11203	-56765	-24728	-24728	1	Si
395	0	18.85	0	5222	SLD 4	5222	10642	56765	0	10642	1	Si
395	0	21.99	0	-10041	SLD 13	-10041	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-189904	8	-149378	7.1	149.4	173.5	3600	-185071	4	-144516	6.9	112.1	0	+∞	Si
35	-115968	8	-115968	5.5	149.4	134.7	3600	-111078	4	-111078	5.3	112.1	0	+∞	Si
198	51504	2	51504	2.7	149.4	59.3	3600	51347	1	51347	2.7	112.1	0	+∞	Si
360	-129246	8	-129246	6.2	149.4	150.1	3600	-123828	4	-123828	5.9	112.1	0	+∞	Si
395	-206042	8	-164086	7.8	149.4	190.5	3600	-200567	4	-158639	7.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
35	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si
198	0.003	0	0.002	0	0.003	0.001	0.002	0	0.003	0.001	0.004	1	0.001	1	9999 Si
360	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
670	195.7	8.3	50	0.022	0.00254	0.0147		11203	56765	24728	24728	29337	29337	23780	0	SLV 1	Si
995	194.1	8.3	50	0.022	0.00288	0.0147	0	11203	56765	24728	24728	29443	29443	-23780	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo				Verifica
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	
0	2370	-19460	-19845	-12735	2370	24200	19845	17396	
35	1950	-19880	-19845	-13155	1950	23780	19845	16976	
198	0	-21830	-19845	-15105	0	21830	19845	15026	
360	-1950	-23780	-19845	-17055	-1950	19880	19845	13076	
395	-2370	-24200	-19845	-17475	-2370	19460	19845	12656	

Campata 3 tra i fili 2 - 15, sezione R 40x50, asta 221; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3						-697122	SLU 16	-530616	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3						-388876	SLU 16	-388876	-3464774	0.185	Si
227	9.31	5.3	12.57	5.3	390924	SLU 16	480644	2016233	0.159						Si
435	14.58	5.3	12.57	5.3						-518594	SLU 16	-518594	-2327550	0.162	Si
455	14.58	5.3	12.57	5.3						-700925	SLU 16	-606074	-2327550	0.162	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	1753794	SLV 15	1714496	2984929	0.16	-2611324	SLV 2	-2365047	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	1659636	SLV 15	1659636	2984929	0.16	-2134332	SLV 2	-2134332	-3464774	0.185	Si
227	9.31	5.3	12.57	5.3	566505	SLV 15	726007	2016233	0.159	-86180	SLV 2	-254910	-1513084	0.133	Si
435	14.58	5.3	12.57	5.3	1021976	SLV 2	1021976	2017239	0.145	-1711528	SLV 15	-1711528	-2327550	0.162	Si
455	14.58	5.3	12.57	5.3	1069298	SLV 2	1047953	2017239	0.145	-1990576	SLV 15	-1848736	-2327550	0.162	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	18.85	5.3	677878	SLD 15	677878	2984929	0.16	-1535408	SLD 2	-1359527	-3464774	0.185	Si
35	21.99	5.3	18.85	5.3	724511	SLD 15	736956	2984929	0.16	-1199206	SLD 2	-1199206	-3464774	0.185	Si
227	9.31	5.3	12.57	5.3	405713	SLD 15	484306	2016233	0.159	74612	SLD 2	-13209	-1513084	0.133	Si
435	14.58	5.3	12.57	5.3	348058	SLD 2	371329	2017239	0.145	-1037610	SLD 15	-1037610	-2327550	0.162	Si
455	14.58	5.3	12.57	5.3	314929	SLD 2	314929	2017239	0.145	-1236207	SLD 15	-1134593	-2327550	0.162	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	9574	SLU 16	9574	11203	56765	0	11203	1	Si
35	0.157	21.99	0	8099	SLU 16	8099	11203	56765	24728	24728	1	Si
227	0.12	12.57	0	33	SLU 8	33	9297	56765	18958	18958	1	Si
227	0.12	12.57	0	-207	SLU 10	-207	-9297	-56765	-18958	-18958	1	Si
435	0.157	14.46	0	-8748	SLU 16	-8748	-9744	-56800	-24743	-24743	1	Si
455	0	14.58	0	-9590	SLU 16	-9590	-9771	-56800	0	-9771	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	14110	Ger.	21096	11203	56765	0	11203	1	Si
0	0	18.85	0	-2209	Ger.	-8589	-10642	-56765	0	-10642	1	Si
35	0.157	21.99	0	13184	Ger.	20170	11203	56765	24728	24728	1	Si
35	0.157	18.85	0	-3135	Ger.	-9515	-10642	-56765	-24728	-24728	1	Si
227	0.12	9.94	0	8089	Ger.	15076	8597	56765	18958	18958	1	Si
227	0.12	12.57	0	-8229	Ger.	-14609	-9297	-56765	-18958	-18958	1	Si
435	0.157	12.57	0	2598	Ger.	9584	9297	56765	24728	24728	1	Si
435	0.157	14.46	0	-13721	Ger.	-20101	-9744	-56800	-24743	-24743	1	Si
455	0	12.57	0	2068	Ger.	9055	9297	56765	0	9297	1	Si
455	0	14.58	0	-14250	Ger.	-20630	-9771	-56800	0	-9771	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	10087	SLD 2	10087	11203	56765	0	11203	1	Si
35	0.157	21.99	0	9161	SLD 2	9161	11203	56765	24728	24728	1	Si
227	0.12	12.57	0	4067	SLD 2	4067	9297	56765	18958	18958	1	Si
227	0.12	12.57	0	-4207	SLD 15	-4207	-9297	-56765	-18958	-18958	1	Si
435	0.157	14.46	0	-9698	SLD 15	-9698	-9744	-56800	-24743	-24743	1	Si
455	0	14.58	0	-10228	SLD 15	-10228	-9771	-56800	0	-9771	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-502946	8	-382587	18.2	149.4	444.3	3600	-428765	4	-325276	15.5	112.1	0	+∞	Si
35	-280176	8	-280176	13.4	149.4	325.4	3600	-237348	4	-237348	11.3	112.1	0	+∞	Si

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
227	281517	8	281517	18.5	149.4	564.3	3600	240162	4	240162	15.8	112.1	0	+∞	Si
435	-381377	8	-381377	22.6	149.4	664.5	3600	-344776	4	-344776	20.4	112.1	0	+∞	Si
455	-513879	8	-444957	26.4	149.4	775.3	3600	-460639	4	-400392	23.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
35	0.004	0.002	0.003	0.002	0.004	0.002	0.003	0.002	0.004	0.002	0.006	4	0.004	4	9999	Si
227	0.033	0.017	0.026	0.013	0.029	0.017	0.023	0.013	0.028	0.017	0.052	4	0.032	4	8831	Si
435	0.002	0	0.001	0	0.002	0	0.001	0	0.001	0	0.002	4	0	4	9999	Si
455	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1065	315.6	7.2	50	0.022	0.00112	0.01501	0	10642	56765	24728	24728	25694	25694	20170	0	SLV 11	Si
1465	263.1	6.5	50	0.014	0.00045	0.01202	0	9297	56765	24728	24728	24039	24728	-20101	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	6021	-8589	-13281	-2209	6021	21096	13705	14110
35	5095	-9515	-13281	-3135	5095	20170	13705	13184
227	0	-14609	-13281	-8229	0	15076	13705	8089
435	-5491	-20101	-13281	-13721	-5491	9584	13705	2598
455	-6021	-20630	-13281	-14250	-6021	9055	13705	2068

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	11	2017239	-2327550
1	580	1	2984929	-3464774
2	35	1	2984929	-3464774
2	360	2	2984929	-3464774
3	35	2	2984929	-3464774
3	435	15	2017239	-2327550

Trave a "Secondo Impalcato" Parete 1-Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 12 - 5, sezione R 40x50, aste 225, 226; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	12.57	5.3						-1115655	SLU 16	-988740	-2499469	0.17	Si
20	15.71	5.3	12.57	5.3						-869495	SLU 16	-869495	-2499469	0.17	Si
308	12.57	5.3	12.57	5.3	818672	SLU 16	995224	2016674	0.15						Si
580	21.99	5.3	21.99	5.3						-1167356	SLU 16	-1167356	-3467190	0.174	Si
615	21.99	5.3	21.99	5.3						-1735182	SLU 16	-1433407	-3467190	0.174	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	12.57	5.3	756625	SLV 16	756625	2016586	0.144	-2125977	SLV 1	-1995812	-2499469	0.17	Si
20	15.71	5.3	12.57	5.3	806402	SLV 16	846089	2016586	0.144	-1870405	SLV 1	-1870405	-2499469	0.17	Si
308	12.57	5.3	12.57	5.3	642442	SLV 1	735797	2016674	0.15						Si
580	21.99	5.3	21.99	5.3	839450	SLV 1	908381	3467190	0.174	-2250546	SLV 16	-2250546	-3467190	0.174	Si
615	21.99	5.3	21.99	5.3	684435	SLV 1	684435	3467190	0.174	-2765894	SLV 16	-2497957	-3467190	0.174	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	12.57	5.3	45566	SLD 16	45566	2016586	0.144	-1414918	SLD 1	-1310096	-2499469	0.17	Si
20	15.71	5.3	12.57	5.3	146067	SLD 16	236756	2016586	0.144	-1210070	SLD 1	-1210070	-2499469	0.17	Si
308	12.57	5.3	12.57	5.3	572613	SLD 1	614943	2016674	0.15						Si
580	21.99	5.3	21.99	5.3	78166	SLD 1	198144	3467190	0.174	-1489262	SLD 16	-1489262	-3467190	0.174	Si
615	21.99	5.3	21.99	5.3						-1915786	SLD 16	-1692258	-3467190	0.174	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	12767	SLU 16	12767	10015	56765	0	10015	1	Si
20	0.157	15.66	0	11925	SLU 16	11925	10005	56765	24728	24728	1	Si
308	0.116	12.57	0	-330	SLU 13	-330	-9297	-56765	-18277	-18277	1	Si
580	0.157	21.99	0	-15203	SLU 16	-15203	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-17267	SLU 16	-17267	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	13070	Ger.	20221	10015	56765	0	10015	1	Si
0	0	12.57	0	2774	Ger.	-2271	-9297	-56765	0	-9297	1	Si
20	0.157	15.66	0	12541	Ger.	19692	10005	56765	24728	24728	1	Si
20	0.157	12.57	0	2245	Ger.	-2800	-9297	-56765	-24728	-24728	1	Si
308	0.116	12.57	0	4932	Ger.	12083	9297	56765	18277	18277	1	Si
308	0.116	12.57	0	-5364	Ger.	-10409	-9297	-56765	-18277	-18277	1	Si
580	0.157	20.2	0	-3842	Ger.	3309	10889	56765	24728	24728	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
580	0.157	21.99	0	-14138	Ger.	-19183	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-5029	Ger.	2123	11203	56765	0	11203	1	Si
615	0	21.99	0	-15324	Ger.	-20369	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	10532	SLD 1	10532	10015	56765	0	10015	1	Si
20	0.157	15.66	0	10003	SLD 1	10003	10005	56765	24728	24728	1	Si
308	0.116	12.57	0	2394	SLD 1	2394	9297	56765	18277	18277	1	Si
308	0.116	12.57	0	-2826	SLD 16	-2826	-9297	-56765	-18277	-18277	1	Si
580	0.157	21.99	0	-11600	SLD 16	-11600	-11203	-56765	-24728	-24728	1	Si
615	0	21.99	0	-12786	SLD 16	-12786	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-806385	8	-714546	41.4	149.4	1152.8	3600	-684676	4	-605929	35.1	112.1	0	+∞	Si
20	-628267	8	-628267	36.4	149.4	1013.6	3600	-532001	4	-532001	30.8	112.1	0	+∞	Si
308	591121	8	591121	36.8	149.4	1182.2	3600	500007	4	500007	31.2	112.1	0	+∞	Si
580	-842371	8	-842371	38.5	149.4	975.8	3600	-705548	4	-705548	32.3	112.1	0	+∞	Si
615	-1250879	8	-1033813	47.3	149.4	1197.5	3600	-1040729	4	-862871	39.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	25.2	0.00034	0.0085	8	25.2	0.0003	0.0075	4	25.2	0.00028	0.0072	4	Si
20	superiore	25.2	0.0003	0.0074	8	25.2	0.00026	0.0066	4	25.2	0.00025	0.0063	4	Si
308	inferiore	28.2	0.00034	0.0097	8	28.2	0.00031	0.0086	4	28.2	0.00029	0.0082	4	Si
580	superiore	22.2	0.00028	0.0063	8	22.2	0.00025	0.0056	4	22.2	0.00024	0.0053	4	Si
615	superiore	22.2	0.00035	0.0077	8	22.2	0.00034	0.0075	4	22.2	0.00031	0.0069	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.007	0.004	0.006	0.003	0.007	0.004	0.005	0.003	0.006	0.004	0.012	4	0.008	4	9999
308	0.127	0.072	0.104	0.059	0.112	0.072	0.092	0.059	0.107	0.072	0.209	4	0.142	4	2945
580	0.008	0.004	0.004	0.003	0.007	0.004	0.004	0.003	0.007	0.004	0.012	4	0.009	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	372.5	6.4	50	0.014	0.00224	0.01236	0	9297	56765	24728	24728	24144	24728	19692	0	SLV 13	Si
600	409.7	7.8	50	0.024	0.00265	0.0148	0	10889	56765	24728	24728	25988	25988	-19183	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela			contr. grav.	Vdes	contr. mom. res.	Vela		
0	8501	-2271	-9792	2774			8501	20221	10655	13070		
20	7972	-2800	-9792	2245			7972	19692	10655	12541		
308	363	-10409	-9792	-5364			363	12083	10655	4932		
580	-8411	-19183	-9792	-15203			-8411	3309	10655	-3842		
615	-9598	-20369	-9792	-17267			-9598	2123	10655	-5029		

Campata 2 tra i fili 5 - 6, sezione R 40x50, aste 232, 233; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3						-248898	SLU 16	-181111	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3						-133198	SLU 16	-133198	-3467190	0.174	Si
197	12.57	5.3	7.23	5.3	61954	SLU 10	127617	1192006	0.123						Si
360	24	5.3	17.72	5.3						-224355	SLU 16	-224355	-3771982	0.202	Si
395	24	5.3	17.72	5.3						-333116	SLU 16	-274028	-3771982	0.202	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3	2810419	SLV 14	2594858	3467190	0.174	-3174292	SLV 3	-2864621	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	2367381	SLV 14	2367381	3467190	0.174	-2566837	SLV 3	-2566837	-3467190	0.174	Si
197	12.57	5.3	7.23	5.3	65651	SLV 13	366847	1192006	0.123	4922	SLV 4	-295227	-2015322	0.168	Si
360	24	5.3	17.72	5.3	2260458	SLV 3	2260458	2813297	0.152	-2560417	SLV 14	-2560417	-3771982	0.202	Si
395	24	5.3	17.72	5.3	2704454	SLV 3	2486082	2813297	0.152	-3166921	SLV 14	-2860053	-3771982	0.202	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3	1333770	SLD 14	1247800	3467190	0.174	-1697643	SLD 3	-1517563	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	1149921	SLD 14	1149921	3467190	0.174	-1349377	SLD 3	-1349377	-3467190	0.174	Si
197	12.57	5.3	7.23	5.3	50700	SLD 13	203490	1192006	0.123	19873	SLD 4	-131870	-2015322	0.168	Si
360	24	5.3	17.72	5.3	1071045	SLD 3	1071045	2813297	0.152	-1371004	SLD 14	-1371004	-3771982	0.202	Si
395	24	5.3	17.72	5.3	1255851	SLD 3	1167071	2813297	0.152	-1718318	SLD 14	-1541042	-3771982	0.202	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	3874	SLU 16	3874	11203	56765	0	11203	1	Si
35	0.157	21.99	0	2738	SLU 16	2738	11203	56765	24728	24728	1	Si
197	0.168	12.57	0	-303	SLU 16	-303	-9297	-56765	-26376	-26376	1	Si
360	0.188	24	0	-2838	SLU 16	-2838	-11537	-56786	-29684	-29684	1	Si
395	0	24	0	-3384	SLU 16	-3384	-11537	-56786	0	-11537	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	17697	Ger.	24071	11203	56765	0	11203	1	Si
0	0	21.99	0	-12318	Ger.	-21688	-11203	-56765	0	-11203	1	Si
35	0.157	21.99	0	17016	Ger.	23391	11203	56765	24728	24728	1	Si
35	0.157	21.99	0	-12999	Ger.	-22368	-11203	-56765	-24728	-24728	1	Si
197	0.168	12.57	0	14843	Ger.	21217	9297	56765	26376	26376	1	Si
197	0.168	12.57	0	-15172	Ger.	-24542	-9297	-56765	-26376	-26376	1	Si
360	0.188	17.72	0	12893	Ger.	19267	10427	56793	29688	29688	1	Si
360	0.188	24	0	-17122	Ger.	-26492	-11537	-56786	-29684	-29684	1	Si
395	0	17.72	0	12473	Ger.	18847	10427	56793	0	10427	1	Si
395	0	24	0	-17542	Ger.	-26912	-11537	-56786	0	-11537	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	10291	SLD 3	10291	11203	56765	0	11203	1	Si
0	0	21.99	0	-4913	SLD 14	-4913	-11203	-56765	0	-11203	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
35	0.157	21.99	0	9611	SLD 3	9611	11203	56765	24728	24728	1	Si
35	0.157	21.99	0	-5593	SLD 14	-5593	-11203	-56765	-24728	-24728	1	Si
197	0.168	12.57	0	7437	SLD 3	7437	9297	56765	26376	26376	1	Si
197	0.168	12.57	0	-7766	SLD 14	-7766	-9297	-56765	-26376	-26376	1	Si
360	0.188	17.72	0	5487	SLD 3	5487	10427	56793	29688	29688	1	Si
360	0.188	24	0	-9716	SLD 14	-9716	-11537	-56786	-29684	-29684	1	Si
395	0	17.72	0	5067	SLD 3	5067	10427	56793	0	10427	1	Si
395	0	24	0	-10136	SLD 14	-10136	-11537	-56786	0	-11537	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-189301	8	-138202	6.3	149.4	160.1	3600	-181936	4	-134882	6.2	112.1	0	+∞	Si
35	-101661	8	-101661	4.6	149.4	117.8	3600	-99728	4	-99728	4.6	112.1	0	+∞	Si
197	47641	2	48041	3.7	149.4	164.1	3600	47537	1	47748	3.6	112.1	0	+∞	Si
360	-166531	8	-166531	7.9	149.4	179.1	3600	-149980	4	-149980	7.1	112.1	0	+∞	Si
395	-249570	8	-204429	9.6	149.4	219.8	3600	-231233	4	-186985	8.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
35	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999
197	0.002	-0.001	0.001	-0.001	0.002	0	0.001	-0.001	0.002	0	0.003	1	0	1	9999
329	0	-0.003	-0.001	-0.003	0	-0.002	-0.001	-0.002	0	-0.002	-0.001	1	-0.004	1	9999
360	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.002	1	-0.003	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
670	197.2	7.8	50	0.024	0.00255	0.0147	0	11203	56765	24728	24728	29780	29780	23391	0	SLV 4	Si
995	193.4	9	50	0.023	0.00269	0.01445	0	11537	56786	29684	29684	33963	33963	-26492	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2814	-21688	-22274	-12318	2814	24071	19325	17697	2814	24071	19325	17697
35	2134	-22368	-22274	-12999	2134	23391	19325	17016	2134	23391	19325	17016
197	-40	-24542	-22274	-15172	-40	21217	19325	14843	-40	21217	19325	14843
360	-1990	-26492	-22274	-17122	-1990	19267	19325	12893	-1990	19267	19325	12893
395	-2410	-26912	-22274	-17542	-2410	18847	19325	12473	-2410	18847	19325	12473

Campata 3 tra i fili 6 - 7, sezione R 40x50, aste 240, 241; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	24	5.3	17.72	5.3						-812235	SLU 16	-632299	-3771982	0.202	Si
35	24	5.3	17.72	5.3						-478061	SLU 16	-478061	-3771982	0.202	Si
220	15.71	5.3	15.71	5.3	395842	SLU 16	577586	2500501	0.16						Si
405	21.99	5.3	15.71	5.3						-627418	SLU 16	-627418	-3460407	0.199	Si
440	21.99	5.3	15.71	5.3						-1047474	SLU 16	-819670	-3460407	0.199	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	24	5.3	17.72	5.3	2260472	SLV 14	2150581	2813297	0.152	-3221632	SLV 3	-2894976	-3771982	0.202	Si
35	24	5.3	17.72	5.3	2024530	SLV 14	2024530	2813297	0.152	-2584455	SLV 3	-2584455	-3771982	0.202	Si
220	15.71	5.3	15.71	5.3	236381	SLV 5	473461	2500501	0.16	216341	SLV 12	-40661	-2500501	0.16	Si
405	21.99	5.3	15.71	5.3	1936833	SLV 3	1936833	2501100	0.148	-2685043	SLV 14	-2685043	-3460407	0.199	Si
440	21.99	5.3	15.71	5.3	2129593	SLV 3	2043446	2501100	0.148	-3365367	SLV 14	-3015002	-3460407	0.199	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	24	5.3	17.72	5.3	907981	SLD 14	905797	2813297	0.152	-1869141	SLD 3	-1650192	-3771982	0.202	Si
35	24	5.3	17.72	5.3	887460	SLD 14	887460	2813297	0.152	-1447385	SLD 3	-1447385	-3771982	0.202	Si
220	15.71	5.3	15.71	5.3	231696	SLD 5	346647	2500501	0.16						Si
405	21.99	5.3	15.71	5.3	796419	SLD 3	796419	2501100	0.148	-1544629	SLD 14	-1544629	-3460407	0.199	Si
440	21.99	5.3	15.71	5.3	773766	SLD 3	773766	2501100	0.148	-2009540	SLD 14	-1766874	-3460407	0.199	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	24	0	10288	SLU 16	10288	11537	56786	0	11537	1	Si
35	0.157	24	0	8814	SLU 16	8814	11537	56786	24737	24737	1	Si
220	0.151	15.71	0	21	SLU 4	21	10015	56765	23812	23812	1	Si
220	0.151	15.71	0	-195	SLU 14	-195	-10015	-56765	-23812	-23812	1	Si
405	0.157	21.99	0	-10986	SLU 16	-10986	-11203	-56765	-24728	-24728	1	Si
440	0	21.99	0	-13050	SLU 16	-13050	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	24	0	18670	Ger.	25159	11537	56786	0	11537	1	Si
0	0	17.72	0	-6277	Ger.	-12143	-10427	-56793	0	-10427	1	Si
35	0.157	24	0	17744	Ger.	24232	11537	56786	24737	24737	1	Si
35	0.157	17.72	0	-7203	Ger.	-13069	-10427	-56793	-24740	-24740	1	Si
220	0.151	15.71	0	12365	Ger.	18853	10015	56765	23812	23812	1	Si
220	0.151	15.71	0	-12582	Ger.	-18448	-10015	-56765	-23812	-23812	1	Si
405	0.157	15.71	0	6092	Ger.	12580	10015	56765	24728	24728	1	Si
405	0.157	21.99	0	-18855	Ger.	-24721	-11203	-56765	-24728	-24728	1	Si
440	0	15.71	0	4905	Ger.	11394	10015	56765	0	10015	1	Si
440	0	21.99	0	-20041	Ger.	-25907	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	24	0	12515	SLD 3	12515	11537	56786	0	11537	1	Si
0	0	17.72	0	-122	SLD 14	-122	-10427	-56793	0	-10427	1	Si
35	0.157	24	0	11589	SLD 3	11589	11537	56786	24737	24737	1	Si
35	0.157	17.72	0	-1048	SLD 14	-1048	-10427	-56793	-24740	-24740	1	Si
220	0.151	15.71	0	6210	SLD 3	6210	10015	56765	23812	23812	1	Si
220	0.151	15.71	0	-6427	SLD 14	-6427	-10015	-56765	-23812	-23812	1	Si
405	0.157	21.99	0	-12700	SLD 14	-12700	-11203	-56765	-24728	-24728	1	Si
440	0	21.99	0	-13886	SLD 14	-13886	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c.	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-585281	8	-455495	21.5	149.4	489.9	3600	-480580	4	-372197	17.6	112.1	0	+∞	Si
35	-344333	8	-344333	16.2	149.4	370.3	3600	-279963	4	-279963	13.2	112.1	0	+∞	Si
220	283389	8	283389	15.7	149.4	456.1	3600	226361	4	226361	12.5	112.1	0	+∞	Si
405	-451896	8	-451896	22.5	149.4	526.3	3600	-374105	4	-374105	18.7	112.1	0	+∞	Si
440	-753437	8	-589917	29.4	149.4	687.1	3600	-617887	4	-485778	24.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
35	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.002	0.001	0.002	4	0.001	4	9999	Si
220	0.026	0.013	0.018	0.009	0.022	0.013	0.016	0.009	0.021	0.013	0.034	4	0.021	4	9999	Si
405	0.001	0	0	-0.001	0.001	0	0	0	0.001	0	-0.001	4	-0.001	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1065	267.8	6.8	50	0.023	0.00093	0.01444	0	10427	56793	24740	24740	25790	25790	24232	0	SLV 9	Si
1435	273.2	6.6	50	0.021	0.001	0.01351	0	10015	56765	24728	24728	25401	25401	-24721	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	6509	-12143	-16956	-6277	6509	25159	16954	18670								
35	5583	-13069	-16956	-7203	5583	24232	16954	17744								
220	203	-18448	-16956	-12582	203	18853	16954	12365								
405	-6069	-24721	-16956	-18855	-6069	12580	16954	6092								
440	-7256	-25907	-16956	-20041	-7256	11394	16954	4905								

Campata 4 tra i fili 7 - 8, sezione R 40x50, aste 247, 248, 249, 250, 251, 252, 253, 254, 255, 256; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3						-489071	SLU 16	-387137	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3						-303018	SLU 16	-303018	-3460407	0.199	Si
265	15.71	5.3	12.74	5.3	177200	SLU 16	260643	2043073	0.145						Si
283	15.71	5.3	8.93	5.3	174198	SLU 16	256070	1454406	0.129						Si
495	21.99	5.3	15.71	5.3						-326873	SLU 16	-326873	-3460407	0.199	Si
530	21.99	5.3	15.71	5.3						-517962	SLU 16	-412363	-3460407	0.199	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	2275773	SLV 14	2082523	2501100	0.148	-2956579	SLV 3	-2621876	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	1877945	SLV 14	1877945	2501100	0.148	-2298452	SLV 3	-2298452	-3460407	0.199	Si
265	15.71	5.3	12.74	5.3	198450	SLV 8	315159	2043073	0.145	61296	SLV 9	-60378	-2499453	0.169	Si
495	21.99	5.3	15.71	5.3	1764871	SLV 1	1764871	2501100	0.148	-2217777	SLV 16	-2217777	-3460407	0.199	Si
530	21.99	5.3	15.71	5.3	2117304	SLV 1	1947269	2501100	0.148	-2836731	SLV 16	-2521120	-3460407	0.199	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	985394	SLD 14	922312	2501100	0.148	-1666200	SLD 3	-1461664	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	847913	SLD 14	847913	2501100	0.148	-1268420	SLD 3	-1268420	-3460407	0.199	Si
265	15.71	5.3	12.74	5.3	166534	SLD 8	223053	2043073	0.145						Si
495	21.99	5.3	15.71	5.3	782669	SLD 1	782669	2501100	0.148	-1235576	SLD 16	-1235576	-3460407	0.199	Si
530	21.99	5.3	15.71	5.3	895674	SLD 1	845341	2501100	0.148	-1615101	SLD 16	-1419192	-3460407	0.199	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	6173	SLU 16	6173	11203	56765	0	11203	1	Si
35	0.157	21.99	0	4807	SLU 16	4807	11203	56765	24728	24728	1	Si
265	0.109	15.71	0	-137	SLU 10	-137	-10015	-56765	-17172	-17172	1	Si
495	0.157	21.99	0	-4885	SLU 16	-4885	-11203	-56765	-24728	-24728	1	Si
530	0	21.99	0	-6334	SLU 16	-6334	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	19305	SLV 3	19305	11203	56765	0	11203	1	Si
0	0	15.71	0	-10867	SLV 14	-10867	-10015	-56765	0	-10015	1	Si
35	0.157	21.99	0	18481	SLV 3	18481	11203	56765	24728	24728	1	Si
35	0.157	15.71	0	-11690	SLV 14	-11690	-10015	-56765	-24728	-24728	1	Si
265	0.109	15.71	0	6084	Ger.	14256	10015	56765	17172	17172	1	Si
265	0.109	15.71	0	-6249	Ger.	-14255	-10015	-56765	-17172	-17172	1	Si
495	0.157	15.71	0	10423	Ger.	11350	10015	56765	24728	24728	1	Si
495	0.157	21.99	0	-17334	SLV 16	-17334	-11203	-56765	-24728	-24728	1	Si
530	0	15.71	0	9563	Ger.	10490	10015	56765	0	10015	1	Si
530	0	21.99	0	-18194	SLV 16	-18194	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	11866	SLD 3	11866	11203	56765	0	11203	1	Si
0	0	15.71	0	-3428	SLD 14	-3428	-10015	-56765	0	-10015	1	Si
35	0.157	21.99	0	11043	SLD 3	11043	11203	56765	24728	24728	1	Si
35	0.157	15.71	0	-4251	SLD 14	-4251	-10015	-56765	-24728	-24728	1	Si
265	0.109	15.71	0	3042	SLD 3	3042	10015	56765	17172	17172	1	Si
265	0.109	15.71	0	-3207	SLD 14	-3207	-10015	-56765	-17172	-17172	1	Si
495	0.157	15.71	0	3581	SLD 1	3581	10015	56765	24728	24728	1	Si
495	0.157	21.99	0	-10492	SLD 16	-10492	-11203	-56765	-24728	-24728	1	Si
530	0	15.71	0	2721	SLD 1	2721	10015	56765	0	10015	1	Si
530	0	21.99	0	-11352	SLD 16	-11352	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	σc lim.	$\sigma f.$	σf lim.	Mela	Comb.	Mdes	σc	σc lim.	σFRP	σFRP lim.	
0	-365564	8	-289372	14.4	149.4	337	3600	-340403	4	-269676	13.4	112.1	0	$+\infty$	Si
35	-226298	8	-226298	11.3	149.4	263.6	3600	-210253	4	-210253	10.5	112.1	0	$+\infty$	Si
265	133912	8	133912	7.9	149.4	263.9	3600	129873	4	129873	7.7	112.1	0	$+\infty$	Si

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
495	-243898	8	-243898	12.2	149.4	284.1	3600	-226453	4	-226453	11.3	112.1	0	+∞	Si
530	-386833	8	-308004	15.4	149.4	358.7	3600	-359714	4	-286926	14.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
35	0.001	0.001	0.001	0	0.001	0.001	0.001	0	0.001	0.001	0.002	1	0.001	1	9999	Si
265	0.018	0.017	0.014	0.013	0.018	0.017	0.014	0.013	0.018	0.017	0.032	4	0.03	4	9999	Si
495	0.001	0.001	0	0	0.001	0.001	0	0	0.001	0.001	0.001	1	0.001	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1505	238.3	8.9	50	0.021	0.00247	0.01694	0	11203	56765	24728	24728	26133	26133	18481	0	SLV 3	Si
1965	248.4	8.9	50	0.021	0.00265	0.01692	0	11203	56765	24728	24728	25502	25502	-17334	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3737	-10867	-12960	-10867	3737	19305	12960	19305				
35	2914	-11690	-12960	-11690	2914	18481	12960	18481				
265	1	-14255	-12960	-6249	1	14256	12960	6084				
495	-2906	-17334	-12960	-17334	-2906	11350	12960	10423				
530	-3766	-18194	-12960	-18194	-3766	10490	12960	9563				

Campata 5 tra i fili 8 - 9, sezione R 40x50, aste 289, 290; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3						-1070590	SLV 16	-839981	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3						-645175	SLV 16	-645175	-3460407	0.199	Si
220	15.71	5.3	15.71	5.3	404247	SLV 16	602121	2500501	0.16						Si
405	21.99	5.3	17.72	5.3						-546385	SLV 16	-546385	-3464900	0.189	Si
440	21.99	5.3	17.72	5.3						-919816	SLV 16	-720210	-3464900	0.189	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	2179935	SLV 16	2090078	2501100	0.148	-3431542	SLV 1	-3075278	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	1979638	SLV 16	1979638	2501100	0.148	-2739591	SLV 1	-2739591	-3460407	0.199	Si
220	15.71	5.3	15.71	5.3	240325	SLV 10	480595	2500501	0.16	219789	SLV 7	-40272	-2500501	0.16	Si
405	21.99	5.3	17.72	5.3	2044728	SLV 1	2044728	2812275	0.156	-2668502	SLV 16	-2668502	-3464900	0.189	Si
440	21.99	5.3	17.72	5.3	2272548	SLV 1	2166739	2812275	0.156	-3332931	SLV 16	-2992618	-3464900	0.189	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	15.71	5.3	795757	SLD 16	795757	2501100	0.148	-2047363	SLD 1	-1801137	-3460407	0.199	Si
35	21.99	5.3	15.71	5.3	815536	SLD 16	815536	2501100	0.148	-1575489	SLD 1	-1575489	-3460407	0.199	Si
220	15.71	5.3	15.71	5.3	235536	SLD 10	354904	2500501	0.16						Si
405	21.99	5.3	17.72	5.3	882273	SLD 1	882273	2812275	0.156	-1506047	SLD 16	-1506047	-3464900	0.189	Si
440	21.99	5.3	17.72	5.3	890016	SLD 1	890016	2812275	0.156	-1950399	SLD 16	-1720124	-3464900	0.189	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13196	SLV 16	13196	11203	56765	0	11203	1	Si
35	0.188	21.99	0	11132	SLV 16	11132	11203	56765	29673	29673	1	Si
220	0.151	15.71	0	241	SLV 14	241	10015	56765	23812	23812	1	Si
405	0.157	21.99	0	-9933	SLV 16	-9933	-11203	-56765	-24728	-24728	1	Si
440	0	21.99	0	-11407	SLV 16	-11407	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	20369	Ger.	26054	11203	56765	0	11203	1	Si
0	0	15.71	0	-5124	Ger.	-10332	-10015	-56765	0	-10015	1	Si
35	0.188	21.99	0	19182	Ger.	24867	11203	56765	29673	29673	1	Si
35	0.188	15.71	0	-6311	Ger.	-11518	-10015	-56765	-29673	-29673	1	Si
220	0.151	15.71	0	12910	Ger.	18594	10015	56765	23812	23812	1	Si
220	0.151	15.71	0	-12583	Ger.	-17791	-10015	-56765	-23812	-23812	1	Si
405	0.157	17.72	0	6972	Ger.	12657	10427	56793	24740	24740	1	Si
405	0.157	21.99	0	-18521	Ger.	-23728	-11203	-56765	-24728	-24728	1	Si
440	0	17.72	0	6046	Ger.	11731	10427	56793	0	10427	1	Si
440	0	21.99	0	-19447	Ger.	-24655	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	14081	SLD 1	14081	11203	56765	0	11203	1	Si
35	0.188	21.99	0	12894	SLD 1	12894	11203	56765	29673	29673	1	Si
35	0.188	15.71	0	-23	SLD 16	-23	-10015	-56765	-29673	-29673	1	Si
220	0.151	15.71	0	6622	SLD 1	6622	10015	56765	23812	23812	1	Si
220	0.151	15.71	0	-6295	SLD 16	-6295	-10015	-56765	-23812	-23812	1	Si
405	0.157	17.72	0	684	SLD 1	684	10427	56793	24740	24740	1	Si
405	0.157	21.99	0	-12233	SLD 16	-12233	-11203	-56765	-24728	-24728	1	Si
440	0	21.99	0	-13159	SLD 16	-13159	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-769182	8	-603729	30.1	149.4	703.2	3600	-625803	4	-492600	24.6	112.1	0	+∞	Si
35	-463956	8	-463956	23.1	149.4	540.4	3600	-379976	4	-379976	18.9	112.1	0	+∞	Si
220	289260	8	289260	16	149.4	465.5	3600	230057	4	230057	12.7	112.1	0	+∞	Si
405	-392376	8	-392376	19	149.4	456	3600	-311887	4	-311887	15.1	112.1	0	+∞	Si
440	-660811	8	-517251	25	149.4	601.1	3600	-530192	4	-412940	20	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
35	0.001	0	0	-0.001	0	0	0	-0.001	0	0	-0.001	4	-0.001	4	9999	Si
220	0.026	0.013	0.019	0.009	0.022	0.013	0.016	0.009	0.021	0.013	0.034	4	0.021	4	9999	Si
405	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.001	0.001	0.001	4	0.001	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	8.m	8.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2035	267.2	6.6	50	0.021	0.00083	0.01345	0	10015	56765	29673	29673	29701	29701	24867	0	SLV 11	Si
2405	267.9	7	50	0.022	0.00088	0.01387	0	10427	56793	24740	24740	25602	25602	-23728	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo								
	contr. grav.		Vdes	contr. mom. res.		Vela		contr. grav.		Vdes	contr. mom. res.		Vela	
0	7405		-10332	-16124		-5124		7405	26054		16953		20365	
35	6218		-11518	-16124		-6311		6218	24867		16953		19182	
220	-54		-17791	-16124		-12583		-54	18594		16953		12910	
405	-5992		-23728	-16124		-18521		-5992	12657		16953		6972	
440	-6918		-24655	-16124		-19447		-6918	11731		16953		6040	

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2475	189.7	8.4	50	0.022	0.00246	0.0136	0	11122	56765	29673	29673	33830	33830	26588	0	SLV 3	Si
2800	193.6	7.8	50	0.024	0.00301	0.01443	0	11203	56765	24728	24728	30037	30037	-24223	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3619	-17634	-19321	-11141	3619	27082	21330	18869				
35	3125	-18128	-19321	-11635	3125	26588	21330	18375				
197	-34	-21287	-19321	-14794	-34	23429	21330	15216				
360	-2970	-24223	-19321	-17730	-2970	20493	21330	12280				
395	-3390	-24643	-19321	-18150	-3390	20073	21330	11860				

Campata 7 tra i fili 10 - 29, sezione R 40x50, asta 303; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3						-1454207	SLV 16	-1218269	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3						-1006297	SLV 16	-1006297	-3467190	0.174	Si
308	12.57	5.3	12.57	5.3	732469	SLV 16	908153	2016674	0.15						Si
595	15.71	5.3	12.57	5.3						-825758	SLV 16	-825758	-2499469	0.17	Si
615	15.71	5.3	12.57	5.3						-1063445	SLV 16	-940495	-2499469	0.17	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3	811645	SLV 14	811645	3467190	0.174	-2640649	SLV 3	-2402200	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	913289	SLV 14	957656	3467190	0.174	-2178795	SLV 3	-2178795	-3467190	0.174	Si
308	12.57	5.3	12.57	5.3	606153	SLV 14	695955	2016674	0.15						Si
595	15.71	5.3	12.57	5.3	822566	SLV 3	858644	2016586	0.144	-1851402	SLV 14	-1851402	-2499469	0.17	Si
615	15.71	5.3	12.57	5.3	776173	SLV 3	776173	2016586	0.144	-2103359	SLV 14	-1974872	-2499469	0.17	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3						-1789873	SLD 3	-1595825	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	151325	SLD 14	246733	3467190	0.174	-1416831	SLD 3	-1416831	-3467190	0.174	Si
308	12.57	5.3	12.57	5.3	535543	SLD 14	574329	2016674	0.15						Si
595	15.71	5.3	12.57	5.3	162749	SLD 3	249761	2016586	0.144	-1191584	SLD 14	-1191584	-2499469	0.17	Si
615	15.71	5.3	12.57	5.3	65682	SLD 3	65682	2016586	0.144	-1392868	SLD 14	-1289677	-2499469	0.17	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13587	SLV 16	13587	11203	56765	0	11203	1	Si
35	0.157	21.99	0	12113	SLV 16	12113	11203	56765	24728	24728	1	Si
308	0.113	12.57	0	635	SLV 16	635	9297	56765	17739	17739	1	Si
595	0.157	15.71	0	-11474	SLV 16	-11474	-10015	-56765	-24728	-24728	1	Si
615	0	15.71	0	-12316	SLV 16	-12316	-10015	-56765	0	-10015	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13692	Ger.	18910	11203	56765	0	11203	1	Si
0	0	21.99	0	3400	Ger.	-3582	-11203	-56765	0	-11203	1	Si
35	0.157	21.99	0	12766	Ger.	17983	11203	56765	24728	24728	1	Si
35	0.157	19.99	0	2473	Ger.	-4508	-10853	-56765	-24728	-24728	1	Si
308	0.113	12.57	0	5554	Ger.	10772	9297	56765	17739	17739	1	Si
308	0.113	12.57	0	-4738	Ger.	-11720	-9297	-56765	-17739	-17739	1	Si
595	0.157	12.57	0	-2054	Ger.	3163	9297	56765	24728	24728	1	Si
595	0.157	15.71	0	-12347	Ger.	-19329	-10015	-56765	-24728	-24728	1	Si
615	0	12.57	0	-2584	Ger.	2634	9297	56765	0	9297	1	Si
615	0	15.71	0	-12876	Ger.	-19858	-10015	-56765	0	-10015	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	11155	SLD 3	11155	11203	56765	0	11203	1	Si
35	0.157	21.99	0	10228	SLD 3	10228	11203	56765	24728	24728	1	Si
308	0.113	12.57	0	3017	SLD 3	3017	9297	56765	17739	17739	1	Si
308	0.113	12.57	0	-2201	SLD 14	-2201	-9297	-56765	-17739	-17739	1	Si
595	0.157	15.71	0	-9809	SLD 14	-9809	-10015	-56765	-24728	-24728	1	Si
615	0	15.71	0	-10339	SLD 14	-10339	-10015	-56765	0	-10015	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1054226	8	-883210	40.4	149.4	1023.1	3600	-914502	4	-766098	35	112.1	0	+∞	Si
35	-729562	8	-729562	33.4	149.4	845.1	3600	-632753	4	-632753	28.9	112.1	0	+∞	Si
308	530938	8	533932	33.3	149.4	1067.8	3600	462175	4	464925	29	112.1	0	+∞	Si
595	-598008	8	-598008	34.6	149.4	964.8	3600	-514418	4	-514418	29.8	112.1	0	+∞	Si
615	-770245	8	-681150	39.5	149.4	1098.9	3600	-663593	4	-586425	34	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.2	0.0003	0.0066	8	22.2	0.00027	0.0061	4	22.2	0.00026	0.0057	4	Si
35	superiore	22.2	0.00025	0.0055	8	22.2	0.00022	0.0049	4	22.2	0.00021	0.0047	4	Si
615	superiore	25.2	0.00032	0.0081	8	25.2	0.00029	0.0073	4	25.2	0.00028	0.0069	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
35	0.007	0.004	0.004	0.003	0.006	0.004	0.004	0.003	0.006	0.004	0.011	4	0.008	4	9999	Sì
308	0.11	0.067	0.091	0.055	0.1	0.067	0.083	0.055	0.096	0.067	0.19	4	0.132	4	3237	Sì
328	0.111	0.067	0.091	0.055	0.101	0.067	0.083	0.055	0.097	0.067	0.19	4	0.132	4	3231	Sì
595	0.006	0.004	0.005	0.003	0.006	0.004	0.004	0.003	0.006	0.004	0.01	4	0.007	4	9999	Sì
615	0	0	0	0	0	0	0	0	0	0	0	3	0	3	9999	Sì

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2870	251.8	7.8	50	0.024	0.00232	0.01559	0	11203	56765	24728	24728	25988	25988	17983	0	SLV 1	Si
3430	363.2	6.4	50	0.014	0.0021	0.01249	0	9297	56765	24728	24728	24144	24728	-19329	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	8138	-3582	-10655	3400	8138	18910	9792	13692
35	7212	-4508	-10655	2473	7212	17983	9792	12766
308	0	-11720	-10655	-4738	0	10772	9792	5554
595	-7609	-19329	-10655	-12347	-7609	3163	9792	-2054
615	-8138	-19858	-10655	-12876	-8138	2634	9792	-2584

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	12	2016586	-2499469
1	580	5	3467190	-3467190
2	35	5	3467190	-3467190
2	360	6	2813297	-3771982
3	35	6	2813297	-3771982
3	405	7	2501100	-3460407
4	35	7	2501100	-3460407
4	495	8	2501100	-3460407
5	35	8	2501100	-3460407
5	405	9	2812275	-3464900
6	35	9	2812275	-3464900
6	360	10	3467190	-3467190
7	35	10	3467190	-3467190
7	595	29	2016586	-2499469

Trave a "Secondo Impalcato" Parete 2 - Parete 3

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 18 - 24, sezione R 30x50, asta 373; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-382048	SLU 16	-347540	-993776	0.126	Si
20	6.03	5.1	6.03	5.1						-315515	SLU 16	-315515	-993776	0.126	Si
250	6.03	5.1	6.03	5.1	108546	SLU 9	201240	993776	0.126						Si
480	6.03	5.1	6.03	5.1						-320963	SLU 16	-320963	-993776	0.126	Si
500	6.03	5.1	6.03	5.1						-387969	SLU 16	-353224	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-520805	SLV 4	-484977	-993776	0.126	Si
20	6.03	5.1	6.03	5.1	1396	SLV 13	29906	993776	0.126	-450948	SLV 4	-450948	-993776	0.126	Si
250	6.03	5.1	6.03	5.1	98013	SLV 6	101208	993776	0.126						Si
480	6.03	5.1	6.03	5.1	-752	SLV 2	27990	993776	0.126	-456245	SLV 15	-456245	-993776	0.126	Si
500	6.03	5.1	6.03	5.1						-526519	SLV 15	-490369	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-400610	SLD 4	-369349	-993776	0.126	Si
20	6.03	5.1	6.03	5.1						-339940	SLD 4	-339940	-993776	0.126	Si
250	6.03	5.1	6.03	5.1	79463	SLD 6	80290	993776	0.126						Si
480	6.03	5.1	6.03	5.1						-344456	SLD 15	-344456	-993776	0.126	Si
500	6.03	5.1	6.03	5.1						-405499	SLD 15	-373992	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	3485	SLU 9	3485	6021	42764	0	6021	1	Si
20	0.157	6.03	0	3206	SLU 9	3206	6021	42764	24838	24838	1	Si
250	0.052	6.03	0	-12	SLU 16	-12	-6021	-42764	-8279	-8279	1	Si
480	0.157	6.03	0	-3226	SLU 16	-3226	-6021	-42764	-24838	-24838	1	Si
500	0	6.03	0	-3506	SLU 16	-3506	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	3618	Ger.	7440	6021	42764	0	6021	1	Si
0	0	6.03	0	1741	Ger.	-2065	-6021	-42764	0	-6021	1	Si
20	0.157	6.03	0	3403	Ger.	7225	6021	42764	24838	24838	1	Si
20	0.157	6.03	0	1526	Ger.	-2280	-6021	-42764	-24838	-24838	1	Si
250	0.052	6.03	0	930	Ger.	4753	6021	42764	8279	8279	1	Si
250	0.052	6.03	0	-947	Ger.	-4753	-6021	-42764	-8279	-8279	1	Si
480	0.157	6.03	0	-1542	Ger.	2280	6021	42764	24838	24838	1	Si
480	0.157	6.03	0	-3419	Ger.	-7225	-6021	-42764	-24838	-24838	1	Si
500	0	6.03	0	-1757	Ger.	2065	6021	42764	0	6021	1	Si
500	0	6.03	0	-3634	Ger.	-7440	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	3156	SLD 4	3156	6021	42764	0	6021	1	Si
20	0.157	6.03	0	2941	SLD 4	2941	6021	42764	24838	24838	1	Si
250	0.052	6.03	0	468	SLD 4	468	6021	42764	8279	8279	1	Si
250	0.052	6.03	0	-485	SLD 13	-485	-6021	-42764	-8279	-8279	1	Si
480	0.157	6.03	0	-2957	SLD 13	-2957	-6021	-42764	-24838	-24838	1	Si
500	0	6.03	0	-3172	SLD 13	-3172	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-288133	8	-261585	27	149.4	1069.1	3600	-275975	4	-249420	25.8	112.1	0	∞	Si

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
20	-236948	8	-236948	24.5	149.4	968.4	3600	-224776	4	-224776	23.2	112.1	0	+∞	Si
250	83497	1	83497	8.6	149.4	341.3	3600	83497	1	83497	8.6	112.1	0	+∞	Si
480	-240992	8	-240992	24.9	149.4	985	3600	-228498	4	-228498	23.6	112.1	0	+∞	Si
500	-292529	8	-265805	27.5	149.4	1086.4	3600	-280021	4	-253304	26.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
20	-0.001	-0.002	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.005	1	9999 Si
250	0.011	-0.001	0.008	-0.003	0.011	0.001	0.008	-0.001	0.011	0.002	0.02	1	0.001	1	9999 Si
480	-0.001	-0.002	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.005	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	192.6	5.7	50	0.008	0.00039	0.01748	0	6021	42764	24838	24838	23771	24838	7225	0	SLV 1	Si
500	165.6	5.7	50	0.008	0.00027	0.01748	0	6021	42764	24838	24838	24260	24838	-7225	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2688	-2065	-4321	1741	2688	7440	4321	3618
20	2473	-2280	-4321	1526	2473	7225	4321	3403
250	0	-4753	-4321	-947	0	4753	4321	930
480	-2473	-7225	-4321	-3419	-2473	2280	4321	-1542
500	-2688	-7440	-4321	-3634	-2688	2065	4321	-1757

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	18	993776	-993776
1	480	24	993776	-993776

Trave a "Secondo Impalcato" Parete 2-Pil.7

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 15 - 16, sezione R 40x50, aste 51, 52, 53, 54, 55, 56, 57, 58

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	198472	SLU 16	134123	2016674	0.15						Si
20	12.57	5.3	12.57	5.3	68475	SLU 16	68475	2016674	0.15	48224	SLU 2	-8070	-2016674	0.15	Si
115	12.57	5.3	12.57	5.3						-12110	SLU 16	-12110	-2016674	0.15	Si
215	12.57	5.3	12.57	5.3						-186146	SLU 16	-218811	-2016674	0.15	Si
230	12.57	5.3	12.57	5.3						-218811	SLU 16	-218811	-2016674	0.15	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	174180	SLV 16	104509	1940331	0.292						Si
20	12.57	5.3	12.57	5.3	96509	SLV 4	96509	1940331	0.292	5151	SLV 13	-82923	-1940331	0.292	Si
115	12.57	5.3	12.57	5.3	4782	SLV 1	4782	1940331	0.292	-20863	SLV 16	-20863	-1940331	0.292	Si
215	12.57	5.3	12.57	5.3	380885	SLV 8	454686	1940331	0.292	-617225	SLV 9	-732049	-1940331	0.292	Si
230	12.57	5.3	12.57	5.3	454686	SLV 8	454686	1940331	0.292	-732049	SLV 9	-732049	-1940331	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	157448	SLD 16	100491	1940331	0.292						Si
20	12.57	5.3	12.57	5.3	74029	SLD 4	74029	1940331	0.292	27632	SLD 13	-40863	-1940331	0.292	Si
115	12.57	5.3	12.57	5.3						-14559	SLD 16	-14559	-1940331	0.292	Si
215	12.57	5.3	12.57	5.3	148235	SLD 8	178057	1940331	0.292	-384575	SLD 9	-455420	-1940331	0.292	Si
230	12.57	5.3	12.57	5.3	178057	SLD 8	178057	1940331	0.292	-455420	SLD 9	-455420	-1940331	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.57	0	-6435	SLU 16	-6435	-9297	-56765	0	-9297	1	Si
15	0	12.57	0	-6534	SLU 16	-6534	-9297	-56765	0	-9297	1	Si
20	0.094	12.57	0	-6565	SLU 16	-6565	-9297	-56765	-14837	-14837	1	Si
115	0.079	12.57	0	-124	SLU 16	-124	-9297	-56765	-12364	-12364	1	Si
230	0.157	12.57	0	-2180	SLU 16	-2180	-9297	-56765	-24728	-24728	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.57	0	-8199	SLV 15	-8199	-9297	-56765	0	-9297	1	Si
15	0	12.57	0	-8276	SLV 15	-8276	-9297	-56765	0	-9297	1	Si
20	0.094	12.57	0	-8299	SLV 15	-8299	-9297	-56765	-14837	-14837	1	Si
115	0.079	12.57	0	478	SLV 5	478	9297	56765	12364	12364	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
115	0.079	12.57	0	-664	SLV 12	-664	-9297	-56765	-12364	-12364	1	Si
230	0.157	12.57	0	4775	SLV 8	4775	9297	56765	24728	24728	1	Si
230	0.157	12.57	0	-7527	SLV 9	-7527	-9297	-56765	-24728	-24728	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.57	0	-6332	SLD 15	-6332	-9297	-56765	0	-9297	1	Si
15	0	12.57	0	-6409	SLD 15	-6409	-9297	-56765	0	-9297	1	Si
20	0.094	12.57	0	-6432	SLD 15	-6432	-9297	-56765	-14837	-14837	1	Si
115	0.079	12.57	0	208	SLD 5	208	9297	56765	12364	12364	1	Si
115	0.079	12.57	0	-394	SLD 12	-394	-9297	-56765	-12364	-12364	1	Si
230	0.157	12.57	0	1907	SLD 8	1907	9297	56765	24728	24728	1	Si
230	0.157	12.57	0	-4659	SLD 9	-4659	-9297	-56765	-24728	-24728	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	148688	8	100890	6.3	149.4	201.8	3600	140130	4	95980	6	112.1	0	+∞	Si
20	52092	8	52092	3.2	149.4	104.2	3600	50830	4	50830	3.2	112.1	0	+∞	Si
115	-8913	8	-8913	0.6	149.4	17.8	3600	-8041	4	-8041	0.5	112.1	0	+∞	Si
230	-159884	8	-159884	10	149.4	319.8	3600	-138681	4	-138681	8.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
20	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
115	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.001	1	9999
169	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999

Campata 2 tra i fili 16 - , sezione R 40x50, asta 59; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3						-252413	SLU 16	-252413	-2016674	0.15	Si
68	12.57	5.3	12.57	5.3						-116171	SLU 16	-153032	-2016674	0.15	Si
137	12.57	5.3	12.57	5.3	1319	SLU 9	1319	2016674	0.15	-10733	SLU 8	-38333	-2016674	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	526681	SLV 8	526681	2016674	0.15	-846394	SLV 9	-846394	-2016674	0.15	Si
68	12.57	5.3	12.57	5.3	343572	SLV 8	399761	2016674	0.15	-483972	SLV 9	-587976	-2016674	0.15	Si
137	12.57	5.3	12.57	5.3	137032	SLV 8	200098	2016674	0.15	-145041	SLV 9	-242142	-2016674	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	206739	SLD 8	206739	2016674	0.15	-526452	SLD 9	-526452	-2016674	0.15	Si
68	12.57	5.3	12.57	5.3	150470	SLD 8	169413	2016674	0.15	-290870	SLD 9	-357628	-2016674	0.15	Si
137	12.57	5.3	12.57	5.3	70757	SLD 8	96582	2016674	0.15	-78765	SLD 9	-138627	-2016674	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	12.57	0	2212	SLU 16	2212	9297	56765	24728	24728	1	Si
50	0.108	12.57	0	1885	SLU 16	1885	9297	56765	17054	17054	1	Si
68	0.108	12.57	0	1766	SLU 16	1766	9297	56765	17054	17054	1	Si
137	0.108	12.57	0	1321	SLU 16	1321	9297	56765	17054	17054	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	12.57	0	5463	Ger.	14360	9297	56765	24728	24728	1	Si
0	0.157	12.57	0	-2502	Ger.	-12529	-9297	-56765	-24728	-24728	1	Si
50	0.108	12.57	0	5211	Ger.	14109	9297	56765	17054	17054	1	Si
50	0.108	12.57	0	-2753	Ger.	-12780	-9297	-56765	-17054	-17054	1	Si
68	0.108	12.57	0	5120	Ger.	14018	9297	56765	17054	17054	1	Si
68	0.108	12.57	0	-2845	Ger.	-12871	-9297	-56765	-17054	-17054	1	Si
137	0.108	12.57	0	4778	Ger.	13667	9297	56765	17054	17054	1	Si
137	0.108	12.57	0	-3187	Ger.	-13222	-9297	-56765	-17054	-17054	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	12.57	0	3611	SLD 9	3611	9297	56765	24728	24728	1	Si
0	0.157	12.57	0	-650	SLD 8	-650	-9297	-56765	-24728	-24728	1	Si
50	0.108	12.57	0	3359	SLD 9	3359	9297	56765	17054	17054	1	Si
50	0.108	12.57	0	-902	SLD 8	-902	-9297	-56765	-17054	-17054	1	Si
68	0.108	12.57	0	3268	SLD 9	3268	9297	56765	17054	17054	1	Si
68	0.108	12.57	0	-993	SLD 8	-993	-9297	-56765	-17054	-17054	1	Si
137	0.108	12.57	0	2926	SLD 9	2926	9297	56765	17054	17054	1	Si
137	0.108	12.57	0	-1335	SLD 8	-1335	-9297	-56765	-17054	-17054	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-184412	8	-184412	11.5	149.4	368.8	3600	-159857	4	-159857	10	112.1	0	+∞	Si
68	-83884	8	-110984	6.9	149.4	222	3600	-70200	4	-94107	5.9	112.1	0	+∞	Si
137	1015	1	1015	0.1	149.4	2	3600	1015	1	1015	0.1	112.1	0	+∞	Si
137	-6817	8	-27027	1.7	149.4	54.1	3600	-4004	4	-21022	1.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
68	0	-0.001	0	-0.001	0	0	0	-0.001	0	0	0	1	-0.001	1	9999
137	0.002	0.002	0.001	0.001	0.002	0.002	0.001	0.001	0.002	0.002	0.003	4	0.003	4	9999

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	916	-12529	-12222	-2502	916	14360	12222	5463
68	573	-12871	-12222	-2845	573	14018	12222	5120
137	223	-13222	-12222	-3187	223	13667	12222	4778

Campata 3 tra i fili - 7, sezione R 40x50, aste 60, 61, 62, 63; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	3265	SLU 9	24838	2016674	0.15	-7500	SLU 7	-7500	-2016674	0.15	Si
107	12.57	5.3	12.57	5.3	127118	SLU 16	135756	2016674	0.15						Si
193	12.57	5.3	12.57	5.3	154553	SLU 16	154553	2016674	0.15						Si
213	12.57	5.3	12.57	5.3	157776	SLU 16	156814	2016674	0.15						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	126244	SLV 4	126244	2016674	0.15	-129734	SLV 13	-129734	-2016674	0.15	Si
107	12.57	5.3	12.57	5.3	355445	SLV 9	443774	2016674	0.15	-194190	SLV 8	-273598	-2016674	0.15	Si
193	12.57	5.3	12.57	5.3	816757	SLV 9	816757	2016674	0.15	-635744	SLV 8	-635744	-2016674	0.15	Si
213	12.57	5.3	12.57	5.3	944736	SLV 9	881249	2016674	0.15	-765070	SLV 8	-699911	-2016674	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	65778	SLD 8	65778	2016674	0.15	-69268	SLD 9	-69268	-2016674	0.15	Si
107	12.57	5.3	12.57	5.3	227184	SLD 9	276334	2016674	0.15	-65928	SLD 8	-106159	-2016674	0.15	Si
193	12.57	5.3	12.57	5.3	478075	SLD 9	478075	2016674	0.15	-297061	SLD 8	-297061	-2016674	0.15	Si
213	12.57	5.3	12.57	5.3	546221	SLD 9	512649	2016674	0.15	-366554	SLD 8	-331311	-2016674	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	12.57	0	1633	SLU 16	1633	9297	56765	17054	17054	1	Si
7	0.099	12.57	0	1587	SLU 16	1587	9297	56765	15563	15563	1	Si
107	0.099	12.57	0	496	SLU 16	496	9297	56765	15563	15563	1	Si
193	0.157	12.57	0	264	SLU 8	264	9297	56765	24728	24728	1	Si
193	0.157	12.57	0	-166	SLU 9	-166	-9297	-56765	-24728	-24728	1	Si
213	0	12.57	0	164	SLU 8	164	9297	56765	0	9297	1	Si
213	0	12.57	0	-296	SLU 9	-296	-9297	-56765	0	-9297	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	12.57	0	4429	Ger.	13667	9297	56765	17054	17054	1	Si
0	0.108	12.57	0	-2327	Ger.	-13222	-9297	-56765	-17054	-17054	1	Si
107	0.099	12.57	0	4442	Ger.	13077	9297	56765	15563	15563	1	Si
107	0.099	12.57	0	-3897	Ger.	-13812	-9297	-56765	-15563	-15563	1	Si
193	0.157	12.57	0	6449	Ger.	12589	9297	56765	24728	24728	1	Si
193	0.157	12.57	0	-6417	Ger.	-14300	-9297	-56765	-24728	-24728	1	Si
213	0	12.57	0	6349	Ger.	12480	9297	56765	0	9297	1	Si
213	0	12.57	0	-6517	Ger.	-14409	-9297	-56765	0	-9297	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	12.57	0	2847	SLD 9	2847	9297	56765	17054	17054	1	Si
0	0.108	12.57	0	-745	SLD 8	-745	-9297	-56765	-17054	-17054	1	Si
107	0.099	12.57	0	2495	SLD 9	2495	9297	56765	15563	15563	1	Si
107	0.099	12.57	0	-1949	SLD 8	-1949	-9297	-56765	-15563	-15563	1	Si
193	0.157	12.57	0	3457	SLD 9	3457	9297	56765	24728	24728	1	Si
193	0.157	12.57	0	-3425	SLD 8	-3425	-9297	-56765	-24728	-24728	1	Si
213	0	12.57	0	3357	SLD 9	3357	9297	56765	0	9297	1	Si
213	0	12.57	0	-3525	SLD 8	-3525	-9297	-56765	0	-9297	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	2512	1	18902	1.2	149.4	37.8	3600	2512	1	18367	1.1	112.1	0	+∞	Si
0	-4163	7	-4163	0.3	149.4	8.3	3600	-1745	4	-1745	0.1	112.1	0	+∞	Si
107	92807	8	98868	6.2	149.4	197.7	3600	80628	4	85088	5.3	112.1	0	+∞	Si
193	110987	8	110987	6.9	149.4	222	3600	90507	4	90507	5.6	112.1	0	+∞	Si
213	112661	8	112323	7	149.4	224.6	3600	89833	4	89833	5.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
0	0.002	0.002	0.001	0.001	0.002	0.002	0.001	0.001	0.002	0.002	0.003	4	0.003	4	9999	Si
107	0.005	0.003	0.004	0.003	0.004	0.003	0.003	0.003	0.004	0.003	0.008	4	0.006	4	9999	Si
193	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	4	0.002	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pi	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	191.2	6.7	50	0.013	0.00075	0.01349	0	9297	56765	24728	24728	26059	26059	-14300	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	223	-13222	-12222	-2327	223	13667	12222	4429
107	-367	-13812	-12222	-3897	-367	13077	12222	4442
193	-855	-14300	-12222	-6417	-855	12589	12222	6449
213	-965	-14409	-12222	-6517	-965	12480	12222	6349

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
2	0	16	2016674	-2016674
3	193	7	2016674	-2016674

Trave a "Secondo Impalcato" Parete 3 - Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 23 - 3, sezione R 40x50, asta 313; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	12.57	5.3						-693941	SLU 16	-599430	-2637123	0.176	Si
20	16.59	5.3	12.57	5.3						-512291	SLU 16	-512291	-2637123	0.176	Si
227	12.57	5.3	12.57	5.3	390169	SLU 16	480644	2016674	0.15						Si
420	21.99	5.3	21.99	5.3						-396179	SLU 16	-396179	-3467190	0.174	Si
455	21.99	5.3	21.99	5.3						-705616	SLU 16	-538514	-3467190	0.174	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	12.57	5.3	1083257	SLV 13	1061350	2017702	0.142	-1994256	SLV 4	-1852363	-2637123	0.176	Si
20	16.59	5.3	12.57	5.3	1034809	SLV 13	1034809	2017702	0.142	-1715099	SLV 4	-1715099	-2637123	0.176	Si
227	12.57	5.3	12.57	5.3	564116	SLV 4	723727	2016674	0.15	-85076	SLV 13	-254937	-2016674	0.15	Si
420	21.99	5.3	21.99	5.3	1658306	SLV 4	1658306	3467190	0.174	-2144070	SLV 13	-2144070	-3467190	0.174	Si
455	21.99	5.3	21.99	5.3	1752657	SLV 4	1713263	3467190	0.174	-2623036	SLV 13	-2375773	-3467190	0.174	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	12.57	5.3	324392	SLD 13	324392	2017702	0.142	-1235391	SLD 4	-1133882	-2637123	0.176	Si
20	16.59	5.3	12.57	5.3	356713	SLD 13	379172	2017702	0.142	-1037003	SLD 4	-1037003	-2637123	0.176	Si
227	12.57	5.3	12.57	5.3	404165	SLD 4	482546	2016674	0.15	74876	SLD 13	-13756	-2016674	0.15	Si
420	21.99	5.3	21.99	5.3	720948	SLD 4	733604	3467190	0.174	-1206713	SLD 13	-1206713	-3467190	0.174	Si
455	21.99	5.3	21.99	5.3	673950	SLD 4	673950	3467190	0.174	-1544328	SLD 13	-1367740	-3467190	0.174	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	9556	SLU 16	9556	10203	56826	0	10203	1	Si
20	0.157	16.59	0	8714	SLU 16	8714	10203	56826	24755	24755	1	Si
227	0.136	12.57	0	178	SLU 10	178	9297	56765	21431	21431	1	Si
227	0.136	12.57	0	-61	SLU 8	-61	-9297	-56765	-21431	-21431	1	Si
420	0.157	21.99	0	-8133	SLU 16	-8133	-11203	-56765	-24728	-24728	1	Si
455	0	21.99	0	-9608	SLU 16	-9608	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	14256	Ger.	22808	10203	56826	0	10203	1	Si
0	0	12.57	0	-2125	Ger.	-9063	-9297	-56765	0	-9297	1	Si
20	0.157	16.59	0	13726	Ger.	22278	10203	56826	24755	24755	1	Si
20	0.157	12.57	0	-2654	Ger.	-9592	-9297	-56765	-24728	-24728	1	Si
227	0.136	12.57	0	8235	Ger.	16787	9297	56765	21431	21431	1	Si
227	0.136	12.57	0	-8146	Ger.	-15083	-9297	-56765	-21431	-21431	1	Si
420	0.157	21.99	0	3140	Ger.	11692	11203	56765	24728	24728	1	Si
420	0.157	21.99	0	-13240	Ger.	-20178	-11203	-56765	-24728	-24728	1	Si
455	0	21.99	0	2214	Ger.	10766	11203	56765	0	11203	1	Si
455	0	21.99	0	-14166	Ger.	-21104	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	10217	SLD 4	10217	10203	56826	0	10203	1	Si
20	0.157	16.59	0	9688	SLD 4	9688	10203	56826	24755	24755	1	Si
227	0.136	12.57	0	4196	SLD 4	4196	9297	56765	21431	21431	1	Si
227	0.136	12.57	0	-4107	SLD 13	-4107	-9297	-56765	-21431	-21431	1	Si
420	0.157	21.99	0	-9202	SLD 13	-9202	-11203	-56765	-24728	-24728	1	Si
455	0	21.99	0	-10128	SLD 13	-10128	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-508655	8	-439988	25	149.4	676.4	3600	-455500	4	-395506	22.5	112.1	0	+∞	Si
20	-376663	8	-376663	21.4	149.4	579.1	3600	-340145	4	-340145	19.3	112.1	0	+∞	Si
227	280939	8	280939	17.5	149.4	561.9	3600	239520	4	239520	14.9	112.1	0	+∞	Si
420	-285664	8	-285664	13.1	149.4	330.9	3600	-242882	4	-242882	11.1	112.1	0	+∞	Si
455	-509326	8	-388521	17.8	149.4	450	3600	-435189	4	-331255	15.1	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.002	0	0.001	0	0.002	0	0.001	0	0.001	0	0.002	4	0	4	9999	Si
227	0.033	0.017	0.025	0.013	0.029	0.017	0.022	0.013	0.027	0.017	0.05	4	0.031	4	9056	Si
420	0.004	0.002	0.003	0.001	0.004	0.002	0.003	0.001	0.003	0.002	0.006	4	0.004	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	262.7	6.3	50	0.015	0.00052	0.01217	0	9297	56765	24728	24728	24227	24728	22278	0	SLV 9	Si
440	316.5	7.8	50	0.024	0.00038	0.01502	0	11203	56765	24728	24728	25988	25988	-20178	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo						Verifica
	contr. grav.	Vdes	contr. mom. res.	Vela			contr. grav.	Vdes	contr. mom. res.	Vela			
0	6021	-9063	-13712	-2125	6021	22808	15261	14256					
20	5491	-9592	-13712	-2654	5491	22278	15261	13726					
227	0	-15083	-13712	-8146	0	16787	15261	8235					

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
420	-5095	-20178	-13712	-13240	-5095	11692	15261	3140
455	-6021	-21104	-13712	-14166	-6021	10766	15261	2214

Campata 2 tra i fili 3 - 4, sezione R 40x50, asta 317; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3						-258830	SLU 16	-205360	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3						-161140	SLU 16	-161140	-3467190	0.174	Si
197	12.57	5.3	25.54	5.3	66967	SLU 10	126360	3975910	0.255						Si
360	21.99	5.3	21.99	5.3						-163791	SLU 16	-163791	-3467190	0.174	Si
395	21.99	5.3	21.99	5.3						-262053	SLU 16	-208297	-3467190	0.174	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3	2772541	SLV 15	2548607	3467190	0.174	-3154303	SLV 2	-2848234	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	2320449	SLV 15	2320449	3467190	0.174	-2552172	SLV 2	-2552172	-3467190	0.174	Si
197	12.57	5.3	25.54	5.3	55778	SLV 3	354282	3975910	0.255	26624	SLV 14	-277651	-2016028	0.135	Si
360	21.99	5.3	21.99	5.3	2339715	SLV 4	2339715	3467190	0.174	-2577872	SLV 13	-2577872	-3467190	0.174	Si
395	21.99	5.3	21.99	5.3	2791097	SLV 4	2568982	3467190	0.174	-3180680	SLV 13	-2875736	-3467190	0.174	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3	1310326	SLD 15	1217135	3467190	0.174	-1692088	SLD 2	-1516762	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	1118333	SLD 15	1118333	3467190	0.174	-1350057	SLD 2	-1350057	-3467190	0.174	Si
197	12.57	5.3	25.54	5.3	48641	SLD 3	198386	3975910	0.255	33762	SLD 14	-121755	-2016028	0.135	Si
360	21.99	5.3	21.99	5.3	1126381	SLD 4	1126381	3467190	0.174	-1364538	SLD 13	-1364538	-3467190	0.174	Si
395	21.99	5.3	21.99	5.3	1317671	SLD 4	1225594	3467190	0.174	-1707253	SLD 13	-1532348	-3467190	0.174	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	3085	SLU 15	3085	11203	56765	0	11203	1	Si
35	0.188	21.99	0	2539	SLU 15	2539	11203	56765	29673	29673	1	Si
197	0.161	21.99	0	10	SLU 7	10	11203	56765	25277	25277	1	Si
197	0.161	21.99	0	-26	SLU 9	-26	-11203	-56765	-25277	-25277	1	Si
360	0.188	21.99	0	-2561	SLU 9	-2561	-11203	-56765	-29673	-29673	1	Si
395	0	21.99	0	-3107	SLU 9	-3107	-11203	-56765	0	-11203	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	17421	Ger.	25840	11203	56765	0	11203	1	Si
0	0	21.99	0	-12701	Ger.	-21100	-11203	-56765	0	-11203	1	Si
35	0.188	21.99	0	17001	Ger.	25420	11203	56765	29673	29673	1	Si
35	0.188	21.99	0	-13121	Ger.	-21520	-11203	-56765	-29673	-29673	1	Si
197	0.161	21.99	0	15051	Ger.	23470	11203	56765	25277	25277	1	Si
197	0.161	21.99	0	-15071	Ger.	-23470	-11203	-56765	-25277	-25277	1	Si
360	0.188	21.99	0	13101	Ger.	21520	11203	56765	29673	29673	1	Si
360	0.188	21.99	0	-17021	Ger.	-25420	-11203	-56765	-29673	-29673	1	Si
395	0	21.99	0	12681	Ger.	21100	11203	56765	0	11203	1	Si
395	0	21.99	0	-17441	Ger.	-25840	-11203	-56765	0	-11203	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	9989	SLD 4	9989	11203	56765	0	11203	1	Si
0	0	21.99	0	-5269	SLD 13	-5269	-11203	-56765	0	-11203	1	Si
35	0.188	21.99	0	9569	SLD 4	9569	11203	56765	29673	29673	1	Si
35	0.188	21.99	0	-5689	SLD 13	-5689	-11203	-56765	-29673	-29673	1	Si
197	0.161	21.99	0	7619	SLD 4	7619	11203	56765	25277	25277	1	Si
197	0.161	21.99	0	-7639	SLD 13	-7639	-11203	-56765	-25277	-25277	1	Si
360	0.188	21.99	0	5669	SLD 4	5669	11203	56765	29673	29673	1	Si
360	0.188	21.99	0	-9589	SLD 13	-9589	-11203	-56765	-29673	-29673	1	Si
395	0	21.99	0	5249	SLD 4	5249	11203	56765	0	11203	1	Si
395	0	21.99	0	-10009	SLD 13	-10009	-11203	-56765	0	-11203	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-196394	8	-155294	7.1	149.4	179.9	3600	-190881	4	-149813	6.8	112.1	0	+∞	Si
35	-121310	8	-121310	5.5	149.4	140.5	3600	-115862	4	-115862	5.3	112.1	0	+∞	Si
197	51489	2	51489	2.6	149.4	52.2	3600	51333	1	51333	2.6	112.1	0	+∞	Si
360	-123934	8	-123934	5.7	149.4	143.6	3600	-119079	4	-119079	5.4	112.1	0	+∞	Si
395	-199583	8	-158200	7.2	149.4	183.3	3600	-194791	4	-153377	7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
35	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si
197	0.003	0	0.002	0	0.003	0.001	0.002	0	0.003	0.001	0.004	1	0.001	1	9999 Si
360	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	1	-0.002	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
510	194.1	7.8	50	0.024	0.00252	0.01415	0	11203	56765	29673	29673	34302	34302	25420	0	SLV 2	Si
835	195.7	7.8	50	0.024	0.00304	0.01415	0	11203	56765	29673	29673	34184	34184	-25420	0	SLV 14	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2370	-21100	-21337	-12701	2370	25840	21337	17421
35	1950	-21520	-21337	-13121	1950	25420	21337	17001
197	0	-23470	-21337	-15071	0	23470	21337	15061
360	-1950	-25420	-21337	-17021	-1950	21520	21337	13101
395	-2370	-25840	-21337	-17441	-2370	21100	21337	12681

Campata 3 tra i fili 4 - 28, sezione R 40x50, asta 309; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3						-1466273	SLU 16	-1228764	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3						-1015220	SLU 16	-1015220	-3467190	0.174	Si
308	12.57	5.3	12.57	5.3	748008	SLU 16	908153	2016674	0.15						Si
595	15.71	5.3	12.57	5.3						-784410	SLU 16	-784410	-2499469	0.17	Si
615	15.71	5.3	12.57	5.3						-1020303	SLU 16	-898250	-2499469	0.17	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3	810621	SLV 15	810621	3467190	0.174	-2650703	SLV 2	-2411271	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	913126	SLV 15	957987	3467190	0.174	-2186886	SLV 2	-2186886	-3467190	0.174	Si
308	12.57	5.3	12.57	5.3	612667	SLV 15	701976	2016674	0.15						Si
595	15.71	5.3	12.57	5.3	845317	SLV 2	880149	2016586	0.144	-1837230	SLV 15	-1837230	-2499469	0.17	Si
615	15.71	5.3	12.57	5.3	800124	SLV 2	800124	2016586	0.144	-2088774	SLV 15	-1960453	-2499469	0.17	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	21.99	5.3	21.99	5.3						-1797872	SLD 2	-1602969	-3467190	0.174	Si
35	21.99	5.3	21.99	5.3	149360	SLD 15	245408	3467190	0.174	-1423120	SLD 2	-1423120	-3467190	0.174	Si
308	12.57	5.3	12.57	5.3	542242	SLD 15	580388	2016674	0.15						Si
595	15.71	5.3	12.57	5.3	183567	SLD 2	269540	2016586	0.144	-1175480	SLD 15	-1175480	-2499469	0.17	Si
615	15.71	5.3	12.57	5.3	87513	SLD 2	87513	2016586	0.144	-1376163	SLD 15	-1273254	-2499469	0.17	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13677	SLU 16	13677	11203	56765	0	11203	1	Si
35	0.157	21.99	0	12202	SLU 16	12202	11203	56765	24728	24728	1	Si
308	0.113	12.57	0	725	SLU 16	725	9297	56765	17739	17739	1	Si
595	0.157	15.71	0	-11384	SLU 16	-11384	-10015	-56765	-24728	-24728	1	Si
615	0	15.71	0	-12226	SLU 16	-12226	-10015	-56765	0	-10015	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	13748	Ger.	18910	11203	56765	0	11203	1	Si
0	0	21.99	0	3424	Ger.	-3582	-11203	-56765	0	-11203	1	Si
35	0.157	21.99	0	12822	Ger.	17983	11203	56765	24728	24728	1	Si
35	0.157	21.99	0	2498	Ger.	-4508	-11203	-56765	-24728	-24728	1	Si
308	0.113	12.57	0	5610	Ger.	10772	9297	56765	17739	17739	1	Si
308	0.113	12.57	0	-4714	Ger.	-11720	-9297	-56765	-17739	-17739	1	Si
595	0.157	12.57	0	-1998	Ger.	3163	9297	56765	24728	24728	1	Si
595	0.157	15.71	0	-12322	Ger.	-19329	-10015	-56765	-24728	-24728	1	Si
615	0	12.57	0	-2528	Ger.	2634	9297	56765	0	9297	1	Si
615	0	15.71	0	-12852	Ger.	-19858	-10015	-56765	0	-10015	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	21.99	0	11203	SLD 2	11203	11203	56765	0	11203	1	Si
35	0.157	21.99	0	10277	SLD 2	10277	11203	56765	24728	24728	1	Si
308	0.113	12.57	0	3065	SLD 2	3065	9297	56765	17739	17739	1	Si
308	0.113	12.57	0	-2169	SLD 15	-2169	-9297	-56765	-17739	-17739	1	Si
595	0.157	15.71	0	-9777	SLD 15	-9777	-10015	-56765	-24728	-24728	1	Si
615	0	15.71	0	-10307	SLD 15	-10307	-10015	-56765	0	-10015	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1062679	8	-890564	40.7	149.4	1031.6	3600	-920041	4	-770931	35.2	112.1	0	+∞	Si
35	-735817	8	-735817	33.6	149.4	852.3	3600	-636880	4	-636880	29.1	112.1	0	+∞	Si
308	541798	8	546056	34	149.4	1092.1	3600	469040	4	472601	29.5	112.1	0	+∞	Si
595	-569091	8	-569091	33	149.4	918.1	3600	-495956	4	-495956	28.7	112.1	0	+∞	Si
615	-740071	8	-651605	37.7	149.4	1051.2	3600	-644325	4	-567560	32.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.2	0.0003	0.0067	8	22.2	0.00028	0.0062	4	22.2	0.00026	0.0058	4	Si
35	superiore	22.2	0.00025	0.0055	8	22.2	0.00022	0.005	4	22.2	0.00021	0.0048	4	Si
615	superiore	25.2	0.00031	0.0077	8	25.2	0.00028	0.007	4	25.2	0.00027	0.0067	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		l/f
35	0.007	0.004	0.004	0.003	0.006	0.004	0.004	0.003	0.006	0.004	0.012	4	0.009	4	9999	Si
308	0.114	0.068	0.094	0.056	0.103	0.068	0.086	0.056	0.099	0.068	0.197	4	0.136	4	3128	Si
328	0.115	0.068	0.095	0.057	0.104	0.068	0.086	0.057	0.099	0.068	0.197	4	0.136	4	3121	Si
595	0.007	0.004	0.006	0.003	0.006	0.004	0.005	0.003	0.006	0.004	0.012	4	0.008	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
905	256	7.8	50	0.024	0.00248	0.01559	0	11203	56765	24728	24728	25988	25988	17983	0	SLV 2	Si
1465	360.4	6.4	50	0.014	0.00153	0.01249	0	9297	56765	24728	24728	24144	24728	-19329	0	SLV 1	Si

Valutazione dei tagli secondo gerachria delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	8138		-3582		-10655		3424		8138		18910		9792		13748	
35	7212		-4508		-10655		2498		7212		17983		9792		12822	
308	0		-11720		-10655		-4714		0		10772		9792		5610	
595	-7609		-19329		-10655		-12322		-7609		3163		9792		-1998	
615	-8138		-19858		-10655		-12852		-8138		2634		9792		-2528	

Momenti resistenti a filo appoggi

campata		x		appoggio		momento positivo		momento negativo	
1		20		23		2017702		-2637123	
1		420		3		3467190		-3467190	
2		35		3		3467190		-3467190	
2		360		4		3467190		-3467190	
3		35		4		3467190		-3467190	
3		595		28		2016586		-2499469	

Trave a "Secondo Impalcato" Parete 3-Pil.8**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 23 - 25, sezione R 40x50, aste 84, 85, 86, 87, 88, 89, 90, 91****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	200800	SLU 16	136436	2016674	0.15						Si
20	12.57	5.3	12.57	5.3	70773	SLU 16	70773	2016674	0.15	49347	SLU 2	-8024	-2016674	0.15	Si
115	12.57	5.3	12.57	5.3						-11399	SLU 16	-11399	-2016674	0.15	Si
215	12.57	5.3	12.57	5.3						-147341	SLU 16	-175324	-2016674	0.15	Si
230	12.57	5.3	12.57	5.3						-175324	SLU 16	-175324	-2016674	0.15	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}=0.002$, $\epsilon_{yd}=0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	180626	SLV 3	104438	1940331	0.292						Si
20	12.57	5.3	12.57	5.3	95460	SLV 15	95460	1940331	0.292	9172	SLV 2	-80472	-1940331	0.292	Si
115	12.57	5.3	12.57	5.3	-3683	SLV 6	18057	1940331	0.292	-11353	SLV 11	-31056	-1940331	0.292	Si
222	12.57	5.3	12.57	5.3	486902	SLV 3	516174	1940331	0.292	-687825	SLV 14	-734731	-1940331	0.292	Si
230	12.57	5.3	12.57	5.3	516174	SLV 3	516174	1940331	0.292	-734731	SLV 14	-734731	-1940331	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}=0.002$, $\epsilon_{yd}=0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	161421	SLD 3	101165	1940331	0.292						Si
20	12.57	5.3	12.57	5.3	74218	SLD 15	74218	1940331	0.292	30413	SLD 2	-39668	-1940331	0.292	Si
115	12.57	5.3	12.57	5.3	-5513	SLD 6	5968	1940331	0.292	-9523	SLD 11	-18967	-1940331	0.292	Si
222	12.57	5.3	12.57	5.3	200172	SLD 3	210947	1940331	0.292	-401095	SLD 14	-429504	-1940331	0.292	Si
230	12.57	5.3	12.57	5.3	210947	SLD 3	210947	1940331	0.292	-429504	SLD 14	-429504	-1940331	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.57	0	-6436	SLU 16	-6436	-9297	-56765	0	-9297	1	Si
15	0	12.57	0	-6536	SLU 16	-6536	-9297	-56765	0	-9297	1	Si
20	0.094	12.57	0	-6566	SLU 16	-6566	-9297	-56765	-14837	-14837	1	Si
115	0.069	12.57	0	-100	SLU 16	-100	-9297	-56765	-10818	-10818	1	Si
230	0.157	12.57	0	-1875	SLU 16	-1875	-9297	-56765	-24728	-24728	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.57	0	-8344	SLV 4	-8344	-9297	-56765	0	-9297	1	Si
15	0	12.57	0	-8420	SLV 4	-8420	-9297	-56765	0	-9297	1	Si
20	0.094	12.57	0	-8444	SLV 4	-8444	-9297	-56765	-14837	-14837	1	Si
115	0.069	12.57	0	435	SLV 6	435	9297	56765	10818	10818	1	Si
115	0.069	12.57	0	-585	SLV 11	-585	-9297	-56765	-10818	-10818	1	Si
230	0.157	12.57	0	4272	SLV 7	4272	9297	56765	24728	24728	1	Si
230	0.157	12.57	0	-6611	SLV 10	-6611	-9297	-56765	-24728	-24728	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.57	0	-6404	SLD 4	-6404	-9297	-56765	0	-9297	1	Si
15	0	12.57	0	-6481	SLD 4	-6481	-9297	-56765	0	-9297	1	Si
20	0.094	12.57	0	-6504	SLD 4	-6504	-9297	-56765	-14837	-14837	1	Si
115	0.069	12.57	0	195	SLD 6	195	9297	56765	10818	10818	1	Si
115	0.069	12.57	0	-345	SLD 11	-345	-9297	-56765	-10818	-10818	1	Si
230	0.157	12.57	0	1719	SLD 7	1719	9297	56765	24728	24728	1	Si
230	0.157	12.57	0	-4057	SLD 10	-4057	-9297	-56765	-24728	-24728	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	150375	8	102572	6.4	149.4	205.1	3600	141584	4	97450	6.1	112.1	0	+∞	Si
20	53768	8	53768	3.4	149.4	107.5	3600	52316	4	52316	3.3	112.1	0	+∞	Si
115	-8380	8	-8380	0.5	149.4	16.8	3600	-7518	4	-7518	0.5	112.1	0	+∞	Si
230	-127942	8	-127942	8	149.4	255.9	3600	-109279	4	-109279	6.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
20	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
115	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.001	1	9999	Si
169	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.001	1	9999	Si

Campata 2 tra i fili 25 - , sezione R 40x50, asta 92; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3						-201182	SLU 16	-201182	-2016674	0.15	Si
68	12.57	5.3	12.57	5.3						-112804	SLU 16	-135610	-2016674	0.15	Si
137	12.57	5.3	12.57	5.3						-55235	SLU 15	-68775	-2016674	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	599821	SLV 3	599821	2016674	0.15	-850415	SLV 14	-850415	-2016674	0.15	Si
68	12.57	5.3	12.57	5.3	362999	SLV 11	511761	2016674	0.15	-499985	SLV 6	-624324	-2016674	0.15	Si
119	12.57	5.3	12.57	5.3	873362	SLV 15	1090470	2016674	0.15	-956859	SLV 2	-1160771	-2016674	0.15	Si
137	12.57	5.3	12.57	5.3	1090470	SLV 15	1090470	2016674	0.15	-1160771	SLV 2	-1160771	-2016674	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	245978	SLD 3	245978	2016674	0.15	-496572	SLD 14	-496572	-2016674	0.15	Si
68	12.57	5.3	12.57	5.3	161135	SLD 11	234472	2016674	0.15	-298122	SLD 6	-347035	-2016674	0.15	Si
119	12.57	5.3	12.57	5.3	424413	SLD 15	537401	2016674	0.15	-507909	SLD 2	-607703	-2016674	0.15	Si
137	12.57	5.3	12.57	5.3	537401	SLD 15	537401	2016674	0.15	-607703	SLD 2	-607703	-2016674	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	12.57	0	1513	SLU 16	1513	9297	56765	24728	24728	1	Si
50	0.108	12.57	0	1186	SLU 16	1186	9297	56765	17054	17054	1	Si
68	0.108	12.57	0	1068	SLU 16	1068	9297	56765	17054	17054	1	Si
137	0.108	12.57	0	622	SLU 16	622	9297	56765	17054	17054	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	12.57	0	13272	Ger.	14353	9297	56765	24728	24728	1	Si
0	0.157	12.57	0	-11271	Ger.	-12536	-9297	-56765	-24728	-24728	1	Si
50	0.108	12.57	0	13020	Ger.	14102	9297	56765	17054	17054	1	Si
50	0.108	12.57	0	-11522	Ger.	-12787	-9297	-56765	-17054	-17054	1	Si
68	0.108	12.57	0	12929	Ger.	14011	9297	56765	17054	17054	1	Si
68	0.108	12.57	0	-11613	Ger.	-12878	-9297	-56765	-17054	-17054	1	Si
137	0.108	12.57	0	12587	Ger.	13664	9297	56765	17054	17054	1	Si
137	0.108	12.57	0	-11956	Ger.	-13225	-9297	-56765	-17054	-17054	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	12.57	0	7225	SLD 14	7225	9297	56765	24728	24728	1	Si
0	0.157	12.57	0	-5224	SLD 3	-5224	-9297	-56765	-24728	-24728	1	Si
50	0.108	12.57	0	6974	SLD 14	6974	9297	56765	17054	17054	1	Si
50	0.108	12.57	0	-5475	SLD 3	-5475	-9297	-56765	-17054	-17054	1	Si
68	0.108	12.57	0	6883	SLD 14	6883	9297	56765	17054	17054	1	Si
68	0.108	12.57	0	-5567	SLD 3	-5567	-9297	-56765	-17054	-17054	1	Si
137	0.108	12.57	0	6540	SLD 14	6540	9297	56765	17054	17054	1	Si
137	0.108	12.57	0	-5909	SLD 3	-5909	-9297	-56765	-17054	-17054	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-146790	8	-146790	9.2	149.4	293.6	3600	-125297	4	-125297	7.8	112.1	0	+∞	Si
68	-81501	8	-98252	6.1	149.4	196.5	3600	-68493	4	-82753	5.2	112.1	0	+∞	Si
137	-39878	7	-49535	3.1	149.4	99.1	3600	-35151	4	-42521	2.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
68	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.003	1	9999
137	0	-0.001	0	-0.001	0	-0.001	0	0	0	0	0	1	-0.001	1	9999

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	909	-12536	-12222	-11271	909	14353	12222	13272
68	566	-12878	-12222	-11613	566	14011	12222	12929
137	219	-13225	-12222	-11956	219	13664	12222	12587

Campata 3 tra i fili - 8, sezione R 40x50, aste 93, 94, 95, 96; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3						-52183	SLU 15	-52183	-2016674	0.15	Si
107	12.57	5.3	12.57	5.3	100223	SLU 16	125944	2016674	0.15						Si
193	12.57	5.3	12.57	5.3	188334	SLU 16	188334	2016674	0.15						Si
213	12.57	5.3	12.57	5.3	205684	SLU 16	197658	2016674	0.15						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	1035938	SLV 15	1035938	2016674	0.15	-1102216	SLV 2	-1102216	-2016674	0.15	Si
107	12.57	5.3	12.57	5.3	249871	SLV 10	420818	2016674	0.15	-122215	SLV 7	-262368	-2016674	0.15	Si
193	12.57	5.3	12.57	5.3	1075151	SLV 6	1075151	2016674	0.15	-848804	SLV 11	-848804	-2016674	0.15	Si
213	12.57	5.3	12.57	5.3	1291628	SLV 6	1183889	2016674	0.15	-1048093	SLV 11	-947949	-2016674	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.57	5.3	12.57	5.3	510643	SLD 15	510643	2016674	0.15	-576921	SLD 2	-576921	-2016674	0.15	Si
107	12.57	5.3	12.57	5.3	163280	SLD 10	261370	2016674	0.15	-35623	SLD 7	-102920	-2016674	0.15	Si
193	12.57	5.3	12.57	5.3	623157	SLD 6	623157	2016674	0.15	-396809	SLD 11	-396809	-2016674	0.15	Si
213	12.57	5.3	12.57	5.3	741781	SLD 6	682968	2016674	0.15	-498246	SLD 11	-447028	-2016674	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	12.57	0	1507	SLU 16	1507	9297	56765	17054	17054	1	Si
57	0.099	12.57	0	1500	SLU 16	1500	9297	56765	15563	15563	1	Si
107	0.099	12.57	0	1177	SLU 16	1177	9297	56765	15563	15563	1	Si
193	0.157	12.57	0	932	SLU 16	932	9297	56765	24728	24728	1	Si
213	0	12.57	0	802	SLU 16	802	9297	56765	0	9297	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	12.57	0	10774	Ger.	13664	9297	56765	17054	17054	1	Si
0	0.108	12.57	0	-8763	Ger.	-13225	-9297	-56765	-17054	-17054	1	Si
107	0.099	12.57	0	10250	Ger.	13085	9297	56765	15563	15563	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
107	0.099	12.57	0	-8835	Ger.	-13804	-9297	-56765	-15563	-15563	1	Si
193	0.157	12.57	0	11573	Ger.	12592	9297	56765	24728	24728	1	Si
193	0.157	12.57	0	-10614	Ger.	-14297	-9297	-56765	-24728	-24728	1	Si
213	0	12.57	0	11473	Ger.	12482	9297	56765	0	9297	1	Si
213	0	12.57	0	-10714	Ger.	-14407	-9297	-56765	0	-9297	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	12.57	0	5985	SLD 2	5985	9297	56765	17054	17054	1	Si
0	0.108	12.57	0	-3973	SLD 15	-3973	-9297	-56765	-17054	-17054	1	Si
107	0.099	12.57	0	5579	SLD 2	5579	9297	56765	15563	15563	1	Si
107	0.099	12.57	0	-4164	SLD 15	-4164	-9297	-56765	-15563	-15563	1	Si
193	0.157	12.57	0	6168	SLD 2	6168	9297	56765	24728	24728	1	Si
193	0.157	12.57	0	-5209	SLD 15	-5209	-9297	-56765	-24728	-24728	1	Si
199	0	12.57	0	6139	SLD 2	6139	9297	56765	0	9297	1	Si
199	0	12.57	0	-5238	SLD 15	-5238	-9297	-56765	0	-9297	1	Si
213	0	12.57	0	6068	SLD 2	6068	9297	56765	0	9297	1	Si
213	0	12.57	0	-5309	SLD 15	-5309	-9297	-56765	0	-9297	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-37656	7	-37656	2.3	149.4	75.3	3600	-33139	4	-33139	2.1	112.1	0	+∞	Si
107	73260	8	91780	5.7	149.4	183.6	3600	63828	4	79225	4.9	112.1	0	+∞	Si
193	135796	8	135796	8.5	149.4	271.6	3600	113174	4	113174	7.1	112.1	0	+∞	Si
213	147813	8	142303	8.9	149.4	284.6	3600	121768	4	117970	7.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
0	0	-0.001	0	-0.001	0	-0.001	0	0	0	0	0	1	-0.001	1	9999
107	0.003	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.005	4	0.004	4	9999
128	0.003	0.002	0.003	0.002	0.003	0.002	0.002	0.002	0.003	0.002	0.005	4	0.004	4	9999
193	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	4	0.002	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	234.3	6.7	50	0.013	0.00078	0.01182	0	9297	56765	24728	24728	24440	24728	-14297	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	219	-13225	-12222	-8763	219	13664	12222	10774
107	-360	-13804	-12222	-8835	-360	13085	12222	10250
193	-852	-14297	-12222	-10614	-852	12592	12222	11573
213	-962	-14407	-12222	-10714	-962	12482	12222	11473

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
2	0	25	2016674	-2016674
3	193	8	2016674	-2016674

Trave a "Secondo Impalcato" Pil.1-Pil.5

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 1 - 5, sezione R 70x25, asta 153; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-664221	SLU 16	-597136	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-534527	SLU 16	-534527	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	314275	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-520789	SLU 16	-520789	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-649465	SLU 16	-582890	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-519034	SLV 9	-474882	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-433390	SLV 9	-433390	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	187151	SLV 4	189629	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-427237	SLV 8	-427237	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-512438	SLV 8	-468508	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-460850	SLD 9	-418703	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-379215	SLD 9	-379215	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	187000	SLD 4	187840	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-373148	SLD 8	-373148	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-454339	SLD 8	-412414	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6723	SLU 16	6723	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6261	SLU 16	6261	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	25	SLU 16	25	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6210	SLU 16	-6210	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6672	SLU 16	-6672	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4424	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	4149	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	444	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-422	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-4127	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4402	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4223	SLD 9	4223	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3949	SLD 9	3949	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	243	SLD 9	243	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-221	SLD 8	-221	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3927	SLD 8	-3927	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4201	SLD 8	-4201	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-474089	8	-426197	98.3	149.4	3029	3600	-393450	4	-353626	81.6	112.1	0	+∞	Si
20	-381500	8	-381500	88	149.4	2711.3	3600	-316461	4	-316461	73	112.1	0	+∞	Si
290	224406	8	224406	58.2	149.4	2092.8	3600	186846	4	186846	48.5	112.1	0	+∞	Si
560	-371922	8	-371922	85.8	149.4	2643.3	3600	-310480	4	-310480	71.6	112.1	0	+∞	Si
580	-463802	8	-416264	96	149.4	2958.4	3600	-387026	4	-347423	80.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00096	0.0287	8	29.9	0.00095	0.0284	4	29.9	0.00088	0.0263	4	Si
20	superiore	29.9	0.0008	0.0241	8	29.9	0.00082	0.0244	4	29.9	0.00075	0.0224	4	Si
290	inferiore	35.4	0.00061	0.0216	8	35.4	0.00054	0.019	4	35.4	0.00051	0.018	4	Si
560	superiore	29.9	0.00077	0.0231	8	29.9	0.00079	0.0236	4	29.9	0.00073	0.0218	4	Si
580	superiore	29.9	0.00092	0.0276	8	29.9	0.00093	0.0277	4	29.9	0.00086	0.0256	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.004	0.002	0.001	-0.009	0.004	0.002	0.001	-0.005	0.003	0.002	0.001	4	-0.016	4	9999
290	0.164	0.082	0.147	0.076	0.144	0.082	0.126	0.076	0.136	0.082	0.322	4	0.208	4	1801
560	0.005	0.002	0.001	-0.007	0.004	0.002	0.001	-0.004	0.004	0.002	0.002	4	-0.014	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	134.2	4.6	25	0.008	0.00051	0.00609	0	8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	115.1	4.6	25	0.008	0.00117	0.00609	0	8129	44224	52841	52841	47492	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	3980	0	-1942	2382		3980	6723	1942	6723	
20	3705	0	-1942	2218		3705	6261	1942	6261	
290	0	-2136	-1942	-422		0	2136	1942	444	
560	-3705	-6210	-1942	-6210		-3705	0	1942	-2206	
580	-3980	-6672	-1942	-6672		-3980	0	1942	-2370	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	1	464394	-584167
1	560	5	464394	-584167

Trave a "Secondo Impalcato" Pil.2-Pil.6

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 2 - 6, sezione R 70x25, asta 157; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-659275	SLU 16	-592360	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-529921	SLU 16	-529921	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	314297	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-525352	SLU 16	-525352	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-654368	SLU 16	-587622	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-512451	SLV 5	-468525	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-427258	SLV 5	-427258	-584167	0.231	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
290	6.03	5.1	6.03	5.1	186970	SLV 13	189412	462640	0.21						
560	8.04	5.1	6.03	5.1						-425783	SLV 12	-425783	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-510871	SLV 12	-466997	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-456228	SLD 5	-414240	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-374911	SLD 5	-374911	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	186900	SLD 13	187682	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-373459	SLD 12	-373459	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-454670	SLD 12	-412735	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6706	SLU 16	6706	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6244	SLU 16	6244	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	8	SLU 16	8	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6227	SLU 16	-6227	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6689	SLU 16	-6689	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4401	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	4127	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	421	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-416	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-4121	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4396	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4207	SLD 5	4207	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3933	SLD 5	3933	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	227	SLD 5	227	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-222	SLD 12	-222	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3928	SLD 12	-3928	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4202	SLD 12	-4202	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-470613	8	-422840	97.6	149.4	3005.1	3600	-391023	4	-351283	81	112.1	0	+∞	Si
20	-378263	8	-378263	87.3	149.4	2688.3	3600	-314203	4	-314203	72.5	112.1	0	+∞	Si
290	224418	8	224418	58.2	149.4	2092.9	3600	186829	4	186829	48.5	112.1	0	+∞	Si
560	-375136	8	-375136	86.5	149.4	2666.1	3600	-312772	4	-312772	72.2	112.1	0	+∞	Si
580	-467255	8	-419598	96.8	149.4	2982.1	3600	-389487	4	-349800	80.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00095	0.0283	8	29.9	0.00094	0.0281	4	29.9	0.00087	0.026	4	Si
20	superiore	29.9	0.00079	0.0237	8	29.9	0.00081	0.0241	4	29.9	0.00074	0.0222	4	Si
290	inferiore	35.4	0.00061	0.0216	8	35.4	0.00054	0.019	4	35.4	0.00051	0.018	4	Si
560	superiore	29.9	0.00078	0.0234	8	29.9	0.0008	0.0239	4	29.9	0.00074	0.0221	4	Si
580	superiore	29.9	0.00094	0.028	8	29.9	0.00093	0.0279	4	29.9	0.00087	0.0259	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.004	0.002	0.001	-0.008	0.004	0.002	0.001	-0.005	0.004	0.002	0.002	4	-0.015	4	9999
290	0.164	0.082	0.147	0.076	0.144	0.082	0.126	0.076	0.136	0.082	0.322	4	0.208	4	1801
560	0.004	0.002	0.001	-0.008	0.004	0.002	0.001	-0.005	0.004	0.002	0.002	4	-0.015	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	134.8	4.6	25	0.008	0.00052	0.00609	0	8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	114.8	4.6	25	0.008	0.00113	0.00609	0	8129	44224	52841	52841	47504	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3980	0	-1942	2377	3980	6706	1942	6706
20	3705	0	-1942	2213	3705	6244	1942	6244
290	0	-2136	-1942	-416	0	2136	1942	421
560	-3705	-6227	-1942	-6227	-3705	0	1942	-2211
580	-3980	-6689	-1942	-6689	-3980	0	1942	-2375

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	2	464394	-584167
1	560	6	464394	-584167

Trave a "Secondo Impalcato" Pil.3-Pil.9

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 3 - 9, sezione R 70x25, asta 149; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-661212	SLU 16	-594235	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-531734	SLU 16	-531734	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	314155	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-523824	SLU 16	-523824	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-652716	SLU 16	-586032	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-514262	SLV 10	-470276	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-428949	SLV 10	-428949	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	186901	SLV 4	189337	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-425986	SLV 7	-425986	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-511085	SLV 7	-467206	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-457526	SLD 10	-415495	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-376124	SLD 10	-376124	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	186834	SLD 4	187623	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-373200	SLD 7	-373200	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-454388	SLD 7	-412464	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6712	SLU 16	6712	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6250	SLU 16	6250	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	15	SLU 16	15	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6221	SLU 16	-6221	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6683	SLU 16	-6683	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4407	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	4133	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	427	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-417	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-4122	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4396	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4212	SLD 10	4212	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3937	SLD 10	3937	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	232	SLD 10	232	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-221	SLD 7	-221	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3926	SLD 7	-3926	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4201	SLD 7	-4201	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-471964	8	-424148	97.9	149.4	3014.4	3600	-391867	4	-352100	81.2	112.1	0	+∞	Si
20	-379528	8	-379528	87.6	149.4	2697.3	3600	-314993	4	-314993	72.7	112.1	0	+∞	Si
290	224318	8	224318	58.2	149.4	2092	3600	186765	4	186765	48.5	112.1	0	+∞	Si
560	-374070	8	-374070	86.3	149.4	2658.5	3600	-312109	4	-312109	72	112.1	0	+∞	Si
580	-466103	8	-418489	96.5	149.4	2974.2	3600	-388769	4	-349109	80.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00095	0.0285	8	29.9	0.00094	0.0282	4	29.9	0.00087	0.0261	4	Si
20	superiore	29.9	0.0008	0.0239	8	29.9	0.00081	0.0242	4	29.9	0.00075	0.0223	4	Si
290	inferiore	35.4	0.00061	0.0216	8	35.4	0.00054	0.019	4	35.4	0.00051	0.018	4	Si
560	superiore	29.9	0.00078	0.0233	8	29.9	0.0008	0.0238	4	29.9	0.00074	0.022	4	Si
580	superiore	29.9	0.00093	0.0279	8	29.9	0.00093	0.0279	4	29.9	0.00086	0.0258	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f		
20	0.004	0.002	0.001	-0.009	0.004	0.002	0.001	-0.005	0.004	0.002	0.001	4	-0.015	4		9999	Si
290	0.164	0.082	0.147	0.076	0.144	0.082	0.125	0.076	0.136	0.082	0.322	4	0.208	4		1803	Si
560	0.004	0.002	0.001	-0.008	0.004	0.002	0.001	-0.005	0.004	0.002	0.002	4	-0.015	4		9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	131.3	4.6	25	0.008	0.00046	0.00609	0	8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	118.7	4.6	25	0.008	0.00111	0.00609	0	8129	44224	52841	52841	47356	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3980	0	-1942	2378	3980	6712	1942	6712
20	3705	0	-1942	2215	3705	6250	1942	6250
290	0	-2136	-1942	-417	0	2136	1942	427
560	-3705	-6221	-1942	-6221	-3705	0	1942	-2210
580	-3980	-6683	-1942	-6683	-3980	0	1942	-2374

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
	1	20	464394	-584167
	1	560	464394	-584167

Trave a "Secondo Impalcato" Pil.4-Pil.10

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x25	Rettangolare	70	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 4 - 10, sezione R 70x25, asta 161; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-666060	SLU 16	-598907	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-536230	SLU 16	-536230	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	314411	SLU 16	452650	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-518816	SLU 16	-518816	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-647356	SLU 16	-580849	-584167	0.231	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-518094	SLV 10	-473967	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-432499	SLV 10	-432499	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	187211	SLV 13	189732	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-425060	SLV 7	-425060	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-510092	SLV 7	-466246	-584167	0.231	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-460740	SLD 10	-418592	-584167	0.231	Si
20	8.04	5.1	6.03	5.1						-379103	SLD 10	-379103	-584167	0.231	Si
290	6.03	5.1	6.03	5.1	187060	SLD 13	187933	462640	0.21						Si
560	8.04	5.1	6.03	5.1						-371587	SLD 7	-371587	-584167	0.231	Si
580	8.04	5.1	6.03	5.1						-452661	SLD 7	-410794	-584167	0.231	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6730	SLU 16	6730	8129	44224	0	8129	1	Si
20	0.754	8.04	0	6268	SLU 16	6268	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	32	SLU 16	32	7386	44224	13929	13929	1	Si
560	0.754	8.04	0	-6203	SLU 16	-6203	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-6665	SLU 16	-6665	-8129	-44224	0	-8129	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4421	Ger.	6116	8129	44224	0	8129	1	Si
20	0.754	8.04	0	4147	Ger.	5841	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	441	Ger.	2136	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-413	Ger.	-2136	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-4119	Ger.	-5841	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4393	Ger.	-6116	-8129	-44224	0	-8129	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4223	SLD 10	4223	8129	44224	0	8129	1	Si
20	0.754	8.04	0	3949	SLD 10	3949	8129	44224	52841	44224	1	Si
290	0.199	6.03	0	243	SLD 10	243	7386	44224	13929	13929	1	Si
290	0.199	6.03	0	-215	SLD 7	-215	-7386	-44224	-13929	-13929	1	Si
560	0.754	8.04	0	-3921	SLD 7	-3921	-8129	-44224	-52841	-44224	1	Si
580	0	8.04	0	-4195	SLD 7	-4195	-8129	-44224	0	-8129	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-475373	8	-427433	98.6	149.4	3037.8	3600	-394255	4	-354401	81.8	112.1	0	+∞	Si
20	-382689	8	-382689	88.3	149.4	2719.8	3600	-317207	4	-317207	73.2	112.1	0	+∞	Si
290	224501	8	224501	58.2	149.4	2093.7	3600	186906	4	186906	48.5	112.1	0	+∞	Si
560	-370545	8	-370545	85.5	149.4	2633.5	3600	-309614	4	-309614	71.4	112.1	0	+∞	Si
580	-462329	8	-414839	95.7	149.4	2948.3	3600	-386101	4	-346528	79.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	29.9	0.00096	0.0288	8	29.9	0.00095	0.0285	4	29.9	0.00088	0.0264	4	Si
20	superiore	29.9	0.00081	0.0242	8	29.9	0.00082	0.0244	4	29.9	0.00075	0.0225	4	Si
290	inferiore	35.4	0.00061	0.0216	8	35.4	0.00054	0.019	4	35.4	0.00051	0.018	4	Si
560	superiore	29.9	0.00077	0.0229	8	29.9	0.00079	0.0235	4	29.9	0.00073	0.0217	4	Si
580	superiore	29.9	0.00092	0.0275	8	29.9	0.00092	0.0276	4	29.9	0.00085	0.0255	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente				Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Fess. viscosa-	
20	0.004	0.002	0.001	-0.009	0.004	0.002	0.001	-0.006	0.003	0.002	0.001	4	9999
290	0.164	0.082	0.147	0.076	0.144	0.082	0.126	0.076	0.137	0.082	0.322	4	1799
560	0.005	0.002	0.001	-0.007	0.004	0.002	0.001	-0.004	0.004	0.002	0.002	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	132.8	4.6	25	0.008	0.00048	0.00609	0	8129	44224	52841	52841	47120	44224	5841	0	SLV 1	Si
580	117.2	4.6	25	0.008	0.00106	0.00609	0	8129	44224	52841	52841	47412	44224	-5841	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3980	0	-1942	2384	3980	6730	1942	6730
20	3705	0	-1942	2220	3705	6268	1942	6268
290	0	-2136	-1942	-413	0	2136	1942	441

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
560	-3705	-6203	-1942	-6203	-3705	0	1942	-2205
580	-3980	-6665	-1942	-6665	-3980	0	1942	-2369

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	4	464394	-584167
1	560	10	464394	-584167

Trave a "Secondo Impalcato" su Parete 1

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 12, sezione R 40x50, aste 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	136076	SLU 16	70531	692902	0.099						Si
20	4.02	5.1	4.02	5.1	3686	SLU 16	3686	692902	0.099	1705	SLU 2	-34207	-692902	0.099	Si
290	4.02	5.1	4.02	5.1						-4734	SLU 16	-4734	-692902	0.099	Si
560	4.02	5.1	4.02	5.1	2150	SLU 13	2150	692902	0.099	950	SLU 3	-36996	-692902	0.099	Si
580	4.02	5.1	4.02	5.1	142253	SLU 16	72638	692902	0.099						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	147164	SLV 4	61972	651898	0.185						Si
20	4.02	5.1	4.02	5.1	50143	SLV 16	50143	651898	0.185	-45375	SLV 1	-79296	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	55672	SLV 9	55672	651898	0.185	-61886	SLV 8	-61886	-651898	0.185	Si
522	4.02	5.1	4.02	5.1	18268	SLV 13	35891	651898	0.185	-56393	SLV 4	-81330	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	50206	SLV 13	50206	651898	0.185	-47137	SLV 4	-81330	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	148440	SLV 1	62566	651898	0.185						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	116976	SLD 4	53802	651898	0.185						Si
20	4.02	5.1	4.02	5.1	26675	SLD 16	26675	651898	0.185	-21907	SLD 1	-52137	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	28290	SLD 9	28290	651898	0.185	-34504	SLD 8	-34504	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	26284	SLD 13	26284	651898	0.185	-23215	SLD 4	-53737	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	118984	SLD 1	54573	651898	0.185						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-6554	SLU 16	-6554	-6754	-57019	0	-6754	1	Si
20	0.094	4.02	0	-6684	SLU 16	-6684	-6754	-57019	-14903	-14903	1	Si
290	0.061	4.02	0	-190	SLU 16	-190	-6754	-57019	-9597	-9597	1	Si
560	0.094	4.02	0	7092	SLU 16	7092	6754	57019	14903	14903	1	Si
561	0	4.02	0	7087	SLU 16	7087	6754	57019	0	6754	1	Si
580	0	4.02	0	6962	SLU 16	6962	6754	57019	0	6754	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	953	SLV 13	953	6754	57019	0	6754	1	Si
0	0	4.02	0	-9182	SLV 4	-9182	-6754	-57019	0	-6754	1	Si
20	0.094	4.02	0	853	SLV 13	853	6754	57019	14903	14903	1	Si
20	0.094	4.02	0	-9282	SLV 4	-9282	-6754	-57019	-14903	-14903	1	Si
290	0.061	4.02	0	2259	SLV 9	2259	6754	57019	9597	9597	1	Si
290	0.061	4.02	0	-2542	SLV 8	-2542	-6754	-57019	-9597	-9597	1	Si
560	0.094	4.02	0	9445	SLV 1	9445	6754	57019	14903	14903	1	Si
560	0.094	4.02	0	-656	SLV 16	-656	-6754	-57019	-14903	-14903	1	Si
561	0	4.02	0	9442	SLV 1	9442	6754	57019	0	6754	1	Si
561	0	4.02	0	-659	SLV 16	-659	-6754	-57019	0	-6754	1	Si
580	0	4.02	0	9345	SLV 1	9345	6754	57019	0	6754	1	Si
580	0	4.02	0	-756	SLV 16	-756	-6754	-57019	0	-6754	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-6684	SLD 4	-6684	-6754	-57019	0	-6754	1	Si
20	0.094	4.02	0	-6784	SLD 4	-6784	-6754	-57019	-14903	-14903	1	Si
290	0.061	4.02	0	1141	SLD 9	1141	6754	57019	9597	9597	1	Si
290	0.061	4.02	0	-1424	SLD 8	-1424	-6754	-57019	-9597	-9597	1	Si
560	0.094	4.02	0	6955	SLD 1	6955	6754	57019	14903	14903	1	Si
561	0	4.02	0	6952	SLD 1	6952	6754	57019	0	6754	1	Si
580	0	4.02	0	6855	SLD 1	6855	6754	57019	0	6754	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente						Verifica	
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	98666	8	51185	5.6	149.4	307.1	3600	85675	4	44529	4.9	112.1	0	+∞	Si
20	2704	8	2704	0.3	149.4	16.2	3600	2384	4	2384	0.3	112.1	0	+∞	Si
290	-3483	8	-3483	0.4	149.4	20.9	3600	-3107	4	-3107	0.3	112.1	0	+∞	Si
560	1620	5	1620	0.2	149.4	9.7	3600	1620	3	1620	0.2	112.1	0	+∞	Si

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
580	102985	8	52660	5.8	149.4	316	3600	88427	4	45480	5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
20	0	-0.001	0	0	0	-0.001	0	0	0	-0.001	0	1	0	1	9999 Si
290	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.003	1	9999 Si
560	0	-0.001	0	0	0	-0.001	0	0	0	-0.001	0	1	-0.001	1	9999 Si

Trave a "Secondo Impalcato" su parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 40x50	Rettangolare	40	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 28 - 29, sezione R 40x50, aste 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	136363	SLU 16	70603	692902	0.099						Si
20	4.02	5.1	4.02	5.1	3544	SLU 16	3544	692902	0.099	1586	SLU 2	-34183	-692902	0.099	Si
290	4.02	5.1	4.02	5.1						-4871	SLU 16	-4871	-692902	0.099	Si
560	4.02	5.1	4.02	5.1	2742	SLU 16	2742	692902	0.099	1408	SLU 2	-35284	-692902	0.099	Si
580	4.02	5.1	4.02	5.1	137410	SLU 16	70726	692902	0.099						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	146449	SLV 15	61655	651898	0.185						Si
20	4.02	5.1	4.02	5.1	50534	SLV 3	50534	651898	0.185	-46013	SLV 14	-79339	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	54210	SLV 6	54210	651898	0.185	-60554	SLV 11	-60554	-651898	0.185	Si
541	4.02	5.1	4.02	5.1	35771	SLV 6	50026	651898	0.185	-79800	SLV 11	-79800	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	50026	SLV 2	50026	651898	0.185	-46182	SLV 15	-79800	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	147169	SLV 14	61793	651898	0.185						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	116716	SLD 15	53656	651898	0.185						Si
20	4.02	5.1	4.02	5.1	26807	SLD 3	26807	651898	0.185	-22286	SLD 14	-52149	-651898	0.185	Si
290	4.02	5.1	4.02	5.1	27502	SLD 6	27502	651898	0.185	-33845	SLD 11	-33845	-651898	0.185	Si
560	4.02	5.1	4.02	5.1	26388	SLD 2	26388	651898	0.185	-22543	SLD 15	-52611	-651898	0.185	Si
580	4.02	5.1	4.02	5.1	117315	SLD 14	53762	651898	0.185						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-6576	SLU 16	-6576	-6754	-57019	0	-6754	1	Si
20	0.094	4.02	0	-6706	SLU 16	-6706	-6754	-57019	-14903	-14903	1	Si
290	0.061	4.02	0	-196	SLU 16	-196	-6754	-57019	-9597	-9597	1	Si
560	0.094	4.02	0	6798	SLU 16	6798	6754	57019	14903	14903	1	Si
561	0	4.02	0	6794	SLU 16	6794	6754	57019	0	6754	1	Si
580	0	4.02	0	6668	SLU 16	6668	6754	57019	0	6754	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	933	SLV 2	933	6754	57019	0	6754	1	Si
0	0	4.02	0	-9194	SLV 15	-9194	-6754	-57019	0	-6754	1	Si
20	0.094	4.02	0	833	SLV 2	833	6754	57019	14903	14903	1	Si
20	0.094	4.02	0	-9294	SLV 15	-9294	-6754	-57019	-14903	-14903	1	Si
290	0.061	4.02	0	2212	SLV 10	2212	6754	57019	9597	9597	1	Si
290	0.061	4.02	0	-2500	SLV 7	-2500	-6754	-57019	-9597	-9597	1	Si
560	0.094	4.02	0	9323	SLV 14	9323	6754	57019	14903	14903	1	Si
560	0.094	4.02	0	-779	SLV 3	-779	-6754	-57019	-14903	-14903	1	Si
561	0	4.02	0	9320	SLV 14	9320	6754	57019	0	6754	1	Si
561	0	4.02	0	-782	SLV 3	-782	-6754	-57019	0	-6754	1	Si
580	0	4.02	0	9223	SLV 14	9223	6754	57019	0	6754	1	Si
580	0	4.02	0	-879	SLV 3	-879	-6754	-57019	0	-6754	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-6698	SLD 15	-6698	-6754	-57019	0	-6754	1	Si
20	0.094	4.02	0	-6798	SLD 15	-6798	-6754	-57019	-14903	-14903	1	Si
290	0.061	4.02	0	1116	SLD 10	1116	6754	57019	9597	9597	1	Si
290	0.061	4.02	0	-1403	SLD 7	-1403	-6754	-57019	-9597	-9597	1	Si
560	0.094	4.02	0	6833	SLD 14	6833	6754	57019	14903	14903	1	Si
561	0	4.02	0	6829	SLD 14	6829	6754	57019	0	6754	1	Si
580	0	4.02	0	6733	SLD 14	6733	6754	57019	0	6754	1	Si

Verifiche delle tensioni in esercizio

x	Rara	Quasi permanente	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	98880	8	51237	5.6	149.4	307.4	3600	85877	4	44569	4.9	112.1	0	+∞	Si
20	2594	8	2594	0.3	149.4	15.6	3600	2261	4	2261	0.2	112.1	0	+∞	Si
290	-3579	8	-3579	0.4	149.4	21.5	3600	-3172	4	-3172	0.3	112.1	0	+∞	Si
560	2036	8	2036	0.2	149.4	12.2	3600	1922	4	1922	0.2	112.1	0	+∞	Si
580	99614	8	51325	5.6	149.4	307.9	3600	86363	4	44643	4.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0	-0.001	0	0	0	-0.001	0	0	0	-0.001	0	1	0	1	9999	Si
290	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.003	1	9999	Si
560	0	-0.001	0	0	0	-0.001	0	0	0	-0.001	0	1	0	1	9999	Si

Trave a "Secondo Impalcato" vano ascensore

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 20 - 22, sezione R 30x50, aste 117, 118, 119, 120; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-10483	SLU 16	-10483	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3						-22325	SLU 16	-39937	-1512506	0.15	Si
34	9.42	5.3	9.42	5.3						-38897	SLU 16	-44181	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	-5786	SLU 1	7320	1512506	0.15	-18443	SLU 16	-24931	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3						-16771	SLU 16	-36050	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3						-3685	SLU 16	-3685	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	1752444	SLV 16	1602193	1512506	0.15	-1762569	SLV 1	-1619388	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	1452031	SLV 16	1452031	1512506	0.15	-1477138	SLV 1	-1477138	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	152268	SLV 16	461630	1512506	0.15	-171840	SLV 1	-489452	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3	1090811	SLV 1	1090811	1512506	0.15	-1110690	SLV 16	-1110690	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3	1342079	SLV 1	1216701	1512506	0.15	-1346002	SLV 16	-1228181	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	885360	SLD 16	807614	1512506	0.15	-895484	SLD 1	-824809	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	729692	SLD 16	729692	1512506	0.15	-754799	SLD 1	-754799	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	72723	SLD 16	227481	1512506	0.15	-92296	SLD 1	-255302	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3	547830	SLD 1	547830	1512506	0.15	-567710	SLD 16	-567710	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3	679303	SLD 1	613799	1512506	0.15	-683226	SLD 16	-625280	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-753	SLU 16	-753	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	-826	SLU 16	-826	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	273	SLU 16	273	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	909	SLU 16	909	6972	42573	24728	24728	1	Si
159	0	9.42	0	891	SLU 16	891	6972	42573	0	6972	1	Si
170	0	9.42	0	836	SLU 16	836	6972	42573	0	6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	19763	Ger.	24087	6972	42573	0	6972	1	Si
0	0	9.42	0	-20706	Ger.	-23449	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	19707	Ger.	24030	6972	42573	24728	24728	1	Si
15	0.157	9.42	0	-20762	Ger.	-23505	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	15762	Ger.	23768	6972	42573	24728	24728	1	Si
85	0.157	9.42	0	-15428	Ger.	-23768	-6972	-42573	-24728	-24728	1	Si
155	0.157	9.42	0	16785	Ger.	23505	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	-15665	Ger.	-24030	-6972	-42573	-24728	-24728	1	Si
170	0	9.42	0	16729	Ger.	23449	6972	42573	0	6972	1	Si
170	0	9.42	0	-15722	Ger.	-24087	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	9788	SLD 3	9788	6972	42573	0	6972	1	Si
0	0	9.42	0	-10731	SLD 14	-10731	-6972	-42573	0	-6972	1	Si
11	0	9.42	0	9746	SLD 3	9746	6972	42573	0	6972	1	Si
11	0	9.42	0	-10773	SLD 14	-10773	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	9732	SLD 3	9732	6972	42573	24728	24728	1	Si
15	0.157	9.42	0	-10787	SLD 14	-10787	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	8071	SLD 1	8071	6972	42573	24728	24728	1	Si
85	0.157	9.42	0	-7738	SLD 16	-7738	-6972	-42573	-24728	-24728	1	Si
155	0.157	9.42	0	8796	SLD 1	8796	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	-7676	SLD 16	-7676	-6972	-42573	-24728	-24728	1	Si
170	0	9.42	0	8740	SLD 1	8740	6972	42573	0	6972	1	Si
170	0	9.42	0	-7732	SLD 16	-7732	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-7433	8	-7433	0.6	149.4	19.8	3600	-5062	4	-5062	0.4	112.1	0	+∞	Si
15	-16028	8	-28886	2.4	149.4	77	3600	-12553	4	-23930	2	112.1	0	+∞	Si
85	-13067	8	-17798	1.5	149.4	47.5	3600	-9786	4	-13911	1.2	112.1	0	+∞	Si
155	-12116	8	-26137	2.2	149.4	69.7	3600	-9940	4	-21971	1.8	112.1	0	+∞	Si
170	-2653	8	-2653	0.2	149.4	7.1	3600	-1961	4	-1961	0.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si
79	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999 Si
85	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999 Si
155	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	98.4	6.7	50	0.013	0.00041	0.01123	0	6972	42573	24728	24728	27537	27537	24030	0	SLV 5	Si
170	87.1	6.7	50	0.013	0.00044	0.01123	0	6972	42573	24728	24728	27856	27856	-24030	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	319	-23449	-21607	-20706		319	24087	21607	19763	
15	262	-23505	-21607	-20762		262	24030	21607	19707	
85	0	-23768	-21607	-15428		0	23768	21607	15762	
155	-262	-24030	-21607	-15665		-262	23505	21607	16785	
170	-319	-24087	-21607	-15722		-319	23449	21607	16729	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	20	1512506	-1512506
1	155	22	1512506	-1512506

Trave a "Sesto Impalcato / Copertura" Parete 1 - Parete 2

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 1, sezione R 30x50, asta 405; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-549241	SLU 15	-483060	-993776	0.126	Si
15	6.03	5.1	6.03	5.1						-419121	SLU 15	-419121	-993776	0.126	Si
310	6.03	5.1	6.03	5.1	704210	SLU 14	717058	993776	0.126						Si
590	7.16	5.1	6.03	5.1						-823901	SLU 14	-823901	-1171390	0.136	Si
620	7.16	5.1	6.03	5.1						-1134618	SLU 14	-972903	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	26297	SLV 13	26297	993776	0.126	-628903	SLV 4	-583951	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	75479	SLV 13	136408	993776	0.126	-540175	SLV 4	-540175	-993776	0.126	Si
310	6.03	5.1	6.03	5.1	450540	SLV 4	464636	993776	0.126						Si
590	7.16	5.1	6.03	5.1	35252	SLV 4	108997	993775	0.124	-865130	SLV 13	-865130	-1171390	0.136	Si
620	7.16	5.1	6.03	5.1						-1065947	SLV 13	-962199	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-468991	SLD 4	-428863	-993776	0.126	Si
15	6.03	5.1	6.03	5.1						-389913	SLD 4	-389913	-993776	0.126	Si
310	6.03	5.1	6.03	5.1	410993	SLD 4	412151	993776	0.126						Si
590	7.16	5.1	6.03	5.1						-645450	SLD 13	-645450	-1171390	0.136	Si
620	7.16	5.1	6.03	5.1						-826966	SLD 13	-732869	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	9005	SLU 15	9005	6021	42764	0	6021	1	Si
15	0.101	6.03	0	8525	SLU 15	8525	6021	42764	15897	15897	1	Si
310	0.053	6.03	0	-970	SLU 14	-970	-6021	-42764	-8367	-8367	1	Si
590	0.121	7.16	0	-9933	SLU 14	-9933	-6378	-42794	-19089	-19089	1	Si
620	0	7.16	0	-10894	SLU 14	-10894	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	6089	Ger.	9016	6021	42764	0	6021	1	Si
15	0.101	6.03	0	5837	Ger.	8764	6021	42764	15897	15897	1	Si
310	0.053	6.03	0	875	Ger.	3802	6021	42764	8367	8367	1	Si
310	0.053	6.03	0	-1762	Ger.	-4142	-6021	-42764	-8367	-8367	1	Si
590	0.121	7.16	0	-6471	Ger.	-8852	-6378	-42794	-19089	-19089	1	Si
620	0	7.16	0	-6976	Ger.	-9356	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	5446	SLD 4	5446	6021	42764	0	6021	1	Si
15	0.101	6.03	0	5193	SLD 4	5193	6021	42764	15897	15897	1	Si
310	0.053	6.03	0	232	SLD 4	232	6021	42764	8367	8367	1	Si
310	0.053	6.03	0	-1118	SLD 13	-1118	-6021	-42764	-8367	-8367	1	Si
590	0.121	7.16	0	-5828	SLD 13	-5828	-6378	-42794	-19089	-19089	1	Si
620	0	7.16	0	-6333	SLD 13	-6333	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-391425	7	-344420	35.6	149.4	1407.7	3600	-301303	4	-266237	27.5	112.1	0	+∞	Si
15	-299005	7	-299005	30.9	149.4	1222.1	3600	-232348	4	-232348	24	112.1	0	+∞	Si
310	499695	6	508668	52.6	149.4	2079	3600	369452	3	375166	38.8	112.1	0	+∞	Si
590	-582771	6	-582771	56.6	149.4	2027	3600	-418986	3	-418986	40.7	112.1	0	+∞	Si
620	-803067	6	-688408	66.8	149.4	2394.5	3600	-580690	3	-496498	48.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
289	inferiore	31.6	0.00061	0.0191	6	31.6	0.00045	0.0141	3	31.6	0.00045	0.0141	3	Si
310	inferiore	31.6	0.00061	0.0191	6	31.6	0.00045	0.0141	3	31.6	0.00045	0.0141	3	Si
590	superiore	27.9	0.00059	0.0164	6	27.9	0.00042	0.0118	3	27.9	0.00042	0.0118	3	Si
620	superiore	27.9	0.0007	0.0194	6	27.9	0.00051	0.0142	3	27.9	0.00051	0.0142	3	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0.011	0.004	0.012	0.004	0.008	0.005	0.007	0.004	0.008	0.005	0.017	3	0.01	3	9999	Si
289	0.162	0.073	0.181	0.064	0.12	0.073	0.104	0.064	0.12	0.073	0.263	3	0.162	3	2357	Si
310	0.161	0.073	0.179	0.064	0.119	0.073	0.104	0.064	0.119	0.073	0.261	3	0.161	3	2374	Si
590	0.012	0.006	0.009	0.004	0.009	0.006	0.006	0.004	0.009	0.006	0.014	4	0.011	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	417.8	5.7	50	0.008	0.00088	0.0125	0	6021	42764	15897	15897	14955	15997	8764	0	SLV 13	Si
605	202.2	6.1	50	0.011	0.00079	0.01336	0	6378	42794	19089	19089	19454	19454	-8852	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	5214	0	-3766	2944	5214	9016	3457	9005
15	4962	0	-3766	2789	4962	8764	3457	8525
310	0	-4142	-3766	-1762	0	3802	3457	875
590	-4710	-9933	-3766	-9933	-4710	0	3457	-3079
620	-5214	-10894	-3766	-10894	-5214	0	3457	-3389

Campata 2 tra i fili 1 - 2, sezione R 30x50, asta 406; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-196617	SLU 14	-180211	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-165913	SLU 14	-165913	-1171390	0.136	Si
198	6.03	5.1	11.38	5.1	8954	SLU 4	40592	1822055	0.184	-74561	SLU 14	-78400	-993280	0.121	Si
365	7.16	5.1	6.03	5.1						-120844	SLU 15	-120844	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1						-144815	SLU 15	-131775	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	524393	SLV 15	489210	993775	0.124	-709771	SLV 2	-652738	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	452861	SLV 15	452861	993775	0.124	-597784	SLV 2	-597784	-1171390	0.136	Si
198	6.03	5.1	11.38	5.1	586	SLV 12	53637	1822055	0.184	-42831	SLV 5	-97241	-993280	0.121	Si
365	7.16	5.1	6.03	5.1	436378	SLV 4	436378	993775	0.124	-586628	SLV 13	-586628	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	507952	SLV 4	473010	993775	0.124	-699612	SLV 13	-642342	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	222074	SLD 15	209486	993775	0.124	-407452	SLD 2	-373014	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	195510	SLD 15	195510	993775	0.124	-340433	SLD 2	-340433	-1171390	0.136	Si
198	6.03	5.1	11.38	5.1	-9557	SLD 12	16770	1822055	0.184	-32688	SLD 5	-60374	-993280	0.121	Si
365	7.16	5.1	6.03	5.1	185993	SLD 4	185993	993775	0.124	-336244	SLD 13	-336244	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	212364	SLD 4	200007	993775	0.124	-404023	SLD 13	-369340	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	1099	SLU 14	1099	6378	42794	0	6378	1	Si
30	0.121	7.16	0	953	SLU 14	953	6378	42794	19089	19089	1	Si
198	0.051	6.03	0	144	SLU 6	144	6021	42764	8117	8117	1	Si
198	0.051	6.03	0	-101	SLU 12	-101	-6021	-42764	-8117	-8117	1	Si
365	0.121	7.16	0	-918	SLU 12	-918	-6378	-42794	-19089	-19089	1	Si
395	0	7.16	0	-1064	SLU 12	-1064	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	3811	Ger.	7850	6378	42794	0	6378	1	Si
0	0	6.03	0	-2346	Ger.	-6369	-6021	-42764	0	-6021	1	Si
30	0.121	7.16	0	3698	Ger.	7738	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	-2458	Ger.	-6481	-6021	-42764	-19076	-19076	1	Si
198	0.051	6.03	0	3070	Ger.	7109	6021	42764	8117	8117	1	Si
198	0.051	6.03	0	-3086	Ger.	-7109	-6021	-42764	-8117	-8117	1	Si
365	0.121	7.16	0	2442	Ger.	6481	6021	42764	19076	19076	1	Si
365	0.121	7.16	0	-3714	Ger.	-7738	-6378	-42794	-19089	-19089	1	Si
395	0	6.03	0	2330	Ger.	6369	6021	42764	0	6021	1	Si
395	0	7.16	0	-3827	Ger.	-7850	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	2303	SLD 4	2303	6378	42794	0	6378	1	Si
0	0	6.03	0	-838	SLD 13	-838	-6021	-42764	0	-6021	1	Si
30	0.121	7.16	0	2191	SLD 4	2191	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	-950	SLD 13	-950	-6021	-42764	-19076	-19076	1	Si
198	0.051	6.03	0	1562	SLD 4	1562	6021	42764	8117	8117	1	Si
198	0.051	6.03	0	-1578	SLD 13	-1578	-6021	-42764	-8117	-8117	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
365	0.121	6.03	0	934	SLD 4	934	6021	42764	19076	19076	1	Si
365	0.121	7.16	0	-2206	SLD 13	-2206	-6378	-42794	-19089	-19089	1	Si
395	0	6.03	0	822	SLD 4	822	6021	42764	0	6021	1	Si
395	0	7.16	0	-2319	SLD 13	-2319	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-140420	6	-128058	12.4	149.4	445.4	3600	-97579	3	-86445	8.4	112.1	0	+∞	Si
30	-117319	6	-117319	11.4	149.4	408.1	3600	-76933	3	-76933	7.5	112.1	0	+∞	Si
198	5392	4	5999	0.5	149.4	13.3	3600	405	2	584	0	112.1	0	+∞	Si
198	-49938	6	-52544	4.9	149.4	214.4	3600	-23260	3	-24220	2.2	112.1	0	+∞	Si
365	-88360	7	-88360	8.6	149.4	307.3	3600	-75125	4	-75125	7.3	112.1	0	+∞	Si
395	-107167	7	-96952	9.4	149.4	337.2	3600	-95830	4	-84666	8.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara							Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
30	-0.001	-0.004	-0.001	-0.004	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	2	-0.006	2	9999
198	-0.001	-0.012	-0.001	-0.011	-0.002	-0.007	-0.002	-0.006	-0.002	-0.007	-0.005	2	-0.016	2	9999
365	-0.001	-0.004	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	2	-0.006	2	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	260.6	6.1	50	0.011	0.00033	0.01653		6378	42794	19089	19089	18216	19089	7738	0	SLV 5	Si
1000	236.9	6.1	50	0.011	0.00058	0.01653		6378	42794	19089	19089	18556	19089	-7738	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
0	741	-6369	-6463	-2346	741	7850	6463	3811		
30	628	-6481	-6463	-2458	628	7738	6463	3698		
198	0	-7109	-6463	-3086	0	7109	6463	3070		
365	-628	-7738	-6463	-3714	-628	6481	6463	2442		
395	-741	-7850	-6463	-3827	-741	6369	6463	2330		

Campata 3 tra i fili 2 - 17, sezione R 30x50, asta 407; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-565199	SLU 14	-445879	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-340809	SLU 14	-340809	-1171390	0.136	Si
230	10.32	5.1	6.03	5.1	420551	SLU 15	425471	993354	0.122						Si
445	6.03	5.1	6.03	5.1						-200938	SLU 15	-200938	-993776	0.126	Si
460	6.03	5.1	6.03	5.1						-299436	SLU 15	-248426	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	377435	SLV 15	377435	993775	0.124	-937190	SLV 2	-842025	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	426084	SLV 15	449975	993775	0.124	-754345	SLV 2	-754345	-1171390	0.136	Si
230	10.32	5.1	6.03	5.1	364195	SLV 15	400431	993354	0.122						Si
445	6.03	5.1	6.03	5.1	223091	SLV 2	242155	993776	0.126	-452894	SLV 15	-452894	-993776	0.126	Si
460	6.03	5.1	6.03	5.1	204215	SLV 2	204215	993776	0.126	-538867	SLV 15	-494956	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	55359	SLD 15	55359	993775	0.124	-615114	SLD 2	-536386	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	136882	SLD 15	182815	993775	0.124	-465144	SLD 2	-465144	-1171390	0.136	Si
230	10.32	5.1	6.03	5.1	294150	SLD 15	308346	993354	0.122						Si
445	6.03	5.1	6.03	5.1	57520	SLD 2	98626	993776	0.126	-287323	SLD 15	-287323	-993776	0.126	Si
460	6.03	5.1	6.03	5.1	22207	SLD 2	22207	993776	0.126	-356859	SLD 15	-321166	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	7965	SLU 14	7965	6378	42794	0	6378	1	Si
30	0.121	7.16	0	7005	SLU 14	7005	6378	42794	19089	19089	1	Si
230	0.051	6.03	0	602	SLU 14	602	6021	42764	8074	8074	1	Si
445	0.101	6.03	0	-6332	SLU 15	-6332	-6021	-42764	-15897	-15897	1	Si
460	0	6.03	0	-6812	SLU 15	-6812	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	6350	Ger.	9608	6378	42794	0	6378	1	Si
0	0	6.03	0	1877	Ger.	-1400	-6021	-42764	0	-6021	1	Si
30	0.121	7.16	0	5845	Ger.	9103	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	1372	Ger.	-1904	-6021	-42764	-19076	-19076	1	Si
230	0.051	6.03	0	2481	Ger.	5739	6021	42764	8074	8074	1	Si
230	0.051	6.03	0	-1992	Ger.	-5268	-6021	-42764	-8074	-8074	1	Si
445	0.101	6.03	0	-1135	Ger.	2123	6021	42764	15897	15897	1	Si
445	0.101	6.03	0	-5608	Ger.	-8885	-6021	-42764	-15897	-15897	1	Si
460	0	6.03	0	-1387	Ger.	1870	6021	42764	0	6021	1	Si
460	0	6.03	0	-5861	Ger.	-9137	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	5254	SLD 2	5254	6378	42794	0	6378	1	Si
30	0.121	7.16	0	4749	SLD 2	4749	6378	42794	19089	19089	1	Si
230	0.051	6.03	0	1385	SLD 2	1385	6021	42764	8074	8074	1	Si
230	0.051	6.03	0	-896	SLD 15	-896	-6021	-42764	-8074	-8074	1	Si
445	0.101	6.03	0	-4512	SLD 15	-4512	-6021	-42764	-15897	-15897	1	Si
460	0	6.03	0	-4765	SLD 15	-4765	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-399536	6	-314959	30.6	149.4	1095.5	3600	-283363	3	-221529	21.5	112.1	0	+∞	Si
30	-240495	6	-240495	23.3	149.4	836.5	3600	-167181	3	-167181	16.2	112.1	0	+∞	Si

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
230	298435	7	301844	28.5	149.4	1231.7	3600	221287	4	223128	21.1	112.1	0	+∞	Si
445	-143641	7	-143641	14.9	149.4	587.1	3600	-114901	4	-114901	11.9	112.1	0	+∞	Si
460	-213614	7	-177378	18.3	149.4	725	3600	-167326	4	-140188	14.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
30	0.007	0.003	0.006	0.003	0.005	0.003	0.004	0.003	0.005	0.003	0.011	4	0.007	4	9999	Si
230	0.056	0.026	0.048	0.022	0.042	0.026	0.036	0.022	0.042	0.026	0.089	4	0.054	4	5191	Si
245	0.057	0.026	0.048	0.022	0.042	0.026	0.036	0.022	0.042	0.026	0.089	4	0.054	4	5176	Si
445	0.005	0.002	0.004	0.002	0.004	0.002	0.003	0.002	0.004	0.002	0.008	3	0.005	3	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	371.9	5.6	50	0.011	0.00086	0.01348	0	6021	42764	19076	19076	18204	19076	9103	0	SLV 11	Si
1475	259.5	5.7	50	0.008	0.00061	0.01269	0	6021	42764	15897	15897	14955	15897	-8885	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3869	-1400	-4789	1877	3869	9608	5217	7965
30	3364	-1904	-4789	1372	3364	9103	5217	7005
230	0	-5268	-4789	-1992	0	5739	5217	2481
445	-3616	-8885	-4789	-6332	-3616	2123	5217	-1135
460	-3869	-9137	-4789	-6812	-3869	1870	5217	-1387

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	11	993776	-993776
1	590	1	993775	-1171390
2	30	1	993775	-1171390
2	365	2	993775	-1171390
3	30	2	993775	-1171390
3	445	17	993776	-993776

Trave a "Sesto Impalcato / Copertura" Parete 1-Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 12 - 5, sezione R 30x50, aste 408, 409; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	8.04	5.1						-725425	SLU 15	-663009	-993531	0.124	Si
15	6.03	5.1	8.04	5.1						-577173	SLU 15	-577173	-993531	0.124	Si
310	6.03	5.1	8.04	5.1	1000153	SLU 15	1026483	1307541	0.145						Si
590	8.04	5.1	8.04	5.1						-1193161	SLU 15	-1193161	-1307565	0.138	Si
620	8.04	5.1	8.04	5.1						-1640552	SLU 15	-1407383	-1307565	0.138	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	8.04	5.1						-725048	SLV 1	-668186	-993531	0.124	Si
15	6.03	5.1	8.04	5.1	-18391	SLV 16	73864	1307541	0.145	-613203	SLV 1	-613203	-993531	0.124	Si
310	6.03	5.1	8.04	5.1	603005	SLV 1	609348	1307541	0.145						Si
590	8.04	5.1	8.04	5.1						-1049747	SLV 16	-1049747	-1307565	0.138	Si
620	8.04	5.1	8.04	5.1						-1322136	SLV 16	-1180955	-1307565	0.138	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	8.04	5.1						-570563	SLD 1	-518345	-993531	0.124	Si
15	6.03	5.1	8.04	5.1						-468008	SLD 1	-468008	-993531	0.124	Si
310	6.03	5.1	8.04	5.1	565482	SLD 1	565482	1307541	0.145						Si
590	8.04	5.1	8.04	5.1						-838812	SLD 16	-838812	-1307565	0.138	Si
620	8.04	5.1	8.04	5.1						-1092620	SLD 16	-960729	-1307565	0.138	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	11925	SLU 15	11925	6021	42764	0	6021	1	Si
15	0.121	6.03	0	11445	SLU 15	11445	6021	42764	19076	19076	1	Si
310	0.083	8.04	0	-1377	SLU 15	-1377	-6627	-42764	-13052	-13052	1	Si
590	0.121	8.04	0	-14281	SLU 15	-14281	-6627	-42764	-19076	-19076	1	Si
620	0	8.04	0	-15664	SLU 15	-15664	-6627	-42764	0	-6627	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	7583	Ger.	11431	6021	42764	0	6021	1	Si
15	0.121	6.03	0	7331	Ger.	11179	6021	42764	19076	19076	1	Si
310	0.083	8.04	0	584	Ger.	4432	6627	42764	13052	13052	1	Si
310	0.083	8.04	0	-1954	Ger.	-4973	-6627	-42764	-13052	-13052	1	Si
590	0.121	8.04	0	-8747	Ger.	-11766	-6627	-42764	-19076	-19076	1	Si
620	0	8.04	0	-9475	Ger.	-12494	-6627	-42764	0	-6627	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	6964	SLD 1	6964	6021	42764	0	6021	1	Si
15	0.121	6.03	0	6712	SLD 1	6712	6021	42764	19076	19076	1	Si
310	0.083	8.04	0	-1335	SLD 16	-1335	-6627	-42764	-13052	-13052	1	Si
590	0.121	8.04	0	-8128	SLD 16	-8128	-6627	-42764	-19076	-19076	1	Si
620	0	8.04	0	-8856	SLD 16	-8856	-6627	-42764	0	-6627	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-534605	7	-471216	46.6	149.4	1924.1	3600	-408607	4	-361262	35.8	112.1	0	+∞	Si
15	-410368	7	-410368	40.6	149.4	1675.7	3600	-315797	4	-315797	31.3	112.1	0	+∞	Si
310	708298	7	721272	67.3	149.4	2233.8	3600	526039	4	534967	49.9	112.1	0	+∞	Si
590	-843590	7	-843590	75.2	149.4	2607.8	3600	-617473	4	-617473	55.1	112.1	0	+∞	Si
620	-1160283	7	-995227	88.8	149.4	3076.5	3600	-851793	4	-729646	65.1	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	31.8	0.00056	0.0178	7	31.8	0.00045	0.0144	4	31.8	0.00043	0.0136	4	Si
15	superiore	31.8	0.00049	0.0155	7	31.8	0.0004	0.0126	4	31.8	0.00038	0.0119	4	Si
310	inferiore	26.8	0.00065	0.0174	7	26.8	0.00055	0.0147	4	26.8	0.00051	0.0136	4	Si
579	superiore	26.9	0.00082	0.022	7	26.9	0.00067	0.0182	4	26.9	0.00063	0.0169	4	Si
590	superiore	26.9	0.00082	0.022	7	26.9	0.00067	0.0182	4	26.9	0.00063	0.0169	4	Si
620	superiore	26.9	0.00104	0.0281	7	26.9	0.00085	0.0229	4	26.9	0.0008	0.0214	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0.015	0.006	0.023	0.005	0.011	0.006	0.013	0.005	0.011	0.006	0.033	4	0.013	4	9999 Si
289	0.229	0.1	0.353	0.086	0.178	0.1	0.204	0.086	0.17	0.1	0.529	4	0.215	4	1173 Si
310	0.227	0.1	0.35	0.086	0.177	0.1	0.203	0.086	0.168	0.1	0.524	4	0.213	4	1183 Si
590	0.015	0.007	0.016	0.005	0.012	0.007	0.01	0.005	0.012	0.007	0.03	4	0.013	4	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	110	5.6	50	0.009	0.00041	0.01107	0	6021	42764	19076	19076	20867	20867	11179	0	SLV 1	Si
605	182.1	6.2	50	0.013	0.00062	0.01214	0	6627	42764	19076	19076	20524	20524	-11766	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.				Vdes				contr. grav.				Vdes			
0	7029				0				7029				11925			
15	6777				0				6777				11445			
310	29				-4973				29				4432			
590	-6763				-14281				-6763				0			
620	-7491				-15664				-7491				0			

Campata 2 tra i fili 5 - 6, sezione R 30x50, aste 410, 411; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1						-258863	SLU 15	-222728	-1307565	0.138	Si
30	8.04	5.1	8.04	5.1						-195091	SLU 15	-195091	-1307565	0.138	Si
197	9.04	5.1	6.03	5.1	-10367	SLU 1	49012	993452	0.123	-92120	SLU 15	-93785	-1461781	0.155	Si
365	7.16	5.1	6.03	5.1						-166430	SLU 16	-166430	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1						-200126	SLU 16	-182191	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	518662	SLV 14	492214	1307565	0.138	-781433	SLV 3	-712174	-1307565	0.138	Si
30	8.04	5.1	8.04	5.1	460735	SLV 14	460735	1307565	0.138	-647921	SLV 3	-647921	-1307565	0.138	Si
197	9.04	5.1	6.03	5.1	-14613	SLV 13	49676	993452	0.123	-56939	SLV 4	-119105	-1461781	0.155	Si
365	7.16	5.1	6.03	5.1	411686	SLV 1	411686	993775	0.124	-619770	SLV 16	-619770	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	483793	SLV 3	447831	993775	0.124	-738527	SLV 14	-677569	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	8.04	5.1	200189	SLD 14	197192	1307565	0.138	-462960	SLD 3	-417152	-1307565	0.138	Si
30	8.04	5.1	8.04	5.1	189170	SLD 14	189170	1307565	0.138	-376356	SLD 3	-376356	-1307565	0.138	Si
197	9.04	5.1	6.03	5.1	-24878	SLD 13	8411	993452	0.123	-46674	SLD 4	-77840	-1461781	0.155	Si
365	7.16	5.1	6.03	5.1	159880	SLD 1	159880	993775	0.124	-366964	SLD 16	-366964	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	184212	SLD 3	171983	993775	0.124	-438946	SLD 14	-401721	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	2499	SLU 16	2499	6627	42764	0	6627	1	Si
30	0.121	8.04	0	1847	SLU 16	1847	6627	42764	19076	19076	1	Si
197	0.06	6.03	0	105	SLU 6	105	6021	42764	9470	9470	1	Si
197	0.06	6.03	0	-263	SLU 12	-263	-6021	-42764	-9470	-9470	1	Si
365	0.121	7.16	0	-1080	SLU 12	-1080	-6378	-42794	-19089	-19089	1	Si
395	0	7.16	0	-1226	SLU 12	-1226	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4619	Ger.	8975	6627	42764	0	6627	1	Si
0	0	8.04	0	-1763	Ger.	-6722	-6627	-42764	0	-6627	1	Si
30	0.121	8.04	0	4284	Ger.	8639	6627	42764	19076	19076	1	Si
30	0.121	8.04	0	-2099	Ger.	-7058	-6627	-42764	-19076	-19076	1	Si
197	0.06	6.03	0	3097	Ger.	7453	6021	42764	9470	9470	1	Si
197	0.06	6.03	0	-3285	Ger.	-8244	-6021	-42764	-9470	-9470	1	Si
365	0.121	6.03	0	2469	Ger.	6825	6021	42764	19076	19076	1	Si
365	0.121	7.16	0	-3913	Ger.	-8872	-6378	-42794	-19089	-19089	1	Si
395	0	6.03	0	2357	Ger.	6712	6021	42764	0	6021	1	Si
395	0	7.16	0	-4025	Ger.	-8984	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	3055	SLD 3	3055	6627	42764	0	6627	1	Si
0	0	8.04	0	-199	SLD 14	-199	-6627	-42764	0	-6627	1	Si
30	0.121	8.04	0	2720	SLD 3	2720	6627	42764	19076	19076	1	Si
30	0.121	8.04	0	-535	SLD 14	-535	-6627	-42764	-19076	-19076	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
197	0.06	6.03	0	1534	SLD 3	1534	6021	42764	9470	9470	1	Si
197	0.06	6.03	0	-1721	SLD 14	-1721	-6021	-42764	-9470	-9470	1	Si
365	0.121	6.03	0	905	SLD 3	905	6021	42764	19076	19076	1	Si
365	0.121	7.16	0	-2349	SLD 14	-2349	-6378	-42794	-19089	-19089	1	Si
395	0	6.03	0	793	SLD 3	793	6021	42764	0	6021	1	Si
395	0	7.16	0	-2462	SLD 14	-2462	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-184516	7	-158263	14.1	149.4	489.2	3600	-131386	4	-109980	9.8	112.1	0	$+\infty$	Si
30	-138142	7	-138142	12.3	149.4	427	3600	-93593	4	-93593	8.3	112.1	0	$+\infty$	Si
197	-62796	7	-64234	5.8	149.4	177.9	3600	-35776	4	-38481	3.4	112.1	0	$+\infty$	Si
365	-121169	8	-121169	11.8	149.4	421.5	3600	-104042	4	-104042	10.1	112.1	0	$+\infty$	Si
395	-146694	8	-133096	12.9	149.4	462.9	3600	-127367	4	-114869	11.1	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
30	-0.001	-0.005	-0.001	-0.004	-0.001	-0.003	-0.001	-0.003	-0.001	-0.003	-0.004	1	-0.007	1	9999	Si
197	-0.004	-0.014	-0.004	-0.013	-0.004	-0.009	-0.004	-0.009	-0.004	-0.009	-0.01	1	-0.021	1	9999	Si
211	-0.004	-0.014	-0.004	-0.013	-0.004	-0.009	-0.004	-0.009	-0.004	-0.009	-0.01	1	-0.022	1	9999	Si
365	-0.002	-0.004	-0.002	-0.004	-0.002	-0.003	-0.002	-0.003	-0.002	-0.003	-0.005	1	-0.008	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	231.9	6.2	50	0.013	0.00024	0.01616	0	6627	42764	19076	19076	19022	19076	8639	0	SLV 5	Si
1000	253	6.1	50	0.011	0.00035	0.01512	0	6378	42794	19089	19089	18216	19089	-8872	0	SLV 11	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	1418	-6722	-7400	-1763	1418	8975	6870	4619	1418	8975	6870	4619	1418	8975	6870	4619
30	1082	-7058	-7400	-2099	1082	8639	6870	4284	1082	8639	6870	4284	1082	8639	6870	4284
197	-104	-8244	-7400	-3285	-104	7453	6870	3097	-104	7453	6870	3097	-104	7453	6870	3097
365	-732	-8872	-7400	-3913	-732	6825	6870	2469	-732	6825	6870	2469	-732	6825	6870	2469
395	-844	-8984	-7400	-4025	-844	6712	6870	2357	-844	6712	6870	2357	-844	6712	6870	2357

Campata 3 tra i fili 6 - 7, sezione R 30x50, aste 412, 413; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-604410	SLU 15	-486121	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-382077	SLU 15	-382077	-1171390	0.136	Si
223	6.03	5.1	6.03	5.1	354500	SLU 15	446631	993776	0.126						Si
415	7.16	5.1	6.03	5.1						-425014	SLU 15	-425014	-1171390	0.136	Si
445	7.16	5.1	6.03	5.1						-699924	SLU 15	-552291	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	414855	SLV 14	414855	993775	0.124	-1061076	SLV 3	-948760	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	431808	SLV 14	434653	993775	0.124	-843928	SLV 3	-843928	-1171390	0.136	Si
223	6.03	5.1	6.03	5.1	187357	SLV 2	252810	993776	0.126						Si
415	7.16	5.1	6.03	5.1	420061	SLV 3	437176	993775	0.124	-873405	SLV 14	-873405	-1171390	0.136	Si
445	7.16	5.1	6.03	5.1	375640	SLV 3	375640	993775	0.124	-1118022	SLV 14	-990356	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	53147	SLD 14	53147	993775	0.124	-699368	SLD 3	-611582	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	119161	SLD 14	154608	993775	0.124	-531281	SLD 3	-531281	-1171390	0.136	Si
223	6.03	5.1	6.03	5.1	184964	SLD 2	217736	993776	0.126						Si
415	7.16	5.1	6.03	5.1	103074	SLD 3	153085	993775	0.124	-556417	SLD 14	-556417	-1171390	0.136	Si
445	7.16	5.1	6.03	5.1	9591	SLD 3	9591	993775	0.124	-751973	SLD 14	-648838	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	7897	SLU 15	7897	6378	42794	0	6378	1	Si
30	0.121	7.16	0	6936	SLU 15	6936	6378	42794	19089	19089	1	Si
223	0.063	6.03	0	523	SLU 16	523	6021	42764	10040	10040	1	Si
415	0.121	7.16	0	-8485	SLU 15	-8485	-6378	-42794	-19089	-19089	1	Si
445	0	7.16	0	-9868	SLU 15	-9868	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	7493	Ger.	10451	6378	42794	0	6378	1	Si
0	0	6.03	0	820	Ger.	-1921	-6021	-42764	0	-6021	1	Si
30	0.121	7.16	0	6989	Ger.	9946	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	316	Ger.	-2426	-6021	-42764	-19076	-19076	1	Si
223	0.063	6.03	0	3547	Ger.	6504	6021	42764	10040	10040	1	Si
223	0.063	6.03	0	-3127	Ger.	-5868	-6021	-42764	-10040	-10040	1	Si
415	0.121	6.03	0	-1124	Ger.	1834	6021	42764	19076	19076	1	Si
415	0.121	7.16	0	-7797	Ger.	-10538	-6378	-42794	-19089	-19089	1	Si
445	0	6.03	0	-1851	Ger.	1106	6021	42764	0	6021	1	Si
445	0	7.16	0	-8525	Ger.	-11266	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	5858	SLD 3	5858	6378	42794	0	6378	1	Si
30	0.121	7.16	0	5353	SLD 3	5353	6378	42794	19089	19089	1	Si
223	0.063	6.03	0	1911	SLD 3	1911	6021	42764	10040	10040	1	Si
223	0.063	6.03	0	-1491	SLD 14	-1491	-6021	-42764	-10040	-10040	1	Si
415	0.121	7.16	0	-6161	SLD 14	-6161	-6378	-42794	-19089	-19089	1	Si
445	0	7.16	0	-6889	SLD 14	-6889	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.			

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-429927	7	-345985	33.6	149.4	1203.4	3600	-323110	4	-260843	25.3	112.1	0	+∞	Si
30	-272153	7	-272153	26.4	149.4	946.6	3600	-206060	4	-206060	20	112.1	0	+∞	Si
223	250526	7	251184	26	149.4	1026.6	3600	182442	4	183002	18.9	112.1	0	+∞	Si
415	-301150	7	-301150	29.2	149.4	1047.5	3600	-226672	4	-226672	22	112.1	0	+∞	Si
445	-495785	7	-391259	38	149.4	1360.9	3600	-371191	4	-293574	28.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	0.003	0.001	0.002	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.004	3	0.002	3	9999 Si
223	0.036	0.015	0.029	0.012	0.027	0.015	0.022	0.012	0.026	0.015	0.053	4	0.03	4	8384 Si
415	0.004	0.001	0.002	0.001	0.003	0.001	0.002	0.001	0.002	0.001	0.004	4	0.002	4	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	270.8	5.6	50	0.011	0.00105	0.01299	0	6021	42764	19076	19076	18204	19076	9946	0	SLV 13	Si
1445	270.8	5.6	50	0.011	0.00106	0.01239	0	6021	42764	19076	19076	18204	19076	-10538	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	4265	-1921	-5624	820	4265	10451	5624	7897				
30	3760	-2426	-5624	316	3760	9946	5624	6989				
223	318	-5868	-5624	-3127	318	6504	5624	3547				
415	-4352	-10538	-5624	-8485	-4352	1834	5624	-1124				
445	-5080	-11266	-5624	-9868	-5080	1106	5624	-1851				

Campata 4 tra i fili 7 - 8, sezione R 30x50, aste 414, 415; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-176701	SLU 15	-152891	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-135878	SLU 15	-135878	-1171390	0.136	Si
260	6.03	5.1	6.03	5.1	33419	SLU 9	76107	993776	0.126	-11675	SLU 7	-12830	-993776	0.126	Si
490	7.16	5.1	6.03	5.1						-151207	SLU 15	-151207	-1171390	0.136	Si
520	7.16	5.1	6.03	5.1						-219241	SLU 15	-179443	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	426675	SLV 14	412217	993775	0.124	-661170	SLV 3	-612790	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	393774	SLV 14	393774	993775	0.124	-568364	SLV 3	-568364	-1171390	0.136	Si
260	6.03	5.1	6.03	5.1	22044	SLV 11	57141	993776	0.126	3400	SLV 6	-33621	-993776	0.126	Si
490	7.16	5.1	6.03	5.1	386174	SLV 3	386174	993775	0.124	-579923	SLV 14	-579923	-1171390	0.136	Si
520	7.16	5.1	6.03	5.1	404502	SLV 3	398587	993775	0.124	-687327	SLV 14	-630379	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	159870	SLD 14	159870	993775	0.124	-394365	SLD 3	-361392	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	157791	SLD 14	157791	993775	0.124	-332380	SLD 3	-332380	-1171390	0.136	Si
260	6.03	5.1	6.03	5.1	17715	SLD 11	34925	993776	0.126	7729	SLD 6	-11405	-993776	0.126	Si
490	7.16	5.1	6.03	5.1	149384	SLD 3	150984	993775	0.124	-343133	SLD 14	-343133	-1171390	0.136	Si
520	7.16	5.1	6.03	5.1	136885	SLD 3	136885	993775	0.124	-419710	SLD 14	-378175	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	1899	SLU 15	1899	6378	42794	0	6378	1	Si
30	0.121	7.16	0	1140	SLU 16	1140	6378	42794	19089	19089	1	Si
260	0.047	6.03	0	19	SLU 8	19	6021	42764	7507	7507	1	Si
260	0.047	6.03	0	-1	SLU 9	-1	-6021	-42764	-7507	-7507	1	Si
490	0.121	7.16	0	-2030	SLU 16	-2030	-6378	-42794	-19089	-19089	1	Si
520	0	7.16	0	-2957	SLU 16	-2957	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	3382	Ger.	6510	6378	42794	0	6378	1	Si
0	0	6.03	0	-809	Ger.	-3845	-6021	-42764	0	-6021	1	Si
30	0.121	7.16	0	2962	Ger.	6090	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	-1230	Ger.	-4265	-6021	-42764	-19076	-19076	1	Si
260	0.047	6.03	0	2099	Ger.	5228	6021	42764	7507	7507	1	Si
260	0.047	6.03	0	-2092	Ger.	-5127	-6021	-42764	-7507	-7507	1	Si
490	0.121	6.03	0	828	Ger.	3956	6021	42764	19076	19076	1	Si
490	0.121	7.16	0	-3364	Ger.	-6399	-6378	-42794	-19089	-19089	1	Si
520	0	6.03	0	296	Ger.	3424	6021	42764	0	6021	1	Si
520	0	7.16	0	-3895	Ger.	-6931	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	2354	SLD 3	2354	6378	42794	0	6378	1	Si
30	0.121	7.16	0	1934	SLD 3	1934	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	-202	SLD 14	-202	-6021	-42764	-19076	-19076	1	Si
260	0.047	6.03	0	1072	SLD 3	1072	6021	42764	7507	7507	1	Si
260	0.047	6.03	0	-1064	SLD 14	-1064	-6021	-42764	-7507	-7507	1	Si
490	0.121	7.16	0	-2336	SLD 14	-2336	-6378	-42794	-19089	-19089	1	Si
520	0	7.16	0	-2868	SLD 14	-2868	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-131392	7	-113415	11	149.4	394.5	3600	-117247	4	-100286	9.7	112.1	0	+∞	Si
30	-100351	7	-100351	9.7	149.4	349	3600	-87295	4	-87295	8.5	112.1	0	+∞	Si
260	25707	1	25707	2.7	149.4	105.1	3600	25707	1	25707	2.7	112.1	0	+∞	Si
490	-111445	7	-111445	10.8	149.4	387.6	3600	-96875	4	-96875	9.4	112.1	0	+∞	Si
520	-161706	7	-132439	12.9	149.4	460.7	3600	-141413	4	-115896	11.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1	9999
260	0.002	-0.006	0.001	-0.006	0.002	-0.002	0.001	-0.003	0.002	-0.002	0.003	1	-0.007	1	9999
399	0	-0.006	0	-0.006	0	-0.003	0	-0.003	0	-0.003	-0.001	1	-0.008	1	9999
490	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1505	266.2	5.6	50	0.011	0.00019	0.01802	0	6021	42764	19076	19076	18204	19076	6090	0	SLV 9	Si
1965	260	5.6	50	0.011	0.00005	0.01711	0	6021	42764	19076	19076	18204	19076	-6399	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	1333	-3845	-4707	-809	1333	6510	4707	3382
30	913	-4265	-4707	-1230	913	6090	4707	2962
260	50	-5127	-4707	-2092	50	5228	4707	2099
490	-1222	-6399	-4707	-3364	-1222	3956	4707	828
520	-1753	-6931	-4707	-3895	-1753	3424	4707	296

Campata 5 tra i fili 8 - 9, sezione R 30x50, aste 416, 417; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-757568	SLU 15	-604615	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-472402	SLU 15	-472402	-1171390	0.136	Si
223	6.03	5.1	6.03	5.1	369981	SLU 15	477477	993776	0.126						Si
415	7.16	5.1	6.03	5.1						-401657	SLU 15	-401657	-1171390	0.136	Si
445	7.16	5.1	6.03	5.1						-635345	SLU 15	-511329	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	380817	SLV 16	380817	993775	0.124	-1186780	SLV 1	-1053748	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	425882	SLV 16	443028	993775	0.124	-931632	SLV 1	-931632	-1171390	0.136	Si
223	6.03	5.1	6.03	5.1	195555	SLV 13	260823	993776	0.126						Si
415	7.16	5.1	6.03	5.1	453849	SLV 1	457064	993775	0.124	-884704	SLV 16	-884704	-1171390	0.136	Si
445	7.16	5.1	6.03	5.1	436004	SLV 1	436004	993775	0.124	-1112632	SLV 16	-994900	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-802434	SLD 1	-695156	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	93046	SLD 16	144729	993775	0.124	-598796	SLD 1	-598796	-1171390	0.136	Si
223	6.03	5.1	6.03	5.1	193115	SLD 13	223963	993776	0.126						Si
415	7.16	5.1	6.03	5.1	125640	SLD 1	163248	993775	0.124	-556494	SLD 16	-556494	-1171390	0.136	Si
445	7.16	5.1	6.03	5.1	56284	SLD 1	56284	993775	0.124	-732912	SLD 16	-640935	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	10197	SLU 15	10197	6378	42794	0	6378	1	Si
30	0.121	7.16	0	8814	SLU 15	8814	6378	42794	19089	19089	1	Si
223	0.063	6.03	0	49	SLU 6	49	6021	42764	10040	10040	1	Si
223	0.063	6.03	0	-181	SLU 12	-181	-6021	-42764	-10040	-10040	1	Si
415	0.121	7.16	0	-7311	SLU 15	-7311	-6378	-42794	-19089	-19089	1	Si
445	0	7.16	0	-8272	SLU 15	-8272	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	8869	Ger.	11408	6378	42794	0	6378	1	Si
0	0	6.03	0	1866	Ger.	-964	-6021	-42764	0	-6021	1	Si
30	0.121	7.16	0	8141	Ger.	10681	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	1138	Ger.	-1692	-6021	-42764	-19076	-19076	1	Si
223	0.063	6.03	0	3471	Ger.	6010	6021	42764	10040	10040	1	Si
223	0.063	6.03	0	-3532	Ger.	-6362	-6021	-42764	-10040	-10040	1	Si
415	0.121	6.03	0	-344	Ger.	2196	6021	42764	19076	19076	1	Si
415	0.121	7.16	0	-7346	Ger.	-10177	-6378	-42794	-19089	-19089	1	Si
445	0	6.03	0	-848	Ger.	1691	6021	42764	0	6021	1	Si
445	0	7.16	0	-7851	Ger.	-10681	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	7152	SLD 1	7152	6378	42794	0	6378	1	Si
30	0.121	7.16	0	6424	SLD 1	6424	6378	42794	19089	19089	1	Si
223	0.063	6.03	0	1754	SLD 1	1754	6021	42764	10040	10040	1	Si
223	0.063	6.03	0	-1815	SLD 16	-1815	-6021	-42764	-10040	-10040	1	Si
415	0.121	7.16	0	-5629	SLD 16	-5629	-6378	-42794	-19089	-19089	1	Si
445	0	7.16	0	-6134	SLD 16	-6134	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-536693	7	-428400	41.6	149.4	1490.1	3600	-402982	4	-322470	31.3	112.1	0	$+\infty$	Si
30	-334794	7	-334794	32.5	149.4	1164.5	3600	-252875	4	-252875	24.5	112.1	0	$+\infty$	Si
223	261420	7	261420	27	149.4	1068.4	3600	190542	4	190542	19.7	112.1	0	$+\infty$	Si
415	-285745	7	-285745	27.7	149.4	993.9	3600	-215427	4	-215427	20.9	112.1	0	$+\infty$	Si
445	-451487	7	-363526	35.3	149.4	1264.4	3600	-338314	4	-273102	26.5	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	0.003	0.001	0.002	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.003	4	0.001	4	9999
223	0.037	0.015	0.029	0.012	0.028	0.015	0.022	0.012	0.027	0.015	0.053	4	0.03	4	8372
415	0.003	0.001	0.002	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.004	4	0.002	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2025	272.6	5.6	50	0.011	0.00101	0.01229		6021	42764	19076	19076	18204	19076	10681	0	SLV 13	Si
2410	268.6	5.6	50	0.011	0.00067	0.01281	0	6021	42764	19076	19076	18204	19076	-10177	0	SLV 1	Si

Valutazione dei tagli secondo gerachia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela				contr. grav.	Vdes	contr. mom. res.	Vela					
0	5222	-964	-5624	1866				5222	11408	5624	10197					
30	4494	-1692	-5624	1138				4494	10681	5624	8814					
223	-176	-6362	-5624	-3532				-176	6010	5624	3471					
415	-3990	-10177	-5624	-7346				-3990	2196	5624	-344					
445	-4495	-10681	-5624	-8272				-4495	1691	5624	-848					

Campata 6 tra i fili 9 - 10, sezione R 30x50, aste 418, 419; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-393416	SLU 16	-344606	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-297983	SLU 16	-297983	-1171390	0.136	Si
197	8.91	5.1	6.03	5.1	83335	SLU 12	175092	993451	0.123	-34732	SLU 6	-37457	-1443057	0.154	Si
365	7.16	5.1	6.03	5.1						-202531	SLU 15	-202531	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1						-297072	SLU 15	-245538	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	398122	SLV 14	376903	993775	0.124	-824183	SLV 3	-750640	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	353884	SLV 14	353884	993775	0.124	-678663	SLV 3	-678663	-1171390	0.136	Si
197	8.91	5.1	6.03	5.1	42224	SLV 2	107012	993451	0.123	-3850	SLV 15	-63921	-1443057	0.154	Si
365	7.16	5.1	6.03	5.1	452569	SLV 1	452569	993775	0.124	-647077	SLV 16	-647077	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	493226	SLV 1	475184	993775	0.124	-795782	SLV 16	-718680	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1	98659	SLD 14	98659	993775	0.124	-524719	SLD 3	-474406	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	100934	SLD 14	100954	993775	0.124	-425714	SLD 3	-425714	-1171390	0.136	Si
197	8.91	5.1	6.03	5.1	31036	SLD 2	65198	993451	0.123	7339	SLD 15	-22106	-1443057	0.154	Si
365	7.16	5.1	6.03	5.1	183055	SLD 1	183055	993775	0.124	-377563	SLD 16	-377563	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	177286	SLD 1	177286	993775	0.124	-479842	SLD 16	-426066	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	7.16	0	3254	SLU 16	3254	6378	42794	0	6378	1	Si
30	0.121	7.16	0	3108	SLU 16	3108	6378	42794	19089	19089	1	Si
197	0.06	6.03	0	563	SLU 16	563	6021	42764	9470	9470	1	Si
365	0.121	7.16	0	-3078	SLU 16	-3078	-6378	-42794	-19089	-19089	1	Si
395	0	7.16	0	-3730	SLU 16	-3730	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	7.16	0	4911	Ger.	8698	6378	42794	0	6378	1	Si
0	0	6.03	0	-1422	Ger.	-5521	-6021	-42764	0	-6021	1	Si
30	0.121	7.16	0	4799	Ger.	8585	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	-1535	Ger.	-5634	-6021	-42764	-19076	-19076	1	Si
197	0.06	6.03	0	3408	Ger.	7195	6021	42764	9470	9470	1	Si
197	0.06	6.03	0	-2925	Ger.	-7024	-6021	-42764	-9470	-9470	1	Si
365	0.121	6.03	0	1534	Ger.	5320	6021	42764	19076	19076	1	Si
365	0.121	7.16	0	-4800	Ger.	-8899	-6378	-42794	-19089	-19089	1	Si
395	0	6.03	0	1198	Ger.	4985	6021	42764	0	6021	1	Si
395	0	7.16	0	-5135	Ger.	-9234	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	7.16	0	3359	SLD 3	3359	6378	42794	0	6378	1	Si
30	0.121	7.16	0	3246	SLD 3	3246	6378	42794	19089	19089	1	Si
197	0.06	6.03	0	1856	SLD 3	1856	6021	42764	9470	9470	1	Si
197	0.06	6.03	0	-1373	SLD 14	-1373	-6021	-42764	-9470	-9470	1	Si
365	0.121	7.16	0	-3247	SLD 14	-3247	-6378	-42794	-19089	-19089	1	Si
395	0	7.16	0	-3583	SLD 14	-3583	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-281777	8	-246604	23.9	149.4	857.8	3600	-213030	4	-186869	18.1	112.1	0	+	Si
30	-213113	8	-213113	20.7	149.4	741.3	3600	-162390	4	-162390	15.8	112.1	0	+	Si
197	58153	4	62802	6.1	149.4	256.4	3600	31078	2	33557	3.3	112.1	0	+	Si
197	-16663	6	-20151	1.8	149.4	56.5	3600								Si
365	-143318	7	-143318	13.9	149.4	498.5	3600	-97254	4	-97254	9.4	112.1	0	+	Si
395	-211372	7	-174270	16.9	149.4	606.2	3600	-151278	4	-121748	11.8	112.1	0	+	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f		
30	-0.002	-0.004	-0.002	-0.004	-0.002	-0.003	-0.002	-0.003	-0.002	-0.003	-0.004	1	-0.007	1		9999	Si
105	0	-0.008	-0.001	-0.008	-0.001	-0.004	-0.002	-0.005	-0.001	-0.004	-0.005	2	-0.012	2		9999	Si
197	0.004	-0.008	0.002	-0.008	0.002	-0.003	0.001	-0.004	0.001	-0.003	0	2	-0.01	2		9999	Si
365	0.001	-0.003	0	-0.003	0	-0.002	0	-0.002	0	-0.002	-0.001	2	-0.004	2		9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2470	190.7	6.1	50	0.011	0.00035	0.01519	0	6378	42794	19089	19089	19752	19752	8585	0	SLV 7	Si
2805	225.3	5.6	50	0.011	0.00031	0.0145	0	6021	42764	19076	19076	18842	19076	-8899	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela				contr. grav.	Vdes	contr. mom. res.	Vela					
0	1588	-5521	-6463	-1422				1588	8698	6463	4911					
30	1476	-5634	-6463	-1535				1476	8585	6463	4799					
197	85	-7024	-6463	-2925				85	7195	6463	3408					

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo					taglio positivo				
	contr. grav.	Vdes	contr. mom. res.	Vela		contr. grav.	Vdes	contr. mom. res.	Vela	
365	-1789	-8899	-6463	-4800		-1789	5320	6463	1534	
395	-2125	-9234	-6463	-5135		-2125	4985	6463	1198	

Campata 7 tra i fili 10 - 29, sezione R 30x50, aste 420, 421; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-1279257	SLU 15	-1079034	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-899320	SLU 15	-899320	-1171390	0.136	Si
310	6.03	5.1	6.03	5.1	741626	SLU 15	749445	993776	0.126						Si
605	6.03	5.1	6.03	5.1						-446365	SLU 15	-446365	-993776	0.126	Si
620	6.03	5.1	6.03	5.1						-581034	SLU 15	-511988	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-1140319	SLV 3	-1016192	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	-21556	SLV 14	72223	993775	0.124	-902859	SLV 3	-902859	-1171390	0.136	Si
310	6.03	5.1	6.03	5.1	467933	SLV 14	483709	993776	0.126						Si
605	6.03	5.1	6.03	5.1	56361	SLV 3	119342	993776	0.126	-549540	SLV 14	-549540	-993776	0.126	Si
620	6.03	5.1	6.03	5.1	4405	SLV 3	4405	993776	0.126	-640292	SLV 14	-594016	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-906371	SLD 3	-791710	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-687845	SLD 3	-687845	-1171390	0.136	Si
310	6.03	5.1	6.03	5.1	429628	SLD 14	432711	993776	0.126						Si
605	6.03	5.1	6.03	5.1						-401652	SLD 14	-401652	-993776	0.126	Si
620	6.03	5.1	6.03	5.1						-482937	SLD 14	-441395	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	13364	SLU 15	13364	6378	42794	0	6378	1	Si
30	0.121	7.16	0	11981	SLU 15	11981	6378	42794	19089	19089	1	Si
310	0.061	6.03	0	851	SLU 14	851	6021	42764	9705	9705	1	Si
310	0.061	6.03	0	-28	SLU 4	-28	-6021	-42764	-9705	-9705	1	Si
605	0.101	6.03	0	-8750	SLU 15	-8750	-6021	-42764	-15897	-15897	1	Si
620	0	6.03	0	-9230	SLU 15	-9230	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	8283	Ger.	10579	6378	42794	0	6378	1	Si
30	0.121	7.16	0	7555	Ger.	9851	6378	42794	19089	19089	1	Si
310	0.061	6.03	0	1618	Ger.	3914	6021	42764	9705	9705	1	Si
310	0.061	6.03	0	-968	Ger.	-4030	-6021	-42764	-9705	-9705	1	Si
605	0.101	6.03	0	-5930	Ger.	-8992	-6021	-42764	-15897	-15897	1	Si
620	0	6.03	0	-6183	Ger.	-9245	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	7652	SLD 3	7652	6378	42794	0	6378	1	Si
30	0.121	7.16	0	6924	SLD 3	6924	6378	42794	19089	19089	1	Si
310	0.061	6.03	0	987	SLD 3	987	6021	42764	9705	9705	1	Si
310	0.061	6.03	0	-337	SLD 14	-337	-6021	-42764	-9705	-9705	1	Si
605	0.101	6.03	0	-5299	SLD 14	-5299	-6021	-42764	-15897	-15897	1	Si
620	0	6.03	0	-5551	SLD 14	-5551	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	σ_{clim}	σ_f	σ_{flim}	Mela	Comb.	Mdes	σ_c	σ_{clim}	σ_{FRP}	σ_{FRPlim}	
0	-905646	7	-763806	74.1	149.4	2656.7	3600	-660872	4	-556142	54	112.1	0	+∞	Si
30	-636491	7	-636491	61.8	149.4	2213.9	3600	-462208	4	-462208	44.9	112.1	0	+∞	Si
310	526076	7	530877	54.9	149.4	2169.7	3600	389367	4	392174	40.6	112.1	0	+∞	Si
605	-318153	7	-318153	32.9	149.4	1300.3	3600	-246589	4	-246589	25.5	112.1	0	+∞	Si
620	-413783	7	-364753	37.7	149.4	1490.8	3600	-317943	4	-281367	29.1	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.9	0.0008	0.0222	7	27.9	0.00062	0.0174	4	27.9	0.00061	0.017	4	Si
30	superiore	27.9	0.00064	0.018	7	27.9	0.00047	0.0132	4	27.9	0.00047	0.013	4	Si
310	inferiore	31.6	0.00063	0.02	7	31.6	0.00047	0.0149	4	31.6	0.00047	0.0148	4	Si
331	inferiore	31.6	0.00063	0.02	7	31.6	0.00047	0.0149	4	31.6	0.00047	0.0148	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.012	0.006	0.01	0.005	0.01	0.006	0.006	0.005	0.009	0.006	0.015	4	0.012	4	9999	Si
310	0.172	0.077	0.201	0.067	0.128	0.077	0.111	0.067	0.127	0.077	0.279	4	0.171	4	2222	Si
331	0.172	0.078	0.202	0.068	0.129	0.078	0.112	0.068	0.127	0.078	0.28	4	0.172	4	2214	Si
605	0.011	0.005	0.013	0.004	0.008	0.005	0.007	0.004	0.008	0.005	0.017	4	0.01	4	9999	Si
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2865	191.5	6.1	50	0.011	0.00095	0.0124		6378	42794	19089	19089	19730	19730	9851	0	SLV 3	Si
3440	428.5	5.7	50	0.008	0.00042	0.01232	0	6021	42764	15897	15897	14955	15897	-8992	0	SLV 3	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	6437	0	-3457	4184	6437	13364	3765	13364
30	5709	0	-3457	3753	5709	11981	3765	11981
310	-228	-4030	-3457	-968	-228	3914	3765	1618
605	-5190	-8992	-3457	-8750	-5190	0	3765	-2852
620	-5442	-9245	-3457	-9230	-5442	0	3765	-3007

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
	1	15	1307541	-993531
	1	590	1307565	-1307565

TABULATO DI CALCOLO – FABBRICATO B

campata	x	appoggio	momento positivo	momento negativo
2	30	5	1307565	-1307565
2	365	6	993775	-1171390
3	30	6	993775	-1171390
3	415	7	993775	-1171390
4	30	7	993775	-1171390
4	490	8	993775	-1171390
5	30	8	993775	-1171390
5	415	9	993775	-1171390
6	30	9	993775	-1171390
6	365	10	993775	-1171390
7	30	10	993775	-1171390
7	605	29	993776	-993776

Trave a "Sesto Impalcato / Copertura" Parete 2 - Parete 3

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 20x50	Rettangolare	20	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 18 - 24, sezione R 20x50, asta 438; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1						-65665	SLU 14	-59750	-662517	0.126	Si
15	4.02	5.1	4.02	5.1						-54168	SLU 14	-54168	-662517	0.126	Si
245	4.02	5.1	4.02	5.1	41204	SLU 12	45830	662517	0.126						Si
475	4.02	5.1	4.02	5.1						-55680	SLU 14	-55680	-662517	0.126	Si
490	4.02	5.1	4.02	5.1						-67275	SLU 14	-61311	-662517	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	131272	SLV 15	130212	662517	0.126	-224229	SLV 2	-214044	-662517	0.126	Si
15	4.02	5.1	4.02	5.1	128888	SLV 15	128888	662517	0.126	-204108	SLV 2	-204108	-662517	0.126	Si
245	4.02	5.1	4.02	5.1	34992	SLV 2	49265	662517	0.126						Si
475	4.02	5.1	4.02	5.1	140914	SLV 2	140914	662517	0.126	-216918	SLV 15	-216918	-662517	0.126	Si
490	4.02	5.1	4.02	5.1	143277	SLV 2	142224	662517	0.126	-237070	SLV 15	-226867	-662517	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	44316	SLD 15	44316	662517	0.126	-137273	SLD 2	-129839	-662517	0.126	Si
15	4.02	5.1	4.02	5.1	47436	SLD 15	50755	662517	0.126	-122657	SLD 2	-122657	-662517	0.126	Si
245	4.02	5.1	4.02	5.1	31746	SLD 2	38759	662517	0.126						Si
475	4.02	5.1	4.02	5.1	53416	SLD 2	56764	662517	0.126	-129421	SLD 15	-129421	-662517	0.126	Si
490	4.02	5.1	4.02	5.1	50274	SLD 2	50274	662517	0.126	-144067	SLD 15	-136616	-662517	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	799	SLU 16	799	4014	28509	0	4014	1	Si
15	0.101	4.02	0	751	SLU 16	751	4014	28509	15897	15897	1	Si
245	0.034	4.02	0	4	SLU 8	4	4014	28509	5299	5299	1	Si
245	0.034	4.02	0	-3	SLU 10	-3	-4014	-28509	-5299	-5299	1	Si
475	0.101	4.02	0	-751	SLU 10	-751	-4014	-28509	-15897	-15897	1	Si
490	0	4.02	0	-800	SLU 10	-800	-4014	-28509	0	-4014	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	1362	Ger.	3915	4014	28509	0	4014	1	Si
0	0	4.02	0	-139	Ger.	-2422	-4014	-28509	0	-4014	1	Si
15	0.101	4.02	0	1325	Ger.	3744	4014	28509	15897	15897	1	Si
15	0.101	4.02	0	-176	Ger.	-2594	-4014	-28509	-15897	-15897	1	Si
245	0.034	4.02	0	750	Ger.	3169	4014	28509	5299	5299	1	Si
245	0.034	4.02	0	-751	Ger.	-3169	-4014	-28509	-5299	-5299	1	Si
475	0.101	4.02	0	175	Ger.	2594	4014	28509	15897	15897	1	Si
475	0.101	4.02	0	-1326	Ger.	-3744	-4014	-28509	-15897	-15897	1	Si
490	0	4.02	0	137	Ger.	2422	4014	28509	0	4014	1	Si
490	0	4.02	0	-1364	Ger.	-3915	-4014	-28509	0	-4014	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	995	SLD 2	995	4014	28509	0	4014	1	Si
15	0.101	4.02	0	958	SLD 2	958	4014	28509	15897	15897	1	Si
245	0.034	4.02	0	383	SLD 2	383	4014	28509	5299	5299	1	Si
245	0.034	4.02	0	-384	SLD 15	-384	-4014	-28509	-5299	-5299	1	Si
475	0.101	4.02	0	-959	SLD 15	-959	-4014	-28509	-15897	-15897	1	Si
490	0	4.02	0	-997	SLD 15	-997	-4014	-28509	0	-4014	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-49647	6	-45096	7	149.4	276.5	3600	-46513	3	-41959	6.5	112.1	0	+∞	Si
15	-40802	6	-40802	6.3	149.4	250.1	3600	-37662	3	-37662	5.8	112.1	0	+∞	Si
245	31536	4	31536	4.9	149.4	193.3	3600	30809	2	30809	4.8	112.1	0	+∞	Si
475	-41937	6	-41937	6.5	149.4	257.1	3600	-38574	3	-38574	6	112.1	0	+∞	Si
490	-50856	6	-46268	7.2	149.4	283.7	3600	-47485	3	-42901	6.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara	Frequente	Quasi permanente	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
15	0.001	0	0	0	0	0	0	0	0	0	0.001	2	0.001	2	9999	Si
245	0.009	0.006	0.008	0.005	0.009	0.008	0.008	0.006	0.009	0.008	0.019	2	0.016	2	9999	Si
475	0.001	0	0	0	0	0	0	0	0	0	0.001	2	0.001	2	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p _{tot}	θ _m	θ _y	μΔ _{pl}	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	200.7	5.7	50	0.008	0.00037	0.02698	0	4014	28509	15897	15897	15174	15897	3744	0	SLV 1	Si
490	158	5.7	50	0.008	0.00034	0.02698	0	4014	28509	15897	15897	15690	15897	-3744	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0		746	-2422	-2881	-139	746	3915	2881	1362							
15		575	-2594	-2881	-176	575	3744	2881	1325							
245		0	-3169	-2881	-751	0	3169	2881	750							
475		-575	-3744	-2881	-1326	-575	2594	2881	175							
490		-746	-3915	-2881	-1364	-746	2422	2881	137							

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	18	662517	-662517
1	475	24	662517	-662517

Trave a "Sesto Impalcato / Copertura" Parete 2-Pil.7

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 17 - 18, sezione R 30x50, asta 377

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	66900	SLU 15	51698	993776	0.126						Si
15	6.03	5.1	6.03	5.1	35949	SLU 15	35949	993776	0.126						Si
18	6.03	5.1	6.03	5.1	28572	SLU 15	35949	993776	0.126						Si
27	6.03	5.1	6.03	5.1	10402	SLU 15	35949	993776	0.126						Si
37	6.03	5.1	6.03	5.1						-11462	SLU 14	-2191	-993776	0.126	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: ε_{c2}= 0.002, ε_{yd}= 0.0019

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	57259	SLV 15	43487	952908	0.245						Si
15	6.03	5.1	6.03	5.1	29267	SLV 15	29267	952908	0.245						Si
18	6.03	5.1	6.03	5.1	22666	SLV 16	29267	952908	0.245						Si
27	6.03	5.1	6.03	5.1	7697	SLV 4	29267	952908	0.245						Si
37	6.03	5.1	6.03	5.1	3593	SLV 2	3593	952908	0.245	-13454	SLV 15	-3798	-952908	0.245	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: ε_{c2}= 0.002, ε_{yd}= 0.0019

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	46968	SLD 15	36106	952908	0.245						Si
15	6.03	5.1	6.03	5.1	24809	SLD 15	24809	952908	0.245						Si
18	6.03	5.1	6.03	5.1	19544	SLD 16	24809	952908	0.245						Si
27	6.03	5.1	6.03	5.1	7207	SLD 4	24809	952908	0.245						Si
37	6.03	5.1	6.03	5.1						-9282	SLD 15	-3430	-952908	0.245	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	-2027	SLU 15	-2027	-6021	-42764	0	-6021	1	Si
15	0.084	6.03	0	-2100	SLU 15	-2100	-6021	-42764	-13249	-13249	1	Si
18	0.084	6.03	0	-2117	SLU 15	-2117	-6021	-42764	-13249	-13249	1	Si
27	0.084	6.03	0	-2158	SLU 15	-2158	-6021	-42764	-13249	-13249	1	Si
37	0	6.03	0	-2207	SLU 15	-2207	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	-1840	SLV 15	-1840	-6021	-42764	0	-6021	1	Si
15	0.084	6.03	0	-1896	SLV 15	-1896	-6021	-42764	-13249	-13249	1	Si
18	0.084	6.03	0	-1909	SLV 15	-1909	-6021	-42764	-13249	-13249	1	Si
27	0.084	6.03	0	-1941	SLV 15	-1941	-6021	-42764	-13249	-13249	1	Si
37	0	6.03	0	-1979	SLV 15	-1979	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	-1450	SLD 15	-1450	-6021	-42764	0	-6021	1	Si
15	0.084	6.03	0	-1506	SLD 15	-1506	-6021	-42764	-13249	-13249	1	Si
18	0.084	6.03	0	-1519	SLD 15	-1519	-6021	-42764	-13249	-13249	1	Si
27	0.084	6.03	0	-1551	SLD 15	-1551	-6021	-42764	-13249	-13249	1	Si
37	0	6.03	0	-1589	SLD 15	-1589	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	

TABULATO DI CALCOLO – FABBRICATO B

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	σc lim.	σf .	σf lim.	Mela	Comb.	Mdes	σc	σc lim.	σFRP	σFRP lim.	
0	47682	7	36947	3.8	149.4	151	3600	36262	4	28432	2.9	112.1	0	+∞	Si
15	25790	7	25790	2.7	149.4	105.4	3600	20180	4	20180	2.1	112.1	0	+∞	Si
18	20562	7	25790	2.7	149.4	105.4	3600	16307	4	20180	2.1	112.1	0	+∞	Si
27	7671	7	25790	2.7	149.4	105.4	3600	6709	4	20180	2.1	112.1	0	+∞	Si
37	-7866	6	-1686	0.2	149.4	6.9	3600	-4941	3	-1686	0.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si
18	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999 Si
27	0	-0.001	0	0	0	0	0	0	0	0	-0.001	1	-0.001	1	9999 Si
37	0	-0.001	0	-0.001	0	-0.001	0	0	0	0	-0.001	1	-0.001	1	9999 Si

Campata 2 tra i fili 18 - 16, sezione R 30x50, aste 378, 379, 380, 381

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-10176	SLU 14	-9987	-993776	0.126	Si
10	6.03	5.1	6.03	5.1						-10041	SLU 14	-11272	-993776	0.126	Si
99	6.03	5.1	6.03	5.1						-13985	SLU 15	-51031	-993776	0.126	Si
178	8.01	5.1	6.03	5.1						-252756	SLU 15	-317139	-1302478	0.145	Si
198	8.04	5.1	6.03	5.1						-317139	SLU 15	-317139	-1307541	0.145	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	2355	SLV 6	2241	952908	0.245	-9732	SLV 11	-9576	-952908	0.245	Si
10	6.03	5.1	6.03	5.1	1986	SLV 6	1986	952908	0.245	-9652	SLV 11	-10687	-952908	0.245	Si
99	6.03	5.1	6.03	5.1	412	SLV 4	41508	952908	0.245	-17794	SLV 13	-102525	-952908	0.245	Si
178	8.01	5.1	6.03	5.1	278586	SLV 8	358940	954306	0.239	-582682	SLV 9	-741436	-1248792	0.281	Si
198	8.04	5.1	6.03	5.1	358940	SLV 8	358940	954317	0.239	-741436	SLV 9	-741436	-1253621	0.282	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-6894	SLD 11	-6246	-952908	0.245	Si
10	6.03	5.1	6.03	5.1						-6923	SLD 11	-8153	-952908	0.245	Si
99	6.03	5.1	6.03	5.1	-4011	SLD 4	7934	952908	0.245	-13371	SLD 13	-68951	-952908	0.245	Si
178	8.01	5.1	6.03	5.1	77907	SLD 8	102552	954306	0.239	-382003	SLD 9	-485047	-1248792	0.281	Si
198	8.04	5.1	6.03	5.1	102552	SLD 8	102552	954317	0.239	-485047	SLD 9	-485047	-1253621	0.282	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	40	SLU 6	40	6021	42764	0	6021	1	Si
0	0	6.03	0	-21	SLU 12	-21	-6021	-42764	0	-6021	1	Si
10	0.06	6.03	0	2	SLU 6	2	6021	42764	9538	9538	1	Si
10	0.06	6.03	0	-69	SLU 12	-69	-6021	-42764	-9538	-9538	1	Si
99	0.079	6.03	0	-289	SLU 16	-289	-6021	-42764	-12490	-12490	1	Si
198	0.079	7.37	0	-3300	SLU 15	-3300	-6438	-42764	-12490	-12490	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	43	SLV 3	43	6021	42764	0	6021	1	Si
0	0	6.03	0	-35	SLV 14	-35	-6021	-42764	0	-6021	1	Si
10	0.06	6.03	0	6	SLV 3	6	6021	42764	9538	9538	1	Si
10	0.06	6.03	0	-72	SLV 14	-72	-6021	-42764	-9538	-9538	1	Si
99	0.079	6.03	0	91	SLV 8	91	6021	42764	12490	12490	1	Si
99	0.079	6.03	0	-488	SLV 9	-488	-6021	-42764	-12490	-12490	1	Si
198	0.079	6.03	0	4021	SLV 8	4021	6021	42764	12490	12490	1	Si
198	0.079	7.37	0	-8055	SLV 9	-8055	-6438	-42764	-12490	-12490	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	23	SLD 3	23	6021	42764	0	6021	1	Si
0	0	6.03	0	-15	SLD 14	-15	-6021	-42764	0	-6021	1	Si
10	0.06	6.03	0	-52	SLD 14	-52	-6021	-42764	-9538	-9538	1	Si
99	0.079	6.03	0	-352	SLD 9	-352	-6021	-42764	-12490	-12490	1	Si
198	0.079	6.03	0	1208	SLD 8	1208	6021	42764	12490	12490	1	Si
198	0.079	7.37	0	-5241	SLD 9	-5241	-6438	-42764	-12490	-12490	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	σc lim.	σf .	σf lim.	Mela	Comb.	Mdes	σc	σc lim.	σFRP	σFRP lim.	
0	-6885	6	-6763	0.7	149.4	27.6	3600	-3830	3	-3796	0.4	112.1	0	+∞	Si
10	-6828	6	-7868	0.8	149.4	32.2	3600	-3949	3	-5341	0.6	112.1	0	+∞	Si
99	-10199	7	-36853	3.8	149.4	150.6	3600	-8691	4	-30509	3.2	112.1	0	+∞	Si
198	-229135	7	-229135	21.4	149.4	709.6	3600	-191248	4	-191248	17.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
0	0	-0.001	0	-0.001	0	-0.001	0	0	0	-0.001	-0.001	1	-0.001	1	9999 Si
10	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999 Si
99	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.003	1	-0.004	1	9999 Si

TABULATO DI CALCOLO – FABBRICATO B

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
132	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	1	-0.005	1	9999 Si

Campata 3 tra i fili 16 - 7, sezione R 30x50, asta 382; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-371715	SLU 15	-371715	-1307541	0.145	Si
12	8.04	5.1	6.03	5.1						-325399	SLU 15	-371715	-1307541	0.145	Si
175	6.03	5.1	6.03	5.1	147716	SLU 14	171666	993776	0.126						Si
330	6.03	5.1	7.16	5.1	122765	SLU 16	141624	1171390	0.136						Si
350	6.03	5.1	7.16	5.1	97740	SLU 12	97740	1171390	0.136						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1	420717	SLV 8	420717	993531	0.124	-868840	SLV 9	-868840	-1307541	0.145	Si
12	8.04	5.1	6.03	5.1	404922	SLV 8	420717	993531	0.124	-798686	SLV 9	-868840	-1307541	0.145	Si
175	6.03	5.1	6.03	5.1	80968	SLV 15	169578	993776	0.126	79253	SLV 2	-15980	-993776	0.126	Si
330	6.03	5.1	7.16	5.1	638434	SLV 9	638434	1171390	0.136	-503101	SLV 8	-503101	-993775	0.124	Si
350	6.03	5.1	7.16	5.1	690650	SLV 9	665806	1171390	0.136	-598224	SLV 8	-549398	-993775	0.124	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1	120259	SLD 8	126860	993531	0.124	-568381	SLD 9	-568381	-1307541	0.145	Si
12	8.04	5.1	6.03	5.1	124490	SLD 8	129440	993531	0.124	-518254	SLD 9	-568381	-1307541	0.145	Si
175	6.03	5.1	6.03	5.1	80553	SLD 15	135124	993776	0.126						Si
330	6.03	5.1	7.16	5.1	372453	SLD 9	372453	1171390	0.136	-237119	SLD 8	-237119	-993775	0.124	Si
350	6.03	5.1	7.16	5.1	390339	SLD 9	382660	1171390	0.136	-297912	SLD 8	-266252	-993775	0.124	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	8.04	0	4039	SLU 15	4039	6627	42764	12490	12490	1	Si
175	0.066	6.03	0	1525	SLU 15	1525	6021	42764	10458	10458	1	Si
330	0.121	7.16	0	-2140	SLU 14	-2140	-6378	-42794	-19089	-19089	1	Si
350	0	7.16	0	-2666	SLU 14	-2666	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	8.04	0	6054	Ger.	9862	6627	42764	12490	12490	1	Si
0	0.079	6.03	0	-1313	Ger.	-5026	-6021	-42764	-12490	-12490	1	Si
175	0.066	6.03	0	4612	Ger.	8420	6021	42764	10458	10458	1	Si
175	0.066	6.03	0	-2755	Ger.	-6468	-6021	-42764	-10458	-10458	1	Si
330	0.121	7.16	0	2737	Ger.	6554	6378	42794	19089	19089	1	Si
330	0.121	6.03	0	-4630	Ger.	-8333	-6021	-42764	-19076	-19076	1	Si
350	0	7.16	0	2456	Ger.	6263	6378	42794	0	6378	1	Si
350	0	6.03	0	-4911	Ger.	-8624	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	8.04	0	4338	SLD 9	4338	6627	42764	12490	12490	1	Si
175	0.066	6.03	0	2896	SLD 9	2896	6021	42764	10458	10458	1	Si
175	0.066	6.03	0	-1038	SLD 8	-1038	-6021	-42764	-10458	-10458	1	Si
330	0.121	7.16	0	1021	SLD 9	1021	6378	42794	19089	19089	1	Si
330	0.121	6.03	0	-2913	SLD 8	-2913	-6021	-42764	-19076	-19076	1	Si
350	0	7.16	0	740	SLD 9	740	6378	42794	0	6378	1	Si
350	0	6.03	0	-3194	SLD 8	-3194	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-268550	7	-268550	25	149.4	831.7	3600	-224061	4	-224061	20.9	112.1	0	+∞	Si
175	105523	6	122914	12.7	149.4	502.4	3600	80343	3	95656	9.9	112.1	0	+∞	Si
330	88485	8	102448	9.9	149.4	356.3	3600	67667	4	84401	8.2	112.1	0	+∞	Si
350	70004	4	70004	6.8	149.4	243.5	3600	46428	2	46428	4.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
175	0.011	0.005	0.009	0.004	0.008	0.006	0.007	0.005	0.008	0.006	0.018	3	0.012	3	9999 Si
222	0.012	0.006	0.01	0.005	0.01	0.006	0.008	0.005	0.009	0.006	0.02	4	0.013	4	9999 Si
330	0.003	0.002	0.003	0.001	0.002	0.002	0.002	0.001	0.002	0.002	0.005	4	0.004	4	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	254.1	6.1	50	0.009	0.00057	0.01306	0	6378	42794	19089	19089	17839	19089	-8333	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	1599	-5026	-6022	-1313	1599	9862	7512	6054
175	157	-6468	-6022	-2755	157	8420	7512	4612
330	-1709	-8333	-6022	-4630	-1709	6554	7512	2737
350	-2000	-8624	-6022	-4911	-2000	6263	7512	2456

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
3	0	16	993531	-1307541
3	330	7	1171390	-993775

Trave a "Sesto Impalcato / Copertura" Parete 3 - Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 23 - 3, sezione R 30x50, asta 423; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.3						-302515	SLU 15	-251337	-993257	0.13	Si
15	6.03	5.1	6.03	5.3						-203681	SLU 15	-203681	-993257	0.13	Si
230	8.78	5.1	6.03	5.3	422614	SLU 15	426960	988741	0.124						Si
430	7.16	5.1	6.03	5.3						-337180	SLU 14	-337180	-1170089	0.14	Si
460	7.16	5.1	6.03	5.3						-561251	SLU 14	-442091	-1170089	0.14	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.3	221504	SLV 13	221504	989064	0.127	-559070	SLV 4	-514546	-993257	0.13	Si
15	6.03	5.1	6.03	5.3	239503	SLV 13	257390	989064	0.127	-471872	SLV 4	-471872	-993257	0.13	Si
230	8.78	5.1	6.03	5.3	362752	SLV 4	400632	988741	0.124						Si
430	7.16	5.1	6.03	5.3	440974	SLV 4	463222	989067	0.125	-762186	SLV 13	-762186	-1170089	0.14	Si
460	7.16	5.1	6.03	5.3	394774	SLV 4	394774	989067	0.125	-946785	SLV 13	-850742	-1170089	0.14	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.3	30247	SLD 13	30247	989064	0.127	-367813	SLD 4	-331766	-993257	0.13	Si
15	6.03	5.1	6.03	5.3	65199	SLD 13	105820	989064	0.127	-297568	SLD 4	-297568	-993257	0.13	Si
230	8.78	5.1	6.03	5.3	294055	SLD 4	309202	988741	0.124						Si
430	7.16	5.1	6.03	5.3	146240	SLD 4	191223	989067	0.125	-467452	SLD 13	-467452	-1170089	0.14	Si
460	7.16	5.1	6.03	5.3	66134	SLD 4	66134	989067	0.125	-618145	SLD 13	-539055	-1170089	0.14	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	6834	SLU 15	6834	6021	42764	0	6021	1	Si
15	0.101	6.03	0	6354	SLU 15	6354	6021	42764	15897	15897	1	Si
230	0.057	6.03	0	-591	SLU 14	-591	-6009	-42573	-9043	-9043	1	Si
430	0.121	7.16	0	-6994	SLU 14	-6994	-6378	-42794	-19089	-19089	1	Si
460	0	7.16	0	-7954	SLU 14	-7954	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	5942	Ger.	9123	6021	42764	0	6021	1	Si
0	0	6.03	0	1329	Ger.	-1854	-6009	-42573	0	-6009	1	Si
15	0.101	6.03	0	5690	Ger.	8871	6021	42764	15897	15897	1	Si
15	0.101	6.03	0	1077	Ger.	-2107	-6009	-42573	-15826	-15826	1	Si
230	0.057	6.03	0	2074	Ger.	5254	6009	42573	9043	9043	1	Si
230	0.057	6.03	0	-2540	Ger.	-5723	-6009	-42573	-9043	-9043	1	Si
430	0.121	6.03	0	-1290	Ger.	1890	6009	42573	18991	18991	1	Si
430	0.121	7.16	0	-5904	Ger.	-9087	-6378	-42794	-19089	-19089	1	Si
460	0	6.03	0	-1795	Ger.	1386	6009	42573	0	6009	1	Si
460	0	7.16	0	-6408	Ger.	-9592	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	4812	SLD 4	4812	6021	42764	0	6021	1	Si
15	0.101	6.03	0	4560	SLD 4	4560	6021	42764	15897	15897	1	Si
230	0.057	6.03	0	943	SLD 4	943	6009	42573	9043	9043	1	Si
230	0.057	6.03	0	-1410	SLD 13	-1410	-6009	-42573	-9043	-9043	1	Si
430	0.121	7.16	0	-4774	SLD 13	-4774	-6378	-42794	-19089	-19089	1	Si
460	0	7.16	0	-5278	SLD 13	-5278	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	σ_{clim}	σ_f	σ_{flim}	Mela	Comb.	Mdes	σ_c	σ_{clim}	σ_{FRP}	σ_{FRPlim}	
0	-215739	7	-179385	18.6	149.4	734	3600	-168783	4	-141559	14.7	112.1	0	+∞	Si
15	-145530	7	-145530	15.1	149.4	595.5	3600	-116184	4	-116184	12.1	112.1	0	+∞	Si
230	299921	7	302936	29.7	149.4	1242.6	3600	222495	4	224092	22	112.1	0	+∞	Si
430	-237805	6	-237805	23.2	149.4	828.1	3600	-164487	3	-164487	16	112.1	0	+∞	Si
460	-396609	6	-312151	30.4	149.4	1087	3600	-280421	3	-218711	21.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
15	0.005	0.002	0.004	0.002	0.004	0.002	0.003	0.002	0.004	0.002	0.008	3	0.005	3	9999	Si
215	0.057	0.026	0.049	0.022	0.042	0.026	0.036	0.022	0.042	0.026	0.091	4	0.056	4	5066	Si
230	0.057	0.026	0.048	0.022	0.042	0.026	0.036	0.022	0.042	0.026	0.091	4	0.055	4	5078	Si
430	0.007	0.003	0.006	0.003	0.006	0.003	0.005	0.003	0.006	0.003	0.011	4	0.007	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	305	5.7	50	0.008	0.00036	0.0127	0	6009	42573	15826	15826	14889	15826	8871	0	SLV 9	Si
445	352	5.6	50	0.011	0.00079	0.01348	0	6009	42573	18991	18991	18123	18991	-9087	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3869	-1854	-5203	1329	3869	9123	4777	6834				
15	3616	-2107	-5203	1077	3616	8871	4777	6354				
230	0	-5723	-5203	-2540	0	5254	4777	2074				

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
430	-3364	-9087	-5203	-6994	-3364	1890	4777	-1290
460	-3869	-9592	-5203	-7954	-3869	1386	4777	-1795

Campata 2 tra i fili 3 - 4, sezione R 30x50, asta 424; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.3						-158055	SLU 15	-144012	-1170089	0.14	Si
30	7.16	5.1	6.03	5.3						-132077	SLU 15	-132077	-1170089	0.14	Si
197	6.03	5.1	11.39	5.2	8973	SLU 4	40592	1818802	0.184	-74629	SLU 14	-77626	-993119	0.123	Si
365	7.16	5.1	6.03	5.1						-158969	SLU 14	-158969	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1						-188417	SLU 14	-172638	-1171390	0.136	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.3	489844	SLV 15	455109	989067	0.125	-696233	SLV 2	-638058	-1170089	0.14	Si
30	7.16	5.1	6.03	5.3	420016	SLV 15	420016	989067	0.125	-582768	SLV 2	-582768	-1170089	0.14	Si
197	6.03	5.1	11.39	5.2	199	SLV 7	56184	1818802	0.184	-42499	SLV 10	-98348	-993119	0.123	Si
365	7.16	5.1	6.03	5.1	463663	SLV 4	463663	993775	0.124	-596193	SLV 13	-596193	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	536720	SLV 4	501012	993775	0.124	-707476	SLV 13	-651033	-1171390	0.136	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.3	199364	SLD 15	187372	989067	0.125	-405754	SLD 2	-370320	-1170089	0.14	Si
30	7.16	5.1	6.03	5.3	174432	SLD 15	174432	989067	0.125	-337184	SLD 2	-337184	-1170089	0.14	Si
197	6.03	5.1	11.39	5.2	-9792	SLD 7	18431	1818802	0.184	-32507	SLD 10	-60595	-993119	0.123	Si
365	7.16	5.1	6.03	5.1	204237	SLD 4	204237	993775	0.124	-336767	SLD 13	-336767	-1171390	0.136	Si
395	7.16	5.1	6.03	5.1	232158	SLD 4	219014	993775	0.124	-402914	SLD 13	-369034	-1171390	0.136	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	1129	SLU 12	1129	6378	42794	0	6378	1	Si
30	0.121	7.16	0	983	SLU 12	983	6378	42794	19089	19089	1	Si
197	0.06	6.03	0	166	SLU 12	166	6015	42663	9448	9448	1	Si
197	0.06	6.03	0	-109	SLU 6	-109	-6021	-42764	-9470	-9470	1	Si
365	0.121	7.16	0	-911	SLU 14	-911	-6378	-42794	-19089	-19089	1	Si
395	0	7.16	0	-1058	SLU 14	-1058	-6378	-42794	0	-6378	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	3859	Ger.	7846	6378	42794	0	6378	1	Si
0	0	6.03	0	-2287	Ger.	-6353	-6009	-42573	0	-6009	1	Si
30	0.121	7.16	0	3746	Ger.	7733	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	-2400	Ger.	-6466	-6009	-42573	-18991	-18991	1	Si
197	0.06	6.03	0	3118	Ger.	7105	6021	42764	9470	9470	1	Si
197	0.06	6.03	0	-3028	Ger.	-7094	-6021	-42764	-9470	-9470	1	Si
365	0.121	6.03	0	2490	Ger.	6477	6021	42764	19076	19076	1	Si
365	0.121	7.16	0	-3656	Ger.	-7722	-6378	-42794	-19089	-19089	1	Si
395	0	6.03	0	2377	Ger.	6365	6021	42764	0	6021	1	Si
395	0	7.16	0	-3769	Ger.	-7835	-6378	-42794	0	-6378	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	2354	SLD 4	2354	6378	42794	0	6378	1	Si
0	0	6.03	0	-782	SLD 13	-782	-6009	-42573	0	-6009	1	Si
30	0.121	7.16	0	2241	SLD 4	2241	6378	42794	19089	19089	1	Si
30	0.121	6.03	0	-895	SLD 13	-895	-6009	-42573	-18991	-18991	1	Si
197	0.06	6.03	0	1613	SLD 4	1613	6021	42764	9470	9470	1	Si
197	0.06	6.03	0	-1523	SLD 13	-1523	-6021	-42764	-9470	-9470	1	Si
365	0.121	6.03	0	985	SLD 4	985	6021	42764	19076	19076	1	Si
365	0.121	7.16	0	-2151	SLD 13	-2151	-6378	-42794	-19089	-19089	1	Si
395	0	6.03	0	873	SLD 4	873	6021	42764	0	6021	1	Si
395	0	7.16	0	-2264	SLD 13	-2264	-6378	-42794	0	-6378	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-116592	7	-105664	10.3	149.4	368	3600	-103195	4	-91474	8.9	112.1	0	+∞	Si
30	-96357	7	-96357	9.4	149.4	335.6	3600	-81376	4	-81376	7.9	112.1	0	+∞	Si
197	5393	4	6911	0.6	149.4	15.4	3600	382	2	952	0.1	112.1	0	+∞	Si
197	-49988	6	-51972	4.8	149.4	212.2	3600	-23297	3	-24620	2.3	112.1	0	+∞	Si
365	-112190	6	-112190	10.9	149.4	390.2	3600	-71945	3	-71945	7	112.1	0	+∞	Si
395	-134363	6	-122465	11.9	149.4	426	3600	-91690	3	-81006	7.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		l/f
30	-0.001	-0.004	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	2	-0.006	2	9999	Si
184	-0.001	-0.012	-0.001	-0.011	-0.002	-0.007	-0.002	-0.006	-0.002	-0.007	-0.005	2	-0.016	2	9999	Si
197	-0.001	-0.012	-0.001	-0.011	-0.002	-0.007	-0.002	-0.006	-0.002	-0.007	-0.005	2	-0.016	2	9999	Si
365	0	-0.004	0	-0.004	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	2	-0.005	2	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRCd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
505	244.7	6.3	50	0.011	0.00028	0.01653	0	6378	42794	19089	19089	18353	19089	7733	0	SLV 5	Si
840	240.5	6.1	50	0.011	0.00074	0.01655	0	6378	42794	19089	19089	18461	19089	-7722	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	741	-6353	-6449	-2287	741	7846	6459	3859
30	628	-6466	-6449	-2400	628	7733	6459	3746
197	0	-7094	-6449	-3028	0	7105	6459	3118
365	-628	-7722	-6449	-3656	-628	6477	6459	2490
395	-741	-7835	-6449	-3769	-741	6365	6459	2377

Campata 3 tra i fili 4 - 28, sezione R 30x50, asta 422; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-1138462	SLU 14	-976585	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-827422	SLU 14	-827422	-1171390	0.136	Si
310	6.03	5.1	6.03	5.1	703705	SLU 14	716769	993776	0.126						Si
605	6.03	5.1	6.03	5.1						-414490	SLU 15	-414490	-993776	0.126	Si
620	6.03	5.1	6.03	5.1						-544327	SLU 15	-478288	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-1058661	SLV 2	-955202	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1	21880	SLV 15	96420	993775	0.124	-858422	SLV 2	-858422	-1171390	0.136	Si
310	6.03	5.1	6.03	5.1	448234	SLV 15	461535	993776	0.126						Si
605	6.03	5.1	6.03	5.1	71108	SLV 2	132426	993776	0.126	-530829	SLV 15	-530829	-993776	0.126	Si
620	6.03	5.1	6.03	5.1	21638	SLV 2	21638	993776	0.126	-618965	SLV 15	-574309	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-824939	SLD 2	-730918	-1171390	0.136	Si
30	7.16	5.1	6.03	5.1						-643576	SLD 2	-643576	-1171390	0.136	Si
310	6.03	5.1	6.03	5.1	409562	SLD 15	410210	993776	0.126						Si
605	6.03	5.1	6.03	5.1						-383864	SLD 15	-383864	-993776	0.126	Si
620	6.03	5.1	6.03	5.1						-462562	SLD 15	-422624	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	10905	SLU 14	10905	6378	42794	0	6378	1	Si
30	0.121	7.16	0	9944	SLU 14	9944	6378	42794	19089	19089	1	Si
310	0.053	6.03	0	980	SLU 14	980	6021	42764	8367	8367	1	Si
605	0.101	6.03	0	-8506	SLU 15	-8506	-6021	-42764	-15897	-15897	1	Si
620	0	6.03	0	-8987	SLU 15	-8987	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	6957	Ger.	9356	6378	42794	0	6378	1	Si
30	0.121	7.16	0	6452	Ger.	8852	6378	42794	19089	19089	1	Si
310	0.053	6.03	0	1742	Ger.	4142	6021	42764	8367	8367	1	Si
310	0.053	6.03	0	-835	Ger.	-3802	-6021	-42764	-8367	-8367	1	Si
605	0.101	6.03	0	-5797	Ger.	-8764	-6021	-42764	-15897	-15897	1	Si
620	0	6.03	0	-6050	Ger.	-9016	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	6327	SLD 2	6327	6378	42794	0	6378	1	Si
30	0.121	7.16	0	5823	SLD 2	5823	6378	42794	19089	19089	1	Si
310	0.053	6.03	0	1113	SLD 2	1113	6021	42764	8367	8367	1	Si
310	0.053	6.03	0	-206	SLD 15	-206	-6021	-42764	-8367	-8367	1	Si
605	0.101	6.03	0	-5168	SLD 15	-5168	-6021	-42764	-15897	-15897	1	Si
620	0	6.03	0	-5420	SLD 15	-5420	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-805902	6	-691124	67.1	149.4	2403.9	3600	-583478	3	-499169	48.4	112.1	0	+∞	Si
30	-585368	6	-585368	56.8	149.4	2036.1	3600	-421540	3	-421540	40.9	112.1	0	+∞	Si
310	499322	6	508454	52.6	149.4	2078.1	3600	369083	3	374953	38.8	112.1	0	+∞	Si
605	-295728	7	-295728	30.6	149.4	1208.7	3600	-229860	4	-229860	23.8	112.1	0	+∞	Si
620	-387948	7	-341043	35.3	149.4	1393.9	3600	-298664	4	-263673	27.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.9	0.0007	0.0195	6	27.9	0.00051	0.0143	3	27.9	0.00051	0.0143	3	Si
30	superiore	27.9	0.00059	0.0165	6	27.9	0.00043	0.0119	3	27.9	0.00043	0.0119	3	Si
310	inferiore	31.6	0.00061	0.0191	6	31.6	0.00045	0.0141	3	31.6	0.00045	0.0141	3	Si
331	inferiore	31.6	0.00061	0.0191	6	31.6	0.00045	0.0141	3	31.6	0.00045	0.0141	3	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
30	0.012	0.006	0.009	0.004	0.009	0.006	0.006	0.004	0.009	0.006	0.013	4	0.011	4	9999	Si
310	0.161	0.073	0.178	0.063	0.119	0.073	0.103	0.063	0.119	0.073	0.259	3	0.16	3	2393	Si
331	0.162	0.073	0.18	0.063	0.12	0.073	0.104	0.064	0.12	0.073	0.261	3	0.161	3	2374	Si
605	0.011	0.004	0.012	0.004	0.008	0.005	0.007	0.004	0.008	0.005	0.017	3	0.01	3	9999	Si
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
900	201.2	6.1	50	0.011	0.00093	0.01336	0	6378	42794	19089	19089	19478	19478	8852	0	SLV 2	Si
1475	422.5	5.7	50	0.008	0.00049	0.0125	0	6021	42764	15897	15897	14955	15897	-8764	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	5214	0	-3457	3406	5214	10905	3765	10905								
30	4710	0	-3457	3096	4710	9944	3765	9944								
310	0	-3802	-3457	-835	0	4142	3765	1742								
605	-4962	-8764	-3457	-8506	-4962	0	3765	-2783								
620	-5214	-9016	-3457	-8987	-5214	0	3765	-2938								

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	23	989064	-993257
1	430	3	989067	-1170089
2	30	3	989067	-1170089
2	365	4	993775	-1171390
3	30	4	993775	-1171390
3	605	28	993776	-993776

Trave a "Sesto Impalcato / Copertura" Parete 3-Pil.8**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3,5	3,5	3,5

Output campate**Campata 1 tra i fili 23 - 24, sezione R 30x50, asta 383****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	67052	SLU 15	51795	993776	0.126						Si
15	6.03	5.1	6.03	5.1	35990	SLU 15	35990	993776	0.126						Si
18	6.03	5.1	6.03	5.1	28586	SLU 15	35990	993776	0.126						Si
27	6.03	5.1	6.03	5.1	10354	SLU 15	35990	993776	0.126						Si
37	6.03	5.1	6.03	5.1						-11548	SLU 15	-2280	-993776	0.126	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	55521	SLV 4	41548	952908	0.245						Si
15	6.03	5.1	6.03	5.1	27125	SLV 4	27125	952908	0.245						Si
18	6.03	5.1	6.03	5.1	20426	SLV 3	27125	952908	0.245						Si
27	6.03	5.1	6.03	5.1	9757	SLV 13	27125	952908	0.245						Si
37	6.03	5.1	6.03	5.1	6183	SLV 13	6183	952908	0.245	-16159	SLV 4	-6222	-952908	0.245	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	46117	SLD 4	35139	952908	0.245						Si
15	6.03	5.1	6.03	5.1	23727	SLD 4	23727	952908	0.245						Si
18	6.03	5.1	6.03	5.1	18406	SLD 3	23727	952908	0.245						Si
27	6.03	5.1	6.03	5.1	8254	SLD 13	23727	952908	0.245						Si
37	6.03	5.1	6.03	5.1	715	SLD 13	715	952908	0.245	-10691	SLD 4	-2713	-952908	0.245	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	-2034	SLU 15	-2034	-6021	-42764	0	-6021	1	Si
15	0.084	6.03	0	-2107	SLU 15	-2107	-6021	-42764	-13249	-13249	1	Si
18	0.084	6.03	0	-2124	SLU 15	-2124	-6021	-42764	-13249	-13249	1	Si
27	0.084	6.03	0	-2166	SLU 15	-2166	-6021	-42764	-13249	-13249	1	Si
37	0	6.03	0	-2215	SLU 15	-2215	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	-1867	SLV 4	-1867	-6021	-42764	0	-6021	1	Si
15	0.084	6.03	0	-1923	SLV 4	-1923	-6021	-42764	-13249	-13249	1	Si
18	0.084	6.03	0	-1936	SLV 4	-1936	-6021	-42764	-13249	-13249	1	Si
27	0.084	6.03	0	-1968	SLV 4	-1968	-6021	-42764	-13249	-13249	1	Si
37	0	6.03	0	-2006	SLV 4	-2006	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	-1465	SLD 4	-1465	-6021	-42764	0	-6021	1	Si
15	0.084	6.03	0	-1522	SLD 4	-1522	-6021	-42764	-13249	-13249	1	Si
18	0.084	6.03	0	-1535	SLD 4	-1535	-6021	-42764	-13249	-13249	1	Si
27	0.084	6.03	0	-1567	SLD 4	-1567	-6021	-42764	-13249	-13249	1	Si
37	0	6.03	0	-1604	SLD 4	-1604	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	47788	7	37014	3.8	149.4	151.3	3600	36338	4	28480	2.9	112.1	0	$+\infty$	Si
15	25818	7	25818	2.7	149.4	105.5	3600	20202	4	20202	2.1	112.1	0	$+\infty$	Si
18	20572	7	25818	2.7	149.4	105.5	3600	16316	4	20202	2.1	112.1	0	$+\infty$	Si
27	7638	7	25818	2.7	149.4	105.5	3600	6687	4	20202	2.1	112.1	0	$+\infty$	Si
37	-7927	7	-1748	0.2	149.4	7.1	3600	-4988	4	-1722	0.2	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
18	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999	Si
27	0	-0.001	0	0	0	0	0	0	0	0	-0.001	1	-0.001	1	9999	Si
37	0	-0.001	0	-0.001	0	-0.001	0	0	0	-0.001	-0.001	1	-0.001	1	9999	Si

Campata 2 tra i fili 24 - 25, sezione R 30x50, aste 384, 385, 386, 387**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-10373	SLU 14	-10167	-993776	0.126	Si
10	6.03	5.1	6.03	5.1						-10205	SLU 14	-11369	-993776	0.126	Si
99	6.03	5.1	6.03	5.1						-13838	SLU 15	-50755	-993776	0.126	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
178	8	5.1	6.03	5.1						-251408	SLU 15	-315440	-1301577	0.145	Si
198	8.04	5.1	6.03	5.1						-315440	SLU 15	-315440	-1307541	0.145	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_c = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	10055	SLV 13	9142	952908	0.245	-17744	SLV 4	-16762	-952908	0.245	Si
10	6.03	5.1	6.03	5.1	8036	SLV 13	8036	952908	0.245	-15962	SLV 4	-15962	-952908	0.245	Si
99	6.03	5.1	6.03	5.1	-365	SLV 11	36736	952908	0.245	-16806	SLV 6	-97214	-952908	0.245	Si
178	8	5.1	6.03	5.1	250509	SLV 11	323097	954300	0.239	-551820	SLV 6	-702068	-1247947	0.281	Si
198	8.04	5.1	6.03	5.1	323097	SLV 11	323097	954317	0.239	-702068	SLV 6	-702068	-1253621	0.282	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_c = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	3288	SLD 13	2837	952908	0.245	-10977	SLD 4	-10457	-952908	0.245	Si
10	6.03	5.1	6.03	5.1	2196	SLD 13	2196	952908	0.245	-10123	SLD 4	-10123	-952908	0.245	Si
99	6.03	5.1	6.03	5.1	-4174	SLD 11	5597	952908	0.245	-12996	SLD 6	-66076	-952908	0.245	Si
178	8	5.1	6.03	5.1	63955	SLD 11	84727	954300	0.239	-365266	SLD 6	-463698	-1247947	0.281	Si
198	8.04	5.1	6.03	5.1	84727	SLD 11	84727	954317	0.239	-463698	SLD 6	-463698	-1253621	0.282	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	42	SLU 6	42	6021	42764	0	6021	1	Si
0	0	6.03	0	-17	SLU 12	-17	-6021	-42764	0	-6021	1	Si
10	0.06	6.03	0	5	SLU 6	5	6021	42764	9538	9538	1	Si
10	0.06	6.03	0	-65	SLU 12	-65	-6021	-42764	-9538	-9538	1	Si
99	0.079	6.03	0	-283	SLU 16	-283	-6021	-42764	-12490	-12490	1	Si
198	0.079	7.37	0	-3282	SLU 15	-3282	-6436	-42764	-12490	-12490	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	197	SLV 4	197	6021	42764	0	6021	1	Si
0	0	6.03	0	-184	SLV 13	-184	-6021	-42764	0	-6021	1	Si
10	0.06	6.03	0	160	SLV 4	160	6021	42764	9538	9538	1	Si
10	0.06	6.03	0	-221	SLV 13	-221	-6021	-42764	-9538	-9538	1	Si
99	0.079	6.03	0	111	SLV 7	111	6021	42764	12490	12490	1	Si
99	0.079	6.03	0	-498	SLV 10	-498	-6021	-42764	-12490	-12490	1	Si
198	0.079	6.03	0	3629	SLV 11	3629	6021	42764	12490	12490	1	Si
198	0.079	7.37	0	-7625	SLV 6	-7625	-6436	-42764	-12490	-12490	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	104	SLD 4	104	6021	42764	0	6021	1	Si
0	0	6.03	0	-91	SLD 13	-91	-6021	-42764	0	-6021	1	Si
10	0.06	6.03	0	67	SLD 4	67	6021	42764	9538	9538	1	Si
10	0.06	6.03	0	-128	SLD 13	-128	-6021	-42764	-9538	-9538	1	Si
99	0.079	6.03	0	-357	SLD 10	-357	-6021	-42764	-12490	-12490	1	Si
198	0.079	6.03	0	1012	SLD 11	1012	6021	42764	12490	12490	1	Si
198	0.079	7.37	0	-5008	SLD 6	-5008	-6436	-42764	-12490	-12490	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-7031	6	-6897	0.7	149.4	28.2	3600	-3966	3	-3921	0.4	112.1	0	$+\infty$	Si
10	-6950	6	-7940	0.8	149.4	32.5	3600	-4062	3	-5410	0.6	112.1	0	$+\infty$	Si
99	-10088	7	-36634	3.8	149.4	149.7	3600	-8585	4	-30239	3.1	112.1	0	$+\infty$	Si
198	-227774	7	-227774	21.2	149.4	705.4	3600	-189486	4	-189486	17.7	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
0	0	-0.001	0	-0.001	0	-0.001	0	0	0	-0.001	-0.001	1	-0.001	1	9999	Si
10	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999	Si
99	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.003	1	-0.004	1	9999	Si
132	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	1	-0.005	1	9999	Si

Campata 3 tra i fili 25 - 8, sezione R 30x50, asta 388; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-369781	SLU 15	-369781	-1307541	0.145	Si
12	8.04	5.1	6.03	5.1						-323609	SLU 15	-369781	-1307541	0.145	Si
175	6.03	5.1	6.03	5.1	147863	SLU 14	171173	993776	0.126						Si
330	6.03	5.1	6.03	5.1	116850	SLU 16	137081	993776	0.126						Si
350	6.03	5.1	6.03	5.1	92556	SLU 12	92556	993776	0.126	-4430	SLU 6	-4430	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1	378585	SLV 11	378585	993531	0.124	-822647	SLV 6	-822647	-1307541	0.145	Si
12	8.04	5.1	6.03	5.1	365745	SLV 11	378585	993531	0.124	-755759	SLV 6	-822647	-1307541	0.145	Si
175	6.03	5.1	6.03	5.1	84756	SLV 16	161176	993776	0.126	74877	SLV 1	-13129	-993776	0.126	Si
330	6.03	5.1	6.03	5.1	590230	SLV 6	590230	993776	0.126	-463708	SLV 11	-463708	-993776	0.126	Si
350	6.03	5.1	6.03	5.1	635987	SLV 6	614382	993776	0.126	-554628	SLV 11	-507894	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1	99265	SLD 11	108394	993531	0.124	-543328	SLD 6	-543328	-1307541	0.145	Si
12	8.04	5.1	6.03	5.1	104962	SLD 11	112440	993531	0.124	-494976	SLD 6	-543328	-1307541	0.145	Si
175	6.03	5.1	6.03	5.1	82337	SLD 16	130482	993776	0.126						Si
330	6.03	5.1	6.03	5.1	345223	SLD 6	345223	993776	0.126	-218701	SLD 11	-218701	-993776	0.126	Si
350	6.03	5.1	6.03	5.1	359203	SLD 6	353487	993776	0.126	-277844	SLD 11	-246999	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	8.04	0	4027	SLU 15	4027	6627	42764	12490	12490	1	Si
175	0.057	6.03	0	1512	SLU 15	1512	6021	42764	9064	9064	1	Si
330	0.101	6.03	0	-2241	SLU 14	-2241	-6021	-42764	-15897	-15897	1	Si
350	0	6.03	0	-2770	SLU 14	-2770	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	8.04	0	5774	Ger.	9278	6627	42764	12490	12490	1	Si
0	0.079	6.03	0	-1059	Ger.	-5018	-6021	-42764	-12490	-12490	1	Si
175	0.057	6.03	0	4333	Ger.	7836	6021	42764	9064	9064	1	Si
175	0.057	6.03	0	-2501	Ger.	-6459	-6021	-42764	-9064	-9064	1	Si
330	0.101	6.03	0	2415	Ger.	5927	6021	42764	15897	15897	1	Si
330	0.101	6.03	0	-4419	Ger.	-8368	-6021	-42764	-15897	-15897	1	Si
350	0	6.03	0	2133	Ger.	5637	6021	42764	0	6021	1	Si
350	0	6.03	0	-4701	Ger.	-8659	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.079	8.04	0	4185	SLD 6	4185	6627	42764	12490	12490	1	Si
175	0.057	6.03	0	2744	SLD 6	2744	6021	42764	9064	9064	1	Si
175	0.057	6.03	0	-912	SLD 11	-912	-6021	-42764	-9064	-9064	1	Si
330	0.101	6.03	0	826	SLD 6	826	6021	42764	15897	15897	1	Si
330	0.101	6.03	0	-2830	SLD 11	-2830	-6021	-42764	-15897	-15897	1	Si
350	0	6.03	0	544	SLD 6	544	6021	42764	0	6021	1	Si
350	0	6.03	0	-3112	SLD 11	-3112	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-266997	7	-266997	24.9	149.4	826.9	3600	-222031	4	-222031	20.7	112.1	0	+∞	Si
175	105582	6	122511	12.7	149.4	500.7	3600	80161	3	95095	9.8	112.1	0	+∞	Si
330	84093	8	99059	10.2	149.4	404.9	3600	63261	4	81034	8.4	112.1	0	+∞	Si
350	66005	4	66005	6.8	149.4	269.8	3600	42381	2	42381	4.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
175	0.011	0.005	0.009	0.004	0.008	0.005	0.007	0.004	0.008	0.006	0.018	3	0.012	3	9999
222	0.012	0.006	0.01	0.005	0.009	0.006	0.008	0.005	0.009	0.006	0.02	4	0.013	4	9999
330	0.003	0.002	0.002	0.001	0.002	0.002	0.002	0.001	0.002	0.002	0.005	4	0.004	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p _{tot}	θ _m	θ _y	μΔ _{pl}	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	240	5.7	50	0.008	0.00046	0.01312	0	6021	42764	15897	15897	15137	15897	-8368	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	1607	-5018	-6022	-1059	1607	9278	6974	5774
175	165	-6459	-6022	-2501	165	7836	6974	4333
330	-1744	-8368	-6022	-4419	-1744	5927	6974	2415
350	-2035	-8659	-6022	-4701	-2035	5637	6974	2133

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
3	0	25	993531	-1307541
3	330	8	993776	-993776

Trave a "Sesto Impalcato / Copertura" Pil.1-Pil.5**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 1 - 5, sezione R 60x25, asta 390; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-628543	SLU 15	-563366	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-502536	SLU 15	-502536	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	324133	SLU 14	439719	449277	0.223	-490202	SLU 14	-490202	-569999	0.246	Si
560	8.04	5.1	6.03	5.1						-615433	SLU 14	-550644	-569999	0.246	Si
580	8.04	5.1	6.03	5.1											

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-480062	SLV 9	-440199	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-402667	SLV 9	-402667	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	172510	SLV 13	175697	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-395840	SLV 8	-395840	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-472714	SLV 8	-433112	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-413991	SLD 9	-376407	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-341155	SLD 9	-341155	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	172326	SLD 13	173618	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-334231	SLD 8	-334231	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-406545	SLD 8	-369222	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6532	SLU 15	6532	7335	37907	0	7335	1	Si
20	0.483	8.04	0	6083	SLU 15	6083	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	31	SLU 16	31	6664	37907	8915	8915	1	Si
560	0.483	8.04	0	-6044	SLU 14	-6044	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-6493	SLU 14	-6493	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	3994	Ger.	5567	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3753	Ger.	5327	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	505	Ger.	2078	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-479	Ger.	-2078	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3727	Ger.	-5327	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-3968	Ger.	-5567	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	3766	SLD 9	3766	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3525	SLD 9	3525	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	277	SLD 9	277	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-251	SLD 8	-251	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3499	SLD 8	-3499	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-3740	SLD 8	-3740	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-447656	7	-401230	101.1	149.4	2879.3	3600	-337553	4	-302607	76.2	112.1	0	+∞	Si
20	-357901	7	-357901	90.1	149.4	2568.3	3600	-269993	4	-269993	68	112.1	0	+∞	Si
290	230804	6	230804	65.2	149.4	2173.8	3600	172664	3	172664	48.8	112.1	0	+∞	Si
560	-349216	6	-349216	88	149.4	2506	3600	-263404	3	-263404	66.3	112.1	0	+∞	Si
580	-438419	6	-392269	98.8	149.4	2815	3600	-330516	3	-295794	74.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.9	0.00095	0.0255	7	26.9	0.00076	0.0204	4	26.9	0.00076	0.0203	4	Si
20	superiore	26.9	0.0008	0.0215	7	26.9	0.00065	0.0174	4	26.9	0.00064	0.0173	4	Si
290	inferiore	31.6	0.00063	0.02	6	31.6	0.00047	0.015	3	31.6	0.00047	0.015	3	Si
560	superiore	26.9	0.00077	0.0207	6	26.9	0.00062	0.0166	3	26.9	0.00062	0.0166	3	Si
580	superiore	26.9	0.00092	0.0247	6	26.9	0.00073	0.0197	3	26.9	0.00073	0.0197	3	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
20	0.008	0.003	0.002	-0.005	0.005	0.003	0.002	-0.002	0.005	0.003	0.005	3	-0.008	3	9999	Si
290	0.208	0.096	0.234	0.088	0.155	0.097	0.138	0.09	0.155	0.098	0.366	3	0.245	3	1583	Si
560	0.008	0.004	0.002	-0.003	0.006	0.004	0.002	-0.001	0.006	0.004	0.005	3	-0.006	3	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	133.4	4.9	25	0.009	0.00057	0.00658	0	7335	37907	33818	33818	30578	33818	5327	0	SLV 1	Si
580	108	4.9	25	0.009	0.00149	0.00658	0	7335	37907	33818	33818	31215	33818	-5327	0	SLV 1	Si

Valutazione dei tagli secondo gerachria delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3489	0	-1889	2235	3489	6532	1889	6532
20	3248	0	-1889	2082	3248	6083	1889	6083
290	0	-2078	-1889	-479	0	2078	1889	505
560	-3248	-6044	-1889	-6044	-3248	0	1889	-2051
580	-3489	-6493	-1889	-6493	-3489	0	1889	-2205

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	1	450306	-569999
1	560	5	450306	-569999

Trave a "Sesto Impalcato / Copertura" Pil.2-Pil.6

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 2 - 6, sezione R 60x25, asta 391; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-619537	SLU 15	-554616	-518153	0.236	Si
20	7.16	5.1	6.03	5.1						-494043	SLU 15	-494043	-518153	0.236	Si
290	6.03	5.1	6.03	5.1	325470	SLU 14	439719	449277	0.223						Si
560	7.16	5.1	6.03	5.1						-494032	SLU 15	-494032	-518153	0.236	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
580	7.16	5.1	6.03	5.1						-619526	SLU 15	-554606	-518153	0.236	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-471125	SLV 5	-431549	-518153	0.236	Si
20	7.16	5.1	6.03	5.1						-394304	SLV 5	-394304	-518153	0.236	Si
290	6.03	5.1	6.03	5.1	172988	SLV 4	176099	449277	0.223						Si
560	7.16	5.1	6.03	5.1						-394978	SLV 12	-394978	-518153	0.236	Si
580	7.16	5.1	6.03	5.1						-471852	SLV 12	-432249	-518153	0.236	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	7.16	5.1	6.03	5.1						-406946	SLD 5	-369582	-518153	0.236	Si
20	7.16	5.1	6.03	5.1						-334550	SLD 5	-334550	-518153	0.236	Si
290	6.03	5.1	6.03	5.1	172933	SLD 4	174131	449277	0.223						Si
560	7.16	5.1	6.03	5.1						-335240	SLD 12	-335240	-518153	0.236	Si
580	7.16	5.1	6.03	5.1						-407689	SLD 12	-370299	-518153	0.236	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	6506	SLU 15	6506	7065	37967	0	7065	1	Si
20	0.483	7.16	0	6057	SLU 15	6057	7065	37967	33872	33872	1	Si
290	0.127	6.03	0	3	SLU 4	3	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-3	SLU 14	-3	-6664	-37907	-8915	-8915	1	Si
560	0.483	7.16	0	-6060	SLU 14	-6060	-7065	-37967	-33872	-33872	1	Si
580	0	7.16	0	-6509	SLU 14	-6509	-7065	-37967	0	-7065	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	3965	Ger.	5460	7065	37967	0	7065	1	Si
20	0.483	7.16	0	3725	Ger.	5220	7065	37967	33872	33872	1	Si
290	0.127	6.03	0	476	Ger.	1971	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-479	Ger.	-1971	-6664	-37907	-8915	-8915	1	Si
560	0.483	7.16	0	-3727	Ger.	-5220	-7065	-37967	-33872	-33872	1	Si
580	0	7.16	0	-3968	Ger.	-5460	-7065	-37967	0	-7065	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	7.16	0	3744	SLD 5	3744	7065	37967	0	7065	1	Si
20	0.483	7.16	0	3503	SLD 5	3503	7065	37967	33872	33872	1	Si
290	0.127	6.03	0	255	SLD 5	255	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-257	SLD 12	-257	-6664	-37907	-8915	-8915	1	Si
560	0.483	7.16	0	-3506	SLD 12	-3506	-7065	-37967	-33872	-33872	1	Si
580	0	7.16	0	-3747	SLD 12	-3747	-7065	-37967	0	-7065	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-441287	7	-395043	103.8	149.4	3197.5	3600	-332660	4	-297857	78.3	112.1	0	+∞	Si
20	-351896	7	-351896	92.5	149.4	2848.3	3600	-265386	4	-265386	69.7	112.1	0	+∞	Si
290	231748	6	231748	65.5	149.4	2182.6	3600	173337	3	173337	49	112.1	0	+∞	Si
560	-352007	7	-352007	92.5	149.4	2849.2	3600	-266097	4	-266097	69.9	112.1	0	+∞	Si
580	-441407	7	-395159	103.8	149.4	3198.5	3600	-333423	4	-298594	78.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.9	0.00106	0.0295	7	27.9	0.00084	0.0235	4	27.9	0.00084	0.0235	4	Si
20	superiore	27.9	0.00089	0.0248	7	27.9	0.00071	0.0199	4	27.9	0.00071	0.0199	4	Si
290	inferiore	31.6	0.00064	0.0201	6	31.6	0.00048	0.015	3	31.6	0.00048	0.015	3	Si
560	superiore	27.9	0.00089	0.0248	7	27.9	0.00072	0.02	4	27.9	0.00072	0.02	4	Si
580	superiore	27.9	0.00106	0.0295	7	27.9	0.00084	0.0236	4	27.9	0.00084	0.0235	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.008	0.003	0.002	-0.004	0.006	0.004	0.002	-0.001	0.006	0.004	0.005	3	-0.008	3	9999
290	0.21	0.097	0.236	-0.089	0.156	0.098	0.138	-0.091	0.156	0.099	0.367	3	0.247	3	1582
560	0.008	0.003	0.002	-0.004	0.006	0.004	0.002	-0.001	0.006	0.004	0.005	3	-0.008	3	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	132.9	4.7	25	0.009	0.00057	0.00641	0	7065	37967	33872	33872	30553	33872	5220	0	SLV 1	Si
580	107.4	4.7	25	0.009	0.00149	0.00641	0	7065	37967	33872	33872	31172	33872	-5220	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3489	0	-1792	2227	3489	6506	1792	6506
20	3248	0	-1792	2074	3248	6057	1792	6057
290	0	-1971	-1792	-479	0	1971	1792	476
560	-3248	-6060	-1792	-6060	-3248	0	1792	-2073
580	-3489	-6509	-1792	-6509	-3489	0	1792	-2226

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	2	449567	-518153
1	560	6	449567	-518153

Trave a "Sesto Impalcato / Copertura" Pil.3-Pil.9

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 3 - 9, sezione R 60x25, asta 389; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-623174	SLU 15	-558138	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-497449	SLU 15	-497449	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	325314	SLU 14	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-491721	SLU 14	-491721	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-617152	SLU 14	-552263	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-473551	SLV 10	-433896	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-396571	SLV 10	-396571	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	172816	SLV 15	175991	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-393998	SLV 7	-393998	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-470788	SLV 7	-431228	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-409072	SLD 10	-371640	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-336539	SLD 10	-336539	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	172770	SLD 15	174015	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-333968	SLD 7	-333968	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-406311	SLD 7	-368974	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6518	SLU 15	6518	7335	37907	0	7335	1	Si
20	0.483	8.04	0	6069	SLU 15	6069	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	15	SLU 16	15	6664	37907	8915	8915	1	Si
560	0.483	8.04	0	-6054	SLU 14	-6054	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-6503	SLU 14	-6503	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	3973	Ger.	5567	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3732	Ger.	5327	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	484	Ger.	2078	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-474	Ger.	-2078	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3723	Ger.	-5327	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-3964	Ger.	-5567	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	3751	SLD 10	3751	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3510	SLD 10	3510	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	262	SLD 10	262	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-252	SLD 7	-252	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3501	SLD 7	-3501	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-3741	SLD 7	-3741	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-443849	7	-397524	100.1	149.4	2852.7	3600	-334573	4	-299710	75.5	112.1	0	+∞	Si
20	-354295	7	-354295	89.2	149.4	2542.5	3600	-267178	4	-267178	67.3	112.1	0	+∞	Si
290	231633	6	231633	65.5	149.4	2181.6	3600	173222	3	173222	48.9	112.1	0	+∞	Si
560	-350360	6	-350360	88.2	149.4	2514.2	3600	-264758	3	-264758	66.7	112.1	0	+∞	Si
580	-439709	6	-393486	99.1	149.4	2823.7	3600	-332011	3	-297219	74.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.9	0.00094	0.0252	7	26.9	0.00075	0.0201	4	26.9	0.00075	0.02	4	Si
20	superiore	26.9	0.00079	0.0211	7	26.9	0.00063	0.0171	4	26.9	0.00063	0.017	4	Si
290	inferiore	31.6	0.00064	0.0201	6	31.6	0.00048	0.015	3	31.6	0.00048	0.015	3	Si
560	superiore	26.9	0.00077	0.0208	6	26.9	0.00062	0.0168	3	26.9	0.00062	0.0168	3	Si
580	superiore	26.9	0.00092	0.0248	6	26.9	0.00074	0.0198	3	26.9	0.00074	0.0198	3	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.008	0.003	0.002	-0.004	0.006	0.003	0.002	-0.001	0.006	0.004	0.005	3	-0.007	3	9999	Si
290	0.209	0.097	0.237	0.089	0.156	0.098	0.139	0.09	0.156	0.099	0.369	3	0.247	3	1572	Si
560	0.008	0.004	0.002	-0.003	0.006	0.004	0.002	-0.001	0.006	0.004	0.005	3	-0.006	3	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	128.8	4.9	25	0.009	0.00051	0.00658	0	7335	37907	33818	33818	30578	33818	5327	0	SLV 1	Si
580	112.3	4.9	25	0.009	0.00149	0.00658	0	7335	37907	33818	33818	31054	33818	-5327	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3489	0	-1889	2231	3489	6518	1889	6518
20	3248	0	-1889	2077	3248	6069	1889	6069
290	0	-2078	-1889	-474	0	2078	1889	484
560	-3248	-6054	-1889	-6054	-3248	0	1889	-2062
580	-3489	-6503	-1889	-6503	-3489	0	1889	-2215

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	3	450306	-569999

campata	x	appoggio	momento positivo	momento negativo
1	560	9	450306	-569999

Trave a "Sesto Impalcato / Copertura" Pil.4-Pil.10

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 4 - 10, sezione R 60x25, asta 392; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-631206	SLU 15	-565932	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-505005	SLU 15	-505005	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	324216	SLU 14	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-488727	SLU 14	-488727	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-613855	SLU 14	-549117	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-479756	SLV 10	-439907	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-402389	SLV 10	-402389	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	172584	SLV 4	175716	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-392455	SLV 7	-392455	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-469097	SLV 7	-429611	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-414481	SLD 10	-376881	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-341613	SLD 10	-341613	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	172403	SLD 4	173687	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-331754	SLD 7	-331754	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-403898	SLD 7	-366660	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6541	SLU 15	6541	7335	37907	0	7335	1	Si
20	0.483	8.04	0	6093	SLU 15	6093	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	42	SLU 16	42	6664	37907	8915	8915	1	Si
560	0.483	8.04	0	-6039	SLU 14	-6039	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-6488	SLU 14	-6488	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	3992	Ger.	5567	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3752	Ger.	5327	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	503	Ger.	2078	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-467	Ger.	-2078	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3716	Ger.	-5327	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-3956	Ger.	-5567	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	3767	SLD 10	3767	7335	37907	0	7335	1	Si
20	0.483	8.04	0	3527	SLD 10	3527	7335	37907	33818	33818	1	Si
290	0.127	6.03	0	278	SLD 10	278	6664	37907	8915	8915	1	Si
290	0.127	6.03	0	-242	SLD 7	-242	-6664	-37907	-8915	-8915	1	Si
560	0.483	8.04	0	-3491	SLD 7	-3491	-7335	-37907	-33818	-33818	1	Si
580	0	8.04	0	-3731	SLD 7	-3731	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.			
0	-449532	7	-403038	101.5	149.4	2892.2	3600	-338955	4	-303958	76.6	112.1	0	+∞	Si		
20	-359640	7	-359640	90.6	149.4	2580.8	3600	-271293	4	-271293	68.3	112.1	0	+∞	Si		
290	230865	6	230865	65.2	149.4	2174.3	3600	172725	3	172725	48.8	112.1	0	+∞	Si		
560	-348128	6	-348128	87.7	149.4	2498.2	3600	-262314	3	-262314	66.1	112.1	0	+∞	Si		
580	-437255	6	-391143	98.5	149.4	2806.9	3600	-329349	3	-294666	74.2	112.1	0	+∞	Si		

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	26.9	0.00096	0.0257	7	26.9	0.00076	0.0206	4	26.9	0.00076	0.0204	4	Si
20	superiore	26.9	0.00081	0.0216	7	26.9	0.00065	0.0175	4	26.9	0.00065	0.0174	4	Si
290	inferiore	31.6	0.00063	0.02	6	31.6	0.00047	0.015	3	31.6	0.00047	0.015	3	Si
560	superiore	26.9	0.00076	0.0206	6	26.9	0.00062	0.0165	3	26.9	0.00062	0.0165	3	Si
580	superiore	26.9	0.00091	0.0246	6	26.9	0.00073	0.0196	3	26.9	0.00073	0.0196	3	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		I/f
20	0.008	0.003	0.002	-0.005	0.005	0.003	0.002	-0.002	0.005	0.003	0.005	3	-0.009	3	9999	Si
290	0.208	0.096	0.234	-0.089	0.155	0.098	0.138	0.09	0.155	0.098	0.367	3	0.246	3	1582	Si
560	0.008	0.004	0.002	-0.003	0.006	0.004	0.002	0	0.006	0.004	0.006	3	-0.005	3	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	130.9	4.9	25	0.009	0.00052	0.00658	0	7335	37907	33818	33818	30578	33818	5327	0	SLV 1	Si
580	110.3	4.9	25	0.009	0.00142	0.00658	0	7335	37907	33818	33818	31130	33818	-5327	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
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TABULATO DI CALCOLO – FABBRICATO B

	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3489	0	-1889	2238	3489	6541	1889	6541
20	3248	0	-1889	2084	3248	6093	1889	6093
290	0	-2078	-1889	-467	0	2078	1889	503
560	-3248	-6039	-1889	-6039	-3248	0	1889	-2042
580	-3489	-6488	-1889	-6488	-3489	0	1889	-2195

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	4	450306	-569999
1	560	10	450306	-569999

Trave a "Sesto Impalcato / Copertura" su Parete 1

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 12, sezione R 30x50, aste 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	85483	SLU 15	64027	678504	0.11						Si
15	4.02	5.1	4.02	5.1	42023	SLU 15	42023	678504	0.11	14417	SLU 1	-11528	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-5447	SLU 15	-5447	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	54393	SLU 15	54393	678504	0.11	17904	SLU 1	-16690	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	112156	SLU 15	83549	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	58548	SLV 4	44183	645082	0.208						Si
15	4.02	5.1	4.02	5.1	29367	SLV 4	29367	645082	0.208	16020	SLV 13	-11987	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	4278	SLV 9	4278	645082	0.208	-10908	SLV 8	-10908	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	35734	SLV 1	35734	645082	0.208	22658	SLV 16	-15060	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	72233	SLV 1	54210	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	52234	SLD 4	39389	645082	0.208						Si
15	4.02	5.1	4.02	5.1	26113	SLD 4	26113	645082	0.208	19274	SLD 13	-8751	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	567	SLD 9	567	645082	0.208	-7198	SLD 8	-7198	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	32545	SLD 1	32545	645082	0.208	25847	SLD 16	-11847	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	66106	SLD 1	49541	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	4.02	0	-2861	SLU 15	-2861	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-2934	SLU 15	-2934	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	-176	SLU 16	-176	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	3887	SLU 15	3887	5260	42764	7381	7381	1	Si
590	0	4.02	0	3814	SLU 15	3814	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	4.02	0	-1919	SLV 4	-1919	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-1975	SLV 4	-1975	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	198	SLV 5	198	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-443	SLV 12	-443	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	2463	SLV 1	2463	5260	42764	7381	7381	1	Si
590	0	4.02	0	2407	SLV 1	2407	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrzd	Vult	cotgθ	Verifica
0	0	4.02	0	-1714	SLD 4	-1714	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-1770	SLD 4	-1770	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	42	SLD 5	42	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-286	SLD 12	-286	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	2266	SLD 1	2266	5260	42764	7381	7381	1	Si
590	0	4.02	0	2210	SLD 1	2210	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	60778	7	45568	5.8	149.4	275.9	3600	45599	4	34357	4.3	112.1	0	+∞	Si
15	29938	7	29938	3.8	149.4	181.2	3600	22693	4	22693	2.9	112.1	0	+∞	Si
295	-3950	7	-3950	0.5	149.4	23.9	3600	-3315	4	-3315	0.4	112.1	0	+∞	Si
575	38649	7	38649	4.9	149.4	234	3600	29196	4	29196	3.7	112.1	0	+∞	Si
590	79572	7	59321	7.5	149.4	359.1	3600	59669	4	44643	5.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						I/f	Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
295	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.004	1	9999	Si
334	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.004	1	9999	Si
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Trave a "Sesto Impalcato / Copertura" su parete 4**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 28 - 29, sezione R 30x50, aste 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	85136	SLU 15	63716	678504	0.11						Si
15	4.02	5.1	4.02	5.1	41749	SLU 15	41749	678504	0.11	14337	SLU 1	-11785	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-4687	SLU 15	-4687	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	42578	SLU 15	42578	678504	0.11	14519	SLU 1	-12433	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	87181	SLU 15	65153	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}= 0.002$, $\epsilon_{yd}= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	58225	SLV 15	43961	645082	0.208						Si
15	4.02	5.1	4.02	5.1	29246	SLV 15	29246	645082	0.208	15849	SLV 2	-12067	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	4680	SLV 6	4680	645082	0.208	-10505	SLV 11	-10505	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	29422	SLV 14	29422	645082	0.208	16478	SLV 3	-12842	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	59104	SLV 14	44489	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}= 0.002$, $\epsilon_{yd}= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	51975	SLD 15	39192	645082	0.208						Si
15	4.02	5.1	4.02	5.1	25977	SLD 15	25977	645082	0.208	19117	SLD 2	-8916	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	964	SLD 6	964	645082	0.208	-6789	SLD 11	-6789	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	26266	SLD 14	26266	645082	0.208	19634	SLD 3	-9606	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	52941	SLD 14	39820	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2856	SLU 15	-2856	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-2929	SLU 15	-2929	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	-155	SLU 16	-155	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	3010	SLU 15	3010	5260	42764	7381	7381	1	Si
590	0	4.02	0	2937	SLU 15	2937	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-1906	SLV 15	-1906	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-1962	SLV 15	-1962	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	207	SLV 6	207	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-433	SLV 11	-433	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	2009	SLV 14	2009	5260	42764	7381	7381	1	Si
590	0	4.02	0	1953	SLV 14	1953	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-1706	SLD 15	-1706	-5260	-42764	0	-5260	1	Si
15	0.047	4.02	0	-1762	SLD 15	-1762	-5260	-42764	-7381	-7381	1	Si
295	0.047	4.02	0	50	SLD 6	50	5260	42764	7381	7381	1	Si
295	0.047	4.02	0	-276	SLD 11	-276	-5260	-42764	-7381	-7381	1	Si
575	0.047	4.02	0	1807	SLD 14	1807	5260	42764	7381	7381	1	Si
590	0	4.02	0	1751	SLD 14	1751	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	60533	7	45349	5.7	149.4	274.5	3600	45415	4	34192	4.3	112.1	0	+∞	Si
15	29744	7	29744	3.8	149.4	180.1	3600	22547	4	22547	2.9	112.1	0	+∞	Si
295	-3414	7	-3414	0.4	149.4	20.7	3600	-2913	4	-2913	0.4	112.1	0	+∞	Si
575	30321	7	30321	3.8	149.4	183.6	3600	22950	4	22950	2.9	112.1	0	+∞	Si
590	61967	7	46355	5.9	149.4	280.6	3600	46465	4	34918	4.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	

TABULATO DI CALCOLO – FABBRICATO B

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0	0	0	0	0	0	0	0	0	0	0	2	0	2	9999 Si
295	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.003	1	9999 Si
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si

Trave a "Sesto Impalcato / Copertura" vano ascensore 1

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output camgate

Campata 1 tra i fili 20 - 22, sezione R 30x50, asta 437; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	3721	SLU 16	3721	993776	0.126						Si
15	6.03	5.1	6.03	5.1	8544	SLU 16	13320	993776	0.126						Si
74	6.03	5.1	6.03	5.1	16962	SLU 16	16962	993776	0.126						Si
85	6.03	5.1	6.03	5.1	16651	SLU 16	16962	993776	0.126						Si
155	6.03	5.1	6.03	5.1	1533	SLU 9	8044	993776	0.126						Si
170	6.03	5.1	6.03	5.1						-5642	SLU 16	-2139	-993776	0.126	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	197842	SLV 14	182500	993776	0.126	-194361	SLV 3	-174769	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	166731	SLV 14	166731	993776	0.126	-155567	SLV 3	-155567	-993776	0.126	Si
85	6.03	5.1	6.03	5.1	15544	SLV 2	60700	993776	0.126	9319	SLV 15	-38737	-993776	0.126	Si
155	6.03	5.1	6.03	5.1	166543	SLV 1	166543	993776	0.126	-164787	SLV 16	-164787	-993776	0.126	Si
170	6.03	5.1	6.03	5.1	196613	SLV 1	181661	993776	0.126	-204557	SLV 16	-184348	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	101713	SLD 14	94935	993776	0.126	-98232	SLD 3	-87204	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	87739	SLD 14	87739	993776	0.126	-76575	SLD 3	-76575	-993776	0.126	Si
85	6.03	5.1	6.03	5.1	14034	SLD 2	36336	993776	0.126	10829	SLD 15	-14373	-993776	0.126	Si
155	6.03	5.1	6.03	5.1	85323	SLD 1	85323	993776	0.126	-83568	SLD 16	-83568	-993776	0.126	Si
170	6.03	5.1	6.03	5.1	98271	SLD 1	91938	993776	0.126	-106215	SLD 16	-94624	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	383	SLU 9	383	6021	42764	0	6021	1	Si
15	0.101	6.03	0	310	SLU 9	310	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	-55	SLU 16	-55	-6021	-42764	-15897	-15897	1	Si
155	0.101	6.03	0	-396	SLU 16	-396	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	-469	SLU 16	-469	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	2616	Ger.	15935	6021	42764	0	6021	1	Si
0	0	6.03	0	-2046	Ger.	-15298	-6021	-42764	0	-6021	1	Si
15	0.101	6.03	0	2560	Ger.	15879	6021	42764	15897	15897	1	Si
15	0.101	6.03	0	-2102	Ger.	-15354	-6021	-42764	-15897	-15897	1	Si
85	0.101	6.03	0	2298	Ger.	15616	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	-2365	Ger.	-15616	-6021	-42764	-15897	-15897	1	Si
155	0.101	6.03	0	2035	Ger.	15354	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	-2627	Ger.	-15879	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	1979	Ger.	15298	6021	42764	0	6021	1	Si
170	0	6.03	0	-2684	Ger.	-15935	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	6.03	0	1474	SLD 3	1474	6021	42764	0	6021	1	Si
0	0	6.03	0	-903	SLD 14	-903	-6021	-42764	0	-6021	1	Si
15	0.101	6.03	0	1417	SLD 3	1417	6021	42764	15897	15897	1	Si
15	0.101	6.03	0	-959	SLD 14	-959	-6021	-42764	-15897	-15897	1	Si
85	0.101	6.03	0	1155	SLD 3	1155	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	-1222	SLD 14	-1222	-6021	-42764	-15897	-15897	1	Si
155	0.101	6.03	0	892	SLD 3	892	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	-1484	SLD 14	-1484	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	836	SLD 3	836	6021	42764	0	6021	1	Si
170	0	6.03	0	-1541	SLD 14	-1541	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	$\sigma_{c \text{ lim.}}$	σ_f	$\sigma_{f \text{ lim.}}$	Mela	Comb.	Mdes	σ_c	$\sigma_{c \text{ lim.}}$	σ_{FRP}	$\sigma_{FRP \text{ lim.}}$	
0	2555	8	2555	0.3	149.4	10.4	3600	1741	4	1741	0.2	112.1	0	$+\infty$	Si
15	6301	8	10024	1	149.4	41	3600	5582	4	9432	1	112.1	0	$+\infty$	Si
85	12708	8	12920	1.3	149.4	52.8	3600	12431	4	12571	1.3	112.1	0	$+\infty$	Si
155	1179	1	6188	0.6	149.4	25.3	3600	1179	1	6188	0.6	112.1	0	$+\infty$	Si
170	-4231	8	-1555	0.2	149.4	6.4	3600	-3972	4	-1343	0.1	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0	0	0	0	0	0	0	0	0	0	0	4	0	4	9999 Si
79	0	0	0	0	0	0	0	0	0	0	0.001	4	0.001	4	9999 Si

TABULATO DI CALCOLO – FABBRICATO B

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
85	0	0	0	0	0	0	0	0	0	0	0.001	4	0.001	4	9999	Si
155	0	0	0	0	0	0	0	0	0	0	0	4	0	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	78.8	5.7	50	0.008	0.00012	0.01054	0	6021	42764	15897	15897	18057	18057	15879	0	SLV 3	Si
170	81	5.7	50	0.008	0.00095	0.01054	0	6021	42764	15897	15897	18016	18016	-15879	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	319	-15298	-14197	-2046	319	15935	14197	2616
15	263	-15354	-14197	-2102	263	15879	14197	2560
85	0	-15616	-14197	-2365	0	15616	14197	2298
155	-263	-15879	-14197	-2627	-263	15354	14197	2035
170	-319	-15935	-14197	-2684	-319	15298	14197	1979

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	20	993776	-993776
1	155	22	993776	-993776

Trave a "Sesto Impalcato / Copertura" vano ascensore 2

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 19 - 21, sezione R 30x50, asta 530; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1						-3687	SLU 14	-335	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	2921	SLU 12	9428	993776	0.126						Si
85	6.03	5.1	6.03	5.1	17452	SLU 16	17594	993776	0.126						Si
155	6.03	5.1	6.03	5.1	8221	SLU 16	13319	993776	0.126						Si
170	6.03	5.1	6.03	5.1	3156	SLU 16	3156	993776	0.126						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	208465	SLV 13	193271	993776	0.126	-213925	SLV 4	-193592	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	178029	SLV 15	178029	993776	0.126	-174027	SLV 2	-174027	-993776	0.126	Si
85	6.03	5.1	6.03	5.1	25834	SLV 15	71133	993776	0.126	165	SLV 2	-47714	-993776	0.126	Si
155	6.03	5.1	6.03	5.1	158964	SLV 3	158964	993776	0.126	-147772	SLV 14	-147772	-993776	0.126	Si
170	6.03	5.1	6.03	5.1	190107	SLV 3	174746	993776	0.126	-186837	SLV 14	-167106	-993776	0.126	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	6.03	5.1	6.03	5.1	104895	SLD 13	98407	993776	0.126	-110355	SLD 4	-98728	-993776	0.126	Si
15	6.03	5.1	6.03	5.1	91702	SLD 15	91702	993776	0.126	-87700	SLD 2	-87700	-993776	0.126	Si
85	6.03	5.1	6.03	5.1	19543	SLD 15	41991	993776	0.126	6457	SLD 2	-18571	-993776	0.126	Si
155	6.03	5.1	6.03	5.1	83804	SLD 3	83804	993776	0.126	-72612	SLD 14	-72612	-993776	0.126	Si
170	6.03	5.1	6.03	5.1	97735	SLD 3	90977	993776	0.126	-94465	SLD 14	-83338	-993776	0.126	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	6.03	0	454	SLU 15	454	6021	42764	0	6021	1	Si
15	0.101	6.03	0	380	SLU 15	380	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	39	SLU 15	39	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	-317	SLU 9	-317	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	-390	SLU 9	-390	-6021	-42764	0	-6021	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	6.03	0	2692	Ger.	15935	6021	42764	0	6021	1	Si
0	0	6.03	0	-2003	Ger.	-15298	-6021	-42764	0	-6021	1	Si
15	0.101	6.03	0	2635	Ger.	15879	6021	42764	15897	15897	1	Si
15	0.101	6.03	0	-2059	Ger.	-15354	-6021	-42764	-15897	-15897	1	Si
85	0.101	6.03	0	2373	Ger.	15616	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	-2321	Ger.	-15616	-6021	-42764	-15897	-15897	1	Si
155	0.101	6.03	0	2110	Ger.	15354	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	-2584	Ger.	-15879	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	2054	Ger.	15298	6021	42764	0	6021	1	Si
170	0	6.03	0	-2640	Ger.	-15935	-6021	-42764	0	-6021	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	VRcd	VRsd	Vult	cotgθ	Verifica
0	0	6.03	0	1541	SLD 4	1541	6021	42764	0	6021	1	Si
0	0	6.03	0	-852	SLD 13	-852	-6021	-42764	0	-6021	1	Si
15	0.101	6.03	0	1485	SLD 4	1485	6021	42764	15897	15897	1	Si
15	0.101	6.03	0	-908	SLD 13	-908	-6021	-42764	-15897	-15897	1	Si
85	0.101	6.03	0	1222	SLD 4	1222	6021	42764	15897	15897	1	Si
85	0.101	6.03	0	-1171	SLD 13	-1171	-6021	-42764	-15897	-15897	1	Si
155	0.101	6.03	0	960	SLD 4	960	6021	42764	15897	15897	1	Si
155	0.101	6.03	0	-1433	SLD 13	-1433	-6021	-42764	-15897	-15897	1	Si
170	0	6.03	0	903	SLD 4	903	6021	42764	0	6021	1	Si
170	0	6.03	0	-1489	SLD 13	-1489	-6021	-42764	0	-6021	1	Si

Verifiche delle tensioni in esercizio

x	Rara				Quasi permanente							Verifica
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TABULATO DI CALCOLO – FABBRICATO B

	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-2800	6	-230	0	149.4	0.9	3600	-2760	3	-200	0	112.1	0	+∞	Si
15	2222	4	7213	0.7	149.4	29.5	3600	2109	2	7043	0.7	112.1	0	+∞	Si
85	13309	8	13411	1.4	149.4	54.8	3600	13000	4	13085	1.4	112.1	0	+∞	Si
155	6102	8	10055	1	149.4	41.1	3600	5596	4	9605	1	112.1	0	+∞	Si
170	2183	8	2183	0.2	149.4	8.9	3600	1635	4	1635	0.2	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0	0	0	0	0	0	0	0	0	0	0	4	0	4	9999
85	0	0	0	0	0	0	0	0	0	0	0.001	4	0.001	4	9999
155	0	0	0	0	0	0	0	0	0	0	0	4	0	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	84.9	5.7	50	0.008	0.00013	0.01269	0	6021	42764	15897	15897	17946	17946	15879	0	SLV 2	Si
170	75.2	5.7	50	0.008	0.00085	0.01269	0	6021	42764	15897	15897	18123	18123	-15879	0	SLV 14	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes	contr. mom. res.		Vela			contr. grav.		Vdes	contr. mom. res.		Vela		
0	319		-15298	-14197		-2003			319		15935	14197		2692		
15	263		-15354	-14197		-2059			263		15879	14197		2635		
85	0		-15616	-14197		-2321			0		15616	14197		2373		
155	-263		-15879	-14197		-2584			-263		15354	14197		2110		
170	-319		-15935	-14197		-2640			-319		15298	14197		2054		

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	19	993776	-993776
1	155	21	993776	-993776

Trave a "Terzo Impalcato" Parete 1 - Parete 2

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 1, sezione R 30x50, asta 214; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.18	5.2	8.04	5.1						-878634	SLU 16	-792313	-1792727	0.167	Si
15	11.18	5.2	8.04	5.1						-708870	SLU 16	-708870	-1792727	0.167	Si
310	8.04	5.1	8.04	5.1	786007	SLU 16	916939	1307565	0.138						Si
590	16.34	5.2	14.07	5.1						-1108636	SLU 16	-1108636	-2590806	0.179	Si
620	16.34	5.2	14.07	5.1						-1500406	SLU 16	-1296358	-2590806	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.18	5.2	8.04	5.1	472562	SLV 13	472562	1306848	0.133	-1567664	SLV 4	-1486071	-1792727	0.167	Si
15	11.18	5.2	8.04	5.1	522530	SLV 13	581895	1306848	0.133	-1406269	SLV 4	-1406269	-1792727	0.167	Si
310	8.04	5.1	8.04	5.1	620210	SLV 4	677068	1307565	0.138						Si
590	16.34	5.2	14.07	5.1	481256	SLV 4	558046	2244215	0.157	-1861336	SLV 13	-1861336	-2590806	0.179	Si
620	16.34	5.2	14.07	5.1	348873	SLV 4	348873	2244215	0.157	-2216573	SLV 13	-2033874	-2590806	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.18	5.2	8.04	5.1						-1065613	SLD 4	-997729	-1792727	0.167	Si
15	11.18	5.2	8.04	5.1	47898	SLD 13	144033	1306848	0.133	-931637	SLD 4	-931637	-1792727	0.167	Si
310	8.04	5.1	8.04	5.1	555583	SLD 4	575673	1307565	0.138						Si
590	16.34	5.2	14.07	5.1	-95202	SLD 4	18357	2244215	0.157	-1284878	SLD 13	-1284878	-2590806	0.179	Si
620	16.34	5.2	14.07	5.1						-1585276	SLD 13	-1429996	-2590806	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.18	0	11742	SLU 16	11742	7393	42710	0	7393	1	Si
15	0.157	11	0	11126	SLU 16	11126	7352	42710	24807	24807	1	Si
310	0.086	8.04	0	-1003	SLU 16	-1003	-6627	-42764	-13596	-13596	1	Si
590	0.157	16.34	0	-12515	SLU 16	-12515	-8386	-42691	-24796	-24796	1	Si
620	0	16.34	0	-13748	SLU 16	-13748	-8386	-42691	0	-8386	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.18	0	11024	Ger.	15656	7393	42710	0	7393	1	Si
15	0.157	11	0	10640	Ger.	15272	7352	42710	24807	24807	1	Si
310	0.086	8.04	0	3091	Ger.	7723	6627	42764	13596	13596	1	Si
310	0.086	8.04	0	-4337	Ger.	-7456	-6627	-42764	-13596	-13596	1	Si
590	0.157	14.07	0	-4074	Ger.	558	7986	42764	24838	24838	1	Si
590	0.157	16.34	0	-11503	Ger.	-14622	-8386	-42691	-24796	-24796	1	Si
620	0	16.34	0	-12270	Ger.	-15389	-8386	-42691	0	-8386	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.18	0	9196	SLD 4	9196	7393	42710	0	7393	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
15	0.157	11	0	8812	SLD 4	8812	7352	42710	24807	24807	1	Si
310	0.086	8.04	0	1263	SLD 4	1263	6627	42764	13596	13596	1	Si
310	0.086	8.04	0	-2509	SLD 13	-2509	-6627	-42764	-13596	-13596	1	Si
590	0.157	16.34	0	-9675	SLD 13	-9675	-8386	-42691	-24796	-24796	1	Si
620	0	16.34	0	-10442	SLD 13	-10442	-8386	-42691	0	-8386	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-635088	8	-572693	45.8	149.4	1293.2	3600	-547551	4	-493814	39.5	112.1	0	$+\infty$	Si
15	-512379	8	-512379	41	149.4	1157	3600	-441870	4	-441870	35.4	112.1	0	$+\infty$	Si
310	568052	8	576468	51.4	149.4	1782	3600	488899	4	496113	44.3	112.1	0	$+\infty$	Si
590	-801684	8	-801684	50.6	149.4	1249.9	3600	-690040	4	-690040	43.6	112.1	0	$+\infty$	Si
620	-1084900	8	-937391	59.2	149.4	1461.5	3600	-933850	4	-806864	51	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	24.2	0.00038	0.0091	8	24.2	0.00034	0.0082	4	24.2	0.00032	0.0078	4	Si
15	superiore	24.2	0.00034	0.0081	8	24.2	0.0003	0.0073	4	24.2	0.00029	0.007	4	Si
289	inferiore	27.6	0.00052	0.0143	8	27.6	0.00048	0.0133	4	27.6	0.00045	0.0123	4	Si
310	inferiore	27.6	0.00052	0.0143	8	27.6	0.00048	0.0132	4	27.6	0.00045	0.0123	4	Si
590	superiore	21.3	0.00036	0.0077	8	21.3	0.00037	0.0079	4	21.3	0.00035	0.0074	4	Si
620	superiore	21.3	0.00045	0.0095	8	21.3	0.00046	0.0099	4	21.3	0.00044	0.0093	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0.009	0.005	0.011	0.004	0.009	0.006	0.008	0.004	0.008	0.006	0.022	4	0.011	4	9999
289	0.17	0.099	0.196	0.084	0.153	0.099	0.156	0.084	0.146	0.099	0.41	4	0.205	4	1512
310	0.169	0.098	0.195	0.083	0.152	0.098	0.155	0.083	0.145	0.098	0.407	4	0.204	4	1523
590	0.009	0.005	0.008	0.004	0.008	0.005	0.006	0.004	0.008	0.005	0.023	4	0.01	4	9999
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	378.4	6	50	0.013	0.00229	0.01293	0	6627	42764	24838	24838	23403	24838	15272	0	SLV 13	Si
605	446.1	7	50	0.023	0.00321	0.01637	0	7986	42764	24838	24838	24830	24838	-14622	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7933	0	-6779	3596	7933	15656	7021	11742
15	7549	0	-6779	3212	7549	15272	7021	11126
310	0	-7456	-6779	-4337	0	7723	7021	3091
590	-7165	-14622	-6779	-12515	-7165	558	7021	-4074
620	-7933	-15389	-6779	-13748	-7933	0	7021	-4842

Campata 2 tra i fili 1 - 2, sezione R 30x50, asta 218; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1						-225388	SLU 16	-185928	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1						-152513	SLU 16	-152513	-2590806	0.179	Si
198	8.04	5.1	13.16	5.1	54034	SLU 10	116364	2098567	0.188						Si
365	16.34	5.2	14.07	5.1						-190423	SLU 16	-190423	-2590806	0.179	Si
395	16.34	5.2	14.07	5.1						-270088	SLU 16	-227233	-2590806	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1	2030287	SLV 13	1894274	2244215	0.157	-2362389	SLV 4	-2165349	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	1754962	SLV 15	1754962	2244215	0.157	-1974311	SLV 2	-1974311	-2590806	0.179	Si
198	8.04	5.1	13.16	5.1	42717	SLV 16	263369	2098567	0.188	14309	SLV 1	-208082	-1307164	0.13	Si
365	16.34	5.2	14.07	5.1	1706310	SLV 4	1706310	2244215	0.157	-1976866	SLV 13	-1976866	-2590806	0.179	Si
395	16.34	5.2	14.07	5.1	1977020	SLV 4	1844044	2244215	0.157	-2369500	SLV 13	-2170911	-2590806	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1	946322	SLD 13	892501	2244215	0.157	-1278424	SLD 4	-1163576	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	834713	SLD 15	834713	2244215	0.157	-1054062	SLD 2	-1054062	-2590806	0.179	Si
198	8.04	5.1	13.16	5.1	35787	SLD 16	147096	2098567	0.188	21239	SLD 1	-91808	-1307164	0.13	Si
365	16.34	5.2	14.07	5.1	797410	SLD 4	797410	2244215	0.157	-1067966	SLD 13	-1067966	-2590806	0.179	Si
395	16.34	5.2	14.07	5.1	904416	SLD 4	853268	2244215	0.157	-1296896	SLD 13	-1180136	-2590806	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	2689	SLU 9	2689	8386	42691	0	8386	1	Si
30	0.157	16.34	0	2270	SLU 9	2270	8386	42691	24796	24796	1	Si
198	0.114	13.1	0	-130	SLU 15	-130	-7798	-42764	-17968	-17968	1	Si
365	0.157	16.34	0	-2470	SLU 15	-2470	-8386	-42691	-24796	-24796	1	Si
395	0	16.34	0	-2890	SLU 15	-2890	-8386	-42691	0	-8386	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	13106	Ger.	17999	8386	42691	0	8386	1	Si
0	0	14.07	0	-9013	Ger.	-13753	-7986	-42764	0	-7986	1	Si
30	0.157	16.34	0	12783	Ger.	17677	8386	42691	24796	24796	1	Si
30	0.157	14.07	0	-9335	Ger.	-14076	-7986	-42764	-24838	-24838	1	Si
198	0.114	13.1	0	10983	Ger.	15876	7798	42764	17968	17968	1	Si
198	0.114	13.1	0	-11136	Ger.	-15876	-7798	-42764	-17968	-17968	1	Si
365	0.157	14.07	0	9182	Ger.	14076	7986	42764	24838	24838	1	Si
365	0.157	16.34	0	-12936	Ger.	-17677	-8386	-42691	-24796	-24796	1	Si
395	0	14.07	0	8860	Ger.	13753	7986	42764	0	7986	1	Si
395	0	16.34	0	-13259	Ger.	-17999	-8386	-42691	0	-8386	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	7648	SLD 4	7648	8386	42691	0	8386	1	Si
0	0	14.07	0	-3554	SLD 13	-3554	-7986	-42764	0	-7986	1	Si
30	0.157	16.34	0	7325	SLD 4	7325	8386	42691	24796	24796	1	Si
30	0.157	14.07	0	-3877	SLD 13	-3877	-7986	-42764	-24838	-24838	1	Si
198	0.114	13.1	0	5525	SLD 4	5525	7798	42764	17968	17968	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
198	0.114	13.1	0	-5677	SLD 13	-5677	-7798	-42764	-17968	-17968	1	Si
365	0.157	14.07	0	3724	SLD 4	3724	7986	42764	24838	24838	1	Si
365	0.157	16.34	0	-7478	SLD 13	-7478	-8386	-42691	-24796	-24796	1	Si
395	0	14.07	0	3401	SLD 4	3401	7986	42764	0	7986	1	Si
395	0	16.34	0	-7800	SLD 13	-7800	-8386	-42691	0	-8386	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-171311	8	-140892	8.9	149.4	219.7	3600	-166051	4	-135538	8.6	112.1	0	+∞	Si
30	-115124	8	-115124	7.3	149.4	179.5	3600	-109675	4	-109675	6.9	112.1	0	+∞	Si
198	41482	2	41482	3.1	149.4	79.9	3600	40944	1	40944	3.1	112.1	0	+∞	Si
365	-142845	8	-142845	9	149.4	222.7	3600	-135278	4	-135278	8.5	112.1	0	+∞	Si
395	-203997	8	-171096	10.8	149.4	266.8	3600	-196240	4	-163434	10.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
30	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.003	1	9999
198	0.002	-0.001	0.001	-0.002	0.002	-0.001	0.001	-0.001	0.002	0	0.003	1	-0.002	1	9999
329	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.005	1	9999
365	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.003	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	196.2	8	50	0.023	0.00261	0.01626	0	8386	42691	24796	24796	27565	27565	17677	0	SLV 1	Si
1000	194.2	8	50	0.023	0.00306	0.01626	0	8386	42691	24796	24796	27670	27670	-17677	0	SLV 13	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	2123		-13753		-14433		-9013		2123		17999		14433		13106	
30	1801		-14076		-14433		-9335		1801		17677		14433		12783	
198	0		-15876		-14433		-11136		0		15876		14433		10983	
365	-1801		-17677		-14433		-12936		-1801		14076		14433		9182	
395	-2123		-17999		-14433		-13259		-2123		13753		14433		8860	

Campata 3 tra i fili 2 - 17, sezione R 30x50, asta 222; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1						-780501	SLU 16	-629088	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1						-495976	SLU 16	-495976	-2590806	0.179	Si
230	11.36	5.1	8.04	5.1	456777	SLU 16	491409	1307286	0.132			-92654	-1821777	0.168	Si
445	11.18	5.2	8.04	5.1						-353532	SLU 16	-353532	-1792727	0.167	Si
460	11.18	5.2	8.04	5.1						-480877	SLU 16	-414943	-1792727	0.167	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1	1206003	SLV 15	1205171	2244215	0.157	-2177354	SLV 2	-1988162	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	1192950	SLV 15	1192950	2244215	0.157	-1810359	SLV 2	-1810359	-2590806	0.179	Si
230	11.36	5.1	8.04	5.1	518330	SLV 15	631840	1307286	0.132	48647	SLV 2	-92654	-1821777	0.168	Si
445	11.18	5.2	8.04	5.1	905284	SLV 2	905284	1306848	0.133	-1348755	SLV 15	-1348755	-1792727	0.167	Si
460	11.18	5.2	8.04	5.1	920974	SLV 2	914536	1306848	0.133	-1523090	SLV 15	-1434515	-1792727	0.167	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1	372348	SLD 15	372348	2244215	0.157	-1343699	SLD 2	-1201331	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	452943	SLD 15	493701	2244215	0.157	-1070353	SLD 2	-1070353	-2590806	0.179	Si
230	11.36	5.1	8.04	5.1	402636	SLD 15	453358	1307286	0.132			-793296	-1792727	0.167	Si
445	11.18	5.2	8.04	5.1	349825	SLD 2	382069	1306848	0.133	-793296	SLD 15	-793296	-1792727	0.167	Si
460	11.18	5.2	8.04	5.1	318690	SLD 2	318690	1306848	0.133	-920806	SLD 15	-855643	-1792727	0.167	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	10108	SLU 16	10108	8386	42691	0	8386	1	Si
30	0.157	16.34	0	8874	SLU 16	8874	8386	42691	24796	24796	1	Si
230	0.095	8.04	0	651	SLU 16	651	6627	42764	14982	14982	1	Si
445	0.157	11.02	0	-8188	SLU 16	-8188	-7357	-42710	-24807	-24807	1	Si
460	0	11.18	0	-8805	SLU 16	-8805	-7393	-42710	0	-7393	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	12621	Ger.	16217	8386	42691	0	8386	1	Si
0	0	14.07	0	-47	Ger.	-4815	-7986	-42764	0	-7986	1	Si
30	0.157	16.34	0	11853	Ger.	15449	8386	42691	24796	24796	1	Si
30	0.157	14.07	0	-815	Ger.	-5582	-7986	-42764	-24838	-24838	1	Si
230	0.095	8.04	0	6735	Ger.	10331	6627	42764	14982	14982	1	Si
230	0.095	8.04	0	-5933	Ger.	-10700	-6627	-42764	-14982	-14982	1	Si
445	0.157	8.04	0	1234	Ger.	4829	6627	42764	24838	24838	1	Si
445	0.157	11.02	0	-11435	Ger.	-16202	-7357	-42710	-24807	-24807	1	Si
460	0	8.04	0	850	Ger.	4445	6627	42764	0	6627	1	Si
460	0	11.18	0	-11818	Ger.	-16586	-7393	-42710	0	-7393	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	9500	SLD 2	9500	8386	42691	0	8386	1	Si
30	0.157	16.34	0	8732	SLD 2	8732	8386	42691	24796	24796	1	Si
230	0.095	8.04	0	3614	SLD 2	3614	6627	42764	14982	14982	1	Si
230	0.095	8.04	0	-2811	SLD 15	-2811	-6627	-42764	-14982	-14982	1	Si
445	0.157	11.02	0	-8313	SLD 15	-8313	-7357	-42710	-24807	-24807	1	Si
460	0	11.18	0	-8697	SLD 15	-8697	-7393	-42710	0	-7393	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-564646	8	-455186	28.7	149.4	709.7	3600	-485676	4	-391495	24.7	112.1	0	+∞	Si

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
30	-358955	8	-358955	22.7	149.4	559.6	3600	-308705	4	-308705	19.5	112.1	0	+∞	Si
230	329871	8	333605	27.8	149.4	1029	3600	283489	4	286634	23.9	112.1	0	+∞	Si
445	-255755	8	-255755	20.5	149.4	577.5	3600	-221735	4	-221735	17.7	112.1	0	+∞	Si
460	-347800	8	-300143	24	149.4	677.7	3600	-301058	4	-259989	20.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	0.006	0.003	0.004	0.002	0.005	0.003	0.004	0.002	0.005	0.003	0.009	4	0.006	4	9999
230	0.058	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.049	0.033	0.096	4	0.064	4	4774
245	0.058	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.05	0.033	0.097	4	0.065	4	4746
445	0.005	0.003	0.004	0.002	0.004	0.003	0.003	0.002	0.004	0.003	0.007	4	0.005	4	9999
460	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	340.4	7	50	0.023	0.00131	0.01627		0	7986	42764	24838	24838	24830	24838	15449	0	SLV 11
1475	286.5	6	50	0.013	0.00031	0.01282		0	6627	42764	24838	24838	23403	24838	-16202	0	SLV 5

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.		Vdes	contr. mom. res.		Vela	contr. grav.		Vdes	contr. mom. res.		Vela
0	5886		-4815		-9728	-47	5886		16217		9392	12621
30	5118		-5582		-9728	-815	5118		15449		9392	11853
230	0		-10700		-9728	-5933	0		10331		9392	6735
445	-5502		-16202		-9728	-11435	-5502		4829		9392	1234
460	-5886		-16586		-9728	-11818	-5886		4445		9392	850

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
	1	15	1306848	-1792727
	1	590	2244215	-2590806
	2	30	2244215	-2590806
	2	365	2244215	-2590806
	3	30	2244215	-2590806
	3	445	1306848	-1792727

Trave a "Terzo Impalcato" Parete 1-Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 12 - 5, sezione R 30x50, asta 227; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.44	5.3	9.42	5.3						-892233	SLU 16	-805614	-1823106	0.166	Si
15	11.44	5.3	9.42	5.3						-721873	SLU 16	-721873	-1823106	0.166	Si
310	9.42	5.3	9.42	5.3	784712	SLU 16	916939	1512506	0.15						Si
590	16.59	5.3	15.71	5.3						-1098819	SLU 16	-1098819	-2617493	0.178	Si
620	16.59	5.3	15.71	5.3						-1489398	SLU 16	-1285945	-2617493	0.178	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.44	5.3	9.42	5.3	454554	SLV 16	454554	1513053	0.144	-1561273	SLV 1	-1479895	-1823106	0.166	Si
15	11.44	5.3	9.42	5.3	505459	SLV 16	566081	1513053	0.144	-1400309	SLV 1	-1400309	-1823106	0.166	Si
310	9.42	5.3	9.42	5.3	617693	SLV 1	673973	1512506	0.15						Si
590	16.59	5.3	15.71	5.3	470694	SLV 1	548061	2482056	0.168	-1842482	SLV 16	-1842482	-2617493	0.178	Si
620	16.59	5.3	15.71	5.3	337449	SLV 1	337449	2482056	0.168	-2195845	SLV 16	-2014082	-2617493	0.178	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	11.44	5.3	9.42	5.3						-1065227	SLD 1	-997391	-1823106	0.166	Si
15	11.44	5.3	9.42	5.3	36496	SLD 16	133436	1513053	0.144	-931346	SLD 1	-931346	-1823106	0.166	Si
310	9.42	5.3	9.42	5.3	554021	SLD 1	573984	1512506	0.15						Si
590	16.59	5.3	15.71	5.3	-98524	SLD 1	15162	2482056	0.168	-1273264	SLD 16	-1273264	-2617493	0.178	Si
620	16.59	5.3	15.71	5.3						-1572462	SLD 16	-1417782	-2617493	0.178	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.44	0	11782	SLU 16	11782	7439	42607	0	7439	1	Si
15	0.157	11.44	0	11165	SLU 16	11165	7439	42607	24747	24747	1	Si
310	0.089	9.42	0	-963	SLU 16	-963	-6972	-42573	-14056	-14056	1	Si
590	0.157	16.59	0	-12475	SLU 16	-12475	-8423	-42620	-24755	-24755	1	Si
620	0	16.59	0	-13709	SLU 16	-13709	-8423	-42620	0	-8423	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.44	0	10995	Ger.	16169	7439	42607	0	7439	1	Si
15	0.157	11.44	0	10612	Ger.	15785	7439	42607	24747	24747	1	Si
15	0.157	9.42	0	3274	Ger.	-353	-6972	-42573	-24728	-24728	1	Si
310	0.089	9.42	0	3062	Ger.	8236	6972	42573	14056	14056	1	Si
310	0.089	9.42	0	-4275	Ger.	-7902	-6972	-42573	-14056	-14056	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
590	0.157	15.23	0	-4103	Ger.	1071	8182	42573	24728	24728	1	Si
590	0.157	16.59	0	-11440	Ger.	-15067	-8423	-42620	-24755	-24755	1	Si
620	0	15.71	0	-4870	Ger.	303	8267	42573	0	8267	1	Si
620	0	16.59	0	-12208	Ger.	-15835	-8423	-42620	0	-8423	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	11.44	0	9190	SLD 1	9190	7439	42607	0	7439	1	Si
15	0.157	11.44	0	8806	SLD 1	8806	7439	42607	24747	24747	1	Si
310	0.089	9.42	0	1257	SLD 1	1257	6972	42573	14056	14056	1	Si
310	0.089	9.42	0	-2469	SLD 16	-2469	-6972	-42573	-14056	-14056	1	Si
590	0.157	16.59	0	-9635	SLD 16	-9635	-8423	-42620	-24755	-24755	1	Si
620	0	16.59	0	-10402	SLD 16	-10402	-8423	-42620	0	-8423	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-644542	8	-581941	45.3	149.4	1294.3	3600	-553359	4	-499497	38.9	112.1	0	+∞	Si
15	-521420	8	-521420	40.6	149.4	1159.7	3600	-447425	4	-447425	34.8	112.1	0	+∞	Si
310	567142	8	575003	47.8	149.4	1533.3	3600	488321	4	495195	41.2	112.1	0	+∞	Si
590	-794878	8	-794878	49	149.4	1227.1	3600	-685894	4	-685894	42.2	112.1	0	+∞	Si
620	-1077266	8	-930171	57.3	149.4	1435.9	3600	-929198	4	-802465	49.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	25.1	0.00038	0.0095	8	25.1	0.00034	0.0086	4	25.1	0.00032	0.0081	4	Si
15	superiore	25.1	0.00034	0.0085	8	25.1	0.0003	0.0076	4	25.1	0.00029	0.0073	4	Si
289	inferiore	28.2	0.00045	0.0126	8	28.2	0.00041	0.0115	4	28.2	0.00038	0.0108	4	Si
310	inferiore	28.2	0.00045	0.0126	8	28.2	0.00041	0.0115	4	28.2	0.00038	0.0108	4	Si
590	superiore	21.7	0.00036	0.0078	8	21.7	0.00036	0.0079	4	21.7	0.00034	0.0074	4	Si
620	superiore	21.7	0.00044	0.0095	8	21.7	0.00045	0.0099	4	21.7	0.00043	0.0093	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
15	0.009	0.005	0.009	0.004	0.008	0.005	0.008	0.004	0.008	0.005	0.02	4	0.01	4	9999
289	0.169	0.099	0.182	0.082	0.153	0.099	0.145	0.082	0.146	0.099	0.376	4	0.196	4	1651
310	0.168	0.098	0.18	0.081	0.152	0.098	0.144	0.081	0.145	0.098	0.373	4	0.194	4	1662
590	0.009	0.005	0.007	0.004	0.008	0.005	0.005	0.004	0.008	0.005	0.02	4	0.01	4	9999
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	386.1	6.4	50	0.014	0.00197	0.01333		0	6972	42573	24728	24728	23452	24728	15785	0	SLV 13
605	440.3	7.5	50	0.024	0.00276	0.01669		0	8182	42573	24728	24728	24896	24896	-15067	0	SLV 1

Valutazione dei tagli secondo gerachia delle resistenze

x	taglio negativo						taglio positivo					
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7933	0	-7184	3658	7933	16169	7487	11782				
15	7549	-353	-7184	3274	7549	15785	7487	11165				
310	0	-7902	-7184	-4275	0	8236	7487	3062				
590	-7165	-15067	-7184	-12475	-7165	1071	7487	-4103				
620	-7933	-15835	-7184	-13709	-7933	303	7487	-4870				

Campata 2 tra i fili 5 - 6, sezione R 30x50, aste 234, 235; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	15.71	5.3						-262154	SLU 16	-211766	-2617493	0.178	Si
30	16.59	5.3	15.71	5.3						-167668	SLU 16	-167668	-2617493	0.178	Si
197	11.74	5.3	10.79	5.3	111920	SLU 12	228348	1723482	0.153						Si
211	9.17	5.3	7.11	5.3	107349	SLU 12	229354	1155405	0.134						Si
365	18.85	5.3	13.45	5.2						-356873	SLU 16	-356873	-2958559	0.208	Si
395	18.85	5.3	13.45	5.2						-531536	SLU 16	-437379	-2958559	0.208	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	15.71	5.3	2034575	SLV 14	1903357	2482056	0.168	-2395911	SLV 3	-2194008	-2617493	0.178	Si
30	16.59	5.3	15.71	5.3	1767260	SLV 14	1767260	2482056	0.168	-1996902	SLV 3	-1996902	-2617493	0.178	Si
197	11.74	5.3	10.79	5.3	89696	SLV 13	310635	1723482	0.153	43380	SLV 4	-180933	-1868418	0.163	Si
365	18.85	5.3	13.45	5.2	1630622	SLV 3	1630622	2135680	0.152	-2048233	SLV 14	-2048233	-2958559	0.208	Si
395	18.85	5.3	13.45	5.2	1860697	SLV 3	1749718	2135680	0.152	-2484433	SLV 14	-2262340	-2958559	0.208	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.59	5.3	15.71	5.3	941263	SLD 14	892253	2482056	0.168	-1302599	SLD 3	-1182905	-2617493	0.178	Si
30	16.59	5.3	15.71	5.3	838384	SLD 14	838384	2482056	0.168	-1068026	SLD 3	-1068026	-2617493	0.178	Si
197	11.74	5.3	10.79	5.3	78326	SLD 13	189378	1723482	0.153	54750	SLD 4	-59676	-1868418	0.163	Si
365	18.85	5.3	13.45	5.2	722759	SLD 3	722759	2135680	0.152	-1140370	SLD 14	-1140370	-2958559	0.208	Si
395	18.85	5.3	13.45	5.2	788407	SLD 3	759628	2135680	0.152	-1412143	SLD 14	-1272249	-2958559	0.208	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	3359	SLU 16	3359	8423	42620	0	8423	1	Si
30	0.157	16.59	0	2940	SLU 16	2940	8423	42620	24755	24755	1	Si
197	0.127	9.42	0	-214	SLU 15	-214	-6972	-42573	-19993	-19993	1	Si
365	0.157	18.85	0	-5367	SLU 16	-5367	-8785	-42573	-24728	-24728	1	Si
395	0	18.85	0	-6292	SLU 16	-6292	-8785	-42573	0	-8785	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	13463	Ger.	18296	8423	42620	0	8423	1	Si
0	0	15.71	0	-8751	Ger.	-15176	-8267	-42573	0	-8267	1	Si
30	0.157	16.59	0	13140	Ger.	17973	8423	42620	24755	24755	1	Si
30	0.157	15.54	0	-9073	Ger.	-15499	-8238	-42573	-24728	-24728	1	Si
197	0.127	9.42	0	10987	Ger.	15819	6972	42573	19993	19993	1	Si
197	0.127	9.42	0	-11227	Ger.	-17653	-6972	-42573	-19993	-19993	1	Si
365	0.157	13.45	0	7940	Ger.	12773	7854	42630	24761	24761	1	Si
365	0.157	18.85	0	-14274	Ger.	-20700	-8785	-42573	-24728	-24728	1	Si
395	0	13.45	0	7394	Ger.	12227	7854	42630	0	7854	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
395	0	18.85	0	-14819	Ger.	-21245	-8785	-42573	0	-8785	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.59	0	7981	SLD 3	7981	8423	42620	0	8423	1	Si
0	0	15.71	0	-3269	SLD 14	-3269	-8267	-42573	0	-8267	1	Si
30	0.157	16.59	0	7659	SLD 3	7659	8423	42620	24755	24755	1	Si
30	0.157	15.54	0	-3591	SLD 14	-3591	-8238	-42573	-24728	-24728	1	Si
197	0.127	9.42	0	5505	SLD 3	5505	6972	42573	19993	19993	1	Si
197	0.127	9.42	0	-5745	SLD 14	-5745	-6972	-42573	-19993	-19993	1	Si
365	0.157	13.45	0	2458	SLD 3	2458	7854	42630	24761	24761	1	Si
365	0.157	18.85	0	-8792	SLD 14	-8792	-8785	-42573	-24728	-24728	1	Si
395	0	13.45	0	1912	SLD 3	1912	7854	42630	0	7854	1	Si
395	0	18.85	0	-9338	SLD 14	-9338	-8785	-42573	0	-8785	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-196975	8	-158809	9.8	149.4	245.2	3600	-180668	4	-145326	9	112.1	0	+∞	Si
30	-125580	8	-125580	7.7	149.4	193.9	3600	-114821	4	-114821	7.1	112.1	0	+∞	Si
197	82852	4	82852	6.3	149.4	193.5	3600	68108	2	68108	5.2	112.1	0	+∞	Si
365	-259050	8	-259050	16	149.4	352.9	3600	-208806	4	-208806	12.9	112.1	0	+∞	Si
395	-386576	8	-317826	19.7	149.4	433	3600	-311868	4	-256311	15.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	0	0	0	-0.001	0	0	0	-0.001	0	0	0	2	-0.001	2	9999 Si
184	0.006	0.004	0.004	0.002	0.005	0.004	0.003	0.002	0.005	0.004	0.008	2	0.006	2	9999 Si
197	0.006	0.004	0.004	0.002	0.005	0.004	0.003	0.002	0.005	0.004	0.008	2	0.005	2	9999 Si
365	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.003	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
665	193.6	8	50	0.024	0.00261	0.0166		8423	42620	24755	24755	27991	27991	17973	0	SLV 4	Si
1000	189.9	9.3	50	0.024	0.00284	0.01628		8785	42573	24728	24728	28157	28157	-20700	0	SLV 16	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo				Verifica
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	
0	2688	-15176	-16241	-8751	2688	18296	14189	13463	
30	2366	-15499	-16241	-9073	2366	17973	14189	13140	
197	212	-17653	-16241	-11227	212	15819	14189	10987	
365	-2835	-20700	-16241	-14274	-2835	12773	14189	7940	
395	-3381	-21245	-16241	-14819	-3381	12227	14189	7394	

Campata 3 tra i fili 6 - 7, sezione R 30x50, asta 242; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	13.45	5.2						-968966	SLU 16	-777626	-2958559	0.208	Si
30	18.85	5.3	13.45	5.2						-612237	SLU 16	-612237	-2958559	0.208	Si
223	9.42	5.3	9.42	5.3	436181	SLU 16	624079	1512506	0.15						Si
415	18.85	5.3	11.44	5.3						-664128	SLU 16	-664128	-2950555	0.226	Si
445	18.85	5.3	11.44	5.3						-1028945	SLU 16	-833562	-2950555	0.226	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	13.45	5.2	1479679	SLV 14	1451915	2135680	0.152	-2580213	SLV 3	-2334763	-2958559	0.208	Si
30	18.85	5.3	13.45	5.2	1409366	SLV 14	1409366	2135680	0.152	-2104096	SLV 3	-2104096	-2958559	0.208	Si
223	9.42	5.3	9.42	5.3	252627	SLV 10	428880	1512506	0.15						Si
415	18.85	5.3	11.44	5.3	1368422	SLV 3	1368422	1824006	0.143	-2130648	SLV 14	-2130648	-2950555	0.226	Si
445	18.85	5.3	11.44	5.3	1433475	SLV 3	1408341	1824006	0.143	-2612025	SLV 14	-2363945	-2950555	0.226	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	13.45	5.2	478333	SLD 14	478333	2135680	0.152	-1578867	SLD 3	-1400806	-2958559	0.208	Si
30	18.85	5.3	13.45	5.2	542799	SLD 14	568654	2135680	0.152	-1237528	SLD 3	-1237528	-2958559	0.208	Si
223	9.42	5.3	9.42	5.3	250383	SLD 10	336765	1512506	0.15						Si
415	18.85	5.3	11.44	5.3	505328	SLD 3	534710	1824006	0.143	-1267555	SLD 14	-1267555	-2950555	0.226	Si
445	18.85	5.3	11.44	5.3	435603	SLD 3	435603	1824006	0.143	-1614152	SLD 14	-1433462	-2950555	0.226	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	12765	SLU 16	12765	8785	42573	0	8785	1	Si
30	0.157	18.85	0	11026	SLU 16	11026	8785	42573	24728	24728	1	Si
223	0.121	9.42	0	-140	SLU 15	-140	-6972	-42573	-19088	-19088	1	Si
415	0.157	18.85	0	-11296	SLU 16	-11296	-8785	-42573	-24728	-24728	1	Si
445	0	18.85	0	-13035	SLU 16	-13035	-8785	-42573	0	-8785	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	16369	Ger.	21014	8785	42573	0	8785	1	Si
0	0	13.45	0	-1846	Ger.	-7183	-7854	-42630	0	-7854	1	Si
30	0.157	18.85	0	15378	Ger.	20023	8785	42573	24728	24728	1	Si
30	0.157	13.45	0	-2837	Ger.	-8174	-7854	-42630	-24761	-24761	1	Si
223	0.121	9.42	0	9020	Ger.	13664	6972	42573	19088	19088	1	Si
223	0.121	9.42	0	-9195	Ger.	-14532	-6972	-42573	-19088	-19088	1	Si
415	0.157	11.44	0	2661	Ger.	7306	7439	42607	24747	24747	1	Si
415	0.157	18.85	0	-15553	Ger.	-20890	-8785	-42573	-24728	-24728	1	Si
445	0	11.44	0	1670	Ger.	6315	7439	42607	0	7439	1	Si
445	0	18.85	0	-16544	Ger.	-21881	-8785	-42573	0	-8785	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	11876	SLD 3	11876	8785	42573	0	8785	1	Si
30	0.157	18.85	0	10885	SLD 3	10885	8785	42573	24728	24728	1	Si
223	0.121	9.42	0	4527	SLD 3	4527	6972	42573	19088	19088	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
223	0.121	9.42	0	-4702	SLD 14	-4702	-6972	-42573	-19088	-19088	1	Si
415	0.157	18.85	0	-11060	SLD 14	-11060	-8785	-42573	-24728	-24728	1	Si
445	0	18.85	0	-12051	SLD 14	-12051	-8785	-42573	0	-8785	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-694320	8	-557334	34.5	149.4	759.3	3600	-550267	4	-441424	27.3	112.1	0	+∞	Si
30	-438923	8	-438923	27.2	149.4	598	3600	-347365	4	-347365	21.5	112.1	0	+∞	Si
223	311867	8	311867	25.9	149.4	831.6	3600	247825	4	247825	20.6	112.1	0	+∞	Si
415	-475378	8	-475378	30.6	149.4	649.8	3600	-381113	4	-381113	24.5	112.1	0	+∞	Si
445	-736456	8	-596630	38.4	149.4	815.6	3600	-589275	4	-477802	30.8	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
30	0.003	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.004	4	0.002	4	9999	Si
223	0.041	0.02	0.031	0.015	0.035	0.02	0.026	0.015	0.032	0.02	0.059	4	0.037	4	7569	Si
415	0.002	0.001	0.001	0	0.001	0.001	0.001	0	0.001	0.001	0.002	4	0.001	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1060	285.1	6.8	50	0.024	0.001	0.01575	0	7854	42630	24761	24761	24929	24929	20023	0	SLV 9	Si
1445	284.2	6.4	50	0.023	0.00059	0.01542	0	7439	42607	24747	24747	24728	24747	-20890	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7349	-7183	-13211	-1846	7349	21014	12422	16369
30	6358	-8174	-13211	-2837	6358	20023	12422	15378
223	0	-14532	-13211	-9195	0	13664	12422	9020
415	-6358	-20890	-13211	-15553	-6358	7306	12422	2661
445	-7349	-21881	-13211	-16544	-7349	6315	12422	1670

Campata 4 tra i fili 7 - 8, sezione R 30x50, aste 257, 258, 259, 260, 261, 262, 263, 264, 265, 266; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	11.44	5.3						-589781	SLU 16	-494023	-2950555	0.226	Si
30	18.85	5.3	11.44	5.3						-409498	SLU 16	-409498	-2950555	0.226	Si
260	9.42	5.3	9.42	5.3	204455	SLU 16	403900	1512506	0.15						Si
277	9.42	5.3	7.75	5.3	197869	SLU 16	386109	1254762	0.138						Si
490	18.85	5.3	11.44	5.3						-409229	SLU 16	-409229	-2950555	0.226	Si
520	18.85	5.3	11.44	5.3						-578376	SLU 16	-486504	-2950555	0.226	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	11.44	5.3	1702994	SLV 14	1579990	1824006	0.143	-2437038	SLV 3	-2192540	-2950555	0.226	Si
30	18.85	5.3	11.44	5.3	1449644	SLV 14	1449644	1824006	0.143	-1955378	SLV 3	-1955378	-2950555	0.226	Si
260	9.42	5.3	9.42	5.3	203812	SLV 8	272136	1512506	0.15	52364	SLV 9	-25069	-1512506	0.15	Si
490	18.85	5.3	11.44	5.3	1348504	SLV 1	1348504	1824006	0.143	-1864809	SLV 16	-1864809	-2950555	0.226	Si
520	18.85	5.3	11.44	5.3	1568003	SLV 1	1462673	1824006	0.143	-2304871	SLV 16	-2080435	-2950555	0.226	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	11.44	5.3	682372	SLD 14	649942	1824006	0.143	-1416415	SLD 3	-1262493	-2950555	0.226	Si
30	18.85	5.3	11.44	5.3	610172	SLD 14	610172	1824006	0.143	-1115907	SLD 3	-1115907	-2950555	0.226	Si
260	9.42	5.3	9.42	5.3	168390	SLD 8	199372	1512506	0.15						Si
490	18.85	5.3	11.44	5.3	556135	SLD 1	556135	1824006	0.143	-1072439	SLD 16	-1072439	-2950555	0.226	Si
520	18.85	5.3	11.44	5.3	613081	SLD 1	589023	1824006	0.143	-1349949	SLD 16	-1206785	-2950555	0.226	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	6714	SLU 16	6714	8785	42573	0	8785	1	Si
30	0.157	18.85	0	5635	SLU 16	5635	8785	42573	24728	24728	1	Si
260	0.092	7.7	0	37	SLU 10	37	6518	42573	14425	14425	1	Si
260	0.092	7.7	0	-121	SLU 8	-121	-6518	-42573	-14425	-14425	1	Si
490	0.157	18.71	0	-5152	SLU 16	-5152	-8763	-42573	-24728	-24728	1	Si
520	0	18.85	0	-6399	SLU 16	-6399	-8785	-42573	0	-8785	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	16468	SLV 3	16468	8785	42573	0	8785	1	Si
0	0	11.44	0	-8033	SLV 14	-8033	-7439	-42607	0	-7439	1	Si
30	0.157	18.85	0	15811	SLV 3	15811	8785	42573	24728	24728	1	Si
30	0.157	11.44	0	-8690	SLV 14	-8690	-7439	-42607	-24747	-24747	1	Si
260	0.092	7.7	0	4393	Ger.	11164	6518	42573	14425	14425	1	Si
260	0.092	7.7	0	-4443	Ger.	-11671	-6518	-42573	-14425	-14425	1	Si
490	0.157	11.44	0	7611	Ger.	8237	7439	42607	24747	24747	1	Si
490	0.157	18.71	0	-14375	Ger.	-14598	-8763	-42573	-24728	-24728	1	Si
520	0	11.44	0	6880	Ger.	7506	7439	42607	0	7439	1	Si
520	0	18.85	0	-15106	Ger.	-15329	-8785	-42573	0	-8785	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	10429	SLD 3	10429	8785	42573	0	8785	1	Si
0	0	11.44	0	-1995	SLD 14	-1995	-7439	-42607	0	-7439	1	Si
30	0.157	18.85	0	9772	SLD 3	9772	8785	42573	24728	24728	1	Si
30	0.157	11.44	0	-2651	SLD 14	-2651	-7439	-42607	-24747	-24747	1	Si
260	0.092	7.7	0	2212	SLD 1	2212	6518	42573	14425	14425	1	Si
260	0.092	7.7	0	-2263	SLD 16	-2263	-6518	-42573	-14425	-14425	1	Si
490	0.157	11.44	0	2193	SLD 1	2193	7439	42607	24747	24747	1	Si
490	0.157	18.71	0	-8956	SLD 16	-8956	-8763	-42573	-24728	-24728	1	Si
520	0	11.44	0	1462	SLD 1	1462	7439	42607	0	7439	1	Si
520	0	18.85	0	-9687	SLD 16	-9687	-8785	-42573	0	-8785	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
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TABULATO DI CALCOLO – FABBRICATO B

	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-432083	8	-361663	23.3	149.4	494.4	3600	-367022	4	-306275	19.7	112.1	0	+∞	Si
30	-299535	8	-299535	19.3	149.4	409.5	3600	-252867	4	-252867	16.3	112.1	0	+∞	Si
260	150373	8	154131	12.8	149.4	411	3600	128088	4	130367	10.8	112.1	0	+∞	Si
490	-300215	8	-300215	19.3	149.4	410.4	3600	-258152	4	-258152	16.6	112.1	0	+∞	Si
520	-425163	8	-357368	23	149.4	488.5	3600	-368434	4	-308881	19.9	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
30	0	0	0	0	0	0	0	0	0	0	0.001	1	0	1	9999
260	0.024	0.018	0.018	0.014	0.022	0.018	0.017	0.014	0.021	0.018	0.039	4	0.034	4	9999
490	0	-0.001	0	-0.001	0	0	0	-0.001	0	0	0	1	-0.001	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
1505	224.6	10.1	50	0.023	0.00258	0.01927	0	8785	42573	24728	24728	26011	26011	15811	0	SLV 3	Si
1965	347.7	6.4	50	0.023	0.0009	0.0195	0	7439	42607	24747	24747	24728	24747	-14598	0	SLV 7	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	4142		-8033		-10379		-8033		4142		16468		10379		16468	
30	3485		-8690		-10379		-8690		3485		15811		10379		15811	
260	-253		-11671		-10379		-4443		-253		11164		10379		4393	
490	-3181		-14598		-10379		-14375		-3181		8237		10379		7611	
520	-3912		-15329		-10379		-15106		-3912		7506		10379		6890	

Campata 5 tra i fili 8 - 9, sezione R 30x50, aste 291, 292; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	11.44	5.3						-1037348	SLU 16	-841809	-2950555	0.226	Si
30	18.85	5.3	11.44	5.3						-671394	SLU 16	-671394	-2950555	0.226	Si
223	9.42	5.3	9.42	5.3	442090	SLU 16	618885	1512506	0.15						Si
415	18.85	5.3	15.71	5.3						-557799	SLU 16	-557799	-2959676	0.195	Si
445	18.85	5.3	15.71	5.3						-872199	SLU 16	-705774	-2959676	0.195	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	11.44	5.3	1484662	SLV 16	1455860	1824006	0.143	-2667385	SLV 1	-2415933	-2950555	0.226	Si
30	18.85	5.3	11.44	5.3	1412745	SLV 16	1412745	1824006	0.143	-2178793	SLV 1	-2178793	-2950555	0.226	Si
223	9.42	5.3	9.42	5.3	254887	SLV 5	435156	1512506	0.15						Si
415	18.85	5.3	15.71	5.3	1476075	SLV 1	1476075	2480696	0.163	-2125585	SLV 16	-2125585	-2959676	0.195	Si
445	18.85	5.3	15.71	5.3	1571874	SLV 1	1529716	2480696	0.163	-2590294	SLV 16	-2352198	-2959676	0.195	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	11.44	5.3	460638	SLD 16	460638	1824006	0.143	-1643361	SLD 1	-1461026	-2950555	0.226	Si
30	18.85	5.3	11.44	5.3	526955	SLD 16	554560	1824006	0.143	-1293003	SLD 1	-1293003	-2950555	0.226	Si
223	9.42	5.3	9.42	5.3	252794	SLD 5	341254	1512506	0.15						Si
415	18.85	5.3	15.71	5.3	587865	SLD 1	602797	2480696	0.163	-1237374	SLD 16	-1237374	-2959676	0.195	Si
445	18.85	5.3	15.71	5.3	545430	SLD 1	545430	2480696	0.163	-1563850	SLD 16	-1394871	-2959676	0.195	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	13100	SLU 16	13100	8785	42573	0	8785	1	Si
30	0.157	18.85	0	11361	SLU 16	11361	8785	42573	24728	24728	1	Si
223	0.127	9.42	0	200	SLU 16	200	6972	42573	19956	19956	1	Si
415	0.157	18.85	0	-9865	SLU 16	-9865	-8785	-42573	-24728	-24728	1	Si
445	0	18.85	0	-11098	SLU 16	-11098	-8785	-42573	0	-8785	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	16800	Ger.	22792	8785	42573	0	8785	1	Si
0	0	11.44	0	-1883	Ger.	-6394	-7439	-42607	0	-7439	1	Si
30	0.157	18.85	0	15809	Ger.	21801	8785	42573	24728	24728	1	Si
30	0.157	11.44	0	-2874	Ger.	-7385	-7439	-42607	-24747	-24747	1	Si
223	0.127	9.42	0	9451	Ger.	15442	6972	42573	19956	19956	1	Si
223	0.127	9.42	0	-9233	Ger.	-13743	-6972	-42573	-19956	-19956	1	Si
415	0.157	15.71	0	3576	Ger.	9568	8267	42573	24728	24728	1	Si
415	0.157	18.85	0	-15108	Ger.	-19618	-8785	-42573	-24728	-24728	1	Si
445	0	15.71	0	2808	Ger.	8800	8267	42573	0	8267	1	Si
445	0	18.85	0	-15875	Ger.	-20386	-8785	-42573	0	-8785	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	12192	SLD 1	12192	8785	42573	0	8785	1	Si
30	0.157	18.85	0	11202	SLD 1	11202	8785	42573	24728	24728	1	Si
223	0.127	9.42	0	4843	SLD 1	4843	6972	42573	19956	19956	1	Si
223	0.127	9.42	0	-4625	SLD 16	-4625	-6972	-42573	-19956	-19956	1	Si
415	0.157	18.85	0	-10500	SLD 16	-10500	-8785	-42573	-24728	-24728	1	Si
445	0	18.85	0	-11267	SLD 16	-11267	-8785	-42573	0	-8785	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-742056	8	-602153	38.8	149.4	823.1	3600	-591362	4	-480036	30.9	112.1	0	+∞	Si
30	-480234	8	-480234	30.9	149.4	656.5	3600	-383024	4	-383024	24.7	112.1	0	+∞	Si
223	315988	8	315988	26.3	149.4	842.6	3600	250391	4	250391	20.8	112.1	0	+∞	Si
415	-401132	8	-401132	23.9	149.4	545.3	3600	-324755	4	-324755	19.3	112.1	0	+∞	Si
445	-626997	8	-507396	30.2	149.4	689.7	3600	-509210	4	-411241	24.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	0.002	0.001	0.001	0	0.002	0.001	0.001	0	0.001	0.001	0.002	4	0.001	4	9999	Si
223	0.042	0.021	0.032	0.016	0.036	0.021	0.027	0.016	0.033	0.021	0.061	4	0.038	4	7254	Si
415	0.003	0.001	0.002	0.001	0.003	0.001	0.002	0.001	0.002	0.001	0.005	4	0.003	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	8.m	8.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2025	284.6	6.4	50	0.023	0.00092	0.01509		7439	42607	24747	24747	24728	24747	21801	0	SLV 11	Si
2410	283.8	7.3	50	0.026	0.00055	0.01624	0	8267	42573	24728	24728	25107	25107	-19618	0	SLV 6	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0		7274		-6394		-12425		-1883		7274		22792		14107		16800
30		6283		-7385		-12425		-2874		6283		21801		14107		15809
223		-75		-13743		-12425		-9233		-75		15442		14107		9451
415		-5950		-19618		-12425		-15108		-5950		9568		14107		3576
445		-6718		-20386		-12425		-15875		-6718		8800		14107		2808

Campata 6 tra i fili 9 - 10, sezione R 30x50, aste 299, 300; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	15.71	5.3						-284085	SLU 16	-241982	-2959676	0.195	Si
30	18.85	5.3	15.71	5.3						-206074	SLU 16	-206074	-2959676	0.195	Si
197	11.14	5.3	5.44	5.3	46579	SLU 10	119536	896631	0.123	-11754	SLU 8	-15151	-1772766	0.19	Si
365	15.71	5.3	15.71	5.3						-209291	SLU 16	-209291	-2479649	0.172	Si
395	15.71	5.3	15.71	5.3						-317076	SLU 16	-256255	-2479649	0.172	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	15.71	5.3	1972654	SLV 14	1838426	2480696	0.163	-2371052	SLV 3	-2172165	-2959676	0.195	Si
30	18.85	5.3	15.71	5.3	1699360	SLV 14	1699360	2480696	0.163	-1977970	SLV 3	-1977970	-2959676	0.195	Si
197	11.14	5.3	5.44	5.3	41917	SLV 2	262936	896631	0.123	-6556	SLV 15	-230886	-1772766	0.19	Si
365	15.71	5.3	15.71	5.3	1747369	SLV 1	1747369	2479649	0.172	-2019651	SLV 16	-2019651	-2479649	0.172	Si
395	15.71	5.3	15.71	5.3	2008346	SLV 3	1881218	2479649	0.172	-2425111	SLV 14	-2217567	-2479649	0.172	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	18.85	5.3	15.71	5.3	900714	SLD 14	848695	2480696	0.163	-1299112	SLD 3	-1182434	-2959676	0.195	Si
30	18.85	5.3	15.71	5.3	791871	SLD 14	791871	2480696	0.163	-1070481	SLD 3	-1070481	-2959676	0.195	Si
197	11.14	5.3	5.44	5.3	30018	SLD 2	141128	896631	0.123	5343	SLD 15	-109078	-1772766	0.19	Si
365	15.71	5.3	15.71	5.3	817803	SLD 1	817803	2479649	0.172	-1090084	SLD 16	-1090084	-2479649	0.172	Si
395	15.71	5.3	15.71	5.3	914318	SLD 3	869776	2479649	0.172	-1331082	SLD 14	-1206125	-2479649	0.172	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	2838	SLU 15	2838	8785	42573	0	8785	1	Si
30	0.157	18.85	0	2418	SLU 15	2418	8785	42573	24728	24728	1	Si
197	0.127	9.42	0	78	SLU 15	78	6972	42573	19993	19993	1	Si
365	0.157	15.71	0	-3131	SLU 16	-3131	-8267	-42573	-24728	-24728	1	Si
395	0	15.71	0	-4056	SLU 16	-4056	-8267	-42573	0	-8267	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	13269	Ger.	20044	8785	42573	0	8785	1	Si
0	0	15.71	0	-8949	Ger.	-14104	-8267	-42573	0	-8267	1	Si
30	0.157	18.85	0	12946	Ger.	19721	8785	42573	24728	24728	1	Si
30	0.157	15.71	0	-9271	Ger.	-14427	-8267	-42573	-24728	-24728	1	Si
197	0.127	9.42	0	11146	Ger.	17921	6972	42573	19993	19993	1	Si
197	0.127	9.42	0	-11072	Ger.	-16227	-6972	-42573	-19993	-19993	1	Si
365	0.157	15.71	0	8973	Ger.	15748	8267	42573	24728	24728	1	Si
365	0.157	15.71	0	-13244	Ger.	-18400	-8267	-42573	-24728	-24728	1	Si
395	0	15.71	0	8427	Ger.	15202	8267	42573	0	8267	1	Si
395	0	15.71	0	-13790	Ger.	-18946	-8267	-42573	0	-8267	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	18.85	0	7786	SLD 3	7786	8785	42573	0	8785	1	Si
0	0	15.71	0	-3466	SLD 14	-3466	-8267	-42573	0	-8267	1	Si
30	0.157	18.85	0	7464	SLD 3	7464	8785	42573	24728	24728	1	Si
30	0.157	15.71	0	-3788	SLD 14	-3788	-8267	-42573	-24728	-24728	1	Si
197	0.127	9.42	0	5663	SLD 3	5663	6972	42573	19993	19993	1	Si
197	0.127	9.42	0	-5589	SLD 14	-5589	-6972	-42573	-19993	-19993	1	Si
365	0.157	15.71	0	3490	SLD 3	3490	8267	42573	24728	24728	1	Si
365	0.157	15.71	0	-7762	SLD 14	-7762	-8267	-42573	-24728	-24728	1	Si
395	0	15.71	0	2945	SLD 3	2945	8267	42573	0	8267	1	Si
395	0	15.71	0	-8307	SLD 14	-8307	-8267	-42573	0	-8267	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-213155	8	-180809	10.8	149.4	245.8	3600	-199199	4	-166870	9.9	112.1	0	+∞	Si
30	-153229	8	-153229	9.1	149.4	208.3	3600	-139305	4	-139305	8.3	112.1	0	+∞	Si
197	35761	2	35761	3.5	149.4	162.4	3600	35312	1	35312	3.5	112.1	0	+∞	Si
365	-155137	8	-155137	9.7	149.4	251.3	3600	-136141	4	-136141	8.5	112.1	0	+∞	Si
395	-235807	8	-190410	11.9	149.4	308.5	3600	-208382	4	-168175	10.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f	
30	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1	9999	Si
92	-0.001	-0.005	-0.001	-0.005	-0.001	-0.004	-0.001	-0.004	-0.001	-0.003	-0.002	1	-0.007	1	9999	Si
197	0.001	-0.005	0	-0.005	0.001	-0.003	0	-0.003	0.001	-0.002	0.001	1	-0.005	1	9999	Si
365	-0.001	-0.003	-0.001	-0.003	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2470	194.1	8.7	50	0.026	0.00259	0.01719		8785	42573	24728	24728	28329	28329	19721	0	SLV 3	Si
2805	198.1	7.7	50	0.024	0.00326	0.01584	0	8267	42573	24728	24728	27564	27564	-18400	0	SLV 15	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2183	-14104	-14807	-8949	2183	20044	16237	13269								
30	1861	-14427	-14807	-9271	1861	19721	16237	12946								
197	60	-16227	-14807	-11072	60	17921	16237	11146								
365	-2112	-18400	-14807	-13244	-2112	15748	16237	8973								
395	-2658	-18946	-14807	-13790	-2658	15202	16237	8427								

Campata 7 tra i fili 10 - 29, sezione R 30x50, asta 304; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	15.71	5.3						-2108337	SLV 16	-1820585	-2479649	0.172	Si
30	15.71	5.3	15.71	5.3						-1555857	SLV 16	-1555857	-2479649	0.172	Si
310	9.42	5.3	9.42	5.3	1116072	SLV 16	1293053	1512506	0.15						Si
605	11.44	5.3	9.42	5.3						-991615	SLV 16	-991615	-1823106	0.166	Si
620	11.44	5.3	9.42	5.3						-1230399	SLV 16	-1108936	-1823106	0.166	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	15.71	5.3	73709	SLV 14	73709	2479649	0.172	-2474466	SLV 3	-2255271	-2479649	0.172	Si
30	15.71	5.3	15.71	5.3	277571	SLV 14	398807	2479649	0.172	-2049193	SLV 3	-2049193	-2479649	0.172	Si
310	9.42	5.3	9.42	5.3	764831	SLV 14	816102	1512506	0.15						Si
605	11.44	5.3	9.42	5.3	390651	SLV 3	489466	1513053	0.144	-1526333	SLV 14	-1526333	-1823106	0.166	Si
620	11.44	5.3	9.42	5.3	309801	SLV 3	309801	1513053	0.144	-1717889	SLV 14	-1620937	-1823106	0.166	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	15.71	5.3	15.71	5.3						-1847379	SLD 3	-1655428	-2479649	0.172	Si
30	15.71	5.3	15.71	5.3						-1476593	SLD 3	-1476593	-2479649	0.172	Si
310	9.42	5.3	9.42	5.3	700784	SLD 14	715521	1512506	0.15						Si
605	11.44	5.3	9.42	5.3	-81104	SLD 3	54246	1513053	0.144	-1054579	SLD 14	-1054579	-1823106	0.166	Si
620	11.44	5.3	9.42	5.3						-1218891	SLD 14	-1135560	-1823106	0.166	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	19388	SLV 16	19388	8267	42573	0	8267	1	Si
30	0.157	15.71	0	17649	SLV 16	17649	8267	42573	24728	24728	1	Si
310	0.103	9.42	0	1415	SLV 16	1415	6972	42573	16138	16138	1	Si
605	0.157	11.44	0	-15643	SLV 16	-15643	-7439	-42607	-24747	-24747	1	Si
620	0	11.44	0	-16391	SLV 16	-16391	-7439	-42607	0	-7439	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	14729	Ger.	17877	8267	42573	0	8267	1	Si
30	0.157	15.71	0	13739	Ger.	16886	8267	42573	24728	24728	1	Si
310	0.103	9.42	0	4490	Ger.	7638	6972	42573	16138	16138	1	Si
310	0.103	9.42	0	-2890	Ger.	-8232	-6972	-42573	-16138	-16138	1	Si
605	0.157	11.44	0	-12614	Ger.	-17976	-7439	-42607	-24747	-24747	1	Si
620	0	11.44	0	-13055	Ger.	-18397	-7439	-42607	0	-7439	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	15.71	0	12913	SLD 3	12913	8267	42573	0	8267	1	Si
30	0.157	15.71	0	11922	SLD 3	11922	8267	42573	24728	24728	1	Si
310	0.103	9.42	0	2674	SLD 3	2674	6972	42573	16138	16138	1	Si
310	0.103	9.42	0	-1074	SLD 14	-1074	-6972	-42573	-16138	-16138	1	Si
605	0.157	11.44	0	-10798	SLD 14	-10798	-7439	-42607	-24747	-24747	1	Si
620	0	11.44	0	-11239	SLD 14	-11239	-7439	-42607	0	-7439	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1509307	8	-1303340	81.7	149.4	2111.5	3600	-1200378	4	-1036536	65	112.1	0	+∞	Si
30	-1113852	8	-1113852	69.8	149.4	1804.6	3600	-885811	4	-885811	55.5	112.1	0	+∞	Si
310	798638	8	810378	67.4	149.4	2160.9	3600	634705	4	643930	53.5	112.1	0	+∞	Si
605	-710073	8	-710073	55.3	149.4	1579.3	3600	-567841	4	-567841	44.2	112.1	0	+∞	Si
620	-881005	8	-794057	61.8	149.4	1766	3600	-704044	4	-634768	49.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	22.6	0.00075	0.017	8	22.6	0.00069	0.0157	4	22.6	0.00063	0.0143	4	Si
30	superiore	22.6	0.0006	0.0137	8	22.6	0.00057	0.0128	4	22.6	0.00052	0.0116	4	Si
310	inferiore	28.2	0.00065	0.0185	8	28.2	0.00063	0.0178	4	28.2	0.00057	0.0161	4	Si
331	inferiore	28.2	0.00065	0.0185	8	28.2	0.00063	0.0178	4	28.2	0.00057	0.0161	4	Si
605	superiore	25.1	0.00046	0.0116	8	25.1	0.00043	0.0109	4	25.1	0.00039	0.0098	4	Si
620	superiore	25.1	0.00052	0.0131	8	25.1	0.00051	0.0128	4	25.1	0.00046	0.0116	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.		l/f
30	0.013	0.006	0.017	0.004	0.011	0.006	0.011	0.004	0.01	0.006	0.033	4	0.01	4	9999	Si
310	0.238	0.122	0.376	0.101	0.203	0.122	0.269	0.101	0.189	0.122	0.583	4	0.241	4	1064	Si
331	0.24	0.123	0.379	0.102	0.205	0.123	0.271	0.102	0.191	0.123	0.587	4	0.243	4	1057	Si
605	0.013	0.007	0.02	0.005	0.011	0.007	0.015	0.005	0.011	0.007	0.031	4	0.013	4	9999	Si
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
2865	456	7.7	50	0.024	0.0031	0.015	0	8267	42573	24728	24728	24814	24814	16886	0	SLV 13	Si
3440	400.2	6.4	50	0.014	0.00228	0.01243	0	6972	42573	24728	24728	23452	24728	-17976	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	10239	0	-7483	7126	10239	19388	6944	19388								

TABULATO DI CALCOLO – FABBRICATO B

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
30	9248	0	-7483	6358	9248	17649	6944	17649
310	-1	-8232	-7483	-2890	-1	7638	6944	4490
605	-9744	-17976	-7483	-15643	-9744	0	6944	-5233
620	-10166	-18397	-7483	-16391	-10166	0	6944	-5675

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	12	1513053	-1823106
1	590	5	2482056	-2617493
2	30	5	2482056	-2617493
2	365	6	2135680	-2958559
3	30	6	2135680	-2958559
3	415	7	1824006	-2950555
4	30	7	1824006	-2950555
4	490	8	1824006	-2950555
5	30	8	1824006	-2950555
5	415	9	2480696	-2959676
6	30	9	2480696	-2959676
6	365	10	2479649	-2479649
7	30	10	2479649	-2479649
7	605	29	1513053	-1823106

Trave a "Terzo Impalcato" Parete 2 - Parete 3

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 18 - 24, sezione R 30x50, asta 374; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-234563	SLU 16	-209418	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3						-185705	SLU 16	-185705	-1512506	0.15	Si
245	9.42	5.3	9.42	5.3	177718	SLU 9	197069	1512506	0.15						Si
475	9.42	5.3	9.42	5.3						-209880	SLU 16	-209880	-1512506	0.15	Si
490	9.42	5.3	9.42	5.3						-260314	SLU 16	-234381	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	997013	SLV 13	980712	1512506	0.15	-1357379	SLV 4	-1302293	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	963301	SLV 13	963301	1512506	0.15	-1248301	SLV 4	-1248301	-1512506	0.15	Si
245	9.42	5.3	9.42	5.3	147145	SLV 14	239953	1512506	0.15						Si
475	9.42	5.3	9.42	5.3	926133	SLV 2	926133	1512506	0.15	-1242168	SLV 15	-1242168	-1512506	0.15	Si
490	9.42	5.3	9.42	5.3	958836	SLV 2	942868	1512506	0.15	-1352261	SLV 15	-1296497	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	416002	SLD 13	416002	1512506	0.15	-776368	SLD 4	-738898	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	417526	SLD 13	417662	1512506	0.15	-702526	SLD 4	-702526	-1512506	0.15	Si
245	9.42	5.3	9.42	5.3	140799	SLD 14	186898	1512506	0.15						Si
475	9.42	5.3	9.42	5.3	391114	SLD 2	391339	1512506	0.15	-707149	SLD 15	-707149	-1512506	0.15	Si
490	9.42	5.3	9.42	5.3	388579	SLD 2	388579	1512506	0.15	-782005	SLD 15	-743941	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	3390	SLU 9	3390	6972	42573	0	6972	1	Si
15	0.157	9.42	0	3181	SLU 9	3181	6972	42573	24728	24728	1	Si
245	0.061	9.42	0	-53	SLU 16	-53	-6972	-42573	-9616	-9616	1	Si
475	0.157	9.42	0	-3267	SLU 16	-3267	-6972	-42573	-24728	-24728	1	Si
490	0	9.42	0	-3476	SLU 16	-3476	-6972	-42573	0	-6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	7360	Ger.	9867	6972	42573	0	6972	1	Si
0	0	9.42	0	-2160	Ger.	-4600	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	7199	Ger.	9706	6972	42573	24728	24728	1	Si
15	0.157	9.42	0	-2321	Ger.	-4761	-6972	-42573	-24728	-24728	1	Si
245	0.061	9.42	0	4727	Ger.	7234	6972	42573	9616	9616	1	Si
245	0.061	9.42	0	-4794	Ger.	-7234	-6972	-42573	-9616	-9616	1	Si
475	0.157	9.42	0	2254	Ger.	4761	6972	42573	24728	24728	1	Si
475	0.157	9.42	0	-7266	Ger.	-9706	-6972	-42573	-24728	-24728	1	Si
490	0	9.42	0	2093	Ger.	4600	6972	42573	0	6972	1	Si
490	0	9.42	0	-7428	Ger.	-9867	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	5011	SLD 4	5011	6972	42573	0	6972	1	Si
15	0.157	9.42	0	4850	SLD 4	4850	6972	42573	24728	24728	1	Si
245	0.061	9.42	0	2377	SLD 4	2377	6972	42573	9616	9616	1	Si
245	0.061	9.42	0	-2445	SLD 13	-2445	-6972	-42573	-9616	-9616	1	Si
475	0.157	9.42	0	-4917	SLD 13	-4917	-6972	-42573	-24728	-24728	1	Si
490	0	9.42	0	-5078	SLD 13	-5078	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ_c	$\sigma_{c\text{ lim.}}$	σ_f	$\sigma_{f\text{ lim.}}$	Mela	Comb.	Mdes	σ_c	$\sigma_{c\text{ lim.}}$	σ_{FRP}	$\sigma_{FRP\text{ lim.}}$	
0	-180327	8	-160970	13.4	149.4	429.2	3600	-180183	4	-160791	13.4	112.1	0	+∞	Si
15	-142714	8	-142714	11.9	149.4	380.6	3600	-142500	4	-142500	11.8	112.1	0	+∞	Si

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	σc lim.	σf .	σf lim.	Mela	Comb.	Mdes	σc	σc lim.	σFRP	σFRP lim.	
245	136706	1	136706	11.4	149.4	364.5	3600	136706	1	136706	11.4	112.1	0	+∞	Si
475	-160406	8	-160406	13.3	149.4	427.7	3600	-158017	4	-158017	13.1	112.1	0	+∞	Si
490	-199172	8	-179238	14.9	149.4	477.9	3600	-196713	4	-176814	14.7	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0.002	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.002	0.003	1	0.003	1	9999	Si
245	0.027	0.026	0.022	0.021	0.027	0.026	0.022	0.021	0.027	0.026	0.052	1	0.05	1	9443	Si
475	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	1	0.002	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p _{tot}	θ _m	θ _y	μΔ _{pl}	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	319.6	6.7	50	0.013	0.0007	0.01629	0	6972	42573	24728	24728	23264	24728	9706	0	SLV 9	Si
490	321.4	6.7	50	0.013	0.00088	0.01629	0	6972	42573	24728	24728	23264	24728	-9706	0	SLV 5	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2634	-4600	-6576	-2160	2634	9867	6576	7360
15	2473	-4761	-6576	-2321	2473	9706	6576	7199
245	0	-7234	-6576	-4794	0	7234	6576	4727
475	-2473	-9706	-6576	-7266	-2473	4761	6576	2254
490	-2634	-9867	-6576	-7428	-2634	4600	6576	2093

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	18	1512506	-1512506
1	475	24	1512506	-1512506

Trave a "Terzo Impalcato" Parete 2-Pil.7

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 17 - 18, sezione R 30x50, asta 64

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	83112	SLU 16	65588	1512506	0.15						Si
15	9.42	5.3	9.42	5.3	47516	SLU 16	47516	1512506	0.15						Si
16	9.42	5.3	9.42	5.3	45106	SLU 16	47516	1512506	0.15						Si
17	9.42	5.3	9.42	5.3	42690	SLU 16	47516	1512506	0.15						Si
32	9.42	5.3	9.42	5.3	9146	SLU 9	9146	1512506	0.15						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon c2= 0.002$, $\epsilon yd= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	97087	SLV 15	71252	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	45047	SLV 16	45047	1455249	0.292						Si
16	9.42	5.3	9.42	5.3	41561	SLV 16	45047	1455249	0.292						Si
17	9.42	5.3	9.42	5.3	38073	SLV 16	45047	1455249	0.292						Si
32	9.42	5.3	9.42	5.3	28104	SLV 4	25074	1455249	0.292	-16982	SLV 13	-11846	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon c2= 0.002$, $\epsilon yd= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	75283	SLD 15	56950	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	38223	SLD 16	38223	1455249	0.292						Si
16	9.42	5.3	9.42	5.3	35730	SLD 16	38223	1455249	0.292						Si
17	9.42	5.3	9.42	5.3	33234	SLD 16	38223	1455249	0.292						Si
32	9.42	5.3	9.42	5.3	17005	SLD 4	17005	1455249	0.292	-5883	SLD 13	-5883	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2337	SLU 16	-2337	-6972	-42573	0	-6972	1	Si
15	0.786	9.42	0	-2410	SLU 16	-2410	-6972	-42573	-123724	-42573	1	Si
16	0.786	9.42	0	-2414	SLU 16	-2414	-6972	-42573	-123724	-42573	1	Si
17	0.786	9.42	0	-2419	SLU 16	-2419	-6972	-42573	-123724	-42573	1	Si
32	0	9.42	0	-2492	SLU 16	-2492	-6972	-42573	0	-6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	617	SLV 2	617	6972	42573	0	6972	1	Si
0	0	9.42	0	-3446	SLV 15	-3446	-6972	-42573	0	-6972	1	Si
15	0.786	9.42	0	561	SLV 2	561	6972	42573	123724	42573	1	Si
15	0.786	9.42	0	-3503	SLV 15	-3503	-6972	-42573	-123724	-42573	1	Si
16	0.786	9.42	0	557	SLV 2	557	6972	42573	123724	42573	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
16	0.786	9.42	0	-3506	SLV 15	-3506	-6972	-42573	-123724	-42573	1	Si
17	0.786	9.42	0	553	SLV 2	553	6972	42573	123724	42573	1	Si
17	0.786	9.42	0	-3510	SLV 15	-3510	-6972	-42573	-123724	-42573	1	Si
32	0	9.42	0	497	SLV 2	497	6972	42573	0	6972	1	Si
32	0	9.42	0	-3566	SLV 15	-3566	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2445	SLD 15	-2445	-6972	-42573	0	-6972	1	Si
15	0.786	9.42	0	-2501	SLD 15	-2501	-6972	-42573	-123724	-42573	1	Si
16	0.786	9.42	0	-2505	SLD 15	-2505	-6972	-42573	-123724	-42573	1	Si
17	0.786	9.42	0	-2509	SLD 15	-2509	-6972	-42573	-123724	-42573	1	Si
32	0	9.42	0	-2565	SLD 15	-2565	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	60383	8	47814	4	149.4	127.5	3600	52750	4	42139	3.5	112.1	0	$+\infty$	Si
15	34823	8	34823	2.9	149.4	92.9	3600	31107	4	31107	2.6	112.1	0	$+\infty$	Si
16	33091	8	34823	2.9	149.4	92.9	3600	29635	4	31107	2.6	112.1	0	$+\infty$	Si
17	31354	8	34823	2.9	149.4	92.9	3600	28160	4	31107	2.6	112.1	0	$+\infty$	Si
32	7035	1	7035	0.6	149.4	18.8	3600	7035	1	7035	0.6	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
16	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
17	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
32	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si

Campata 2 tra i fili 18 - 16, sezione R 30x50, aste 65, 66, 67, 68

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	5128	SLU 9	3675	1512506	0.15	-2274	SLU 8	-2274	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	1675	SLU 9	1675	1512506	0.15	-4827	SLU 8	-10670	-1512506	0.15	Si
102	9.42	5.3	9.42	5.3						-4869	SLU 16	-9233	-1512506	0.15	Si
189	9.42	5.3	9.42	5.3						-140262	SLU 16	-165343	-1512506	0.15	Si
203	9.42	5.3	9.42	5.3						-165343	SLU 16	-165343	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}= 0.002$, $\epsilon_{yd}= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	30002	SLV 4	24115	1455249	0.292	-27569	SLV 13	-23885	-1455249	0.292	Si
15	9.42	5.3	9.42	5.3	17805	SLV 4	17805	1455249	0.292	-20619	SLV 13	-20619	-1455249	0.292	Si
102	9.42	5.3	9.42	5.3	20418	SLV 9	20418	1455249	0.292	-27697	SLV 8	-27697	-1455249	0.292	Si
189	9.42	5.3	9.42	5.3	342076	SLV 8	402516	1455249	0.292	-519339	SLV 9	-611654	-1455249	0.292	Si
203	9.42	5.3	9.42	5.3	402516	SLV 8	402516	1455249	0.292	-611654	SLV 9	-611654	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}= 0.002$, $\epsilon_{yd}= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	15892	SLD 4	12351	1455249	0.292	-13459	SLD 13	-12121	-1455249	0.292	Si
15	9.42	5.3	9.42	5.3	8388	SLD 4	8388	1455249	0.292	-11202	SLD 13	-11202	-1455249	0.292	Si
102	9.42	5.3	9.42	5.3	9145	SLD 9	9145	1455249	0.292	-16425	SLD 8	-16425	-1455249	0.292	Si
189	9.42	5.3	9.42	5.3	141426	SLD 8	166249	1455249	0.292	-318688	SLD 9	-375387	-1455249	0.292	Si
203	9.42	5.3	9.42	5.3	166249	SLD 8	166249	1455249	0.292	-375387	SLD 9	-375387	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-194	SLU 10	-194	-6972	-42573	0	-6972	1	Si
15	0.063	9.42	0	-267	SLU 10	-267	-6972	-42573	-9891	-9891	1	Si
102	0.068	9.42	0	-65	SLU 9	-65	-6972	-42573	-10751	-10751	1	Si
196	0.068	9.42	0	-1853	SLU 16	-1853	-6972	-42573	-10751	-10751	1	Si
203	0.157	9.42	0	-1886	SLU 16	-1886	-6972	-42573	-24728	-24728	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	492	SLV 13	492	6972	42573	0	6972	1	Si
0	0	9.42	0	-785	SLV 4	-785	-6972	-42573	0	-6972	1	Si
15	0.063	9.42	0	435	SLV 13	435	6972	42573	9891	9891	1	Si
15	0.063	9.42	0	-841	SLV 4	-841	-6972	-42573	-9891	-9891	1	Si
102	0.068	9.42	0	514	SLV 9	514	6972	42573	10751	10751	1	Si
102	0.068	9.42	0	-591	SLV 8	-591	-6972	-42573	-10751	-10751	1	Si
196	0.068	9.42	0	4466	SLV 8	4466	6972	42573	10751	10751	1	Si
196	0.068	9.42	0	-6821	SLV 9	-6821	-6972	-42573	-10751	-10751	1	Si
203	0.157	9.42	0	4441	SLV 8	4441	6972	42573	24728	24728	1	Si
203	0.157	9.42	0	-6847	SLV 9	-6847	-6972	-42573	-24728	-24728	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	179	SLD 13	179	6972	42573	0	6972	1	Si
0	0	9.42	0	-472	SLD 4	-472	-6972	-42573	0	-6972	1	Si
15	0.063	9.42	0	122	SLD 13	122	6972	42573	9891	9891	1	Si
15	0.063	9.42	0	-528	SLD 4	-528	-6972	-42573	-9891	-9891	1	Si
102	0.068	9.42	0	258	SLD 9	258	6972	42573	10751	10751	1	Si
102	0.068	9.42	0	-334	SLD 8	-334	-6972	-42573	-10751	-10751	1	Si
196	0.068	9.42	0	1834	SLD 8	1834	6972	42573	10751	10751	1	Si
196	0.068	9.42	0	-4190	SLD 9	-4190	-6972	-42573	-10751	-10751	1	Si
203	0.157	9.42	0	1809	SLD 8	1809	6972	42573	24728	24728	1	Si
203	0.157	9.42	0	-4215	SLD 9	-4215	-6972	-42573	-24728	-24728	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.		Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.		
0	3945	1	2827	0.2	149.4	7.5	3600		3945	1	2827	0.2	112.1	0	+∞		Si
0	-201	8	-201	0	149.4	0.5	3600										Si
15	1288	1	1288	0.1	149.4	3.4	3600		1288	1	1288	0.1	112.1	0	+∞		Si
15	-2789	8	-7594	0.6	149.4	20.3	3600		-1407	4	-6261	0.5	112.1	0	+∞		Si
102	-3694	8	-6780	0.6	149.4	18.1	3600		-3640	4	-6041	0.5	112.1	0	+∞		Si
203	-120606	8	-120606	10	149.4	321.6	3600		-104569	4	-104569	8.7	112.1	0	+∞		Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f		
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		9999	Si
15	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1		9999	Si
102	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	1	-0.002	1		9999	Si
149	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	1	-0.002	1		9999	Si

Campata 3 tra i fili 16 - , sezione R 30x50, asta 69; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-223323	SLU 16	-223323	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3						-122475	SLU 16	-149729	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3						-44501	SLU 16	-65038	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	550490	SLV 8	550490	1512506	0.15	-832710	SLV 9	-832710	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	337522	SLV 8	401876	1512506	0.15	-485985	SLV 9	-585986	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	106967	SLV 8	176484	1512506	0.15	-156866	SLV 9	-251695	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	228367	SLD 8	228367	1512506	0.15	-510587	SLD 9	-510587	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	145490	SLD 8	171642	1512506	0.15	-293953	SLD 9	-355753	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	45022	SLD 8	76339	1512506	0.15	-94920	SLD 9	-151550	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	9.42	0	1639	SLU 16	1639	6972	42573	24728	24728	1	Si
50	0.108	9.42	0	1394	SLU 16	1394	6972	42573	17054	17054	1	Si
68	0.108	9.42	0	1305	SLU 16	1305	6972	42573	17054	17054	1	Si
137	0.108	9.42	0	971	SLU 16	971	6972	42573	17054	17054	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	9.42	0	5190	Ger.	10780	6972	42573	24728	24728	1	Si
0	0.157	9.42	0	-2981	Ger.	-9387	-6972	-42573	-24728	-24728	1	Si
50	0.108	9.42	0	5002	Ger.	10591	6972	42573	17054	17054	1	Si
50	0.108	9.42	0	-3169	Ger.	-9575	-6972	-42573	-17054	-17054	1	Si
68	0.108	9.42	0	4933	Ger.	10523	6972	42573	17054	17054	1	Si
68	0.108	9.42	0	-3238	Ger.	-9644	-6972	-42573	-17054	-17054	1	Si
137	0.108	9.42	0	4677	Ger.	10258	6972	42573	17054	17054	1	Si
137	0.108	9.42	0	-3494	Ger.	-9908	-6972	-42573	-17054	-17054	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	9.42	0	3291	SLD 9	3291	6972	42573	24728	24728	1	Si
0	0.157	9.42	0	-1082	SLD 8	-1082	-6972	-42573	-24728	-24728	1	Si
50	0.108	9.42	0	3103	SLD 9	3103	6972	42573	17054	17054	1	Si
50	0.108	9.42	0	-1270	SLD 8	-1270	-6972	-42573	-17054	-17054	1	Si
68	0.108	9.42	0	3034	SLD 9	3034	6972	42573	17054	17054	1	Si
68	0.108	9.42	0	-1338	SLD 8	-1338	-6972	-42573	-17054	-17054	1	Si
137	0.108	9.42	0	2777	SLD 9	2777	6972	42573	17054	17054	1	Si
137	0.108	9.42	0	-1595	SLD 8	-1595	-6972	-42573	-17054	-17054	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente								Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.		Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.		
0	-162874	8	-162874	13.5	149.4	434.3	3600		-141110	4	-141110	11.7	112.1	0	+∞		Si
68	-88504	8	-108527	9	149.4	289.4	3600		-74232	4	-92055	7.7	112.1	0	+∞		Si
137	-31729	8	-46586	3.9	149.4	124.2	3600		-24949	4	-37606	3.1	112.1	0	+∞		Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f		
59	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.003	1	-0.004	1		9999	Si
68	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.002	1	-0.004	1		9999	Si
137	0	0	0	0	0	0	0	0	0	0	0	1	0	1		9999	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	696	-9387	-9167	-2981	696	10780	9167	5190
68	440	-9644	-9167	-3238	440	10523	9167	4933
137	175	-9908	-9167	-3494	175	10258	9167	4677

Campata 4 tra i fili - 7, sezione R 30x50, aste 70, 71, 72, 73; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	-12678	SLU 1	2107	1512506	0.15	-37823	SLU 16	-37823	-1512506	0.15	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
107	9.42	5.3	9.42	5.3	98251	SLU 16	116665	1512506	0.15						Si
193	9.42	5.3	9.42	5.3	163348	SLU 16	163348	1512506	0.15						Si
213	9.42	5.3	9.42	5.3	180220	SLU 16	172271	1512506	0.15						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	94669	SLV 8	94669	1512506	0.15	-136530	SLV 9	-136530	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	310858	SLV 9	430692	1512506	0.15	-185860	SLV 8	-284634	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	857478	SLV 9	857478	1512506	0.15	-663722	SLV 8	-663722	-1512506	0.15	Si
213	9.42	5.3	9.42	5.3	1020695	SLV 9	939463	1512506	0.15	-810645	SLV 8	-736810	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	40367	SLD 8	40367	1512506	0.15	-82229	SLD 9	-82229	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	195044	SLD 9	263880	1512506	0.15	-70047	SLD 8	-117822	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	503063	SLD 9	503063	1512506	0.15	-309307	SLD 8	-309307	-1512506	0.15	Si
213	9.42	5.3	9.42	5.3	594196	SLD 9	549005	1512506	0.15	-384146	SLD 8	-346352	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	9.42	0	1583	SLU 16	1583	6972	42573	17054	17054	1	Si
107	0.099	9.42	0	832	SLU 16	832	6972	42573	15563	15563	1	Si
193	0.157	9.42	0	892	SLU 16	892	6972	42573	24728	24728	1	Si
199	0	9.42	0	864	SLU 16	864	6972	42573	0	6972	1	Si
213	0	9.42	0	795	SLU 16	795	6972	42573	0	6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	9.42	0	4143	Ger.	10258	6972	42573	17054	17054	1	Si
0	0.108	9.42	0	-2139	Ger.	-9908	-6972	-42573	-17054	-17054	1	Si
107	0.099	9.42	0	3806	Ger.	9818	6972	42573	15563	15563	1	Si
107	0.099	9.42	0	-2848	Ger.	-10348	-6972	-42573	-15563	-15563	1	Si
193	0.157	9.42	0	8198	Ger.	9421	6972	42573	24728	24728	1	Si
193	0.157	9.42	0	-7309	Ger.	-10746	-6972	-42573	-24728	-24728	1	Si
213	0	9.42	0	8123	Ger.	9346	6972	42573	0	6972	1	Si
213	0	9.42	0	-7384	Ger.	-10821	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.108	9.42	0	2673	SLD 9	2673	6972	42573	17054	17054	1	Si
0	0.108	9.42	0	-670	SLD 8	-670	-6972	-42573	-17054	-17054	1	Si
107	0.099	9.42	0	2252	SLD 9	2252	6972	42573	15563	15563	1	Si
107	0.099	9.42	0	-1294	SLD 8	-1294	-6972	-42573	-15563	-15563	1	Si
193	0.157	9.42	0	4594	SLD 9	4594	6972	42573	24728	24728	1	Si
193	0.157	9.42	0	-3705	SLD 8	-3705	-6972	-42573	-24728	-24728	1	Si
199	0	9.42	0	4572	SLD 9	4572	6972	42573	0	6972	1	Si
199	0	9.42	0	-3726	SLD 8	-3726	-6972	-42573	0	-6972	1	Si
213	0	9.42	0	4519	SLD 9	4519	6972	42573	0	6972	1	Si
213	0	9.42	0	-3780	SLD 8	-3780	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-26906	8	-26906	2.2	149.4	71.7	3600	-20931	4	-20931	1.7	112.1	0	+∞	Si
107	71674	8	84849	7.1	149.4	226.3	3600	62499	4	73029	6.1	112.1	0	+∞	Si
193	117583	8	117583	9.8	149.4	313.5	3600	96878	4	96878	8.1	112.1	0	+∞	Si
213	129300	8	123816	10.3	149.4	330.2	3600	105025	4	101326	8.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999	Si
107	0.004	0.003	0.003	0.002	0.004	0.003	0.003	0.002	0.003	0.003	0.007	4	0.005	4	9999	Si
121	0.004	0.003	0.003	0.002	0.004	0.003	0.003	0.002	0.004	0.003	0.007	4	0.005	4	9999	Si
193	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	4	0.002	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	178.6	6.7	50	0.013	0.00116	0.01567	0	6972	42573	24728	24728	25277	25277	-10746	0	SLV 11	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	175	-9908	-9167	-2139	175	10258	9167	4143
107	-265	-10348	-9167	-2848	-265	9818	9167	3806
193	-662	-10746	-9167	-7309	-662	9421	9167	8198
213	-737	-10821	-9167	-7384	-737	9346	9167	8123

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
3	0	16	1512506	-1512506
4	193	7	1512506	-1512506

Trave a "Terzo Impalcato" Parete 3 - Parete 4

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 23 - 3, sezione R 30x50, asta 314; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.06	5.1	8.04	5.1						-468781	SLU 16	-403285	-1930737	0.176	Si
15	12.06	5.1	8.04	5.1						-342311	SLU 16	-342311	-1930737	0.176	Si
230	8.04	5.1	8.04	5.1	455463	SLU 16	491409	1307565	0.138						Si
430	16.34	5.2	14.07	5.1						-508949	SLU 16	-508949	-2590806	0.179	Si
460	16.34	5.2	14.07	5.1						-795223	SLU 16	-642936	-2590806	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.06	5.1	8.04	5.1	912149	SLV 13	905738	1307245	0.131	-1498995	SLV 4	-1410992	-1930737	0.176	Si
15	12.06	5.1	8.04	5.1	896511	SLV 13	896511	1307245	0.131	-1325804	SLV 4	-1325804	-1930737	0.176	Si
230	8.04	5.1	8.04	5.1	524893	SLV 4	636872	1307565	0.138	40630	SLV 13	-100602	-1307565	0.138	Si
430	16.34	5.2	14.07	5.1	1184278	SLV 4	1184278	2244215	0.157	-1817684	SLV 13	-1817684	-2590806	0.179	Si
460	16.34	5.2	14.07	5.1	1195045	SLV 4	1195045	2244215	0.157	-2184574	SLV 13	-1995434	-2590806	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	12.06	5.1	8.04	5.1	318011	SLD 13	318011	1307245	0.131	-904858	SLD 4	-840119	-1930737	0.176	Si
15	12.06	5.1	8.04	5.1	348902	SLD 13	380819	1307245	0.131	-778194	SLD 4	-778194	-1930737	0.176	Si
230	8.04	5.1	8.04	5.1	405598	SLD 4	455185	1307565	0.138						Si
430	16.34	5.2	14.07	5.1	444618	SLD 4	486512	2244215	0.157	-1078024	SLD 13	-1078024	-2590806	0.179	Si
460	16.34	5.2	14.07	5.1	362330	SLD 4	362330	2244215	0.157	-1351859	SLD 13	-1209246	-2590806	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.06	0	8747	SLU 16	8747	7586	42764	0	7586	1	Si
15	0.157	12.06	0	8130	SLU 16	8130	7586	42764	24838	24838	1	Si
230	0.1	8.04	0	-710	SLU 16	-710	-6627	-42764	-15770	-15770	1	Si
430	0.157	16.34	0	-8932	SLU 16	-8932	-8386	-42691	-24796	-24796	1	Si
460	0	16.34	0	-10166	SLU 16	-10166	-8386	-42691	0	-8386	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.06	0	11742	Ger.	16952	7586	42764	0	7586	1	Si
0	0	8.04	0	-846	Ger.	-4446	-6627	-42764	0	-6627	1	Si
15	0.157	12.06	0	11358	Ger.	16568	7586	42764	24838	24838	1	Si
15	0.157	8.04	0	-1230	Ger.	-4830	-6627	-42764	-24838	-24838	1	Si
230	0.1	8.04	0	5857	Ger.	11066	6627	42764	15770	15770	1	Si
230	0.1	8.04	0	-6732	Ger.	-10332	-6627	-42764	-15770	-15770	1	Si
430	0.157	14.07	0	739	Ger.	5948	7986	42764	24838	24838	1	Si
430	0.157	16.34	0	-11850	Ger.	-15450	-8386	-42691	-24796	-24796	1	Si
460	0	14.07	0	-29	Ger.	5180	7986	42764	0	7986	1	Si
460	0	16.34	0	-12618	Ger.	-16218	-8386	-42691	0	-8386	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	12.06	0	8640	SLD 4	8640	7586	42764	0	7586	1	Si
15	0.157	12.06	0	8257	SLD 4	8257	7586	42764	24838	24838	1	Si
230	0.1	8.04	0	2755	SLD 4	2755	6627	42764	15770	15770	1	Si
230	0.1	8.04	0	-3630	SLD 13	-3630	-6627	-42764	-15770	-15770	1	Si
430	0.157	16.34	0	-8748	SLD 13	-8748	-8386	-42691	-24796	-24796	1	Si
460	0	16.34	0	-9516	SLD 13	-9516	-8386	-42691	0	-8386	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-338968	8	-291629	22.7	149.4	610.4	3600	-293423	4	-252627	19.7	112.1	0	+∞	Si
15	-247560	8	-247560	19.3	149.4	518.2	3600	-214646	4	-214646	16.7	112.1	0	+∞	Si
230	328934	8	333320	29.7	149.4	1030.4	3600	282762	4	286465	25.6	112.1	0	+∞	Si
430	-368386	8	-368386	23.3	149.4	574.3	3600	-316703	4	-316703	20	112.1	0	+∞	Si
460	-575352	8	-465255	29.4	149.4	725.4	3600	-494764	4	-400038	25.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0.005	0.003	0.004	0.002	0.004	0.003	0.003	0.002	0.004	0.003	0.008	4	0.005	4	9999
215	0.058	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.05	0.033	0.098	4	0.066	4	4672
230	0.057	0.033	0.047	0.027	0.052	0.033	0.042	0.027	0.049	0.033	0.098	4	0.065	4	4697
430	0.005	0.003	0.004	0.002	0.005	0.003	0.004	0.002	0.005	0.003	0.009	4	0.006	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p.tot	θ.m	θ.y	μΔ.pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	283.7	5.9	50	0.013	0.00077	0.01313		0	6627	42764	24838	24838	23486	24838	16568	0	SLV 9
445	343.2	7	50	0.023	0.0003	0.01627		0	7986	42764	24838	24838	24830	24838	-15450	0	SLV 7

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.				Vdes				contr. mom. res.				Vela			
0			5886			-4446		-9393						5886	16952	10060
15			5502			-4830		-9393						5502	16568	10060
230			0			-10332		-9393						0	11066	10060
430			-5118			-15450		-9393						-5118	5948	10060
460			-5886			-16218		-9393						-5886	5180	10060

Campata 2 tra i fili 3 - 4, sezione R 30x50, asta 318; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1						-248120	SLU 16	-206940	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1						-171806	SLU 16	-171806	-2590806	0.179	Si
197	8.04	5.1	13.17	5.1	53980	SLU 10	116364	2100505	0.188						Si
365	16.34	5.2	14.07	5.1						-171305	SLU 16	-171305	-2590806	0.179	Si
395	16.34	5.2	14.07	5.1						-247530	SLU 16	-206395	-2590806	0.179	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1	1989807	SLV 13	1855824	2244215	0.157	-2355900	SLV 4	-2158318	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	1717079	SLV 13	1717079	2244215	0.157	-1965273	SLV 4	-1965273	-2590806	0.179	Si
197	8.04	5.1	13.17	5.1	42693	SLV 3	262068	2100505	0.188	14228	SLV 14	-209585	-1307172	0.13	Si
365	16.34	5.2	14.07	5.1	1744058	SLV 4	1744058	2244215	0.157	-1985981	SLV 13	-1985981	-2590806	0.179	Si
395	16.34	5.2	14.07	5.1	2017398	SLV 4	1883084	2244215	0.157	-2376097	SLV 13	-2178745	-2590806	0.179	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1	917391	SLD 13	865237	2244215	0.157	-1283484	SLD 4	-1167730	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	808369	SLD 13	808369	2244215	0.157	-1056563	SLD 4	-1056563	-2590806	0.179	Si
197	8.04	5.1	13.17	5.1	35748	SLD 3	145746	2100505	0.188	21173	SLD 14	-93263	-1307172	0.13	Si
365	16.34	5.2	14.07	5.1	823636	SLD 4	823636	2244215	0.157	-1065559	SLD 13	-1065559	-2590806	0.179	Si
395	16.34	5.2	14.07	5.1	933249	SLD 4	880784	2244215	0.157	-1291949	SLD 13	-1176445	-2590806	0.179	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	2795	SLU 14	2795	8386	42691	0	8386	1	Si
30	0.157	16.34	0	2376	SLU 14	2376	8386	42691	24796	24796	1	Si
197	0.114	13.16	0	35	SLU 14	35	7810	42764	17968	17968	1	Si
197	0.114	13.16	0	-10	SLU 4	-10	-7810	-42764	-17968	-17968	1	Si
365	0.157	16.34	0	-2349	SLU 12	-2349	-8386	-42691	-24796	-24796	1	Si
395	0	16.34	0	-2768	SLU 12	-2768	-8386	-42691	0	-8386	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	13192	Ger.	17999	8386	42691	0	8386	1	Si
0	0	14.07	0	-8927	Ger.	-13753	-7986	-42764	0	-7986	1	Si
30	0.157	16.34	0	12870	Ger.	17677	8386	42691	24796	24796	1	Si
30	0.157	14.07	0	-9250	Ger.	-14076	-7986	-42764	-24838	-24838	1	Si
197	0.114	13.16	0	11069	Ger.	15876	7810	42764	17968	17968	1	Si
197	0.114	13.16	0	-11050	Ger.	-15876	-7810	-42764	-17968	-17968	1	Si
365	0.157	14.07	0	9268	Ger.	14076	7986	42764	24838	24838	1	Si
365	0.157	16.34	0	-12851	Ger.	-17677	-8386	-42691	-24796	-24796	1	Si
395	0	14.07	0	8946	Ger.	13753	7986	42764	0	7986	1	Si
395	0	16.34	0	-13173	Ger.	-17999	-8386	-42691	0	-8386	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	7734	SLD 4	7734	8386	42691	0	8386	1	Si
0	0	14.07	0	-3469	SLD 13	-3469	-7986	-42764	0	-7986	1	Si
30	0.157	16.34	0	7411	SLD 4	7411	8386	42691	24796	24796	1	Si
30	0.157	14.07	0	-3791	SLD 13	-3791	-7986	-42764	-24838	-24838	1	Si
197	0.114	13.16	0	5611	SLD 4	5611	7810	42764	17968	17968	1	Si
197	0.114	13.16	0	-5592	SLD 13	-5592	-7810	-42764	-17968	-17968	1	Si
365	0.157	14.07	0	3810	SLD 4	3810	7986	42764	24838	24838	1	Si
365	0.157	16.34	0	-7392	SLD 13	-7392	-8386	-42691	-24796	-24796	1	Si
395	0	14.07	0	3487	SLD 4	3487	7986	42764	0	7986	1	Si
395	0	16.34	0	-7715	SLD 13	-7715	-8386	-42691	0	-8386	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-188084	8	-156396	9.9	149.4	243.8	3600	-183047	4	-151247	9.6	112.1	0	+∞	Si
30	-129359	8	-129359	8.2	149.4	201.7	3600	-124097	4	-124097	7.8	112.1	0	+∞	Si
197	41441	2	41441	3.1	149.4	79.7	3600	40906	1	40906	3.1	112.1	0	+∞	Si
365	-128737	8	-128737	8.1	149.4	200.7	3600	-120962	4	-120962	7.6	112.1	0	+∞	Si
395	-187351	8	-155719	9.8	149.4	242.8	3600	-179350	4	-147830	9.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	I/f
30	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.003	1	9999
66	0	-0.003	-0.001	-0.003	0	-0.002	-0.001	-0.002	0	-0.002	-0.001	1	-0.004	1	9999
197	0.002	-0.001	0.001	-0.002	0.002	-0.001	0.001	-0.001	0.002	0	0.003	1	-0.002	1	9999
365	-0.001	-0.002	-0.001	-0.002	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.003	1	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	0,0m	0,1y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
505	194.1	8	50	0.023	0.00258	0.01626		8386	42691	24796	24796	27671	27671	17677	0	SLV 2	Si
840	196.2	8	50	0.023	0.00327	0.01626	0	8386	42691	24796	24796	27565	27565	-17677	0	SLV 14	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	2123	-13753	-14433	-8927	2123	17999	14433	13192								
30	1801	-14076	-14433	-9250	1801	17677	14433	12870								
197	0	-15876	-14433	-11050	0	15876	14433	11069								
365	-1801	-17677	-14433	-12851	-1801	14076	14433	9268								
395	-2123	-17999	-14433	-13173	-2123	13753	14433	8946								

Campata 3 tra i fili 4 - 28, sezione R 30x50, asta 310; campata a comportamento dissipativo**Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1						-1489079	SLU 16	-1285524	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1						-1098295	SLU 16	-1098295	-2590806	0.179	Si
310	8.04	5.1	8.04	5.1	787152	SLU 16	916944	1307565	0.138						Si
605	11.18	5.2	8.04	5.1						-717437	SLU 16	-717437	-1792727	0.167	Si
620	11.18	5.2	8.04	5.1						-887696	SLU 16	-801127	-1792727	0.167	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1	345877	SLV 15	345877	2244215	0.157	-2199737	SLV 2	-2017768	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	478519	SLV 15	555483	2244215	0.157	-1845962	SLV 2	-1845962	-2590806	0.179	Si
310	8.04	5.1	8.04	5.1	619888	SLV 15	676573	1307565	0.138						Si
605	11.18	5.2	8.04	5.1	509868	SLV 2	570215	1306848	0.133	-1404059	SLV 15	-1404059	-1792727	0.167	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
620	11.18	5.2	8.04	5.1	459169	SLV 2	459169	1306848	0.133	-1565325	SLV 15	-1483797	-1792727	0.167	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	16.34	5.2	14.07	5.1						-1573292	SLD 2	-1418533	-2590806	0.179	Si
30	16.34	5.2	14.07	5.1	-93507	SLD 15	19944	2244215	0.157	-1273936	SLD 2	-1273936	-2590806	0.179	Si
310	8.04	5.1	8.04	5.1	555764	SLD 15	575963	1307565	0.138						Si
605	11.18	5.2	8.04	5.1	38875	SLD 2	135709	1306848	0.133	-933066	SLD 15	-933066	-1792727	0.167	Si
620	11.18	5.2	8.04	5.1						-1067123	SLD 15	-999199	-1792727	0.167	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	13715	SLU 16	13715	8386	42691	0	8386	1	Si
30	0.157	16.34	0	12482	SLU 16	12482	8386	42691	24796	24796	1	Si
310	0.086	8.04	0	970	SLU 16	970	6627	42764	13596	13596	1	Si
605	0.157	10.98	0	-11159	SLU 16	-11159	-7348	-42710	-24807	-24807	1	Si
620	0	11.18	0	-11775	SLU 16	-11775	-7393	-42710	0	-7393	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	12221	Ger.	15389	8386	42691	0	8386	1	Si
30	0.157	16.34	0	11454	Ger.	14622	8386	42691	24796	24796	1	Si
30	0.157	14.07	0	4083	Ger.	-558	-7986	-42764	-24838	-24838	1	Si
310	0.086	8.04	0	4289	Ger.	7456	6627	42764	13596	13596	1	Si
310	0.086	8.04	0	-3083	Ger.	-7723	-6627	-42764	-13596	-13596	1	Si
605	0.157	10.98	0	-10632	Ger.	-15272	-7348	-42710	-24807	-24807	1	Si
620	0	11.18	0	-11015	Ger.	-15656	-7393	-42710	0	-7393	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	16.34	0	10408	SLD 2	10408	8386	42691	0	8386	1	Si
30	0.157	16.34	0	9640	SLD 2	9640	8386	42691	24796	24796	1	Si
310	0.086	8.04	0	2475	SLD 2	2475	6627	42764	13596	13596	1	Si
310	0.086	8.04	0	-1269	SLD 15	-1269	-6627	-42764	-13596	-13596	1	Si
605	0.157	10.98	0	-8818	SLD 15	-8818	-7348	-42710	-24807	-24807	1	Si
620	0	11.18	0	-9202	SLD 15	-9202	-7393	-42710	0	-7393	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1076676	8	-929525	58.7	149.4	1449.2	3600	-926930	4	-800245	50.5	112.1	0	+∞	Si
30	-794176	8	-794176	50.2	149.4	1238.2	3600	-683721	4	-683721	43.2	112.1	0	+∞	Si
310	568884	8	576819	51.5	149.4	1783.1	3600	489603	4	496413	44.3	112.1	0	+∞	Si
605	-518598	8	-518598	41.5	149.4	1171	3600	-447095	4	-447095	35.8	112.1	0	+∞	Si
620	-641665	8	-579091	46.3	149.4	1307.6	3600	-553078	4	-499191	40	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	21.3	0.00044	0.0094	8	21.3	0.00046	0.0098	4	21.3	0.00043	0.0092	4	Si
30	superiore	21.3	0.00036	0.0077	8	21.3	0.00037	0.0078	4	21.3	0.00034	0.0073	4	Si
310	inferiore	27.6	0.00052	0.0143	8	27.6	0.00048	0.0133	4	27.6	0.00045	0.0123	4	Si
331	inferiore	27.6	0.00052	0.0144	8	27.6	0.00048	0.0133	4	27.6	0.00045	0.0124	4	Si
605	superiore	24.2	0.00034	0.0082	8	24.2	0.00031	0.0074	4	24.2	0.00029	0.0071	4	Si
620	superiore	24.2	0.00038	0.0092	8	24.2	0.00034	0.0083	4	24.2	0.00033	0.0079	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
30	0.009	0.005	0.008	0.004	0.008	0.005	0.006	0.004	0.008	0.005	0.023	4	0.01	4	9999 Si
310	0.169	0.098	0.195	0.083	0.152	0.098	0.155	0.083	0.146	0.098	0.406	4	0.203	4	1527 Si
331	0.17	0.099	0.197	0.084	0.153	0.099	0.156	0.084	0.147	0.099	0.409	4	0.204	4	1516 Si
605	0.009	0.005	0.01	0.004	0.008	0.005	0.008	0.004	0.008	0.005	0.022	4	0.011	4	9999 Si
620	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
900	444.7	7	50	0.023	0.00281	0.01637	0	7986	42764	24838	24838	24830	24838	14622	0	SLV 13	Si
1475	380.7	6	50	0.013	0.00156	0.01293	0	6627	42764	24838	24838	23403	24838	-15272	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	7933	0	-7021	4850	7933	15389	6779	13715
30	7165	-558	-7021	4083	7165	14622	6779	12482
310	0	-7723	-7021	-3083	0	7456	6779	4289
605	-7549	-15272	-7021	-11159	-7549	0	6779	-3261
620	-7933	-15656	-7021	-11775	-7933	0	6779	-3644

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	23	1307245	-1930737
1	430	3	2244215	-2590806
2	30	3	2244215	-2590806
2	365	4	2244215	-2590806
3	30	4	2244215	-2590806
3	605	28	1306848	-1792727

Trave a "Terzo Impalcato" Parete 3-Pil.8

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
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TABULATO DI CALCOLO – FABBRICATO B

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 23 - 24, sezione R 30x50, asta 97

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	82785	SLU 16	65506	1512506	0.15						Si
15	9.42	5.3	9.42	5.3	47679	SLU 16	47679	1512506	0.15						Si
16	9.42	5.3	9.42	5.3	45302	SLU 16	47679	1512506	0.15						Si
17	9.42	5.3	9.42	5.3	42919	SLU 16	47679	1512506	0.15						Si
32	9.42	5.3	9.42	5.3	9607	SLU 9	9607	1512506	0.15						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_c = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	100551	SLV 4	73777	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	46605	SLV 3	46605	1455249	0.292						Si
16	9.42	5.3	9.42	5.3	42993	SLV 3	46605	1455249	0.292						Si
17	9.42	5.3	9.42	5.3	39378	SLV 3	46605	1455249	0.292						Si
32	9.42	5.3	9.42	5.3	28572	SLV 15	24361	1455249	0.292	-16513	SLV 2	-12225	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_c = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	76904	SLD 4	58178	1455249	0.292						Si
15	9.42	5.3	9.42	5.3	39042	SLD 3	39042	1455249	0.292						Si
16	9.42	5.3	9.42	5.3	36496	SLD 3	39042	1455249	0.292						Si
17	9.42	5.3	9.42	5.3	33946	SLD 3	39042	1455249	0.292						Si
32	9.42	5.3	9.42	5.3	17460	SLD 15	17460	1455249	0.292	-5401	SLD 2	-5401	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2304	SLU 16	-2304	-6972	-42573	0	-6972	1	Si
15	0.786	9.42	0	-2377	SLU 16	-2377	-6972	-42573	-123725	-42573	1	Si
16	0.786	9.42	0	-2382	SLU 16	-2382	-6972	-42573	-123725	-42573	1	Si
17	0.786	9.42	0	-2387	SLU 16	-2387	-6972	-42573	-123725	-42573	1	Si
32	0	9.42	0	-2460	SLU 16	-2460	-6972	-42573	0	-6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	785	SLV 13	785	6972	42573	0	6972	1	Si
0	0	9.42	0	-3570	SLV 4	-3570	-6972	-42573	0	-6972	1	Si
15	0.786	9.42	0	729	SLV 13	729	6972	42573	123725	42573	1	Si
15	0.786	9.42	0	-3626	SLV 4	-3626	-6972	-42573	-123725	-42573	1	Si
16	0.786	9.42	0	725	SLV 13	725	6972	42573	123725	42573	1	Si
16	0.786	9.42	0	-3630	SLV 4	-3630	-6972	-42573	-123725	-42573	1	Si
17	0.786	9.42	0	721	SLV 13	721	6972	42573	123725	42573	1	Si
17	0.786	9.42	0	-3634	SLV 4	-3634	-6972	-42573	-123725	-42573	1	Si
32	0	9.42	0	665	SLV 13	665	6972	42573	0	6972	1	Si
32	0	9.42	0	-3690	SLV 4	-3690	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-2497	SLD 4	-2497	-6972	-42573	0	-6972	1	Si
15	0.786	9.42	0	-2553	SLD 4	-2553	-6972	-42573	-123725	-42573	1	Si
16	0.786	9.42	0	-2557	SLD 4	-2557	-6972	-42573	-123725	-42573	1	Si
17	0.786	9.42	0	-2561	SLD 4	-2561	-6972	-42573	-123725	-42573	1	Si
32	0	9.42	0	-2617	SLD 4	-2617	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	60134	8	47747	4	149.4	127.3	3600	52513	4	42068	3.5	112.1	0	+∞	Si
15	34938	8	34938	2.9	149.4	93.2	3600	31201	4	31201	2.6	112.1	0	+∞	Si
16	33230	8	34938	2.9	149.4	93.2	3600	29751	4	31201	2.6	112.1	0	+∞	Si
17	31518	8	34938	2.9	149.4	93.2	3600	28298	4	31201	2.6	112.1	0	+∞	Si
32	7390	1	7390	0.6	149.4	19.7	3600	7390	1	7390	0.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente								Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f		
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1		9999	Si
16	0	0	0	0	0	0	0	0	0	0	0	1	0	1		9999	Si
17	0	0	0	0	0	0	0	0	0	0	0	1	0	1		9999	Si
32	0	0	0	0	0	0	0	0	0	0	0	1	0	1		9999	Si

Campata 2 tra i fili 24 - 25, sezione R 30x50, aste 98, 99, 100, 101

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	5366	SLU 9	3862	1512506	0.15	-1739	SLU 8	-1739	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	1810	SLU 9	1810	1512506	0.15	-4494	SLU 8	-10609	-1512506	0.15	Si
102	9.42	5.3	9.42	5.3						-5385	SLU 16	-6448	-1512506	0.15	Si
189	9.42	5.3	9.42	5.3						-99229	SLU 16	-118062	-1512506	0.15	Si
203	9.42	5.3	9.42	5.3						-118062	SLU 16	-118062	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_c = 0.002$, $\epsilon_{yd} = 0.0019$

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	24078	SLV 15	19137	1455249	0.292	-21017	SLV 2	-18403	-1455249	0.292	Si
15	9.42	5.3	9.42	5.3	13773	SLV 15	13773	1455249	0.292	-16208	SLV 2	-16208	-1455249	0.292	Si
102	9.42	5.3	9.42	5.3	12579	SLV 10	35745	1455249	0.292	-20449	SLV 7	-43861	-1455249	0.292	Si
189	9.42	5.3	9.42	5.3	372495	SLV 3	423421	1455249	0.292	-494097	SLV 14	-568436	-1455249	0.292	Si
203	9.42	5.3	9.42	5.3	423421	SLV 3	423421	1455249	0.292	-568436	SLV 14	-568436	-1455249	0.292	Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}= 0.002$, $\epsilon_{yd}= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	13057	SLD 15	9963	1455249	0.292	-9995	SLD 2	-9228	-1455249	0.292	Si
15	9.42	5.3	9.42	5.3	6447	SLD 15	6447	1455249	0.292	-8882	SLD 2	-8882	-1455249	0.292	Si
102	9.42	5.3	9.42	5.3	4896	SLD 10	16177	1455249	0.292	-12766	SLD 7	-24293	-1455249	0.292	Si
189	9.42	5.3	9.42	5.3	161157	SLD 3	181622	1455249	0.292	-282759	SLD 14	-326637	-1455249	0.292	Si
203	9.42	5.3	9.42	5.3	181622	SLD 3	181622	1455249	0.292	-326637	SLD 14	-326637	-1455249	0.292	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-202	SLU 15	-202	-6972	-42573	0	-6972	1	Si
15	0.063	9.42	0	-275	SLU 15	-275	-6972	-42573	-9891	-9891	1	Si
102	0.057	9.42	0	-69	SLU 9	-69	-6972	-42573	-8959	-8959	1	Si
196	0.057	9.42	0	-1392	SLU 16	-1392	-6972	-42573	-8959	-8959	1	Si
203	0.157	9.42	0	-1425	SLU 16	-1425	-6972	-42573	-24728	-24728	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	349	SLV 2	349	6972	42573	0	6972	1	Si
0	0	9.42	0	-659	SLV 15	-659	-6972	-42573	0	-6972	1	Si
15	0.063	9.42	0	293	SLV 2	293	6972	42573	9891	9891	1	Si
15	0.063	9.42	0	-715	SLV 15	-715	-6972	-42573	-9891	-9891	1	Si
102	0.057	9.42	0	509	SLV 10	509	6972	42573	8959	8959	1	Si
102	0.057	9.42	0	-596	SLV 7	-596	-6972	-42573	-8959	-8959	1	Si
196	0.057	9.42	0	3785	SLV 7	3785	6972	42573	8959	8959	1	Si
196	0.057	9.42	0	-5515	SLV 10	-5515	-6972	-42573	-8959	-8959	1	Si
203	0.157	9.42	0	3760	SLV 7	3760	6972	42573	24728	24728	1	Si
203	0.157	9.42	0	-5541	SLV 10	-5541	-6972	-42573	-24728	-24728	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	102	SLD 2	102	6972	42573	0	6972	1	Si
0	0	9.42	0	-413	SLD 15	-413	-6972	-42573	0	-6972	1	Si
15	0.063	9.42	0	46	SLD 2	46	6972	42573	9891	9891	1	Si
15	0.063	9.42	0	-469	SLD 15	-469	-6972	-42573	-9891	-9891	1	Si
102	0.057	9.42	0	250	SLD 10	250	6972	42573	8959	8959	1	Si
102	0.057	9.42	0	-337	SLD 7	-337	-6972	-42573	-8959	-8959	1	Si
196	0.057	9.42	0	1601	SLD 7	1601	6972	42573	8959	8959	1	Si
196	0.057	9.42	0	-3331	SLD 10	-3331	-6972	-42573	-8959	-8959	1	Si
203	0.157	9.42	0	1575	SLD 7	1575	6972	42573	24728	24728	1	Si
203	0.157	9.42	0	-3356	SLD 10	-3356	-6972	-42573	-24728	-24728	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	4128	1	2971	0.2	149.4	7.9	3600	4128	1	2971	0.2	112.1	0	+∞	Si
15	1392	1	1392	0.1	149.4	3.7	3600	1392	1	1392	0.1	112.1	0	+∞	Si
15	-2532	8	-7554	0.6	149.4	20.1	3600	-1217	4	-6239	0.5	112.1	0	+∞	Si
102	-4059	8	-4717	0.4	149.4	12.6	3600	-3935	4	-4058	0.3	112.1	0	+∞	Si
203	-85874	8	-85874	7.1	149.4	229	3600	-72508	4	-72508	6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
102	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999
149	0	-0.001	0	-0.001	0	-0.001	0	-0.001	0	-0.001	-0.001	1	-0.001	1	9999

Campata 3 tra i fili 25 - , sezione R 30x50, asta 102; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-157789	SLU 16	-157789	-1512506	0.15	Si
5	9.42	5.3	9.42	5.3						-154375	SLU 16	-157789	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3						-117253	SLU 16	-126796	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3						-99590	SLU 16	-102417	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	579313	SLV 3	579313	1512506	0.15	-772825	SLV 14	-772825	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	342399	SLV 11	431395	1512506	0.15	-485644	SLV 6	-566582	-1512506	0.15	Si
119	9.42	5.3	9.42	5.3	744292	SLV 15	932410	1512506	0.15	-873039	SLV 2	-1060578	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	932410	SLV 15	932410	1512506	0.15	-1060578	SLV 2	-1060578	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	249686	SLD 3	249686	1512506	0.15	-443199	SLD 14	-443199	-1512506	0.15	Si
68	9.42	5.3	9.42	5.3	149119	SLD 11	188271	1512506	0.15	-292363	SLD 6	-323457	-1512506	0.15	Si
119	9.42	5.3	9.42	5.3	348045	SLD 15	443289	1512506	0.15	-476792	SLD 2	-571456	-1512506	0.15	Si
137	9.42	5.3	9.42	5.3	443289	SLD 15	443289	1512506	0.15	-571456	SLD 2	-571456	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	9.42	0	759	SLU 16	759	6972	42573	24728	24728	1	Si
50	0.09	9.42	0	514	SLU 16	514	6972	42573	14212	14212	1	Si
68	0.09	9.42	0	425	SLU 16	425	6972	42573	14212	14212	1	Si
137	0.099	9.42	0	111	SLU 8	111	6972	42573	15563	15563	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
137	0.099	9.42	0	-108	SLU 10	-108	-6972	-42573	-15563	-15563	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	9.42	0	11449	SLV 14	11449	6972	42573	24728	24728	1	Si
0	0.157	9.42	0	-10458	SLV 3	-10458	-6972	-42573	-24728	-24728	1	Si
50	0.09	9.42	0	11261	SLV 14	11261	6972	42573	14212	14212	1	Si
50	0.09	9.42	0	-10647	SLV 3	-10647	-6972	-42573	-14212	-14212	1	Si
68	0.09	9.42	0	11192	SLV 14	11192	6972	42573	14212	14212	1	Si
68	0.09	9.42	0	-10715	SLV 3	-10715	-6972	-42573	-14212	-14212	1	Si
137	0.099	9.42	0	10935	SLV 14	10935	6972	42573	15563	15563	1	Si
137	0.099	9.42	0	-10972	SLV 3	-10972	-6972	-42573	-15563	-15563	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.157	9.42	0	6054	SLD 14	6054	6972	42573	24728	24728	1	Si
0	0.157	9.42	0	-5063	SLD 3	-5063	-6972	-42573	-24728	-24728	1	Si
50	0.09	9.42	0	5865	SLD 14	5865	6972	42573	14212	14212	1	Si
50	0.09	9.42	0	-5252	SLD 3	-5252	-6972	-42573	-14212	-14212	1	Si
68	0.09	9.42	0	5797	SLD 14	5797	6972	42573	14212	14212	1	Si
68	0.09	9.42	0	-5320	SLD 3	-5320	-6972	-42573	-14212	-14212	1	Si
137	0.099	9.42	0	5540	SLD 14	5540	6972	42573	15563	15563	1	Si
137	0.099	9.42	0	-5577	SLD 3	-5577	-6972	-42573	-15563	-15563	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-114739	8	-114739	9.5	149.4	306	3600	-96756	4	-96756	8	112.1	0	+∞	Si
68	-84811	8	-91784	7.6	149.4	244.7	3600	-71622	4	-77187	6.4	112.1	0	+∞	Si
137	-72480	8	-74286	6.2	149.4	198.1	3600	-64084	4	-64482	5.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
68	-0.002	-0.004	-0.002	-0.003	-0.002	-0.004	-0.002	-0.003	-0.002	-0.003	-0.005	1	-0.007	1	9999
96	-0.003	-0.004	-0.002	-0.004	-0.003	-0.004	-0.002	-0.003	-0.003	-0.004	-0.005	1	-0.007	1	9999
137	-0.002	-0.004	-0.002	-0.003	-0.002	-0.004	-0.002	-0.003	-0.002	-0.003	-0.004	1	-0.006	1	9999

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	688	-10458	-9167	-10458	688	11449	9167	11449
68	432	-10715	-9167	-10715	432	11192	9167	11192
137	171	-10972	-9167	-10972	171	10935	9167	10935

Campata 4 tra i fili - 8, sezione R 30x50, aste 103, 104, 105, 106; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-96003	SLU 16	-96003	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	72993	SLU 16	109361	1512506	0.15						Si
193	9.42	5.3	9.42	5.3	211166	SLU 16	211166	1512506	0.15						Si
213	9.42	5.3	9.42	5.3	247196	SLU 16	229668	1512506	0.15						Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	875362	SLV 15	875362	1512506	0.15	-998610	SLV 2	-998610	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	222810	SLV 10	415499	1512506	0.15	-129479	SLV 7	-277596	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	1120341	SLV 6	1120341	1512506	0.15	-862688	SLV 11	-862688	-1512506	0.15	Si
213	9.42	5.3	9.42	5.3	1376571	SLV 6	1248831	1512506	0.15	-1077542	SLV 11	-969741	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	415455	SLD 15	415455	1512506	0.15	-538703	SLD 2	-538703	-1512506	0.15	Si
107	9.42	5.3	9.42	5.3	141030	SLD 10	253870	1512506	0.15	-47698	SLD 7	-115967	-1512506	0.15	Si
193	9.42	5.3	9.42	5.3	655539	SLD 6	655539	1512506	0.15	-397887	SLD 11	-397887	-1512506	0.15	Si
213	9.42	5.3	9.42	5.3	801257	SLD 6	728773	1512506	0.15	-502228	SLD 11	-449683	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.099	9.42	0	1543	SLU 16	1543	6972	42573	15563	15563	1	Si
107	0.099	9.42	0	1411	SLU 16	1411	6972	42573	15563	15563	1	Si
193	0.157	9.42	0	1850	SLU 16	1850	6972	42573	24728	24728	1	Si
199	0	9.42	0	1822	SLU 16	1822	6972	42573	0	6972	1	Si
213	0	9.42	0	1753	SLU 16	1753	6972	42573	0	6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.099	9.42	0	10091	Ger.	10254	6972	42573	15563	15563	1	Si
0	0.099	9.42	0	-8035	Ger.	-9913	-6972	-42573	-15563	-15563	1	Si
107	0.099	9.42	0	8969	Ger.	9828	6972	42573	15563	15563	1	Si
107	0.099	9.42	0	-7234	Ger.	-10339	-6972	-42573	-15563	-15563	1	Si
193	0.157	9.42	0	12849	SLV 6	12849	6972	42573	24728	24728	1	Si
193	0.157	9.42	0	-10705	Ger.	-10744	-6972	-42573	-24728	-24728	1	Si
199	0	9.42	0	12827	SLV 6	12827	6972	42573	0	6972	1	Si
199	0	9.42	0	-10727	Ger.	-10765	-6972	-42573	0	-6972	1	Si
213	0	9.42	0	12774	SLV 6	12774	6972	42573	0	6972	1	Si
213	0	9.42	0	-10780	Ger.	-10819	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0.099	9.42	0	5651	SLD 2	5651	6972	42573	15563	15563	1	Si
0	0.099	9.42	0	-3595	SLD 15	-3595	-6972	-42573	-15563	-15563	1	Si
107	0.099	9.42	0	5010	SLD 2	5010	6972	42573	15563	15563	1	Si
107	0.099	9.42	0	-3275	SLD 15	-3275	-6972	-42573	-15563	-15563	1	Si
193	0.157	9.42	0	7323	SLD 6	7323	6972	42573	24728	24728	1	Si
193	0.157	9.42	0	-5180	SLD 11	-5180	-6972	-42573	-24728	-24728	1	Si
199	0	9.42	0	7302	SLD 6	7302	6972	42573	0	6972	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
199	0	9.42	0	-5201	SLD 11	-5201	-6972	-42573	0	-6972	1	Si
213	0	9.42	0	7248	SLD 6	7248	6972	42573	0	6972	1	Si
213	0	9.42	0	-5255	SLD 11	-5255	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.		
0	-69846	8	-69846	5.8	149.4	186.2	3600	-61624	4	-61624	5.1	112.1	0	+∞	Si	
107	53302	8	79624	6.6	149.4	212.3	3600	46666	4	68952	5.7	112.1	0	+∞	Si	
193	152666	8	152666	12.7	149.4	407.1	3600	128826	4	128826	10.7	112.1	0	+∞	Si	
213	178401	8	165908	13.8	149.4	442.4	3600	149515	4	139545	11.6	112.1	0	+∞	Si	

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
0	-0.002	-0.004	-0.002	-0.003	-0.002	-0.004	-0.002	-0.003	-0.002	-0.003	-0.004	1	-0.006	1	9999	Si
107	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	4	0.002	4	9999	Si
193	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	4	0.002	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
580	149.1	6.7	50	0.013	0.00006	0.01567	0	6972	42573	24728	24728	26109	26109	12849	0	SLV 6	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	171	-9913	-9167	-8035	171	10254	9167	10091
107	-256	-10339	-9167	-7234	-256	9828	9167	8969
193	-660	-10744	-9167	-10705	-660	12849	9167	12849
213	-735	-10819	-9167	-10780	-735	12774	9167	12774

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
3	0	25	1512506	-1512506
4	193	8	1512506	-1512506

Trave a "Terzo Impalcato" Pil.1-Pil.5

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 1 - 5, sezione R 60x25, asta 154; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-648766	SLU 16	-583552	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-522685	SLU 16	-522685	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	303126	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-506826	SLU 16	-506826	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-631733	SLU 16	-567106	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-522314	SLV 9	-479063	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-438373	SLV 9	-438373	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179332	SLV 13	181940	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-432114	SLV 8	-432114	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-515550	SLV 8	-472552	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-456908	SLD 9	-415917	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-377487	SLD 9	-377487	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	178840	SLD 13	179789	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-370953	SLD 8	-370953	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-449870	SLD 8	-409131	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6535	SLU 16	6535	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6087	SLU 16	6087	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	29	SLU 16	29	6664	37907	13929	13929	1	Si
560	0.754	8.04	0	-6028	SLU 16	-6028	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6477	SLU 16	-6477	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4333	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4069	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	501	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-475	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4044	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4308	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4107	SLD 9	4107	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3843	SLD 9	3843	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	275	SLD 9	275	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-249	SLD 8	-249	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3818	SLD 8	-3818	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4082	SLD 8	-4082	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-462065	8	-415615	104.7	149.4	2982.5	3600	-381065	4	-342694	86.3	112.1	0	+∞	Si
20	-372261	8	-372261	93.8	149.4	2671.4	3600	-306884	4	-306884	77.3	112.1	0	+∞	Si
290	215875	8	215875	61	149.4	2033.1	3600	178335	4	178335	50.4	112.1	0	+∞	Si
560	-361222	8	-361222	91	149.4	2592.2	3600	-300074	4	-300074	75.6	112.1	0	+∞	Si
580	-450208	8	-404166	101.8	149.4	2900.3	3600	-373751	4	-335632	84.5	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.001	0.0276	8	27.6	0.00097	0.0267	4	27.6	0.0009	0.0247	4	Si
20	superiore	27.6	0.00085	0.0234	8	27.6	0.00084	0.023	4	27.6	0.00077	0.0212	4	Si
290	inferiore	32.3	0.00059	0.0191	8	32.3	0.00052	0.0167	4	32.3	0.00049	0.0158	4	Si
560	superiore	27.6	0.00081	0.0223	8	27.6	0.00081	0.0223	4	27.6	0.00075	0.0206	4	Si
580	superiore	27.6	0.00096	0.0265	8	27.6	0.00094	0.0259	4	27.6	0.00087	0.024	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.004	0.002	0	-0.012	0.004	0.002	0	-0.008	0.003	0.002	0.001	4	-0.019	4	9999
290	0.182	0.087	0.18	0.08	0.16	0.087	0.139	0.08	0.151	0.087	0.346	4	0.217	4	1676
560	0.005	0.002	0.001	-0.01	0.004	0.002	0.001	-0.007	0.004	0.002	0.001	4	-0.017	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	137.2	4.9	25	0.009	0.00066	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	114.5	4.9	25	0.009	0.00133	0.00648	0	7335	37907	52841	52841	47513	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2235	3833	6535	1889	6535
20	3568	0	-1889	2082	3568	6087	1889	6087
290	0	-2078	-1889	-475	0	2078	1889	501
560	-3568	-6028	-1889	-6028	-3568	0	1889	-2069
580	-3833	-6477	-1889	-6477	-3833	0	1889	-2222

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	1	450306	-569999
1	560	5	450306	-569999

Trave a "Terzo Impalcato" Pil.2-Pil.6**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 2 - 6, sezione R 60x25, asta 158; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-640960	SLU 16	-576017	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-515422	SLU 16	-515422	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	303051	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-514240	SLU 16	-514240	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-639690	SLU 16	-574791	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-514123	SLV 5	-471163	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-430763	SLV 5	-430763	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	178860	SLV 4	181582	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-431044	SLV 12	-431044	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-514422	SLV 12	-471453	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-450766	SLD 5	-409990	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-371774	SLD 5	-371774	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	178627	SLD 4	179577	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-372027	SLD 12	-372027	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-451035	SLD 12	-410251	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6508	SLU 16	6508	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6060	SLU 16	6060	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	3	SLU 4	3	6664	37907	13929	13929	1	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
290	0.199	6.03	0	-2	SLU 14	-2	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-6055	SLU 16	-6055	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6504	SLU 16	-6504	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4304	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4040	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	472	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-472	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4041	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4305	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4086	SLD 5	4086	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3822	SLD 5	3822	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	253	SLD 5	253	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-254	SLD 12	-254	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3822	SLD 12	-3822	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4087	SLD 12	-4087	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-456573	8	-410313	103.3	149.4	2944.4	3600	-377233	4	-338992	85.4	112.1	0	+∞	Si
20	-367150	8	-367150	92.5	149.4	2634.7	3600	-303312	4	-303312	76.4	112.1	0	+∞	Si
290	215834	8	215834	61	149.4	2032.8	3600	178388	4	178388	50.4	112.1	0	+∞	Si
560	-366414	8	-366414	92.3	149.4	2629.4	3600	-303540	4	-303540	76.5	112.1	0	+∞	Si
580	-455782	8	-409550	103.2	149.4	2939	3600	-377478	4	-339228	85.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.00098	0.0271	8	27.6	0.00095	0.0263	4	27.6	0.00088	0.0243	4	Si
20	superiore	27.6	0.00083	0.0229	8	27.6	0.00082	0.0226	4	27.6	0.00076	0.0209	4	Si
290	inferiore	32.3	0.00059	0.0191	8	32.3	0.00052	0.0167	4	32.3	0.00049	0.0158	4	Si
560	superiore	27.6	0.00083	0.0228	8	27.6	0.00082	0.0226	4	27.6	0.00076	0.0209	4	Si
580	superiore	27.6	0.00098	0.027	8	27.6	0.00095	0.0263	4	27.6	0.00088	0.0243	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.005	0.002	0	-0.011	0.004	0.002	0	-0.008	0.004	0.002	0.001	4	-0.018	4	9999
290	0.182	0.087	0.18	0.08	0.16	0.087	0.139	0.08	0.151	0.087	0.346	4	0.217	4	1674
560	0.005	0.002	0	-0.011	0.004	0.002	0	-0.008	0.004	0.002	0.001	4	-0.018	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	136.8	4.9	25	0.009	0.00063	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	113.9	4.9	25	0.009	0.00134	0.00648	0	7335	37907	52841	52841	47537	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2228	3833	6508	1889	6508
20	3568	0	-1889	2074	3568	6060	1889	6060
290	0	-2078	-1889	-472	0	2078	1889	472
560	-3568	-6055	-1889	-6055	-3568	0	1889	-2076
580	-3833	-6504	-1889	-6504	-3833	0	1889	-2230

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	2	450306	-569999
1	560	6	450306	-569999

Trave a "Terzo Impalcato" Pil.3-Pil.9

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 3 - 9, sezione R 60x25, asta 150; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-644121	SLU 16	-579053	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-518333	SLU 16	-518333	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	303513	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-510404	SLU 16	-510404	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-635605	SLU 16	-570831	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-516177	SLV 10	-473134	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-432652	SLV 10	-432652	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179056	SLV 15	181835	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-430165	SLV 7	-430165	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-513488	SLV 7	-470546	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-452443	SLD 10	-411600	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-373317	SLD 10	-373317	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	178828	SLD 15	179825	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-370712	SLD 7	-370712	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-449636	SLD 7	-408893	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6521	SLU 16	6521	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6072	SLU 16	6072	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	15	SLU 16	15	6664	37907	13929	13929	1	Si
560	0.754	8.04	0	-6043	SLU 16	-6043	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6491	SLU 16	-6491	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4313	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4048	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	480	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-470	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4038	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4302	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4093	SLD 10	4093	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3828	SLD 10	3828	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	260	SLD 10	260	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-250	SLD 7	-250	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3818	SLD 7	-3818	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4082	SLD 7	-4082	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	Verifica
0	-458778	8	-412431	103.9	149.4	2959.6	3600	-378613	4	-340318	85.7	112.1	0	+∞	Si
20	-369181	8	-369181	93	149.4	2649.3	3600	-304583	4	-304583	76.7	112.1	0	+∞	Si
290	216157	8	216157	61.1	149.4	2035.8	3600	178593	4	178593	50.5	112.1	0	+∞	Si
560	-363736	8	-363736	91.6	149.4	2610.2	3600	-301859	4	-301859	76	112.1	0	+∞	Si
580	-452930	8	-406785	102.5	149.4	2919.1	3600	-375687	4	-337493	85	112.1	0	+∞	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.00099	0.0273	8	27.6	0.00096	0.0264	4	27.6	0.00089	0.0245	4	Si
20	superiore	27.6	0.00084	0.0231	8	27.6	0.00083	0.0228	4	27.6	0.00076	0.021	4	Si
290	inferiore	32.3	0.00059	0.0191	8	32.3	0.00052	0.0168	4	32.3	0.00049	0.0158	4	Si
560	superiore	27.6	0.00082	0.0226	8	27.6	0.00081	0.0225	4	27.6	0.00075	0.0208	4	Si
580	superiore	27.6	0.00097	0.0267	8	27.6	0.00095	0.0261	4	27.6	0.00088	0.0242	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente							Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
20	0.004	0.002	0	-0.011	0.004	0.002	0	-0.008	0.004	0.002	0.001	4	-0.018	4	9999	Si
290	0.183	0.087	0.181	0.08	0.16	0.087	0.139	0.08	0.151	0.087	0.347	4	0.218	4	1670	Si
560	0.005	0.002	0.001	-0.01	0.004	0.002	0.001	-0.007	0.004	0.002	0.001	4	-0.017	4	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	133.3	4.9	25	0.009	0.00057	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	118.2	4.9	25	0.009	0.00129	0.00648	0	7335	37907	52841	52841	47374	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2231	3833	6521	1889	6521
20	3568	0	-1889	2077	3568	6072	1889	6072
290	0	-2078	-1889	-470	0	2078	1889	480
560	-3568	-6043	-1889	-6043	-3568	0	1889	-2073
580	-3833	-6491	-1889	-6491	-3833	0	1889	-2227

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	3	450306	-569999
1	560	9	450306	-569999

Trave a "Terzo Impalcato" Pil.4-Pil.10**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 60x25	Rettangolare	60	25	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 4 - 10, sezione R 60x25, asta 162; campata a comportamento dissipativo****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-650543	SLU 16	-585282	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-524369	SLU 16	-524369	-569999	0.246	Si

TABULATO DI CALCOLO – FABBRICATO B

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
290	6.03	5.1	6.03	5.1	302686	SLU 16	439719	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-506022	SLU 16	-506022	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-630837	SLU 16	-566256	-569999	0.246	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-521797	SLV 10	-478590	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-437943	SLV 10	-437943	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	179137	SLV 4	181656	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-429562	SLV 7	-429562	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-512830	SLV 7	-469916	-569999	0.246	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	8.04	5.1	6.03	5.1						-456986	SLD 10	-416009	-569999	0.246	Si
20	8.04	5.1	6.03	5.1						-377592	SLD 10	-377592	-569999	0.246	Si
290	6.03	5.1	6.03	5.1	178644	SLD 4	179555	449277	0.223						Si
560	8.04	5.1	6.03	5.1						-369456	SLD 7	-369456	-569999	0.246	Si
580	8.04	5.1	6.03	5.1						-448264	SLD 7	-407580	-569999	0.246	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	6540	SLU 16	6540	7335	37907	0	7335	1	Si
20	0.754	8.04	0	6091	SLU 16	6091	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	34	SLU 16	34	6664	37907	13929	13929	1	Si
560	0.754	8.04	0	-6023	SLU 16	-6023	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-6472	SLU 16	-6472	-7335	-37907	0	-7335	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4329	Ger.	5911	7335	37907	0	7335	1	Si
20	0.754	8.04	0	4065	Ger.	5647	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	496	Ger.	2078	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-467	Ger.	-2078	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-4035	Ger.	-5647	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4300	Ger.	-5911	-7335	-37907	0	-7335	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	8.04	0	4106	SLD 10	4106	7335	37907	0	7335	1	Si
20	0.754	8.04	0	3842	SLD 10	3842	7335	37907	52841	37907	1	Si
290	0.199	6.03	0	273	SLD 10	273	6664	37907	13929	13929	1	Si
290	0.199	6.03	0	-244	SLD 7	-244	-6664	-37907	-13929	-13929	1	Si
560	0.754	8.04	0	-3812	SLD 7	-3812	-7335	-37907	-52841	-37907	1	Si
580	0	8.04	0	-4077	SLD 7	-4077	-7335	-37907	0	-7335	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-463305	8	-416823	105	149.4	2991.2	3600	-381843	4	-343452	86.5	112.1	0	$+\infty$	Si
20	-373437	8	-373437	94.1	149.4	2679.8	3600	-307622	4	-307622	77.5	112.1	0	$+\infty$	Si
290	215567	8	215567	60.9	149.4	2030.3	3600	178140	4	178140	50.3	112.1	0	$+\infty$	Si
560	-360661	8	-360661	90.8	149.4	2588.1	3600	-299728	4	-299728	75.5	112.1	0	$+\infty$	Si
580	-449583	8	-403573	101.6	149.4	2896.1	3600	-373364	4	-335265	84.4	112.1	0	$+\infty$	Si

Verifica di apertura delle fessure

x	Bordo	Rara				Frequente				Quasi permanente				Verifica
		Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	Dmax	Esm	Wd	Comb	
0	superiore	27.6	0.001	0.0277	8	27.6	0.00097	0.0268	4	27.6	0.0009	0.0248	4	Si
20	superiore	27.6	0.00085	0.0235	8	27.6	0.00084	0.0231	4	27.6	0.00077	0.0213	4	Si
290	inferiore	32.3	0.00059	0.0191	8	32.3	0.00052	0.0167	4	32.3	0.00049	0.0158	4	Si
560	superiore	27.6	0.00081	0.0223	8	27.6	0.00081	0.0222	4	27.6	0.00075	0.0206	4	Si
580	superiore	27.6	0.00096	0.0264	8	27.6	0.00094	0.0258	4	27.6	0.00087	0.024	4	Si

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
20	0.004	0.002	0	-0.012	0.004	0.002	0	-0.009	0.003	0.002	0	4	-0.02	4	9999
290	0.182	0.087	0.179	0.08	0.159	0.087	0.138	0.08	0.15	0.087	0.345	4	0.217	4	1680
560	0.005	0.002	0.001	-0.01	0.004	0.002	0.001	-0.007	0.004	0.002	0.001	4	-0.017	4	9999

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
40	134.2	4.9	25	0.009	0.00057	0.00648	0	7335	37907	52841	52841	47120	37907	5647	0	SLV 1	Si
580	116.3	4.9	25	0.009	0.00129	0.00648	0	7335	37907	52841	52841	47447	37907	-5647	0	SLV 1	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo				taglio positivo			
	contr. grav.	Vdes	contr. mom. res.	Vela	contr. grav.	Vdes	contr. mom. res.	Vela
0	3833	0	-1889	2237	3833	6540	1889	6540
20	3568	0	-1889	2083	3568	6091	1889	6091
290	0	-2078	-1889	-467	0	2078	1889	496
560	-3568	-6023	-1889	-6023	-3568	0	1889	-2068
580	-3833	-6472	-1889	-6472	-3833	0	1889	-2221

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	20	4	450306	-569999
1	560	10	450306	-569999

Trave a "Terzo Impalcato" su Parete 1

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 11 - 12, sezione R 30x50, aste 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	107183	SLU 16	83550	678504	0.11						Si
15	4.02	5.1	4.02	5.1	59369	SLU 16	59369	678504	0.11	25395	SLU 1	-6671	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-3495	SLU 16	-3495	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	59488	SLU 16	59488	678504	0.11	25407	SLU 1	-6959	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	107456	SLU 16	83746	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	104164	SLV 4	81774	645082	0.208						Si
15	4.02	5.1	4.02	5.1	58962	SLV 4	58962	645082	0.208	15279	SLV 13	-36742	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	41250	SLV 9	41250	645082	0.208	-45879	SLV 8	-45879	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	58080	SLV 1	58080	645082	0.208	16239	SLV 16	-37529	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	103103	SLV 1	80803	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	85883	SLD 4	67304	645082	0.208						Si
15	4.02	5.1	4.02	5.1	48302	SLD 4	48302	645082	0.208	25938	SLD 13	-21620	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	21038	SLD 9	21038	645082	0.208	-25667	SLD 8	-25667	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	47876	SLD 1	47876	645082	0.208	26444	SLD 16	-22095	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	85397	SLD 1	66847	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3151	SLU 16	-3151	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-3224	SLU 16	-3224	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	-144	SLU 16	-144	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	3234	SLU 16	3234	5260	42764	8427	8427	1	Si
590	0	4.02	0	3161	SLU 16	3161	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2985	SLV 4	-2985	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-3042	SLV 4	-3042	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	1670	SLV 9	1670	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-1886	SLV 8	-1886	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	3030	SLV 1	3030	5260	42764	8427	8427	1	Si
590	0	4.02	0	2973	SLV 1	2973	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2477	SLD 4	-2477	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-2534	SLD 4	-2534	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	846	SLD 9	846	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-1061	SLD 8	-1061	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	2530	SLD 1	2530	5260	42764	8427	8427	1	Si
590	0	4.02	0	2473	SLD 1	2473	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	77506	8	60447	7.6	149.4	365.9	3600	66821	4	52191	6.6	112.1	0	+∞	Si
15	42966	8	42966	5.4	149.4	260.1	3600	37120	4	37120	4.7	112.1	0	+∞	Si
295	-2573	8	-2573	0.3	149.4	15.6	3600	-2314	4	-2314	0.3	112.1	0	+∞	Si
575	43046	8	43046	5.4	149.4	260.6	3600	37160	4	37160	4.7	112.1	0	+∞	Si
590	77694	8	60581	7.7	149.4	366.8	3600	66925	4	52253	6.6	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si
295	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.002	1	9999 Si
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999 Si

Trave a "Terzo Impalcato" su parete 4**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate**Campata 1 tra i fili 28 - 29, sezione R 30x50, aste 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344****Verifiche a flessione in famiglia SLU**

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	107644	SLU 16	83933	678504	0.11						Si
15	4.02	5.1	4.02	5.1	59675	SLU 16	59675	678504	0.11	25501	SLU 1	-6238	-678504	0.11	Si
295	4.02	5.1	4.02	5.1						-4239	SLU 16	-4239	-678504	0.11	Si
575	4.02	5.1	4.02	5.1	81946	SLU 16	81946	678504	0.11	30806	SLU 1	-10505	-678504	0.11	Si
590	4.02	5.1	4.02	5.1	148805	SLU 16	115649	678504	0.11						Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}= 0.002$, $\epsilon_{yd}= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	103588	SLV 15	81232	645082	0.208						Si
15	4.02	5.1	4.02	5.1	58455	SLV 15	58455	645082	0.208	16110	SLV 2	-36570	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	39920	SLV 6	39920	645082	0.208	-45210	SLV 11	-45210	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	68564	SLV 14	68564	645082	0.208	25623	SLV 3	-38242	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	122069	SLV 14	95528	645082	0.208						Si

Verifiche SLD Resistenza a flessione (domini sostanzialmente elastici)

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

Le dilatazioni ultime utilizzate sono le seguenti: $\epsilon_{c2}= 0.002$, $\epsilon_{yd}= 0.0019$

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	4.02	5.1	4.02	5.1	85714	SLD 15	67130	645082	0.208						Si
15	4.02	5.1	4.02	5.1	48124	SLD 15	48124	645082	0.208	26440	SLD 2	-21427	-645082	0.208	Si
295	4.02	5.1	4.02	5.1	20187	SLD 6	20187	645082	0.208	-25477	SLD 11	-25477	-645082	0.208	Si
575	4.02	5.1	4.02	5.1	58086	SLD 14	58086	645082	0.208	36102	SLD 3	-23218	-645082	0.208	Si
590	4.02	5.1	4.02	5.1	104027	SLD 14	81268	645082	0.208						Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-3161	SLU 16	-3161	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-3234	SLU 16	-3234	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	-165	SLU 16	-165	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	4494	SLU 16	4494	5260	42764	8427	8427	1	Si
590	0	4.02	0	4421	SLU 16	4421	5260	42764	0	5260	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2981	SLV 15	-2981	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-3037	SLV 15	-3037	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	1629	SLV 10	1629	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-1863	SLV 7	-1863	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	3595	SLV 14	3595	5260	42764	8427	8427	1	Si
590	0	4.02	0	3539	SLV 14	3539	5260	42764	0	5260	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	4.02	0	-2478	SLD 15	-2478	-5260	-42764	0	-5260	1	Si
15	0.053	4.02	0	-2534	SLD 15	-2534	-5260	-42764	-8427	-8427	1	Si
295	0.053	4.02	0	819	SLD 10	819	5260	42764	8427	8427	1	Si
295	0.053	4.02	0	-1053	SLD 7	-1053	-5260	-42764	-8427	-8427	1	Si
575	0.053	4.02	0	3091	SLD 14	3091	5260	42764	8427	8427	1	Si
590	0	4.02	0	3035	SLD 14	3035	5260	42764	0	5260	1	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σc	$\sigma c \text{ lim.}$	σf	$\sigma f \text{ lim.}$	Mela	Comb.	Mdes	σc	$\sigma c \text{ lim.}$	σFRP	$\sigma FRP \text{ lim.}$	
0	77836	8	60721	7.7	149.4	367.6	3600	67074	4	52389	6.6	112.1	0	+∞	Si
15	43183	8	43183	5.5	149.4	261.4	3600	37282	4	37282	4.7	112.1	0	+∞	Si
295	-3093	8	-3093	0.4	149.4	18.7	3600	-2645	4	-2645	0.3	112.1	0	+∞	Si
575	58738	8	58738	7.4	149.4	355.6	3600	47094	4	47094	6	112.1	0	+∞	Si
590	106585	8	82872	10.5	149.4	501.7	3600	85215	4	66365	8.4	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f
15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999
295	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.002	1	-0.003	1	9999
315	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002	1	-0.003	1	9999
575	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9999

Trave a "Terzo Impalcato" vano ascensore**Caratteristiche dei materiali**

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 30x50	Rettangolare	30	50	3.5	3.5	3.5

Output campate

Campata 1 tra i fili 20 - 22, sezione R 30x50, aste 121, 122, 123, 124; campata a comportamento dissipativo

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3						-2401	SLU 12	-2401	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3						-21880	SLU 16	-49822	-1512506	0.15	Si
23	9.42	5.3	9.42	5.3						-32292	SLU 16	-56403	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	-11471	SLU 1	7320	1512506	0.15	-30608	SLU 16	-37025	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3						-23434	SLU 16	-49236	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3						-5484	SLU 16	-5484	-1512506	0.15	Si

Verifiche a flessione in famiglia SLV

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	1736212	SLV 16	1586429	1512506	0.15	-1738625	SLV 1	-1600310	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	1436834	SLV 16	1436834	1512506	0.15	-1463025	SLV 1	-1463025	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	153626	SLV 16	461199	1512506	0.15	-188917	SLV 1	-504746	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3	1036139	SLV 1	1036139	1512506	0.15	-1063880	SLV 16	-1063880	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3	1290525	SLV 1	1163600	1512506	0.15	-1296651	SLV 16	-1180112	-1512506	0.15	Si

Verifiche SLD Resistenza a flessione

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	M-ela	Comb.	M-des	M-ult	x/d	Verifica
0	9.42	5.3	9.42	5.3	878777	SLD 16	800234	1512506	0.15	-881190	SLD 1	-814116	-1512506	0.15	Si
15	9.42	5.3	9.42	5.3	721563	SLD 16	721563	1512506	0.15	-747754	SLD 1	-747754	-1512506	0.15	Si
85	9.42	5.3	9.42	5.3	69586	SLD 16	223414	1512506	0.15	-104877	SLD 1	-266961	-1512506	0.15	Si
155	9.42	5.3	9.42	5.3	518119	SLD 1	518119	1512506	0.15	-545860	SLD 16	-545860	-1512506	0.15	Si
170	9.42	5.3	9.42	5.3	652596	SLD 1	585596	1512506	0.15	-658722	SLD 16	-602108	-1512506	0.15	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	-1266	SLU 16	-1266	-6972	-42573	0	-6972	1	Si
11	0	9.42	0	-1322	SLU 16	-1322	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	-1340	SLU 16	-1340	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	269	SLU 16	269	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	1233	SLU 16	1233	6972	42573	24728	24728	1	Si
170	0	9.42	0	1160	SLU 16	1160	6972	42573	0	6972	1	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	19396	Ger.	24087	6972	42573	0	6972	1	Si
0	0	9.42	0	-20924	Ger.	-23449	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	19339	Ger.	24030	6972	42573	24728	24728	1	Si
15	0.157	9.42	0	-20981	Ger.	-23505	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	15672	Ger.	23768	6972	42573	24728	24728	1	Si
85	0.157	9.42	0	-15338	Ger.	-23768	-6972	-42573	-24728	-24728	1	Si
155	0.157	9.42	0	16995	Ger.	23505	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	-15498	Ger.	-24030	-6972	-42573	-24728	-24728	1	Si
170	0	9.42	0	16939	Ger.	23449	6972	42573	0	6972	1	Si
170	0	9.42	0	-15554	Ger.	-24087	-6972	-42573	0	-6972	1	Si

Verifiche SLD Resistenza a taglio

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	Verifica
0	0	9.42	0	9460	SLD 3	9460	6972	42573	0	6972	1	Si
0	0	9.42	0	-10989	SLD 14	-10989	-6972	-42573	0	-6972	1	Si
11	0	9.42	0	9418	SLD 3	9418	6972	42573	0	6972	1	Si
11	0	9.42	0	-11031	SLD 14	-11031	-6972	-42573	0	-6972	1	Si
15	0.157	9.42	0	9404	SLD 3	9404	6972	42573	24728	24728	1	Si
15	0.157	9.42	0	-11045	SLD 14	-11045	-6972	-42573	-24728	-24728	1	Si
85	0.157	9.42	0	8024	SLD 1	8024	6972	42573	24728	24728	1	Si
85	0.157	9.42	0	-7691	SLD 16	-7691	-6972	-42573	-24728	-24728	1	Si
155	0.157	9.42	0	8997	SLD 1	8997	6972	42573	24728	24728	1	Si
155	0.157	9.42	0	-7500	SLD 16	-7500	-6972	-42573	-24728	-24728	1	Si
170	0	9.42	0	8941	SLD 1	8941	6972	42573	0	6972	1	Si
170	0	9.42	0	-7556	SLD 16	-7556	-6972	-42573	0	-6972	1	Si

Verifiche delle tensioni in esercizio

x	Rara								Quasi permanente						Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-1739	4	-1739	0.1	149.4	4.6	3600	-1251	2	-1251	0.1	112.1	0	+∞	Si
15	-15820	8	-36093	3	149.4	96.2	3600	-13095	4	-30370	2.5	112.1	0	+∞	Si
85	-21935	8	-26621	2.2	149.4	71	3600	-17646	4	-21773	1.8	112.1	0	+∞	Si
155	-16918	8	-35626	3	149.4	95	3600	-13870	4	-29695	2.5	112.1	0	+∞	Si
170	-3961	8	-3961	0.3	149.4	10.6	3600	-3063	4	-3063	0.3	112.1	0	+∞	Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Verifica di deformabilità

x	Rara				Frequente				Quasi permanente						Verifica	
	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess.+	Fess.-	Elastica+	Elastica-	Fess. viscosa+	Comb.	Fess. viscosa-	Comb.	l/f	
15	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999	Si
85	-0.001	-0.001	0	-0.001	-0.001	-0.001	0	-0.001	-0.001	-0.001	-0.001	1	-0.002	1	9999	Si
155	0	0	0	0	0	0	0	0	0	0	0	1	-0.001	1	9999	Si

Verifiche taglio ciclico nel piano Circolare 7 21-01-19 §C8.7.2.3.5, [C8.7.2.8]

Ascissa	Lv	x	h	p,tot	θ,m	θ,y	μΔ,pl	Vrd	VRcd(cotθ=1)	VRsd	Vw	Vr	Vu	Ved	Ned	Comb.	Verifica
30	105	6.7	50	0.013	0.00042	0.01123	0	6972	42573	24728	24728	27352	27352	24030	0	SLV 6	Si
170	92.5	6.7	50	0.013	0.00053	0.01123	0	6972	42573	24728	24728	27703	27703	-24030	0	SLV 9	Si

Valutazione dei tagli secondo gerarchia delle resistenze

x	taglio negativo								taglio positivo							
	contr. grav.		Vdes		contr. mom. res.		Vela		contr. grav.		Vdes		contr. mom. res.		Vela	
0	319		-23449		-21607		-20924		319		24087		21607		19396	
15	262		-23505		-21607		-20981		262		24030		21607		19339	
85	0		-23768		-21607		-15338		0		23768		21607		15672	
155	-262		-24030		-21607		-15498		-262		23505		21607		16995	
170	-319		-24087		-21607		-15554		-319		23449		21607		16939	

Momenti resistenti a filo appoggi

campata	x	appoggio	momento positivo	momento negativo
1	15	20	1512506	-1512506
1	155	22	1512506	-1512506

3.4 Verifiche pareti C.A.

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

Descrizione breve: nome sintetico assegnato al livello.

Descrizione: nome assegnato al livello.

Quota: quota superiore espressa nel sistema di riferimento assoluto. [cm]

Spessore: spessore del livello. [cm]

Descrizione: descrizione della sezione di verifica.

Dir.: direzione della sezione di verifica.

Base: base della sezione. [cm]

Altezza: altezza della sezione. [cm]

As,sup: area di acciaio efficace superiore. [cm]

As,inf: area di acciaio efficace inferiore. [cm]

c,sup: copriferro medio superiore. [cm]

c,inf: copriferro medio inferiore. [cm]

Comb.: combinazione di verifica.

MEd: momento agente. [daN*cm]

NEd: sforzo normale agente, positivo se di trazione. [daN]

MRd: momento resistente. [daN*cm]

NRd: sforzo normale resistente, positivo se di trazione. [daN]

c.s.: coefficiente di sicurezza.

Verifica: stato di verifica.

d: altezza utile. [cm]

bw: minima larghezza anima. [cm]

Armatura a taglio: necessità di armatura a taglio.

Asw/s: rapporto tra l'area dell'armatura trasversale e l'interasse tra due armature consecutive.

VEd: taglio agente. [daN]

Vrd,c: resistenza di calcolo a taglio per elementi privi di armature trasversali. [daN]

Vrcd: valore resistente di calcolo a taglio compressione del calcestruzzo d'anima. [daN]

Vrsd: valore resistente di calcolo a taglio trazione dell'armatura trasversale. [daN]

VRd: resistenza a taglio. [daN]

cotg(θ): cotangente dell'angolo dei puntoni rispetto all'asse.

Asl: area armatura longitudinale. [cm²]

Sezione fessurata: sezione fessurata.

σc: tensione del calcestruzzo. [daN/cm²]

σc limite: tensione limite del calcestruzzo. [daN/cm²]

Es/Ec: coefficiente di omogenizzazione.

σf: tensione dell'armatura. [daN/cm²]

σf limite: tensione limite dell'armatura. [daN/cm²]

Spessore: spessore della parete in corrispondenza della barra. [cm]

Φ: diametro barra. [cm]

Φ max: diametro massimo ammissibile. [cm]

Passo: passo massimo delle barre. [cm]

Passo max.: passo massimo delle barre ammissibile da norma. [cm]

Ac: area sezione. [cm²]

As,eff: area efficace delle barre presenti nella sezione. [cm²]

As,min: area minima richiesta. [cm²]

% min: percentuale minima di area da prevedere.

Fessurazione non valutabile: nessuna armatura presente nell'area di cls teso efficace.

εsm: deformazione unitaria media delle barre d'armatura.

Δmax: distanza massima tra le fessure. [cm]

Wd: ampiezza delle fessure. [cm]

Wlim: ampiezza fessure limite. [cm]

Indice sezione: indice della sezione di verifica.

Quota: quota della sezione di verifica. [cm]

Tipo: descrizione della quota.

Quota ritegno: quota del ritegno all'instabilità. [cm]

β: valore del coefficiente nel tratto al di sopra del ritegno all'instabilità.

MEd,x: momento agente attorno all'asse x della sezione di verifica. [daN*cm]

MRd,x: momento resistente attorno all'asse x della sezione di verifica. [daN*cm]

MEd,y: momento agente attorno all'asse y della sezione di verifica. [daN*cm]

MRd,y: momento resistente attorno all'asse y della sezione di verifica. [daN*cm]

NEd: sforzo normale agente, negativo se di compressione. [daN]

NRd: sforzo normale resistente, negativo se di compressione. [daN]

Ac: area della sezione di calcestruzzo resistente. [cm²]

fcd: resistenza a compressione del calcestruzzo. [daN/cm²]

lw: lunghezza della lama. [cm]

z: braccio delle forze interne. [cm]

ph: rapporto tra l'area della sezione di armatura orizzontale e l'area della relativa sezione.

pv: rapporto tra l'area della sezione di armatura verticale e l'area della relativa sezione.

as: valore di as.

Sx [7.4.16]: termine a sinistra della NTC08 [7.4.16]. [daN]

Dx [7.4.16]: termine a destra della NTC08 [7.4.16]. [daN]

Zona dissipativa: indica se la sezione si trova in zona dissipativa.

σ_{cp} : rapporto tra sforzo normale e area. [daN/cm²]

ξ : altezza della parte compressa della sezione normalizzata all'altezza della sezione. [cm]

$\Sigma(Asi \cdot \cos \Phi_i)$: somma delle aree delle barre inclinate moltiplicate per il coseno dell'angolo formato con la sezione. [cm²]

ΣAs_j : somma delle aree delle barre verticali intersecanti la sezione della lama. [cm²]

Tozzo: indica se il nucleo è tozzo.

VRds: resistenza a scorrimento. [daN]

Vdd: resistenza data dall'effetto spinotto delle barre verticali. [daN]

Vfd: resistenza data dall'attrito. [daN]

Vid: resistenza data dalle armature inclinate. [daN]

μ_f : coefficiente di attrito calcestruzzo-calcestruzzo sotto azioni cicliche.

η : valore dato dalla espressione [7.4.9].

Quota ritegno inf.: quota della ritegno inferiore. [cm]

Quota ritegno sup.: quota della ritegno superiore. [cm]

ΔH : distanza tra i ritegni all'interno dei quali cade la sezione. [cm]

β_x : valore di β per inflessione attorno l'asse x-x.

λ_x : snellezza per inflessione attorno l'asse x-x.

β_y : valore di β per inflessione attorno l'asse y-y.

λ_y : snellezza per inflessione attorno l'asse y-y.

$\lambda_{lim,x}$: snellezza limite per inflessione attorno l'asse x-x. D.M. 17-01-18 §4.1.2.3.9.2 [4.1.41].

$\lambda_{lim,y}$: snellezza limite per inflessione attorno l'asse y-y. D.M. 17-01-18 §4.1.2.3.9.2 [4.1.41].

M_{xEd} : momento agente attorno l'asse x-x della sezione, privo di imperfezioni e effetti del secondo ordine. [daN*cm]

$M_{0Ed,x}$: momento del primo ordine attorno l'asse x-x della sezione, considerando eventuali imperfezioni geometriche. [daN*cm]

$M_{2,x}$: momento del secondo ordine attorno l'asse x-x della sezione. [daN*cm]

$M_{Ed,tot,x}$: momento di verifica attorno l'asse x-x della sezione. [daN*cm]

$MR_{d,x}$: momento resistente attorno l'asse x-x della sezione in pressoflessione deviata. [daN*cm]

My_{Ed} : momento agente attorno l'asse y-y della sezione, privo di imperfezioni e effetti del secondo ordine. [daN*cm]

$M_{0Ed,y}$: momento del primo ordine attorno l'asse y-y della sezione, considerando eventuali imperfezioni geometriche. [daN*cm]

$M_{2,y}$: momento del secondo ordine attorno l'asse y-y della sezione. [daN*cm]

$M_{Ed,tot,y}$: momento di verifica attorno l'asse y-y della sezione. [daN*cm]

$MR_{d,y}$: momento resistente attorno l'asse y-y della sezione in pressoflessione deviata. [daN*cm]

NRd: sforzo normale resistente. [daN]

Ac: area della sezione di calcestruzzo. [cm²]

As: area efficace delle barre di armatura presenti. [cm²]

As/Ac: rapporto tra l'area di armatura longitudinale e l'area di calcestruzzo. [cm²]

As/Ac,min: minimo rapporto tra l'area di armatura longitudinale e l'area di calcestruzzo richiesto. [cm²]

ϵ_c : deformazione sul calcestruzzo.

$\epsilon_{c,lim}$: deformazione sul calcestruzzo oltre la quale effettuare il controllo.

Parete Ascensore n.1

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Livelli significativi

Descrizione breve	Descrizione	Quota	Spessore
L1	Fondazione	0	120
L2	Primo Impalcato	330	25
L3	Secondo Impalcato	640	25
L4	Terzo Impalcato	950	25
L5	Quarto Impalcato	1260	25
L6	Quinto Impalcato	1570	25
L7	Sesto Impalcato - Copertura	1880	25

Verifiche nei nodi

Sezioni rettangolari

Descrizione	Dir.	Base	Altezza	As,sup	As,inf	c,sup	c,inf
1193 Prosp.A	Orizzontale	81.27	30	10.05	8.04	5.54	5.58
3352 Prosp.A	Orizzontale	81.27	30	10.05	8.04	5.54	5.58
1854 Prosp.A	Orizzontale	100	30	12.06	10.05	5.52	5.54
2567 Prosp.A	Orizzontale	100	30	12.06	10.05	5.52	5.54
1810 Prosp.A	Orizzontale	74.99	30	10.05	8.04	5.54	5.58
3966 Prosp.A	Orizzontale	50	30	6.03	6.03	5.63	4.37
528 Prosp.A	Orizzontale	50	30	6.03	6.03	5.63	5.63
438 Prosp.A	Orizzontale	100	30	10.05	10.05	5.4	5.4
410 Prosp.A	Orizzontale	91.79	30	10.05	10.05	5.54	5.54
437 Prosp.A	Orizzontale	100	30	10.05	10.05	5.4	5.4
388 Prosp.A	Orizzontale	50	30	6.03	6.03	5.63	5.63
211 Prosp.A	Orizzontale	100	30	10.05	10.05	5.4	5.4
219 Prosp.A	Orizzontale	100	30	10.05	9.28	5.4	5.4
215 Prosp.A	Orizzontale	100	30	10.05	10.05	5.4	5.4
335 Prosp.A	Orizzontale	100	30	10.05	10.05	5.4	5.4
334 Prosp.A	Orizzontale	92.93	30	11.59	10.05	5.52	5.54

Verifiche a flessione SLU D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
1193 Prosp.A	Orizzontale	SLV 16	-590839	5847	-684506	6774	1.1585	Si
3352 Prosp.A	Orizzontale	SLV 16	-594091	3249	-713282	3901	1.2006	Si
1854 Prosp.A	Orizzontale	SLV 16	-554724	13880	-749501	18753	1.3511	Si
2567 Prosp.A	Orizzontale	SLV 16	-564689	10857	-786133	15114	1.3922	Si
1810 Prosp.A	Orizzontale	SLV 16	-360625	11085	-567743	17451	1.5743	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
3352 Prosp.A	Orizzontale	SLD 16	-315813	-1404	-787299	-3499	2.4929	Si
1193 Prosp.A	Orizzontale	SLD 16	-304104	-6701	-962908	-21217	3.1664	Si
2567 Prosp.A	Orizzontale	SLD 16	-292878	-1685	-995410	-5727	3.3987	Si
1854 Prosp.A	Orizzontale	SLD 16	-287814	-2976	-1046321	-10820	3.6354	Si
3966 Prosp.A	Orizzontale	SLD 14	-145555	958	-539605	3552	3.7072	Si

Verifiche a taglio SLU D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
3012 Prosp.A	Orizzontale	24.4	50	Non necessaria	0	SLV 14	-7359	19449	5791	7369	26674	0	7369	2.5	9.048	1.0013	Si
1854 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLV 16	-11815	13392	-481027	12135	53553	0	12135	2.5	10.053	1.0271	Si
1985 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 15	-12144	7169	238117	12500	57364	0	12500	2.5	10.053	1.0293	Si
1810 Prosp.A	Orizzontale	24.4	75	Non necessaria	0	SLV 16	-9023	8933	-326084	9292	40101	0	9292	2.5	8.042	1.0298	Si
1269 Prosp.A	Orizzontale	24.4	50	Non necessaria	0	SLV 4	6324	-797	-96892	6534	26775	0	6534	2.5	6.032	1.0332	Si

Verifiche a taglio SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
3012 Prosp.A	Orizzontale	24.4	50	Non necessaria	0	SLD 14	-3861	10486	5650	7369	26674	0	7369	2.5	9.048	1.9086	Si
1854 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLD 15	-6087	-1201	-249727	12282	53705	0	12282	2.5	10.053	2.0179	Si
1985 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 15	-6169	3065	121618	12500	57364	0	12500	2.5	10.053	2.0261	Si
1810 Prosp.A	Orizzontale	24.4	75	Non necessaria	0	SLD 16	-4628	-2664	-169476	9618	40437	0	9618	2.5	8.042	2.0781	Si
1269 Prosp.A	Orizzontale	24.4	50	Non necessaria	0	SLD 2	3427	-6714	-52419	7255	27520	0	7255	2.5	6.032	2.1168	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
528 Prosp.A	Orizzontale	SLE QP 4	-4506	-16435	No	-10.3	112.1	15	10.875	Si
438 Prosp.A	Orizzontale	SLE QP 4	-14699	-31072	No	-10.3	112.1	15	10.896	Si
410 Prosp.A	Orizzontale	SLE QP 4	-7372	-29923	No	-10.3	112.1	15	10.9133	Si
437 Prosp.A	Orizzontale	SLE QP 4	-10699	-31748	No	-10.3	112.1	15	10.9309	Si
388 Prosp.A	Orizzontale	SLE QP 4	-3725	-16435	No	-10.2	112.1	15	10.9718	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
211 Prosp.A	Orizzontale	SLE RA 1	-1980	-27160	No	-122.3	3600	15	29.4433	Si
219 Prosp.A	Orizzontale	SLE RA 1	-2459	-26962	No	-122	3600	15	29.4973	Si
215 Prosp.A	Orizzontale	SLE RA 1	-2199	-26915	No	-121	3600	15	29.7447	Si
335 Prosp.A	Orizzontale	SLE RA 1	-3675	-26804	No	-119.7	3600	15	30.079	Si
334 Prosp.A	Orizzontale	SLE RA 1	-3204	-24969	No	-119.5	3600	15	30.1345	Si

Verifica diametro massimo D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Spessore	Φ	Φ max	Verifica
146 Prosp.A	Orizzontale	30	1.6	3	Si
2833 Prosp.A	Orizzontale	30	1.6	3	Si
2827 Prosp.A	Orizzontale	30	1.6	3	Si
2783 Prosp.A	Verticale	30	1.6	3	Si
2783 Prosp.A	Orizzontale	30	1.6	3	Si

Verifica passo massimo per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Passo	Passo max.	Verifica
146 Prosp.A	Orizzontale	20	30	Si
2833 Prosp.A	Orizzontale	20	30	Si
2827 Prosp.A	Orizzontale	20	30	Si
2783 Prosp.A	Verticale	20	30	Si
2783 Prosp.A	Orizzontale	20	30	Si

Verifica area minima per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Ac	As,eff	As,min	% min	Verifica
215 Prosp.A	Verticale	3000	18.62	6	0.2	Si
196 Prosp.A	Verticale	2903.88	18.1	5.81	0.2	Si
194 Prosp.A	Verticale	2849.73	18.1	5.7	0.2	Si
3960 Prosp.A	Verticale	1875	12.06	3.75	0.2	Si
3956 Prosp.A	Verticale	1875	12.06	3.75	0.2	Si

Parete Ascensore n.2

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Livelli significativi

Descrizione breve	Descrizione	Quota	Spessore
L1	Fondazione	0	120
L2	Primo Impalcato	330	25
L3	Secondo Impalcato	640	25
L4	Terzo Impalcato	950	25
L5	Quarto Impalcato	1260	25
L6	Quinto Impalcato	1570	25
L7	Sesto Impalcato - Copertura	1880	25

Verifiche nei nodi**Sezioni rettangolari**

Descrizione	Dir.	Base	Altezza	As,sup	As,inf	c,sup	c,inf
1322 Prosp.A	Verticale	100	30	9.23	9.23	3.8	3.8

TABULATO DI CALCOLO – FABBRICATO B

Descrizione	Dir.	Base	Altezza	As,sup	As,inf	c,sup	c,inf
2057 Prosp.A	Verticale	100	30	10.05	10.05	3.8	3.8
3550 Prosp.A	Orizzontale	100	30	10.05	12.06	5.54	5.52
591 Prosp.A	Verticale	100	30	10.05	10.05	3.8	3.8
1806 Prosp.A	Verticale	100	30	10.05	10.05	3.8	3.8
123 Prosp.A	Orizzontale	100	30	9.96	10.05	5.4	5.4
122 Prosp.A	Orizzontale	100	30	10.05	10.05	5.4	5.4
399 Prosp.A	Orizzontale	50	30	6.03	6.03	5.63	5.63
133 Prosp.A	Orizzontale	50	30	6.03	6.03	5.63	5.63
539 Prosp.A	Orizzontale	50	30	6.03	6.03	5.63	5.63
346 Prosp.A	Orizzontale	100	30	10.05	10.05	5.4	5.4
370 Prosp.A	Orizzontale	87.33	30	10.05	10.05	5.54	5.54

Verifiche a flessione SLU D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
1322 Prosp.A	Verticale	SLV 13	279604	43120	321365	49560	1.1494	Si
2057 Prosp.A	Verticale	SLV 13	227354	36878	337714	54779	1.4854	Si
3550 Prosp.A	Orizzontale	SLV 1	589546	1994	907250	3069	1.5389	Si
591 Prosp.A	Verticale	SLV 15	232135	33229	367096	52548	1.5814	Si
1806 Prosp.A	Verticale	SLV 14	350620	17693	617389	31154	1.7608	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
1322 Prosp.A	Verticale	SLD 13	139154	20319	333305	48668	2.3952	Si
2057 Prosp.A	Verticale	SLD 13	113566	17177	354007	53542	3.1172	Si
3550 Prosp.A	Orizzontale	SLD 1	307297	-731	961030	-2288	3.1274	Si
591 Prosp.A	Verticale	SLD 15	117534	15817	381990	51406	3.25	Si
1806 Prosp.A	Verticale	SLD 14	176667	8726	622164	30729	3.5217	Si

Verifiche a taglio SLU D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1642 Prosp.A	Orizzontale	24.5	87	Non necessaria	0	SLV 3	11027	9425	38163	11061	46606	0	11061	2.5	10.053	1.0031	Si
2057 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 16	-12180	35479	239825	12500	57364	0	12500	2.5	10.053	1.0263	Si
3711 Prosp.A	Orizzontale	24.4	50	Non necessaria	0	SLV 15	-7162	6045	-8345	7369	26674	0	7369	2.5	9.048	1.0289	Si
201 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 4	-12045	3824	-329345	12500	57364	0	12500	2.5	10.053	1.0378	Si
1322 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 16	-11489	41258	290048	12149	57364	0	12149	2.5	9.23	1.0574	Si

Verifiche a taglio SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
201 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 13	6657	-4270	179280	13060	57943	0	13060	2.5	10.053	1.9617	Si
3711 Prosp.A	Orizzontale	24.4	50	Non necessaria	0	SLD 2	3746	646	3336	7369	26674	0	7369	2.5	9.048	1.9668	Si
1642 Prosp.A	Orizzontale	24.5	87	Non necessaria	0	SLD 3	5577	889	19733	11061	46606	0	11061	2.5	10.053	1.9832	Si
2990 Prosp.A	Orizzontale	24.4	50	Non necessaria	0	SLD 16	-3076	2697	36960	6338	26674	0	6338	2.5	5.758	2.0604	Si
2057 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 16	-5966	16422	120255	12500	57364	0	12500	2.5	10.053	2.0953	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
123 Prosp.A	Orizzontale	SLE QP 4	3994	-34709	No	-10.7	112.1	15	10.4272	Si
122 Prosp.A	Orizzontale	SLE QP 4	7178	-33942	No	-10.7	112.1	15	10.4658	Si
399 Prosp.A	Orizzontale	SLE QP 4	2525	-17085	No	-10.5	112.1	15	10.7133	Si
133 Prosp.A	Orizzontale	SLE QP 4	2109	-17164	No	-10.5	112.1	15	10.7152	Si
539 Prosp.A	Orizzontale	SLE QP 4	3685	-16687	No	-10.4	112.1	15	10.818	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
123 Prosp.A	Orizzontale	SLE RA 1	2696	-28816	No	-129.5	3600	15	27.7977	Si
399 Prosp.A	Orizzontale	SLE RA 1	1986	-14088	No	-123.5	3600	15	29.1521	Si
346 Prosp.A	Orizzontale	SLE RA 1	3437	-27374	No	-122.4	3600	15	29.4097	Si
370 Prosp.A	Orizzontale	SLE RA 1	3531	-24260	No	-122.3	3600	15	29.4398	Si
122 Prosp.A	Orizzontale	SLE RA 1	4593	-27409	No	-121.9	3600	15	29.53	Si

Verifica diametro massimo D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Spessore	Φ	Φ max	Verifica
122 Prosp.A	Orizzontale	30	1.6	3	Si
2699 Prosp.A	Orizzontale	30	1.6	3	Si
2686 Prosp.A	Orizzontale	30	1.6	3	Si
2656 Prosp.A	Verticale	30	1.6	3	Si
2656 Prosp.A	Orizzontale	30	1.6	3	Si

Verifica passo massimo per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Passo	Passo max.	Verifica
122 Prosp.A	Orizzontale	20	30	Si
2699 Prosp.A	Orizzontale	20	30	Si
2686 Prosp.A	Orizzontale	20	30	Si
2656 Prosp.A	Verticale	20	30	Si
2656 Prosp.A	Orizzontale	20	30	Si

Verifica area minima per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Ac	As,eff	As,min	% min	Verifica
124 Prosp.A	Verticale	1744.27	10.05	3.49	0.2	Si
1322 Prosp.A	Verticale	3000	18.46	6	0.2	Si
123 Prosp.A	Verticale	1613.53	10.05	3.23	0.2	Si
138 Prosp.A	Verticale	2255.42	14.07	4.51	0.2	Si
1196 Prosp.A	Verticale	3000	18.85	6	0.2	Si

Parete n.2

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Livelli significativi

Descrizione breve	Descrizione	Quota	Spessore
L1	Fondazione	0	120
L2	Primo Impalcato	330	25
L3	Secondo Impalcato	640	25
L4	Terzo Impalcato	950	25
L5	Quarto Impalcato	1260	25
L6	Quinto Impalcato	1570	25
L7	Sesto Impalcato - Copertura	1880	25

Verifiche nei nodi**Sezioni rettangolari**

Descrizione	Dir.	Base	Altezza	As,sup	As,inf	c,sup	c,inf
462 Prosp.A	Orizzontale	100	40	15.32	15.71	5.6	5.6
2623 Prosp.A	Orizzontale	100	30	15.71	10.05	5.6	5.4
1911 Prosp.A	Orizzontale	100	30	15.71	15.71	5.6	5.6
2634 Prosp.A	Orizzontale	100	30	15.71	13.19	5.73	5.6
1903 Prosp.A	Orizzontale	100	30	15.71	15.71	5.6	5.6
428 Prosp.A	Orizzontale	100	40	15.71	15.71	5.6	5.6
454 Prosp.A	Orizzontale	100	40	21.99	25.13	5.47	7.29
419 Prosp.A	Orizzontale	100	40	15.71	15.71	5.6	5.6
418 Prosp.A	Orizzontale	100	40	15.71	15.71	5.6	5.6
150 Prosp.A	Orizzontale	100	40	18.62	21.73	5.55	7.33
231 Prosp.A	Orizzontale	100	40	18.85	21.99	5.55	7.61
232 Prosp.A	Orizzontale	100	40	18.85	21.99	5.55	7.61

Verifiche a flessione SLU D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
462 Prosp.A	Orizzontale	SLV 15	1199677	42762	1264834	45084	1.0543	Si
2623 Prosp.A	Orizzontale	SLV 16	-686629	15894	-770287	17830	1.1218	Si
1911 Prosp.A	Orizzontale	SLV 15	1153880	6153	1296245	6912	1.1234	Si
2634 Prosp.A	Orizzontale	SLV 16	-745188	30488	-842593	34474	1.1307	Si
1903 Prosp.A	Orizzontale	SLV 15	1107965	9879	1254455	11185	1.1322	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
2634 Prosp.A	Orizzontale	SLD 16	-388622	7065	-1001623	18210	2.5774	Si
2623 Prosp.A	Orizzontale	SLD 16	-358816	-922	-971120	-2495	2.7065	Si
1911 Prosp.A	Orizzontale	SLD 15	580782	-8928	1601570	-24620	2.7576	Si
1903 Prosp.A	Orizzontale	SLD 15	560633	-6919	1549003	-19118	2.763	Si
462 Prosp.A	Orizzontale	SLD 15	615016	2190	1837874	6544	2.9883	Si

Verifiche a taglio SLU D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrzd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
2695 Prosp.A	Orizzontale	24.4	100	Non necessaria	0	SLV 15	-13823	-767	426419	14160	53520	0	14160	2.5	15.708	1.0244	Si
1903 Prosp.A	Orizzontale	24.4	100	Non necessaria	0	SLV 13	-13629	5196	1114247	14067	53423	0	14067	2.5	15.708	1.0321	Si
1983 Prosp.A	Orizzontale	24.4	100	Non necessaria	0	SLV 13	-13608	5768	737884	14067	53423	0	14067	2.5	15.708	1.0337	Si
2596 Prosp.A	Orizzontale	24.6	100	Non necessaria	0	SLV 4	14240	-21971	-792613	14867	56657	0	14867	2.5	10.053	1.044	Si
2634 Prosp.A	Orizzontale	24.3	100	Non necessaria	0	SLV 13	-14624	-10250	1009306	15279	54428	0	15279	2.5	15.708	1.0448	Si

Verifiche a taglio SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrzd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
3678 Prosp.A	Orizzontale	24.3	100	Non necessaria	0	SLD 15	-7819	1593	22103	13856	53141	0	13856	2.5	15.116	1.7721	Si
3426 Prosp.A	Orizzontale	24.6	100	Non necessaria	0	SLD 4	6993	-9906	-87802	13383	55122	0	13383	2.5	10.053	1.9138	Si
3678 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 15	-6885	781	-192476	13283	57364	0	13283	2.5	12.064	1.9292	Si
2634 Prosp.A	Orizzontale	24.4	100	Non necessaria	0	SLD 4	7973	-21265	-545226	15866	56105	0	15866	2.5	13.195	1.9901	Si
2596 Prosp.A	Orizzontale	24.6	100	Non necessaria	0	SLD 4	7221	-18814	-404218	14479	56255	0	14479	2.5	10.053	2.0051	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
462 Prosp.A	Orizzontale	SLE QP 4	39336	-41530	No	-10.5	112.1	15	10.6474	Si
428 Prosp.A	Orizzontale	SLE QP 4	29052	-41650	No	-10.2	112.1	15	10.9467	Si
454 Prosp.A	Orizzontale	SLE QP 4	45439	-41597	No	-10.2	112.1	15	10.9976	Si
419 Prosp.A	Orizzontale	SLE QP 4	24707	-41961	No	-10.2	112.1	15	11.0202	Si
418 Prosp.A	Orizzontale	SLE QP 4	23052	-42061	No	-10.1	112.1	15	11.0528	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
150 Prosp.A	Orizzontale	SLE RA 1	2894	-36960	No	-119.7	3600	15	30.0869	Si
231 Prosp.A	Orizzontale	SLE RA 1	9552	-36675	No	-116	3600	15	31.0261	Si
232 Prosp.A	Orizzontale	SLE RA 1	8844	-36304	No	-115.1	3600	15	31.2873	Si
418 Prosp.A	Orizzontale	SLE RA 1	18552	-35668	No	-113.3	3600	15	31.7721	Si
419 Prosp.A	Orizzontale	SLE RA 1	19593	-35602	No	-112.7	3600	15	31.9342	Si

Verifica diametro massimo D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Spessore	Φ	Φ max	Verifica
2110 Prosp.A	Orizzontale	30	2	3	Si
2509 Prosp.A	Orizzontale	30	2	3	Si
2507 Prosp.A	Orizzontale	30	2	3	Si
2498 Prosp.A	Orizzontale	30	2	3	Si
2497 Prosp.A	Orizzontale	30	2	3	Si

Verifica passo massimo per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Passo	Passo max.	Verifica
2110 Prosp.A	Orizzontale	20	30	Si

TABULATO DI CALCOLO – FABBRICATO B

Descrizione	Dir.	Passo	Passo max.	Verifica
2780 Prosp.A	Orizzontale	20	30	Si
2736 Prosp.A	Orizzontale	20	30	Si
2731 Prosp.A	Verticale	20	30	Si
2731 Prosp.A	Orizzontale	20	30	Si

Verifica area minima per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Ac	As,eff	As,min	% min	Verifica
421 Prosp.A	Verticale	4000	19.35	8	0.2	Si
426 Prosp.A	Verticale	4000	20.11	8	0.2	Si
481 Prosp.A	Verticale	4000	20.11	8	0.2	Si
932 Prosp.A	Verticale	4000	20.11	8	0.2	Si
473 Prosp.A	Verticale	4000	20.11	8	0.2	Si

Verifiche generali

Verifica del nucleo N1

Nucleo a comportamento dissipativo con zona critica inferiore, altezza critica pari a 285 e cerniera plastica a quota 0.

Posizione delle sezioni di verifica

Indice sezione	Quota	Tipo
1	0	Fondazione (estradosso);Si
2	285	Primo Impalcato (intradosso);Si
3	310	Primo Impalcato (estradosso);Si
4	595	Secondo Impalcato (intradosso);Si
5	620	Secondo Impalcato (estradosso);Si
6	905	Terzo Impalcato (intradosso);Si
7	930	Terzo Impalcato (estradosso);Si
8	1215	Quarto Impalcato (intradosso);Si
9	1240	Quarto Impalcato (estradosso);Si
10	1525	Quinto Impalcato (intradosso);Si
11	1550	Quinto Impalcato (estradosso);Si
12	1815	

Ritegni all'instabilità

Quota ritegno	Tipo	β
0	Fondazione (estradosso);Si	Automatico
297.5	Primo Impalcato (metà spessore);Si	Automatico
607.5	Secondo Impalcato (metà spessore);Si	Automatico
917.5	Terzo Impalcato (metà spessore);Si	Automatico
1227.5	Quarto Impalcato (metà spessore);Si	Automatico
1537.5	Quinto Impalcato (metà spessore);Si	Automatico
1847.5	Sesto Impalcato - Copertura (metà spessore);Si	Automatico

Verifiche a flessione SLU D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLU 16	-202343	-2262253	-14667	-163982	-157040	-1755753	11.18	Si
1	0	SLV 16	-4166773	-7589268	3147337	5732490	135488	246776	1.821	Si
2	285	SLU 16	228553	2768324	-215118	-2605598	-144955	-1755753	12.112	Si
2	285	SLV 16	-4166773	-8569989	3147337	6473269	94135	193611	2.057	Si
3	310	SLU 16	-575682	-7960544	52760	729565	-126971	-1755753	13.828	Si
3	310	SLV 16	-4166773	-8165363	3113665	6101653	112265	219999	1.96	Si
4	595	SLU 16	285326	4386907	74052	1138556	-115198	-1771184	15.375	Si
4	595	SLV 16	-4166773	-10613501	2729801	6953281	61691	157138	2.547	Si
5	620	SLU 15	-358479	-4917917	-71671	-983243	-96658	-1326034	13.719	Si
5	620	SLV 16	-4166773	-44559310	3106910	3325037	82156	87924	1.07	Si
6	905	SLU 15	208975	2813215	-96320	-1296652	-87544	-1178516	13.462	Si
6	905	SLV 16	-4166773	-5406274	2421168	3141399	21780	28260	1.297	Si
7	930	SLU 15	-487585	-8003495	107036	1756942	-71797	-1178516	16.415	Si
7	930	SLV 16	-4166773	-5119549	2451229	3011728	34527	42422	1.229	Si
8	1215	SLU 15	151078	2678319	-110512	-1959167	-63482	-1125410	17.728	Si
8	1215	SLV 4	-2549420	-3275529	-2664103	-3422876	-60620	-77885	1.285	Si
9	1240	SLU 15	-455631	-9377157	136376	2806693	-47805	-983855	20.581	Si
9	1240	SLV 4	-2501721	-3213693	-2616699	-3361393	-55224	-70940	1.285	Si
10	1525	SLU 16	230890	6348879	-123807	-3404370	-36810	-1012192	27.497	Si
10	1525	SLV 4	-1957954	-2615191	-2197911	-2935694	-18036	-24090	1.336	Si
11	1550	SLU 15	-389008	-10994496	163481	4620460	-23902	-675549	28.263	Si
11	1550	SLV 4	-1910256	-2540891	-2145245	-2853457	-11588	-15414	1.33	Si
12	1815	SLU 15	-137974	-4031287	-190614	-5569308	-17605	-514391	29.218	Si
12	1815	SLV 13	1255478	2589981	1173049	2419935	-13424	-27692	2.063	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 16	-2268990	-11425552	1591480	8013934	15636	78736	5.036	Si
2	285	SLD 1	2741549	24190229	177787	1568714	-198985	-1755753	8.824	Si
3	310	SLD 1	2409232	21391950	-434667	-3859476	-189343	-1681206	8.879	Si
4	595	SLD 1	2004443	18920625	804825	7597017	-151485	-1429918	9.439	Si
5	620	SLD 1	1856696	14812139	-334703	-2670154	-142402	-1136037	7.978	Si
6	905	SLD 15	-1839006	-8797722	-895746	-4285211	-18438	-88206	4.784	Si
7	930	SLD 12	-3016896	-34971537	251384	2914019	-21447	-248616	11.592	Si
8	1215	SLD 13	-822881	-3643791	-917931	-4064678	-34071	-150867	4.428	Si
9	1240	SLD 12	-1917113	-28505977	237280	3528170	-18932	-281498	14.869	Si
10	1525	SLD 13	-460174	-3745683	-594065	-4835515	-30225	-246022	8.14	Si
11	1550	SLD 11	-988654	-23542768	177882	4235889	-13759	-327653	23.813	Si
12	1815	SLD 15	-108064	-1895354	-356028	-6244452	-10901	-191196	17.539	Si

Verifica massima forza normale di compressione D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Ac	Comb.	NEd	NRd	fcd	c.s.	Verifica
1	0	10000	SLV 1	-352365	564400	141	1.602	Si
2	285	10000	SLV 1	-294236	564400	141	1.918	Si
3	310	10000	SLV 1	-287455	564400	141	1.963	Si
4	595	10000	SLV 1	-220598	564400	141	2.558	Si
5	620	7500	SLV 1	-215311	423300	141	1.966	Si
6	905	7500	SLV 1	-141954	423300	141	2.982	Si
7	930	7500	SLV 1	-132430	423300	141	3.196	Si
8	1215	7500	SLV 1	-74033	423300	141	5.718	Si
9	1240	7500	SLV 1	-65095	423300	141	6.503	Si
10	1525	7500	SLV 9	-35249	423300	141	12.009	Si
11	1550	7500	SLV 9	-18962	423300	141	22.324	Si
12	1815	7500	SLV 9	-13831	423300	141	30.606	Si

Verifiche a taglio non dissipativa SLU D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	245	40	0.2	SLU 16	225	-157040	202343	48037	302200	294919	294919	1.7	0	1312.096	Si
2	285	245	40	0.2	SLU 16	1908	-144955	-228553	46261	316697	312267	312267	1.5	0	163.701	Si
3	310	245	40	0.2	SLU 16	2321	-126971	575682	43617	308973	295786	295786	1.55	0	127.46	Si
4	595	245	40	0.3	SLU 16	2897	-115198	-285326	41886	318336	310879	310879	1.4	0	107.315	Si
5	620	245	30	0.2	SLU 14	1338	-88830	277693	31772	239259	228996	228996	1.4	0	171.164	Si
6	905	243.8	30	0.2	SLU 16	2008	-86892	-204958	31343	248788	238188	238188	1.15	0	118.603	Si
7	930	243.8	30	0.2	SLU 16	2514	-70547	532845	28953	241596	237325	237325	1.25	0	94.392	Si
8	1215	243.8	30	0.2	SLU 16	1571	-61740	-152462	27665	243323	238188	238188	1.15	0	151.571	Si
9	1240	243.8	30	0.2	SLU 15	2935	-47805	455631	25627	238669	227832	227832	1.2	0	77.632	Si
10	1525	243.8	30	0.2	SLU 16	1428	-36810	-230890	24019	239147	227832	227832	1.1	0	159.555	Si
11	1550	243.8	30	0.2	SLU 15	947	-23902	389008	22131	233511	227832	227832	1.2	0	240.508	Si
12	1815	243.8	30	0.2	SLU 15	947	-17605	137974	21210	230265	227106	227106	1.25	0	239.741	Si

Verifiche a taglio non dissipativa SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	162.4	40	0.2	SLD 15	18141	15268	2134835	37670	185410	184022	184022	1.6	119.381	10.144	Si
2	285	245	40	0.2	SLD 4	21776	-181178	-9658	51585	324069	312267	312267	1.5	0	14.34	Si
3	310	169.1	40	0.2	SLD 16	27288	14154	3065277	37811	198258	197604	197604	1.5	113.097	7.241	Si
4	595	245	40	0.3	SLD 4	16197	-136690	-63391	45046	322819	310879	310879	1.4	0	19.194	Si
5	620	168.6	30	0.2	SLD 16	25971	9247	2324157	28308	153586	151935	151935	1.35	84.823	5.85	Si
6	905	194	30	0.2	SLD 16	-15869	-18215	1868633	26065	187138	181364	181364	1.1	40.841	11.429	Si
7	930	169.3	30	0.2	SLD 16	24955	-6358	2460202	25433	159561	158246	158246	1.2	56.549	6.341	Si
8	1215	243.8	30	0.2	SLD 4	14753	-51879	-1064056	26222	241181	238188	238188	1.15	0	16.145	Si
9	1240	189.9	30	0.2	SLD 16	19435	-14960	1791237	24640	180375	177455	177455	1.2	37.196	9.131	Si
10	1525	243.8	30	0.2	SLD 4	9101	-22004	-793909	21853	235914	227832	227832	1.1	0	25.035	Si
11	1550	215.3	30	0.2	SLD 12	5404	-13692	1005180	22923	204260	201192	201192	1.2	23.75	37.229	Si
12	1815	243.8	30	0.2	SLD 12	4270	-8920	-308041	19940	228406	227106	227106	1.25	0	53.191	Si

Verifiche a taglio dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	d	lw	z	bw	ph	pv	Comb.	VEd	NEd	MEd	αs	Vrd,c	Vrcd	VRd	Sx [7.4.16]	Dx [7.4.16]	cotg(θ)	Zona dissipativa	c.s.	Verifica
10	1525	243.8	250	200	30	0.008	0.0095	SLV 8	7694	-16979	-587619	1.509	21118	215046	215046	188823	240027	1	No	1.271	Si
12	1815	192.7	250	200	30	0.0071	0.011	SLV 8	5184	-6486	-816222	1.251	24848	212947	212947	165635	264466	1	No	1.597	Si

Verifiche a taglio dissipativa con αs ≥ 2 D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	z	bw	Asw/s	Comb.	VEd	NEd	MEd	αcp	αs	Vrcd	Vrsd	VRd	cotg(θ)	Zona dissipativa	c.s.	Verifica
1	0	250	200	40	0.2	SLV 16	71939	135488	4166773	13.55	3.941	112880	157353	112880	1	Si	1.569	Si
2	285	250	200	40	0.2	SLV 15	-60615	93464	4959120	9.35	7.982	112880	188823	112880	1	Si	1.862	Si
3	310	250	200	40	0.2	SLV 16	78277	112265	5580292	11.23	169.016	282200	173088	173088	1	No	2.211	Si
4	595	250	200	40	0.3	SLV 1	53354	-220598	-4558750	-22.06	58.583	326320	201412	201412	1	No	3.775	Si
5	620	250	200	30	0.2	SLV 16	75266	82156	4962025	10.95	4.511	211650	148361	148361	1	No	1.971	Si
6	905	250	200	30	0.2	SLV 4	58842	-122554	-2629221	-16.34	5.041	236161	188823	188823	1	No	3.209	Si
7	930	250	200	30	0.2	SLV 16	71452	34527	4747296	4.6	3.987	211650	173088	173088	1	No	2.422	Si
8	1215	250	200	30	0.2	SLV 1	43956	-74033	-3849601	-9.87	2.422	226457	188823	188823	1	No	4.296	Si
9	1240	250	200	30	0.2	SLV 16	55141	1188	4563202	0.16	2.83	211650	173088	173088	1	No	3.139	Si
11	1550	250	200	30	0.2	SLV 1	-36851	-13549	-4456741	-1.81	3.84	214360	173088	173088	1	No	4.697	Si

Verifica a scorrimento dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	bw	ξ	z	Σ(Asi*cosΦi)	ΣAsj	Tozzo	Comb.	VEd	NEd	MEd	VRds	Vdd	Vfd	Vid	μf	η	c.s.	Verifica
1	0	250	40	0	200	0	160.22	No	SLV 16	71939	135488	4166773	154769	154769	0	0	0.6	0.5402	2.1514	Si

Verifiche ad instabilità deviata SLU EN1992-1-1:2008 §5.8.8

Indice sezione	Quota	Quota ritegno inf.	Quota ritegno sup.	ΔH	βx	λx	βy	λy
1	0	0	297.5	297.5	1	25.764	1	4.122
2	285	0	297.5	297.5	1	25.764	1	4.122
3	310	297.5	607.5	310	1	26.847	1	4.295
4	595	297.5	607.5	310	1	26.847	1	4.295
5	620	607.5	917.5	310	1	35.796	1	4.295
6	905	607.5	917.5	310	1	35.796	1	4.295
7	930	917.5	1227.5	310	1	35.796	1	4.295
8	1215	917.5	1227.5	310	1	35.796	1	4.295
9	1240	1227.5	1537.5	310	1	35.796	1	4.295
10	1525	1227.5	1537.5	310	1	35.796	1	4.295
11	1550	1537.5	1847.5	310	1	35.796	1	4.295
12	1815	1537.5	1847.5	310	1	35.796	1	4.295

indice sezione	Quota	Comb.	λ _{lim,x}	λ _{lim,y}	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLU 16	74.937	74.937	-14667	-170399	0	-170399	-1905104	202343	202343	0	202343	2262253	-157040	-1755753	11.18	Si
1	0	SLV 1	50.027	50.027	-3165721	-3515149	0	-3515149	-10820619	-4012191	-4012191	0	-4012191	-12350651	-352365	-1084679	3.078	Si
2	285	SLU 16	77.999	77.999	-215118	-358865	0	-358865	-4259087	-228553	-228553	0	-228553	-2712513	-144955	-1720356	11.868	Si
2	285	SLV 1	54.746	54.746	475330	767113	0	767113	4219781	-5073064	-5073064	0	-5073064	-27906211	-294236	-1618549	5.501	Si
3	310	SLU 16	83.34	83.34	52760	183963	0	183963	2543843	575682	575682	0	575682	7960544	-126971	-1755753	13.828	Si
3	310	SLV 1	55.388	55.388	-875412	-1172449	0	-1172449	-6057726	-4924247	-4924247	0	-4924247	-25442260	-287455	-1485200	5.167	Si
4	595	SLU 16	87.494	87.494	74052	193090	0	193090	2968779	-285326	-285326	0	-285326	-4386907	-115198	-1771184	15.375	Si
4	595	SLV 1	63.227	63.227	1513764	1741716	0	1741716	9462872	-3646450	-3646450	0	-3646450	-19811437	-220598	-1198526	5.433	Si
5	620	SLU 15	82.721	82.721	-71671	-171551	0	-171551	-2178993	358479	358479	0	358479	4553306	-96658	-1227723	12.702	Si
5	620	SLV 1	55.424	55.424	-602414	-824902	0	-824902	-3757229	-3772946	-3772946	0	-3772946	-17184853	-215311	-980689	4.555	Si
6	905	SLU 16	87.246	87.246	-113190	-202978	0	-202978	-2606006	-204958	-204958	0	-204958	-2631425	-86892	-1115596	12.839	Si
6	905	SLV 2	68.361	68.361	1621549	1767796	0	1767796	5704936	-4071581	-4071581	0	-4071581	-13139583	-141529	-456736	3.227	Si
7	930	SLU 15	95.98	95.98	107036	181226	0	181226	2783447	487585	487585	0	487585	7488819	-71797	-1102730	15.359	Si
7	930	SLV 5	80.708	80.708	-298909	-403832	0	-403832	-2861028	-4782278	-4782278	0	-4782278	-33880972	-101538	-719368	7.085	Si
8	1215	SLU 15	102.073	102.073	-110512	-176110	0	-176110	-2983119	-151078	-151078	0	-151078	-2559101	-63482	-1075315	16.939	Si
8	1215	SLV 13	161.591	161.591	-1750227	-1776401	0	-1776401	-3118962	1764478	1764478	0	1764478	3098027	-25330	-44473	1.756	Si
9	1240	SLU 15	117.624	117.624	136376	185774	0	185774	3491584	455631	455631	0	455631	8563483	-47805	-898484	18.795	Si
9	1240	SLV 12	303.522	303.522	368069	375488	0	375488	2723315	3394492	3394492	0	3394492	24619384	-7179	-52070	7.253	Si
10	1525	SLU 16	134.045	134.045	-123807	-161848	0	-161848	-4078227	-230890	-230890	0	-230890	-5818071	-36810	-927566	25.199	Si
10	1525	SLV 13	139.081	139.081	-1115888	-1151220	0	-1151220	-3713073	1055687	1055687	0	1055687	3404948	-34193	-110283	3.225	Si
11	1550	SLU 15	166.347	166.347	163481	188180	0	188180	4894024	389008	389008	0	389008	10116959	-23902	-621630	26.007	Si
11	1550	SLV 11	228.864	228.864	252478	265526	0	265526	3747761	1655133	1655133	0	1655133	23361354	-12627	-178228	14.114	Si
12	1815	SLU 15	193.825	193.825	-190614	-208806	0	-208806	-5755438	137974	137974	0	137974	3789835	-17605	-483582	27.468	Si
12	1815	SLV 2	276.789	276.789	408613	471534	0	471534	2764626	115331	115331	0	115331	735090	-8633	-56373	6.53	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	Quota ritengo inf.	Quota ritengo sup.	ΔH	βx	αx	βy	αy
3	310	297.5	607.5	310	1	26.847	1	4.295
4	595	297.5	607.5	310	1	26.847	1	4.295
5	620	607.5	917.5	310	1	35.796	1	4.295
6	905	607.5	917.5	310	1	35.796	1	4.295
7	930	917.5	1227.5	310	1	35.796	1	4.295
8	1215	917.5	1227.5	310	1	35.796	1	4.295
9	1240	1227.5	1537.5	310	1	35.796	1	4.295
10	1525	1227.5	1537.5	310	1	35.796	1	4.295
11	1550	1537.5	1847.5	310	1	35.796	1	4.295
12	1815	1537.5	1847.5	310	1	35.796	1	4.295

Indice sezione	Quota	Comb.	λ,lim,x	λ,lim,y	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 1	61.586	61.586	-1609864	-1840439	0	-1840439	-9713228	-2114407	-2114407	0	-2114407	-11159145	-232513	-1227125	5.278	Si
2	285	SLD 1	66.572	66.572	177787	375113	0	375113	3234715	-2741549	-2741549	0	-2741549	-23641206	-198985	-1715904	8.623	Si
3	310	SLD 1	68.246	68.246	-434667	-630321	0	-630321	-5290048	-2409232	-2409232	0	-2409232	-20219770	-189343	-1589084	8.393	Si
4	595	SLD 1	76.299	76.299	804825	961359	0	961359	8492357	-2004443	-2004443	0	-2004443	-17706645	-151485	-1338172	8.834	Si
5	620	SLD 1	68.152	68.152	-334703	-481851	0	-481851	-3513333	-1856696	-1856696	0	-1856696	-13537767	-142402	-1038297	7.291	Si
6	905	SLD 15	189.399	189.399	-895746	-914799	0	-914799	-4275552	1839006	1839006	0	1839006	8595076	-18438	-86174	4.674	Si
7	930	SLD 12	175.609	175.609	251384	273547	0	273547	3060185	3016896	3016896	0	3016896	33750239	-21447	-239934	11.187	Si
8	1215	SLD 13	139.33	139.33	-917931	-953137	0	-953137	-4005460	822881	822881	0	822881	3458075	-34071	-143178	4.202	Si
9	1240	SLD 12	186.913	186.913	237280	256843	0	256843	3642875	1917113	1917113	0	1917113	27190970	-18932	-268512	14.183	Si
10	1525	SLD 13	147.928	147.928	-594065	-625297	0	-625297	-4705816	460174	460174	0	460174	3463144	-30225	-227465	7.526	Si
11	1550	SLD 11	219.247	219.247	177882	192100	0	192100	4351996	988654	988654	0	988654	22397826	-13759	-311718	22.655	Si
12	1815	SLD 13	236.358	236.358	-339705	-351939	0	-351939	-5940079	379953	379953	0	379953	6412916	-11839	-199827	16.878	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 8	-139792	-11076	-117036	No	-9.9	149.4	15	15.122	Si
1	0	SLE QP 4	-77291	-9192	-108438	No	-9	112.1	15	12.382	Si
2	285	SLE RA 8	174215	-153938	-107952	No	-10.8	149.4	15	13.817	Si
2	285	SLE QP 4	194734	-126123	-100050	No	-9.9	112.1	15	11.325	Si
3	310	SLE RA 8	-414038	33540	-94555	No	-8.7	149.4	15	17.227	Si
3	310	SLE QP 4	-328022	21334	-87595	No	-7.8	112.1	15	14.317	Si
4	595	SLE RA 7	216566	75842	-85396	No	-8	149.4	15	18.69	Si
4	595	SLE QP 4	221881	78476	-79453	No	-7.6	112.1	15	14.812	Si
5	620	SLE RA 8	-287588	-54626	-71796	No	-10.1	149.4	15	14.82	Si
5	620	SLE QP 4	-233730	-54348	-66577	No	-9.3	112.1	15	11.987	Si
6	905	SLE RA 8	153734	-76392	-64608	No	-9.6	149.4	15	15.627	Si
6	905	SLE QP 4	163000	-51016	-60087	No	-8.5	112.1	15	13.187	Si
7	930	SLE RA 8	-385732	78279	-52488	No	-8.7	149.4	15	17.17	Si
7	930	SLE QP 4	-318810	59997	-48951	No	-7.7	112.1	15	14.522	Si
8	1215	SLE RA 8	113723	-87033	-45886	No	-7.5	149.4	15	20.009	Si
8	1215	SLE QP 4	120588	-58775	-42975	No	-6.5	112.1	15	17.193	Si
9	1240	SLE RA 7	-332317	95306	-35398	No	-7.4	149.4	15	20.243	Si
9	1240	SLE QP 4	-299943	81008	-31954	No	-6.5	112.1	15	17.117	Si
10	1525	SLE RA 8	170251	-83441	-27353	No	-5.4	149.4	15	27.432	Si
10	1525	SLE QP 4	166867	-53457	-26114	No	-4.6	112.1	15	24.26	Si
11	1550	SLE RA 7	-285014	114252	-17541	No	-5.5	149.4	15	26.981	Si
11	1550	SLE QP 4	-264074	90798	-15002	No	-4.6	112.1	15	24.192	Si
12	1815	SLE RA 7	-104977	-133738	-12697	No	-5	149.4	15	29.707	Si
12	1815	SLE QP 4	-115600	-97790	-10158	No	-3.9	112.1	15	28.78	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 1	-36724	-9733	-92565	No	-109.2	3600	15	32.967	Si
2	285	SLE RA 1	163852	-78942	-84863	No	-88.1	3600	15	40.84	Si
3	310	SLE RA 1	-226873	-12247	-74312	No	-82.1	3600	15	43.848	Si
4	595	SLE RA 1	169723	102302	-66814	No	-64	3600	15	56.245	Si
5	620	SLE RA 1	-177362	-61994	-55963	No	-67.9	3600	15	52.981	Si
6	905	SLE RA 1	128211	-6989	-50095	No	-78.9	3600	15	45.629	Si
7	930	SLE RA 4	-324369	41354	-45975	No	-58.5	3600	15	61.516	Si
8	1215	SLE RA 4	80804	-50933	-39601	No	-56.5	3600	15	63.757	Si
9	1240	SLE RA 8	-357304	99383	-33838	No	-24.6	3600	15	146.117	Si
10	1525	SLE RA 8	170251	-83441	-27353	No	-24.1	3600	15	149.519	Si
11	1550	SLE RA 8	-307532	107084	-15176	No	7	3600	15	514.444	Si
12	1815	SLE RA 7	-104977	-133738	-12697	No	10.4	3600	15	344.926	Si

Verifiche SLE fessurazione

Il nucleo non presenta apertura delle fessure.

Verifica minima armatura diffusa D.M. 17-01-18 §7.4.6.2.4

Indice sezione	Quota	Ac	As	As/Ac	As/Ac,min	Comb.	NEd	MEd,x	MEd,y	εc	εc,lim	c.s.	Verifica
1	0	4000	72.3	0	0	SLV 1	-352365	4012191	-3165721	-0.0006	-0.002	1000000	Si
2	285	4000	72.3	0	0	SLV 1	-294236	5073064	475330	-0.0003	-0.002	1000000	Si
3	310	4000	72.3	0	0	SLV 1	-287455	4924247	-875412	-0.0003	-0.002	1000000	Si
4	595	4000	72.6	0	0	SLV 1	-220598	3646450	1513764	-0.0003	-0.002	1000000	Si
5	620	3000	53.4	0	0	SLV 1	-215311	3772946	-602414	-0.0004	-0.002	1000000	Si
6	905	3000	34.6	0	0	SLV 1	-141954	4128093	1607449	-0.0006	-0.002	1000000	Si
7	930	3000	34.6	0	0	SLV 1	-132430	3836960	-176134	-0.0002	-0.002	1000000	Si
8	1215	3000	28.9	0	0	SLV 1	-74033	2744349	1452897	-0.0006	-0.002	1000000	Si
9	1240	3000	28.9	0	0	SLV 1	-65095	2612620	192780	-0.0001	-0.002	1000000	Si
10	1525	3000	28.9	0	0	SLV 1	-22525	1352295	937759	-0.0003	-0.002	1000000	Si
11	1550	3000	28.9	0	0	SLV 1	-13549	1319816	48589	-0.0001	-0.002	1000000	Si
12	1815	3000	34.5	0	0	SLV 1	-8694	-129672	399112	-0.0001	-0.002	1000000	Si

Parete n.3

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 fck 300

Livelli significativi

Descrizione breve	Descrizione	Quota	Spessore
L1	Fondazione	0	120
L2	Primo Impalcato	330	25
L3	Secondo Impalcato	640	25
L4	Terzo Impalcato	950	25
L5	Quarto Impalcato	1260	25
L6	Quinto Impalcato	1570	25
L7	Sesto Impalcato - Copertura	1880	25

Verifiche nei nodi

Sezioni rettangolari

Descrizione	Dir.	Base	Altezza	As,sup	As,inf	c,sup	c,inf
2441 Prosp.A	Orizzontale	100	30	15.71	10.05	5.6	5.4
288 Prosp.A	Orizzontale	100	40	15.71	15.71	5.6	5.6
1725 Prosp.A	Orizzontale	100	30	15.71	15.71	5.6	5.6
1380 Prosp.A	Orizzontale	100	40	15.71	13.01	5.6	15.6
1716 Prosp.A	Orizzontale	100	30	15.71	15.71	5.6	5.6
3524 Prosp.A	Orizzontale	100	30	15.71	13.19	5.73	5.6
2434 Prosp.A	Orizzontale	100	30	15.71	9.85	5.6	5.4
1753 Prosp.A	Orizzontale	100	30	15.71	18.85	5.73	5.71
212 Prosp.A	Orizzontale	100	40	14.16	14.99	5.6	5.6
403 Prosp.A	Orizzontale	100	40	14.65	15.71	5.6	5.6
213 Prosp.A	Orizzontale	100	40	18.04	21.05	5.55	7.61
136 Prosp.A	Orizzontale	100	40	21.99	25.13	5.47	7.04

Verifiche a flessione SLU D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
2441 Prosp.A	Orizzontale	SLV 3	-935939	-8726	-1042214	-9717	1.1135	Si
288 Prosp.A	Orizzontale	SLV 3	-870769	52787	-1040596	63083	1.195	Si
1725 Prosp.A	Orizzontale	SLV 4	757362	38178	911309	45938	1.2033	Si
1380 Prosp.A	Orizzontale	SLV 4	-431115	35670	-520631	43077	1.2076	Si
1716 Prosp.A	Orizzontale	SLV 4	726709	40455	880692	49027	1.2119	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
3524 Prosp.A	Orizzontale	SLD 4	-474857	-1640	-1219620	-4211	2.5684	Si
2441 Prosp.A	Orizzontale	SLD 3	-491674	-13763	-1302950	-36472	2.65	Si
2434 Prosp.A	Orizzontale	SLD 3	-358482	-6195	-1121164	-19374	3.1275	Si
3524 Prosp.A	Orizzontale	SLD 4	516467	-8667	1620182	-27188	3.137	Si
1716 Prosp.A	Orizzontale	SLD 4	356407	7964	1118483	24994	3.1382	Si

Verifiche a taglio SLU D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
2400 Prosp.A	Orizzontale	24.3	86.4	Non necessaria	0	SLV 2	12332	4976	453235	12735	45932	0	12735	2.5	15.708	1.0327	Si
1369 Prosp.A	Orizzontale	29	100	Non necessaria	0	SLV 2	-17708	4057	-724159	18433	63479	0	18433	2.5	28.232	1.0409	Si
1784 Prosp.A	Orizzontale	24.4	100	Non necessaria	0	SLV 3	12500	2301	-536214	14067	53423	0	14067	2.5	15.708	1.1254	Si
1716 Prosp.A	Orizzontale	24.4	100	Non necessaria	0	SLV 2	12487	20986	721723	14067	53423	0	14067	2.5	15.708	1.1265	Si
1625 Prosp.A	Verticale	26.2	9.6	Non necessaria	0	SLV 13	1843	12079	-35990	2077	5497	0	2077	2.5	10.053	1.1271	Si

Verifiche a taglio SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
3524 Prosp.A	Orizzontale	24.4	100	Non necessaria	0	SLD 4	7631	-1576	-474616	13464	53620	0	13464	2.5	13.195	1.7644	Si
3871 Prosp.A	Orizzontale	24.3	100	Non necessaria	0	SLD 4	7144	-3575	86612	13602	53590	0	13602	2.5	12.975	1.9039	Si
1369 Prosp.A	Orizzontale	29	100	Non necessaria	0	SLD 4	-9385	837	-365111	18433	63479	0	18433	2.5	28.232	1.9641	Si
3679 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLD 4	7787	-1911	-36670	15457	53821	0	15457	2.5	19.833	1.9848	Si
3679 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 4	6616	697	175660	13283	57364	0	13283	2.5	12.064	2.0077	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
3524 Prosp.A	Orizzontale	SLE QP 4	223294	-5961	No	-14.6	112.1	15	7.6766	Si
3524 Prosp.A	Orizzontale	SLE QP 4	-223743	-1189	No	-13	112.1	15	8.5975	Si
3524 Prosp.A	Orizzontale	SLE RA 8	256350	-6402	No	-16.6	149.4	15	8.9858	Si
1753 Prosp.A	Orizzontale	SLE QP 4	-55705	-27334	No	-11.1	112.1	15	10.1065	Si
3524 Prosp.A	Orizzontale	SLE RA 8	-255109	-946	No	-14.7	149.4	15	10.1339	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
3524 Prosp.A	Orizzontale	SLE RA 8	-255109	-946	No	137	3600	15	26.2757	Si
212 Prosp.A	Orizzontale	SLE RA 1	-12878	-36095	No	-117.1	3600	15	30.7513	Si
403 Prosp.A	Orizzontale	SLE RA 1	6983	-34588	No	-114.6	3600	15	31.401	Si
213 Prosp.A	Orizzontale	SLE RA 1	-11163	-36029	No	-114	3600	15	31.5721	Si
136 Prosp.A	Orizzontale	SLE RA 1	-5448	-36351	No	-113.8	3600	15	31.639	Si

Verifica diametro massimo D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Spessore	Φ	Φ max	Verifica
3953 Prosp.A	Orizzontale	30	2	3	Si
2652 Prosp.A	Orizzontale	30	2	3	Si
2651 Prosp.A	Orizzontale	30	2	3	Si
2650 Prosp.A	Orizzontale	30	2	3	Si
2649 Prosp.A	Orizzontale	30	2	3	Si

Verifica passo massimo per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Passo	Passo max.	Verifica
136 Prosp.A	Orizzontale	20	30	Si
2651 Prosp.A	Orizzontale	20	30	Si
2651 Prosp.A	Verticale	20	30	Si
2652 Prosp.A	Orizzontale	20	30	Si
2652 Prosp.A	Verticale	20	30	Si

Verifica area minima per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Ac	As,eff	As,min	% min	Verifica
214 Prosp.A	Verticale	4000	18.42	8	0.2	Si
197 Prosp.A	Verticale	3895.35	18.1	7.79	0.2	Si
198 Prosp.A	Verticale	4000	18.74	8	0.2	Si
213 Prosp.A	Verticale	4000	18.78	8	0.2	Si
195 Prosp.A	Verticale	3850.14	18.1	7.7	0.2	Si

Verifiche generali**Verifica del nucleo N1**

Nucleo a comportamento dissipativo con zona critica inferiore, altezza critica pari a 285 e cerniera plastica a quota 0.

Posizione delle sezioni di verifica

Indice sezione	Quota	Tipo
1	0	Fondazione (estradosso);Si
2	285	Primo Impalcato (intradosso);Si
3	310	Primo Impalcato (estradosso);Si
4	595	Secondo Impalcato (intradosso);Si
5	620	Secondo Impalcato (estradosso);Si
6	905	Terzo Impalcato (intradosso);Si
7	930	Terzo Impalcato (estradosso);Si
8	1215	Quarto Impalcato (intradosso);Si
9	1240	Quarto Impalcato (estradosso);Si
10	1525	Quinto Impalcato (intradosso);Si
11	1550	Quinto Impalcato (estradosso);Si
12	1815	

Ritegni all'instabilità

Quota ritegno	Tipo	β
0	Fondazione (estradosso);Si	Automatico
297.5	Primo Impalcato (metà spessore);Si	Automatico
607.5	Secondo Impalcato (metà spessore);Si	Automatico
917.5	Terzo Impalcato (metà spessore);Si	Automatico
1227.5	Quarto Impalcato (metà spessore);Si	Automatico
1537.5	Quinto Impalcato (metà spessore);Si	Automatico
1847.5	Sesto Impalcato - Copertura (metà spessore);Si	Automatico

Verifiche a flessione SLU D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLU 16	-139845	-1589106	-31762	-360924	-154510	-1755753	11.363	Si
1	0	SLV 3	-3472981	-6470091	-3176144	-5917091	138536	258089	1.863	Si
2	285	SLU 16	219289	2666209	173374	2107950	-144406	-1755753	12.158	Si
2	285	SLV 3	-3472981	-6839003	-3176144	-6254472	119352	235028	1.969	Si
3	310	SLU 16	-613485	-8491969	-101638	-1406893	-126841	-1755753	13.842	Si
3	310	SLV 3	-3472981	-6764066	-3141483	-6118431	125551	244526	1.948	Si
4	595	SLU 16	332506	5135444	-17513	-270490	-114959	-1775505	15.445	Si
4	595	SLV 3	-3472981	-8484003	-2746339	-6708919	83695	204456	2.443	Si
5	620	SLU 15	-436594	-5794954	132585	1759814	-97286	-1291290	13.273	Si
5	620	SLV 3	-3472981	-3795662	-3162626	-3456471	90190	98569	1.093	Si
6	905	SLU 15	275237	3691666	137921	1849892	-87866	-1178516	13.413	Si
6	905	SLV 3	-3472981	-4371052	-2518862	-3170209	40466	50930	1.259	Si
7	930	SLU 15	-590784	-9529695	-51838	-836174	-73061	-1178516	16.131	Si
7	930	SLV 3	-3472981	-4412845	-2486429	-3159311	40911	51983	1.271	Si
8	1215	SLU 15	299020	4648823	192207	2988218	-63437	-986243	15.547	Si
8	1215	SLV 4	-3223142	-4629601	-1892143	-2703440	-2872	-4125	1.436	Si
9	1240	SLU 15	-553362	-12670964	-41900	-959430	-49148	-1125410	22.898	Si
9	1240	SLV 4	-3223142	-4543965	-1871828	-2638891	1986	2800	1.41	Si
10	1525	SLU 16	273678	6855242	137091	3433921	-36657	-918214	25.049	Si
10	1525	SLV 14	2804857	6401601	1682755	3840597	-23229	-53016	2.282	Si
11	1550	SLU 15	-345214	-11431232	-137970	-4568652	-23911	-791772	33.113	Si
11	1550	SLV 4	-3223142	-7006823	-1353638	-2942689	-15831	-34416	2.174	Si
12	1815	SLU 15	-127977	-4397776	196427	6750010	-17614	-605286	34.364	Si
12	1815	SLV 14	2666338	5784576	1243143	2696977	-9001	-19527	2.169	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 3	-1895608	-9618611	-1618383	-8211930	18076	91719	5.074	Si
2	285	SLD 14	-159238	-1325906	11485	95632	-210861	-1755753	8.327	Si
3	310	SLD 13	568921	4842400	627528	5341232	-195453	-1663607	8.512	Si
4	595	SLD 14	-1402512	-13547725	-638212	-6164879	-162014	-1564990	9.66	Si
5	620	SLD 15	-2313942	-15880537	652092	4475291	-131540	-902756	6.863	Si
6	905	SLD 3	1539265	7960059	727121	3760186	-8833	-45680	5.171	Si
7	930	SLD 15	-1564970	-16090273	394375	4054776	-84708	-870927	10.282	Si
8	1215	SLD 3	1517493	8808036	751952	4364582	-22340	-129670	5.804	Si
9	1240	SLD 15	-1074927	-19674472	188385	3448017	-43854	-802670	18.303	Si
10	1525	SLD 4	523353	5342835	541004	5523025	-27429	-280014	10.209	Si
11	1550	SLD 2	153179	4710321	-193836	-5960554	-16646	-511883	30.751	Si
12	1815	SLD 4	72093	715615	363204	3605251	-10755	-106754	9.926	Si

Verifica massima forza normale di compressione D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Ac	Comb.	NEd	NRd	fcd	c.s.	Verifica
1	0	10000	SLV 14	-351871	564400	141	1.604	Si
2	285	10000	SLV 14	-318348	564400	141	1.773	Si
3	310	10000	SLV 14	-300340	564400	141	1.879	Si
4	595	10000	SLV 14	-241897	564400	141	2.333	Si
5	620	7500	SLV 14	-224017	423300	141	1.89	Si
6	905	7500	SLV 14	-160878	423300	141	2.631	Si
7	930	7500	SLV 14	-140360	423300	141	3.016	Si
8	1215	7500	SLV 14	-83178	423300	141	5.089	Si
9	1240	7500	SLV 14	-67841	423300	141	6.24	Si
10	1525	7500	SLV 6	-33853	423300	141	12.504	Si
11	1550	7500	SLV 6	-19774	423300	141	21.407	Si
12	1815	7500	SLV 6	-13585	423300	141	31.159	Si

Verifiche a taglio non dissipativa SLU D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrzd	Vrzd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	245	40	0.2	SLU 16	-1079	-154510	139845	47665	301713	294919	294919	1.7	0	273.45	Si
2	285	245	40	0.2	SLU 16	2618	-144406	-219289	46180	316585	312267	312267	1.5	0	119.286	Si
3	310	245	40	0.2	SLU 16	2428	-126841	613485	43598	308947	295786	295786	1.55	0	121.802	Si
4	595	245	40	0.3	SLU 16	3112	-114959	-332506	41851	318286	310879	310879	1.4	0	99.895	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
5	620	245	30	0.2	SLU 16	1355	-97230	483078	33007	238154	237174	237174	1.45	0	175.057	Si
6	905	243.8	30	0.2	SLU 16	2544	-87314	-258173	31405	248879	238188	238188	1.15	0	93.618	Si
7	930	243.8	30	0.2	SLU 16	2758	-71900	647267	29151	241885	237325	237325	1.25	0	86.048	Si
8	1215	243.8	30	0.2	SLU 15	2691	-63437	-299020	27913	243692	238188	238188	1.15	0	88.505	Si
9	1240	243.8	30	0.2	SLU 16	2646	-46830	603064	25484	238458	227832	227832	1.2	0	86.112	Si
10	1525	243.8	30	0.2	SLU 16	2406	-36657	-273678	23996	239114	227832	227832	1.1	0	94.704	Si
11	1550	243.8	30	0.2	SLU 15	820	-23911	345214	22132	233513	227832	227832	1.2	0	277.924	Si
12	1815	243.8	30	0.2	SLU 15	820	-17614	127977	21211	230266	227106	227106	1.25	0	277.038	Si

Verifiche a taglio non dissipativa SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	228.4	40	0.2	SLD 6	-11172	-105096	-7273852	48401	276301	266874	266874	1.65	50.265	23.888	Si
2	285	125	40	0.2	SLD 3	18467	11865	-546925	30905	150157	148698	148698	1.4	160.221	8.052	Si
3	310	125	40	0.2	SLD 4	-5047	20664	1281470	30905	146527	146043	146043	1.5	160.221	28.934	Si
4	595	181.5	40	0.3	SLD 3	29562	3812	-1926219	38106	222810	213887	213887	1.3	103.226	7.235	Si
5	620	125.2	30	0.2	SLD 4	-14188	12866	8681	23211	114073	112847	112847	1.35	122.522	7.953	Si
6	905	179.2	30	0.2	SLD 3	26969	-8833	-1539265	25526	171339	167512	167512	1.1	50.265	6.211	Si
7	930	243.8	30	0.2	SLD 15	13939	-84708	1564970	31024	244627	237325	237325	1.25	0	17.026	Si
8	1215	219	30	0.2	SLD 3	23653	-22340	-1517493	23670	211997	204671	204671	1.1	21.74	8.653	Si
9	1240	243.8	30	0.2	SLD 14	13808	-50751	783466	26057	237359	237325	237325	1.25	0	17.188	Si
10	1525	243.8	30	0.2	SLD 3	15032	-27351	-528963	22635	237082	227832	227832	1.1	0	15.157	Si
11	1550	243.8	30	0.2	SLD 11	3787	-12664	570614	20487	231086	227832	227832	1.2	6.283	60.167	Si
12	1815	243.8	30	0.2	SLD 11	2860	-8346	-363128	19856	228283	227106	227106	1.25	0	79.407	Si

Verifiche a taglio dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	d	lw	z	bw	ph	pv	Comb.	VEd	NEd	MEd	as	Vrd,c	Vrcd	VRd	Sx [7.4.16]	Dx [7.4.16]	cotg(θ)	Zona dissipativa	c.s.	Verifica
8	1215	166.3	250	200	30	0.008	0.0095	SLV 3	44497	-2625	-2779477	1.526	23744	212175	212175	188823	225673	1	No	1.195	Si
10	1525	243.8	250	200	30	0.008	0.0095	SLV 11	10626	-18144	-695358	1.182	21289	215279	215279	188823	241191	1	No	1.277	Si

Verifiche a taglio dissipativa con as≥2 D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	z	bw	Asw/s	Comb.	VEd	NEd	MEd	ocp	as	Vrcd	Vrsd	VRd	cotg(θ)	Zona dissipativa	c.s.	Verifica
1	0	250	200	40	0.2	SLV 6	-31259	-99729	-13623258	-9.97	13.722	120858	157353	120858	1	Si	3.866	Si
2	285	250	200	40	0.2	SLV 3	57253	119352	-4532968	11.94	2.503	112880	188823	112880	1	Si	1.972	Si
3	310	250	200	40	0.2	SLV 15	37243	-266225	5294808	-26.62	26.037	335445	173088	173088	1	No	4.648	Si
4	595	250	200	40	0.3	SLV 3	87524	83695	-4222764	8.37	16259.419	282200	201412	201412	1	No	2.301	Si
5	620	250	200	30	0.2	SLV 15	50584	-195356	5455479	-26.05	5.501	250721	148361	148361	1	No	2.933	Si
6	905	250	200	30	0.2	SLV 3	79599	40466	-3670196	5.4	3.402	211650	188823	188823	1	No	2.372	Si
7	930	250	200	30	0.2	SLV 15	40651	-119319	5243549	-15.91	3.205	235514	173088	173088	1	No	4.258	Si
9	1240	250	200	30	0.2	SLV 14	43117	-67841	3500752	-9.05	3.211	225218	173088	173088	1	No	4.014	Si
11	1550	250	200	30	0.2	SLV 15	25618	-11712	4921968	-1.56	20.812	213992	173088	173088	1	No	6.756	Si
12	1815	250	200	30	0.2	SLV 15	21560	-7284	-969496	-0.97	2.445	213107	165635	165635	1	No	7.683	Si

Verifica a scorrimento dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	bw	ξ	z	Σ(Asi*cosΦi)	ΣAsj	Tozzo	Comb.	VEd	NEd	MEd	VRds	Vdd	Vfd	Vid	μf	η	c.s.	Verifica
1	0	250	40	0	200	0	160.22	No	SLV 2	-27996	101639	-4702077	154769	154769	0	0	0.6	0.5402	5.5283	Si

Verifiche ad instabilità deviata SLU EN1992-1-1:2008 §5.8.8

Indice sezione	Quota	Quota ritegno inf.	Quota ritegno sup.	ΔH	βx	αx	βy	αy
1	0	0	297.5	297.5	1	25.764	1	4.122
2	285	0	297.5	297.5	1	25.764	1	4.122
3	310	297.5	607.5	310	1	26.847	1	4.295
4	595	297.5	607.5	310	1	26.847	1	4.295
5	620	607.5	917.5	310	1	35.796	1	4.295
6	905	607.5	917.5	310	1	35.796	1	4.295
7	930	917.5	1227.5	310	1	35.796	1	4.295
8	1215	917.5	1227.5	310	1	35.796	1	4.295
9	1240	1227.5	1537.5	310	1	35.796	1	4.295
10	1525	1227.5	1537.5	310	1	35.796	1	4.295
11	1550	1537.5	1847.5	310	1	35.796	1	4.295
12	1815	1537.5	1847.5	310	1	35.796	1	4.295

Indice sezione	Quota	Comb.	λ _{lim,x}	λ _{lim,y}	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLU 16	75.548	75.548	-31762	-184984	0	-184984	-2102045	139845	139845	0	139845	1589106	-154510	-1755753	11.363	Si
1	0	SLV 14	50.062	50.062	3142145	3491084	0	3491084	10983568	-3397142	-3397142	0	-3397142	-10688011	-351871	-1107049	3.146	Si
2	285	SLV 16	78.147	78.147	173374	316576	0	316576	3849071	-219289	-219289	0	-219289	-2666209	-144406	-1755753	12.158	Si
2	285	SLV 14	52.632	52.632	-76510	-392205	0	-392205	-2163088	646947	646947	0	646947	3568039	-318348	-1755753	5.515	Si
3	310	SLV 16	83.382	83.382	-101638	-232707	0	-232707	-3221170	613485	613485	0	613485	8491969	-126841	-1755753	13.842	Si
3	310	SLV 13	54.238	54.238	1284308	1594074	0	1594074	7801375	-1330779	-1330779	0	-1330779	-6512812	-299773	-1467084	4.894	Si
4	595	SLV 16	87.585	87.585	-17513	-136305	0	-136305	-2105178	-332506	-332506	0	-332506	-5135444	-114959	-1775505	15.445	Si
4	595	SLV 14	60.379	60.379	-1216941	-1466902	0	-1466902	-8180190	3112941	3112941	0	3112941	17359340	-241897	-1348943	5.577	Si
5	620	SLV 15	82.453	82.453	132585	233114	0	233114	2830887	436594	436594	0	436594	5301898	-97286	-1181423	12.144	Si
5	620	SLV 15	58.186	58.186	1189249	1391117	0	1391117	5325925	4194618	4194618	0	4194618	16059191	-195356	-747926	3.829	Si
6	905	SLV 16	87.035	87.035	146995	237220	0	237220	2983392	-258173	-258173	0	-258173	-3246914	-87314	-1098107	12.576	Si
6	905	SLV 14	64.119	64.119	-1187870	-1354111	0	-1354111	-5389599	2442516	2442516	0	2442516	9721643	-160878	-640322	3.98	Si
7	930	SLV 16	95.911	95.911	-66571	-140868	0	-140868	-2218635	647267	647267	0	647267	10194267	-71900	-1132412	15.75	Si
7	930	SLV 15	74.452	74.452	796762	920058	0	920058	5077473	2682606	2682606	0	2682606	14804347	-119319	-658480	5.519	Si
8	1215	SLV 15	102.109	102.109	192207	257759	0	257759	3669323	-299020	-299020	0	-299020	-4256701	-63437	-903055	14.235	Si
8	1215	SLV 3	501.936	501.936	1365634	1368347	0	1368347	3422513	-2779477	-2779477	0	-2779477	-6952034	-2625	-6566	2.501	Si
9	1240	SLV 15	116.006	116.006	-41900	-92687	0	-92687	-2110332	553362	553362	0	553362	12599191	-49148	-1119035	22.768	Si
9	1240	SLV 2	246.828	246.828	-409256	-420475	0	-420475	-3388036	-1037352	-1037352	0	-1037352	-8338880	-10856	-87269	8.039	Si
10	1525	SLV 16	134.324	134.324	137091	174970	0	174970	4007548	-273678	-273678	0	-273678	-6268385	-36657	-839608	22.904	Si
10	1525	SLV 13	169.282	169.282	-855365	-879215	0	-879215	-3617050	431217	431217	0	431217	1774009	-23081	-94953	4.114	Si
11	1550	SLV 15	166.317	166.317	-137970	-162678	0	-162678	-4925274	345214	345214	0	345214	10451804	-23911	-723933	30.276	Si
11	1550	SLV 2	190.154	190.154	-308350	-327251	0	-327251	-4790400	-530901	-530901	0	-530901	-7771476	-18292	-267760	14.638	Si
12	1815	SLV 15	193.778	193.778	196427	214628	0	214628	6754148	127977	127977	0	127977	4027298	-17614	-554296	31.469	Si
12	1815	SLV 4	241.115	241.115	615240	626996	0	626996	3125247	-231807	-231807	0	-231807	-11554328	-11377	-56707	4.984	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	Quota ritegno inf.	Quota ritegno sup.	ΔH	βx	λx	βy	λy
8	1215	1215	1227.5	310	1	35.796	1	4.295
9	1240	1227.5	1537.5	310	1	35.796	1	4.295
10	1525	1227.5	1537.5	310	1	35.796	1	4.295
11	1550	1537.5	1847.5	310	1	35.796	1	4.295
12	1815	1537.5	1847.5	310	1	35.796	1	4.295

Indice sezione	Quota	Comb.	λ,lim,x	λ,lim,y	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 14	61.732	61.732	1584384	1813867	0	1813867	9822067	-1819769	-1819769	0	-1819769	-9854028	-231411	-1253089	5.415	Si
2	285	SLD 14	64.67	64.67	11485	220589	0	220589	1836753	159238	159238	0	159238	1325906	-210861	-1755753	8.327	Si
3	310	SLD 13	67.171	67.171	627528	829496	0	829496	6653997	-568921	-568921	0	-568921	-4563737	-195453	-1567872	8.022	Si
4	595	SLD 14	73.778	73.778	-638212	-805626	0	-805626	-7286500	1402512	1402512	0	1402512	12685049	-162014	-1465336	9.045	Si
5	620	SLD 15	70.91	70.91	652092	788016	0	788016	4974841	2313942	2313942	0	2313942	14608196	-131540	-830428	6.313	Si
6	905	SLD 3	273.636	273.636	727121	736248	0	736248	3757552	-1539265	-1539265	0	-1539265	-7855867	-8833	-45082	5.104	Si
7	930	SLD 15	88.363	88.363	394375	481907	0	481907	4527068	1564970	1564970	0	1564970	14701450	-84708	-795753	9.394	Si
8	1215	SLD 3	172.064	172.064	751952	775037	0	775037	4345080	-1517493	-1517493	0	-1517493	-8507499	-22340	-125246	5.606	Si
9	1240	SLD 15	122.808	122.808	188385	233701	0	233701	3924349	1074927	1074927	0	1074927	18050389	-43854	-736411	16.792	Si
10	1525	SLD 4	155.286	155.286	541004	569347	0	569347	5445063	-523353	-523353	0	-523353	-5005197	-27429	-262319	9.564	Si
11	1550	SLD 2	199.331	199.331	-193836	-211037	0	-211037	-6008408	-153179	-153179	0	-153179	-4361126	-16646	-473935	28.471	Si
12	1815	SLD 4	247.991	247.991	363204	374317	0	374317	3565045	-72093	-72093	0	-72093	-686625	-10755	-102429	9.524	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 8	-93910	-22403	-115142	No	-9.8	149.4	15	15.288	Si
1	0	SLE QP 4	-37919	-17000	-106668	No	-8.9	112.1	15	12.556	Si
2	285	SLE RA 8	168447	124415	-107503	No	-10.3	149.4	15	14.514	Si
2	285	SLE QP 4	193844	106177	-99498	No	-9.5	112.1	15	11.803	Si
3	310	SLE RA 8	-441926	-68078	-94430	No	-9.2	149.4	15	16.206	Si
3	310	SLE QP 4	-356274	-44837	-87394	No	-8.2	112.1	15	13.608	Si
4	595	SLE RA 7	258446	-29991	-85110	No	-7.6	149.4	15	19.628	Si
4	595	SLE QP 4	261853	-35232	-79101	No	-7.2	112.1	15	15.567	Si
5	620	SLE RA 7	-319045	101446	-72337	No	-11.1	149.4	15	13.483	Si
5	620	SLE QP 4	-285052	97327	-66913	No	-10.3	112.1	15	10.879	Si
6	905	SLE RA 8	195429	102577	-64885	No	-10.1	149.4	15	14.75	Si
6	905	SLE QP 4	211114	81295	-60206	No	-9.2	112.1	15	12.219	Si
7	930	SLE RA 8	-467583	-41864	-53455	No	-8.3	149.4	15	17.897	Si
7	930	SLE QP 4	-386544	-20899	-49724	No	-7.2	112.1	15	15.495	Si
8	1215	SLE RA 7	222689	136194	-47002	No	-9.4	149.4	15	15.855	Si
8	1215	SLE QP 4	220082	116706	-42902	No	-8.5	112.1	15	13.227	Si
9	1240	SLE RA 8	-435756	-36779	-34829	No	-6	149.4	15	25.047	Si
9	1240	SLE QP 4	-364374	-15008	-32817	No	-5	112.1	15	22.194	Si
10	1525	SLE RA 8	202256	94496	-27237	No	-6	149.4	15	24.811	Si
10	1525	SLE QP 4	197622	69918	-25998	No	-5.3	112.1	15	21.176	Si
11	1550	SLE RA 7	-252427	-94982	-17546	No	-4.8	149.4	15	30.966	Si
11	1550	SLE QP 4	-236074	-72106	-15002	No	-4	112.1	15	28.19	Si
12	1815	SLE RA 7	-97401	137804	-12702	No	-4.5	149.4	15	33.485	Si
12	1815	SLE QP 4	-108008	100750	-10158	No	-3.4	112.1	15	32.51	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 1	-5105	-9211	-91017	No	-108.2	3600	15	33.279	Si
2	285	SLE RA 1	166911	66247	-84245	No	-90	3600	15	40.01	Si
3	310	SLE RA 1	-247020	-2394	-74022	No	-82.5	3600	15	43.658	Si
4	595	SLE RA 1	206372	-66352	-66372	No	-66.2	3600	15	54.348	Si
5	620	SLE RA 1	-209866	97920	-56092	No	-60.6	3600	15	59.416	Si
6	905	SLE RA 1	174849	34354	-50067	No	-72.7	3600	15	49.545	Si
7	930	SLE RA 1	-270538	18877	-41410	No	-57.1	3600	15	62.997	Si
8	1215	SLE RA 5	222225	106563	-41636	No	-41.6	3600	15	86.506	Si
9	1240	SLE RA 1	-252847	23028	-27067	No	-32.1	3600	15	112.168	Si
10	1525	SLE RA 8	202256	94496	-27237	No	-20.1	3600	15	178.985	Si
11	1550	SLE RA 8	-279816	-92298	-15181	No	3.6	3600	15	993.275	Si
12	1815	SLE RA 7	-97401	137804	-12702	No	14.9	3600	15	241.132	Si

Verifiche SLE fessurazione

Il nucleo non presenta apertura delle fessure.

Verifica minima armatura diffusa D.M. 17-01-18 §7.4.6.2.4

Indice sezione	Quota	Ac	As	As/Ac	As/Ac,min	Comb.	NEd	MEd,x	MEd,y	εc	εc,lim	c.s.	Verifica
1	0	4000	72.3	0	0	SLV 1	102275	4452238	-3162829	-0.0005	-0.002	1000000	Si
2	285	4000	72.3	0	0	SLV 1	85601	5606573	222797	-0.0001	-0.002	1000000	Si
3	310	4000	72.3	0	0	SLV 1	92003	2485623	-1398803	-0.0002	-0.002	1000000	Si
4	595	4000	73.7	0	0	SLV 1	54586	6611544	946915	-0.0003	-0.002	1000000	Si
5	620	3000	53.4	0	0	SLV 1	61991	3532480	-979100	-0.0004	-0.002	1000000	Si
6	905	3000	34.6	0	0	SLV 1	18929	4298911	1200431	-0.0006	-0.002	1000000	Si
7	930	3000	34.6	0	0	SLV 1	20229	1859317	-818948	-0.0003	-0.002	1000000	Si
8	1215	3000	28.9	0	0	SLV 1	-16304	2950589	1180918	-0.0005	-0.002	1000000	Si
9	1240	3000	28.9	0	0	SLV 1	-10635	1020727	-387080	-0.0002	-0.002	1000000	Si
10	1525	3000	28.9	0	0	SLV 1	-32538	464500	880194	-0.0003	-0.002	1000000	Si
11	1550	3000	28.9	0	0	SLV 1	-18231	523133	-294548	-0.0001	-0.002	1000000	Si
12	1815	3000	38.3	0	0	SLV 1	-12971	-285487	568406	-0.0002	-0.002	1000000	Si

Parete n.4

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Livelli significativi

Descrizione breve	Descrizione	Quota	Spessore
L1	Fondazione	0	120
L2	Primo Impalcato	330	25
L3	Secondo Impalcato	640	25

TABULATO DI CALCOLO – FABBRICATO B

Descrizione breve	Descrizione	Quota	Spessore
L4	Terzo Impalcato	950	25
L5	Quarto Impalcato	1260	25
L6	Quinto Impalcato	1570	25
L7	Sesto Impalcato - Copertura	1880	25

Verifiche nei nodi

Sezioni rettangolari

Descrizione	Dir.	Base	Altezza	As,sup	As,inf	c,sup	c,inf
819 Prosp.A	Orizzontale	50	40	26.7	21.99	7.71	6.11
3636 Prosp.A	Orizzontale	100	30	12.06	18.85	5.52	5.71
3522 Prosp.A	Orizzontale	100	30	12.06	18.85	5.52	5.71
3975 Prosp.A	Orizzontale	100	30	13.39	12.06	5.58	4.88
657 Prosp.A	Orizzontale	50	40	23.56	25.13	6.07	7.84
3931 Prosp.A	Orizzontale	100	30	13.39	12.06	5.58	4.88

Verifiche a flessione SLU D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
819 Prosp.A	Orizzontale	SLV 10	1060984	72575	1484367	101537	1.399	Si
3636 Prosp.A	Orizzontale	SLV 14	763921	2012	1071478	2823	1.4026	Si
3522 Prosp.A	Orizzontale	SLV 15	744157	2809	1059964	4002	1.4244	Si
3975 Prosp.A	Orizzontale	SLV 14	-826094	-4401	-1186935	-6323	1.4368	Si
657 Prosp.A	Orizzontale	SLV 11	957550	73604	1397533	107424	1.4595	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
3636 Prosp.A	Orizzontale	SLD 14	581496	1127	1078505	2091	1.8547	Si
3522 Prosp.A	Orizzontale	SLD 15	563169	1685	1067882	3195	1.8962	Si
3975 Prosp.A	Orizzontale	SLD 14	-622998	-3999	-1200610	-7706	1.9271	Si
3931 Prosp.A	Orizzontale	SLD 15	-596609	-3878	-1201671	-7811	2.0142	Si
819 Prosp.A	Orizzontale	SLD 10	838596	34641	1852036	76505	2.2085	Si

Verifiche a taglio SLU D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
2764 Prosp.A	Orizzontale	24.3	100	Non necessaria	0	SLV 14	-15291	-3330	-180981	15324	53607	0	15324	2.5	18.85	1.0022	Si
3020 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLV 14	-15086	3325	48378	15312	53605	0	15312	2.5	20.172	1.015	Si
3636 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLV 14	-12443	1906	762723	12901	53605	0	12901	2.5	12.064	1.0367	Si
2743 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 15	11912	-1101	343099	12644	57514	0	12644	2.5	10.053	1.0615	Si
3522 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLV 15	-12118	2750	743004	12901	53605	0	12901	2.5	12.064	1.0646	Si

Verifiche a taglio SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
3636 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLD 14	-9335	1065	581344	12901	53605	0	12901	2.5	12.064	1.382	Si
3020 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLD 14	-10961	687	44043	15312	53605	0	15312	2.5	20.172	1.397	Si
2764 Prosp.A	Orizzontale	24.3	100	Non necessaria	0	SLD 14	-11137	-5431	-122718	15579	53871	0	15579	2.5	18.85	1.3989	Si
3975 Prosp.A	Orizzontale	25.1	100	Non necessaria	0	SLD 14	-9482	-3924	-621535	13536	55503	0	13536	2.5	12.064	1.4275	Si
3522 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLD 15	-9034	1639	563037	12901	53605	0	12901	2.5	12.064	1.428	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.5.1

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
3975 Prosp.A	Orizzontale	SLE QP 4	-410045	-3576	Si	-43.5	112.1	15	2.5751	Si
3636 Prosp.A	Orizzontale	SLE QP 4	391732	69	Si	-42.6	112.1	15	2.6323	Si
3975 Prosp.A	Orizzontale	SLE RA 7	-534374	-4739	Si	-56.7	149.4	15	2.6345	Si
819 Prosp.A	Orizzontale	SLE QP 4	602884	-8539	Si	-42.1	112.1	15	2.6585	Si
3931 Prosp.A	Orizzontale	SLE QP 4	-385101	-3470	Si	-40.9	112.1	15	2.7416	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.5.2

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
3975 Prosp.A	Orizzontale	SLE RA 7	-534374	-4739	Si	1858	3600	15	1.9376	Si
3636 Prosp.A	Orizzontale	SLE RA 8	456542	374	Si	1780.8	3600	15	2.0215	Si
3931 Prosp.A	Orizzontale	SLE RA 7	-500949	-4601	Si	1735.2	3600	15	2.0747	Si
3636 Prosp.A	Orizzontale	SLE RA 8	-466538	-6272	Si	1016.9	3600	15	3.54	Si
819 Prosp.A	Orizzontale	SLE RA 8	748167	-9019	Si	953.3	3600	15	3.7763	Si

Verifiche SLE fessurazione D.M. 17-01-18 §4.1.2.2.4

Descrizione	Dir.	Comb.	Fessurazione non valutabile	MEd	NEd	Sezione fessurata	εsm	Δmax	Wd	Wlim	Es/Ec	c.s.	Verifica
3636 Prosp.A	Orizzontale	SLE QP 4		391732	69	Si	0.00044	32.7	0.0145	0.03	15	2.0751	Si
3975 Prosp.A	Orizzontale	SLE QP 4		-410045	-3576	Si	0.00042	28.4	0.0118	0.03	15	2.5414	Si
3636 Prosp.A	Orizzontale	SLE FR 4		410246	157	Si	0.00046	32.7	0.0152	0.04	15	2.6354	Si
3931 Prosp.A	Orizzontale	SLE QP 4		-385101	-3470	Si	0.00039	28.4	0.011	0.03	15	2.7167	Si
3975 Prosp.A	Orizzontale	SLE FR 4		-417527	-3595	Si	0.00042	28.4	0.012	0.04	15	3.3228	Si

Verifica diametro massimo D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Spessore	Φ	Φ max	Verifica
3237 Prosp.A	Orizzontale	30	2	3	Si
2894 Prosp.A	Orizzontale	30	2	3	Si
1679 Prosp.A	Orizzontale	30	2	3	Si
1677 Prosp.A	Orizzontale	30	2	3	Si
2907 Prosp.A	Orizzontale	30	2	3	Si

Verifica passo massimo per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Passo	Passo max.	Verifica
3528 Prosp.A	Verticale	30	30	Si
2832 Prosp.A	Verticale	30	30	Si

TABULATO DI CALCOLO – FABBRICATO B

Descrizione	Dir.	Passo	Passo max.	Verifica
2129 Prosp.A	Verticale	30	30	Si
1456 Prosp.A	Verticale	30	30	Si
2125 Prosp.A	Verticale	30	30	Si

Verifica area minima per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Ac	As,eff	As,min	% min	Verifica
1295 Prosp.A	Verticale	4000	20.11	8	0.2	Si
612 Prosp.A	Verticale	4000	20.11	8	0.2	Si
614 Prosp.A	Verticale	4000	20.11	8	0.2	Si
616 Prosp.A	Verticale	4000	20.11	8	0.2	Si
671 Prosp.A	Verticale	4000	20.11	8	0.2	Si

Verifiche generali

Verifica del nucleo N1

Nucleo a comportamento dissipativo con zona critica inferiore, altezza critica pari a 285 e cerniera plastica a quota 0.

Posizione delle sezioni di verifica

Indice sezione	Quota	Tipo
1	0	Fondazione (estradosso);Si
2	285	Primo Impalcato (intradosso);Si
3	310	Primo Impalcato (estradosso);Si
4	595	Secondo Impalcato (intradosso);Si
5	620	Secondo Impalcato (estradosso);Si
6	905	Terzo Impalcato (intradosso);Si
7	930	Terzo Impalcato (estradosso);Si
8	1215	Quarto Impalcato (intradosso);Si
9	1240	Quarto Impalcato (estradosso);Si
10	1525	Quinto Impalcato (intradosso);Si
11	1550	Quinto Impalcato (estradosso);Si
12	1835	Sesto Impalcato - Copertura (intradosso);Si

Ritegni all'instabilità

Quota ritegno	Tipo	β
0	Fondazione (estradosso);Si	Automatico
297.5	Primo Impalcato (metà spessore);Si	Automatico
607.5	Secondo Impalcato (metà spessore);Si	Automatico
917.5	Terzo Impalcato (metà spessore);Si	Automatico
1227.5	Quarto Impalcato (metà spessore);Si	Automatico
1537.5	Quinto Impalcato (metà spessore);Si	Automatico
1847.5	Sesto Impalcato - Copertura (metà spessore);Si	Automatico

Verifiche a flessione SLU D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLU 16	-3668664	-51989862	282342	4001160	-288626	-4090209	14.171	Si
1	0	SLV 7	-182719191	-387503110	-2086039	-4423984	-188035	-398776	2.121	Si
2	285	SLU 16	-4089598	-56149406	-1035810	-14221470	-268044	-3680190	13.73	Si
2	285	SLV 7	-182719191	-381811564	-2086039	-4359006	-172470	-360395	2.09	Si
3	310	SLU 16	-2747264	-39896793	1263594	18350390	-231017	-3354917	14.522	Si
3	310	SLV 7	-180245296	-374992149	-2063314	-4292631	-151864	-315947	2.08	Si
4	595	SLU 16	-3102577	-57838463	-628723	-11720698	-210195	-3918479	18.642	Si
4	595	SLV 7	-152042897	-394318609	-1804246	-4679256	-136026	-352780	2.593	Si
5	620	SLU 16	-3087484	-51679498	427914	7162592	-177719	-2974725	16.738	Si
5	620	SLV 14	48136273	83516593	5795227	10054738	-142710	-247602	1.735	Si
6	905	SLU 16	-2981666	-40011989	-837961	-11244881	-162102	-2175308	13.419	Si
6	905	SLV 14	39071175	83171551	4832914	10287916	-130742	-278314	2.129	Si
7	930	SLU 16	-1609967	-22701431	1130911	15946470	-127937	-1803983	14.101	Si
7	930	SLV 14	38275991	77278966	4885428	9863645	-102307	-206557	2.019	Si
8	1215	SLU 16	-1482563	-19176507	-1005500	-13005849	-112321	-1452836	12.935	Si
8	1215	SLV 14	29210893	49833092	3923034	6692604	-90356	-154145	1.706	Si
9	1240	SLU 16	-935908	-15645334	879165	14696767	-80791	-1350566	16.717	Si
9	1240	SLV 14	28415709	45410317	3963032	6333207	-64424	-102954	1.598	Si
10	1525	SLU 16	-665900	-10843023	-909750	-14813714	-65175	-1061262	16.283	Si
10	1525	SLV 14	19350611	41864651	3000952	6492499	-52410	-113387	2.163	Si
11	1550	SLU 16	-538805	-6395453	841164	9984355	-35101	-416635	11.87	Si
11	1550	SLV 14	18555427	37173987	3030728	6071769	-28522	-57141	2.003	Si
12	1835	SLU 15	-85706	-667916	-1041800	-8118822	-24216	-188717	7.793	Si
12	1835	SLV 14	9490329	28851493	2068457	6288303	-16546	-50303	3.04	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 11	-98039522	-438020901	1321013	5902019	-206425	-922264	4.468	Si
2	285	SLD 7	-77787121	-463529997	-580111	-3456856	-178332	-1062675	5.959	Si
3	310	SLD 11	-75098999	-436297882	1091447	6340909	-165422	-961041	5.81	Si
4	595	SLD 11	-53652482	-472485221	-539677	-4752609	-149321	-1314977	8.806	Si
5	620	SLD 11	-52130202	-337786394	452905	2934673	-126239	-817986	6.48	Si
6	905	SLD 11	-33770027	-298583496	-697489	-6166968	-114238	-1010052	8.842	Si
7	930	SLD 11	-31910316	-284909374	738760	6595978	-91848	-820060	8.928	Si
8	1215	SLD 15	-5893727	-58614255	-1282794	-12757632	-84273	-838109	9.945	Si
9	1240	SLD 11	-15893342	-191258676	533104	6415310	-58800	-707592	12.034	Si
10	1525	SLD 15	-2141845	-25560939	-1077609	-12860263	-49163	-586711	11.934	Si
11	1550	SLD 7	-4952783	-73042494	543657	8017727	-25924	-382320	14.748	Si
12	1835	SLD 13	-42043	-372961	-859165	-7621602	-15429	-136872	8.871	Si

Verifica massima forza normale di compressione D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Ac	Comb.	NEd	NRd	fcd	c.s.	Verifica
1	0	24800	SLV 13	-240867	1399712	141	5.811	Si
2	285	24800	SLV 13	-224145	1399712	141	6.245	Si
3	310	24800	SLV 13	-190830	1399712	141	7.335	Si
4	595	24800	SLV 13	-174257	1399712	141	8.032	Si
5	620	18600	SLV 13	-142731	1049784	141	7.355	Si
6	905	18600	SLV 13	-130764	1049784	141	8.028	Si
7	930	18600	SLV 13	-102324	1049784	141	10.259	Si
8	1215	18600	SLV 13	-90373	1049784	141	11.616	Si
9	1240	18600	SLV 13	-64436	1049784	141	16.292	Si
10	1525	18600	SLV 13	-52422	1049784	141	20.026	Si
11	1550	18600	SLV 13	-28528	1049784	141	36.799	Si
12	1835	18600	SLV 13	-16552	1049784	141	63.423	Si

Verifiche a taglio non dissipativa SLU D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrzd	Vrzd	VRd	cotg(θ)	Asl	c.s.	Verifica
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TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	615	40	0.2	SLU 16	-1477	-288626	3668664	98039	749453	718532	718532	1.65	0	486.494	Si
2	285	615	40	0.2	SLU 16	-1477	-268044	4089598	94977	745381	718532	718532	1.65	0	486.494	Si
3	310	615	40	0.2	SLU 16	-1247	-231017	2747264	89468	738055	718532	718532	1.65	0	576.341	Si
4	595	615	40	0.2	SLU 16	-1247	-210195	3102577	86370	744181	743209	743209	1.6	0	596.135	Si
5	620	615	30	0.2	SLU 16	371	-177719	3087484	67764	577297	559895	559895	1.5	0	1507.975	Si
6	905	615	30	0.2	SLU 16	371	-162102	2981666	65440	594928	587890	587890	1.35	0	1583.374	Si
7	930	615	30	0.2	SLU 16	447	-127937	1609967	60357	593742	566116	566116	1.3	0	1266.384	Si
8	1215	613.9	30	0.2	SLU 15	447	-113743	1237940	58149	589621	565101	565101	1.3	0	1263.323	Si
9	1240	613.9	30	0.2	SLU 16	947	-80791	935908	53255	582526	565101	565101	1.3	0	596.476	Si
10	1525	613.9	30	0.2	SLU 16	947	-65175	665900	50935	597163	565101	565101	1.3	0	596.476	Si
11	1550	613.9	30	0.2	SLU 16	1521	-35101	538805	46469	572687	565101	565101	1.3	0	371.654	Si
12	1835	613.9	30	0.2	SLU 16	1521	-19484	105462	44149	563467	547713	547713	1.35	0	360.219	Si

Verifiche a taglio non dissipativa SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	486.4	40	0.2	SLD 10	-76860	-206419	-95515978	104055	579874	568283	568283	1.65	179.071	7.394	Si
2	285	494.1	40	0.2	SLD 10	-76958	-190438	-74088592	102308	586499	577264	577264	1.65	172.788	7.501	Si
3	310	486.4	40	0.2	SLD 10	-79388	-165501	-73016516	99240	573471	568283	568283	1.65	179.071	7.158	Si
4	595	491.6	40	0.2	SLD 6	-77842	-140451	-50695838	97579	591610	575518	575518	1.55	183.211	7.393	Si
5	620	470.2	30	0.2	SLD 7	66711	-120350	52381458	74226	432311	428042	428042	1.5	147.655	6.416	Si
6	905	491.9	30	0.2	SLD 7	66154	-108331	33862246	72755	471519	452805	452805	1.3	131.947	6.845	Si
7	930	483.4	30	0.2	SLD 7	54094	-88111	31985496	70489	459947	444985	444985	1.3	138.23	8.226	Si
8	1215	493.2	30	0.2	SLD 7	52921	-76089	16883542	58100	467166	453981	453981	1.3	72.131	8.579	Si
9	1240	463.3	30	0.2	SLD 7	37758	-56792	15894497	56798	435733	426482	426482	1.3	87.588	11.295	Si
10	1525	600.5	30	0.2	SLD 7	36038	-44787	5372099	46967	562266	552804	552804	1.3	15.457	15.339	Si
11	1550	519.1	30	0.2	SLD 11	18587	-26608	5070660	50495	482720	477852	477852	1.3	58.685	25.709	Si
12	1835	613.9	30	0.2	SLD 11	16178	-14600	97554	43424	562426	547713	547713	1.35	0	33.855	Si

Verifiche a taglio dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	d	lw	z	bw	ph	pv	Comb.	VEd	NEd	MEd	as	Vrd,c	Vrcd	VRd	Sx [7.4.16]	Dx [7.4.16]	cotg(θ)	Zona dissipativa	c.s.	Verifica
2	285	470.6	620	496	40	0.005	0.0133	SLV 10	-217293	-196301	-179508206	1.998	102381	295646	295646	390235	1228929	1	Si	1.361	Si
3	310	526.2	620	496	40	0.005	0.0133	SLV 4	32342	-130975	31567614	1.585	94425	726051	674369	390235	1163603	1	No	2.982	Si
4	595	462.4	620	496	40	0.0054	0.0144	SLV 10	-219049	-153746	-149384904	1.165	98830	730605	553626	416251	1267846	1	No	2.527	Si
5	620	448	620	496	30	0.0057	0.0144	SLV 7	187004	-117443	149578327	1.364	73614	548381	501184	334487	953380	1	No	2.68	Si
6	905	563.9	620	496	30	0.0067	0.0144	SLV 4	27605	-91937	14429408	1.056	64816	543279	451016	390235	927874	1	No	2.378	Si
7	930	548.5	620	496	30	0.0067	0.0144	SLV 4	22165	-77756	13289397	1.177	65381	540443	495900	390235	913693	1	No	2.341	Si
8	1215	612.7	620	496	30	0.0067	0.009	SLV 4	21550	-65682	7215108	0.987	50924	538028	411857	390235	588094	1	No	1.507	Si
9	1240	587.7	620	496	30	0.0067	0.009	SLV 4	16643	-51243	6711294	1.002	46981	535141	413535	390235	573655	1	No	1.47	Si
10	1525	613.9	620	496	30	0.0067	0.009	SLV 4	15673	-39232	2123177	0.763	47082	532738	326216	390235	561643	1	No	1.439	Si
11	1550	613.9	620	496	30	0.0067	0.009	SLV 4	7119	-22027	1917172	0.854	44824	529697	357350	390235	546439	1	No	1.4	Si
12	1835	613.9	620	496	30	0.0063	0.0073	SLV 4	5762	-11978	65144	0.305	43034	527288	147279	364219	438407	1	No	1.204	Si

Verifiche a taglio dissipativa con as≥2 D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	z	bw	Asw/s	Comb.	VEd	NEd	MEd	σcp	as	Vrcd	Vrsd	VRd	cotg(θ)	Zona dissipativa	c.s.	Verifica
1	0	620	496	40	0.2	SLV 10	-217127	-212400	-179494057	-8.56	2.445	296934	390235	296934	1	Si	1.368	Si

Verifica a scorrimento dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	bw	ξ	z	Σ(Asi*cosΦi)	ΣAsj	Tozzo	Comb.	VEd	NEd	MEd	VRds	Vdd	Vfd	Vid	μf	η	c.s.	Verifica
1	0	620	40	0.4	496	0	329.87	No	SLV 7	214636	-188035	182719191	654924	318642	336281	0	0.6	0.5402	3.0513	Si

Verifiche ad instabilità deviata SLU EN1992-1-1:2008 §5.8.8

Indice sezione	Quota	Quota ritengo inf.	Quota ritengo sup.	ΔH	βx	λx	βy	λy
1	0	0	297.5	297.5	1	25.764	1	1.662
2	285	0	297.5	297.5	1	25.764	1	1.662
3	310	297.5	607.5	310	1	26.847	1	1.732
4	595	297.5	607.5	310	1	26.847	1	1.732
5	620	607.5	917.5	310	1	35.796	1	1.732
6	905	607.5	917.5	310	1	35.796	1	1.732
7	930	917.5	1227.5	310	1	35.796	1	1.732
8	1215	917.5	1227.5	310	1	35.796	1	1.732
9	1240	1227.5	1537.5	310	1	35.796	1	1.732
10	1525	1227.5	1537.5	310	1	35.796	1	1.732
11	1550	1537.5	1847.5	310	1	35.796	1	1.732
12	1835	1537.5	1847.5	310	1	35.796	1	1.732

Indice sezione	Quota	Comb.	λ _{lim,x}	λ _{lim,y}	M _{xEd}	M _{0Ed,x}	M _{2,x}	M _{Ed,tot,x}	M _{Rd,x}	M _{yEd}	M _{0Ed,y}	M _{2,y}	M _{Ed,tot,y}	M _{Rd,y}	N _{Ed}	N _{Rd}	c.s.	Verifica
1	0	SLU 16	87.049	87.049	282342	568562	0	568562	8057284	3668664	3668664	0	3668664	51989862	-288626	-4090209	14.171	Si
1	0	SLV 7	107.848	107.848	-2086039	-2272507	0	-2272507	-4791471	182719191	182719191	0	182719191	385254525	-188035	-396462	2.108	Si
2	285	SLU 16	90.329	90.329	-1035810	-1301620	0	-1301620	-16857803	4089598	4089598	0	4089598	52966040	-268044	-3471543	12.951	Si
2	285	SLV 7	112.609	112.609	-541427	-712460	0	-712460	-2042131	143259540	143259540	0	143259540	410626331	-172470	-494353	2.866	Si
3	310	SLU 16	97.299	97.299	1263594	1502312	0	1502312	20541961	2747264	2747264	0	2747264	37564889	-231017	-3158828	13.674	Si
3	310	SLV 11	113.493	113.493	1420557	1596011	0	1596011	4590511	138748021	138748021	0	138748021	399072708	-169795	-488370	2.876	Si
4	595	SLU 16	102.004	102.004	-628723	-845925	0	-845925	-14831664	3102577	3102577	0	3102577	54397712	-210195	-3685373	17.533	Si
4	595	SLV 11	119.316	119.316	-710474	-869219	0	-869219	-3874910	98666656	98666656	0	98666656	439847948	-153625	-684847	4.458	Si
5	620	SLU 16	96.071	96.071	427914	611557	0	611557	9415062	3087484	3087484	0	3087484	47532550	-177719	-2736022	15.395	Si
5	620	SLV 11	112.749	112.749	654595	787926	0	787926	2536430	95939169	95939169	0	95939169	308839686	-129031	-415365	3.219	Si
6	905	SLU 16	100.592	100.592	-837961	-1005467	0	-1005467	-12432607	2981666	2981666	0	2981666	36868333	-162102	-2004399	12.365	Si
6	905	SLV 11	118.385	118.385	-893485	-1014424	0	-1014424	-4848792	62031998	62031998	0	62031998	296503477	-117038	-559424	4.78	Si
7	930	SLU 16	113.23	113.23	1130911	1263113	0	1263113	16556359	1609967	1609967	0	1609967	21102789	-127937	-1676946	13.108	Si
7	930	SLV 11	132.381	132.381	802747	899465	0	899465	4440888	59146433	59146433	0	59146433	292020875	-93599	-462121	4.937	Si
8	1215	SLU 16	120.845	120.845	-1005500	-1121565	0	-1121565	-13483407	1482563	1482563	0	1482563	17823301	-112321	-1350315	12.022	Si
8	1215	SLV 15	134.779	134.779	-1941658	-2034965	0	-2034965	-11100398	10540576	10540576	0	10540576	57497104	-90297	-492556	5.455	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	Comb.	λ _{lim,x}	λ _{lim,y}	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
9	1240	SLV 16	142.488	142.488	879165	962649	0	962649	14933392	935908	935908	0	935908	14518568	-80791	-1253299	15.513	Si
9	1240	SLV 11	165.716	165.716	533831	595551	0	595551	4016043	29819615	29819615	0	29819615	201085692	-59730	-402782	6.743	Si
10	1525	SLV 16	158.642	158.642	-909750	-977098	0	-977098	-15028071	665900	665900	0	665900	10241743	-65175	-1002412	15.38	Si
10	1525	SLV 15	176.967	176.967	-1598462	-1652584	0	-1652584	-11149789	3862457	3862457	0	3862457	26059540	-52376	-353376	6.747	Si
11	1550	SLV 16	216.173	216.173	841164	877435	0	877435	9764332	538805	538805	0	538805	5995973	-35101	-390610	11.128	Si
11	1550	SLV 7	253.197	253.197	549140	575579	0	575579	6517726	9446449	9446449	0	9446449	106969501	-25586	-289731	11.324	Si
12	1835	SLV 15	260.261	260.261	-1041800	-1066823	0	-1066823	-8064896	85706	85706	0	85706	647917	-24216	-183066	7.56	Si
12	1835	SLV 13	314.799	314.799	-1140210	-1157313	0	-1157313	-7300465	30228	30228	0	30228	190680	-16552	-104412	6.308	Si

Verifiche ad instabilità deviata SLD Resistenza EN1992-1-1:2008 §5.8.8

Indice sezione	Quota	Quota ritengo inf.	Quota ritengo sup.	ΔH	β _x	λ _x	β _y	λ _y
1	0	0	297.5	297.5	1	25.764	1	1.662
2	285	0	297.5	297.5	1	25.764	1	1.662
3	310	297.5	607.5	310	1	26.847	1	1.732
4	595	297.5	607.5	310	1	26.847	1	1.732
5	620	607.5	917.5	310	1	35.796	1	1.732
6	905	607.5	917.5	310	1	35.796	1	1.732
7	930	917.5	1227.5	310	1	35.796	1	1.732
8	1215	917.5	1227.5	310	1	35.796	1	1.732
9	1240	1227.5	1537.5	310	1	35.796	1	1.732
10	1525	1227.5	1537.5	310	1	35.796	1	1.732
11	1550	1537.5	1847.5	310	1	35.796	1	1.732
12	1835	1537.5	1847.5	310	1	35.796	1	1.732

Indice sezione	Quota	Comb.	λ _{lim,x}	λ _{lim,y}	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 11	102.932	102.932	1321013	1525717	0	1525717	6683376	98039522	98039522	0	98039522	429460414	-206425	-904239	4.38	Si
2	285	SLD 7	110.742	110.742	-580111	-756957	0	-756957	-4440908	77787121	77787121	0	77787121	456360424	-178332	-1046239	5.867	Si
3	310	SLD 11	114.983	114.983	1091447	1262383	0	1262383	7182612	75098999	75098999	0	75098999	427292729	-165422	-941205	5.69	Si
4	595	SLD 11	121.023	121.023	-539677	-693975	0	-693975	-5964498	53652482	53652482	0	53652482	461126565	-149321	-1283364	8.595	Si
5	620	SLD 11	113.989	113.989	452905	583352	0	583352	3673646	52130202	52130202	0	52130202	328288896	-126239	-794987	6.297	Si
6	905	SLD 11	119.827	119.827	-697489	-815534	0	-815534	-6917940	33770027	33770027	0	33770027	286461238	-114238	-969045	8.483	Si
7	930	SLD 11	133.636	133.636	738760	833670	0	833670	7150300	31910316	31910316	0	31910316	273691412	-91848	-787771	8.577	Si
8	1215	SLD 15	139.514	139.514	-1282794	-1369876	0	-1369876	-12741924	5893727	5893727	0	5893727	54820609	-84273	-783865	9.302	Si
9	1240	SLD 11	167.021	167.021	533104	593864	0	593864	6655087	15893342	15893342	0	15893342	178107485	-58800	-658937	11.206	Si
10	1525	SLD 15	182.659	182.659	-1077609	-1128410	0	-1128410	-12696287	2141845	2141845	0	2141845	24098932	-49163	-553153	11.251	Si
11	1550	SLD 7	251.541	251.541	543657	570445	0	570445	7962234	4952783	4952783	0	4952783	69130614	-25924	-361845	13.958	Si
12	1835	SLD 13	326.052	326.052	-859165	-875109	0	-875109	-7592273	42043	42043	0	42043	364757	-15429	-133861	8.676	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.5.1

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σ _c	σ _c limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 8	-2566706	203996	-215142	No	-9	149.4	15	16.623	Si
1	0	SLE QP 4	-1612567	170490	-200217	No	-8	112.1	15	13.941	Si
2	285	SLE RA 8	-2868943	-747694	-199310	No	-11	149.4	15	13.543	Si
2	285	SLE QP 4	-1849264	-620758	-184385	No	-9.6	112.1	15	11.635	Si
3	310	SLE RA 8	-1932037	908852	-172252	No	-10.6	149.4	15	14.047	Si
3	310	SLE QP 4	-1261978	754790	-160903	No	-9.3	112.1	15	12.009	Si
4	595	SLE RA 8	-2188794	-445304	-156235	No	-8	149.4	15	18.643	Si
4	595	SLE QP 4	-1478322	-363296	-144886	No	-7	112.1	15	15.945	Si
5	620	SLE RA 8	-2178557	304169	-132345	No	-9	149.4	15	16.573	Si
5	620	SLE QP 4	-1473542	246289	-123363	No	-7.9	112.1	15	14.256	Si
6	905	SLE RA 8	-2103747	-601533	-120333	No	-11.7	149.4	15	12.721	Si
6	905	SLE QP 4	-1414951	-494247	-111350	No	-10.1	112.1	15	11.09	Si
7	930	SLE RA 8	-1145442	813962	-95471	No	-11.4	149.4	15	13.15	Si
7	930	SLE QP 4	-808696	674233	-90040	No	-9.8	112.1	15	11.418	Si
8	1215	SLE RA 8	-1053130	-723915	-83458	No	-11.4	149.4	15	13.086	Si
8	1215	SLE QP 4	-734325	-606277	-78028	No	-9.9	112.1	15	11.322	Si
9	1240	SLE RA 8	-670867	633737	-60432	No	-8.8	149.4	15	16.898	Si
9	1240	SLE QP 4	-490709	533018	-57840	No	-7.7	112.1	15	14.513	Si
10	1525	SLE RA 8	-474981	-656127	-48420	No	-8.8	149.4	15	17.008	Si
10	1525	SLE QP 4	-328713	-543870	-45827	No	-7.5	112.1	15	14.874	Si
11	1550	SLE RA 7	-295081	623200	-29564	No	-7.2	149.4	15	20.829	Si
11	1550	SLE QP 4	-269688	539378	-26278	No	-6.2	112.1	15	17.94	Si
12	1835	SLE RA 7	-60845	-741861	-17552	No	-7.9	149.4	15	18.971	Si
12	1835	SLE QP 4	-47686	-568036	-14265	No	-6.1	112.1	15	18.458	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.5.2

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σ _f	σ _f limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 1	-906975	118264	-170439	No	-75.6	3600	15	47.598	Si
2	285	SLE RA 4	-2525769	-609995	-175928	No	-46.2	3600	15	77.944	Si
3	310	SLE RA 8	-1932037	908852	-172252	No	-31	3600	15	116.277	Si
4	595	SLE RA 4	-1918026	-313324	-137000	No	-42.9	3600	15	83.94	Si
5	620	SLE RA 4	-1908925	224378	-116828	No	-50.1	3600	15	71.787	Si
6	905	SLE RA 8	-2103747	-601533	-120333	No	-14.8	3600	15	243.266	Si
7	930	SLE RA 8	-1145442	813962	-95471	No	9.1	3600	15	394.606	Si
8	1215	SLE RA 8	-1053130	-723915	-83458	No	10.6	3600	15	339.652	Si
9	1240	SLE RA 8	-670867	633737	-60432	No	18	3600	15	200.166	Si
10	1525	SLE RA 8	-474981	-656127	-48420	No	25.4	3600	15	141.765	Si
11	1550	SLE RA 8	-385571	608395	-26410	No	38.7	3600	15	93.134	Si
12	1835	SLE RA 7	-60845	-741861	-17552	No	62.5	3600	15	57.565	Si

Verifiche SLE fessurazione

Il nucleo non presenta apertura delle fessure.

Verifica minima armatura diffusa D.M. 17-01-18 §7.4.6.2.4

Indice sezione	Quota	Ac	As	As/Ac	As/Ac,min	Comb.	NEd	MEd,x	MEd,y	ε _c	ε _c lim	c.s.	Verifica
1	0	4000	80.1	0	0	SLV 1	-159615	33540403	-7371786	-0.0006	-0.002	1000000	Si
2	285	4000	77	0	0	SLV 1	-144673	26336743	-336817	-0.0001	-0.002	1000000	Si
3	310	4000	77	0	0	SLV 1	-131063	26156164	-1424147	-0.0002	-0.002	1000000	Si
4	595	4000	81.5	0	0	SLV 1	-115595	18014737	709598	-0.0001	-0.002	1000000	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	Ac	As	As/Ac	As/Ac,min	Comb.	NEd	MEd,x	MEd,y	εc	εc,lim	c.s.	Verifica
5	620	3000	55	0	0	SLV 1	-104105	17440488	-1152869	-0.0002	-0.002	1000000	Si
6	905	3000	55	0	0	SLV 1	-92044	10986738	807178	-0.0001	-0.002	1000000	Si
7	930	3000	55	0	0	SLV 1	-77851	11169739	215987	-0.0001	-0.002	1000000	Si
8	1215	3000	29.3	0	0	SLV 1	-65775	5694518	728437	-0.0001	-0.002	1000000	Si
9	1240	3000	29.3	0	0	SLV 1	-51310	5720330	449248	-0.0001	-0.002	1000000	Si
10	1525	3000	29.3	0	0	SLV 1	-39290	2193111	511284	-0.0001	-0.002	1000000	Si
11	1550	3000	29.3	0	0	SLV 1	-24048	2149730	550184	-0.0001	-0.002	1000000	Si
12	1835	3000	25.9	0	0	SLV 1	-12000	6449	-2284	0	-0.002	1000000	Si

Pareten.1

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Livelli significativi

Descrizione breve	Descrizione	Quota	Spessore
L1	Fondazione	0	120
L2	Primo Impalcato	330	25
L3	Secondo Impalcato	640	25
L4	Terzo Impalcato	950	25
L5	Quarto Impalcato	1260	25
L6	Quinto Impalcato	1570	25
L7	Sesto Impalcato - Copertura	1880	25

Verifiche nei nodi

Sezioni rettangolari

Descrizione	Dir.	Base	Altezza	As,sup	As,inf	c,sup	c,inf
1596 Prosp.A	Orizzontale	100	30	28.23	17.76	5.35	6.55
818 Prosp.A	Orizzontale	50	40	21.99	26.7	6.11	7.71
3521 Prosp.A	Orizzontale	100	30	18.85	12.06	5.71	5.52
654 Prosp.A	Orizzontale	50	40	21.99	26.7	6.11	7.71
3930 Prosp.A	Orizzontale	100	30	12.06	13.39	4.88	5.58

Verifiche a flessione SLU D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
1596 Prosp.A	Orizzontale	SLV 8	-271013	78733	-374972	108935	1.3836	Si
818 Prosp.A	Orizzontale	SLV 5	-1077200	72589	-1495374	100769	1.3882	Si
3521 Prosp.A	Orizzontale	SLV 4	-756306	2555	-1063998	3595	1.4068	Si
654 Prosp.A	Orizzontale	SLV 8	-942265	75958	-1362352	109822	1.4458	Si
3930 Prosp.A	Orizzontale	SLV 4	811262	-4298	1186612	-6286	1.4627	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §4.1.2.3.4.2

Descrizione	Dir.	Comb.	MEd	NEd	MRd	NRd	c.s.	Verifica
3521 Prosp.A	Orizzontale	SLD 4	-570797	1611	-1069543	3019	1.8738	Si
3930 Prosp.A	Orizzontale	SLD 4	604900	-3891	1200822	-7725	1.9852	Si
818 Prosp.A	Orizzontale	SLD 5	-846803	34649	-1858729	76054	2.195	Si
654 Prosp.A	Orizzontale	SLD 8	-717552	36892	-1695531	87174	2.3629	Si
818 Prosp.A	Orizzontale	SLD 5	729245	26365	1826633	66041	2.5048	Si

Verifiche a taglio SLU D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrzd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
3910 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLU 15	12670	-2040	-385436	12767	57641	0	12767	2.5	10.053	1.0077	Si
2922 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 1	-12307	989	315130	12500	57364	0	12500	2.5	10.053	1.0157	Si
3718 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 1	-11552	979	367109	11736	57364	0	11736	2.5	8.042	1.0159	Si
2815 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 4	12116	1070	311418	12500	57364	0	12500	2.5	10.053	1.0317	Si
2763 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLV 1	12143	-1221	-350516	12660	57530	0	12660	2.5	10.053	1.0426	Si

Verifiche a taglio SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Descrizione	Dir.	d	bw	Armatura a taglio	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrzd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
3718 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 1	-8919	858	281573	11736	57364	0	11736	2.5	8.042	1.3158	Si
3910 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 1	9590	-1159	-286089	12652	57522	0	12652	2.5	10.053	1.3193	Si
3635 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 1	-8917	915	225366	12500	57364	0	12500	2.5	10.053	1.4019	Si
3521 Prosp.A	Orizzontale	24.5	100	Non necessaria	0	SLD 4	9115	1644	-570722	12901	53605	0	12901	2.5	12.064	1.4154	Si
2922 Prosp.A	Verticale	26.2	100	Non necessaria	0	SLD 1	-8816	751	224413	12500	57364	0	12500	2.5	10.053	1.4179	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
818 Prosp.A	Orizzontale	SLE QP 4	-601697	-8603	Si	-42.1	112.1	15	2.6624	Si
3930 Prosp.A	Orizzontale	SLE QP 4	388508	-3465	Si	-41.2	112.1	15	2.7177	Si
818 Prosp.A	Orizzontale	SLE QP 4	552450	-15319	Si	-40.2	112.1	15	2.784	Si
3930 Prosp.A	Orizzontale	SLE RA 7	505436	-4594	Si	-53.6	149.4	15	2.785	Si
818 Prosp.A	Orizzontale	SLE RA 8	-748228	-9143	Si	-51.9	149.4	15	2.8764	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Descrizione	Dir.	Comb.	MEd	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
3930 Prosp.A	Orizzontale	SLE RA 7	505436	-4594	Si	1752.7	3600	15	2.0539	Si
818 Prosp.A	Orizzontale	SLE RA 8	-748228	-9143	Si	951.1	3600	15	3.7852	Si
818 Prosp.A	Orizzontale	SLE RA 8	689033	-17531	Si	749.3	3600	15	4.8045	Si
3930 Prosp.A	Orizzontale	SLE RA 7	-180813	-1729	Si	565.9	3600	15	6.3612	Si
654 Prosp.A	Orizzontale	SLE RA 8	-554128	-7493	No	268	3600	15	13.4345	Si

Verifiche SLE fessurazione D.M. 17-01-18 §4.1.2.2.4

Descrizione	Dir.	Comb.	Fessurazione non valutabile	MEd	NEd	Sezione fessurata	εsm	Δmax	Wd	Wlim	Es/Ec	c.s.	Verifica
3930 Prosp.A	Orizzontale	SLE QP 4		388508	-3465	Si	0.00039	28.4	0.0112	0.03	15	2.6895	Si
3930 Prosp.A	Orizzontale	SLE FR 4		392243	-3466	Si	0.0004	28.4	0.0113	0.04	15	3.5478	Si
818 Prosp.A	Orizzontale	SLE QP 4		-601697	-8603	Si	0.00022	20.1	0.0043	0.03	15	6.9229	Si
3930 Prosp.A	Orizzontale	SLE QP 4		-138453	-1356	Si	0.00013	30	0.0038	0.03	15	7.9363	Si
818 Prosp.A	Orizzontale	SLE FR 4		-643563	-8757	Si	0.00023	20.1	0.0047	0.04	15	8.5266	Si

Verifica diametro massimo D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Spessore	Φ	Φ max	Verifica
2302 Prosp.A	Orizzontale	30	2	3	Si
2841 Prosp.A	Orizzontale	30	2	3	Si
1611 Prosp.A	Orizzontale	30	2	3	Si
1609 Prosp.A	Orizzontale	30	2	3	Si
2845 Prosp.A	Orizzontale	30	2	3	Si

Verifica passo massimo per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Passo	Passo max.	Verifica
2118 Prosp.A	Verticale	30	30	Si
1414 Prosp.A	Verticale	30	30	Si
3573 Prosp.A	Verticale	30	30	Si
702 Prosp.A	Verticale	30	30	Si
2112 Prosp.A	Verticale	30	30	Si

Verifica area minima per verifica di duttilità D.M. 17-01-18 §7.4.6.2.4

Descrizione	Dir.	Ac	As,eff	As,min	% min	Verifica
946 Prosp.A	Verticale	4000	20.11	8	0.2	Si
950 Prosp.A	Verticale	4000	20.11	8	0.2	Si
594 Prosp.A	Verticale	4000	20.11	8	0.2	Si
953 Prosp.A	Verticale	4000	20.11	8	0.2	Si
955 Prosp.A	Verticale	4000	20.11	8	0.2	Si

Verifiche generali**Verifica del nucleo N1**

Nucleo a comportamento dissipativo con zona critica inferiore, altezza critica pari a 285 e cerniera plastica a quota 0.

Posizione delle sezioni di verifica

Indice sezione	Quota	Tipo
1	0	Fondazione (estradosso);Si
2	285	Primo Impalcato (intradosso);Si
3	310	Primo Impalcato (estradosso);Si
4	595	Secondo Impalcato (intradosso);Si
5	620	Secondo Impalcato (estradosso);Si
6	905	Terzo Impalcato (intradosso);Si
7	930	Terzo Impalcato (estradosso);Si
8	1215	Quarto Impalcato (intradosso);Si
9	1240	Quarto Impalcato (estradosso);Si
10	1525	Quinto Impalcato (intradosso);Si
11	1550	Quinto Impalcato (estradosso);Si
12	1835	Sesto Impalcato - Copertura (intradosso);Si

Ritegni all'instabilità

Quota ritegno	Tipo	β
0	Fondazione (estradosso);Si	Automatico
297.5	Primo Impalcato (metà spessore);Si	Automatico
607.5	Secondo Impalcato (metà spessore);Si	Automatico
917.5	Terzo Impalcato (metà spessore);Si	Automatico
1227.5	Quarto Impalcato (metà spessore);Si	Automatico
1537.5	Quinto Impalcato (metà spessore);Si	Automatico
1847.5	Sesto Impalcato - Copertura (metà spessore);Si	Automatico

Verifiche a flessione SLU D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLU 16	-3973081	-56095365	-289416	-4086223	-289698	-4090209	14.119	Si
1	0	SLV 8	-186472402	-390313156	-2434831	-5096447	-212661	-445130	2.093	Si
2	285	SLU 16	-4291881	-58622260	1039513	14198575	-269116	-3675828	13.659	Si
2	285	SLV 8	-186472402	-385503182	-2434831	-5033642	-197387	-408067	2.067	Si
3	310	SLU 16	-2931355	-42521297	-1249942	-18131260	-232044	-3365963	14.506	Si
3	310	SLV 8	-183949268	-377135979	-2412638	-4946432	-170449	-349457	2.05	Si
4	595	SLU 16	-3336708	-60281554	719329	12995526	-211223	-3815988	18.066	Si
4	595	SLV 8	-155185541	-391311825	-2159630	-5445666	-154366	-389244	2.522	Si
5	620	SLU 16	-3186638	-54221365	-384310	-6539126	-178317	-3034097	17.015	Si
5	620	SLV 4	-54994731	-92500197	-5816056	-9782506	-142567	-239796	1.682	Si
6	905	SLU 16	-3075104	-43683091	718224	10202657	-162700	-2311225	14.205	Si
6	905	SLV 4	-44686977	-92051175	-4862342	-10015990	-131368	-270605	2.06	Si
7	930	SLU 16	-3052802	-46336647	-926133	-14057221	-133176	-2021402	15.178	Si
7	930	SLV 4	-43782788	-86228928	-4905546	-9661330	-105013	-206819	1.969	Si
8	1215	SLU 16	-2922840	-39704983	855776	11625192	-117560	-1596980	13.584	Si
8	1215	SLV 4	-33475033	-55714038	-3955533	-6583375	-93073	-154905	1.664	Si
9	1240	SLU 16	-2754151	-42194750	-890838	-13648015	-87369	-1338522	15.32	Si
9	1240	SLV 4	-32570844	-50949584	-3995788	-6250490	-67307	-105287	1.564	Si
10	1525	SLU 16	-2534173	-36793131	950812	13804637	-71752	-1041756	14.519	Si
10	1525	SLV 4	-22263090	-47006167	-3045102	-6429412	-55502	-117187	2.111	Si
11	1550	SLU 16	-1434670	-12411153	-1048479	-9070265	-38352	-331775	8.651	Si
11	1550	SLV 4	-21358901	-41596558	-3083817	-6005749	-30045	-58512	1.948	Si
12	1835	SLU 15	-873445	-5730103	1203317	7894179	-26930	-176670	6.56	Si
12	1835	SLV 4	-11051146	-32315965	-2134481	-6241689	-17970	-52547	2.924	Si

Verifiche a flessione SLD Resistenza D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 8	-100788413	-437544780	-1319616	-5728744	-206740	-897506	4.341	Si
2	285	SLD 8	-79395835	-464076920	669458	3913049	-191214	-1117664	5.845	Si
3	310	SLD 8	-77172594	-437915263	-1064148	-6038498	-165956	-941715	5.674	Si
4	595	SLD 8	-55167282	-472464054	548571	4698075	-149907	-1283833	8.564	Si
5	620	SLD 8	-53546431	-338103875	-447501	-2825618	-126572	-799203	6.314	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	Comb.	MEd,x	MRd,x	MEd,y	MRd,y	NEd	NRd	c.s.	Verifica
6	905	SLD 8	-34696973	-306761815	635141	5615388	-114694	-1014030	8.841	Si
7	930	SLD 8	-33366656	-297064645	-657529	-5854006	-94348	-839987	8.903	Si
8	1215	SLD 4	-6985683	-71441426	1208570	12359842	-86822	-887913	10.227	Si
9	1240	SLD 8	-17107766	-191245397	-568488	-6355050	-61796	-690813	11.179	Si
10	1525	SLD 4	-2738750	-31798440	1098037	12748830	-52183	-605872	11.611	Si
11	1550	SLD 12	-5490804	-67560425	-633937	-7800145	-27375	-336828	12.304	Si
12	1835	SLD 4	-469740	-3743609	944557	7527687	-16855	-134328	7.97	Si

Verifica massima forza normale di compressione D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	Ac	Comb.	NEd	NRd	fcd	c.s.	Verifica
1	0	24800	SLV 4	-240518	1399712	141	5.82	Si
2	285	24800	SLV 4	-226547	1399712	141	6.178	Si
3	310	24800	SLV 4	-191359	1399712	141	7.315	Si
4	595	24800	SLV 4	-175162	1399712	141	7.991	Si
5	620	18600	SLV 4	-142567	1049784	141	7.363	Si
6	905	18600	SLV 4	-131368	1049784	141	7.991	Si
7	930	18600	SLV 4	-105013	1049784	141	9.997	Si
8	1215	18600	SLV 4	-93073	1049784	141	11.279	Si
9	1240	18600	SLV 4	-67307	1049784	141	15.597	Si
10	1525	18600	SLV 4	-55502	1049784	141	18.914	Si
11	1550	18600	SLV 4	-30045	1049784	141	34.941	Si
12	1835	18600	SLV 4	-17970	1049784	141	58.42	Si

Verifiche a taglio non dissipativa SLU D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	615	40	0.2	SLU 16	-1119	-289698	3973081	98199	749665	718532	718532	1.65	0	642.351	Si
2	285	615	40	0.2	SLU 16	-1119	-269116	4291881	95137	745593	718532	718532	1.65	0	642.351	Si
3	310	615	40	0.2	SLU 16	-1422	-232044	2931355	89621	738258	718532	718532	1.65	0	505.193	Si
4	595	615	40	0.2	SLU 16	-1422	-211223	3336708	86523	744387	743209	743209	1.6	0	522.543	Si
5	620	615	30	0.2	SLU 15	394	-177371	2690824	67712	577226	559895	559895	1.5	0	1420.259	Si
6	905	615	30	0.2	SLU 15	394	-161755	2578471	65389	594854	587890	587890	1.35	0	1491.272	Si
7	930	615	30	0.2	SLU 16	456	-133176	3052802	61136	588752	587890	587890	1.35	0	1289.216	Si
8	1215	613.9	30	0.2	SLU 16	456	-117560	2922840	58716	590443	565101	565101	1.3	0	1239.241	Si
9	1240	613.9	30	0.2	SLU 16	772	-87369	2754151	54232	583942	565101	565101	1.3	0	732.133	Si
10	1525	613.9	30	0.2	SLU 16	772	-71752	2534173	51912	580579	565101	565101	1.3	0	732.133	Si
11	1550	613.9	30	0.2	SLU 16	1352	-38352	1434670	46952	573387	565101	565101	1.3	0	417.903	Si
12	1835	613.9	30	0.2	SLU 16	1352	-22735	1049284	44632	564160	547713	547713	1.35	0	405.044	Si

Verifiche a taglio non dissipativa SLD Resistenza D.M. 17-01-18 §4.1.2.3.5

Indice sezione	Quota	d	bw	Asw/s	Comb.	VEd	NEd	MEd	Vrd,c	Vrcd	Vrsd	VRd	cotg(θ)	Asl	c.s.	Verifica
1	0	482.5	40	0.2	SLD 9	-77499	-194551	-97291447	102563	573379	563722	563722	1.65	182.212	7.274	Si
2	285	490.3	40	0.2	SLD 9	-77622	-178414	-75549837	100824	580064	572798	572798	1.65	175.929	7.379	Si
3	310	486.4	40	0.2	SLD 9	-80943	-156681	-74518327	98202	572091	568283	568283	1.65	179.071	7.021	Si
4	595	491.6	40	0.2	SLD 9	-79797	-140697	-52026706	97608	591649	575518	575518	1.55	183.211	7.212	Si
5	620	475	30	0.2	SLD 8	67775	-126572	53546431	75012	437782	432479	432479	1.5	144.513	6.381	Si
6	905	491.9	30	0.2	SLD 8	67310	-114694	34696973	73512	472617	452805	452805	1.3	131.947	6.727	Si
7	930	483.4	30	0.2	SLD 8	55344	-94348	33366656	71219	461005	444985	444985	1.3	138.23	8.04	Si
8	1215	493.2	30	0.2	SLD 8	54130	-82349	18150313	58847	468248	453981	453981	1.3	72.131	8.387	Si
9	1240	469.4	30	0.2	SLD 8	38752	-61796	17107766	57218	442270	432075	432075	1.3	84.446	11.15	Si
10	1525	591.4	30	0.2	SLD 8	36997	-49810	6310203	47041	554732	544373	544373	1.3	20.609	14.714	Si
11	1550	509.2	30	0.2	SLD 12	18612	-27375	5490804	51323	473625	468712	468712	1.3	63.837	25.183	Si
12	1835	613.9	30	0.2	SLD 12	16194	-15374	513515	43539	562591	547713	547713	1.35	0	33.821	Si

Verifiche a taglio dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	d	lw	z	bw	ph	pv	Comb.	VEd	NEd	MEd	as	Vrd,c	Vrcd	VRd	Sx [7.4.16]	Dx [7.4.16]	cotg(θ)	Zona dissipativa	c.s.	Verifica
2	285	466.5	620	496	40	0.005	0.0133	SLV 9	-219426	-172240	-182985951	1.884	99506	293722	293722	390235	1204868	1	Si	1.339	Si
3	310	494.1	620	496	40	0.005	0.0133	SLV 13	-55278	-131277	-48493730	1.705	95237	726111	718845	390235	1163905	1	No	2.983	Si
4	595	458.8	620	496	40	0.0054	0.0144	SLV 9	-223649	-136238	-152351487	1.335	96790	727104	617819	416251	1250338	1	No	2.762	Si
5	620	448.5	620	496	30	0.0057	0.0144	SLV 8	189963	-129449	152663915	1.382	74966	550782	508366	334487	965385	1	No	2.676	Si
6	905	524.1	620	496	30	0.0067	0.0144	SLV 13	-44197	-91813	-19918762	1.059	69538	543255	457066	390235	927750	1	No	2.377	Si
7	930	512.4	620	496	30	0.0067	0.0144	SLV 13	-35674	-79665	-18925232	1.161	68648	540825	493283	390235	915602	1	No	2.346	Si
8	1215	578.1	620	496	30	0.0067	0.009	SLV 13	-34915	-67580	-9371756	0.988	48593	538408	409905	390235	589991	1	No	1.512	Si
9	1240	542.8	620	496	30	0.0067	0.009	SLV 13	-25003	-54170	-8896609	0.984	51859	535726	411807	390235	576582	1	No	1.478	Si
10	1525	613.9	620	496	30	0.0067	0.009	SLV 13	-23963	-41951	-1927199	0.769	47486	533282	328795	390235	564362	1	No	1.446	Si
11	1550	613.9	620	496	30	0.0067	0.009	SLV 13	-10015	-25380	-2226671	0.899	45025	529968	373898	390235	547792	1	No	1.404	Si
12	1835	613.9	620	496	30	0.0063	0.0073	SLV 13	-8552	-13431	446950	0.486	43250	527578	209080	364219	439859	1	No	1.208	Si

Verifiche a taglio dissipativa con as≥2 D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	z	bw	Asw/s	Comb.	VEd	NEd	MEd	σcp	as	Vrcd	Vrsd	VRd	cotg(θ)	Zona dissipativa	c.s.	Verifica
1	0	620	496	40	0.2	SLV 9	-219179	-188630	-182975436	-7.61	2.272	295033	390235	295033	1	Si	1.346	Si

Verifica a scorrimento dissipativa D.M. 17-01-18 §7.4.4.5.1

Indice sezione	Quota	lw	bw	ξ	z	Σ(Asi*cosΦi)	ΣAsj	Tozzo	Comb.	VEd	NEd	MEd	VRds	Vdd	Vfd	Vid	μf	η	c.s.	Verifica
1	0	620	40	0.4	496	0	329.87	No	SLV 9	-219179	-188630	-182975436	655046	318642	336404	0	0.6	0.5402	2.9886	Si

Verifiche ad instabilità deviata SLU EN1992-1-1:2008 §5.8.8

Indice sezione	Quota	Quota ritegno inf.	Quota ritegno sup.	ΔH	βx	λx	βy	λy
1	0	0	297.5	297.5	1	25.764	1	1.662
2	285	0	297.5	297.5	1	25.764	1	1.662
3	310	297.5	607.5	310	1	26.847	1	1.732
4	595	297.5	607.5	310	1	26.847	1	1.732
5	620	607.5	917.5	310	1	35.796	1	1.732
6	905	607.5	917.5	310	1	35.796	1	1.732
7	930	917.5	1227.5	310	1	35.796	1	1.732
8	1215	917.5	1227.5	310	1	35.796	1	1.732
9	1240	1227.5	1537.5	310	1	35.796	1	1.732
10	1525	1227.5	1537.5	310	1	35.796	1	1.732
11	1550	1537.5	1847.5	310	1	35.796	1	1.732
12	1835	1537.5	1847.5	310	1	35.796	1	1.732

Indice sezione	Quota	Comb.	λ,lim,x	λ,lim,y	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLV 16	86.887	86.887	-289416	-576700	0	-576700	-8142346	3973081	3973081	0	3973081	56095365	-289698	-4090209	14.119	Si
1	0	SLV 8	101.411	101.411	-2434831	-2645720	0	-2645720	-5497630	186472402	186472402	0	186472402	387477174	-212661	-441896	2.078	Si
2	285	SLV 16	90.149	90.149	1039513	1306387	0	1306387	16829540	4291881	4291881	0	4291881	55290201	-269116	-3466896	12.883	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	Comb.	λ,lim,x	λ,lim,y	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
2	285	SLV 12	112.644	112.644	538003	708929	0	708929	2026695	143567517	143567517	0	143567517	410432821	-172362	-492750	2.859	Si
3	310	SLU 16	97.083	97.083	-1249942	-1489721	0	-1489721	-20344223	2931355	2931355	0	2931355	40031739	-232044	-3168891	13.656	Si
3	310	SLV 8	113.275	113.275	-1383772	-1559903	0	-1559903	-4360863	142654650	142654650	0	142654650	398805264	-170449	-476506	2.796	Si
4	595	SLU 16	101.756	101.756	719329	937593	0	937593	15924402	3336708	3336708	0	3336708	56671817	-211223	-3587482	16.984	Si
4	595	SLV 8	119.029	119.029	694831	854342	0	854342	3697188	101468578	101468578	0	101468578	439108110	-154366	-668022	4.328	Si
5	620	SLU 16	95.91	95.91	-384310	-568571	0	-568571	-8892324	3186638	3186638	0	3186638	49838328	-178317	-2788833	15.64	Si
5	620	SLV 8	112.567	112.567	-661902	-795666	0	-795666	-2482537	98606305	98606305	0	98606305	307659155	-129449	-403889	3.12	Si
6	905	SLU 16	100.407	100.407	718224	886347	0	886347	11573851	3075104	3075104	0	3075104	40154452	-162700	-2124528	13.058	Si
6	905	SLV 8	118.064	118.064	823123	944720	0	944720	4468751	63749143	63749143	0	63749143	301548551	-117675	-556629	4.73	Si
7	930	SLU 16	110.98	110.98	-926133	-1063749	0	-1063749	-14913194	3052802	3052802	0	3052802	42798668	-133176	-1867060	14.019	Si
7	930	SLV 8	130.527	130.527	-731511	-830995	0	-830995	-4038944	61330177	61330177	0	61330177	298087285	-96276	-467935	4.86	Si
8	1215	SLU 16	118.122	118.122	855776	977255	0	977255	12268753	2922840	2922840	0	2922840	36694222	-117560	-1475883	12.554	Si
8	1215	SLV 4	132.754	132.754	1863072	1959247	0	1959247	10912621	12092952	12092952	0	12092952	67355380	-93073	-518397	5.57	Si
9	1240	SLU 16	137.02	137.02	-890838	-981119	0	-981119	-13913755	2754151	2754151	0	2754151	39058040	-87369	-1239018	14.182	Si
9	1240	SLV 8	161.608	161.608	-594736	-659635	0	-659635	-4172517	31383723	31383723	0	31383723	198517579	-62805	-397273	6.325	Si
10	1525	SLU 16	151.197	151.197	950812	1024956	0	1024956	14056300	2534173	2534173	0	2534173	34753792	-71752	-984015	13.714	Si
10	1525	SLV 4	171.912	171.912	1624442	1681794	0	1681794	11215802	4235178	4235178	0	4235178	28244197	-55502	-370141	6.669	Si
11	1550	SLU 16	206.808	206.808	-1048479	-1088109	0	-1088109	-8926117	1434670	1434670	0	1434670	11769067	-38352	-314611	8.203	Si
11	1550	SLV 12	246.267	246.267	-635418	-663366	0	-663366	-6516987	10109546	10109546	0	10109546	99317343	-27046	-265706	9.824	Si
12	1835	SLU 15	246.798	246.798	1203317	1231145	0	1231145	7850796	873445	873445	0	873445	5569807	-26930	-171728	6.377	Si
12	1835	SLV 4	302.128	302.128	1225588	1244157	0	1244157	7252150	481422	481422	0	481422	2806191	-17970	-104744	5.829	Si

Verifiche ad instabilità deviata SLD Resistenza EN1992-1-1:2008 §5.8.8

Indice sezione	Quota	Quota ritegno inf.	Quota ritegno sup.	ΔH	βx	λx	βy	λy
1	0	0	297.5	297.5	1	25.764	1	1.662
2	285	0	297.5	297.5	1	25.764	1	1.662
3	310	297.5	607.5	310	1	26.847	1	1.732
4	595	297.5	607.5	310	1	26.847	1	1.732
5	620	607.5	917.5	310	1	35.796	1	1.732
6	905	607.5	917.5	310	1	35.796	1	1.732
7	930	917.5	1227.5	310	1	35.796	1	1.732
8	1215	917.5	1227.5	310	1	35.796	1	1.732
9	1240	1227.5	1537.5	310	1	35.796	1	1.732
10	1525	1227.5	1537.5	310	1	35.796	1	1.732
11	1550	1537.5	1847.5	310	1	35.796	1	1.732
12	1835	1537.5	1847.5	310	1	35.796	1	1.732

Indice sezione	Quota	Comb.	λ,lim,x	λ,lim,y	MxEd	M0Ed,x	M2,x	MEd,tot,x	MRd,x	MyEd	M0Ed,y	M2,y	MEd,tot,y	MRd,y	NEd	NRd	c.s.	Verifica
1	0	SLD 8	102.853	102.853	-1319616	-1524634	0	-1524634	-6494881	100788413	100788413	0	100788413	429354778	-206740	-880706	4.26	Si
2	285	SLD 8	106.947	106.947	669458	859078	0	859078	4933234	79395835	79395835	0	79395835	455928771	-191214	-1098040	5.742	Si
3	310	SLD 8	114.798	114.798	-1064148	-1235636	0	-1235636	-6869659	77172594	77172594	0	77172594	429050000	-165956	-922651	5.56	Si
4	595	SLD 8	120.787	120.787	548571	703475	0	703475	5882559	55167282	55167282	0	55167282	461317022	-149907	-1253543	8.362	Si
5	620	SLD 8	113.839	113.839	-447501	-578292	0	-578292	-3550878	53546431	53546431	0	53546431	328790487	-126572	-777188	6.14	Si
6	905	SLD 8	119.589	119.589	635141	753658	0	753658	6393322	34696973	34696973	0	34696973	294336290	-114694	-972956	8.483	Si
7	930	SLD 8	131.854	131.854	-657529	-755022	0	-755022	-6478362	33366656	33366656	0	33366656	286297889	-94348	-809543	8.58	Si
8	1215	SLD 4	137.45	137.45	1208570	1298285	0	1298285	12395783	6985683	6985683	0	6985683	66697975	-86822	-828958	9.548	Si
9	1240	SLD 8	162.922	162.922	-568488	-632344	0	-632344	-6591669	17107766	17107766	0	17107766	178334437	-61796	-644176	10.424	Si
10	1525	SLD 4	177.295	177.295	1098037	1151959	0	1151959	12592467	2738750	2738750	0	2738750	29938232	-52183	-570429	10.931	Si
11	1550	SLD 12	244.785	244.785	-633937	-662225	0	-662225	-7743415	5490804	5490804	0	5490804	64204164	-27375	-320095	11.693	Si
12	1835	SLD 4	311.956	311.956	944557	961974	0	961974	7501081	469740	469740	0	469740	3662837	-16855	-131430	7.798	Si

Verifiche SLE tensione calcestruzzo D.M. 17-01-18 §4.1.2.2.5.1

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σc	σc limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 8	-2780186	-209005	-215884	No	-9.1	149.4	15	16.415	Si
1	0	SLE QP 4	-1748483	-174000	-200646	No	-8.1	112.1	15	13.816	Si
2	285	SLE RA 8	-3008079	751640	-200052	No	-11.1	149.4	15	13.439	Si
2	285	SLE QP 4	-1922999	630379	-184814	No	-9.7	112.1	15	11.538	Si
3	310	SLE RA 8	-2058365	-897619	-172963	No	-10.6	149.4	15	14.034	Si
3	310	SLE QP 4	-1327133	-738794	-161318	No	-9.3	112.1	15	12.062	Si
4	595	SLE RA 8	-2350822	508191	-156947	No	-8.4	149.4	15	17.815	Si
4	595	SLE QP 4	-1570288	400924	-145302	No	-7.2	112.1	15	15.459	Si
5	620	SLE RA 8	-2246317	-273573	-132759	No	-8.8	149.4	15	16.969	Si
5	620	SLE QP 4	-1506070	-226193	-123603	No	-7.7	112.1	15	14.521	Si
6	905	SLE RA 8	-2167158	517846	-120747	No	-11.1	149.4	15	13.513	Si
6	905	SLE QP 4	-1442957	441396	-111590	No	-9.7	112.1	15	11.597	Si
7	930	SLE RA 8	-2151449	-670523	-99129	No	-10.7	149.4	15	13.947	Si
7	930	SLE QP 4	-1432076	-581185	-92339	No	-9.4	112.1	15	11.949	Si
8	1215	SLE RA 8	-2057854	618820	-87116	No	-11.1	149.4	15	13.502	Si
8	1215	SLE QP 4	-1360598	537117	-80326	No	-9.6	112.1	15	11.619	Si
9	1240	SLE RA 8	-1939688	-642021	-65026	No	-9.7	149.4	15	15.399	Si
9	1240	SLE QP 4	-1284274	-538850	-60739	No	-8.3	112.1	15	13.555	Si
10	1525	SLE RA 8	-1780177	684189	-53014	No	-9.9	149.4	15	15.139	Si
10	1525	SLE QP 4	-1153990	557939	-48726	No	-8.2	112.1	15	13.692	Si
11	1550	SLE RA 8	-1011560	-753700	-28681	No	-8.7	149.4	15	17.269	Si
11	1550	SLE QP 4	-666280	-634012	-27713	No	-7.4	112.1	15	15.232	Si
12	1835	SLE RA 7	-616093	855718	-19465	No	-9.3	149.4	15	16.068	Si
12	1835	SLE QP 4	-464186	653443	-15700	No	-7.1	112.1	15	15.698	Si

Verifiche SLE tensione acciaio D.M. 17-01-18 §4.1.2.2.5.2

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	σf	σf limite	Es/Ec	c.s.	Verifica
1	0	SLE RA 1	-985993	-120458	-170641	No	-75.3	3600	15	47.83	Si
2	285	SLE RA 4	-2651300	612967	-176578	No	-45.8	3600	15	78.604	Si
3	310	SLE RA 8	-2058365	-897619	-172963	No	-31.4	3600	15	114.742	Si
4	595	SLE RA 4	-2062669	368022	-137623	No	-39.7	3600	15	90.686	Si
5	620	SLE RA 4	-1971677	-197931	-117191	No	-52.2	3600	15	68.985	Si

TABULATO DI CALCOLO – FABBRICATO B

Indice sezione	Quota	Comb.	MEd,x	MEd,y	NEd	Sezione fessurata	of	of limite	Es/Ec	c.s.	Verifica
6	905	SLE RA 8	-2167158	517846	-120747	No	-21.7	3600	15	165.732	Si
7	930	SLE RA 8	-2151449	-670523	-99129	No	0.6	3600	15	5680.342	Si
8	1215	SLE RA 8	-2057854	618820	-87116	No	5.5	3600	15	652.063	Si
9	1240	SLE RA 8	-1939688	-642021	-65026	No	23.8	3600	15	151.577	Si
10	1525	SLE RA 8	-1780177	684189	-53014	No	32.9	3600	15	109.341	Si
11	1550	SLE RA 8	-1011560	-753700	-28681	No	54.4	3600	15	66.23	Si
12	1835	SLE RA 7	-616093	855718	-19465	No	76.4	3600	15	47.115	Si

Verifiche SLE fessurazione

Il nucleo non presenta apertura delle fessure.

Verifica minima armatura diffusa D.M. 17-01-18 §7.4.6.2.4

Indice sezione	Quota	Ac	As	As/Ac	As/Ac,min	Comb.	NEd	MEd,x	MEd,y	εc	εc,lim	c.s.	Verifica
1	0	4000	80.1	0	0	SLV 1	-240469	50441090	-7716100	-0.0006	-0.002	1000000	Si
2	285	4000	77	0	0	SLV 1	-226498	39543435	914337	-0.0002	-0.002	1000000	Si
3	310	4000	77	0	0	SLV 1	-191270	38716854	-2916406	-0.0003	-0.002	1000000	Si
4	595	4000	81.5	0	0	SLV 1	-175080	27294291	1477488	-0.0002	-0.002	1000000	Si
5	620	3000	58.1	0	0	SLV 1	-142455	26668334	-1626106	-0.0003	-0.002	1000000	Si
6	905	3000	55	0	0	SLV 1	-131259	16924217	1746223	-0.0003	-0.002	1000000	Si
7	930	3000	55	0	0	SLV 1	-104917	16440443	-1039435	-0.0002	-0.002	1000000	Si
8	1215	3000	29.3	0	0	SLV 1	-92977	8238343	1871820	-0.0003	-0.002	1000000	Si
9	1240	3000	29.3	0	0	SLV 1	-67239	7712228	-622605	-0.0001	-0.002	1000000	Si
10	1525	3000	29.3	0	0	SLV 1	-55442	2183844	1613052	-0.0002	-0.002	1000000	Si
11	1550	3000	29.3	0	0	SLV 1	-30024	2442645	-623243	-0.0001	-0.002	1000000	Si
12	1835	3000	25.9	0	0	SLV 1	-17948	-414244	1219092	-0.0002	-0.002	1000000	Si

3.5 Verifiche piastre C.A.

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

Nodo: indice del nodo di verifica.

Dir.: direzione della sezione di verifica.

B: base della sezione rettangolare di verifica. [cm]

H: altezza della sezione rettangolare di verifica. [cm]

A. sup.: area barre armatura superiori. [cm²]

C. sup.: distanza media delle barre superiori dal bordo superiore della sezione. [cm]

A. inf.: area barre armatura inferiori. [cm²]

C. inf.: distanza media delle barre inferiori dal bordo inferiore della sezione. [cm]

Comb.: combinazione di verifica.

M: momento flettente. [daN*cm]

N: sforzo normale. [daN]

Mu: momento flettente ultimo. [daN*cm]

Nu: sforzo normale ultimo. [daN]

c.s.: coefficiente di sicurezza.

Verifica: stato di verifica.

A. st.: area staffe su interasse. [cm]

A. sag.: area sagomati su interasse. [cm]

Ved: taglio agente. [daN]

Vrd: taglio resistente. [daN]

Vrdc: resistenza di calcolo a taglio per elementi privi di armature trasversali. [daN]

Vrds: resistenza di calcolo a taglio trazione. [daN]

Vrzd: resistenza di calcolo a taglio compressione. [daN]

cotgθ: cotangente dell'inclinazione dei puntoni di calcestruzzo rispetto all'asse dell'elemento.

Asl: area longitudinale tesa nella combinazione di verifica di Ved. [cm²]

σc: tensione nel calcestruzzo. [daN/cm²]

σlim: tensione limite. [daN/cm²]

Es/Ec: coefficiente di omogenizzazione.

σf: tensione nell'acciaio d'armatura. [daN/cm²]

Pianerottolo n.1

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2106.7; 362; 103.3), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi

Verifiche SLU flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
290	Y	100	20	10.05	3.8	10.05	3.8	SLV 13	-513864	0	-580140	0	1.129	Si
290	Y	100	20	10.05	3.8	10.05	3.8	SLV 4	498374	0	580140	0	1.1641	Si
272	Y	64.8	20	6.52	3.8	6.52	3.8	SLV 13	-290973	0	-369887	0	1.2712	Si
272	Y	64.8	20	6.52	3.8	6.52	3.8	SLV 4	275400	0	369887	0	1.3431	Si
283	Y	90	20	9.05	3.8	9.05	3.8	SLV 13	-328953	0	-517171	0	1.5722	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
290	Y	100	20	10.05	3.8	10.05	3.8	SLD 13	-265045	0	-580140	0	2.1888	Si
290	Y	100	20	10.05	3.8	10.05	3.8	SLD 4	249843	0	580140	0	2.322	Si
272	Y	64.8	20	6.52	3.8	6.52	3.8	SLD 13	-152175	0	-369887	0	2.4307	Si
272	Y	64.8	20	6.52	3.8	6.52	3.8	SLD 4	137624	0	369887	0	2.6877	Si
283	Y	90	20	9.05	3.8	9.05	3.8	SLD 13	-172113	0	-517171	0	3.0048	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrkd	cotgθ	Asl	c.s.	Verifica
324	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLV 13	-4681	0	4842	4842	0	17735	2.5	5.027	1.0344	Si
314	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 13	8048	0	9035	9035	0	31966	2.5	10.053	1.1228	Si
324	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLV 4	4267	0	4842	4842	0	17735	2.5	5.027	1.1348	Si
314	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 4	-7314	0	9035	9035	0	31966	2.5	10.053	1.2353	Si
290	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 13	-7687	0	9684	9684	0	35470	2.5	10.053	1.2597	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrkd	cotgθ	Asl	c.s.	Verifica
324	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLD 13	-2483	0	7263	7263	0	17735	2.5	5.027	2.9253	Si
314	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 13	4271	0	13553	13553	0	31966	2.5	10.053	3.173	Si
324	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLD 4	2071	0	7263	7263	0	17735	2.5	5.027	3.5069	Si
290	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 13	-4087	0	14526	14526	0	35470	2.5	10.053	3.5546	Si
311	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 13	3674	0	13553	13553	0	31966	2.5	10.053	3.6893	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
314	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-34834	0	-4.8	149.4	15	Si
314	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-25592	0	-3.5	112.1	15	Si
311	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-28492	0	-3.9	149.4	15	Si
311	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-20844	0	-2.9	112.1	15	Si
305	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-25813	0	-3.5	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
314	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-34834	0	32.9	3600	15	Si
290	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	-25345	0	30.1	3600	15	Si
272	Y	64.8	20	6.52	3.8	6.52	3.8	SLE RA 8	-16195	0	29.7	3600	15	Si
324	Y	50	20	5.03	3.8	5.03	3.8	SLE RA 8	-11582	0	27.5	3600	15	Si
311	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-28492	0	26.9	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.2

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1785; 362; 189.4), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
448	Y	64.3	20	6.46	3.8	6.46	3.8	SLV 2	-347920	0	-366457	0	1.0533	Si
448	Y	64.3	20	6.46	3.8	6.46	3.8	SLV 15	340673	0	366457	0	1.0757	Si
459	Y	90	20	9.05	3.8	9.05	3.8	SLV 2	-405426	0	-517171	0	1.2756	Si
459	Y	90	20	9.05	3.8	9.05	3.8	SLV 15	403243	0	517171	0	1.2825	Si
489	X	100	20	10.05	5.4	10.05	5.4	SLV 2	-395916	0	-544122	0	1.3743	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
448	Y	64.3	20	6.46	3.8	6.46	3.8	SLD 2	-178867	0	-366457	0	2.0488	Si
448	Y	64.3	20	6.46	3.8	6.46	3.8	SLD 15	171405	0	366457	0	2.138	Si
459	Y	90	20	9.05	3.8	9.05	3.8	SLD 2	-206776	0	-517171	0	2.5011	Si
459	Y	90	20	9.05	3.8	9.05	3.8	SLD 15	204868	0	517171	0	2.5244	Si
489	X	100	20	10.05	5.4	10.05	5.4	SLD 2	-210584	0	-544122	0	2.5839	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrkd	cotgθ	Asl	c.s.	Verifica
470	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 2	-9569	0	9684	9684	0	35470	2.5	10.053	1.012	Si
464	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 13	-8938	0	9684	9684	0	35470	2.5	10.053	1.0834	Si
470	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 15	8881	0	9684	9684	0	35470	2.5	10.053	1.0904	Si
469	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 2	8714	0	9684	9684	0	35470	2.5	10.053	1.1113	Si
463	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 13	-8687	0	9684	9684	0	35470	2.5	10.053	1.1147	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrkd	cotgθ	Asl	c.s.	Verifica
470	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 2	-5021	0	14526	14526	0	35470	2.5	10.053	2.8929	Si
464	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 13	-4621	0	14526	14526	0	35470	2.5	10.053	3.1437	Si
469	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 2	4551	0	14526	14526	0	35470	2.5	10.053	3.1921	Si
463	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 13	-4482	0	14526	14526	0	35470	2.5	10.053	3.241	Si
470	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 15	4334	0	14526	14526	0	35470	2.5	10.053	3.3519	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
498	X	76.2	20	7.66	5.4	7.66	5.4	SLE QP 4	-18842	0	-3.4	112.1	15	Si
498	X	76.2	20	7.66	5.4	7.66	5.4	SLE RA 8	-24968	0	-4.5	149.4	15	Si
489	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-27621	0	-3.8	149.4	15	Si
489	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-20629	0	-2.8	112.1	15	Si
487	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-27349	0	-3.7	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ _f	σ _{lim}	Es/Ec	Verifica
498	X	76.2	20	7.66	5.4	7.66	5.4	SLE RA 8	-24968	0	30.9	3600	15	Si
489	Y	89.5	20	8.99	3.8	8.99	3.8	SLE RA 8	20419	0	27.1	3600	15	Si
487	Y	97.2	20	9.77	3.8	9.77	3.8	SLE RA 8	21948	0	26.8	3600	15	Si
489	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-27621	0	26.1	3600	15	Si
487	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-27349	0	25.8	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.3

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2106.7; 362; 413.3), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
984	Y	90	20	9.05	3.8	9.05	3.8	SLV 13	-466879	0	-517171	0	1.1077	Si
984	Y	90	20	9.05	3.8	9.05	3.8	SLV 4	457933	0	517171	0	1.1294	Si
970	Y	50	20	5.03	3.8	5.03	3.8	SLV 13	-243970	0	-287498	0	1.1784	Si
981	Y	78	20	7.84	3.8	7.84	3.8	SLV 4	-376214	0	-451705	0	1.2007	Si
990	Y	100	20	10.05	3.8	10.05	3.8	SLV 4	-482326	0	-580140	0	1.2028	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
984	Y	90	20	9.05	3.8	9.05	3.8	SLD 13	-239575	0	-517171	0	2.1587	Si
984	Y	90	20	9.05	3.8	9.05	3.8	SLD 4	231164	0	517171	0	2.2372	Si
970	Y	50	20	5.03	3.8	5.03	3.8	SLD 13	-125916	0	-287498	0	2.2832	Si
981	Y	78	20	7.84	3.8	7.84	3.8	SLD 4	-195832	0	-451705	0	2.3066	Si
990	Y	100	20	10.05	3.8	10.05	3.8	SLD 4	-250853	0	-580140	0	2.3127	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrzd	cotgθ	Asl	c.s.	Verifica
981	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLV 4	6839	0	7554	7554	0	27666	2.5	7.841	1.1046	Si
979	Y	76.4	20	7.68	3.8	7.68	3.8	0	0	SLV 4	6578	0	7397	7397	0	27092	2.5	7.679	1.1244	Si
988	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 4	8596	0	9684	9684	0	35470	2.5	10.053	1.1266	Si
990	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 4	8461	0	9684	9684	0	35470	2.5	10.053	1.1446	Si
981	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLV 13	-6406	0	7554	7554	0	27666	2.5	7.841	1.1791	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrzd	cotgθ	Asl	c.s.	Verifica
981	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLD 4	3573	0	11330	11330	0	27666	2.5	7.841	3.1708	Si
979	Y	76.4	20	7.68	3.8	7.68	3.8	0	0	SLD 4	3441	0	11095	11095	0	27092	2.5	7.679	3.2247	Si
988	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 4	4455	0	14526	14526	0	35470	2.5	10.053	3.261	Si
990	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 4	4390	0	14526	14526	0	35470	2.5	10.053	3.3091	Si
987	Y	98.6	20	9.91	3.8	9.91	3.8	0	0	SLD 4	4137	0	14325	14325	0	34978	2.5	9.914	3.4626	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ _c	σ _{lim}	Es/Ec	Verifica
1006	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-28417	0	-3.9	149.4	15	Si
1006	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-21103	0	-2.9	112.1	15	Si
1022	X	81.5	20	8.2	5.4	8.2	5.4	SLE RA 8	-18941	0	-3.2	149.4	15	Si
1022	X	81.5	20	8.2	5.4	8.2	5.4	SLE QP 4	-13770	0	-2.3	112.1	15	Si
990	Y	100	20	10.05	3.8	10.05	3.8	SLE QP 4	-18057	0	-2.3	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ _f	σ _{lim}	Es/Ec	Verifica
1006	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-28417	0	26.8	3600	15	Si
990	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	-22308	0	26.5	3600	15	Si
965	Y	50	20	5.03	3.8	5.03	3.8	SLE RA 8	-11050	0	26.3	3600	15	Si
981	Y	78	20	7.84	3.8	7.84	3.8	SLE RA 8	-16766	0	25.5	3600	15	Si
988	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	-20274	0	24.1	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.4

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1785; 362; 499.4), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1147	Y	90	20	9.05	3.8	9.05	3.8	SLV 2	-511915	0	-517171	0	1.0103	Si
1147	Y	90	20	9.05	3.8	9.05	3.8	SLV 15	504212	0	517171	0	1.0257	Si
1130	Y	50	20	5.03	3.8	5.03	3.8	SLV 2	-262677	0	-287498	0	1.0945	Si
1130	Y	50	20	5.03	3.8	5.03	3.8	SLV 15	254181	0	287498	0	1.1311	Si
1173	X	100	20	10.05	5.4	10.05	5.4	SLV 2	-468546	0	-544122	0	1.1613	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1147	Y	90	20	9.05	3.8	9.05	3.8	SLD 2	-263094	0	-517171	0	1.9657	Si
1147	Y	90	20	9.05	3.8	9.05	3.8	SLD 15	254592	0	517171	0	2.0314	Si
1130	Y	50	20	5.03	3.8	5.03	3.8	SLD 2	-135627	0	-287498	0	2.1198	Si
1173	X	100	20	10.05	5.4	10.05	5.4	SLD 2	-245932	0	-544122	0	2.2125	Si
1130	Y	50	20	5.03	3.8	5.03	3.8	SLD 15	127282	0	287498	0	2.2588	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1143	Y	77.7	20	7.81	3.8	7.81	3.8	0	0	SLV 15	-7410	0	7521	7521	0	27546	2.5	7.807	1.0149	Si
1143	Y	77.7	20	7.81	3.8	7.81	3.8	0	0	SLV 2	7341	0	7521	7521	0	27546	2.5	7.807	1.0244	Si
1134	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLV 15	-4055	0	4842	4842	0	17735	2.5	5.027	1.1939	Si
1134	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLV 2	4008	0	4842	4842	0	17735	2.5	5.027	1.2082	Si
1135	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLV 15	-3988	0	4842	4842	0	17735	2.5	5.027	1.2142	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1143	Y	77.7	20	7.81	3.8	7.81	3.8	0	0	SLD 15	-3773	0	11281	11281	0	27546	2.5	7.807	2.9898	Si
1143	Y	77.7	20	7.81	3.8	7.81	3.8	0	0	SLD 2	3705	0	11281	11281	0	27546	2.5	7.807	3.0451	Si
1134	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLD 15	-2068	0	7263	7263	0	17735	2.5	5.027	3.5121	Si
1135	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLD 15	-2065	0	7263	7263	0	17735	2.5	5.027	3.5169	Si
1134	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLD 2	2020	0	7263	7263	0	17735	2.5	5.027	3.5952	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
1175	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-26453	0	-3.6	112.1	15	Si
1175	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-34444	0	-4.7	149.4	15	Si
1173	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-18480	0	-2.5	112.1	15	Si
1168	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-18455	0	-2.5	112.1	15	Si
1173	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-24289	0	-3.3	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
1175	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-34444	0	32.5	3600	15	Si
1175	Y	97.2	20	9.77	3.8	9.77	3.8	SLE RA 8	21526	0	26.3	3600	15	Si
1160	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	21972	0	26.1	3600	15	Si
1156	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	20708	0	24.6	3600	15	Si
1166	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	19901	0	23.6	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.5

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2106.7; 362; 723.3), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1720	Y	90	20	9.05	3.8	9.05	3.8	SLV 13	-498846	0	-517171	0	1.0367	Si
1720	Y	90	20	9.05	3.8	9.05	3.8	SLV 4	491695	0	517171	0	1.0518	Si
1706	Y	50	20	5.03	3.8	5.03	3.8	SLV 13	-261391	0	-287498	0	1.0999	Si
1706	Y	50	20	5.03	3.8	5.03	3.8	SLV 4	255633	0	287498	0	1.1247	Si
1758	Y	69.6	20	6.99	3.8	6.99	3.8	SLV 13	347333	0	399349	0	1.1498	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1720	Y	90	20	9.05	3.8	9.05	3.8	SLD 13	-255735	0	-517171	0	2.0223	Si
1720	Y	90	20	9.05	3.8	9.05	3.8	SLD 4	249406	0	517171	0	2.0736	Si
1706	Y	50	20	5.03	3.8	5.03	3.8	SLD 13	-135126	0	-287498	0	2.1276	Si
1706	Y	50	20	5.03	3.8	5.03	3.8	SLD 4	130047	0	287498	0	2.2107	Si
1758	Y	69.6	20	6.99	3.8	6.99	3.8	SLD 13	176639	0	399349	0	2.2608	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1717	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLV 4	7049	0	7554	7554	0	27666	2.5	7.841	1.0716	Si
1724	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 4	-8971	0	9684	9684	0	35470	2.5	10.053	1.0794	Si
1752	Y	78.1	20	7.86	3.8	7.86	3.8	0	0	SLV 13	-6980	0	7567	7567	0	27716	2.5	7.856	1.0841	Si
1724	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 13	8921	0	9684	9684	0	35470	2.5	10.053	1.0855	Si
1723	Y	98.6	20	9.91	3.8	9.91	3.8	0	0	SLV 4	8760	0	9549	9549	0	34975	2.5	9.913	1.0901	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1717	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLD 4	3616	0	11330	11330	0	27666	2.5	7.841	3.1338	Si
1752	Y	78.1	20	7.86	3.8	7.86	3.8	0	0	SLD 13	-3583	0	11351	11351	0	27716	2.5	7.856	3.168	Si
1724	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 4	-4569	0	14526	14526	0	35470	2.5	10.053	3.1789	Si
1715	Y	76.4	20	7.68	3.8	7.68	3.8	0	0	SLD 4	3471	0	11093	11093	0	27087	2.5	7.677	3.1962	Si
1724	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 4	4541	0	14526	14526	0	35470	2.5	10.053	3.1988	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ_c	σ_{lim}	Es/Ec	Verifica
1742	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-26995	0	-3.7	112.1	15	Si
1742	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-35216	0	-4.8	149.4	15	Si
1758	X	81.2	20	8.17	5.4	8.17	5.4	SLE QP 4	-17749	0	-3	112.1	15	Si
1758	X	81.2	20	8.17	5.4	8.17	5.4	SLE RA 8	-23316	0	-3.9	149.4	15	Si
1759	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-19865	0	-2.7	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ_f	σ_{lim}	Es/Ec	Verifica
1742	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-35216	0	33.3	3600	15	Si
1758	X	81.2	20	8.17	5.4	8.17	5.4	SLE RA 8	-23316	0	27.1	3600	15	Si
1732	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	21682	0	25.8	3600	15	Si
1742	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	20899	0	24.8	3600	15	Si
1759	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-26256	0	24.8	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.6

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1790; 362; 809.4), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1921	X	99.1	20	9.96	5.4	9.96	5.4	SLV 1	-526493	0	-538347	0	1.0225	Si
1872	Y	50	20	5.03	3.8	5.03	3.8	SLV 2	-280159	0	-287498	0	1.0262	Si
1872	Y	50	20	5.03	3.8	5.03	3.8	SLV 15	274565	0	287498	0	1.0471	Si
1921	X	99.1	20	9.96	5.4	9.96	5.4	SLV 16	493502	0	538347	0	1.0909	Si
1919	X	100	20	10.05	5.4	10.05	5.4	SLV 2	-497573	0	-544122	0	1.0936	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1921	X	99.1	20	9.96	5.4	9.96	5.4	SLD 1	-275231	0	-538347	0	1.956	Si
1872	Y	50	20	5.03	3.8	5.03	3.8	SLD 2	-143834	0	-287498	0	1.9988	Si
1919	X	100	20	10.05	5.4	10.05	5.4	SLD 2	-262473	0	-544122	0	2.0731	Si
1872	Y	50	20	5.03	3.8	5.03	3.8	SLD 15	137908	0	287498	0	2.0847	Si
1877	Y	50	20	5.03	3.8	5.03	3.8	SLD 15	-134913	0	-287498	0	2.131	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
1919	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 15	-8852	0	9035	9035	0	31966	2.5	10.053	1.0207	Si
1919	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 2	8720	0	9035	9035	0	31966	2.5	10.053	1.0361	Si
1876	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLV 15	-4422	0	4842	4842	0	17735	2.5	5.027	1.0949	Si
1921	Y	78.8	20	7.92	3.8	7.92	3.8	0	0	SLV 2	6813	0	7629	7629	0	27944	2.5	7.92	1.1198	Si
1877	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLV 15	-4275	0	4842	4842	0	17735	2.5	5.027	1.1327	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
1919	X	100	20	10.05	5.4	10.05	5.4	0		SLD 15	-4525	0	13553	13553	0	31966	2.5	10.053	2.9949	Si
1919	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 2	4394	0	13553	13553	0	31966	2.5	10.053	3.0847	Si
1876	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLD 15	-2279	0	7263	7263	0	17735	2.5	5.027	3.1868	Si
1877	Y	50	20	5.03	3.8	5.03	3.8	0	0	SLD 15	-2236	0	7263	7263	0	17735	2.5	5.027	3.2487	Si
1921	Y	78.8	20	7.92	3.8	7.92	3.8	0	0	SLD 2	3503	0	11444	11444	0	27944	2.5	7.92	3.2666	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ_c	σ_{lim}	Es/Ec	Verifica
1917	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-23469	0	-3.2	112.1	15	Si
1917	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-31035	0	-4.2	149.4	15	Si
1919	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-22521	0	-3.1	112.1	15	Si
1919	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-30002	0	-4.1	149.4	15	Si
1921	X	99.1	20	9.96	5.4	9.96	5.4	SLE RA 8	-22439	0	-3.1	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ_f	σ_{lim}	Es/Ec	Verifica
1917	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-31035	0	29.3	3600	15	Si
1919	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-30002	0	28.3	3600	15	Si
1919	Y	89.5	20	9	3.8	9	3.8	SLE RA 8	18414	0	24.4	3600	15	Si
1902	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	20058	0	23.8	3600	15	Si
1917	Y	97.2	20	9.78	3.8	9.78	3.8	SLE RA 8	19089	0	23.3	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.7

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2106.7; 362; 1033.3), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2421	Y	90	20	9.05	3.8	9.05	3.8	SLV 13	-427464	0	-517171	0	1.2099	Si
2421	Y	90	20	9.05	3.8	9.05	3.8	SLV 4	426487	0	517171	0	1.2126	Si
2407	Y	50	20	5.03	3.8	5.03	3.8	SLV 13	-224935	0	-287498	0	1.2781	Si
2407	Y	50	20	5.03	3.8	5.03	3.8	SLV 4	222168	0	287498	0	1.2941	Si
2459	Y	69.6	20	6.99	3.8	6.99	3.8	SLV 13	302176	0	399349	0	1.3216	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2421	Y	90	20	9.05	3.8	9.05	3.8	SLD 13	-218368	0	-517171	0	2.3683	Si
2421	Y	90	20	9.05	3.8	9.05	3.8	SLD 4	218284	0	517171	0	2.3693	Si
2407	Y	50	20	5.03	3.8	5.03	3.8	SLD 13	-116080	0	-287498	0	2.4767	Si
2407	Y	50	20	5.03	3.8	5.03	3.8	SLD 4	114080	0	287498	0	2.5201	Si
2459	Y	69.6	20	6.99	3.8	6.99	3.8	SLD 13	153493	0	399349	0	2.6017	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2432	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 13	-9338	0	9684	9684	0	35470	2.5	10.053	1.037	Si
2432	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 4	8839	0	9684	9684	0	35470	2.5	10.053	1.0957	Si
2425	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 4	-8097	0	9684	9684	0	35470	2.5	10.053	1.1961	Si
2425	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 13	7927	0	9684	9684	0	35470	2.5	10.053	1.2217	Si
2418	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLV 4	6089	0	7554	7554	0	27666	2.5	7.841	1.2405	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2432	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 13	-4874	0	14526	14526	0	35470	2.5	10.053	2.9802	Si
2432	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 4	4374	0	14526	14526	0	35470	2.5	10.053	3.3207	Si
2425	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 4	-4162	0	14526	14526	0	35470	2.5	10.053	3.4905	Si
2418	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLD 4	3157	0	11330	11330	0	27666	2.5	7.841	3.5884	Si
2425	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 13	3992	0	14526	14526	0	35470	2.5	10.053	3.6389	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	M	N	oc	olim	Es/Ec	Verifica
2443	X	100	20	10.05	5.4	10.05	5.4	10.05	5.4	SLE QP 4	-27184	0	-3.7	112.1	15	Si
2443	X	100	20	10.05	5.4	10.05	5.4	10.05	5.4	SLE RA 8	-35478	0	-4.9	149.4	15	Si
2459	X	81.2	20	8.17	5.4	8.17	5.4	8.17	5.4	SLE QP 4	-18255	0	-3.1	112.1	15	Si
2459	X	81.2	20	8.17	5.4	8.17	5.4	8.17	5.4	SLE RA 8	-23747	0	-4	149.4	15	Si
2460	X	100	20	10.05	5.4	10.05	5.4	10.05	5.4	SLE QP 4	-19345	0	-2.6	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	of	olim	Es/Ec	Verifica
2443	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-35478	0	33.5	3600	15	Si
2438	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	24357	0	28.9	3600	15	Si
2446	Y	99.3	20	9.98	3.8	9.98	3.8	SLE RA 8	24136	0	28.9	3600	15	Si
2433	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	23639	0	28.1	3600	15	Si
2459	X	81.2	20	8.17	5.4	8.17	5.4	SLE RA 8	-23747	0	27.6	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.8

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1790; 362; 1119.4), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2601	Y	90	20	9.05	3.8	9.05	3.8	SLV 15	452478	0	517171	0	1.143	Si
2601	Y	90	20	9.05	3.8	9.05	3.8	SLV 2	-451782	0	-517171	0	1.1447	Si
2584	Y	50	20	5.03	3.8	5.03	3.8	SLV 2	-236201	0	-287498	0	1.2172	Si
2584	Y	50	20	5.03	3.8	5.03	3.8	SLV 15	232304	0	287498	0	1.2376	Si
2633	X	99.1	20	9.96	5.4	9.96	5.4	SLV 1	-434185	0	-538347	0	1.2399	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2601	Y	90	20	9.05	3.8	9.05	3.8	SLD 2	-232204	0	-517171	0	2.2272	Si
2601	Y	90	20	9.05	3.8	9.05	3.8	SLD 15	231825	0	517171	0	2.2309	Si
2584	Y	50	20	5.03	3.8	5.03	3.8	SLD 2	-121552	0	-287498	0	2.3652	Si
2633	X	99.1	20	9.96	5.4	9.96	5.4	SLD 1	-227374	0	-538347	0	2.3677	Si
2584	Y	50	20	5.03	3.8	5.03	3.8	SLD 15	117394	0	287498	0	2.449	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2598	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLV 15	-7271	0	7554	7554	0	27666	2.5	7.841	1.0388	Si
2598	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLV 2	7008	0	7554	7554	0	27666	2.5	7.841	1.0778	Si
2611	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 2	8939	0	9684	9684	0	35470	2.5	10.053	1.0834	Si
2597	Y	77.6	20	7.81	3.8	7.81	3.8	0	0	SLV 15	-6800	0	7519	7519	0	27541	2.5	7.806	1.1058	Si
2611	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 15	-8724	0	9684	9684	0	35470	2.5	10.053	1.11	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2598	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLD 15	-3750	0	11330	11330	0	27666	2.5	7.841	3.021	Si
2611	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 2	4600	0	14526	14526	0	35470	2.5	10.053	3.1578	Si
2597	Y	77.6	20	7.81	3.8	7.81	3.8	0	0	SLD 15	-3497	0	11279	11279	0	27541	2.5	7.806	3.2254	Si
2598	Y	78	20	7.84	3.8	7.84	3.8	0	0	SLD 2	3488	0	11330	11330	0	27666	2.5	7.841	3.2487	Si
2611	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 15	-4385	0	14526	14526	0	35470	2.5	10.053	3.3123	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
2629	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-25155	0	-3.4	112.1	15	Si
2629	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-32841	0	-4.5	149.4	15	Si
2631	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-23930	0	-3.3	112.1	15	Si
2631	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-31464	0	-4.3	149.4	15	Si
2627	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-17382	0	-2.4	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
2629	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-32841	0	31	3600	15	Si
2631	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-31464	0	29.7	3600	15	Si
2614	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	21346	0	25.4	3600	15	Si
2620	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	21031	0	25	3600	15	Si
2631	Y	89.5	20	9	3.8	9	3.8	SLE RA 8	18528	0	24.6	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.9

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2106.7; 362; 1343.3), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3124	Y	85.6	20	8.6	3.8	8.6	3.8	SLV 13	-483924	0	-489283	0	1.0111	Si
3124	Y	85.6	20	8.6	3.8	8.6	3.8	SLV 4	460381	0	489283	0	1.0628	Si
3116	Y	70	20	7.04	3.8	7.04	3.8	SLV 13	-363357	0	-402072	0	1.1065	Si
3113	Y	50	20	5.03	3.8	5.03	3.8	SLV 13	-254553	0	-287498	0	1.1294	Si
3133	Y	100	20	10.05	3.8	10.05	3.8	SLV 13	-507527	0	-580140	0	1.1431	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3124	Y	85.6	20	8.6	3.8	8.6	3.8	SLD 13	-253720	0	-489283	0	1.9284	Si
3116	Y	70	20	7.04	3.8	7.04	3.8	SLD 13	-189941	0	-402072	0	2.1168	Si
3124	Y	85.6	20	8.6	3.8	8.6	3.8	SLD 4	229450	0	489283	0	2.1324	Si
3113	Y	50	20	5.03	3.8	5.03	3.8	SLD 13	-133250	0	-287498	0	2.1576	Si
3133	Y	100	20	10.05	3.8	10.05	3.8	SLD 13	-262368	0	-580140	0	2.2112	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
3169	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 14	8864	0	9035	9035	0	31966	2.5	10.053	1.0193	Si
3163	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 14	8654	0	9035	9035	0	31966	2.5	10.053	1.0441	Si
3157	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 13	8250	0	9035	9035	0	31966	2.5	10.053	1.0952	Si
3145	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 13	-8702	0	9684	9684	0	35470	2.5	10.053	1.1128	Si
3169	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 3	-8110	0	9035	9035	0	31966	2.5	10.053	1.1141	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
3169	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 14	4720	0	13553	13553	0	31966	2.5	10.053	2.8716	Si
3163	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 14	4596	0	13553	13553	0	31966	2.5	10.053	2.9492	Si
3157	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 13	4501	0	13553	13553	0	31966	2.5	10.053	3.0113	Si
3145	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 13	-4605	0	14526	14526	0	35470	2.5	10.053	3.1544	Si
3154	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 13	4095	0	13553	13553	0	31966	2.5	10.053	3.3096	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
3157	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-31873	0	-4.4	112.1	15	Si
3157	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-41654	0	-5.7	149.4	15	Si
3148	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-27323	0	-3.7	112.1	15	Si
3154	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-26806	0	-3.7	112.1	15	Si
3148	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-35658	0	-4.9	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
3124	Y	85.6	20	8.6	3.8	8.6	3.8	SLE RA 8	-30937	0	43	3600	15	Si
3167	Y	50	20	5.03	3.8	5.03	3.8	SLE RA 8	-17412	0	41.4	3600	15	Si
3157	X	100	20	10.05	5.4	10.05	5.4	SLE RA 8	-41654	0	39.3	3600	15	Si
3113	Y	50	20	5.03	3.8	5.03	3.8	SLE RA 8	-15730	0	37.4	3600	15	Si
3116	Y	70	20	7.04	3.8	7.04	3.8	SLE RA 8	-21773	0	37	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Pianerottolo n.10

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1790; 362; 1429.4), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3304	Y	85	20	8.55	3.8	8.55	3.8	SLV 2	-476081	0	-485563	0	1.0199	Si
3323	Y	100	20	10.05	3.8	10.05	3.8	SLV 15	566800	0	580140	0	1.0235	Si
3323	Y	100	20	10.05	3.8	10.05	3.8	SLV 2	-558075	0	-580140	0	1.0395	Si
3304	Y	85	20	8.55	3.8	8.55	3.8	SLV 15	462830	0	485563	0	1.0491	Si
3297	Y	70	20	7.04	3.8	7.04	3.8	SLV 2	-363367	0	-402072	0	1.1065	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3304	Y	85	20	8.55	3.8	8.55	3.8	SLD 2	-248090	0	-485563	0	1.9572	Si
3323	Y	100	20	10.05	3.8	10.05	3.8	SLD 15	291887	0	580140	0	1.9876	Si
3323	Y	100	20	10.05	3.8	10.05	3.8	SLD 2	-283314	0	-580140	0	2.0477	Si
3304	Y	85	20	8.55	3.8	8.55	3.8	SLD 15	233989	0	485563	0	2.0752	Si
3297	Y	70	20	7.04	3.8	7.04	3.8	SLD 2	-187959	0	-402072	0	2.1391	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
3323	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 2	9580	0	9684	9684	0	35470	2.5	10.053	1.0109	Si
3323	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 15	-9066	0	9684	9684	0	35470	2.5	10.053	1.0681	Si
3350	X	100	20	10.05	5.4	10.05	5.4	0	0	SLV 4	8442	0	9035	9035	0	31966	2.5	10.053	1.0703	Si
3317	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLV 2	-8663	0	9684	9684	0	35470	2.5	10.053	1.1179	Si
3345	X	76	20	7.64	5.4	7.64	5.4	0	0	SLV 4	6082	0	6870	6870	0	24307	2.5	7.644	1.1296	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
3323	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 2	5022	0	14526	14526	0	35470	2.5	10.053	2.8923	Si
3350	X	100	20	10.05	5.4	10.05	5.4	0	0	SLD 4	4587	0	13553	13553	0	31966	2.5	10.053	2.9545	Si
3345	X	76	20	7.64	5.4	7.64	5.4	0	0	SLD 4	3455	0	10306	10306	0	24307	2.5	7.644	2.9831	Si
3351	X	78	20	7.84	5.4	7.84	5.4	0	0	SLD 4	3526	0	10571	10571	0	24934	2.5	7.841	2.9978	Si
3317	Y	100	20	10.05	3.8	10.05	3.8	0	0	SLD 2	-4626	0	14526	14526	0	35470	2.5	10.053	3.1403	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	oc	oim	Es/Ec	Verifica
3345	X	76	20	7.64	5.4	7.64	5.4	SLE QP 4	-27851	0	-5	112.1	15	Si
3345	X	76	20	7.64	5.4	7.64	5.4	SLE RA 8	-35113	0	-6.3	149.4	15	Si
3345	Y	65.3	20	6.57	3.8	6.57	3.8	SLE QP 4	-21209	0	-4.1	112.1	15	Si
3345	Y	65.3	20	6.57	3.8	6.57	3.8	SLE RA 8	-25838	0	-5.1	149.4	15	Si
3334	X	100	20	10.05	5.4	10.05	5.4	SLE QP 4	-26940	0	-3.7	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	of	oim	Es/Ec	Verifica
3345	Y	65.3	20	6.57	3.8	6.57	3.8	SLE RA 8	-25838	0	47	3600	15	Si
3345	X	76	20	7.64	5.4	7.64	5.4	SLE RA 8	-35113	0	43.6	3600	15	Si
3317	Y	100	20	10.05	3.8	10.05	3.8	SLE RA 8	-31570	0	37.5	3600	15	Si
3304	Y	85	20	8.55	3.8	8.55	3.8	SLE RA 8	-26448	0	37	3600	15	Si
3351	Y	50	20	5.03	3.8	5.03	3.8	SLE RA 8	-14558	0	34.6	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Piastra a "Primo Impalcato"

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1785; 687; 310), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
726	Y	55	25	5.53	3.8	5.53	3.8	SLV 15	333603	0	425700	0	1.2761	Si
726	Y	55	25	5.53	3.8	5.53	3.8	SLV 2	-316238	0	-425700	0	1.3461	Si
734	Y	83.6	25	8.4	3.8	8.4	3.8	SLV 14	-455435	0	-641356	0	1.4082	Si
747	Y	100	25	10.05	3.8	10.05	3.8	SLV 13	-539957	0	-777099	0	1.4392	Si
803	Y	57	25	5.73	3.8	5.73	3.8	SLV 3	-296456	0	-441940	0	1.4907	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
726	Y	55	25	5.53	3.8	5.53	3.8	SLD 15	173742	0	425700	0	2.4502	Si
734	Y	83.6	25	8.4	3.8	8.4	3.8	SLD 14	-261738	0	-641356	0	2.4504	Si
747	Y	100	25	10.05	3.8	10.05	3.8	SLD 13	-307424	0	-777099	0	2.5278	Si
813	Y	57	25	5.73	3.8	5.73	3.8	SLD 16	-174419	0	-441940	0	2.5338	Si
803	Y	57	25	5.73	3.8	5.73	3.8	SLD 3	-174383	0	-441940	0	2.5343	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
719	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLV 1	5324	0	6281	6281	0	25529	2.5	5.529	1.1797	Si

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrdd	cotgθ	Asl	c.s.	Verifica
741	Y	95	25	9.55	3.8	9.55	3.8	0	0	SLV 14	-9095	0	10845	10845	0	44081	2.5	9.547	1.1924	Si
721	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLV 16	-5231	0	6281	6281	0	25530	2.5	5.529	1.2008	Si
721	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 14	9058	0	10996	10996	0	42914	2.5	10.053	1.2139	Si
721	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLV 1	5106	0	6281	6281	0	25530	2.5	5.529	1.2301	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrdd	cotgθ	Asl	c.s.	Verifica
721	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 14	6087	0	16493	16493	0	42914	2.5	10.053	2.7098	Si
719	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLD 1	3443	0	9421	9421	0	25529	2.5	5.529	2.7366	Si
734	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 14	5755	0	16493	16493	0	42914	2.5	10.053	2.8661	Si
741	Y	95	25	9.55	3.8	9.55	3.8	0	0	SLD 14	-5641	0	16268	16268	0	44081	2.5	9.547	2.8838	Si
717	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 9	5073	0	16493	16493	0	42914	2.5	10.053	3.2511	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
717	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-106590	0	-9.2	112.1	15	Si
721	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-97524	0	-8.4	112.1	15	Si
719	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-95889	0	-8.2	112.1	15	Si
717	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-124112	0	-10.7	149.4	15	Si
721	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-114255	0	-9.8	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
717	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-124112	0	90.9	3600	15	Si
813	Y	57	25	5.73	3.8	5.73	3.8	SLE RA 8	-59453	0	88.9	3600	15	Si
804	Y	57	25	5.73	3.8	5.73	3.8	SLE RA 8	-59300	0	88.7	3600	15	Si
803	Y	57	25	5.73	3.8	5.73	3.8	SLE RA 8	-58891	0	88.1	3600	15	Si
721	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-114255	0	83.7	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Piastra a "Quarto Impalcato"

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1790; 687; 1240), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi

Verifiche SLU flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2945	Y	57	25	5.73	3.8	5.73	3.8	SLV 3	-323230	0	-441940	0	1.3673	Si
2957	Y	57	25	5.73	3.8	5.73	3.8	SLV 16	-308584	0	-441940	0	1.4322	Si
2862	X	100	25	10.05	5.4	10.05	5.4	SLV 6	-447036	0	-736964	0	1.6486	Si
2871	Y	86.9	25	8.74	3.8	8.74	3.8	SLV 14	-402322	0	-669207	0	1.6634	Si
2864	Y	60	25	6.03	3.8	6.03	3.8	SLV 2	-262029	0	-466259	0	1.7794	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2945	Y	57	25	5.73	3.8	5.73	3.8	SLD 3	-187371	0	-441940	0	2.3586	Si
2957	Y	57	25	5.73	3.8	5.73	3.8	SLD 16	-178080	0	-441940	0	2.4817	Si
2862	X	100	25	10.05	5.4	10.05	5.4	SLD 6	-279507	0	-736964	0	2.6367	Si
2871	Y	86.9	25	8.74	3.8	8.74	3.8	SLD 14	-247389	0	-669207	0	2.7051	Si
2877	Y	96	25	9.65	3.8	9.65	3.8	SLD 1	-270763	0	-744054	0	2.748	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrdd	cotgθ	Asl	c.s.	Verifica
2945	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLV 3	5533	0	6509	6509	0	26457	2.5	5.73	1.1764	Si
2946	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLV 3	5445	0	6509	6509	0	26457	2.5	5.73	1.1954	Si
2957	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLV 16	-5418	0	6509	6509	0	26457	2.5	5.73	1.2013	Si
2859	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 10	9022	0	10996	10996	0	42914	2.5	10.053	1.2187	Si
2871	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 14	8903	0	10996	10996	0	42914	2.5	10.053	1.2351	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrdd	cotgθ	Asl	c.s.	Verifica
2859	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 10	6669	0	16493	16493	0	42914	2.5	10.053	2.4731	Si
2871	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 14	6470	0	16493	16493	0	42914	2.5	10.053	2.5492	Si
2877	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 9	5888	0	16493	16493	0	42914	2.5	10.053	2.8011	Si
2945	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLD 3	3473	0	9764	9764	0	26457	2.5	5.73	2.8113	Si
2946	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLD 3	3428	0	9764	9764	0	26457	2.5	5.73	2.8479	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
2859	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-134879	0	-11.6	112.1	15	Si
2871	Y	86.9	25	8.74	3.8	8.74	3.8	SLE QP 4	-117669	0	-11.1	112.1	15	Si
2859	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-154002	0	-13.2	149.4	15	Si
2871	Y	86.9	25	8.74	3.8	8.74	3.8	SLE RA 8	-135325	0	-12.7	149.4	15	Si
2877	Y	96	25	9.65	3.8	9.65	3.8	SLE QP 4	-106757	0	-9.1	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
2871	Y	86.9	25	8.74	3.8	8.74	3.8	SLE RA 8	-135325	0	132.8	3600	15	Si
2859	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-154002	0	112.8	3600	15	Si
2877	Y	96	25	9.65	3.8	9.65	3.8	SLE RA 8	-120829	0	107.4	3600	15	Si
2945	Y	57	25	5.73	3.8	5.73	3.8	SLE RA 8	-59847	0	89.5	3600	15	Si
2871	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-119128	0	87.3	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Piastra a "Quinto Impalcato"

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1790; 687; 1550), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3655	Y	57	25	5.73	3.8	5.73	3.8	SLV 3	-229535	0	-441940	0	1.9254	Si
3630	X	55	25	5.53	5.4	5.53	5.4	SLV 9	206639	0	403123	0	1.9509	Si
3631	X	55	25	5.53	5.4	5.53	5.4	SLV 6	188319	0	403122	0	2.1406	Si
3665	Y	57	25	5.73	3.8	5.73	3.8	SLV 16	-196132	0	-441940	0	2.2533	Si
3628	X	100	25	10.05	5.4	10.05	5.4	SLV 9	317883	0	736964	0	2.3183	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3630	X	55	25	5.53	5.4	5.53	5.4	SLD 9	128422	0	403123	0	3.139	Si
3655	Y	57	25	5.73	3.8	5.73	3.8	SLD 3	-134515	0	-441940	0	3.2854	Si
3567	X	100	25	10.05	5.4	10.05	5.4	SLD 10	-219925	0	-736964	0	3.351	Si
3631	X	55	25	5.53	5.4	5.53	5.4	SLD 6	118012	0	403122	0	3.416	Si
3628	X	100	25	10.05	5.4	10.05	5.4	SLD 9	211341	0	736964	0	3.4871	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
3567	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 6	8944	0	10996	10996	0	42914	2.5	10.053	1.2293	Si
3565	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLV 10	-4694	0	6281	6281	0	25530	2.5	5.529	1.338	Si
3575	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 9	-8057	0	10996	10996	0	42914	2.5	10.053	1.3648	Si
3564	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 9	-8033	0	10996	10996	0	42914	2.5	10.053	1.3687	Si
3581	Y	89	25	8.94	3.8	8.94	3.8	0	0	SLV 9	-7002	0	10160	10160	0	41298	2.5	8.944	1.4511	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
3567	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 6	6769	0	16493	16493	0	42914	2.5	10.053	2.4367	Si
3565	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLD 10	-3507	0	9421	9421	0	25530	2.5	5.529	2.6865	Si
3575	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 9	-5641	0	16493	16493	0	42914	2.5	10.053	2.9239	Si
3564	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 9	-5608	0	16493	16493	0	42914	2.5	10.053	2.9412	Si
3581	Y	89	25	8.94	3.8	8.94	3.8	0	0	SLD 9	-5054	0	15240	15240	0	41298	2.5	8.944	3.0156	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	oc	olim	Es/Ec	Verifica
3567	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-134950	0	-11.6	112.1	15	Si
3567	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-152927	0	-13.1	149.4	15	Si
3565	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-112697	0	-9.7	112.1	15	Si
3588	Y	100	25	10.05	3.8	10.05	3.8	SLE QP 4	-112099	0	-9.2	112.1	15	Si
3579	Y	85.7	25	8.62	3.8	8.62	3.8	SLE QP 4	-93192	0	-8.9	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	of	olim	Es/Ec	Verifica
3567	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-152927	0	112	3600	15	Si
3588	Y	100	25	10.05	3.8	10.05	3.8	SLE RA 8	-126260	0	107.7	3600	15	Si
3579	Y	85.7	25	8.62	3.8	8.62	3.8	SLE RA 8	-105369	0	104.8	3600	15	Si
3565	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-127880	0	93.7	3600	15	Si
3581	Y	89	25	8.94	3.8	8.94	3.8	SLE RA 8	-96150	0	92.2	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Piastra a "Secondo Impalcato"

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1785; 687; 620), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1448	Y	55	25	5.53	3.8	5.53	3.8	SLV 2	-358574	0	-425700	0	1.1872	Si
1448	Y	55	25	5.53	3.8	5.53	3.8	SLV 15	354254	0	425700	0	1.2017	Si
1458	Y	83.6	25	8.4	3.8	8.4	3.8	SLV 14	-492566	0	-641356	0	1.3021	Si
1471	Y	100	25	10.05	3.8	10.05	3.8	SLV 15	-568385	0	-777099	0	1.3672	Si
1467	Y	100	25	10.05	3.8	10.05	3.8	SLV 2	-554034	0	-777099	0	1.4026	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1458	Y	83.6	25	8.4	3.8	8.4	3.8	SLD 14	-282462	0	-641356	0	2.2706	Si
1448	Y	55	25	5.53	3.8	5.53	3.8	SLD 2	-183899	0	-425700	0	2.3149	Si
1448	Y	55	25	5.53	3.8	5.53	3.8	SLD 15	178796	0	425700	0	2.3809	Si
1471	Y	100	25	10.05	3.8	10.05	3.8	SLD 15	-323305	0	-777099	0	2.4036	Si
1461	Y	86.2	25	8.67	3.8	8.67	3.8	SLD 1	-268100	0	-663736	0	2.4757	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1443	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLV 16	-5948	0	6281	6281	0	25530	2.5	5.529	1.056	Si
1443	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLV 1	5837	0	6281	6281	0	25530	2.5	5.529	1.0761	Si
1465	Y	95	25	9.55	3.8	9.55	3.8	0	0	SLV 14	-9874	0	10845	10845	0	44081	2.5	9.547	1.0983	Si
1443	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 14	9446	0	10996	10996	0	42914	2.5	10.053	1.164	Si
1447	Y	55	25	5.53	3.8	5.53	3.8	0	0	SLV 2	-5354	0	6281	6281	0	25530	2.5	5.529	1.1731	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1443	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 14	6424	0	16493	16493	0	42914	2.5	10.053	2.5674	Si
1465	Y	95	25	9.55	3.8	9.55	3.8	0	0	SLD 14	-6123	0	16268	16268	0	44081	2.5	9.547	2.6569	Si
1458	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 14	6147	0	16493	16493	0	42914	2.5	10.053	2.6831	Si
1459	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 5	5908	0	16493	16493	0	42914	2.5	10.053	2.7915	Si
1461	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 9	5450	0	16493	16493	0	42914	2.5	10.053	3.0262	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
1443	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-109150	0	-9.4	112.1	15	Si
1443	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-122880	0	-10.6	149.4	15	Si
1461	Y	86.2	25	8.67	3.8	8.67	3.8	SLE QP 4	-77704	0	-7.4	112.1	15	Si
1458	Y	83.6	25	8.4	3.8	8.4	3.8	SLE QP 4	-66322	0	-6.5	112.1	15	Si
1471	Y	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-78380	0	-6.4	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
1443	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-122880	0	90	3600	15	Si
1461	Y	86.2	25	8.67	3.8	8.67	3.8	SLE RA 8	-86941	0	86	3600	15	Si
1458	Y	83.6	25	8.4	3.8	8.4	3.8	SLE RA 8	-74811	0	76.3	3600	15	Si
1471	Y	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-88982	0	75.9	3600	15	Si
1538	Y	57	25	5.73	3.8	5.73	3.8	SLE RA 8	-40963	0	61.3	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Piastra a "Terzo Impalcato"

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1790; 687; 930), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2244	Y	57	25	5.73	3.8	5.73	3.8	SLV 3	-378484	0	-441940	0	1.1677	Si
2254	Y	57	25	5.73	3.8	5.73	3.8	SLV 16	-361837	0	-441940	0	1.2214	Si
2152	Y	60	25	6.03	3.8	6.03	3.8	SLV 2	-299704	0	-466259	0	1.5557	Si
2152	X	100	25	10.05	5.4	10.05	5.4	SLV 2	-466430	0	-736964	0	1.58	Si
2244	Y	57	25	5.73	3.8	5.73	3.8	SLV 14	278482	0	441940	0	1.587	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2244	Y	57	25	5.73	3.8	5.73	3.8	SLD 3	-216927	0	-441940	0	2.0373	Si
2254	Y	57	25	5.73	3.8	5.73	3.8	SLD 16	-207420	0	-441940	0	2.1307	Si
2150	X	100	25	10.05	5.4	10.05	5.4	SLD 6	-266472	0	-736964	0	2.7656	Si
2152	X	100	25	10.05	5.4	10.05	5.4	SLD 2	-265149	0	-736964	0	2.7794	Si
2173	Y	100	25	10.05	5.4	10.05	5.4	SLD 14	-272370	0	-777099	0	2.8531	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2156	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 14	9449	0	10996	10996	0	42914	2.5	10.053	1.1637	Si
2158	X	100	25	10.05	5.4	10.05	5.4	0	0	SLV 14	9047	0	10996	10996	0	42914	2.5	10.053	1.2154	Si
2245	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLV 3	5291	0	6509	6509	0	26457	2.5	5.73	1.2303	Si
2253	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLV 16	-5246	0	6509	6509	0	26457	2.5	5.73	1.2409	Si
2244	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLV 3	5170	0	6509	6509	0	26457	2.5	5.73	1.2591	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2156	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 14	6701	0	16493	16493	0	42914	2.5	10.053	2.4612	Si
2158	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 14	6090	0	16493	16493	0	42914	2.5	10.053	2.7085	Si
2146	X	100	25	10.05	5.4	10.05	5.4	0	0	SLD 9	-5863	0	16493	16493	0	42914	2.5	10.053	2.8131	Si
2158	Y	85.6	25	8.61	3.8	8.61	3.8	0	0	SLD 13	5106	0	14666	14666	0	39740	2.5	8.607	2.872	Si
2245	Y	57	25	5.73	3.8	5.73	3.8	0	0	SLD 3	3259	0	9764	9764	0	26457	2.5	5.73	2.9954	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
2150	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-102343	0	-8.8	112.1	15	Si
2158	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-93707	0	-8.1	112.1	15	Si
2150	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-119705	0	-10.3	149.4	15	Si
2178	Y	100	25	10.05	3.8	10.05	3.8	SLE QP 4	-92816	0	-7.6	112.1	15	Si
2159	X	100	25	10.05	5.4	10.05	5.4	SLE QP 4	-87246	0	-7.5	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
2178	Y	100	25	10.05	3.8	10.05	3.8	SLE RA 8	-105522	0	90	3600	15	Si
2244	Y	57	25	5.73	3.8	5.73	3.8	SLE RA 8	-59646	0	89.2	3600	15	Si
2150	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-119705	0	87.7	3600	15	Si
2254	Y	57	25	5.73	3.8	5.73	3.8	SLE RA 8	-54914	0	82.2	3600	15	Si
2158	X	100	25	10.05	5.4	10.05	5.4	SLE RA 8	-109022	0	79.8	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.1

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2120; 530.8; 99.7), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; -0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
323	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	-117445	0	-189491	0	1.6134	Si
323	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-115994	0	-189491	0	1.6336	Si
220	Y	81.7	15	8.21	3.8	8.21	3.8	SLV 2	-166804	0	-305690	0	1.8326	Si
220	Y	81.7	15	8.21	3.8	8.21	3.8	SLV 15	-157896	0	-305690	0	1.936	Si
204	Y	100	15	10.05	3.8	10.05	3.8	SLV 2	-173612	0	-385198	0	2.2187	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
323	Y	50	15	5.03	3.8	5.03	3.8	SLD 2	-58850	0	-189491	0	3.2199	Si
323	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	58429	0	-189491	0	3.2431	Si
220	Y	81.7	15	8.21	3.8	8.21	3.8	SLD 2	-85692	0	-305690	0	3.5673	Si
220	Y	81.7	15	8.21	3.8	8.21	3.8	SLD 15	77674	0	-305690	0	3.9356	Si
204	Y	100	15	10.05	3.8	10.05	3.8	SLD 2	-92256	0	-385198	0	4.1753	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
324	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 15	-2219	0	3786	3786	0	12261	2.5	5.027	1.706	Si
323	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 15	-2219	0	3786	3786	0	12261	2.5	5.027	1.706	Si
324	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 2	2084	0	3786	3786	0	12261	2.5	5.027	1.8163	Si
323	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 2	2084	0	3786	3786	0	12261	2.5	5.027	1.8163	Si
113	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 16	-1715	0	3786	3786	0	12261	2.5	5.027	2.2077	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
324	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 15	-1160	0	5679	5679	0	12261	2.5	5.027	4.8972	Si
323	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 15	-1160	0	5679	5679	0	12261	2.5	5.027	4.8972	Si
113	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 16	-1046	0	5679	5679	0	12261	2.5	5.027	5.4305	Si
323	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 2	1025	0	5679	5679	0	12261	2.5	5.027	5.5412	Si
324	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 2	1025	0	5679	5679	0	12261	2.5	5.027	5.5412	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
328	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-11423	0	-5.8	149.4	15	Si
328	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-8522	0	-4.3	112.1	15	Si
327	X	78	15	7.84	5.4	7.84	5.4	SLE QP 4	-13209	0	-4.3	112.1	15	Si
327	X	78	15	7.84	5.4	7.84	5.4	SLE RA 8	-17548	0	-5.7	149.4	15	Si
326	X	100	15	10.05	5.4	10.05	5.4	SLE QP 4	-16296	0	-4.1	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
138	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-23390	0	40.2	3600	15	Si
124	Y	81.7	15	8.21	3.8	8.21	3.8	SLE RA 8	-18798	0	39.6	3600	15	Si
109	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-10853	0	37.4	3600	15	Si
184	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-21493	0	37	3600	15	Si
112	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	8439	0	29	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.2

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1975.8; 362; 185.8), direzione dell'asse X = (0.843; 0; -0.538), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
447	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-185920	0	-189491	0	1.0192	Si
456	Y	78	15	7.84	3.8	7.84	3.8	SLV 15	-292923	0	-299698	0	1.0231	Si
475	Y	100	15	10.05	3.8	10.05	3.8	SLV 15	-372988	0	-385198	0	1.0327	Si
464	Y	100	15	10.05	3.8	10.05	3.8	SLV 15	-371374	0	-385198	0	1.0372	Si
447	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	175482	0	-189491	0	1.0798	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
447	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-96898	0	-189491	0	1.9556	Si
456	Y	78	15	7.84	3.8	7.84	3.8	SLD 15	-152755	0	-299698	0	1.962	Si
475	Y	100	15	10.05	3.8	10.05	3.8	SLD 15	-194767	0	-385198	0	1.9777	Si
464	Y	100	15	10.05	3.8	10.05	3.8	SLD 15	-193824	0	-385198	0	1.9874	Si
280	Y	78	15	7.84	3.8	7.84	3.8	SLD 4	-142720	0	-299698	0	2.0999	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrcd	cotgθ	Asl	c.s.	Verifica
289	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 4	-5621	0	7572	7572	0	24522	2.5	10.053	1.3471	Si
342	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 4	-5621	0	7572	7572	0	24522	2.5	10.053	1.3471	Si
432	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	5211	0	7572	7572	0	24522	2.5	10.053	1.453	Si
464	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	5211	0	7572	7572	0	24522	2.5	10.053	1.453	Si
475	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	5152	0	7572	7572	0	24522	2.5	10.053	1.4697	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrcd	cotgθ	Asl	c.s.	Verifica
342	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 4	-3034	0	11357	11357	0	24522	2.5	10.053	3.7433	Si
289	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 4	-3034	0	11357	11357	0	24522	2.5	10.053	3.7433	Si
432	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	2870	0	11357	11357	0	24522	2.5	10.053	3.9567	Si
464	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	2870	0	11357	11357	0	24522	2.5	10.053	3.9567	Si
475	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	2833	0	11357	11357	0	24522	2.5	10.053	4.0091	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
357	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9163	0	-4.3	149.4	15	Si
357	Y	50	15	5.03	3.8	5.03	3.8	SLE QP 4	6821	0	-3.2	112.1	15	Si
356	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	13878	0	-4.1	149.4	15	Si
356	Y	78	15	7.84	3.8	7.84	3.8	SLE QP 4	10312	0	-3.1	112.1	15	Si
352	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	8784	0	-4.1	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
357	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9163	0	31.5	3600	15	Si
356	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	13878	0	30.6	3600	15	Si
352	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	8784	0	30.2	3600	15	Si
355	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	17369	0	29.9	3600	15	Si
353	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	13403	0	29.6	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.3

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1810; 519.2; 185.8), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; 0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
501	Y	50	15	5.03	3.8	5.03	3.8	SLV 1	107490	0	189491	0	1.7629	Si
500	X	50	15	5.03	5.4	5.03	5.4	SLV 16	-88720	0	-166331	0	1.8748	Si
501	X	78	15	7.84	5.4	7.84	5.4	SLV 16	-141862	0	-268869	0	1.8953	Si
505	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-99060	0	-189491	0	1.9129	Si
501	Y	50	15	5.03	3.8	5.03	3.8	SLV 16	-92527	0	-189491	0	2.048	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
501	Y	50	15	5.03	3.8	5.03	3.8	SLD 1	58248	0	189491	0	3.2532	Si
500	X	50	15	5.03	5.4	5.03	5.4	SLD 16	-49354	0	-166331	0	3.3701	Si
501	X	78	15	7.84	5.4	7.84	5.4	SLD 16	-77637	0	-268869	0	3.4632	Si
505	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-52923	0	-189491	0	3.5805	Si
552	Y	82.4	15	8.28	3.8	8.28	3.8	SLD 1	79108	0	308763	0	3.9031	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrcd	cotgθ	Asl	c.s.	Verifica
500	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	2339	0	3786	3786	0	12261	2.5	5.027	1.6184	Si
501	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	2339	0	3786	3786	0	12261	2.5	5.027	1.6184	Si
643	X	78	15	7.84	5.4	7.84	5.4	0	0	SLV 13	-3026	0	5329	5329	0	16395	2.5	7.841	1.7612	Si
652	X	78	15	7.84	5.4	7.84	5.4	0	0	SLV 13	-3026	0	5329	5329	0	16395	2.5	7.841	1.7612	Si
551	X	50	15	5.03	5.4	5.03	5.4	0	0	SLV 16	1899	0	3416	3416	0	10510	2.5	5.027	1.7989	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrcd	cotgθ	Asl	c.s.	Verifica
652	X	78	15	7.84	5.4	7.84	5.4	0	0	SLD 13	-1818	0	7994	7994	0	16395	2.5	7.841	4.3963	Si
643	X	78	15	7.84	5.4	7.84	5.4	0	0	SLD 13	-1818	0	7994	7994	0	16395	2.5	7.841	4.3963	Si
500	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1260	0	5679	5679	0	12261	2.5	5.027	4.5062	Si
501	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1260	0	5679	5679	0	12261	2.5	5.027	4.5062	Si
551	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 16	1019	0	5124	5124	0	10510	2.5	5.027	5.0284	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
637	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-40376	0	-9.4	112.1	15	Si
637	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-53351	0	-12.4	149.4	15	Si
500	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-17621	0	-9	112.1	15	Si
500	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-23416	0	-11.9	149.4	15	Si
575	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-35048	0	-8.1	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ _f	σ _{lim}	Es/Ec	Verifica
637	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-53351	0	91.8	3600	15	Si
575	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-45837	0	78.9	3600	15	Si
652	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-20172	0	69.4	3600	15	Si
643	Y	82.4	15	8.28	3.8	8.28	3.8	SLE RA 8	-29832	0	62.3	3600	15	Si
636	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-34100	0	58.7	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.4

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2120; 530.8; 409.7), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; -0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1024	Y	50	15	5.03	3.8	5.03	3.8	SLV 4	-138089	0	-189491	0	1.3722	Si
1024	Y	50	15	5.03	3.8	5.03	3.8	SLV 13	131002	0	189491	0	1.4465	Si
820	X	50	15	5.03	5.4	5.03	5.4	SLV 2	-102237	0	-166331	0	1.6269	Si
913	Y	83.4	15	8.39	3.8	8.39	3.8	SLV 3	-190814	0	-313423	0	1.6426	Si
913	Y	83.4	15	8.39	3.8	8.39	3.8	SLV 14	173681	0	313423	0	1.8046	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1024	Y	50	15	5.03	3.8	5.03	3.8	SLD 4	-71571	0	-189491	0	2.6476	Si
820	X	50	15	5.03	5.4	5.03	5.4	SLD 2	-59616	0	-166331	0	2.79	Si
1024	Y	50	15	5.03	3.8	5.03	3.8	SLD 13	64239	0	189491	0	2.9498	Si
913	Y	83.4	15	8.39	3.8	8.39	3.8	SLD 3	-100231	0	-313423	0	3.127	Si
913	Y	83.4	15	8.39	3.8	8.39	3.8	SLD 14	83037	0	313423	0	3.7745	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
825	X	100	15	10.05	5.4	10.05	5.4	0	0	SLV 14	-4803	0	6832	6832	0	21019	2.5	10.053	1.4225	Si
820	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 2	2505	0	3786	3786	0	12261	2.5	5.027	1.5114	Si
1024	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 2	2489	0	3786	3786	0	12261	2.5	5.027	1.5213	Si
1024	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 15	-2462	0	3786	3786	0	12261	2.5	5.027	1.5378	Si
828	X	50	15	5.03	5.4	5.03	5.4	0	0	SLV 2	-2122	0	3416	3416	0	10510	2.5	5.027	1.6101	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
825	X	100	15	10.05	5.4	10.05	5.4	0	0	SLD 14	-2963	0	10248	10248	0	21019	2.5	10.053	3.4588	Si
828	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 2	-1237	0	5124	5124	0	10510	2.5	5.027	4.1439	Si
820	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 2	-1235	0	5124	5124	0	10510	2.5	5.027	4.1488	Si
820	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 2	1318	0	5679	5679	0	12261	2.5	5.027	4.3074	Si
1024	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 2	1269	0	5679	5679	0	12261	2.5	5.027	4.4735	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ _c	σ _{lim}	Es/Ec	Verifica
820	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-16403	0	-8.4	112.1	15	Si
820	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-20422	0	-10.4	149.4	15	Si
826	X	100	15	10.05	5.4	10.05	5.4	SLE QP 4	-14612	0	-3.7	112.1	15	Si
827	X	78	15	7.84	5.4	7.84	5.4	SLE QP 4	-10043	0	-3.3	112.1	15	Si
825	X	100	15	10.05	5.4	10.05	5.4	SLE QP 4	-12848	0	-3.3	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σ _f	σ _{lim}	Es/Ec	Verifica
820	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-20422	0	43.7	3600	15	Si
905	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-15653	0	26.9	3600	15	Si
892	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-15356	0	26.4	3600	15	Si
833	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-14076	0	24.2	3600	15	Si
913	Y	83.4	15	8.39	3.8	8.39	3.8	SLE RA 8	-9929	0	20.5	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.5

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1975.8; 362; 495.8), direzione dell'asse X = (0.843; 0; -0.538), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1019	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	-185298	0	-189491	0	1.0226	Si
1121	Y	78	15	7.84	3.8	7.84	3.8	SLV 2	279306	0	299698	0	1.073	Si
1120	Y	100	15	10.05	3.8	10.05	3.8	SLV 2	340129	0	385198	0	1.1325	Si
1019	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	165963	0	189491	0	1.1418	Si
1121	Y	78	15	7.84	3.8	7.84	3.8	SLV 15	-262067	0	-299698	0	1.1436	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1019	Y	50	15	5.03	3.8	5.03	3.8	SLD 2	-98688	0	-189491	0	1.9201	Si
1121	Y	78	15	7.84	3.8	7.84	3.8	SLD 2	145904	0	299698	0	2.0541	Si
1120	Y	100	15	10.05	3.8	10.05	3.8	SLD 2	177505	0	385198	0	2.1701	Si
1117	Y	50	15	5.03	3.8	5.03	3.8	SLD 2	83619	0	189491	0	2.2661	Si
1119	Y	100	15	10.05	3.8	10.05	3.8	SLD 2	169789	0	385198	0	2.2687	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1037	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLV 4	-5448	0	5906	5906	0	19127	2.5	7.841	1.0841	Si
1039	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 2	-6880	0	7572	7572	0	24522	2.5	10.053	1.1005	Si
1119	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	6658	0	7572	7572	0	24522	2.5	10.053	1.1372	Si
1120	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	6611	0	7572	7572	0	24522	2.5	10.053	1.1453	Si
1121	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLV 15	5123	0	5906	5906	0	19127	2.5	7.841	1.1528	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1037	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLD 4	-2949	0	8859	8859	0	19127	2.5	7.841	3.0041	Si
1039	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 2	-3737	0	11357	11357	0	24522	2.5	10.053	3.0395	Si
1119	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	3547	0	11357	11357	0	24522	2.5	10.053	3.2021	Si
1120	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	3511	0	11357	11357	0	24522	2.5	10.053	3.235	Si
1121	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLD 15	2718	0	8859	8859	0	19127	2.5	7.841	3.2598	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
1019	Y	50	15	5.03	3.8	5.03	3.8	SLE QP 4	-9640	0	-4.5	112.1	15	Si
1019	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-12097	0	-5.6	149.4	15	Si
1112	Y	50	15	5.03	3.8	5.03	3.8	SLE QP 4	7344	0	-3.4	112.1	15	Si
1107	Y	50	15	5.03	3.8	5.03	3.8	SLE QP 4	7314	0	-3.4	112.1	15	Si
1112	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9735	0	-4.5	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
1019	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-12097	0	41.6	3600	15	Si
1112	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9735	0	33.5	3600	15	Si
1107	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9659	0	33.2	3600	15	Si
1111	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	14964	0	33	3600	15	Si
1108	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	14873	0	32.8	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.6

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1810; 519.2; 495.8), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; 0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1193	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-132169	0	-189491	0	1.4337	Si
1189	Y	50	15	5.03	3.8	5.03	3.8	SLV 1	121585	0	189491	0	1.5585	Si
1193	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	121393	0	189491	0	1.561	Si
1188	X	50	15	5.03	5.4	5.03	5.4	SLV 16	-102344	0	-166331	0	1.6252	Si
1189	X	78	15	7.84	5.4	7.84	5.4	SLV 16	-163544	0	-268869	0	1.644	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1193	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-69451	0	-189491	0	2.7284	Si
1189	Y	50	15	5.03	3.8	5.03	3.8	SLD 1	64897	0	189491	0	2.9199	Si
1188	X	50	15	5.03	5.4	5.03	5.4	SLD 15	-56435	0	-166331	0	2.9473	Si
1189	X	78	15	7.84	5.4	7.84	5.4	SLD 16	-89130	0	-268869	0	3.0166	Si
1241	Y	85	15	8.54	3.8	8.54	3.8	SLD 15	-101606	0	-320405	0	3.1534	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1189	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	2677	0	3786	3786	0	12261	2.5	5.027	1.4144	Si
1188	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	2677	0	3786	3786	0	12261	2.5	5.027	1.4144	Si
1329	X	78	15	7.84	5.4	7.84	5.4	0	0	SLV 13	-3663	0	5329	5329	0	16395	2.5	7.841	1.4549	Si
1338	X	78	15	7.84	5.4	7.84	5.4	0	0	SLV 13	-3663	0	5329	5329	0	16395	2.5	7.841	1.4549	Si
1193	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 15	-2458	0	3786	3786	0	12261	2.5	5.027	1.5403	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1329	X	78	15	7.84	5.4	7.84	5.4	0	0	SLD 9	-2287	0	7994	7994	0	16395	2.5	7.841	3.495	Si
1338	X	78	15	7.84	5.4	7.84	5.4	0	0	SLD 9	-2287	0	7994	7994	0	16395	2.5	7.841	3.495	Si
1189	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1422	0	5679	5679	0	12261	2.5	5.027	3.9925	Si
1188	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1422	0	5679	5679	0	12261	2.5	5.027	3.9925	Si
1236	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 16	1165	0	5124	5124	0	10510	2.5	5.027	4.3967	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
1321	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-40094	0	-9.3	112.1	15	Si
1321	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-53034	0	-12.3	149.4	15	Si
1188	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-18161	0	-9.2	112.1	15	Si
1188	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-23998	0	-12.2	149.4	15	Si
1261	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-35186	0	-8.2	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
1321	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-53034	0	91.3	3600	15	Si
1261	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-45926	0	79	3600	15	Si
1338	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-20394	0	70.2	3600	15	Si
1329	Y	82.4	15	8.28	3.8	8.28	3.8	SLE RA 8	-29554	0	61.7	3600	15	Si
1320	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-33874	0	58.3	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.7

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2120; 530.8; 719.7), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; -0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1760	Y	50	15	5.03	3.8	5.03	3.8	SLV 3	-148880	0	-189491	0	1.2728	Si
1760	Y	50	15	5.03	3.8	5.03	3.8	SLV 14	141164	0	189491	0	1.3424	Si
1559	X	50	15	5.03	5.4	5.03	5.4	SLV 2	-121501	0	-166331	0	1.369	Si
1651	Y	83.4	15	8.39	3.8	8.39	3.8	SLV 3	-209593	0	-313423	0	1.4954	Si
1651	Y	83.4	15	8.39	3.8	8.39	3.8	SLV 14	192280	0	313423	0	1.63	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1559	X	50	15	5.03	5.4	5.03	5.4	SLD 2	-72006	0	-166331	0	2.3099	Si
1760	Y	50	15	5.03	3.8	5.03	3.8	SLD 3	-77238	0	-189491	0	2.4534	Si
1760	Y	50	15	5.03	3.8	5.03	3.8	SLD 14	69332	0	189491	0	2.7331	Si
1651	Y	83.4	15	8.39	3.8	8.39	3.8	SLD 3	-110327	0	-313423	0	2.8409	Si
1651	Y	83.4	15	8.39	3.8	8.39	3.8	SLD 14	92673	0	313423	0	3.382	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1559	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 2	2766	0	3786	3786	0	12261	2.5	5.027	1.3687	Si
1567	X	50	15	5.03	5.4	5.03	5.4	0	0	SLV 2	-2420	0	3416	3416	0	10510	2.5	5.027	1.4116	Si
1559	X	50	15	5.03	5.4	5.03	5.4	0	0	SLV 2	-2420	0	3416	3416	0	10510	2.5	5.027	1.4118	Si
1765	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 14	-2581	0	3786	3786	0	12261	2.5	5.027	1.4667	Si
1764	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 14	-2581	0	3786	3786	0	12261	2.5	5.027	1.4667	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1559	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 2	-1440	0	5124	5124	0	10510	2.5	5.027	3.5584	Si
1567	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 2	-1435	0	5124	5124	0	10510	2.5	5.027	3.5701	Si
1559	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 2	1501	0	5679	5679	0	12261	2.5	5.027	3.7826	Si
1566	X	78	15	7.84	5.4	7.84	5.4	0	0	SLD 6	-1952	0	7994	7994	0	16395	2.5	7.841	4.0948	Si
1765	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 14	-1364	0	5679	5679	0	12261	2.5	5.027	4.1625	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
1559	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-20614	0	-10.5	112.1	15	Si
1559	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-25056	0	-12.8	149.4	15	Si
1565	X	100	15	10.05	5.4	10.05	5.4	SLE QP 4	-19213	0	-4.9	112.1	15	Si
1566	X	78	15	7.84	5.4	7.84	5.4	SLE QP 4	-14338	0	-4.7	112.1	15	Si
1567	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-8809	0	-4.5	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
1559	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-25056	0	53.6	3600	15	Si
1572	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-15274	0	26.3	3600	15	Si
1641	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-15201	0	26.2	3600	15	Si
1630	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-14373	0	24.7	3600	15	Si
1565	X	100	15	10.05	5.4	10.05	5.4	SLE RA 8	-21405	0	22.9	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.8

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1975.8; 362; 805.8), direzione dell'asse X = (0.843; 0; -0.538), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1860	Y	78	15	7.84	3.8	7.84	3.8	SLV 2	289656	0	299698	0	1.0347	Si
1860	Y	78	15	7.84	3.8	7.84	3.8	SLV 15	-282867	0	-299698	0	1.0595	Si
1859	Y	100	15	10.05	3.8	10.05	3.8	SLV 2	351156	0	385198	0	1.0969	Si
1859	Y	100	15	10.05	3.8	10.05	3.8	SLV 15	-343591	0	-385198	0	1.1211	Si
1856	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	164967	0	189491	0	1.1487	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1860	Y	78	15	7.84	3.8	7.84	3.8	SLD 2	148490	0	299698	0	2.0183	Si
1860	Y	78	15	7.84	3.8	7.84	3.8	SLD 15	-141701	0	-299698	0	2.115	Si
1859	Y	100	15	10.05	3.8	10.05	3.8	SLD 2	180032	0	385198	0	2.1396	Si
1856	Y	50	15	5.03	3.8	5.03	3.8	SLD 2	84987	0	189491	0	2.2297	Si
1859	Y	100	15	10.05	3.8	10.05	3.8	SLD 15	-172389	0	-385198	0	2.2345	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1773	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 2	-7181	0	7572	7572	0	24522	2.5	10.053	1.0543	Si
1860	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLV 13	5521	0	5906	5906	0	19127	2.5	7.841	1.0697	Si
1859	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	7065	0	7572	7572	0	24522	2.5	10.053	1.0717	Si
1771	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLV 4	-5509	0	5906	5906	0	19127	2.5	7.841	1.0721	Si
1858	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	7031	0	7572	7572	0	24522	2.5	10.053	1.0769	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1773	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 2	-3836	0	11357	11357	0	24522	2.5	10.053	2.9608	Si
1860	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLD 13	2960	0	8859	8859	0	19127	2.5	7.841	2.993	Si
1859	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	3793	0	11357	11357	0	24522	2.5	10.053	2.9944	Si
1858	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	3788	0	11357	11357	0	24522	2.5	10.053	2.9981	Si
1771	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLD 4	-2927	0	8859	8859	0	19127	2.5	7.841	3.0267	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	oc	olim	Es/Ec	Verifica
1792	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9200	0	-4.3	149.4	15	Si
1787	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9091	0	-4.2	149.4	15	Si
1791	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	14154	0	-4.2	149.4	15	Si
1792	Y	50	15	5.03	3.8	5.03	3.8	SLE QP 4	6801	0	-3.2	112.1	15	Si
1842	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9057	0	-4.2	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	of	olim	Es/Ec	Verifica
1792	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9200	0	31.7	3600	15	Si
1787	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9091	0	31.3	3600	15	Si
1791	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	14154	0	31.2	3600	15	Si
1842	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9057	0	31.2	3600	15	Si
1847	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	9021	0	31	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.9

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1810; 519.2; 805.8), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; 0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1935	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-143516	0	-189491	0	1.3204	Si
1935	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	130238	0	189491	0	1.455	Si
1980	Y	85	15	8.54	3.8	8.54	3.8	SLV 15	-203591	0	-320405	0	1.5738	Si
1931	Y	50	15	5.03	3.8	5.03	3.8	SLV 1	118702	0	189491	0	1.5964	Si
1931	X	78	15	7.84	5.4	7.84	5.4	SLV 16	-161780	0	-268869	0	1.6619	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
1935	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-75952	0	-189491	0	2.4949	Si
1980	Y	85	15	8.54	3.8	8.54	3.8	SLD 15	-110795	0	-320405	0	2.8919	Si
1931	Y	50	15	5.03	3.8	5.03	3.8	SLD 1	63358	0	189491	0	2.9908	Si
1935	Y	50	15	5.03	3.8	5.03	3.8	SLD 2	62722	0	189491	0	3.0211	Si
1931	X	78	15	7.84	5.4	7.84	5.4	SLD 16	-87493	0	-268869	0	3.073	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1931	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	3221	0	3786	3786	0	12261	2.5	5.027	1.1752	Si
1930	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	3221	0	3786	3786	0	12261	2.5	5.027	1.1752	Si
1931	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 16	-2971	0	3786	3786	0	12261	2.5	5.027	1.2743	Si
1930	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 16	-2971	0	3786	3786	0	12261	2.5	5.027	1.2743	Si
1935	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 15	-2699	0	3786	3786	0	12261	2.5	5.027	1.4028	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
1931	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1697	0	5679	5679	0	12261	2.5	5.027	3.3458	Si
1930	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1697	0	5679	5679	0	12261	2.5	5.027	3.3458	Si
1931	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 16	-1447	0	5679	5679	0	12261	2.5	5.027	3.9248	Si
1930	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 16	-1447	0	5679	5679	0	12261	2.5	5.027	3.9248	Si
1935	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 15	-1393	0	5679	5679	0	12261	2.5	5.027	4.0774	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
2063	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-40290	0	-9.4	112.1	15	Si
2063	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-53094	0	-12.3	149.4	15	Si
1930	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-17751	0	-9	112.1	15	Si
1930	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-23589	0	-12	149.4	15	Si
2017	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-36365	0	-8.5	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
2063	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-53094	0	91.4	3600	15	Si
2017	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-47227	0	81.3	3600	15	Si
2001	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-34678	0	59.7	3600	15	Si
2062	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-34141	0	58.7	3600	15	Si
1930	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-23589	0	50.5	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.10

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2120; 530.8; 1029.7), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; -0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2461	Y	50	15	5.03	3.8	5.03	3.8	SLV 3	-139377	0	-189491	0	1.3596	Si
2461	Y	50	15	5.03	3.8	5.03	3.8	SLV 14	128200	0	189491	0	1.4781	Si
2360	Y	83.4	15	8.39	3.8	8.39	3.8	SLV 3	-198447	0	-313423	0	1.5794	Si
2360	Y	83.4	15	8.39	3.8	8.39	3.8	SLV 14	176722	0	313423	0	1.7735	Si
2339	Y	100	15	10.05	3.8	10.05	3.8	SLV 3	-191677	0	-385198	0	2.0096	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2461	Y	50	15	5.03	3.8	5.03	3.8	SLD 3	-73563	0	-189491	0	2.5759	Si
2360	Y	83.4	15	8.39	3.8	8.39	3.8	SLD 3	-106239	0	-313423	0	2.9502	Si
2461	Y	50	15	5.03	3.8	5.03	3.8	SLD 14	61788	0	189491	0	3.0668	Si
2271	X	50	15	5.03	5.4	5.03	5.4	SLD 2	-45179	0	-166331	0	3.6816	Si
2339	Y	100	15	10.05	3.8	10.05	3.8	SLD 3	-103773	0	-385198	0	3.7119	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2271	X	50	15	5.03	5.4	5.03	5.4	0	0	SLV 6	-2290	0	3416	3416	0	10510	2.5	5.027	1.492	Si
2270	X	78	15	7.84	5.4	7.84	5.4	0	0	SLV 6	-3515	0	5329	5329	0	16395	2.5	7.841	1.516	Si
2269	X	100	15	10.05	5.4	10.05	5.4	0	0	SLV 10	-4446	0	6832	6832	0	21019	2.5	10.053	1.5366	Si
2466	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 14	-2303	0	3786	3786	0	12261	2.5	5.027	1.6441	Si
2465	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 14	-2303	0	3786	3786	0	12261	2.5	5.027	1.6441	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2269	X	100	15	10.05	5.4	10.05	5.4	0	0	SLD 10	-2842	0	10248	10248	0	21019	2.5	10.053	3.6064	Si
2271	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 6	-1418	0	5124	5124	0	10510	2.5	5.027	3.6132	Si
2270	X	78	15	7.84	5.4	7.84	5.4	0	0	SLD 6	-2199	0	7994	7994	0	16395	2.5	7.841	3.6356	Si
2466	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 14	-1232	0	5679	5679	0	12261	2.5	5.027	4.6112	Si
2465	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 14	-1231	0	5679	5679	0	12261	2.5	5.027	4.6112	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
2269	X	100	15	10.05	5.4	10.05	5.4	SLE QP 4	-23621	0	-6	112.1	15	Si
2270	X	78	15	7.84	5.4	7.84	5.4	SLE QP 4	-18155	0	-5.9	112.1	15	Si
2271	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-11262	0	-5.7	112.1	15	Si
2269	X	100	15	10.05	5.4	10.05	5.4	SLE RA 8	-26776	0	-6.8	149.4	15	Si
2270	X	78	15	7.84	5.4	7.84	5.4	SLE RA 8	-20438	0	-6.7	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
2276	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-18274	0	31.4	3600	15	Si
2339	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-16965	0	29.2	3600	15	Si
2269	X	100	15	10.05	5.4	10.05	5.4	SLE RA 8	-26776	0	28.6	3600	15	Si
2270	X	78	15	7.84	5.4	7.84	5.4	SLE RA 8	-20438	0	28	3600	15	Si
2271	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-12682	0	27.1	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.11

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1975.8; 362; 1115.8), direzione dell'asse X = (0.843; 0; -0.538), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2442	Y	78	15	7.84	3.8	7.84	3.8	SLV 4	-287350	0	-299698	0	1.043	Si
2574	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	172404	0	189491	0	1.0991	Si
2442	Y	78	15	7.84	3.8	7.84	3.8	SLV 13	263990	0	299698	0	1.1353	Si
2574	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-165516	0	-189491	0	1.1449	Si
2456	Y	50	15	5.03	3.8	5.03	3.8	SLV 3	-162567	0	-189491	0	1.1656	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2442	Y	78	15	7.84	3.8	7.84	3.8	SLD 4	-151446	0	-299698	0	1.9789	Si
2574	Y	50	15	5.03	3.8	5.03	3.8	SLD 2	89163	0	189491	0	2.1252	Si
2456	Y	50	15	5.03	3.8	5.03	3.8	SLD 3	-86716	0	-189491	0	2.1852	Si
2574	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-82275	0	-189491	0	2.3031	Si
2573	Y	78	15	7.84	3.8	7.84	3.8	SLD 2	129125	0	299698	0	2.321	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2479	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 4	-6753	0	7572	7572	0	24522	2.5	10.053	1.1213	Si
2480	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 2	-6160	0	7572	7572	0	24522	2.5	10.053	1.2291	Si
2478	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLV 4	-4789	0	5906	5906	0	19127	2.5	7.841	1.2331	Si
2573	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLV 13	4644	0	5906	5906	0	19127	2.5	7.841	1.2718	Si
2572	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 15	5931	0	7572	7572	0	24522	2.5	10.053	1.2767	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2479	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 4	-3626	0	11357	11357	0	24522	2.5	10.053	3.1319	Si
2480	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 2	-3347	0	11357	11357	0	24522	2.5	10.053	3.3937	Si
2478	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLD 4	-2581	0	8859	8859	0	19127	2.5	7.841	3.4319	Si
2571	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 15	3206	0	11357	11357	0	24522	2.5	10.053	3.5429	Si
2573	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLD 13	2495	0	8859	8859	0	19127	2.5	7.841	3.5505	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	oc	oim	Es/Ec	Verifica
2456	Y	50	15	5.03	3.8	5.03	3.8	SLE QP 4	-8789	0	-4.1	112.1	15	Si
2456	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-11215	0	-5.2	149.4	15	Si
2442	Y	78	15	7.84	3.8	7.84	3.8	SLE QP 4	-11878	0	-3.5	112.1	15	Si
2442	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	-15091	0	-4.5	149.4	15	Si
2549	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	8773	0	-4.1	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σim	Es/Ec	Verifica
2456	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-11215	0	38.6	3600	15	Si
2442	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	-15091	0	33.3	3600	15	Si
2549	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	8773	0	30.2	3600	15	Si
2554	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	8679	0	29.9	3600	15	Si
2550	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	13466	0	29.7	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.12

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500
Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1810; 519.2; 1115.8), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; 0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2647	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-118599	0	-189491	0	1.5977	Si
2647	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	104236	0	189491	0	1.8179	Si
2643	X	78	15	7.84	5.4	7.84	5.4	SLV 15	-140407	0	-268869	0	1.9149	Si
2693	Y	85	15	8.54	3.8	8.54	3.8	SLV 15	-167227	0	-320405	0	1.916	Si
2643	Y	50	15	5.03	3.8	5.03	3.8	SLV 1	98445	0	189491	0	1.9248	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
2647	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-63583	0	-189491	0	2.9802	Si
2693	Y	85	15	8.54	3.8	8.54	3.8	SLD 15	-93258	0	-320405	0	3.4357	Si
2643	X	78	15	7.84	5.4	7.84	5.4	SLD 15	-77451	0	-268869	0	3.4715	Si
2642	X	50	15	5.03	5.4	5.03	5.4	SLD 15	-47447	0	-166331	0	3.5056	Si
2643	Y	50	15	5.03	3.8	5.03	3.8	SLD 1	52770	0	189491	0	3.5909	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2643	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	2660	0	3786	3786	0	12261	2.5	5.027	1.423	Si

TABULATO DI CALCOLO – FABBRICATO B

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2642	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	2660	0	3786	3786	0	12261	2.5	5.027	1.423	Si
2643	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 16	-2463	0	3786	3786	0	12261	2.5	5.027	1.537	Si
2642	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 16	-2463	0	3786	3786	0	12261	2.5	5.027	1.537	Si
2647	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 15	-2188	0	3786	3786	0	12261	2.5	5.027	1.7304	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2643	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1402	0	5679	5679	0	12261	2.5	5.027	4.0506	Si
2642	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	1402	0	5679	5679	0	12261	2.5	5.027	4.0506	Si
2643	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 16	-1205	0	5679	5679	0	12261	2.5	5.027	4.7139	Si
2642	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 16	-1205	0	5679	5679	0	12261	2.5	5.027	4.7139	Si
2647	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 15	-1120	0	5679	5679	0	12261	2.5	5.027	5.0723	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
2776	Y	100	15	10.05	3.8	10.05	3.8	10.05	3.8	SLE QP 4	-41136	0	-9.6	112.1	15	Si
2776	Y	100	15	10.05	3.8	10.05	3.8	10.05	3.8	SLE RA 8	-53858	0	-12.5	149.4	15	Si
2642	X	50	15	5.03	5.4	5.03	5.4	5.03	5.4	SLE QP 4	-17809	0	-9.1	112.1	15	Si
2642	X	50	15	5.03	5.4	5.03	5.4	5.03	5.4	SLE RA 8	-23712	0	-12.1	149.4	15	Si
2729	Y	100	15	10.05	3.8	10.05	3.8	10.05	3.8	SLE QP 4	-37476	0	-8.7	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
2776	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-53858	0	92.7	3600	15	Si
2729	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-48215	0	83	3600	15	Si
2714	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-35480	0	61.1	3600	15	Si
2775	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-34507	0	59.4	3600	15	Si
2642	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-23712	0	50.7	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.13

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (2120; 530.8; 1339.7), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; -0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi

Verifiche SLU flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3166	Y	50	15	5.03	3.8	5.03	3.8	SLV 3	-105219	0	-189491	0	1.8009	Si
3065	Y	83.4	15	8.39	3.8	8.39	3.8	SLV 3	-151228	0	-313423	0	2.0725	Si
3166	Y	50	15	5.03	3.8	5.03	3.8	SLV 14	87471	0	189491	0	2.1663	Si
2975	X	50	15	5.03	5.4	5.03	5.4	SLV 6	-75096	0	-166331	0	2.2149	Si
2979	Y	100	15	10.05	3.8	10.05	3.8	SLV 3	-159465	0	-385198	0	2.4156	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3166	Y	50	15	5.03	3.8	5.03	3.8	SLD 3	-57817	0	-189491	0	3.2774	Si
2975	X	50	15	5.03	5.4	5.03	5.4	SLD 6	-45819	0	-166331	0	3.6302	Si
3065	Y	83.4	15	8.39	3.8	8.39	3.8	SLD 3	-84010	0	-313423	0	3.7308	Si
2974	X	78	15	7.84	5.4	7.84	5.4	SLD 6	-66331	0	-268869	0	4.0535	Si
2973	X	100	15	10.05	5.4	10.05	5.4	SLD 6	-81586	0	-347229	0	4.256	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2973	X	100	15	10.05	5.4	10.05	5.4	0	0	SLV 6	-4754	0	6832	6832	0	21019	2.5	10.053	1.4372	Si
2974	X	78	15	7.84	5.4	7.84	5.4	0	0	SLV 6	-3698	0	5329	5329	0	16395	2.5	7.841	1.4412	Si
2975	X	50	15	5.03	5.4	5.03	5.4	0	0	SLV 6	-2359	0	3416	3416	0	10510	2.5	5.027	1.4479	Si
2980	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 10	-3957	0	7572	7572	0	24522	2.5	10.053	1.9135	Si
2979	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 10	-3955	0	7572	7572	0	24522	2.5	10.053	1.9143	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
2973	X	100	15	10.05	5.4	10.05	5.4	0	0	SLD 6	-3052	0	10248	10248	0	21019	2.5	10.053	3.358	Si
2974	X	78	15	7.84	5.4	7.84	5.4	0	0	SLD 6	-2336	0	7994	7994	0	16395	2.5	7.841	3.4226	Si
2975	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 6	-1482	0	5124	5124	0	10510	2.5	5.027	3.4575	Si
2980	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 10	-2351	0	11357	11357	0	24522	2.5	10.053	4.83	Si
2979	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 10	-2351	0	11357	11357	0	24522	2.5	10.053	4.83	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
2973	X	100	15	10.05	5.4	10.05	5.4	10.05	5.4	SLE QP 4	-26741	0	-6.8	112.1	15	Si
2974	X	78	15	7.84	5.4	7.84	5.4	10.05	5.4	SLE QP 4	-20778	0	-6.8	112.1	15	Si
2975	X	50	15	5.03	5.4	5.03	5.4	10.05	5.4	SLE QP 4	-13114	0	-6.7	112.1	15	Si
2973	X	100	15	10.05	5.4	10.05	5.4	10.05	5.4	SLE RA 8	-30197	0	-7.7	149.4	15	Si
2974	X	78	15	7.84	5.4	7.84	5.4	10.05	5.4	SLE RA 8	-23356	0	-7.6	149.4	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
3065	Y	83.4	15	8.39	3.8	8.39	3.8	SLE RA 8	-17436	0	36	3600	15	Si
3166	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-10285	0	35.4	3600	15	Si
3045	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-19944	0	34.3	3600	15	Si
2980	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-19682	0	33.9	3600	15	Si
2973	X	100	15	10.05	5.4	10.05	5.4	SLE RA 8	-30197	0	32.3	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.14

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1975.8; 362; 1425.8), direzione dell'asse X = (0.843; 0; -0.538), direzione dell'asse Y = (0; 1; 0).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3344	Y	50	15	5.03	3.8	5.03	3.8	SLV 16	-158813	0	-189491	0	1.1932	Si
3331	Y	78	15	7.84	3.8	7.84	3.8	SLV 15	-248334	0	-299698	0	1.2068	Si
3344	Y	50	15	5.03	3.8	5.03	3.8	SLV 1	155075	0	189491	0	1.2219	Si
3322	Y	100	15	10.05	3.8	10.05	3.8	SLV 15	-312793	0	-385198	0	1.2315	Si
3303	Y	78	15	7.84	3.8	7.84	3.8	SLV 15	-241626	0	-299698	0	1.2403	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3344	Y	50	15	5.03	3.8	5.03	3.8	SLD 16	-81717	0	-189491	0	2.3189	Si
3331	Y	78	15	7.84	3.8	7.84	3.8	SLD 15	-128043	0	-299698	0	2.3406	Si
3322	Y	100	15	10.05	3.8	10.05	3.8	SLD 15	-161767	0	-385198	0	2.3812	Si
3303	Y	78	15	7.84	3.8	7.84	3.8	SLD 15	-125564	0	-299698	0	2.3868	Si
3294	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-79326	0	-189491	0	2.3888	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
3184	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 4	-4875	0	7572	7572	0	24522	2.5	10.053	1.5531	Si
3132	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 4	-4875	0	7572	7572	0	24522	2.5	10.053	1.5531	Si
3185	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 2	-4467	0	7572	7572	0	24522	2.5	10.053	1.6951	Si
3140	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLV 2	-4467	0	7572	7572	0	24522	2.5	10.053	1.6951	Si
3123	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLV 4	-3448	0	5906	5906	0	19127	2.5	7.841	1.7128	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrds	Vrds	cotgθ	Asl	c.s.	Verifica
3184	Y	100	15	10.05	3.8	10.05	3.8		0	SLD 4	-2699	0	11357	11357	0	24522	2.5	10.053	4.2077	Si
3132	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 4	-2699	0	11357	11357	0	24522	2.5	10.053	4.2077	Si
3185	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 2	-2512	0	11357	11357	0	24522	2.5	10.053	4.5215	Si
3140	Y	100	15	10.05	3.8	10.05	3.8	0	0	SLD 2	-2512	0	11357	11357	0	24522	2.5	10.053	4.5215	Si
3123	Y	78	15	7.84	3.8	7.84	3.8	0	0	SLD 4	-1916	0	8859	8859	0	19127	2.5	7.841	4.6233	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	oc	olim	Es/Ec	Verifica
3161	Y	50	15	5.03	3.8	5.03	3.8	SLE QP 4	-10002	0	-4.7	112.1	15	Si
3161	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-12566	0	-5.8	149.4	15	Si
3147	Y	78	15	7.84	3.8	7.84	3.8	SLE QP 4	-13988	0	-4.2	112.1	15	Si
3147	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	-17446	0	-5.2	149.4	15	Si
3140	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-16443	0	-3.8	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	of	olim	Es/Ec	Verifica
3161	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	-12566	0	43.2	3600	15	Si
3147	Y	78	15	7.84	3.8	7.84	3.8	SLE RA 8	-17446	0	38.5	3600	15	Si
3140	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-20429	0	35.2	3600	15	Si
3132	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-17560	0	30.2	3600	15	Si
3254	Y	50	15	5.03	3.8	5.03	3.8	SLE RA 8	8600	0	29.6	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Rampa n.15

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

Caratteristiche dei materiali

Acciaio: B450C Fyk 4500

Calcestruzzo: C25/30 Rck 300

Sistema di riferimento e direzioni di armatura

Le coordinate citate nel seguito sono espresse in un sistema di riferimento cartesiano con origine in (1810; 519.2; 1425.8), direzione dell'asse X = (1; 0; 0), direzione dell'asse Y = (0; 0.843; 0.538).

Le direzioni X/Y di armatura e le sezioni X/Y di verifica sono individuate dagli assi del sistema di riferimento.

Verifiche nei nodi**Verifiche SLU flessione nei nodi**

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3352	Y	50	15	5.03	3.8	5.03	3.8	SLV 15	-84705	0	-189491	0	2.2371	Si
3352	Y	50	15	5.03	3.8	5.03	3.8	SLV 2	72268	0	189491	0	2.6221	Si
3348	X	78	15	7.84	5.4	7.84	5.4	SLV 16	-102267	0	-268869	0	2.6291	Si
3398	Y	85	15	8.54	3.8	8.54	3.8	SLV 15	-120770	0	-320405	0	2.653	Si
3347	X	50	15	5.03	5.4	5.03	5.4	SLV 16	-62220	0	-166331	0	2.6733	Si

Verifiche SLD Resistenza flessione nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	Mu	Nu	c.s.	Verifica
3352	Y	50	15	5.03	3.8	5.03	3.8	SLD 15	-45892	0	-189491	0	4.1291	Si
3347	X	50	15	5.03	5.4	5.03	5.4	SLD 16	-36549	0	-166331	0	4.5509	Si
3348	X	78	15	7.84	5.4	7.84	5.4	SLD 16	-59009	0	-268869	0	4.5564	Si
3398	Y	85	15	8.54	3.8	8.54	3.8	SLD 15	-68992	0	-320405	0	4.6441	Si
3349	X	100	15	10.05	5.4	10.05	5.4	SLD 16	-72717	0	-347229	0	4.775	Si

Verifiche SLU taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
3348	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	1849	0	3786	3786	0	12261	2.5	5.027	2.0472	Si
3347	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 1	1849	0	3786	3786	0	12261	2.5	5.027	2.0472	Si
3481	X	50	15	5.03	5.4	5.03	5.4	0	0	SLV 9	1563	0	3416	3416	0	10510	2.5	5.027	2.1861	Si
3348	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 16	-1667	0	3786	3786	0	12261	2.5	5.027	2.2713	Si
3347	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLV 16	-1667	0	3786	3786	0	12261	2.5	5.027	2.2713	Si

Verifiche SLD Resistenza taglio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	A. st.	A. sag.	Comb.	Ved	N	Vrd	Vrdc	Vrsd	Vrcd	cotgθ	Asl	c.s.	Verifica
3481	X	50	15	5.03	5.4	5.03	5.4	0	0	SLD 9	1042	0	5124	5124	0	10510	2.5	5.027	4.9192	Si
3501	X	100	15	10.05	5.4	10.05	5.4	0	0	SLD 9	-1939	0	10248	10248	0	21019	2.5	10.053	5.2859	Si
3492	X	100	15	10.05	5.4	10.05	5.4	0	0	SLD 9	-1939	0	10248	10248	0	21019	2.5	10.053	5.2859	Si
3348	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	990	0	5679	5679	0	12261	2.5	5.027	5.7385	Si
3347	Y	50	15	5.03	3.8	5.03	3.8	0	0	SLD 1	990	0	5679	5679	0	12261	2.5	5.027	5.7385	Si

Verifiche SLE tensione calcestruzzo nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σc	σlim	Es/Ec	Verifica
3481	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-40224	0	-9.4	112.1	15	Si
3347	X	50	15	5.03	5.4	5.03	5.4	SLE QP 4	-18137	0	-9.2	112.1	15	Si
3347	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-24132	0	-12.3	149.4	15	Si
3481	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-52696	0	-12.3	149.4	15	Si
3434	Y	100	15	10.05	3.8	10.05	3.8	SLE QP 4	-37101	0	-8.6	112.1	15	Si

Verifiche SLE tensione acciaio nei nodi

Nodo	Dir.	B	H	A. sup.	C. sup.	A. inf.	C. inf.	Comb.	M	N	σf	σlim	Es/Ec	Verifica
3481	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-52696	0	90.7	3600	15	Si
3434	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-47647	0	82	3600	15	Si
3419	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-34399	0	59.2	3600	15	Si
3480	Y	100	15	10.05	3.8	10.05	3.8	SLE RA 8	-34031	0	58.6	3600	15	Si
3347	X	50	15	5.03	5.4	5.03	5.4	SLE RA 8	-24132	0	51.6	3600	15	Si

Verifiche SLE fessurazione nei nodi

La piastra non presenta nodi con apertura delle fessure.

Il Progettista Strutturale