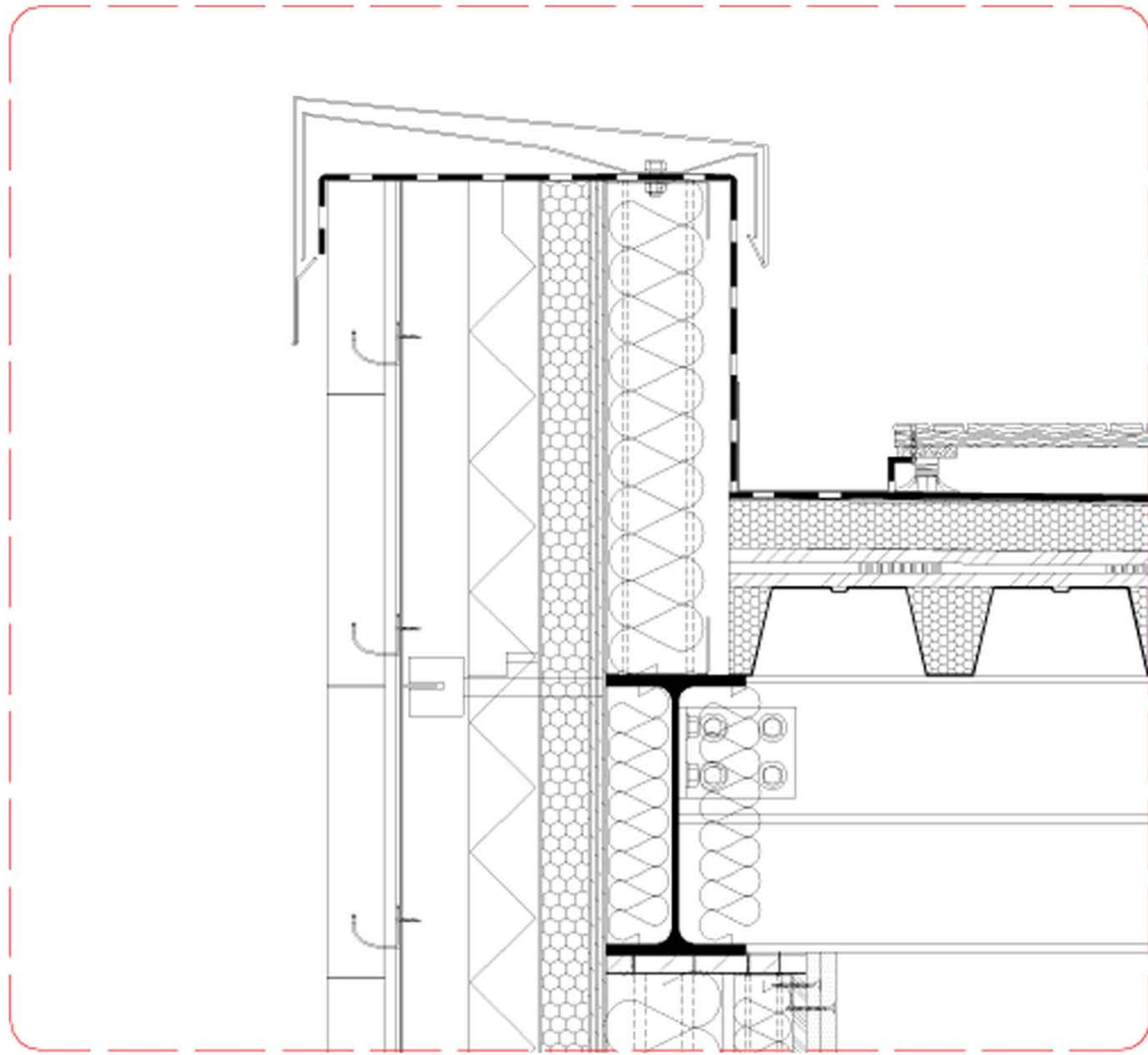
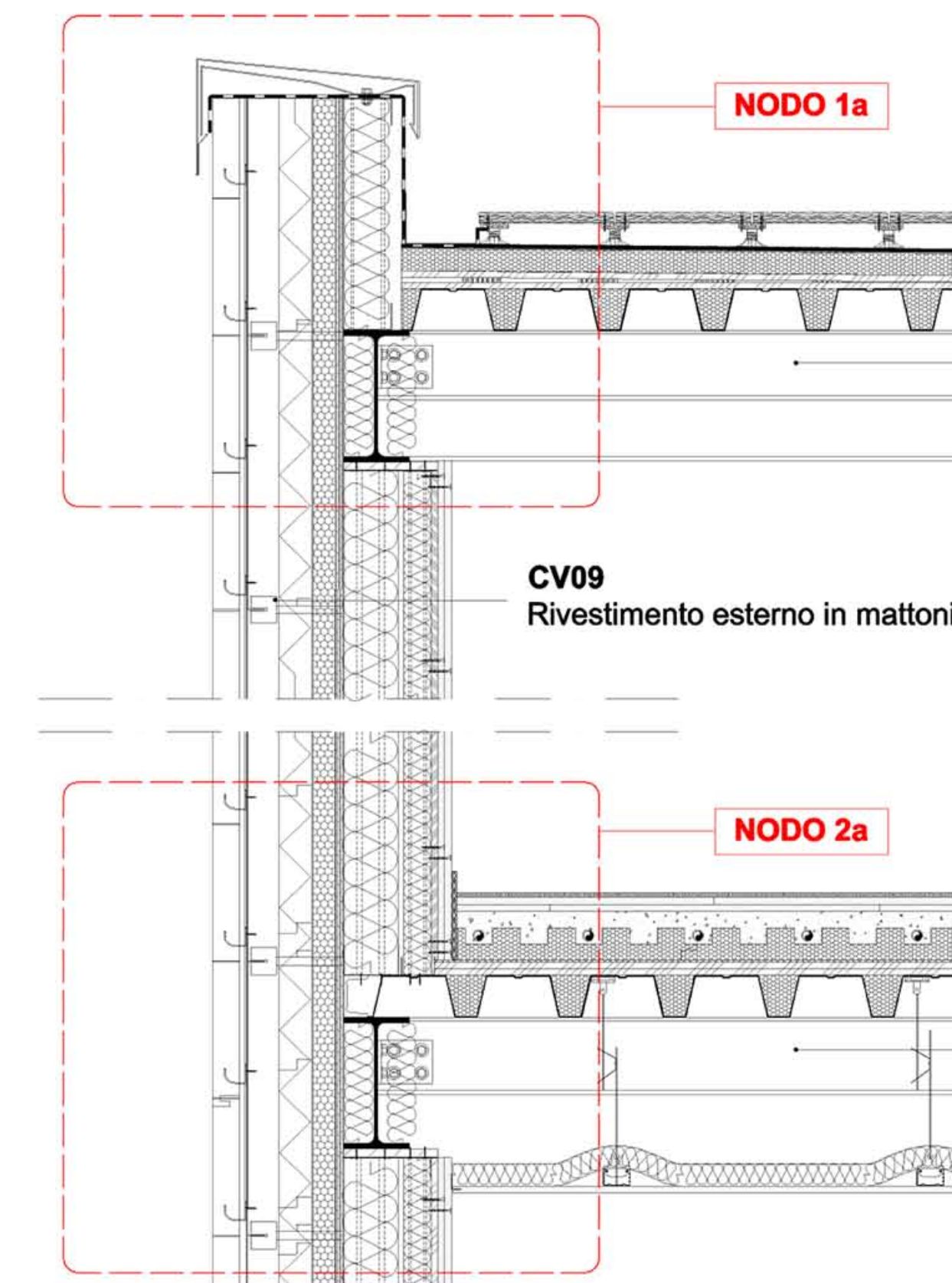
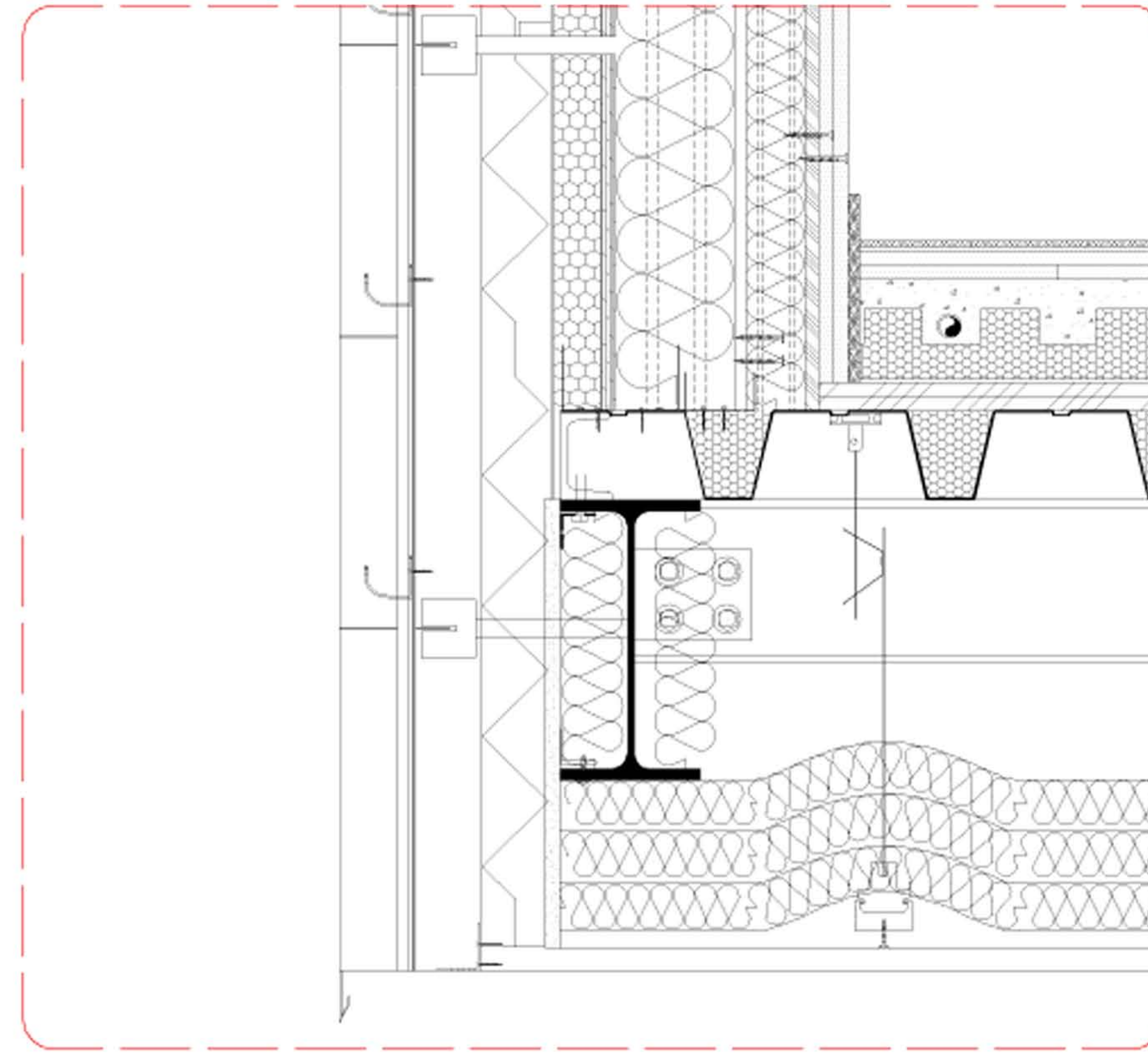


Nodo 1a



Nodo 3a

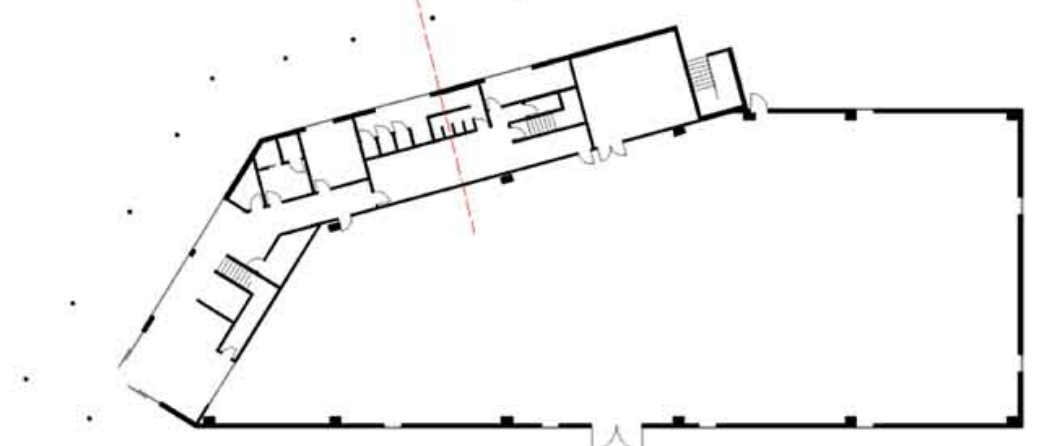
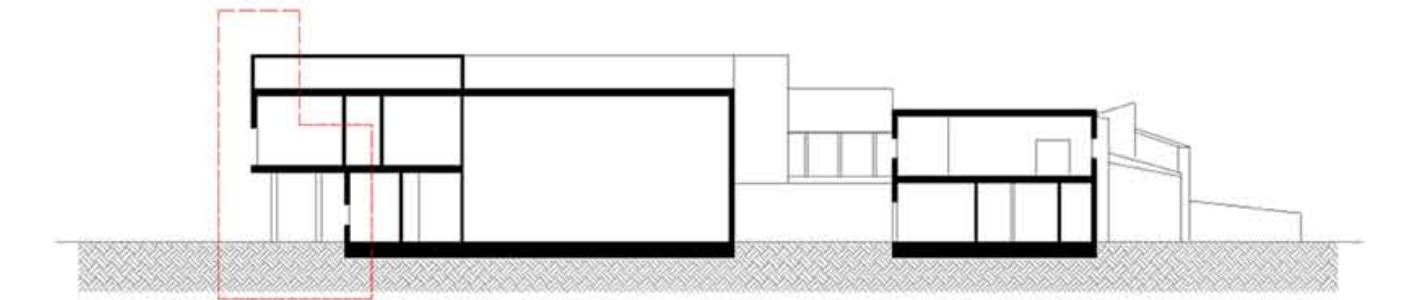


CO05
Copertura praticabile in laterizio
Solaio in lamiera grecata a secco.

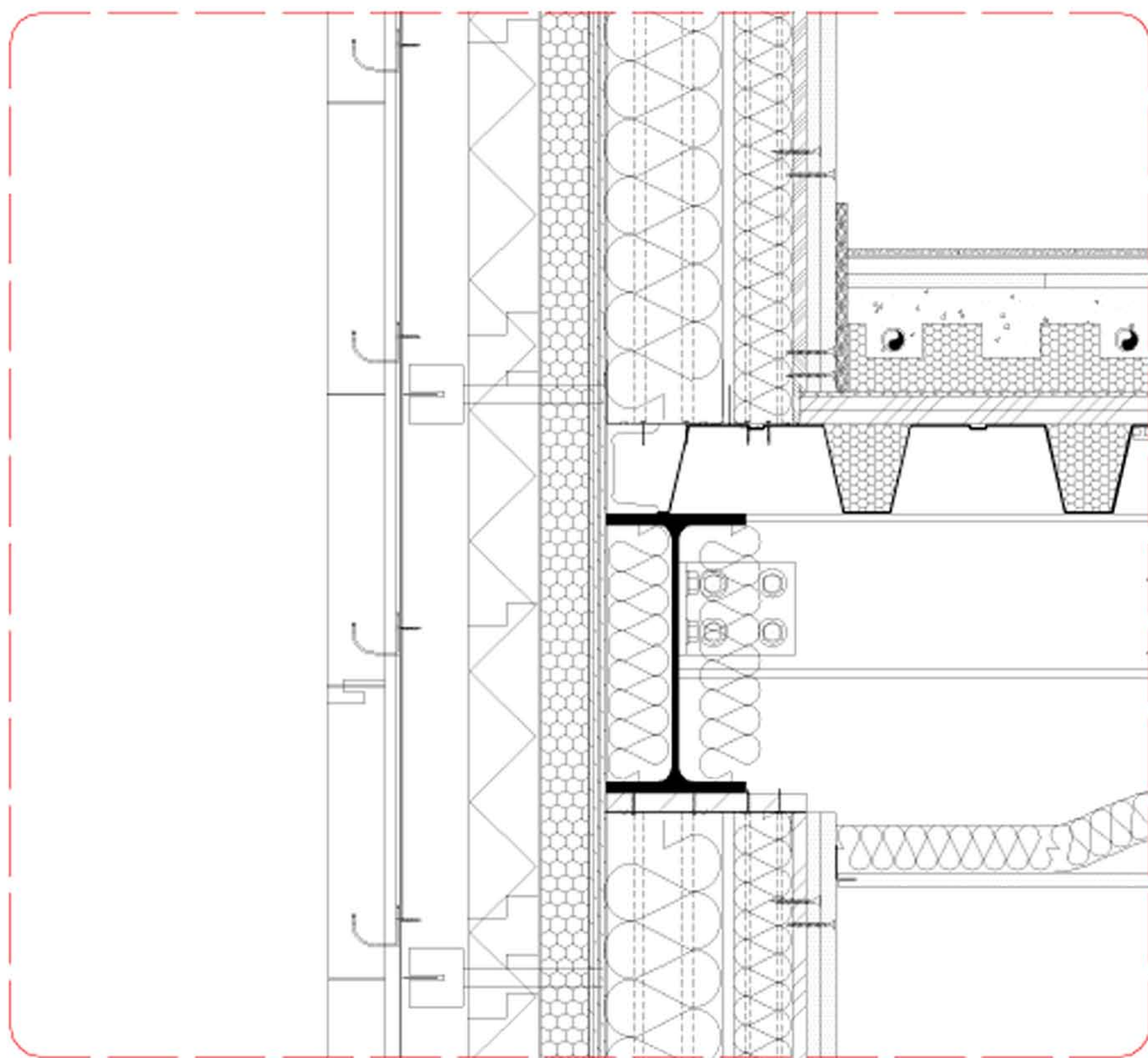
CV09
Rivestimento esterno in mattoni

NODO 2a

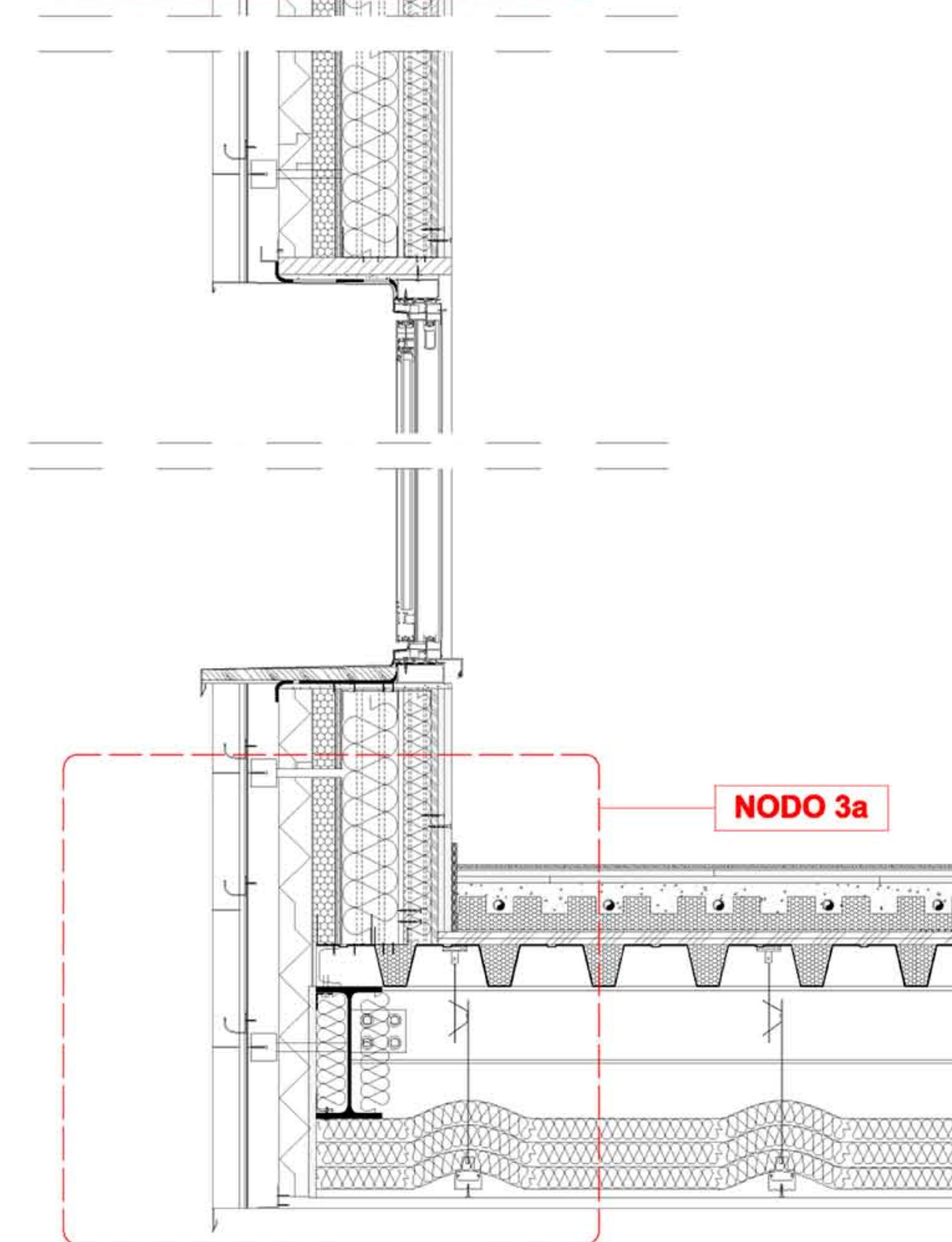
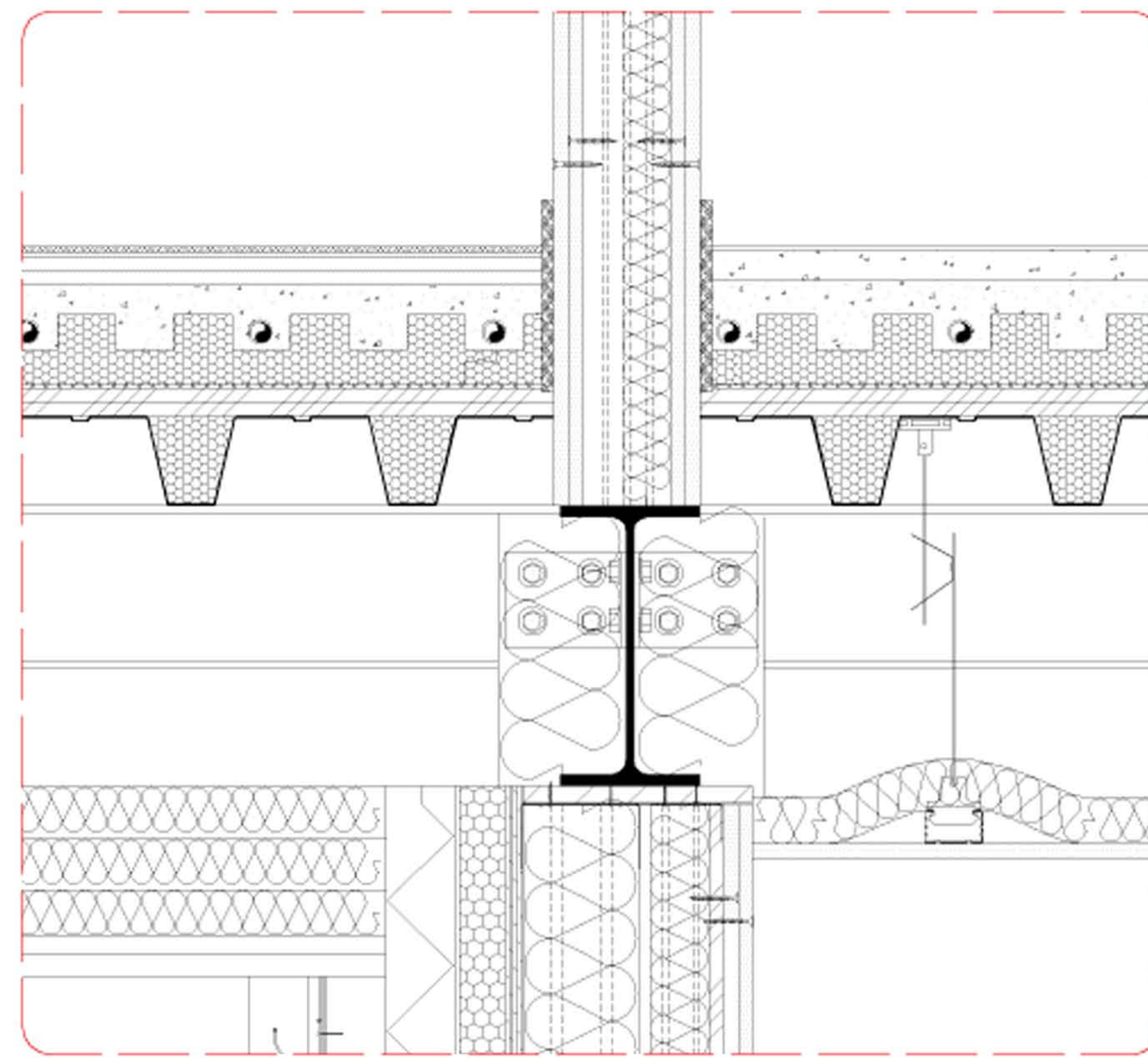
PO02
Pavimentazione in gres porcellanato
Controsoffitto in cartongesso.



Nodo 2a



Nodo 4a



NODO 3a

PV01
Rivestimento in lastre di gesso

NODO 4a

PO03
Pavimentazione in linoleum
Controsoffitto in cartongesso.

CO9
Pavimentazione in linoleum
Rivestimento esterno in fibrocemento

CV09
Rivestimento esterno in mattoni

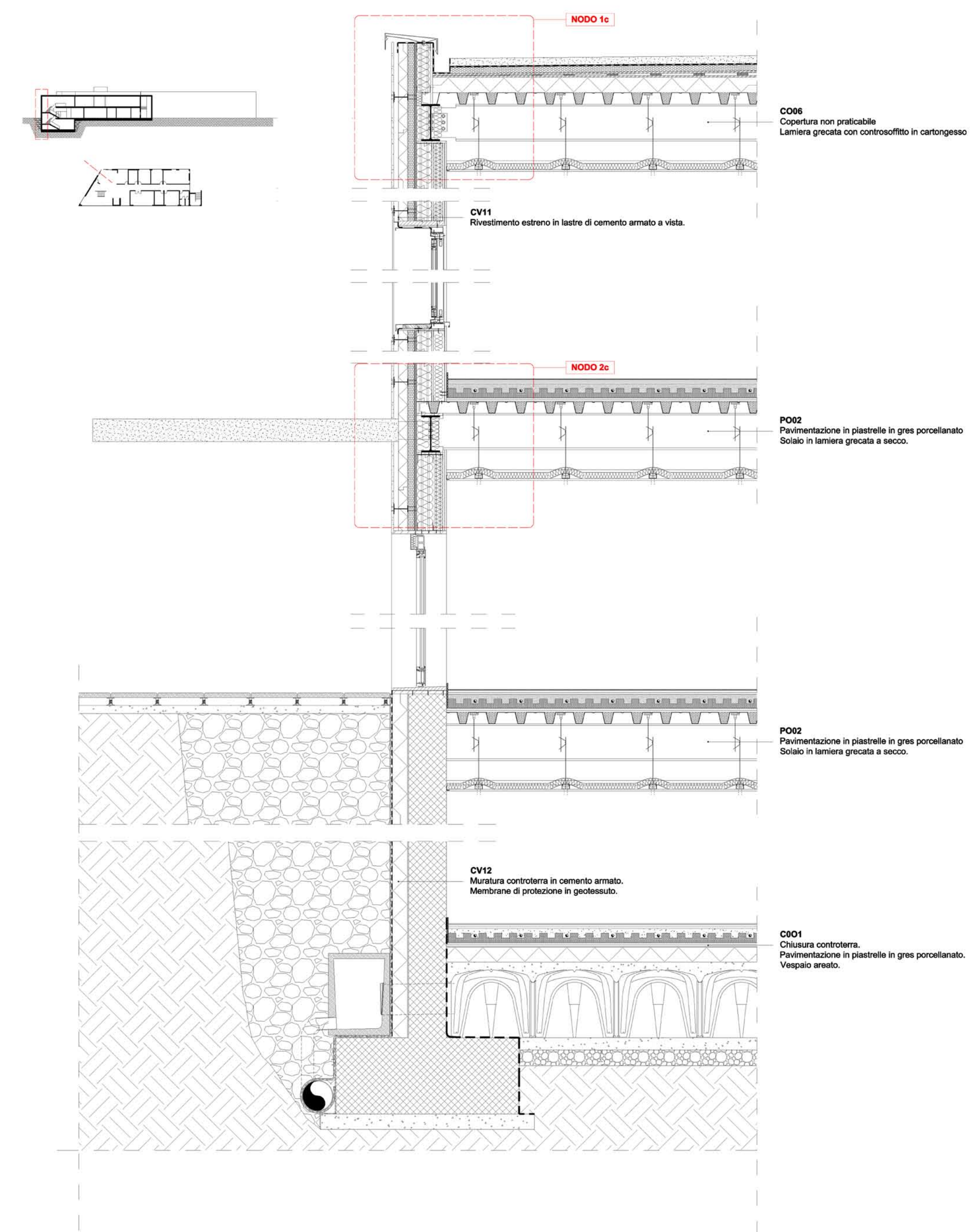
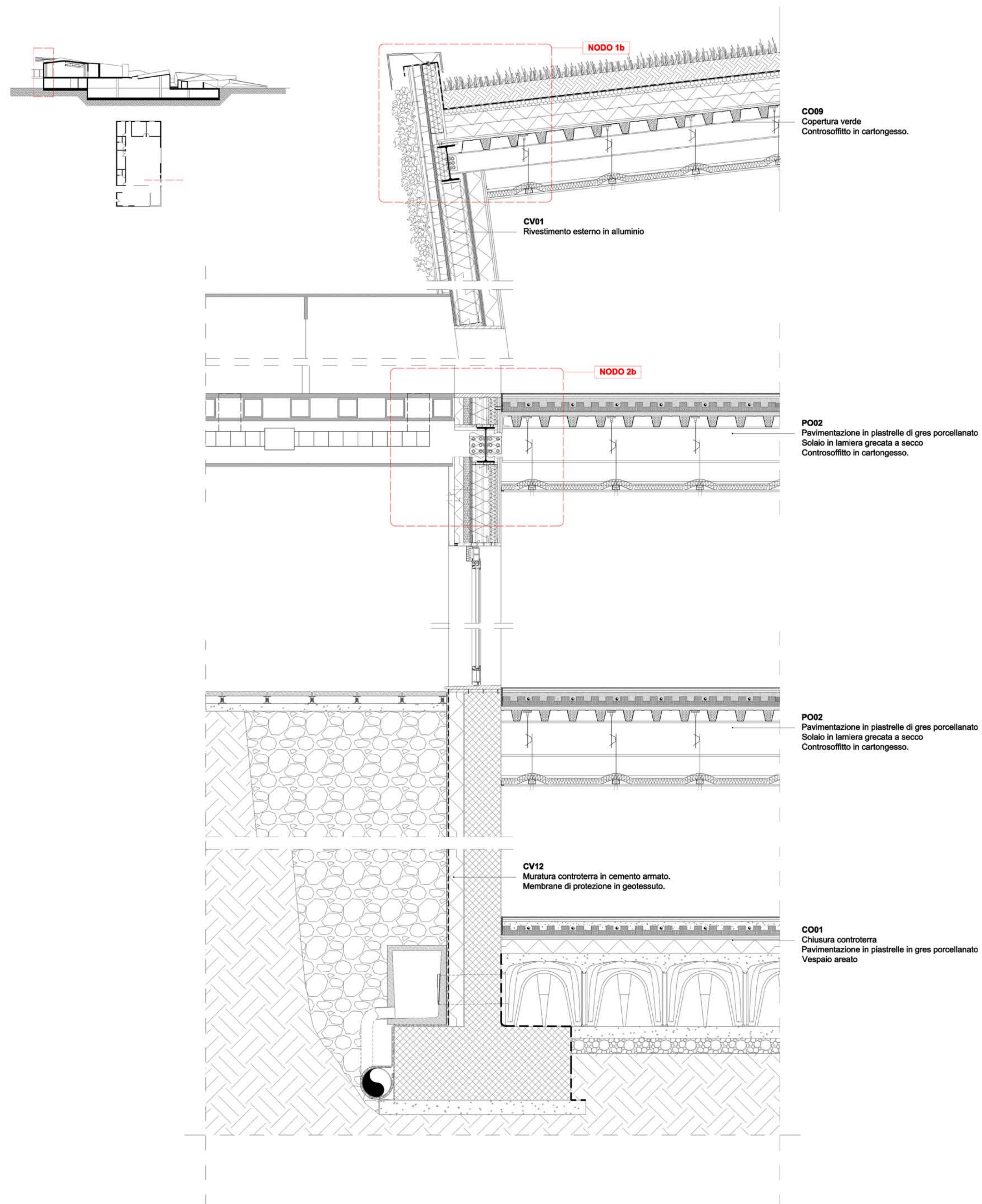
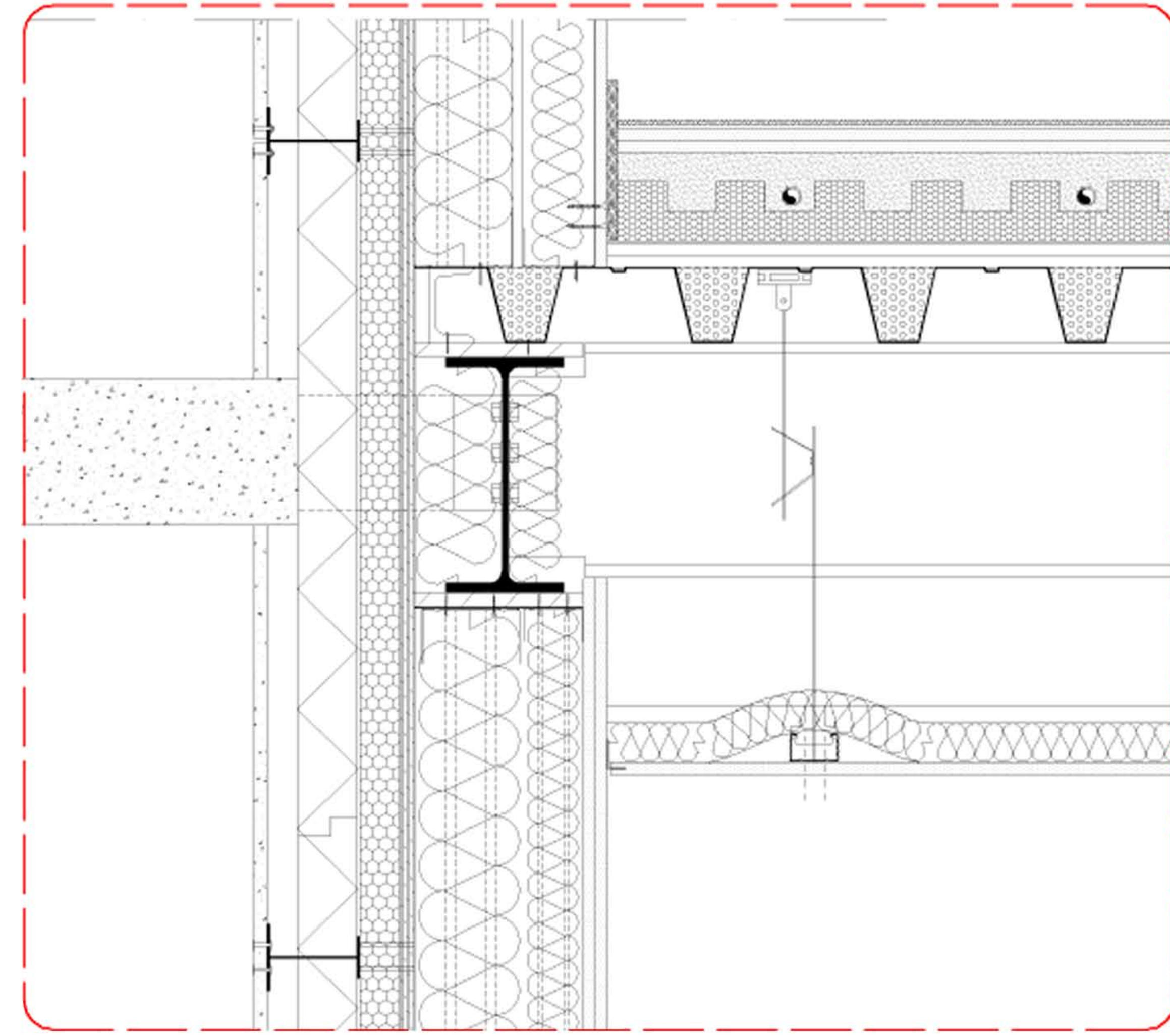
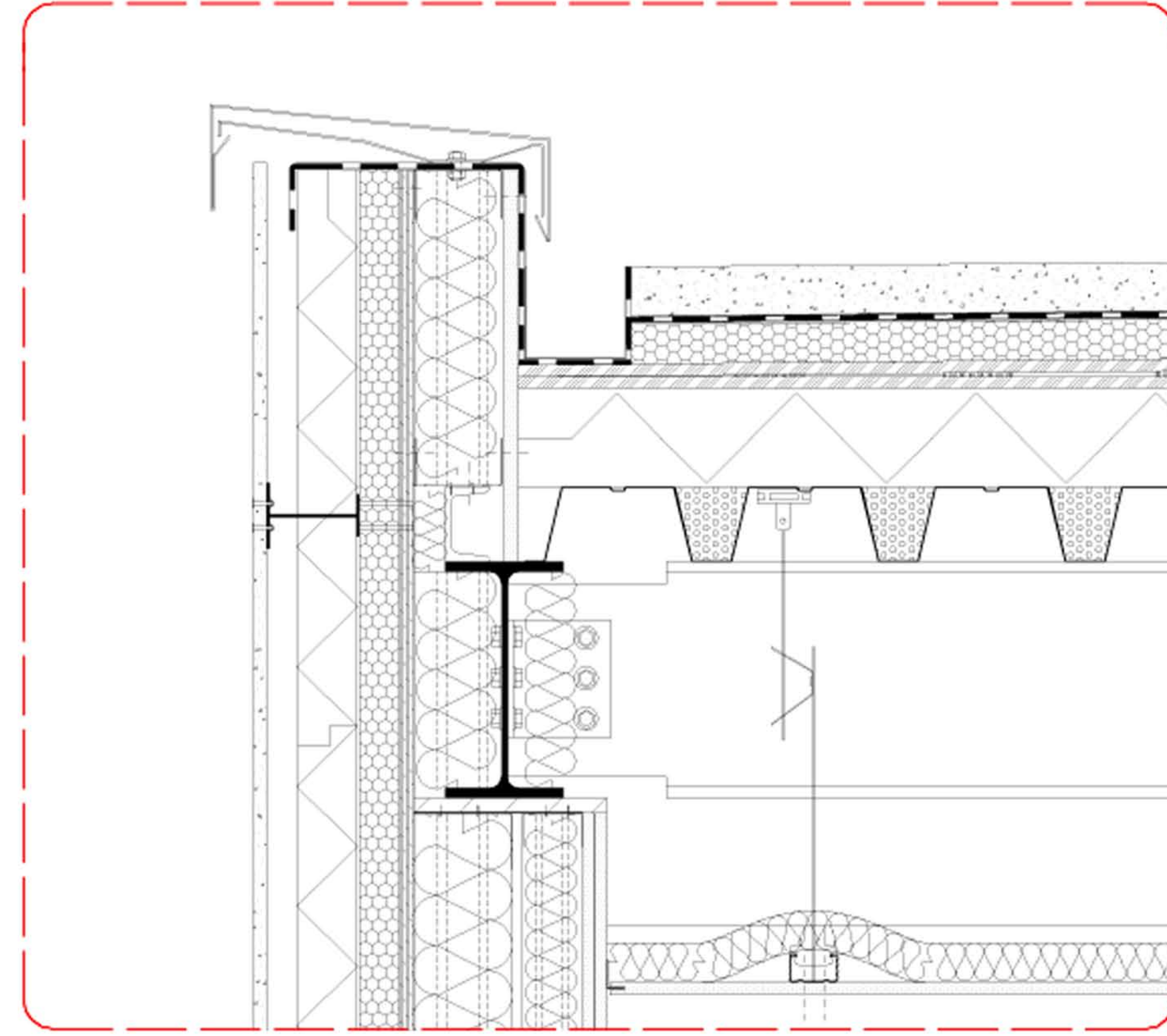
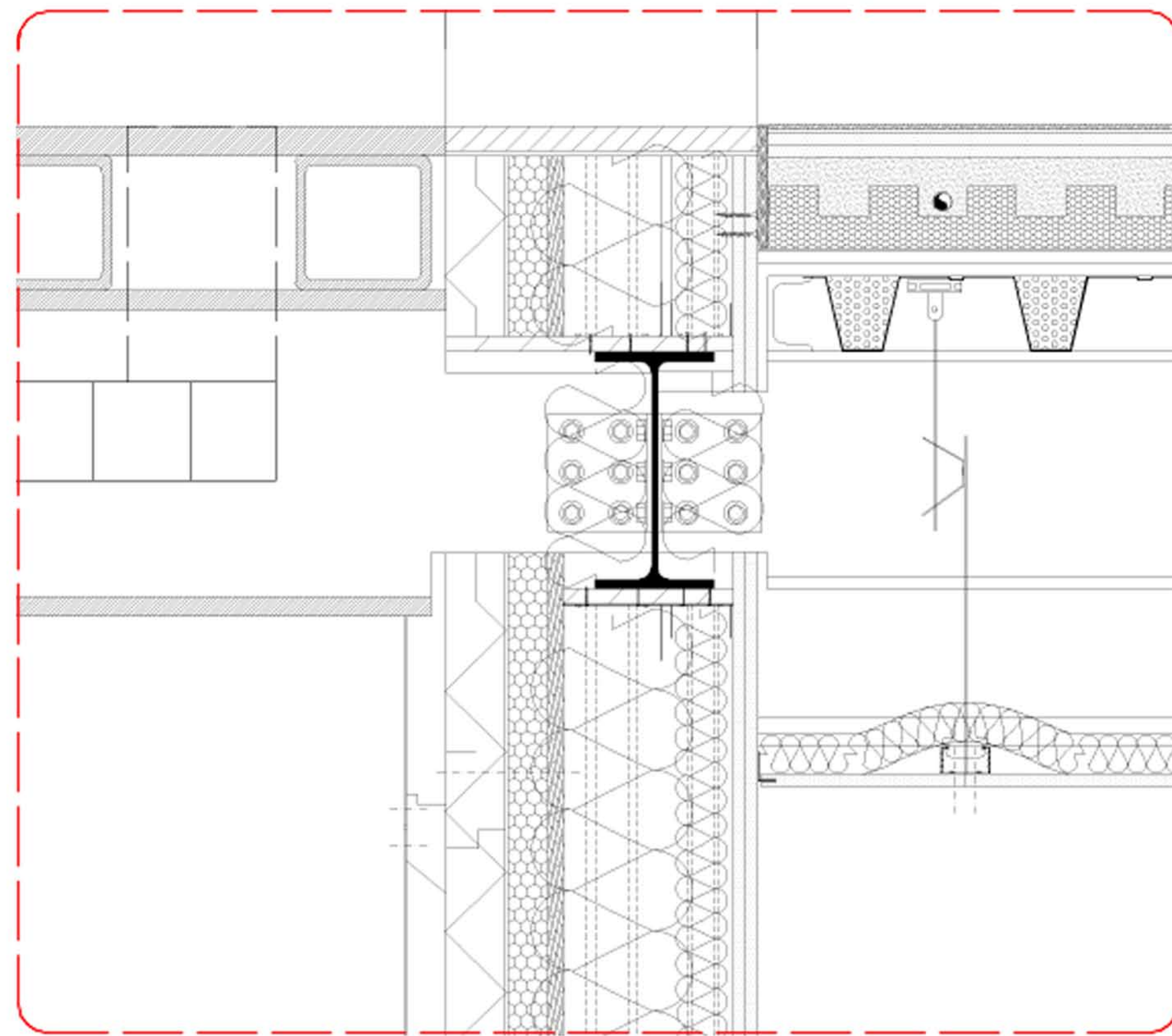
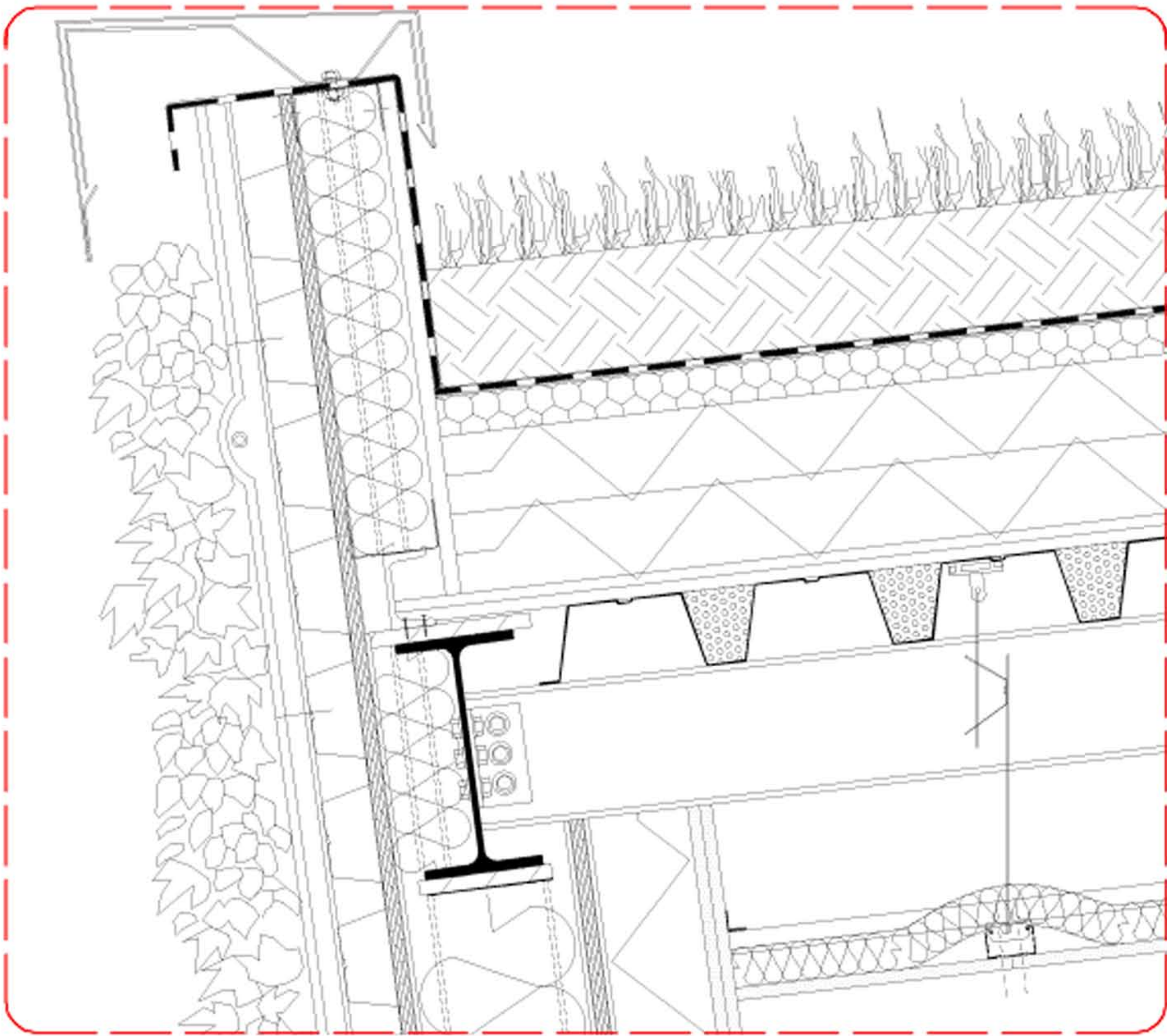
CO02
Pavimentazione in linoleum
Vespajo areato.

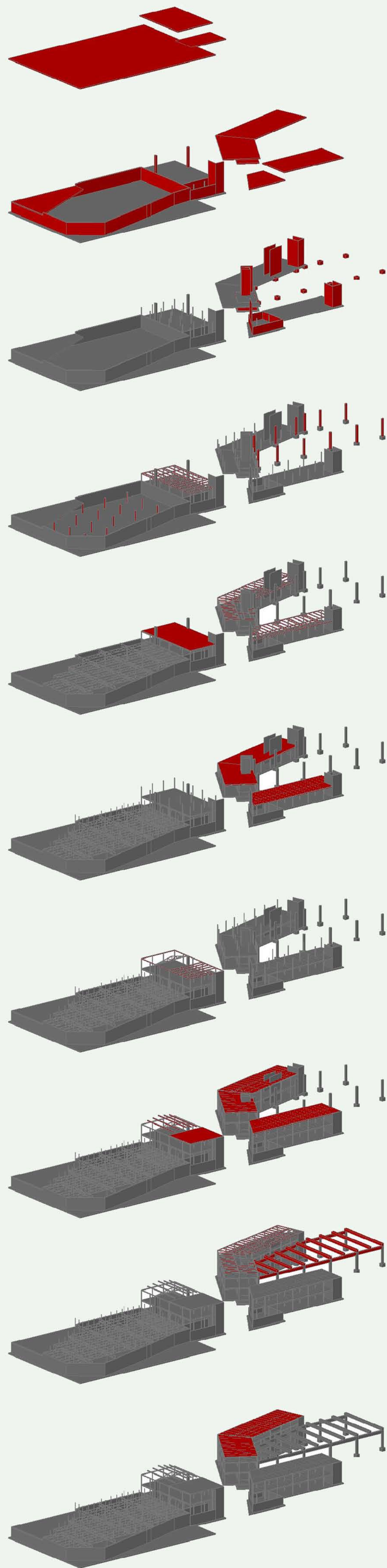
Nodo 1b

Nodo 2b

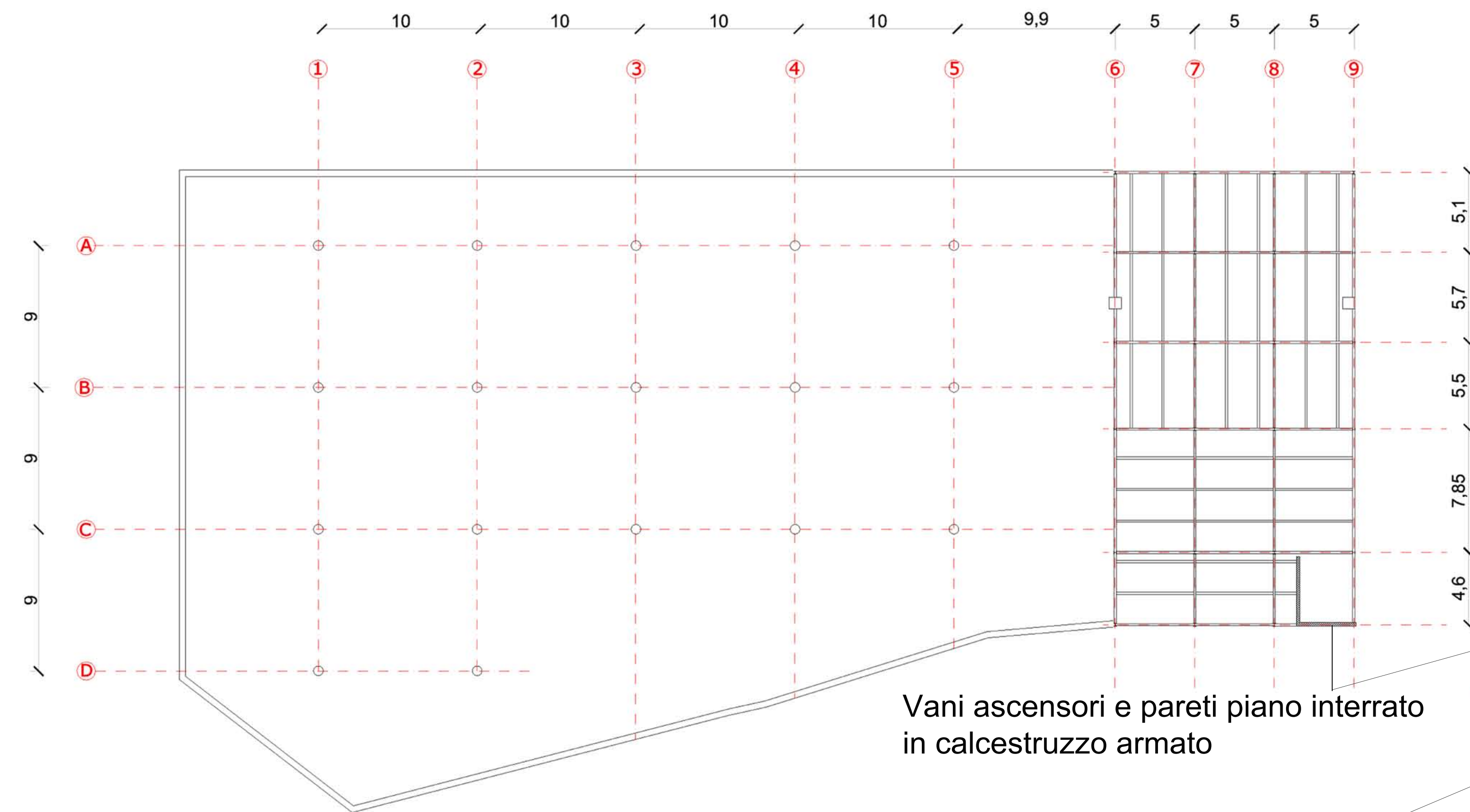
Nodo 1c

Nodo 2c





Fondazioni in calcestruzzo armato



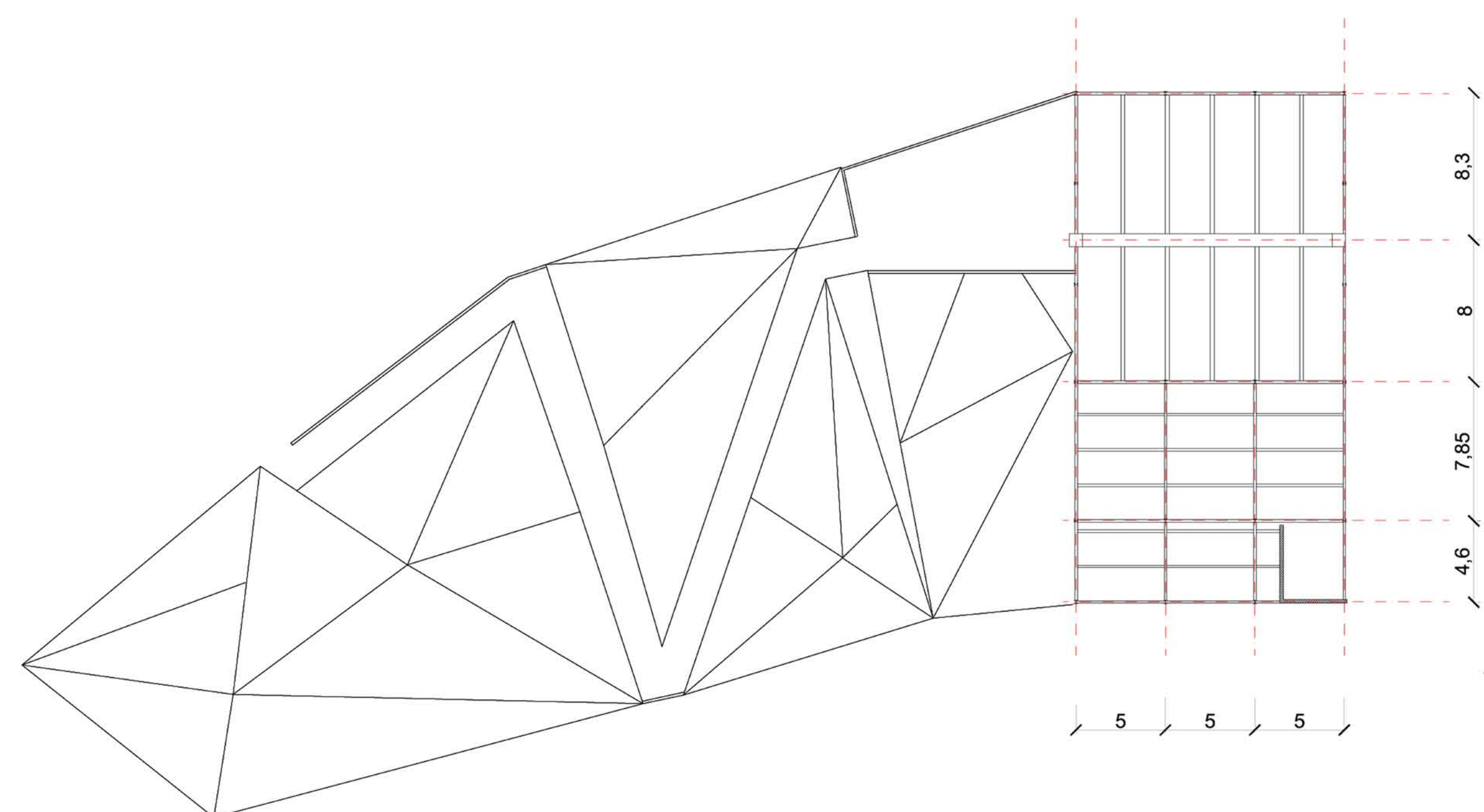
Vani ascensori e pareti piano interrato in calcestruzzo armato

TRAVE PRINCIPALE DI BORDO (7m) IPE 240
 $M_{ed}=107,24 \text{ kN/m} < M_{c,Rd}=123,95 \text{ kN/m}$
 $\delta_{max}=25,08 \text{ mm} < \delta_{max}=35 \text{ mm}$
 $\delta_2=17,60 \text{ mm} < \delta_2=28 \text{ mm}$
 $V_{ed}=125,48 \text{ kN} < V_{c,Rd}=431,58 \text{ kN}$

TRAVE PRINCIPALE DI SPINA (7m) IPE 300
 $M_{ed}=210,18 \text{ kN/m} < M_{c,Rd}=212,46 \text{ kN/m}$
 $\delta_{max}=27,77 \text{ mm} < \delta_{max}=28 \text{ mm}$
 $\delta_2=8,20 \text{ mm} < \delta_2=23,33 \text{ mm}$
 $V_{ed}=168,65 \text{ kN} < V_{c,Rd}=578,81 \text{ kN}$

FASI DI MONTAGGIO

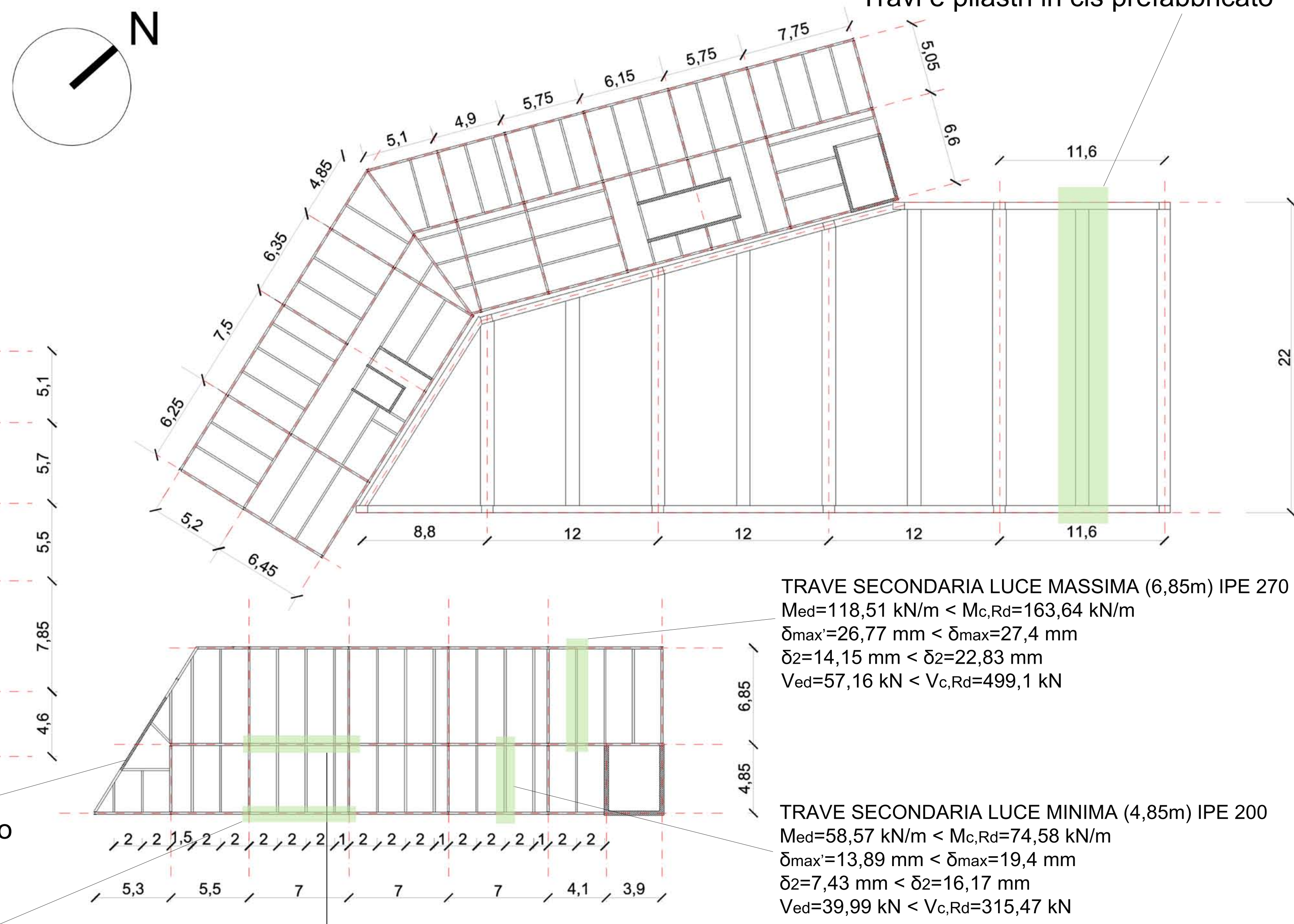
Processo che va dal getto di calcestruzzo per la platea di fondazione, passando per la posa in opera di travi/pilastri in acciaio, delle lamiere grecate, oltre al posizionamento delle strutture in calcestruzzo prefabbricato per l'edificio cantiere.



TRAVE PRINCIPALE DI BORDO (7m) IPE 270
 $M_{ed}=123,74 \text{ kN/m} < M_{c,Rd}=163,64 \text{ kN/m}$
 $\delta_{max}=22,25 \text{ mm} < \delta_{max}=27,4 \text{ mm}$
 $\delta_2=10,85 \text{ mm} < \delta_2=22,83 \text{ mm}$
 $V_{ed}=99,80 \text{ kN} < V_{c,Rd}=499,1 \text{ kN}$

TRAVE PRINCIPALE DI SPINA DI COPERTURA (7m) IPE 300
 $M_{ed}=210,18 \text{ kN/m} < M_{c,Rd}=212,46 \text{ kN/m}$
 $\delta_{max}=20,82 \text{ mm} < \delta_{max}=35 \text{ mm}$
 $\delta_2=8,20 \text{ mm} < \delta_2=28 \text{ mm}$
 $V_{ed}=168,65 \text{ kN} < V_{c,Rd}=578,81 \text{ kN}$

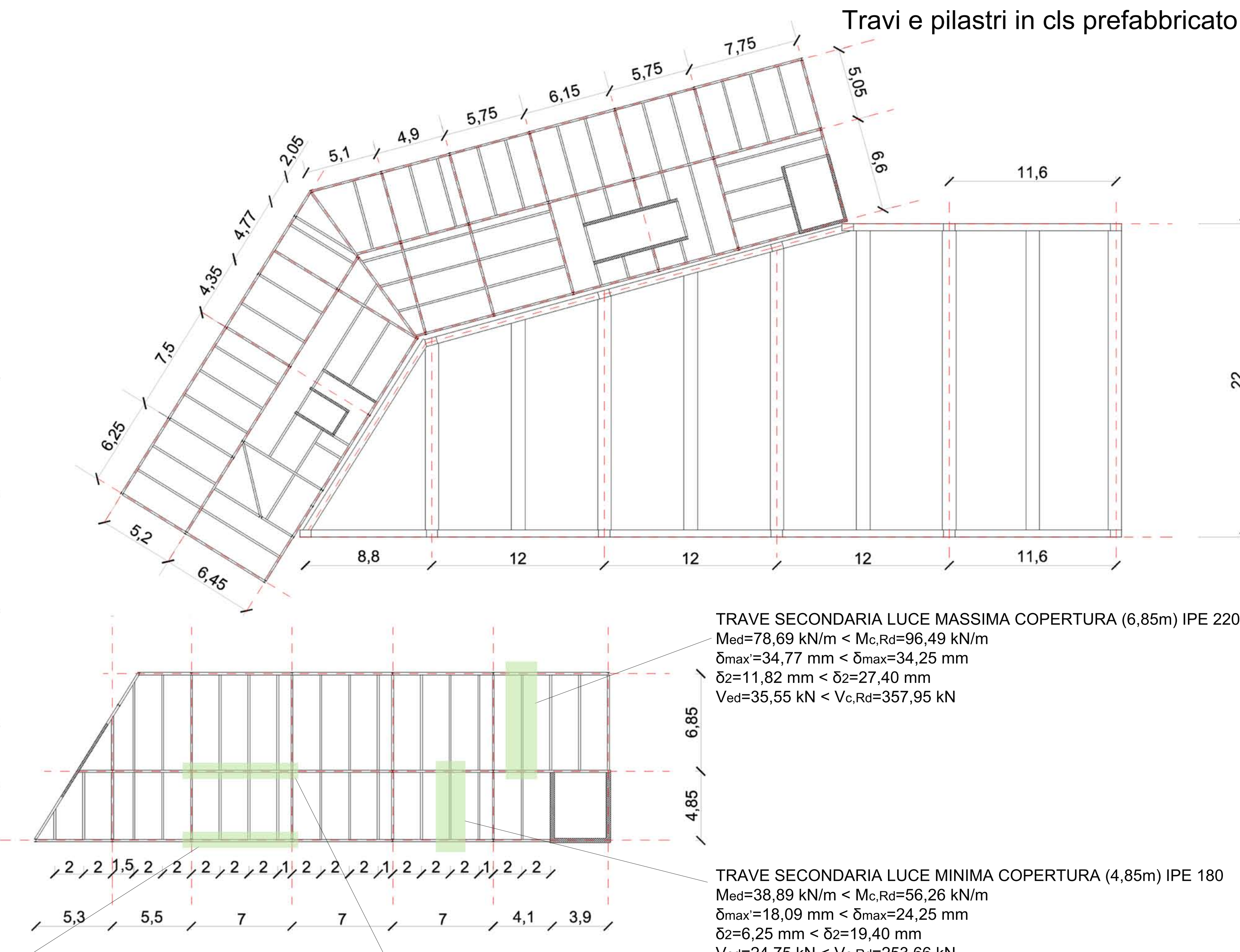
Travi e pilastri in cls prefabbricato



TRAVE SECONDARIA LUCE MASSIMA (6,85m) IPE 270
 $M_{ed}=118,51 \text{ kN/m} < M_{c,Rd}=163,64 \text{ kN/m}$
 $\delta_{max}=26,77 \text{ mm} < \delta_{max}=27,4 \text{ mm}$
 $\delta_2=14,15 \text{ mm} < \delta_2=22,83 \text{ mm}$
 $V_{ed}=57,16 \text{ kN} < V_{c,Rd}=499,1 \text{ kN}$

TRAVE SECONDARIA LUCE MINIMA (4,85m) IPE 200
 $M_{ed}=58,57 \text{ kN/m} < M_{c,Rd}=74,58 \text{ kN/m}$
 $\delta_{max}=13,89 \text{ mm} < \delta_{max}=19,4 \text{ mm}$
 $\delta_2=7,43 \text{ mm} < \delta_2=16,17 \text{ mm}$
 $V_{ed}=39,99 \text{ kN} < V_{c,Rd}=315,47 \text{ kN}$

Travi e pilastri in cls prefabbricato



TRAVE SECONDARIA LUCE MASSIMA COPERTURA (6,85m) IPE 220
 $M_{ed}=78,69 \text{ kN/m} < M_{c,Rd}=96,49 \text{ kN/m}$
 $\delta_{max}=34,77 \text{ mm} < \delta_{max}=34,25 \text{ mm}$
 $\delta_2=11,82 \text{ mm} < \delta_2=27,40 \text{ mm}$
 $V_{ed}=35,55 \text{ kN} < V_{c,Rd}=357,95 \text{ kN}$

TRAVE SECONDARIA LUCE MINIMA COPERTURA (4,85m) IPE 180
 $M_{ed}=38,89 \text{ kN/m} < M_{c,Rd}=56,26 \text{ kN/m}$
 $\delta_{max}=18,09 \text{ mm} < \delta_{max}=24,25 \text{ mm}$
 $\delta_2=6,25 \text{ mm} < \delta_2=19,40 \text{ mm}$
 $V_{ed}=24,75 \text{ kN} < V_{c,Rd}=253,66 \text{ kN}$

Fabbisogno invernale

Q _d [W]	
Parete	2081,54
Solaio copertura	1385,94
Solaio spazi aperti	3909,38

Q _v [W]	aula	ufficio	bagni
Preriscaldamento	53625,00	22522,50	193,05
Postriscaldamento	56203,13	24688,13	217,80

	Q _v [W]	Q _v [kcal/h]	Q _v [kW]
Q _d tot [W]	12645,86	10875,44	12,65
Q _v tot [W]	81109,05	69753,78	81,11
Q _{tot} [W]	93754,91	80629,22	93,75

Fabbisogno estivo

Calore sensibile persone	70	W
Calore latente persone	40	W
calore sensibile postazioni	200	W

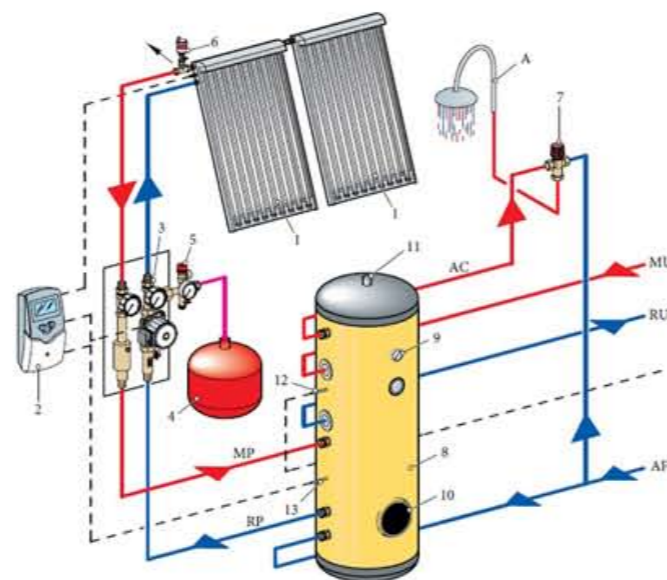
Potenza totale **12,3 kW**

GRUPPO FRIGORIFERO 65kW	
Dimensioni	
Lunghezza	2492
Larghezza	986
Altezza	1820

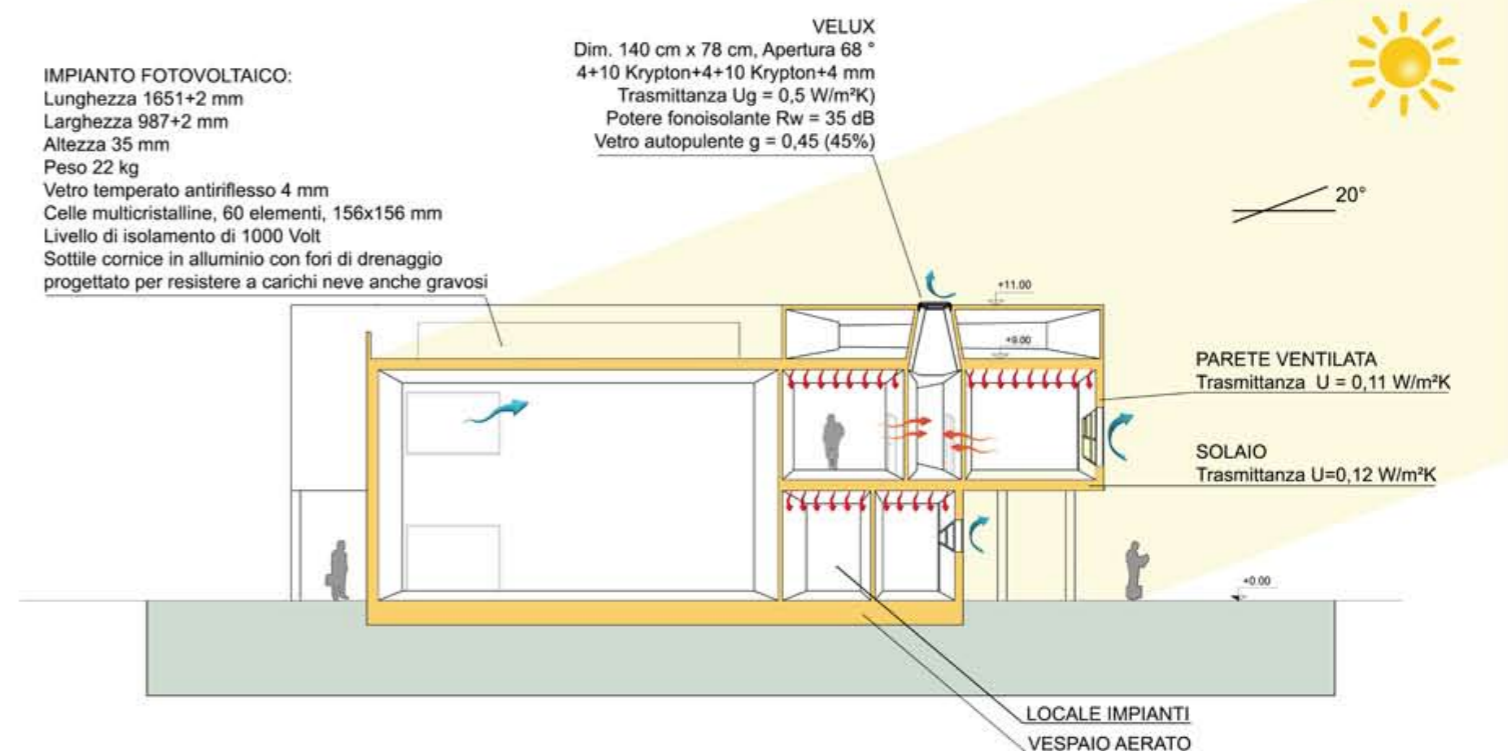
Acqua calda sanitaria

Q piano primo (fattore di contemporaneità) = 29 l/1'

Si è proceduto a questo punto al dimensionamento del diametro della tubazione necessaria per il trasporto della portata di acqua stimata di 2500 l (portata pari sia per acqua calda che per quella fredda)



INVERNO



ESTATE

