

In Control



Adaptability as a means to create
more social and environmental sustainability

Graduation presentation *Advanced Housing Design*

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Tutors: Olv Klijn, Anne Kockelkorn, Ferry Adema

Research findings

Urban Masterplan

The Current building

Design

Support

Infill

Research Findings

User-inclusion gives power over their dwellings to the users

Solution is Adaptability

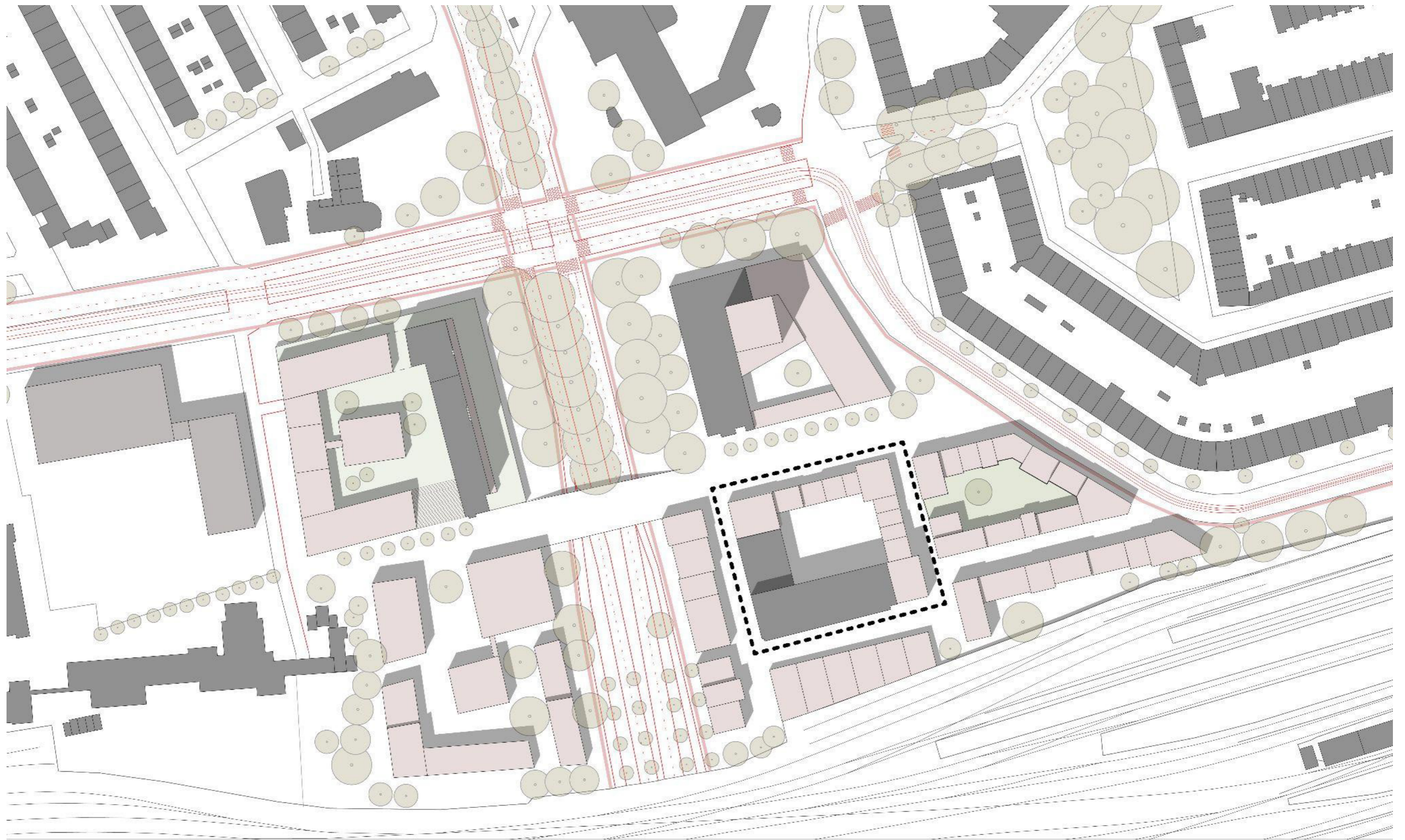
Adaptability gives control over the individual functionality of the dwellings

Tenure type = Cooperative

Users are part-owners of the building

Giving users the power to adapt their dwelling

Urban Masterplan





The Current Building



Photographs from 1979. (Stadsarchief Rotterdam)



Walk around the current situation. (Google streetview)

The Design: Support & Infill



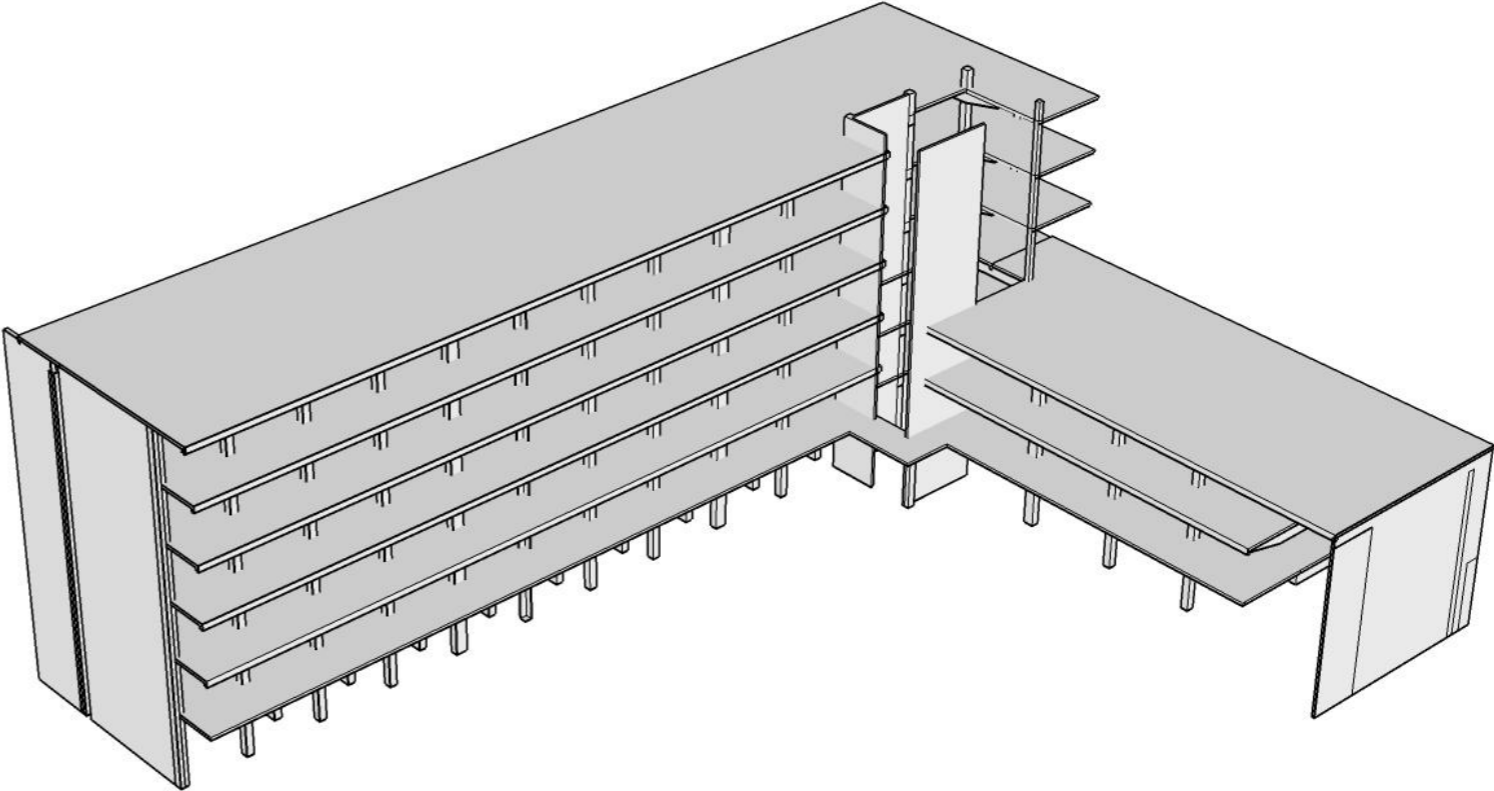
Support & Infill

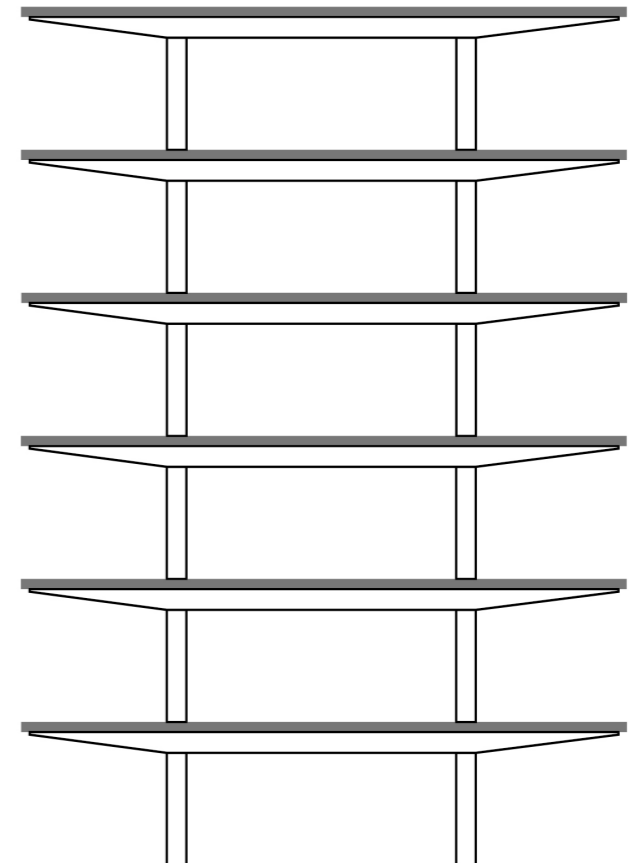
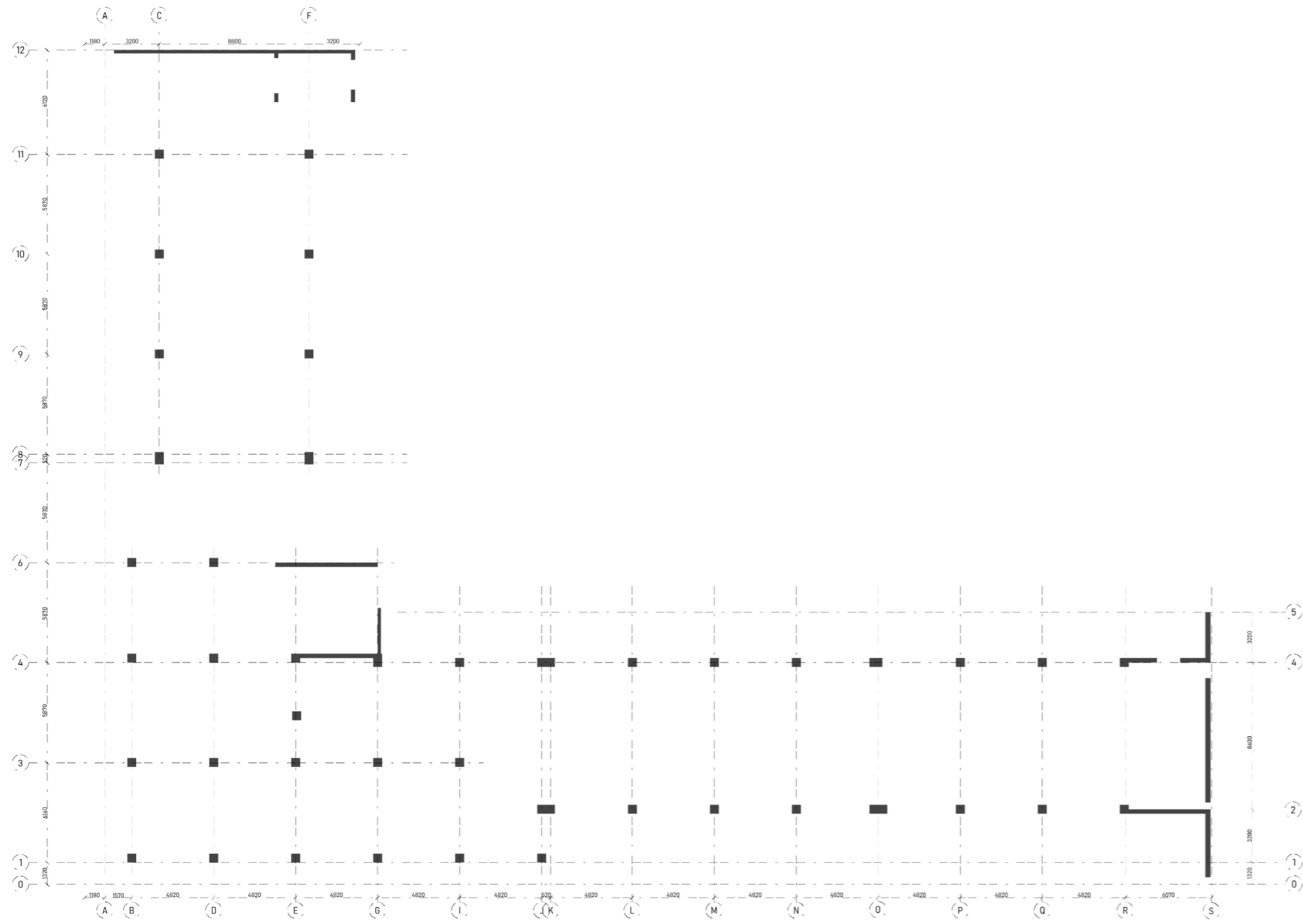
Support=system that enables the adaptability

Infil=adaptable design solutions

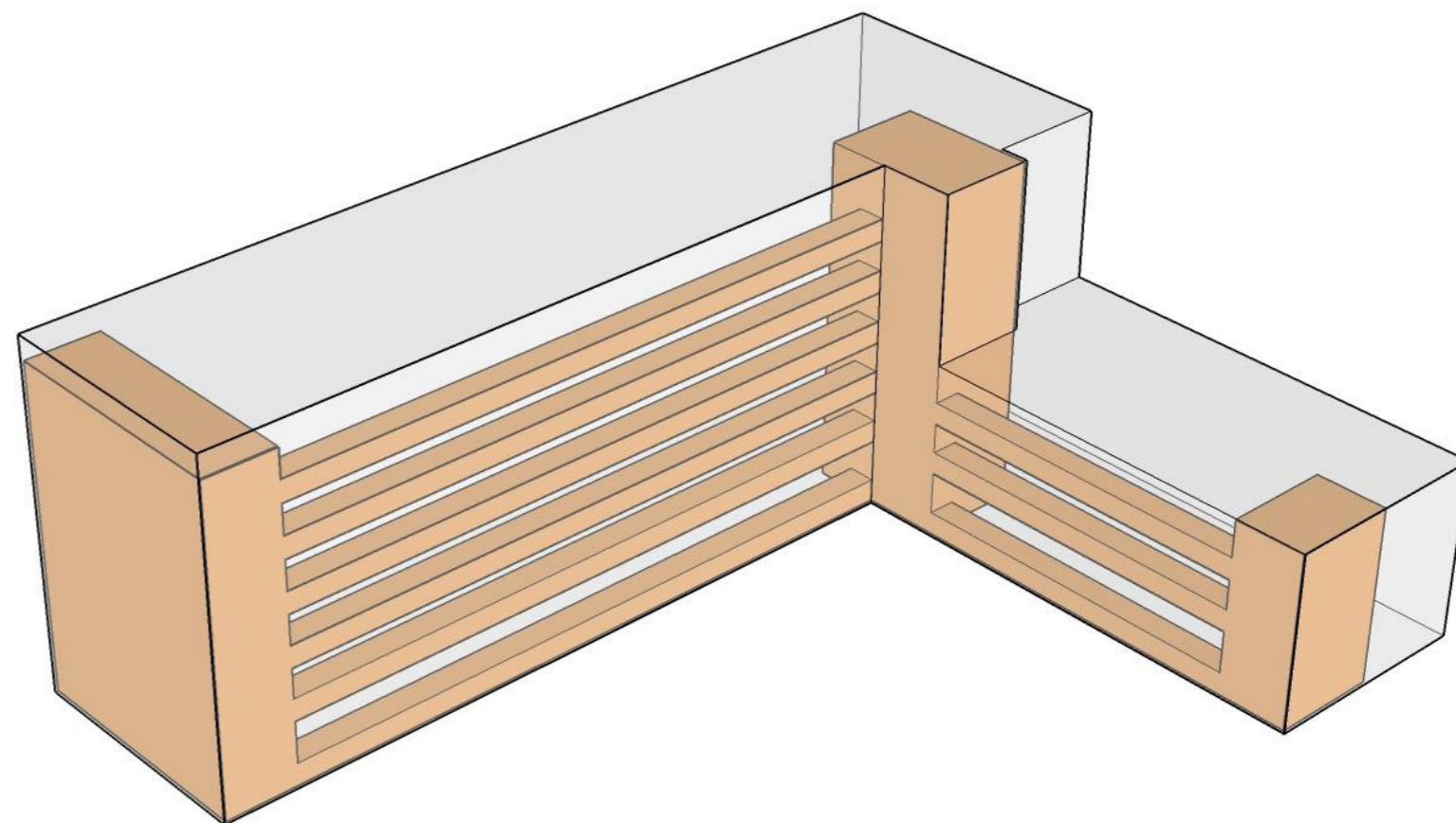
3 Support Systems

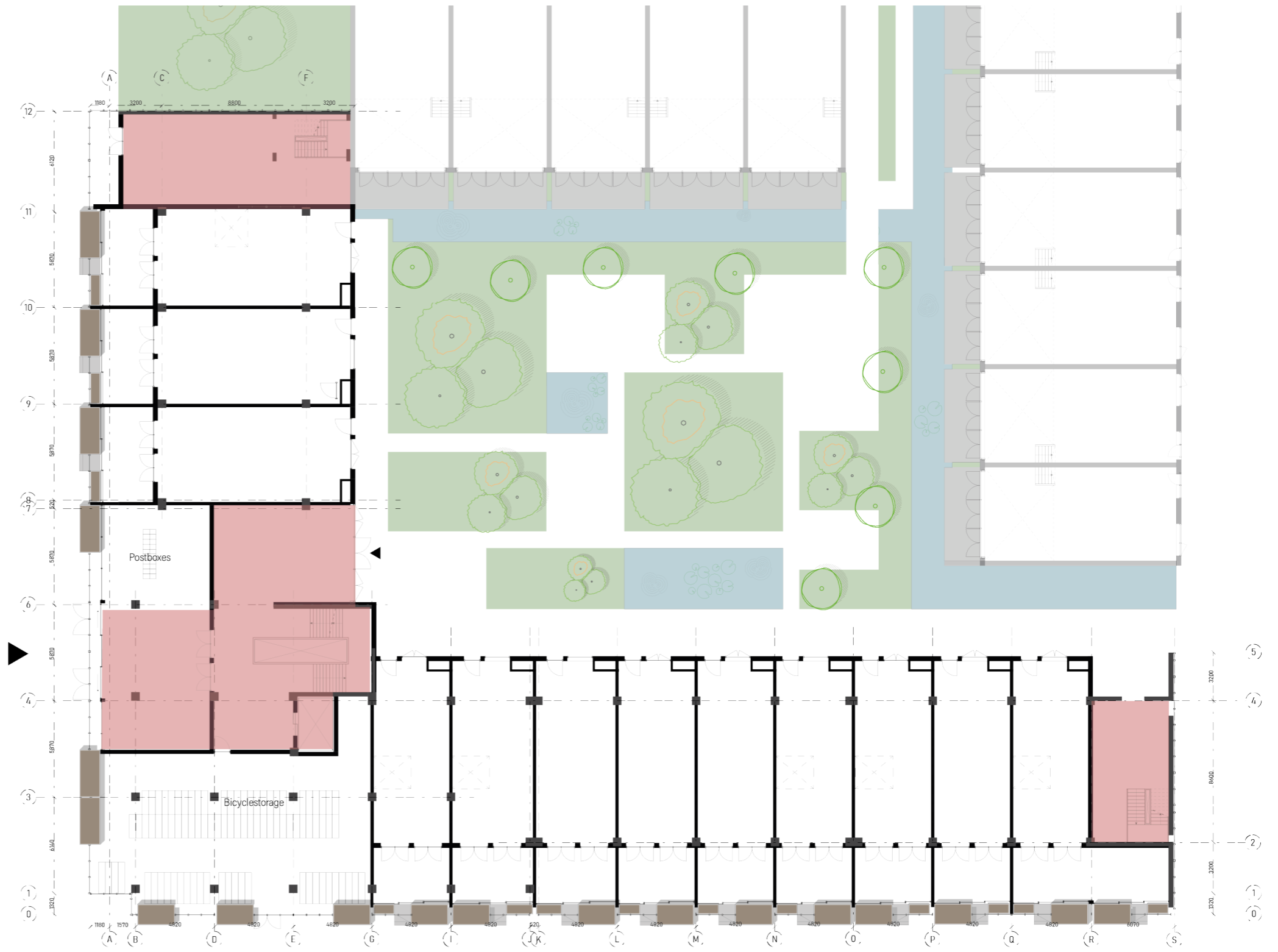
Loadbearing Structure





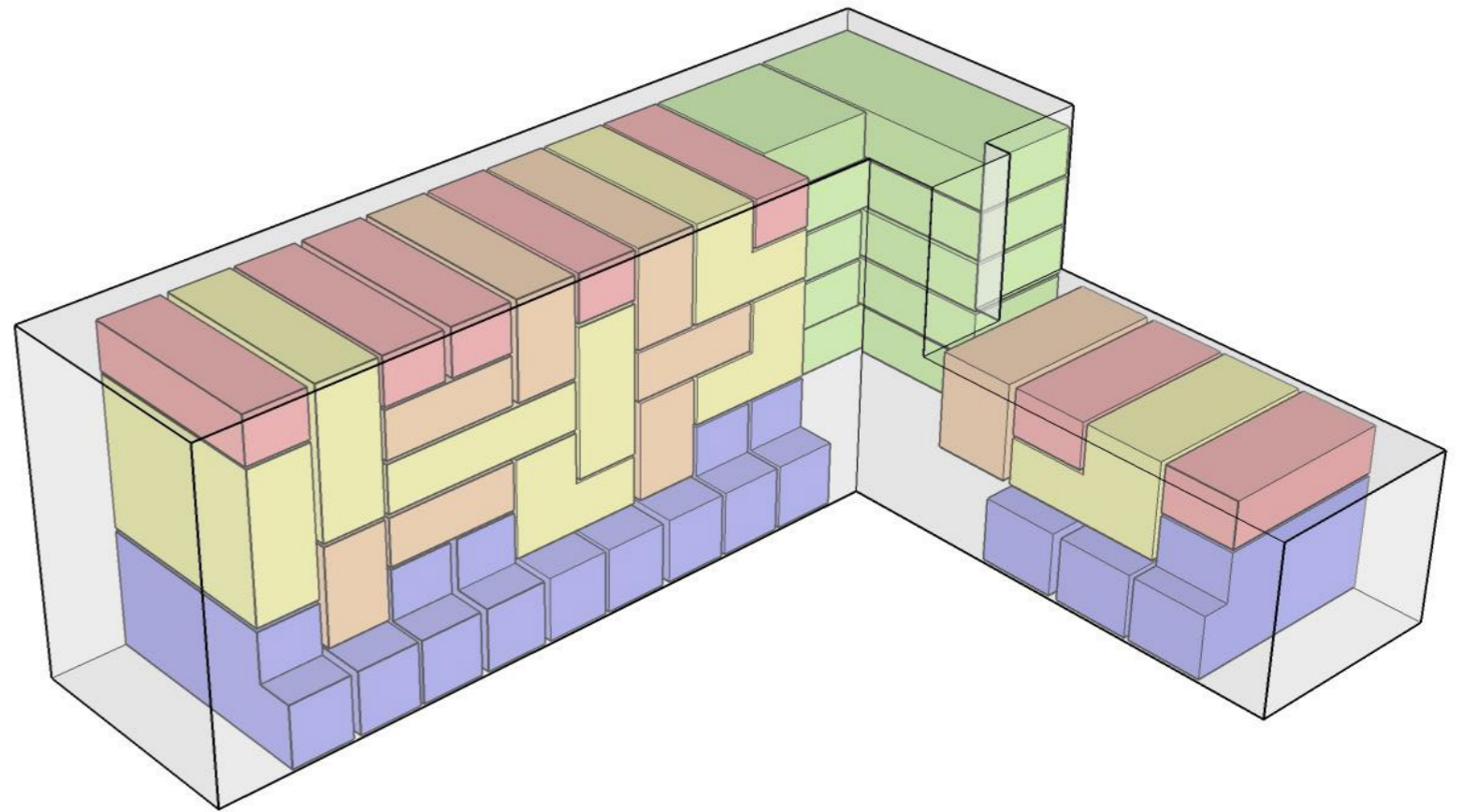
Circulation





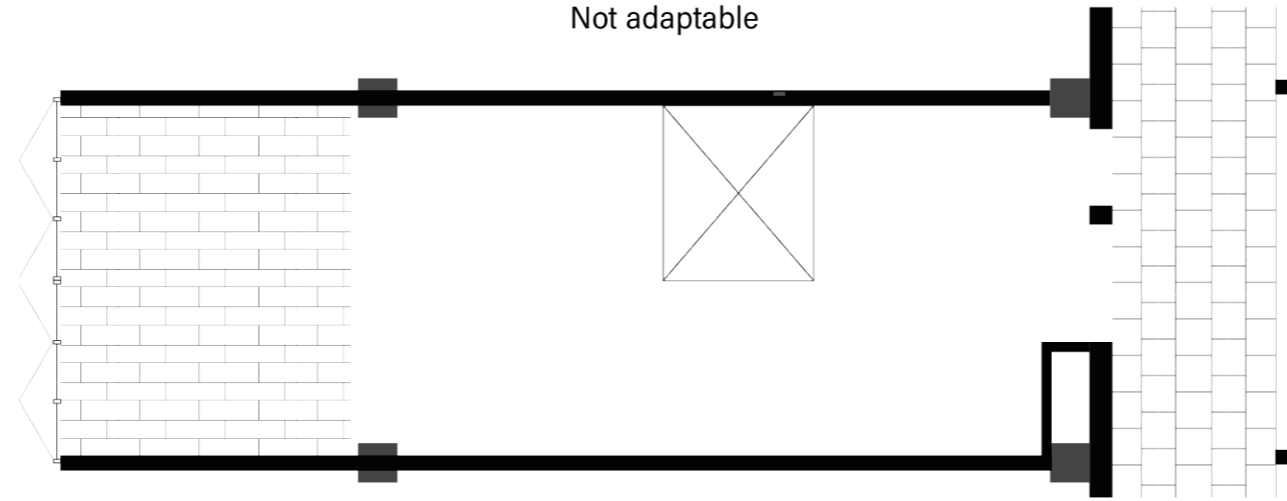


Dwelling placement

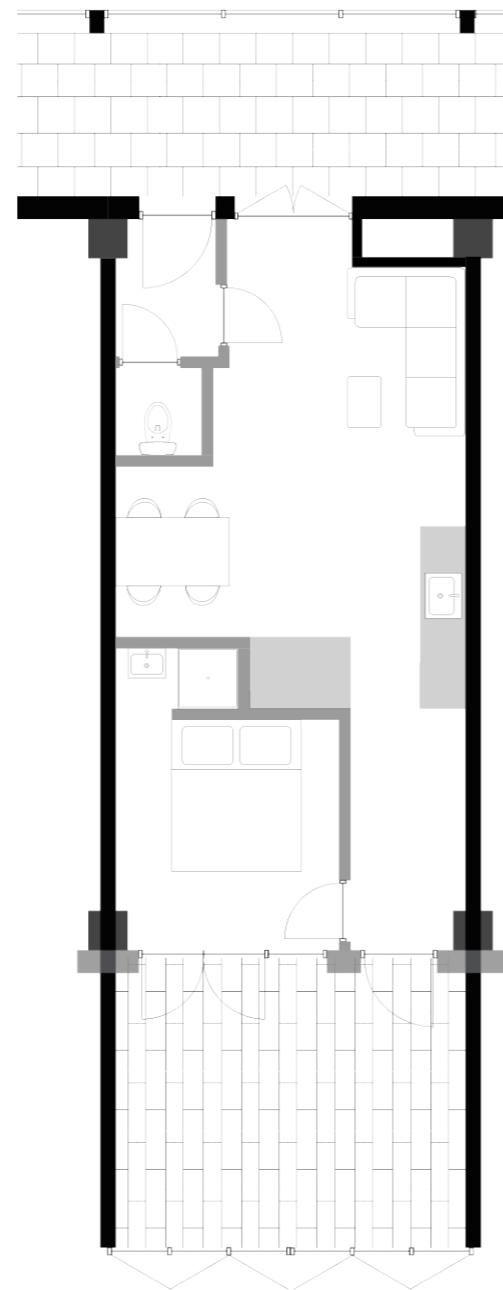


Type A: 43 m²

Not adaptable

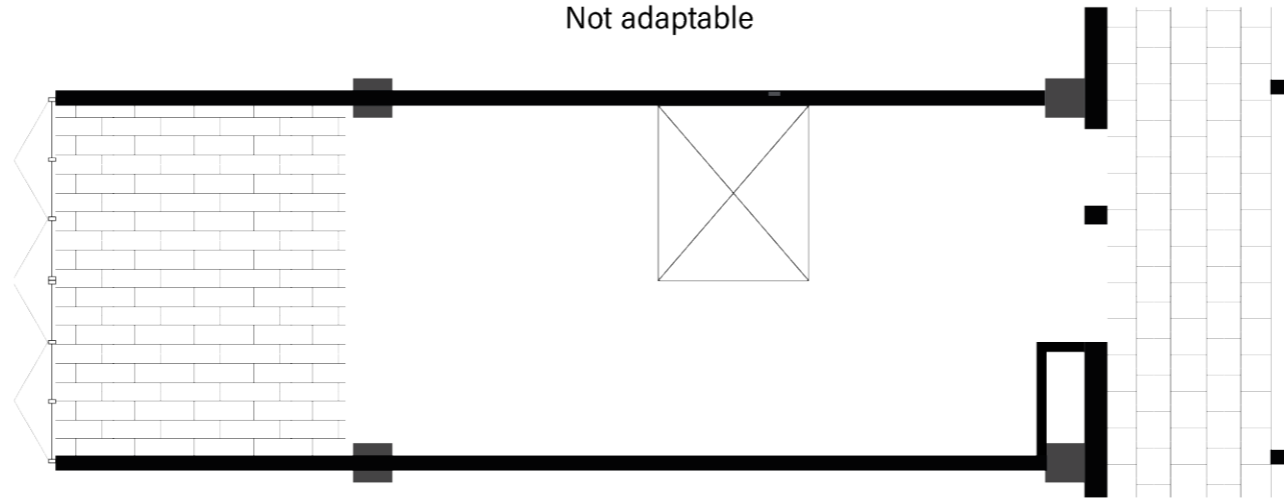


First Floor

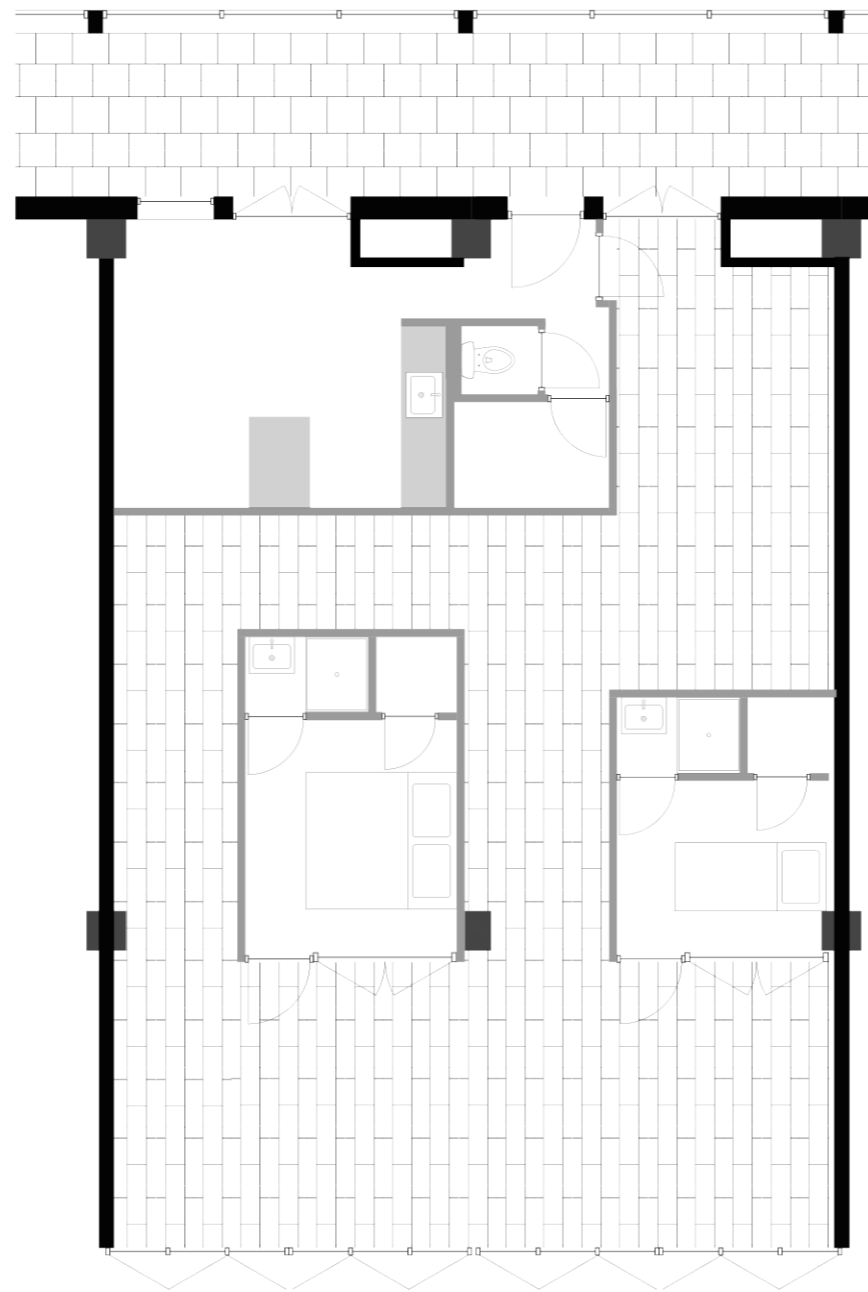


Type B1: 87 m2 BVO

Not adaptable

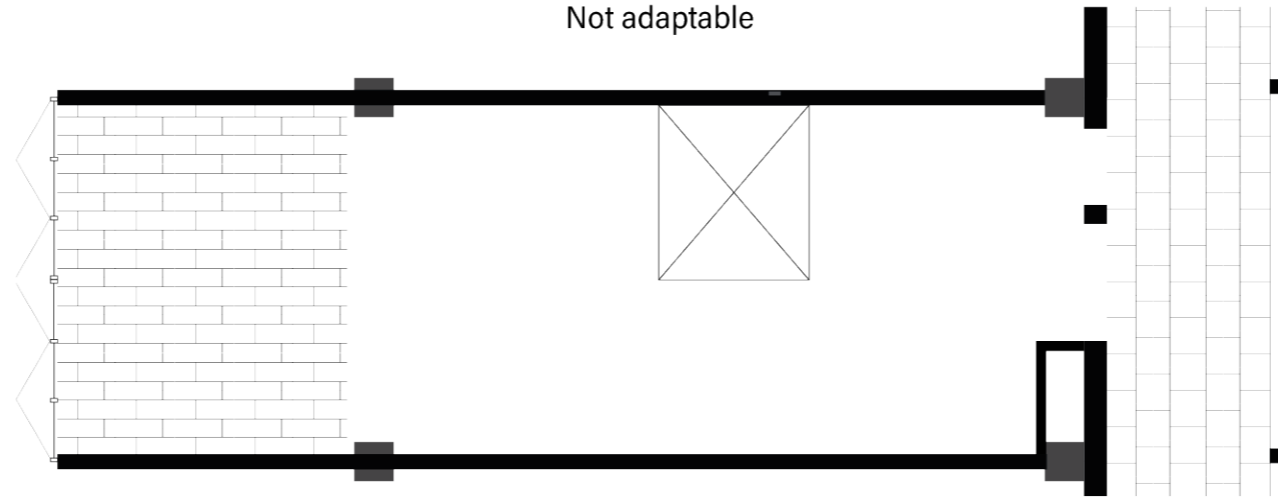


First Floor

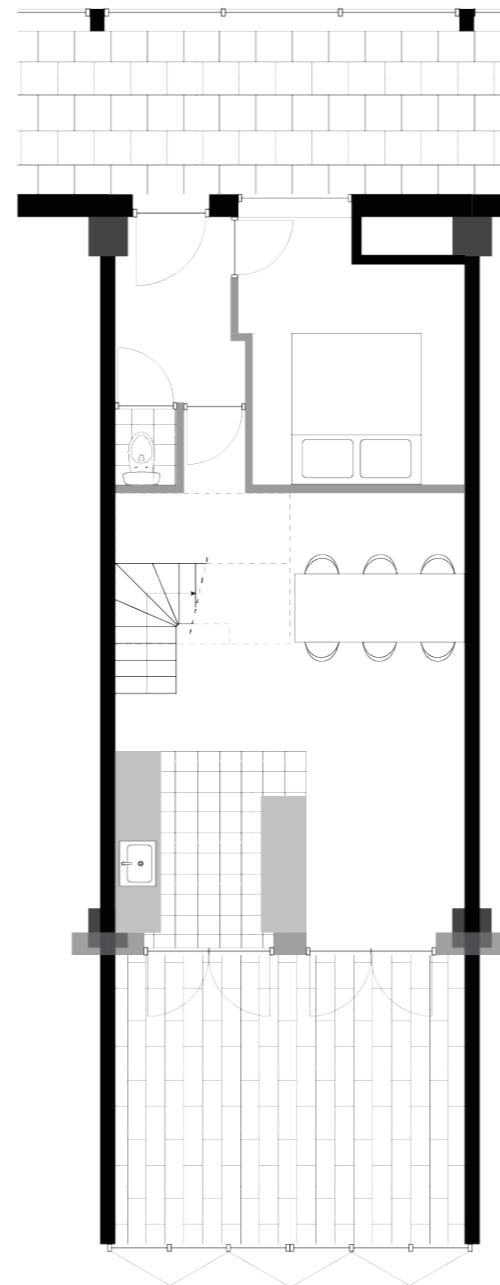


Type B2: 87 m2 BVO

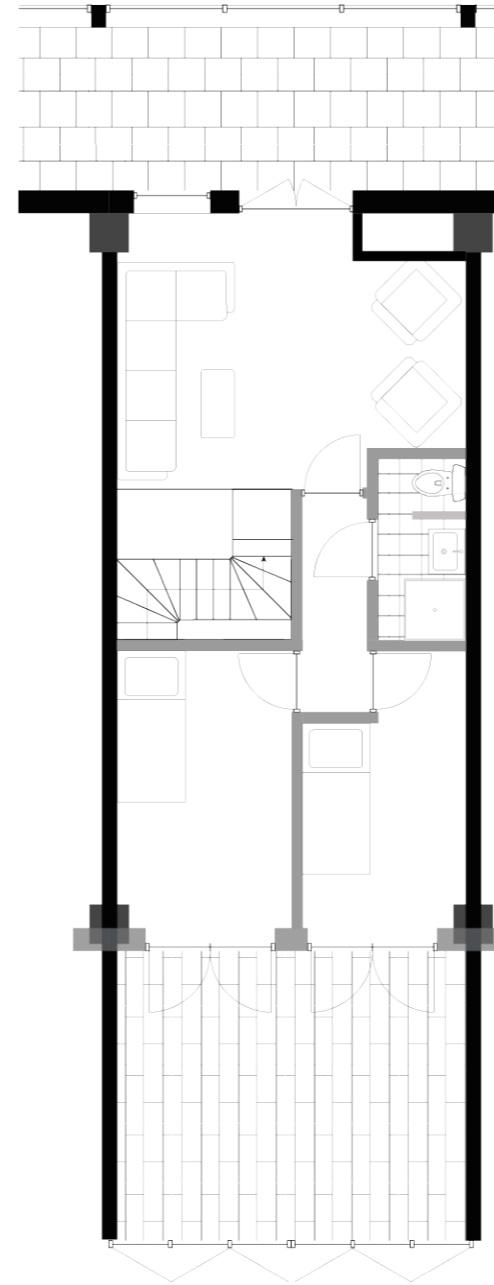
Not adaptable



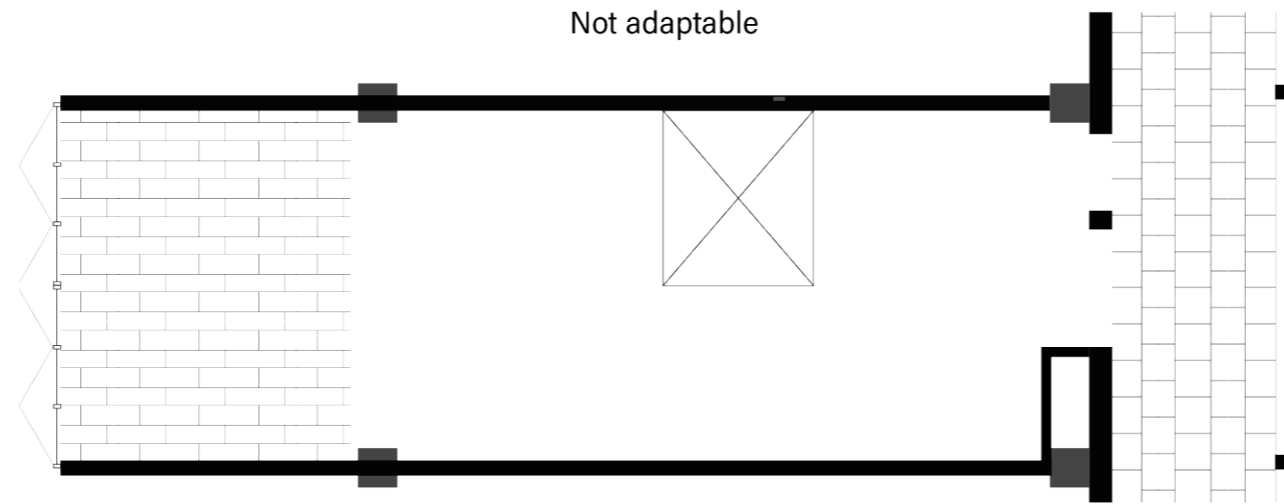
First Floor



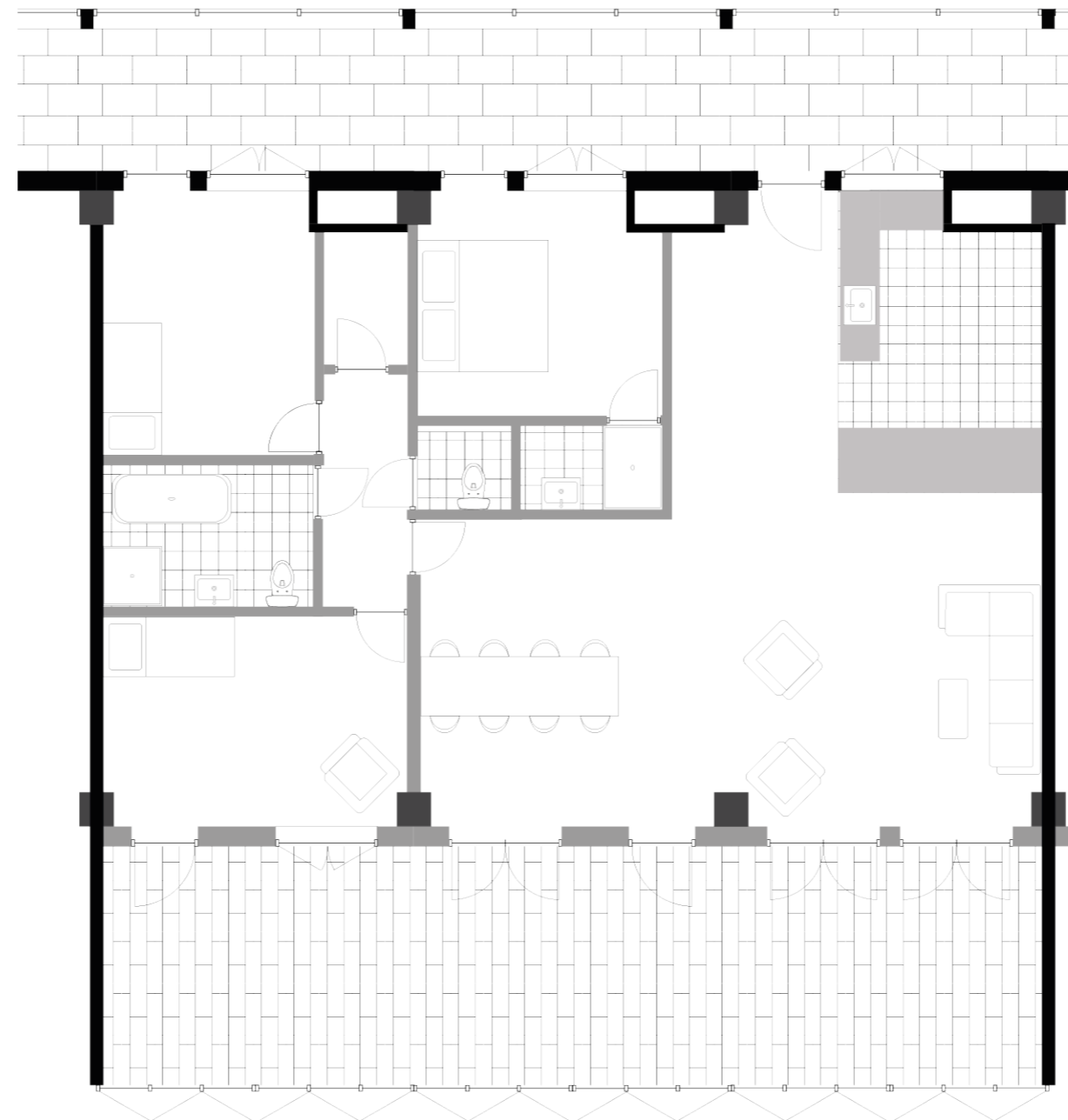
Second Floor



Type C1: 130 m2 BVO

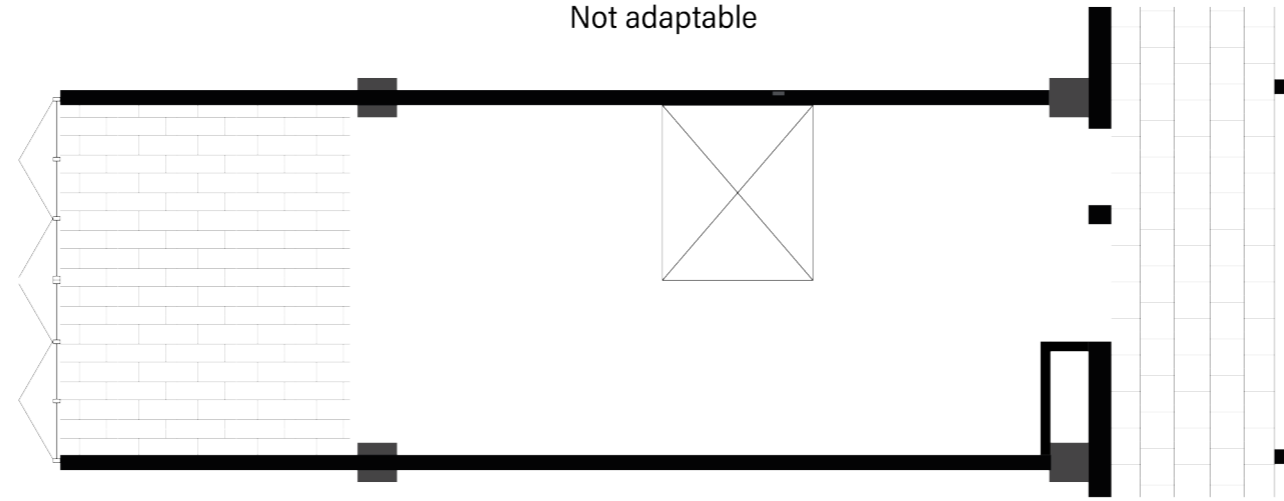


First Floor

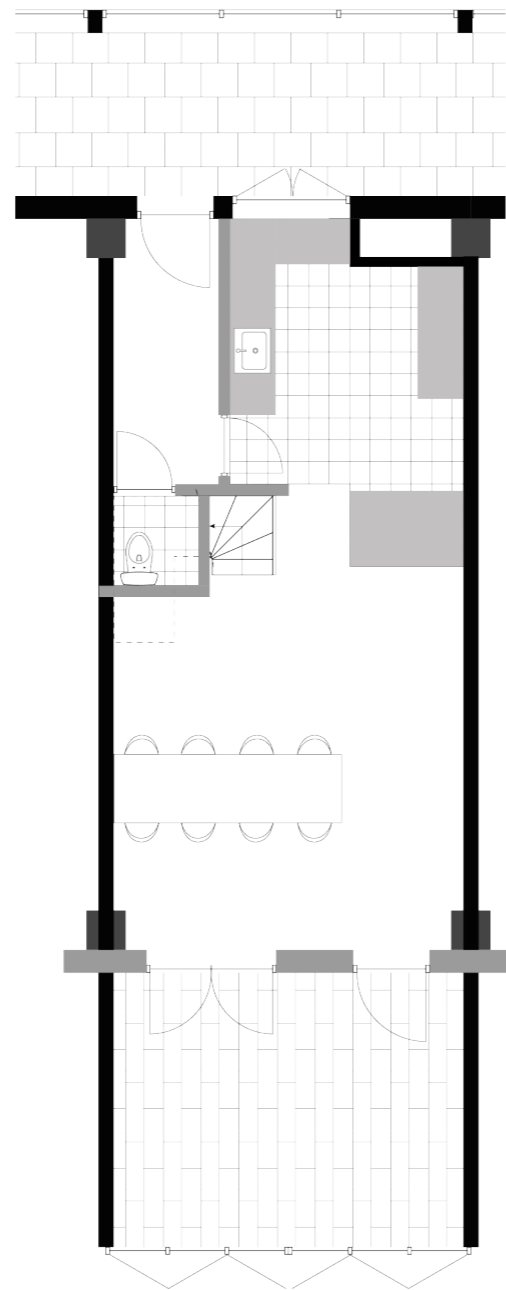


Type C2: 130 m2 BVO

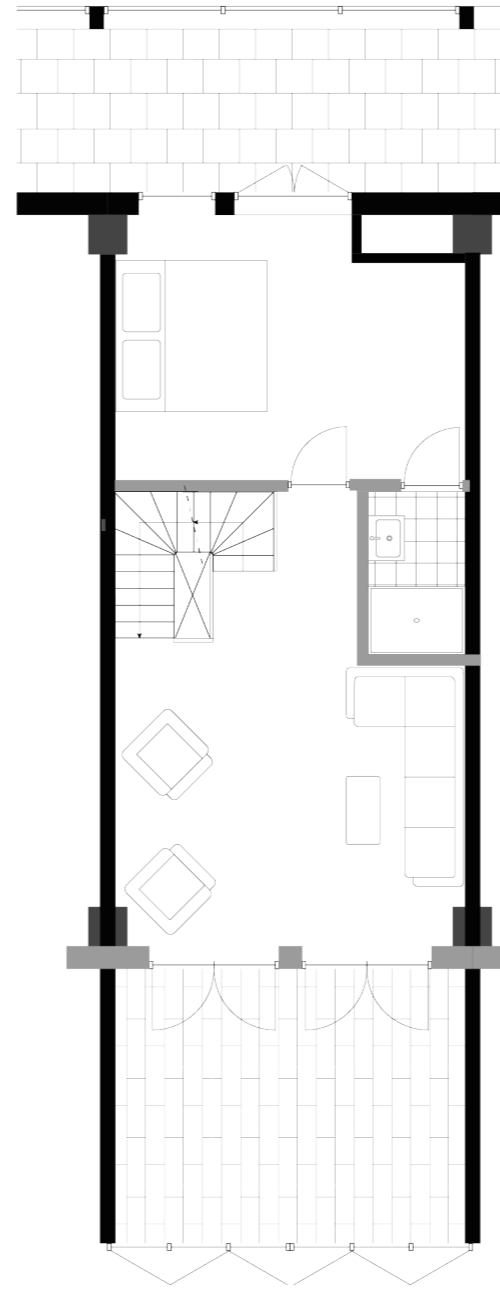
Not adaptable



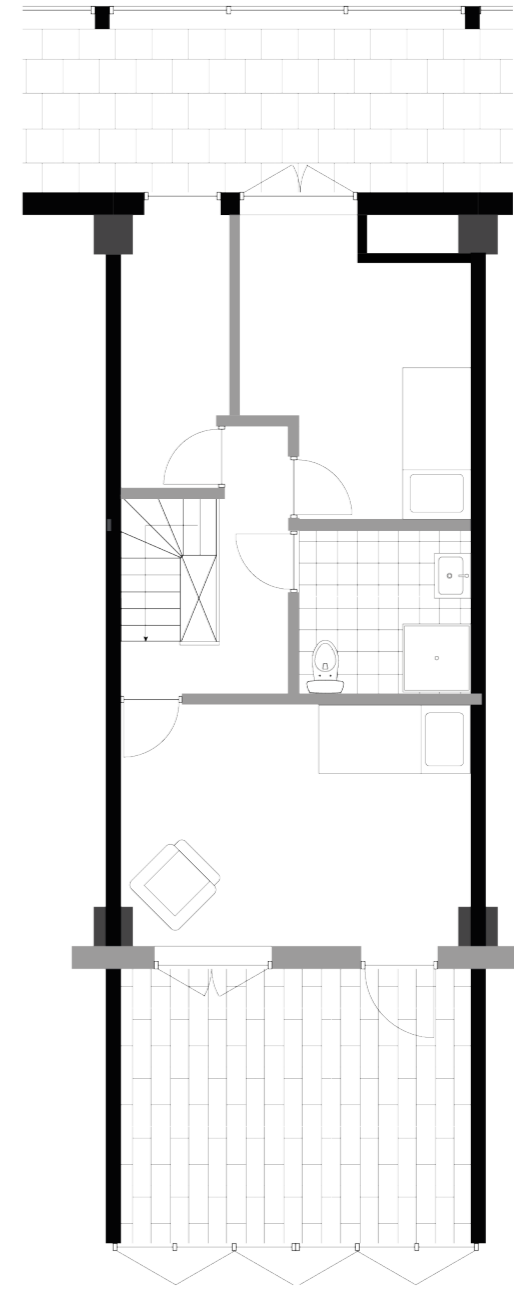
First Floor



Second Floor

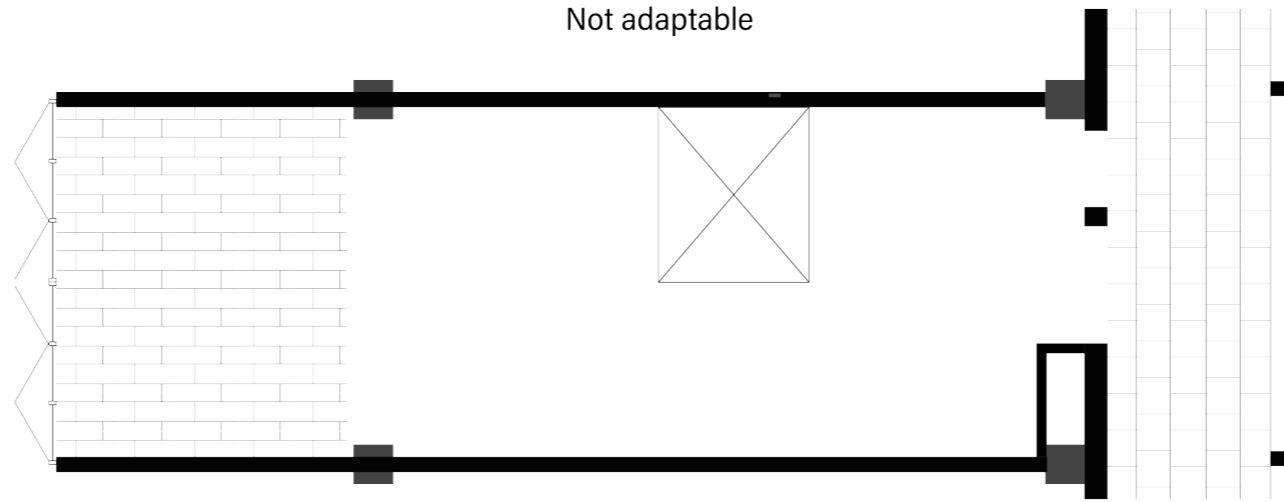


Third Floor

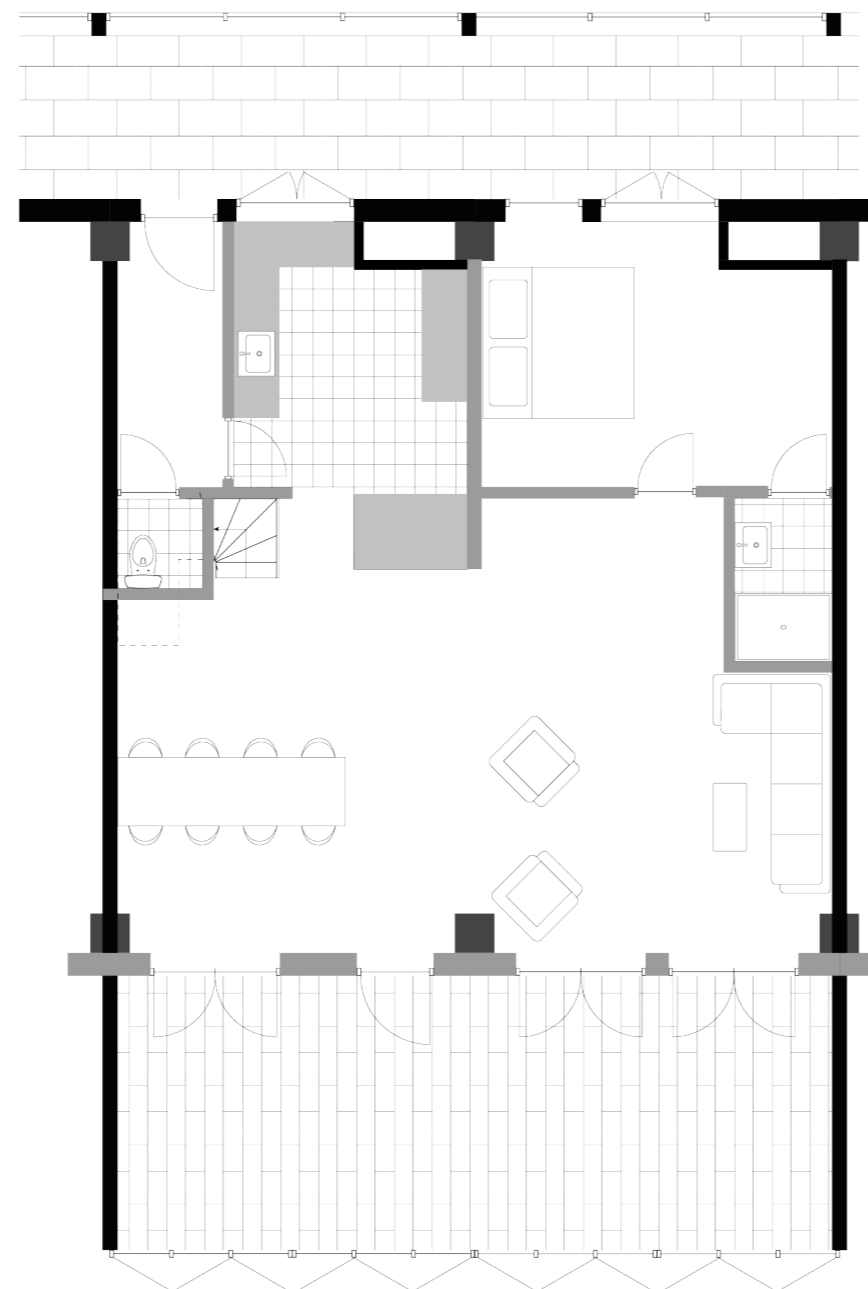


Type C3: 130 m2 BVO

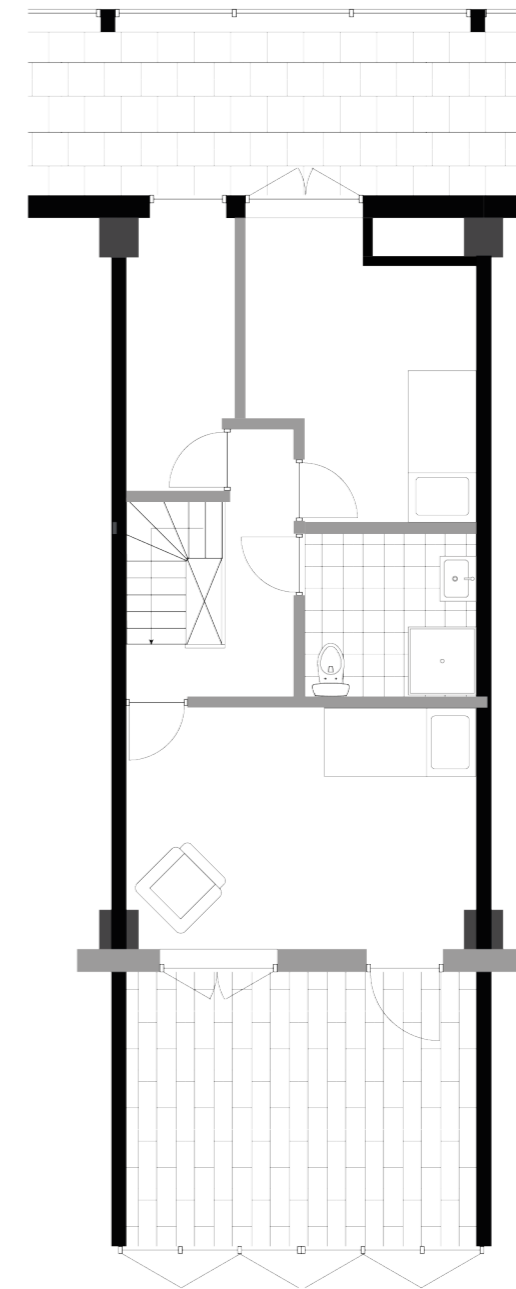
Not adaptable



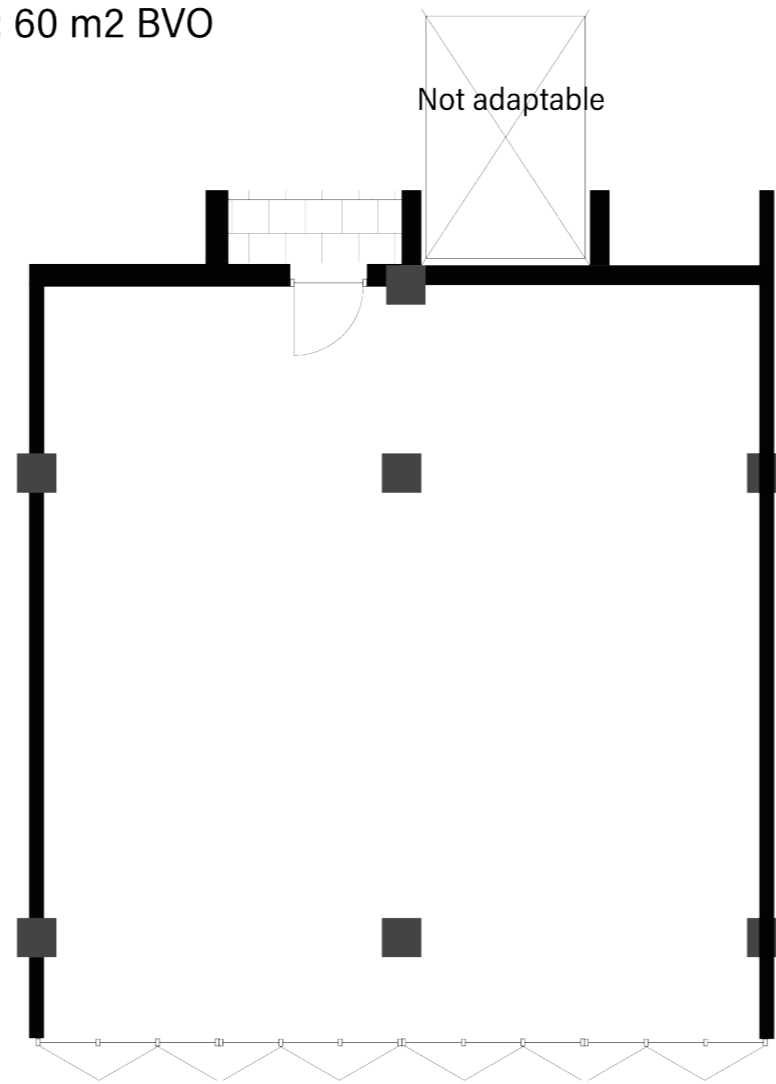
First Floor



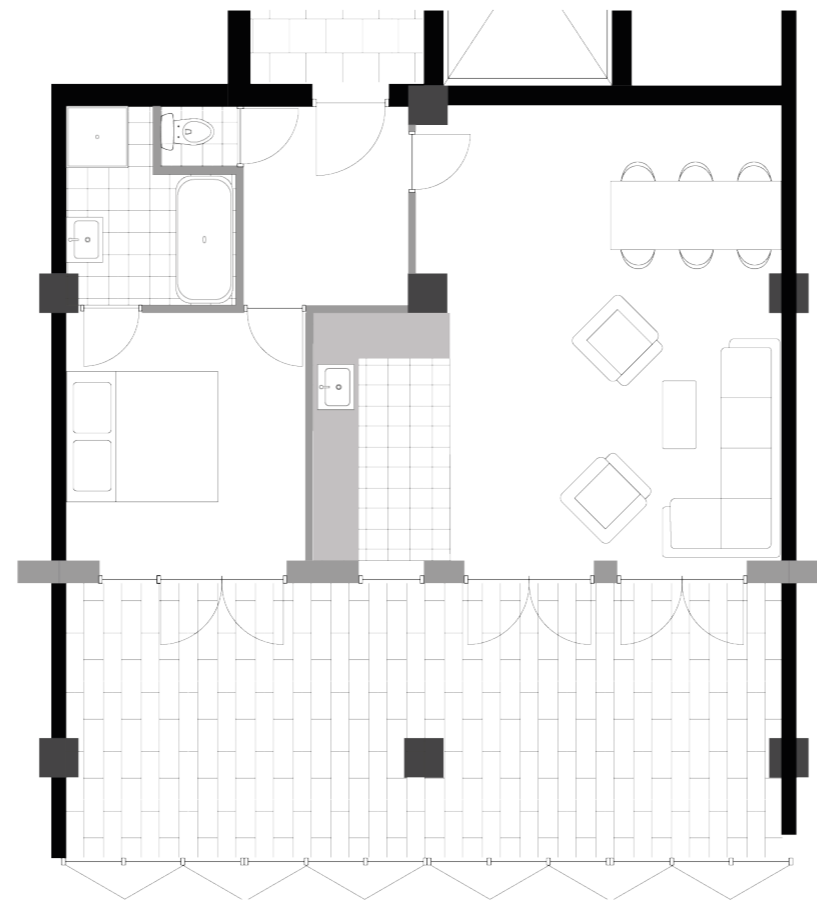
Second Floor



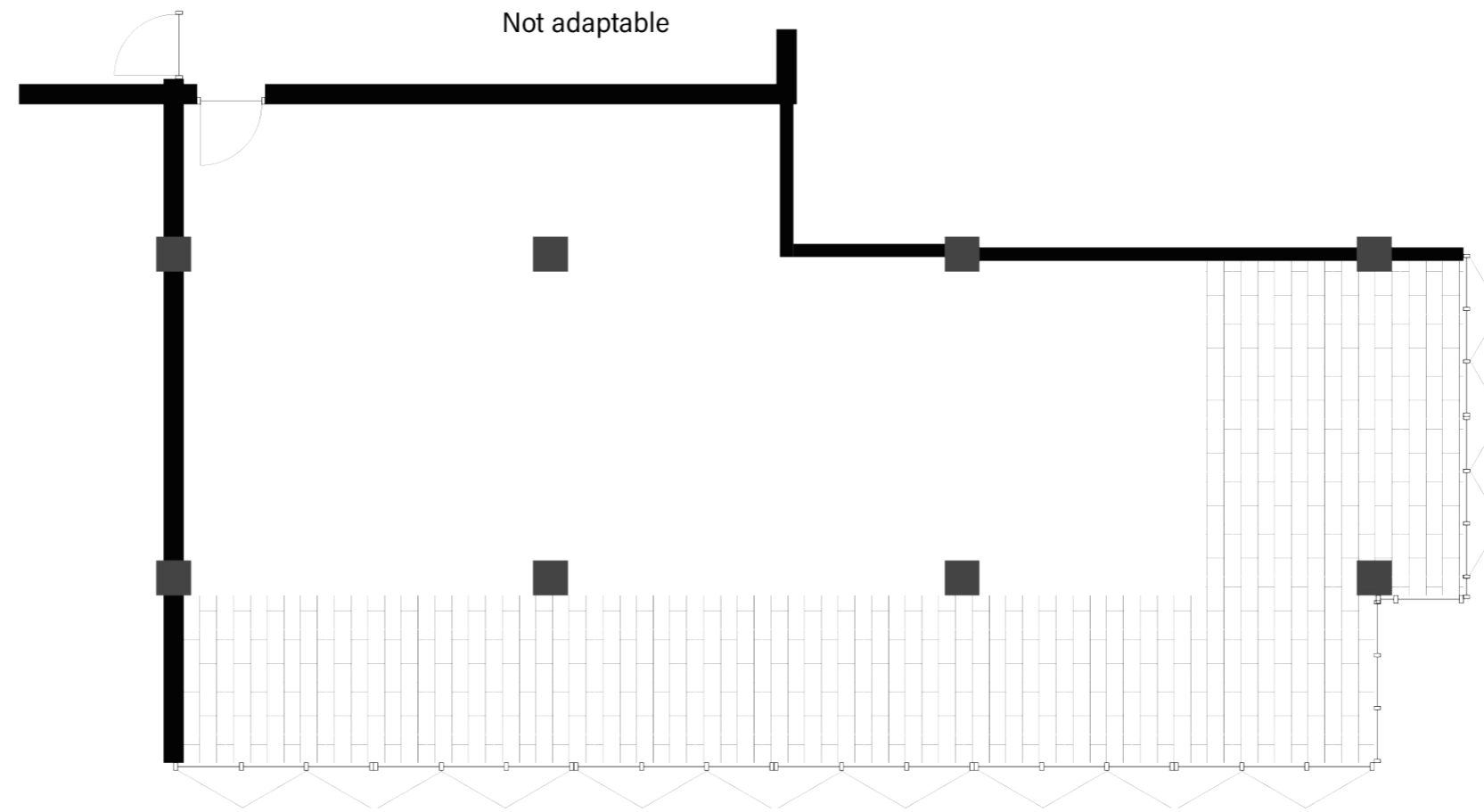
Type D1: 60 m2 BVO



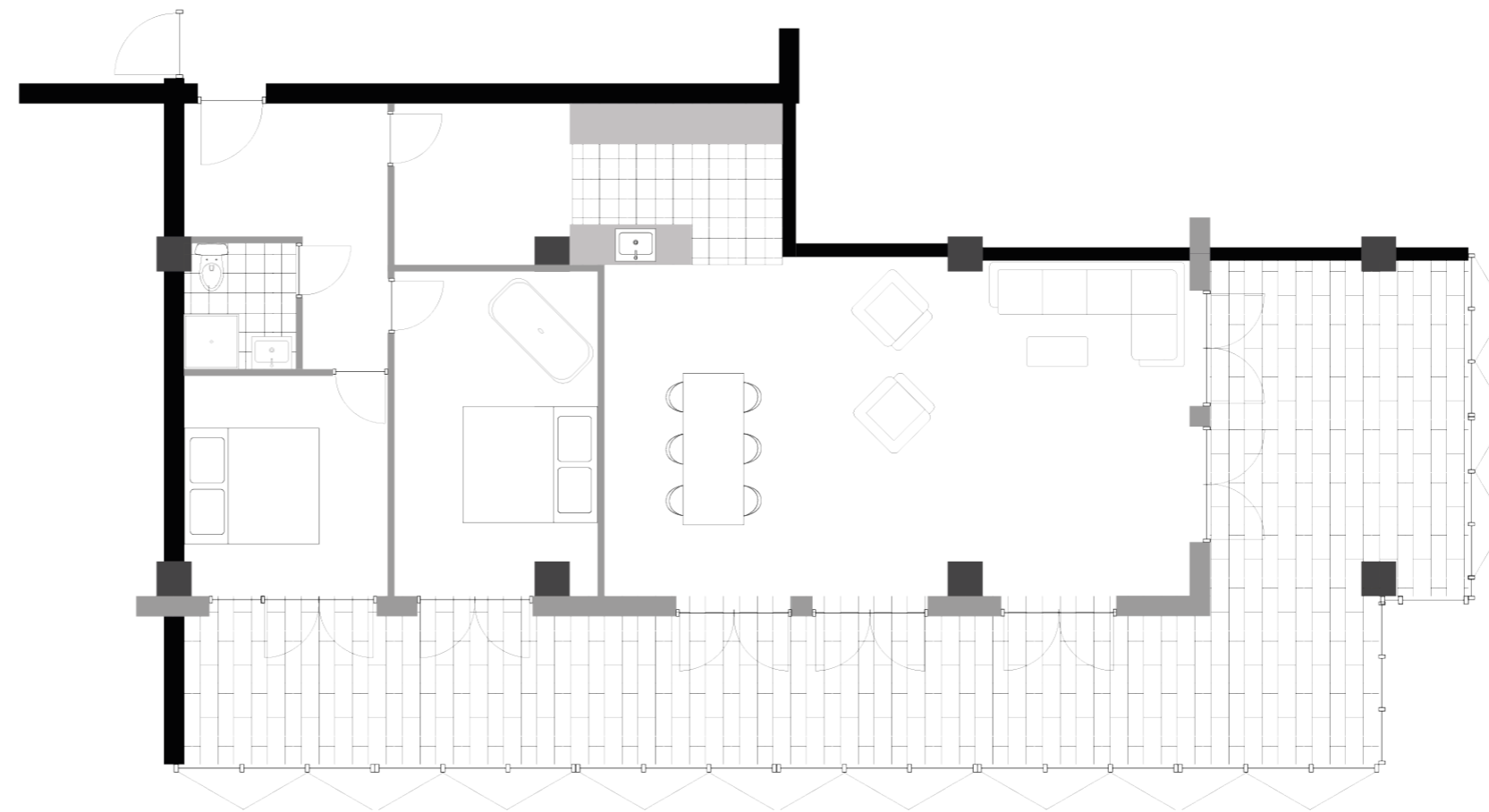
First Floor



Type E1: 98 m2 BVO



First Floor

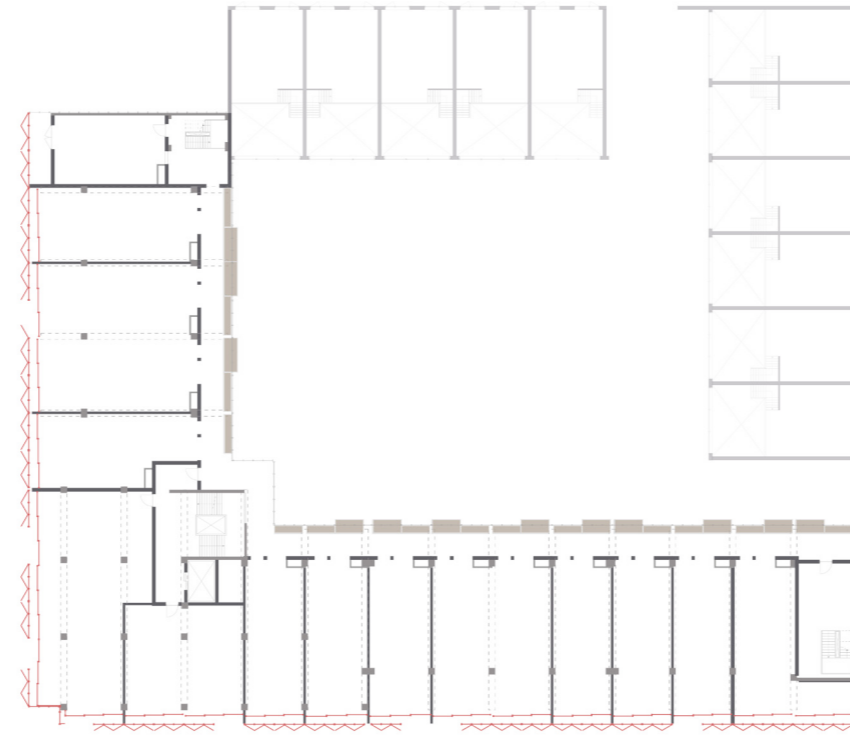


Adaptable Design Solutions

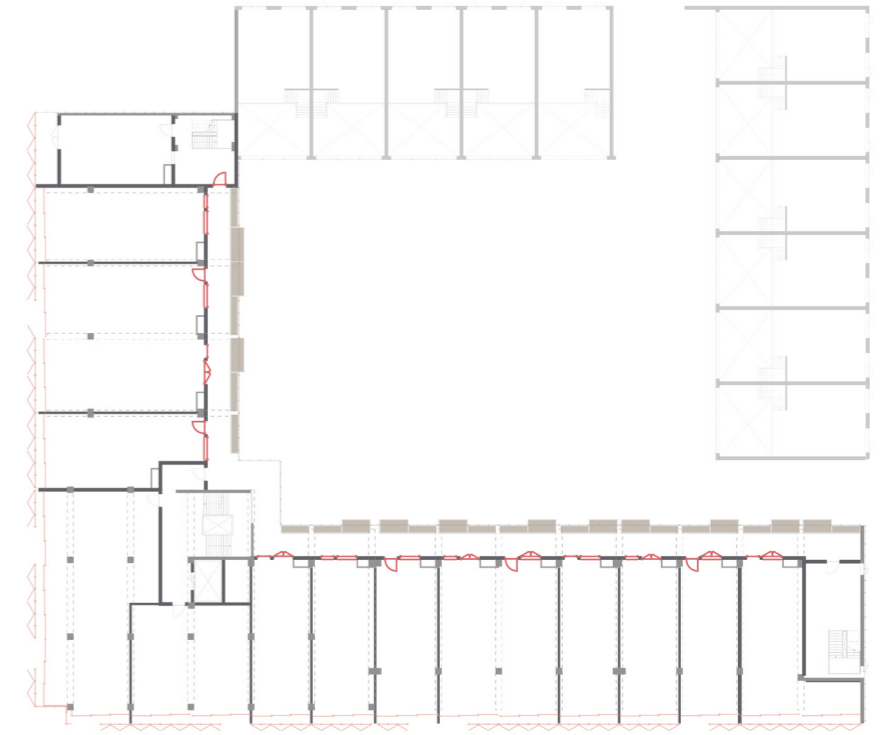
Starting point



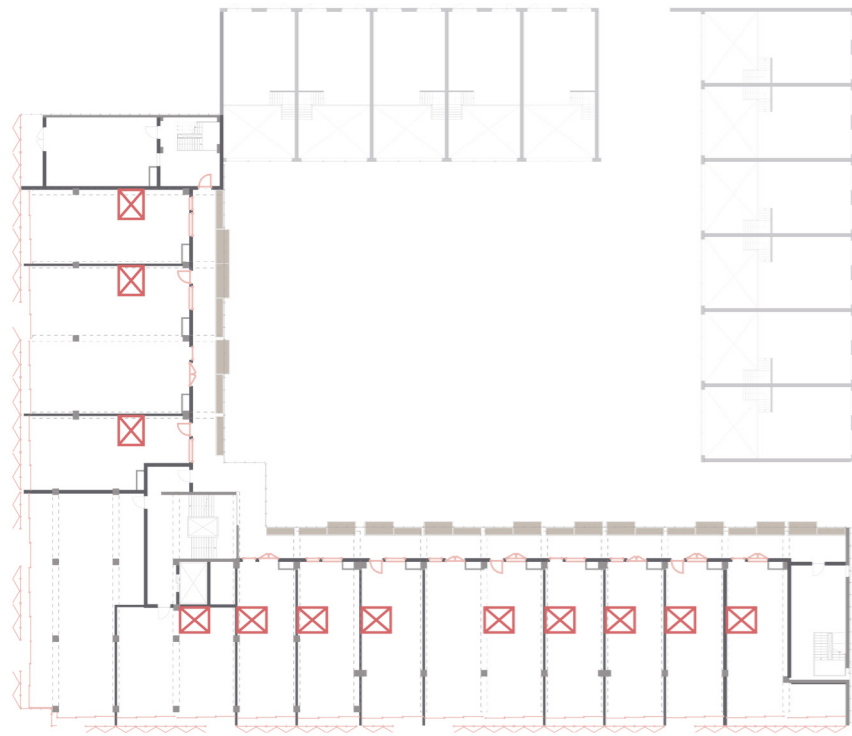
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2



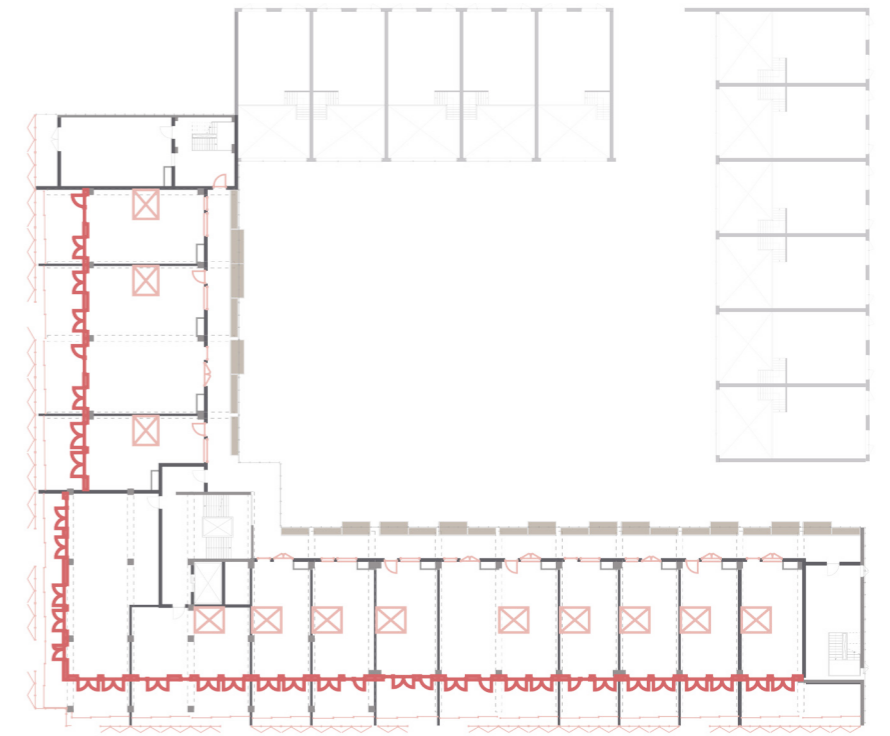
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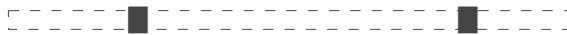
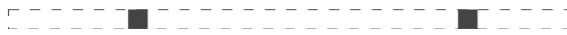


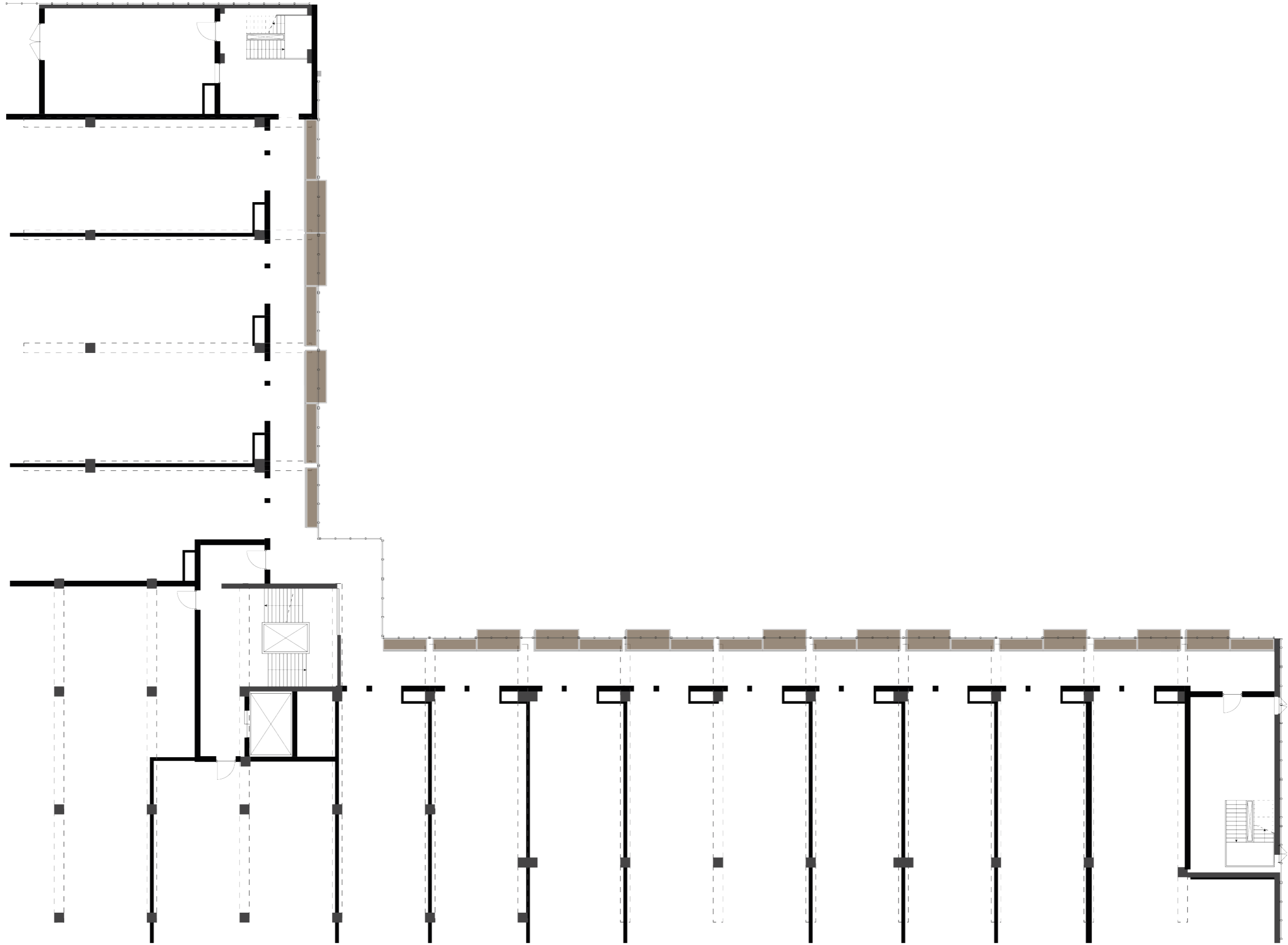
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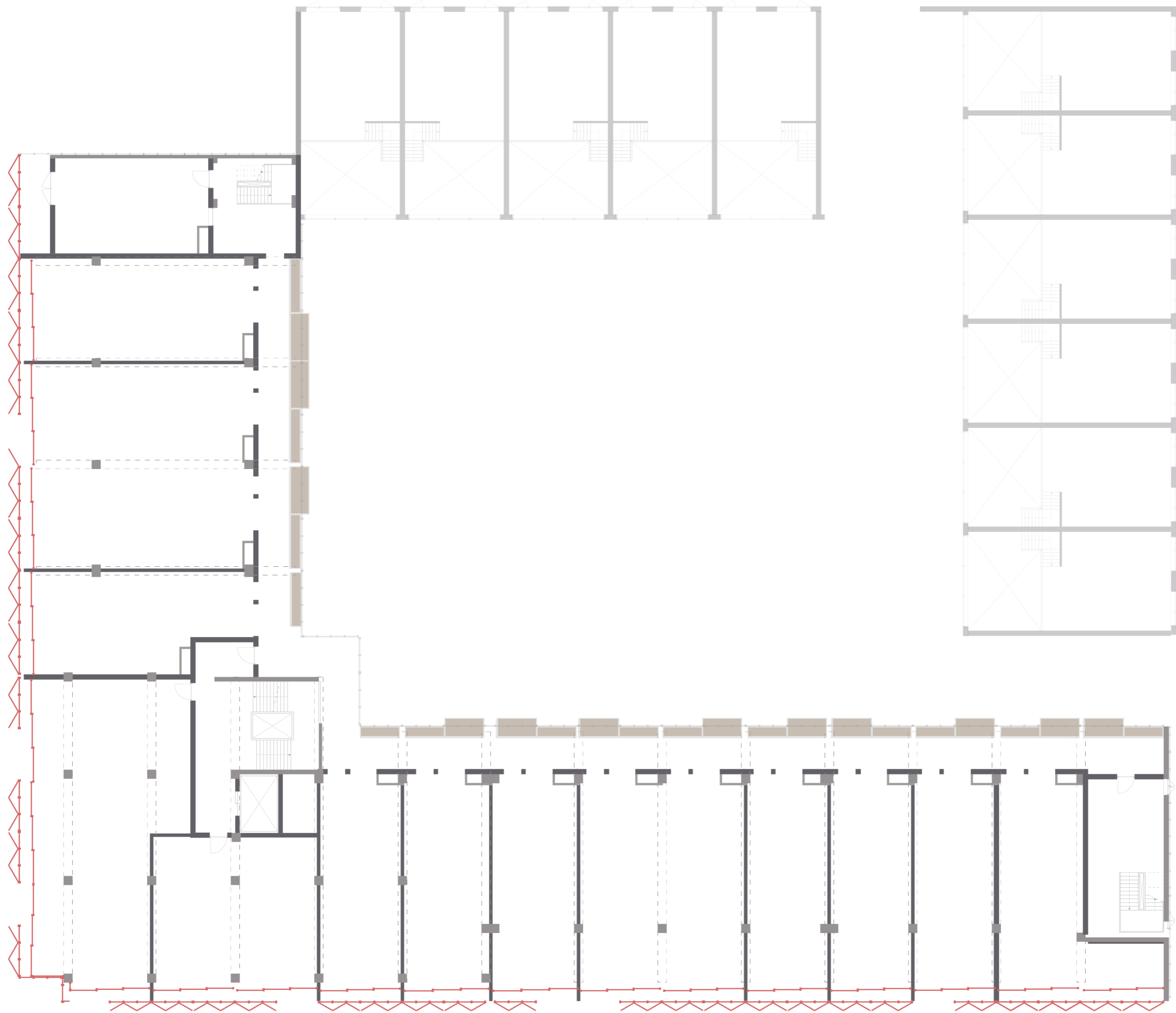


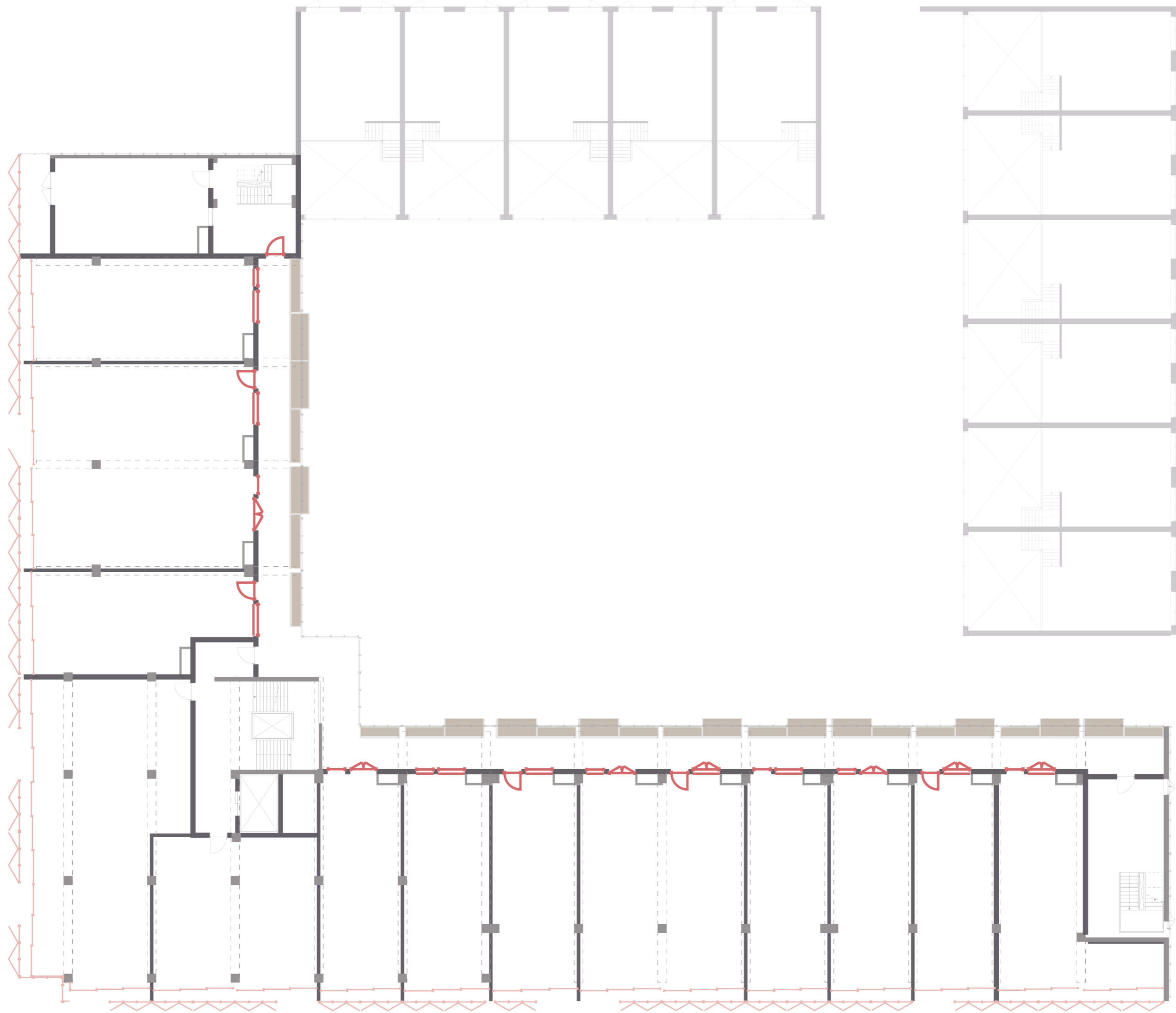
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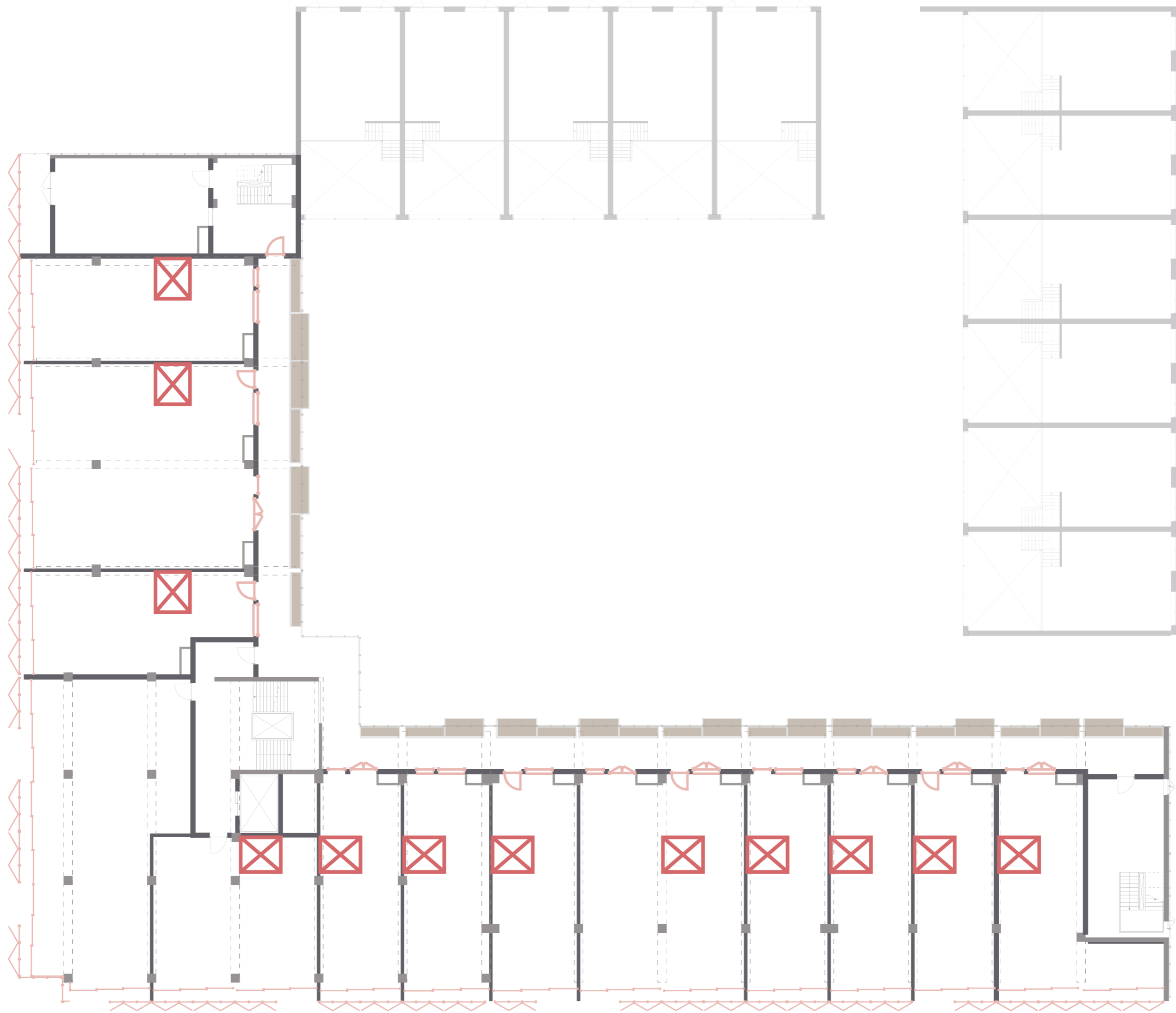




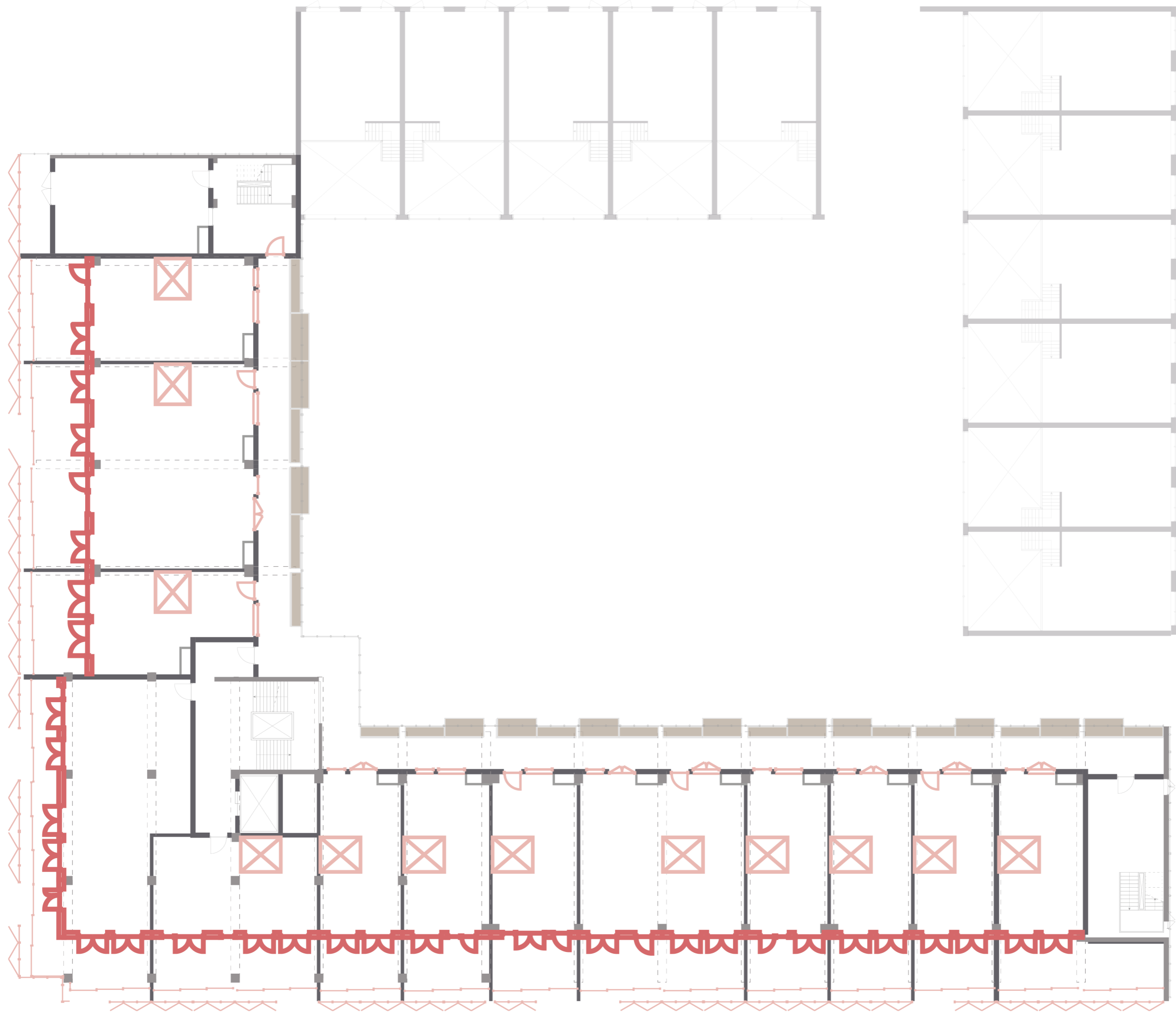






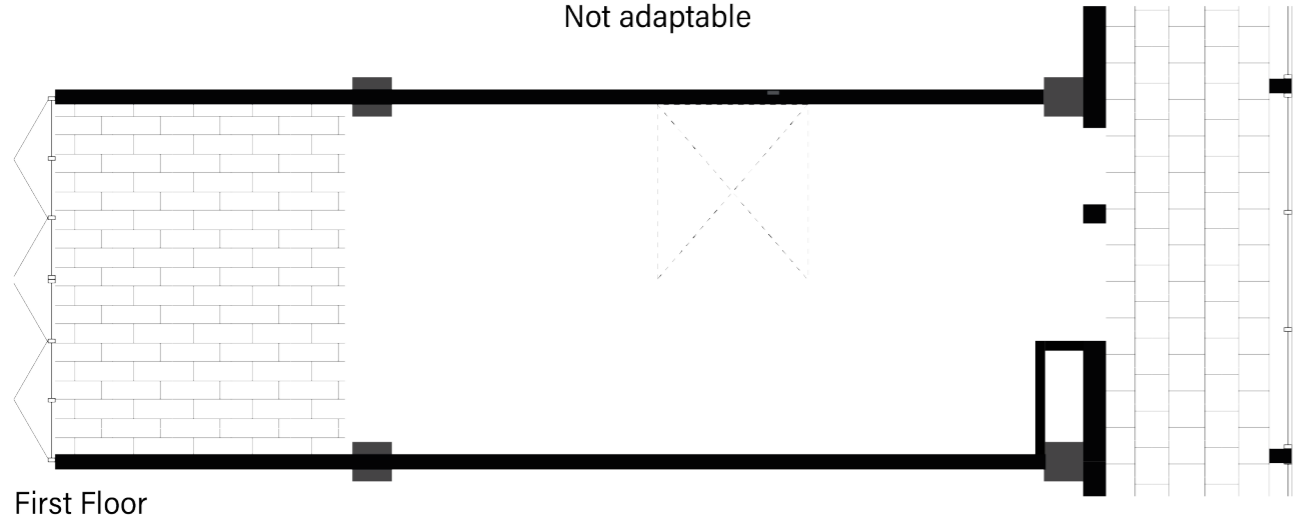




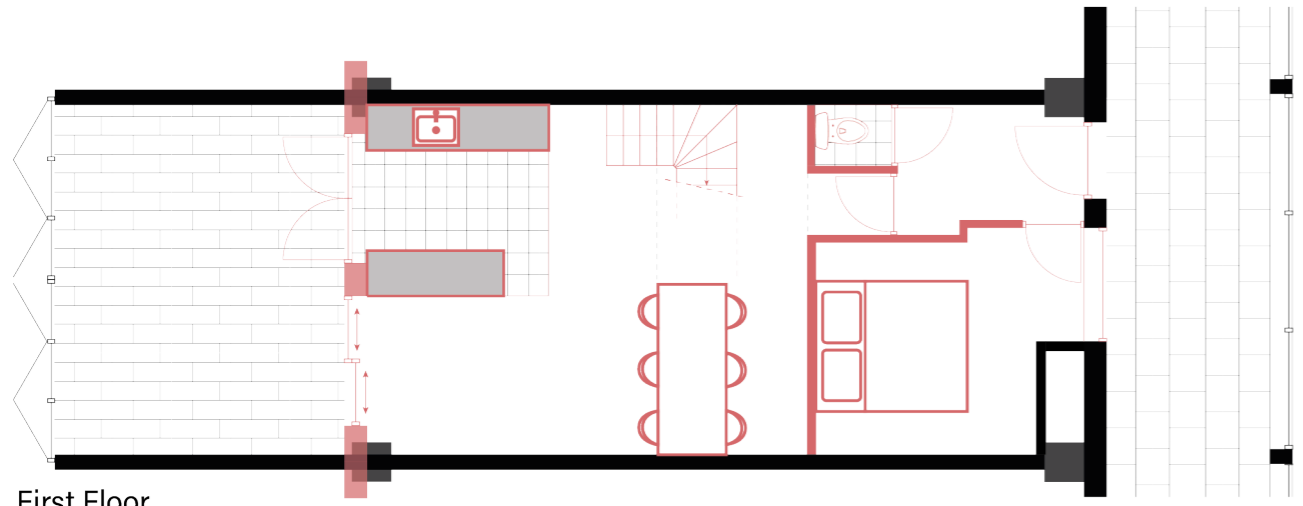


Different infill. 2 variants of B2

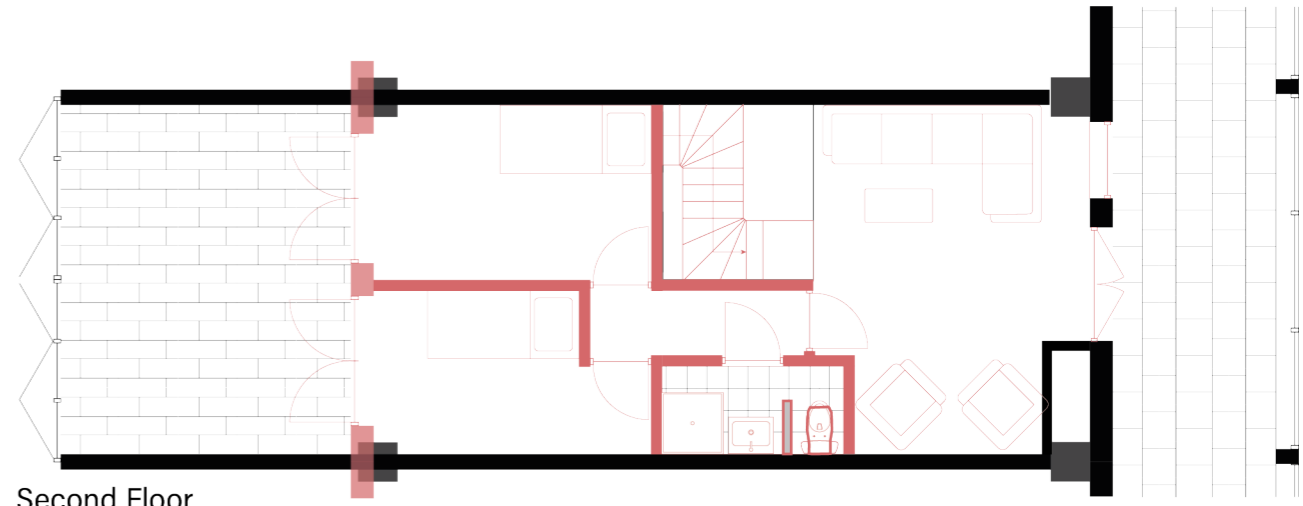
Not adaptable



First Floor



First Floor

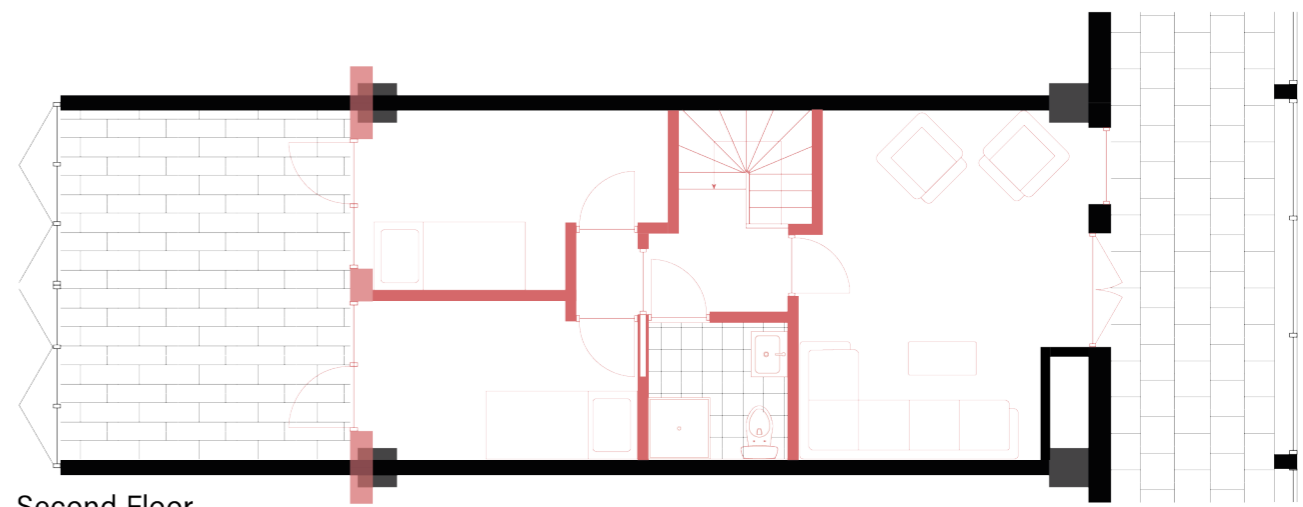


Second Floor



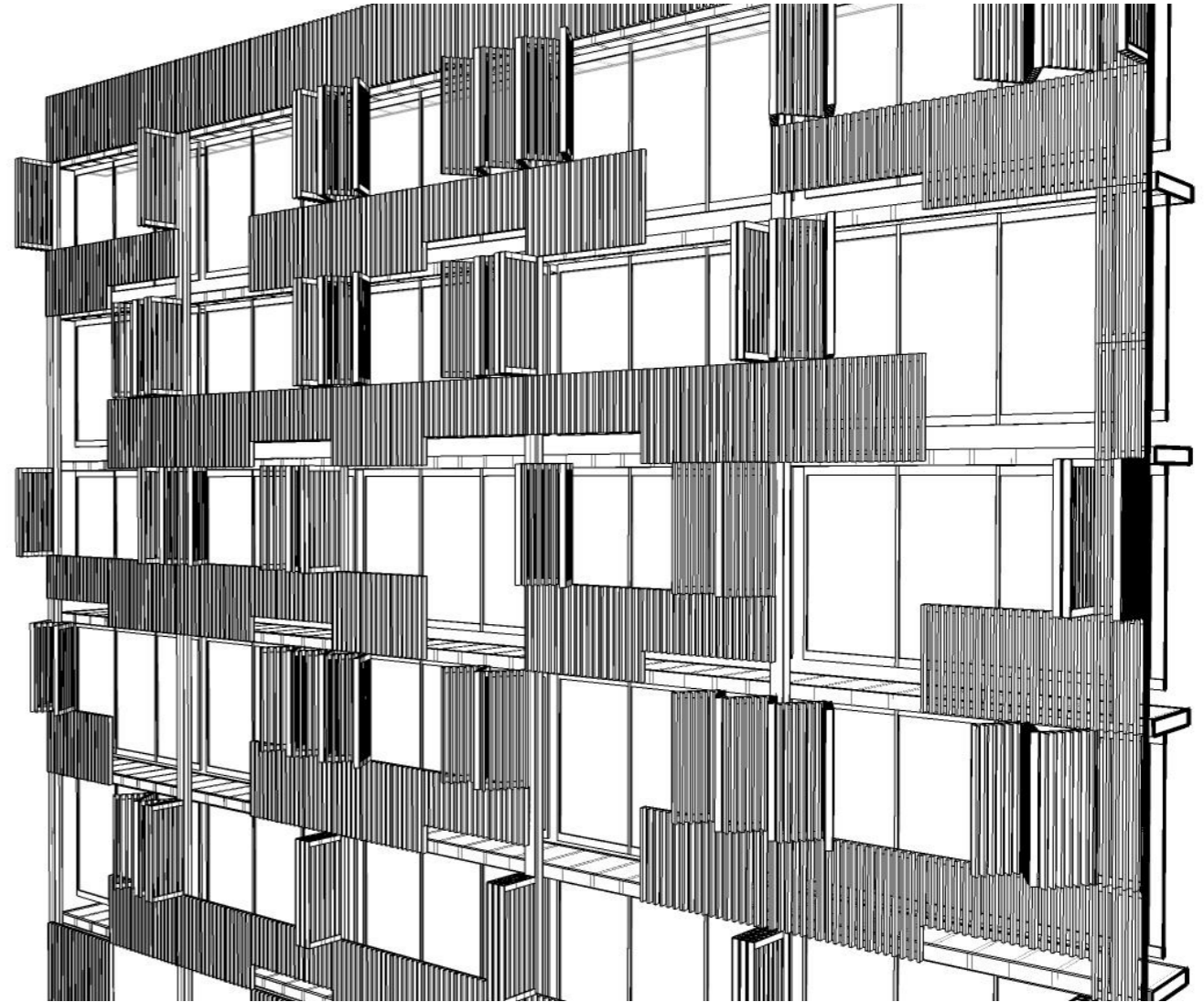
First Floor

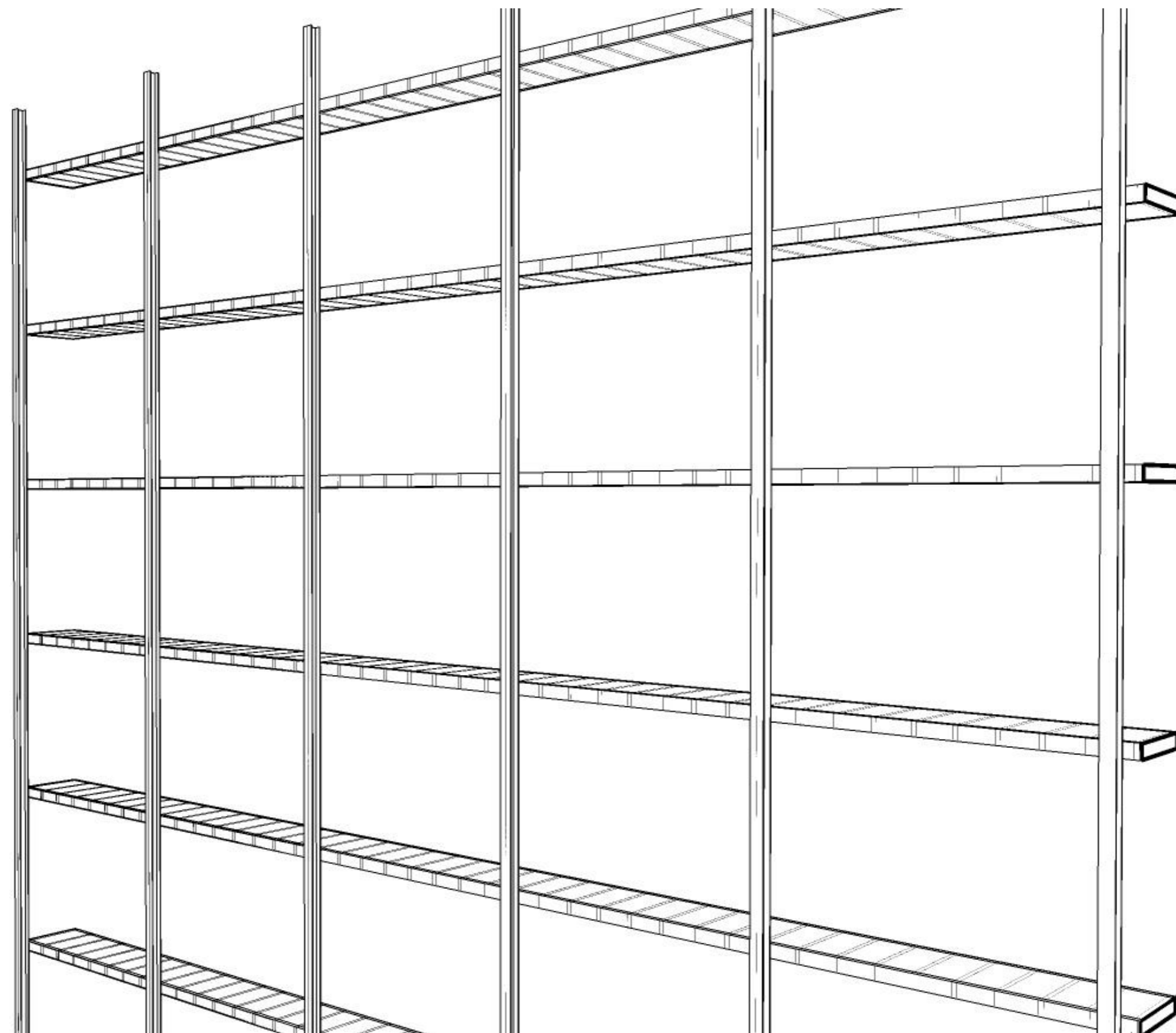
Adaptable variant 2

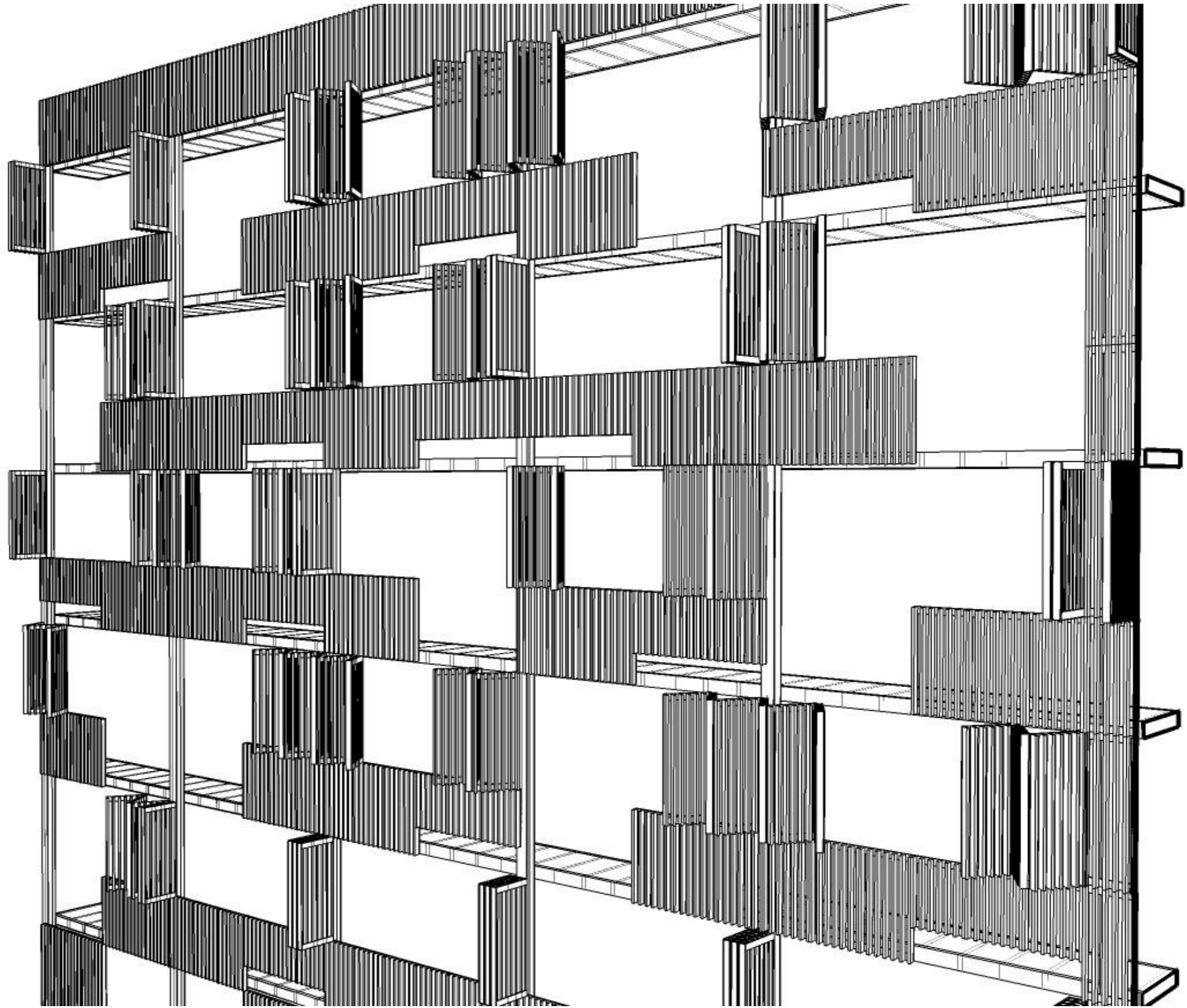


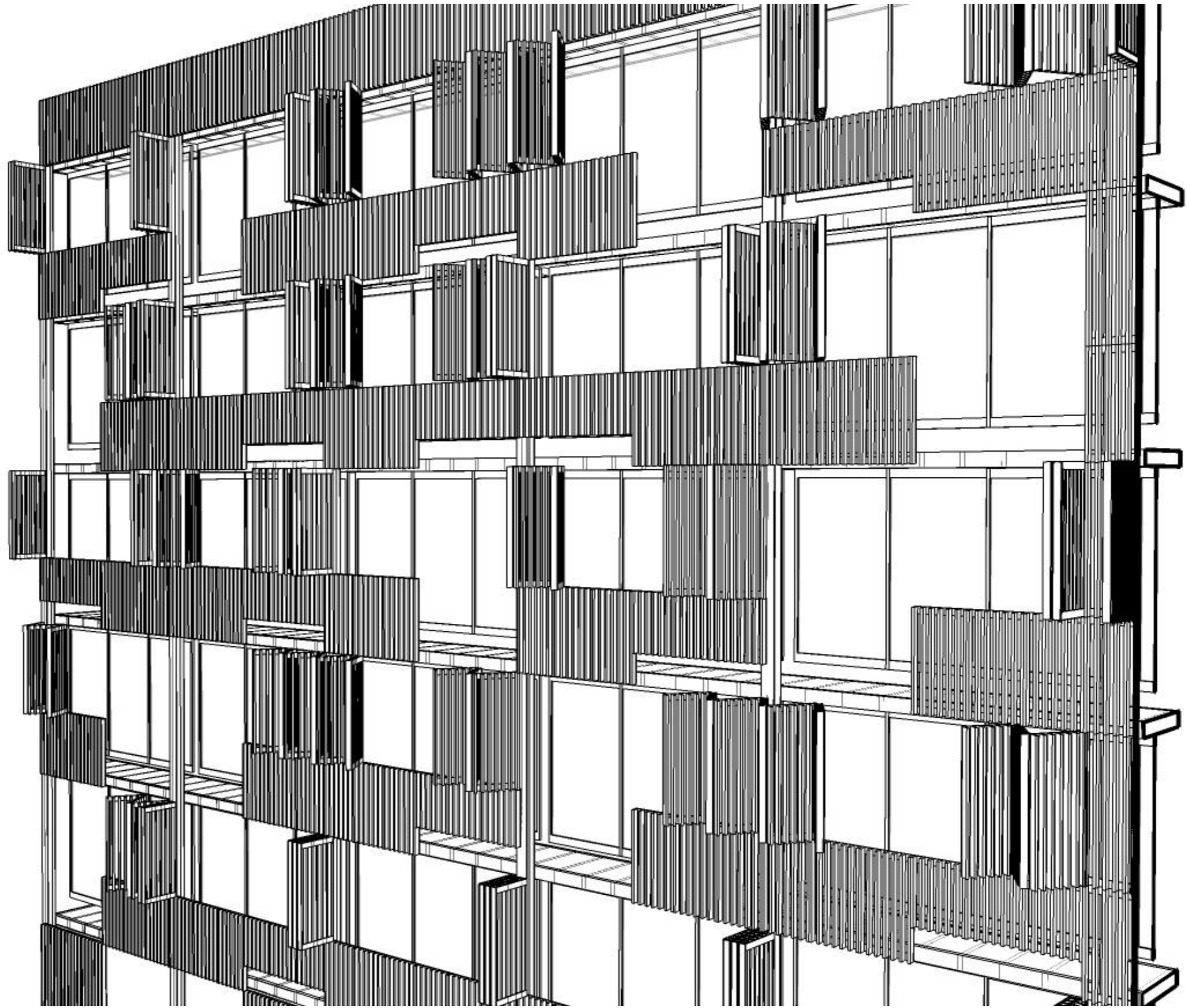
Second Floor

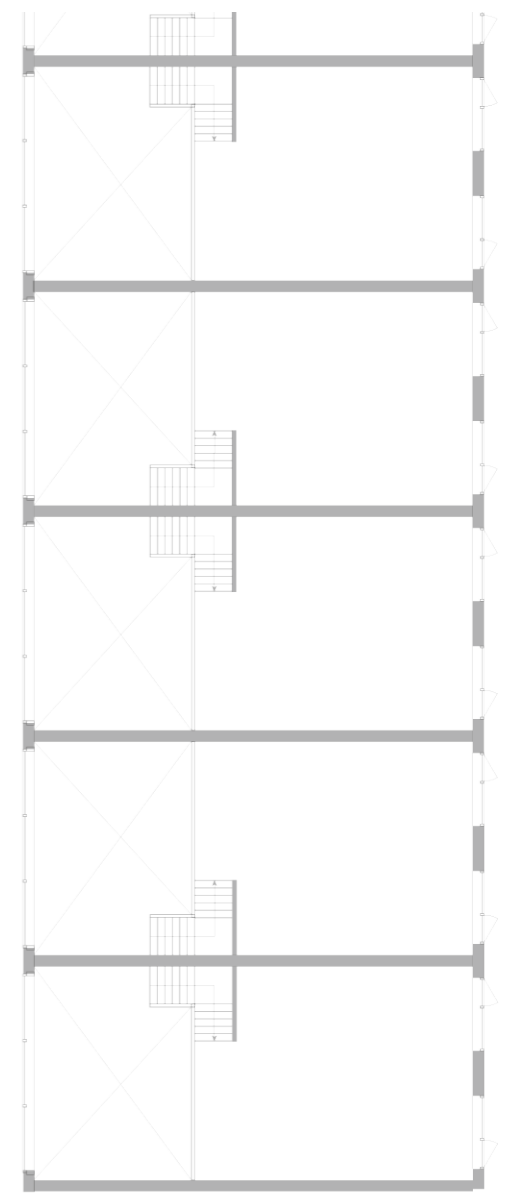
Harmonica facade

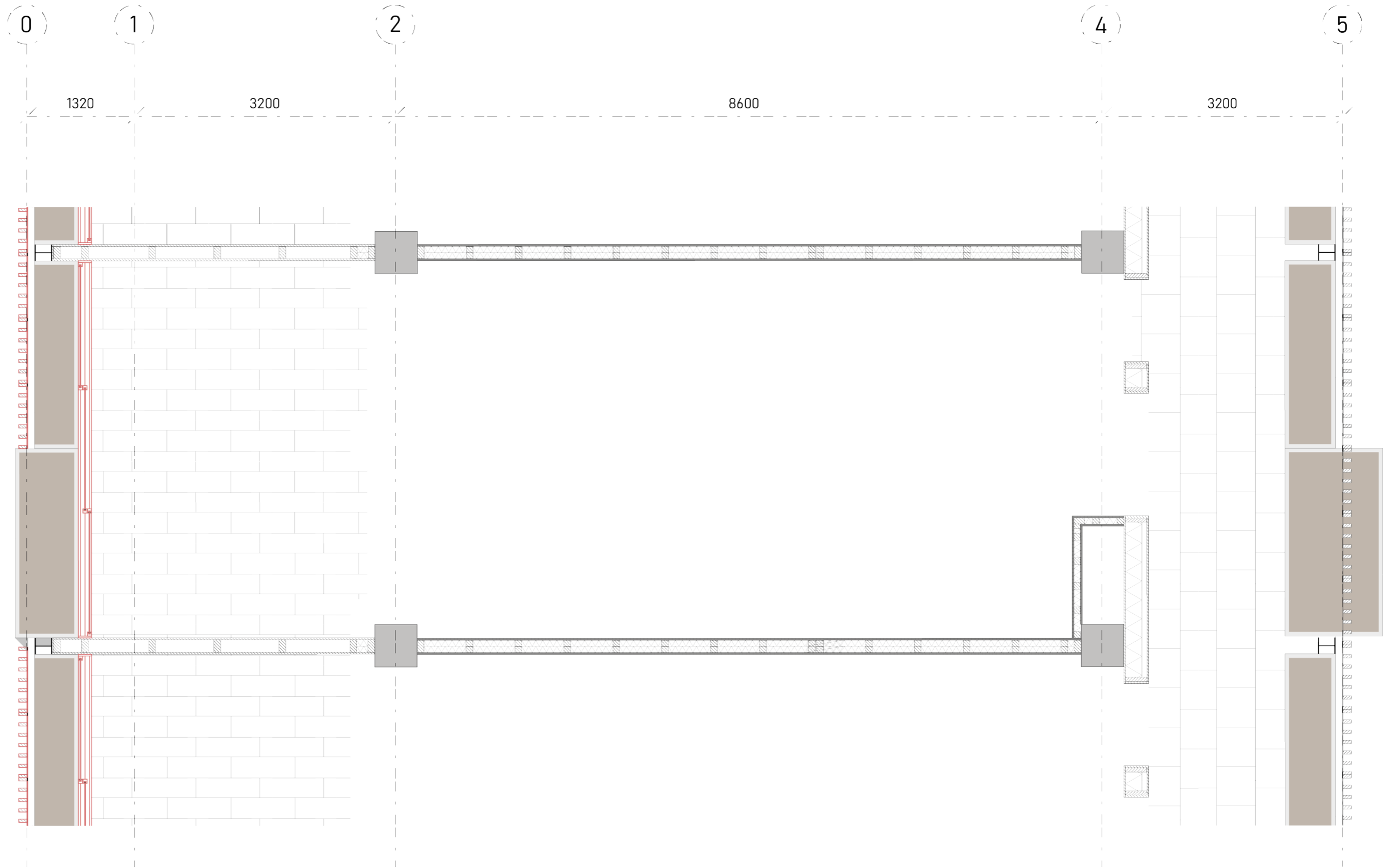


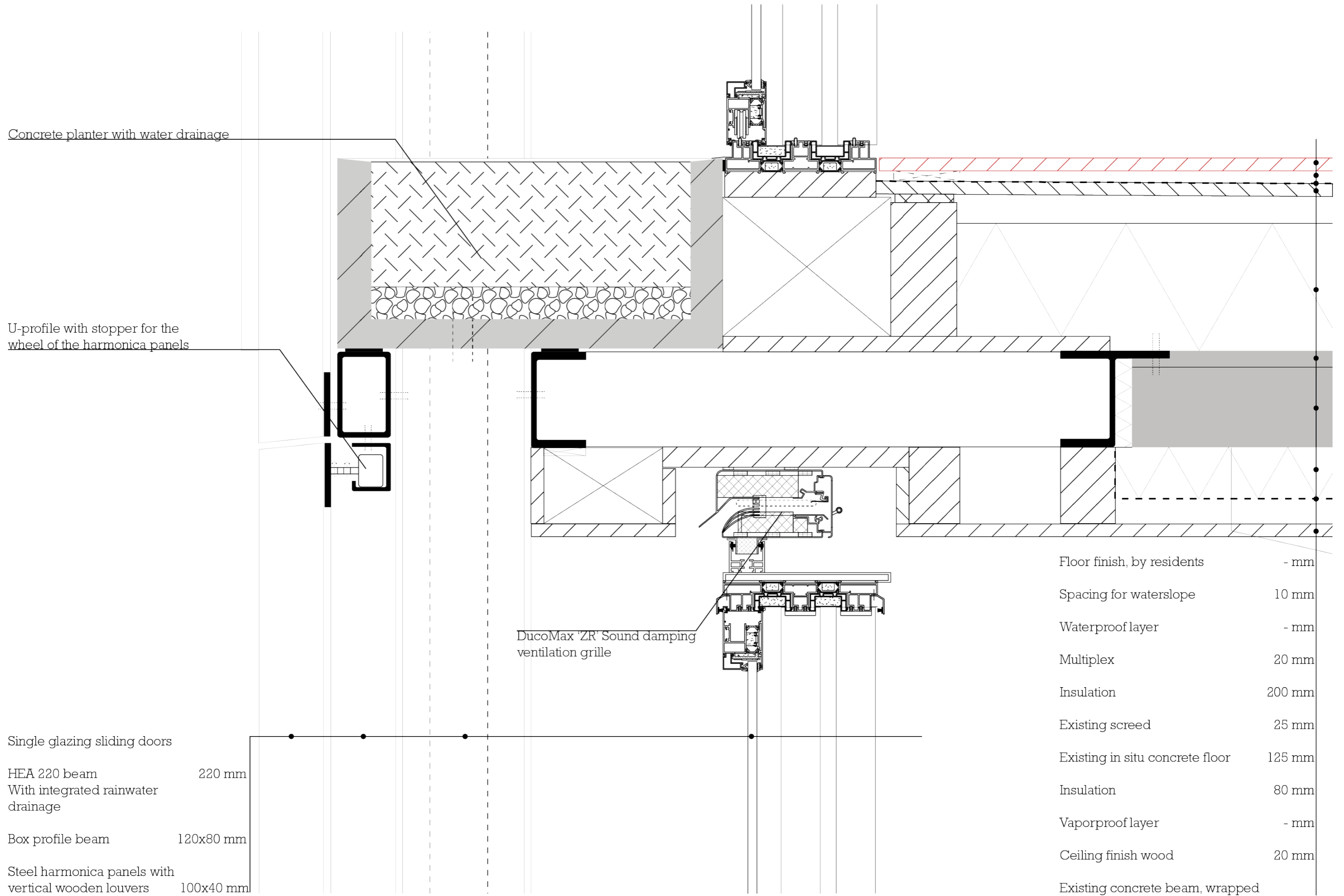












Concrete planter with water drainage

U-profile with stopper for the wheel of the harmonica panels

DucoMax 'ZR' Sound damping ventilation grille

Single glazing sliding doors

HEA 220 beam
With integrated rainwater drainage 220 mm

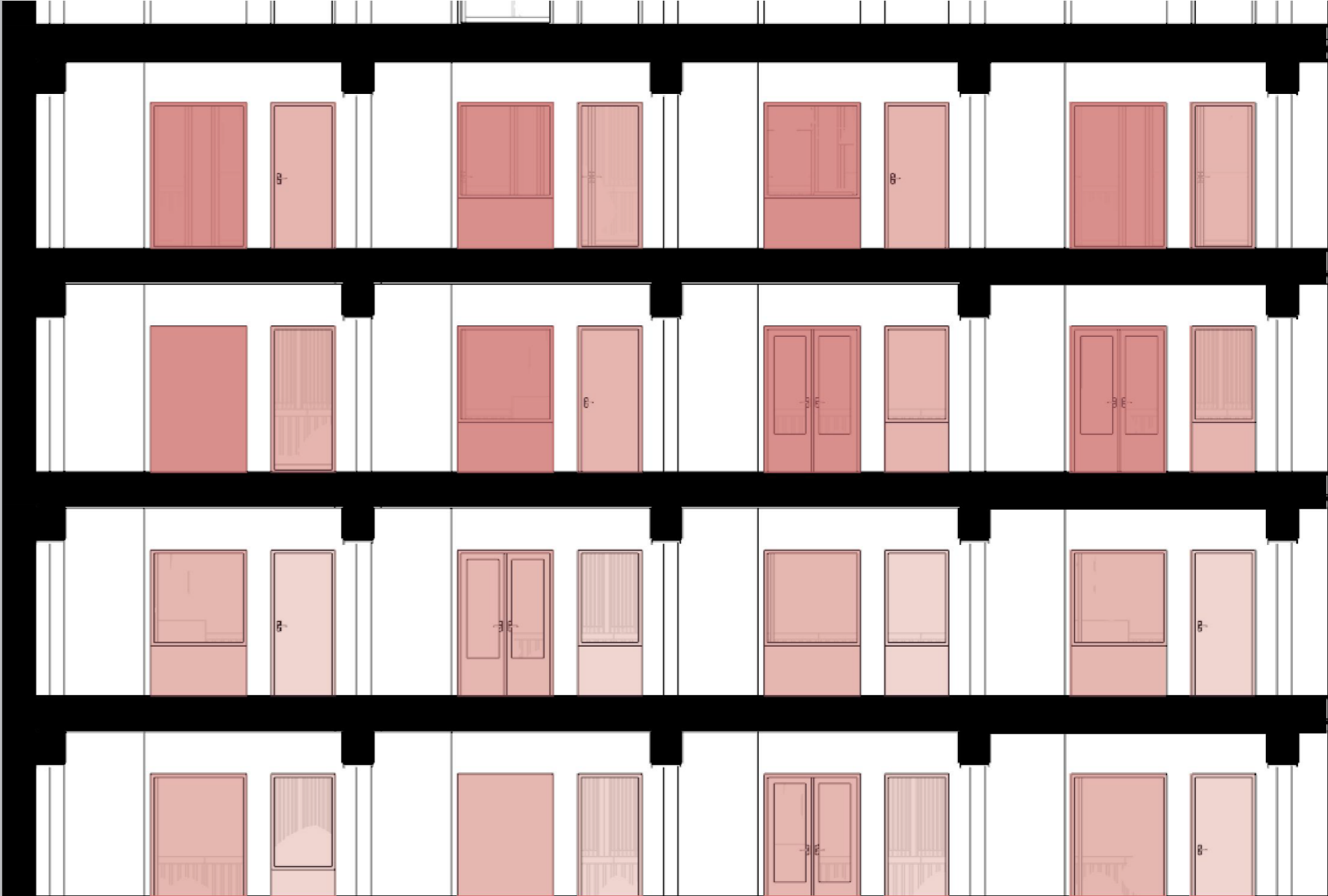
Box profile beam 120x80 mm

Steel harmonica panels with vertical wooden louvers 100x40 mm

Floor finish, by residents	- mm
Spacing for waterslope	10 mm
Waterproof layer	- mm
Multiplex	20 mm
Insulation	200 mm
Existing screed	25 mm
Existing in situ concrete floor	125 mm
Insulation	80 mm
Vaporproof layer	- mm
Ceiling finish wood	20 mm
Existing concrete beam, wrapped	

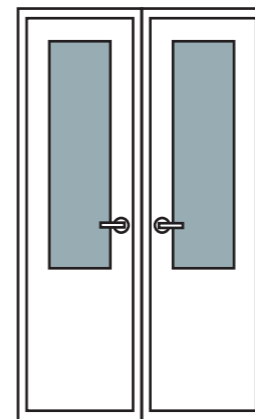
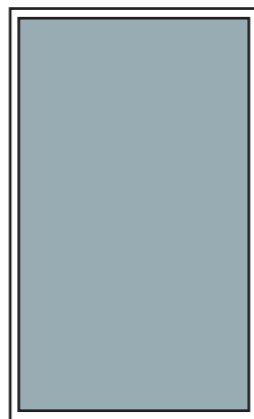
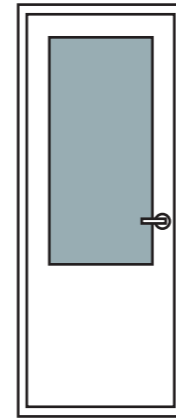
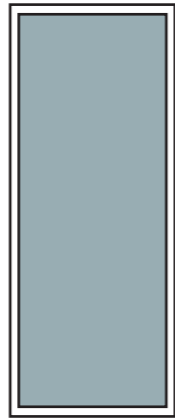


Modular facade

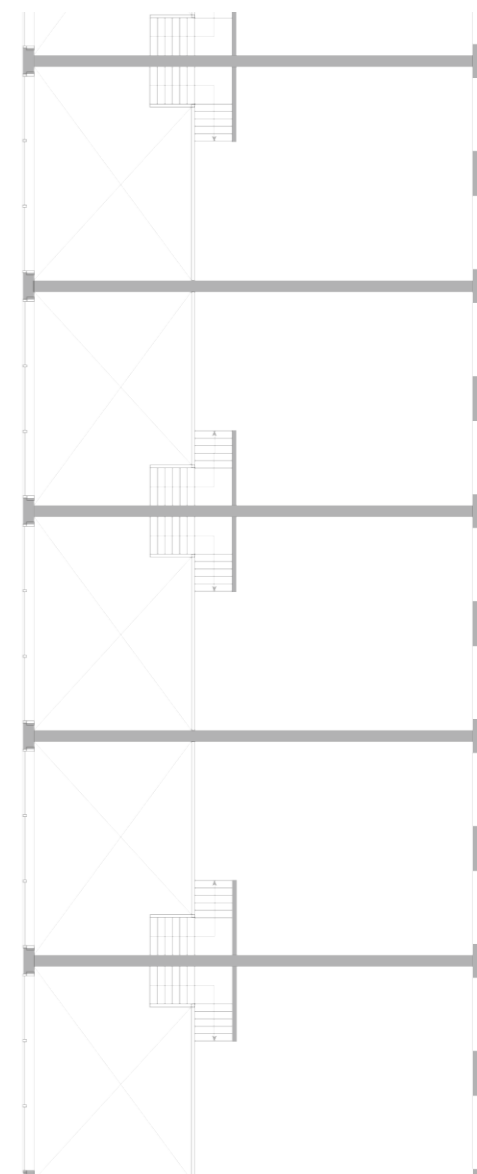
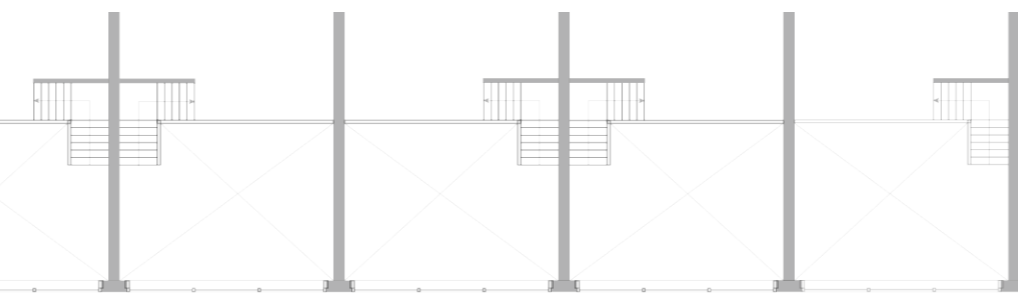


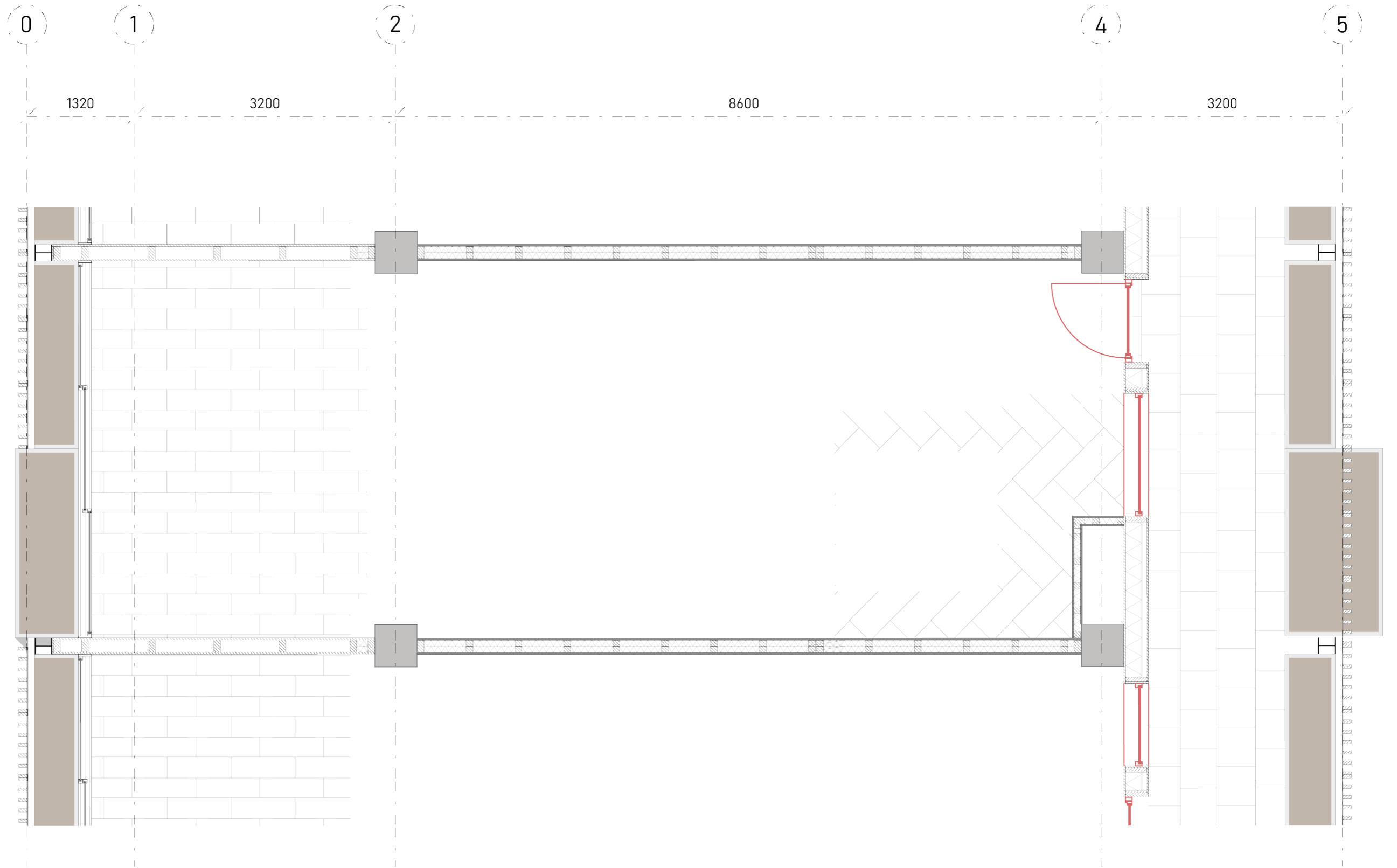
Openings

Possible modules

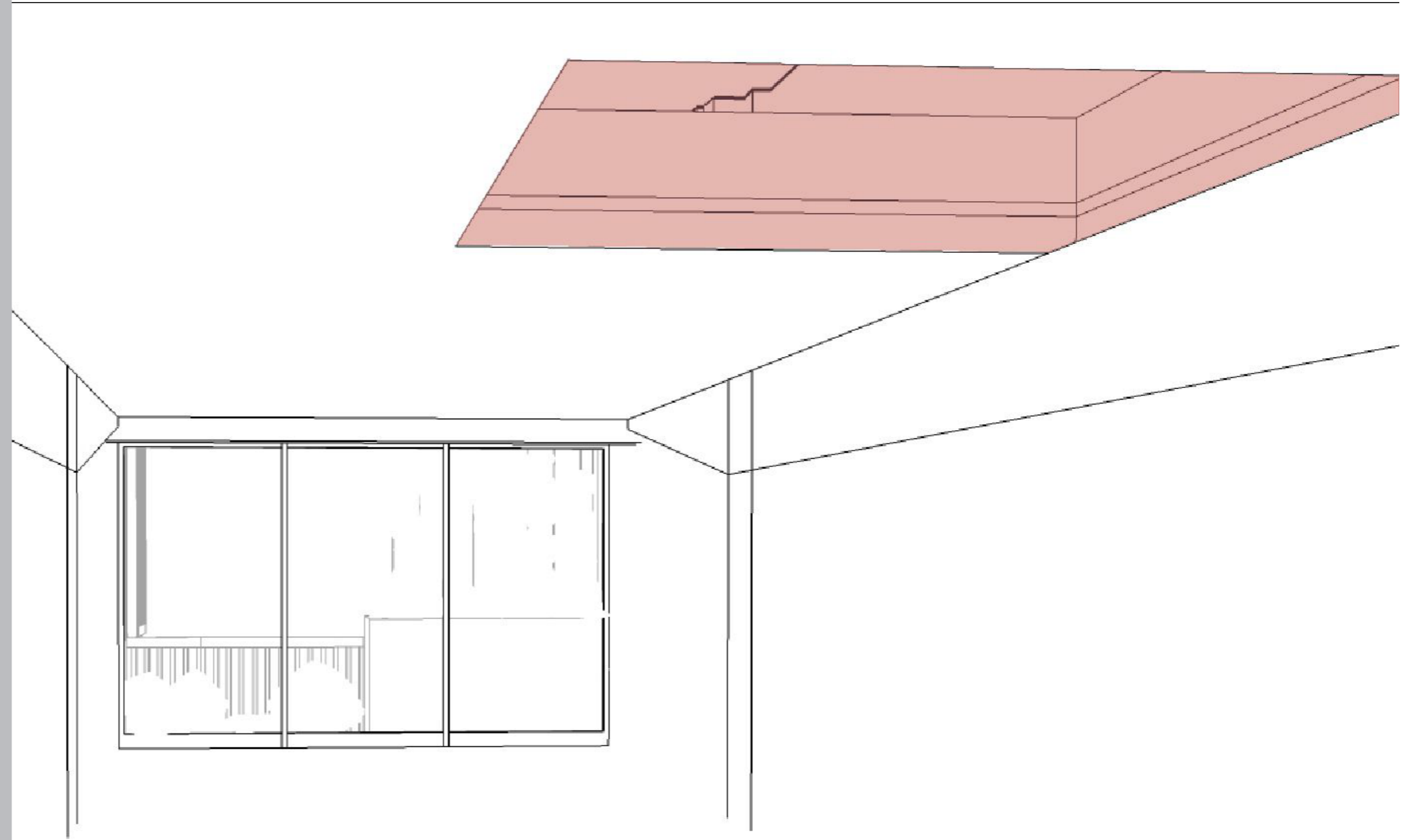








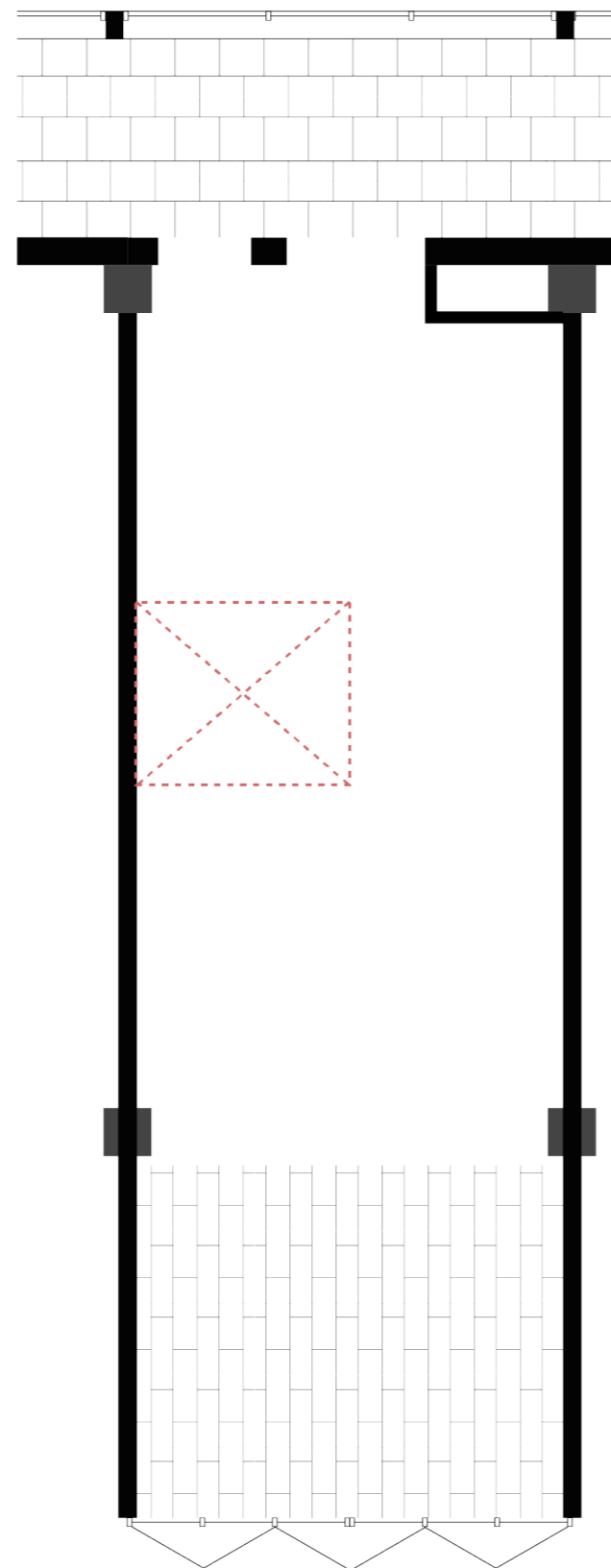
Floor void



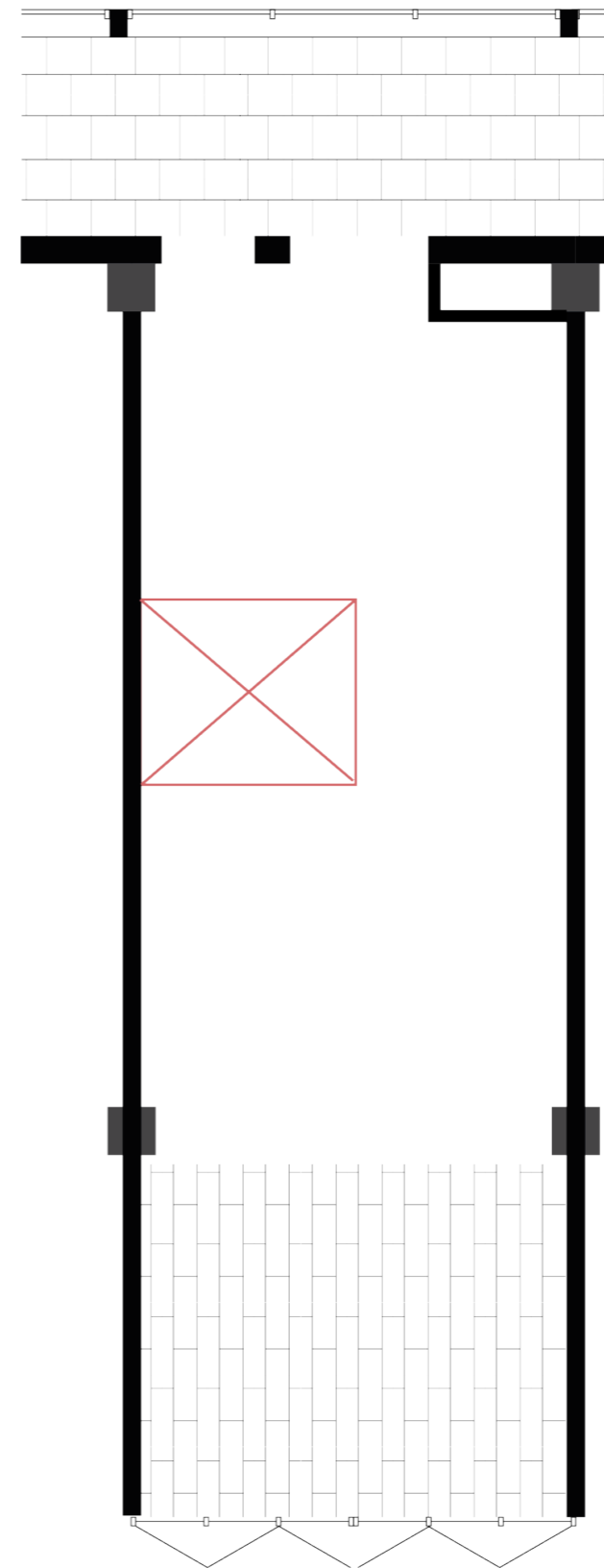


Type B2: 87 m2 BVO

First Floor

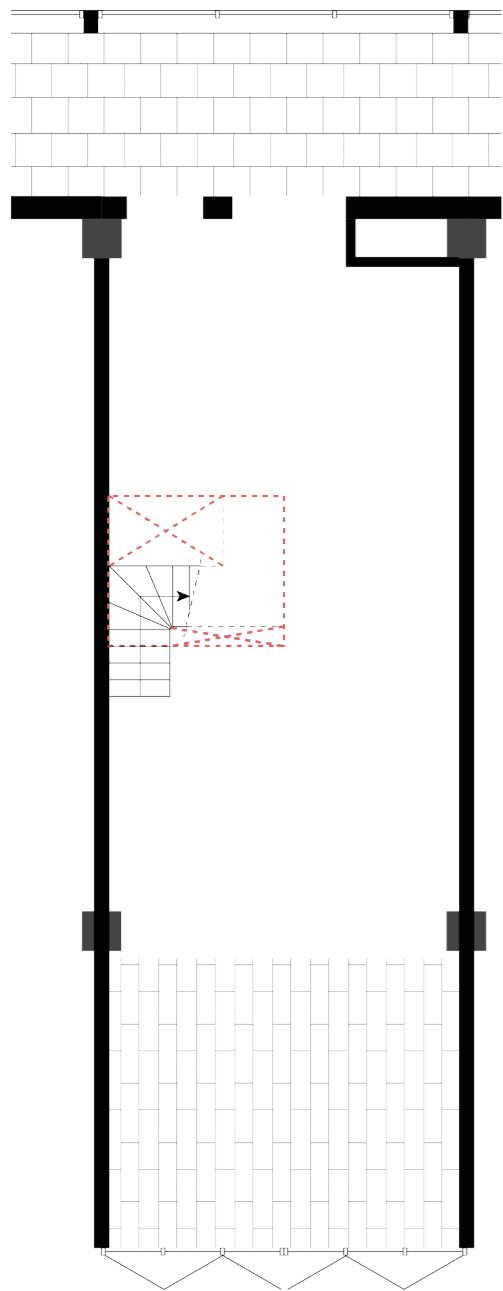


Second Floor

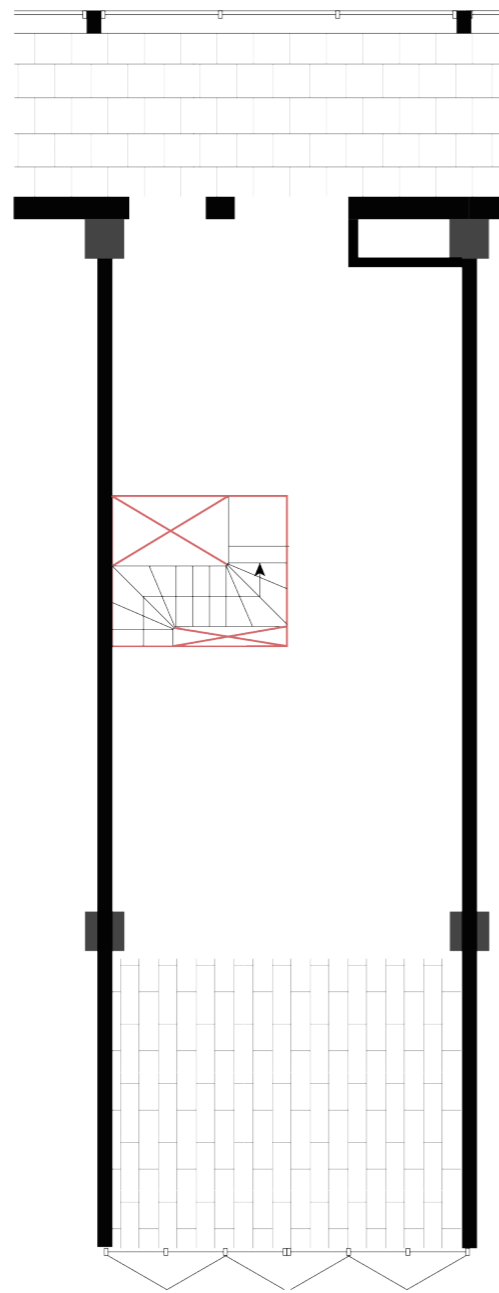


Type B2: 87 m2 BVO

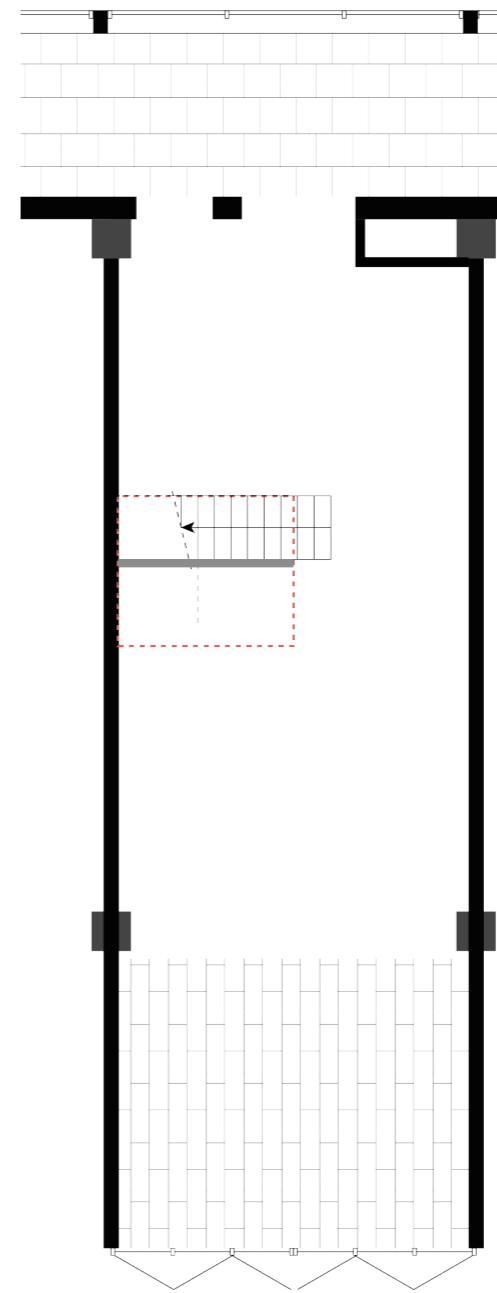
First Floor



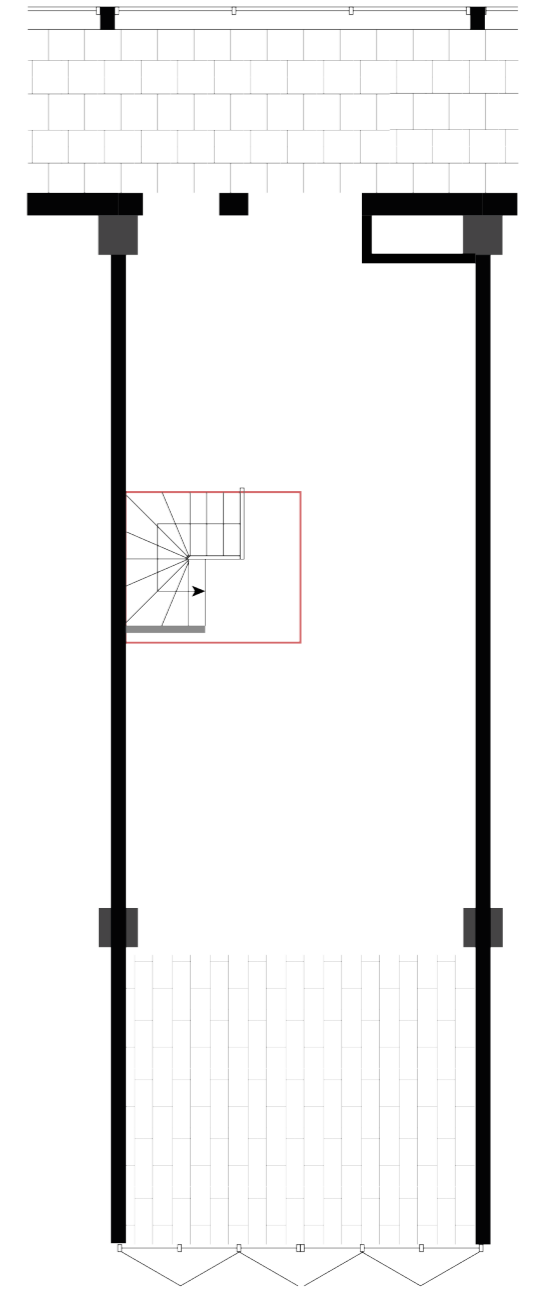
Second Floor



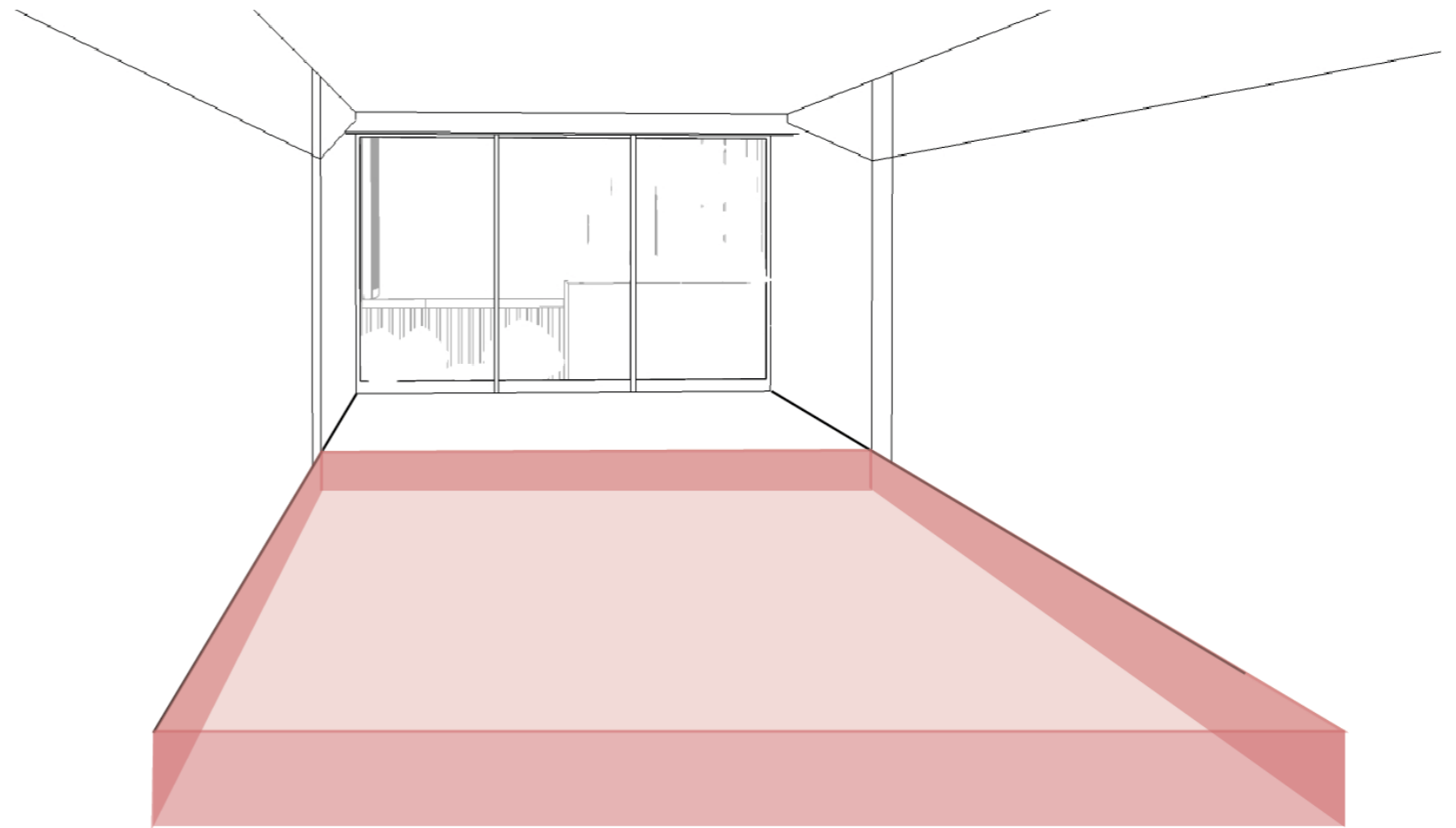
First Floor

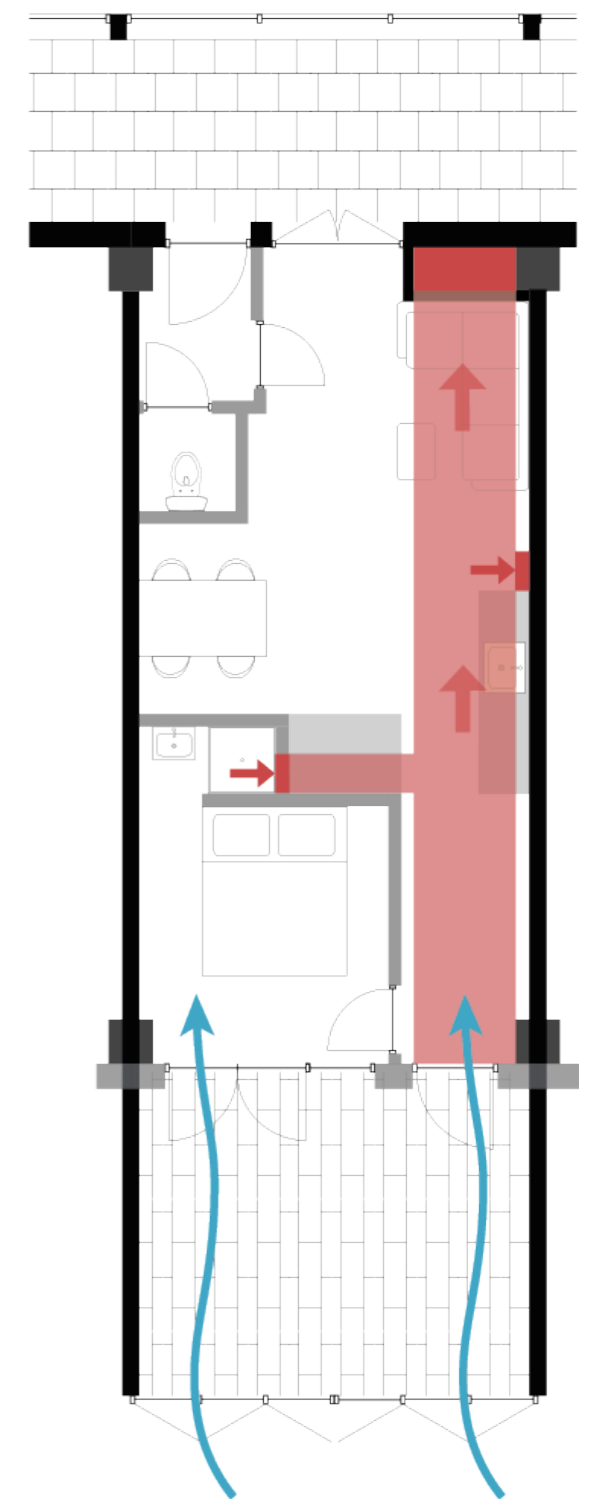


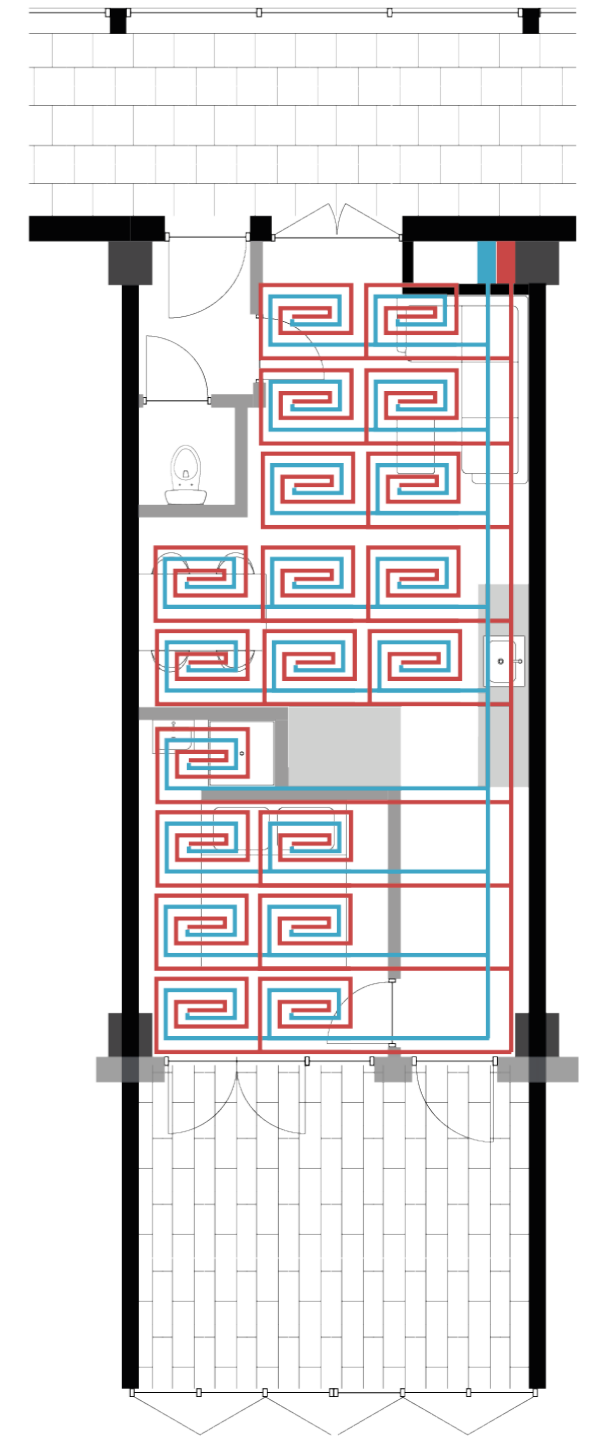
Second Floor

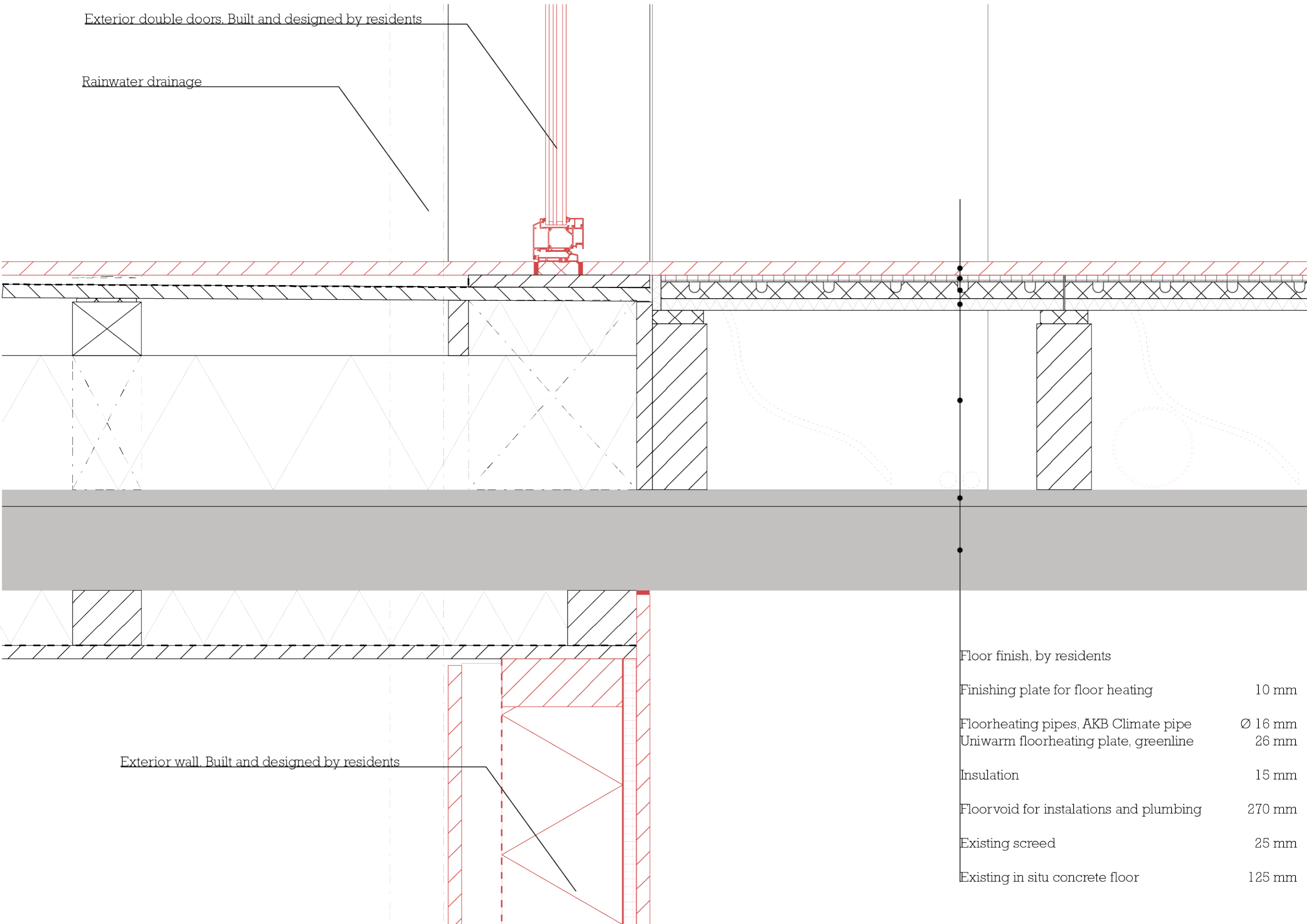


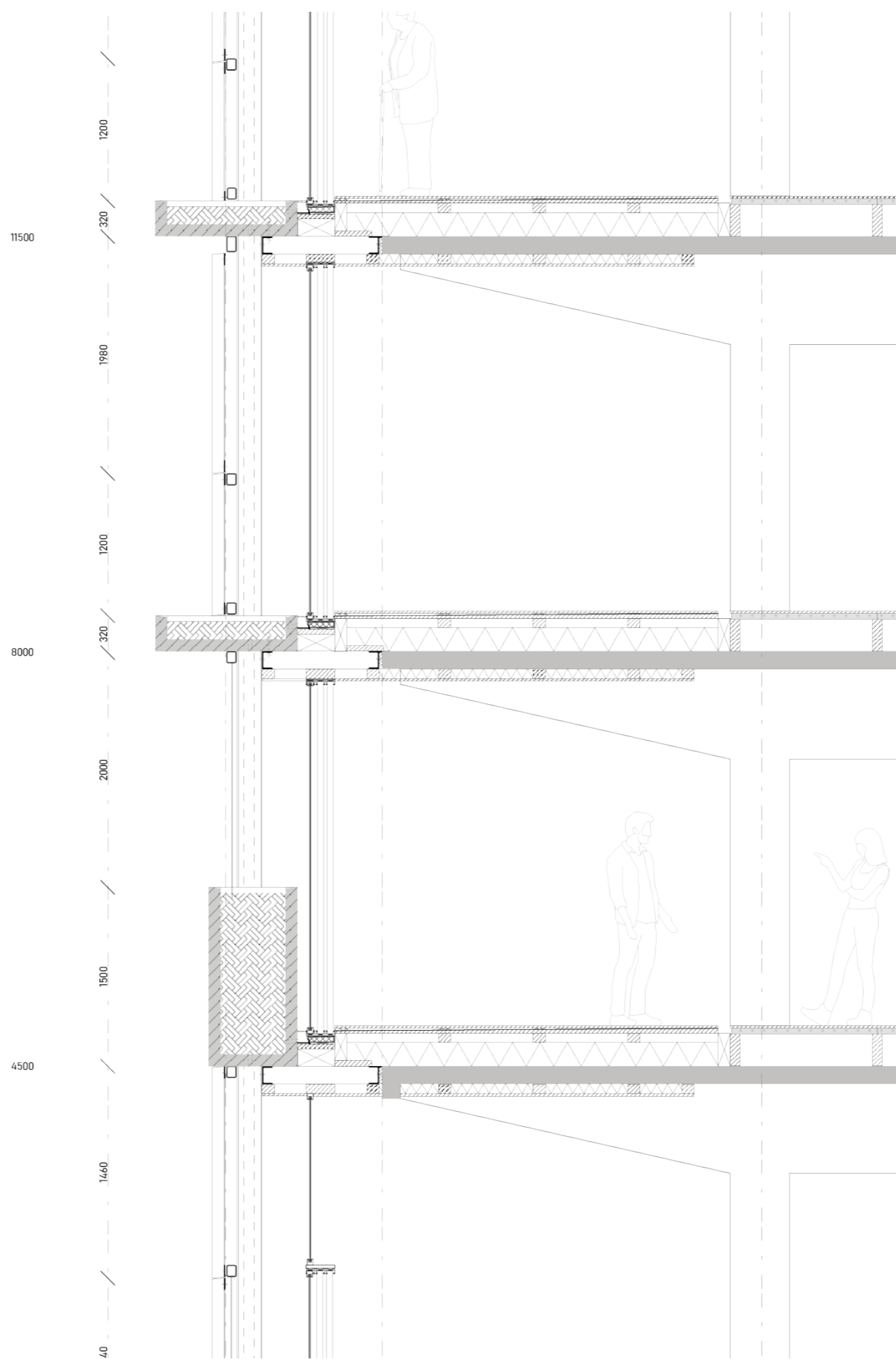
Raised floor system

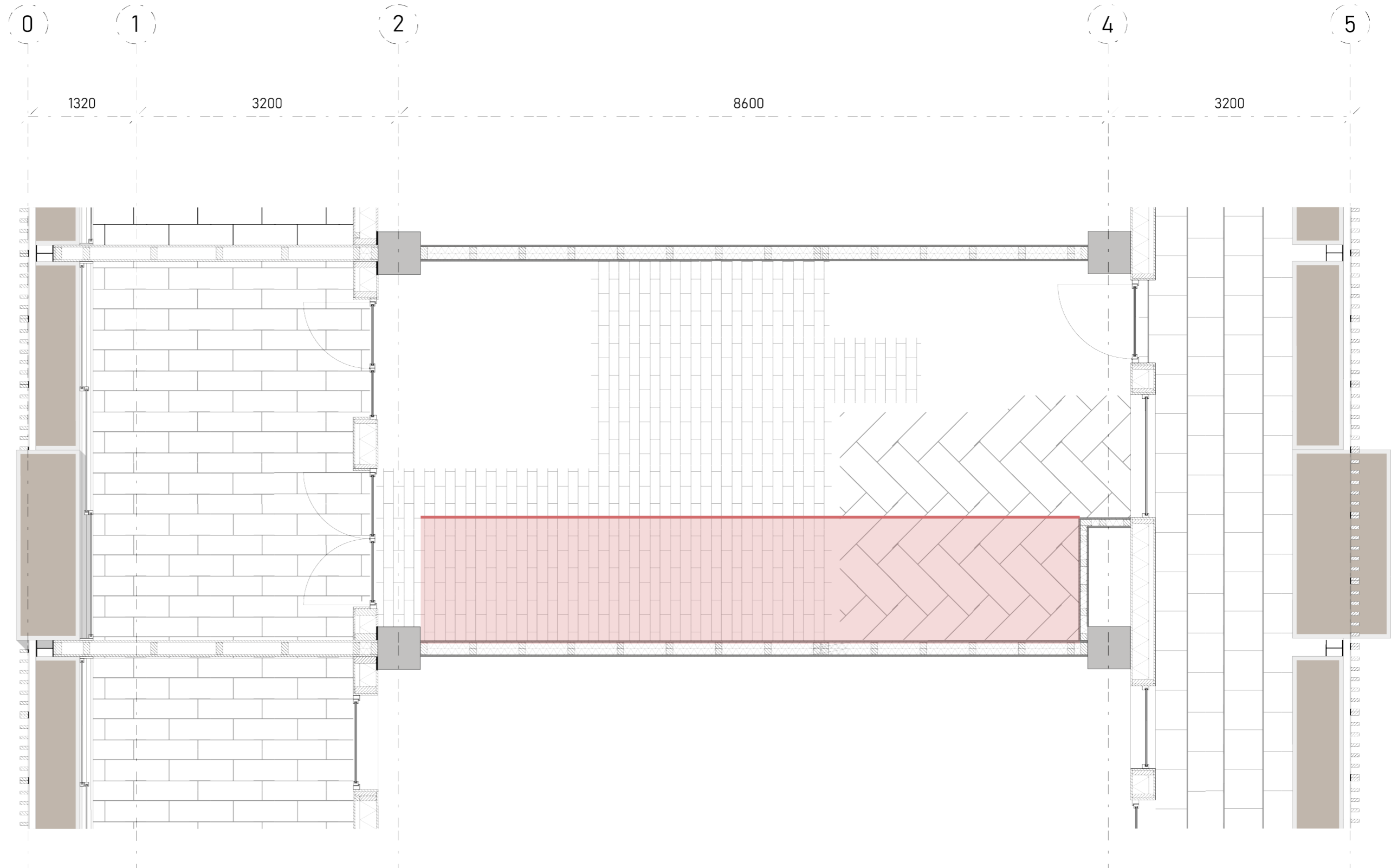




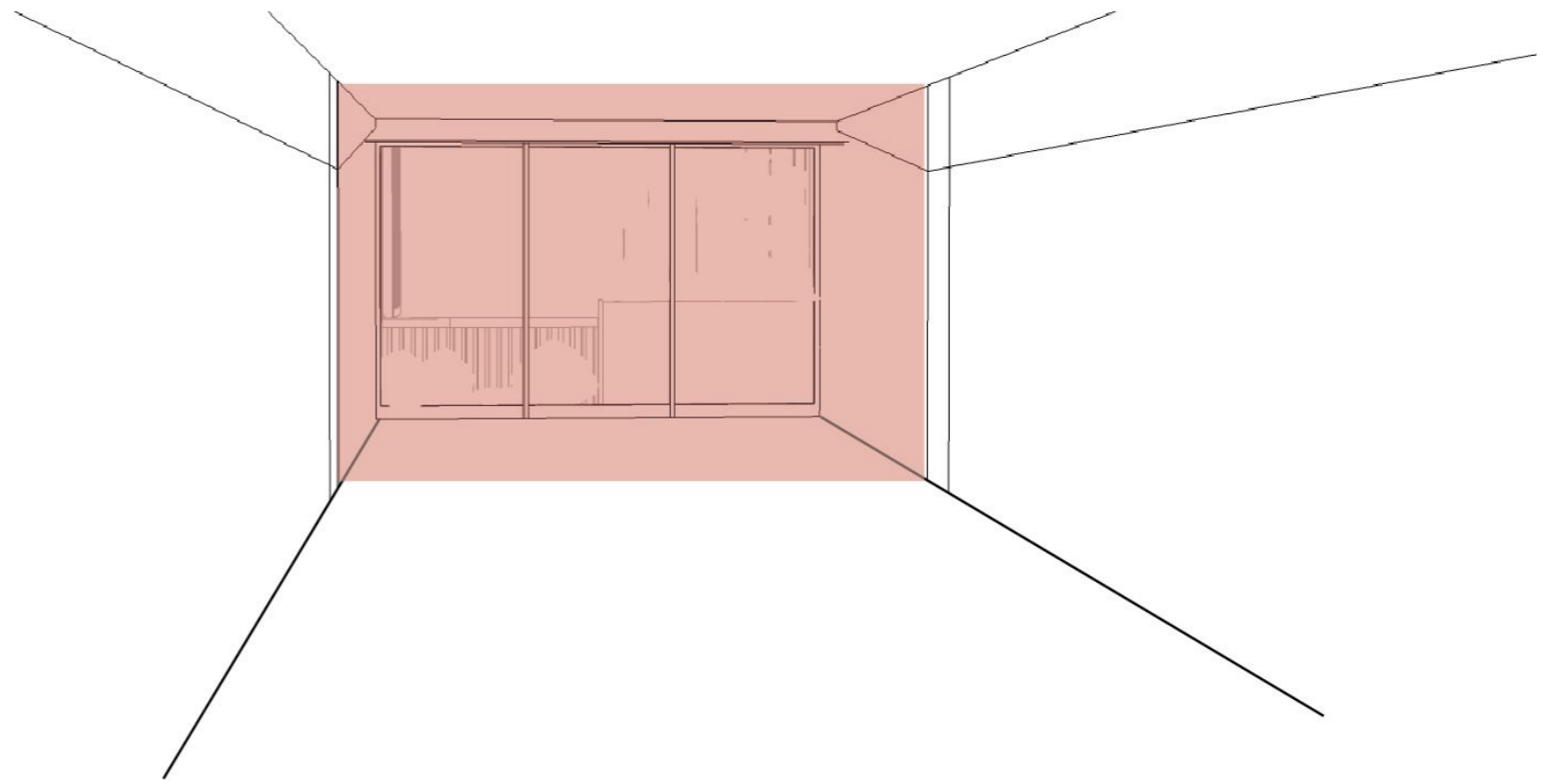








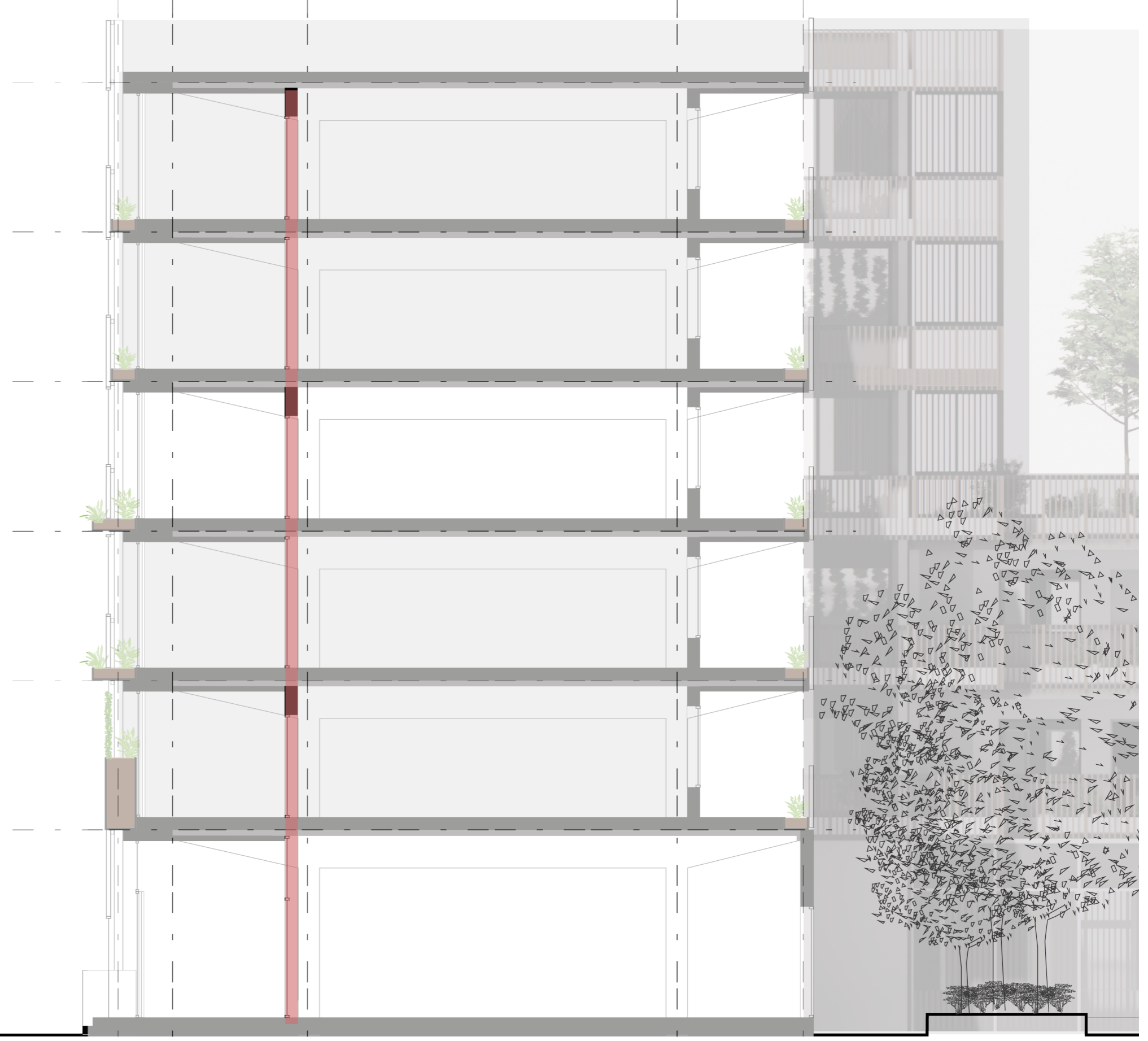
DIY facade



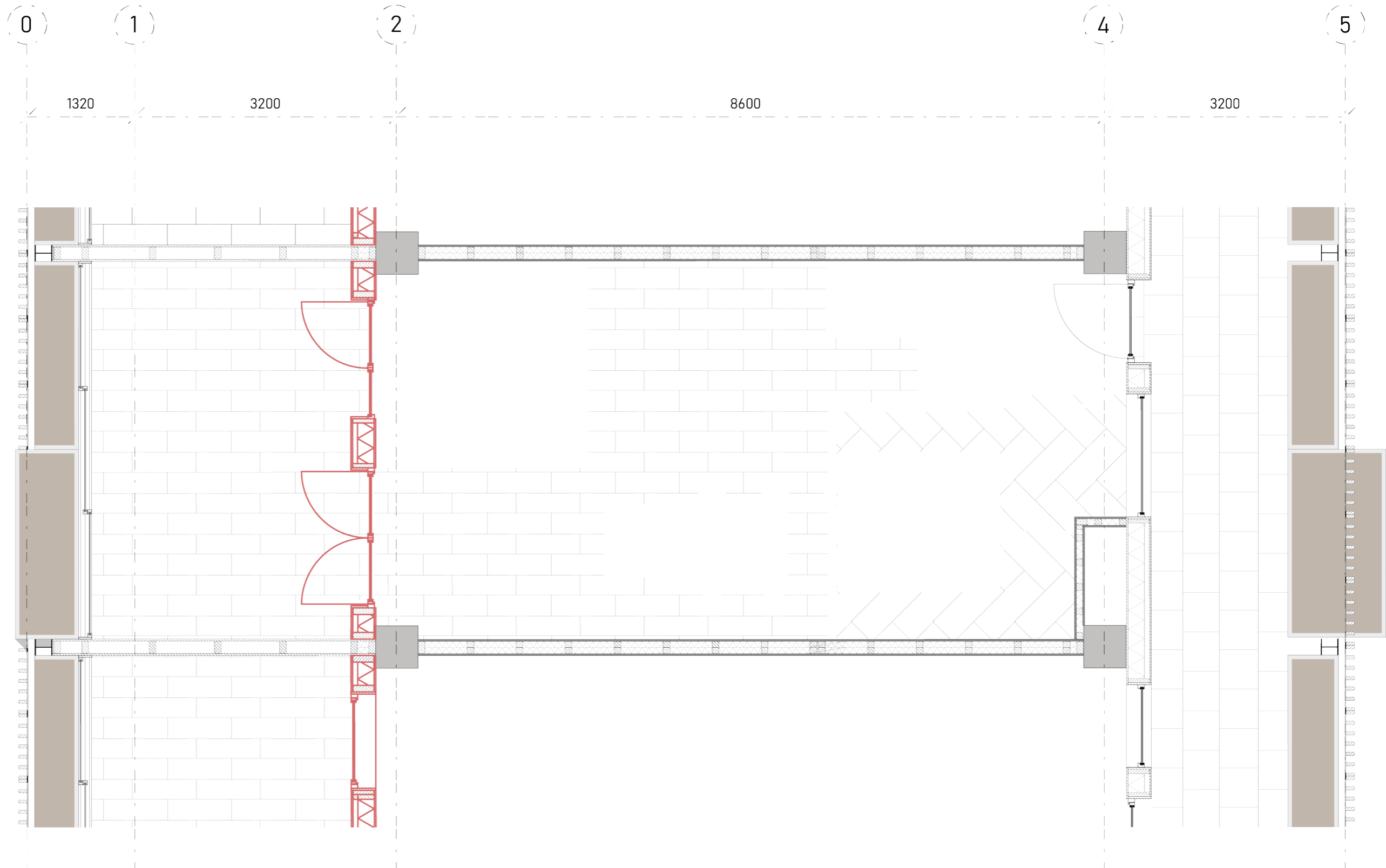
(0) (1) (2) (4) (5)

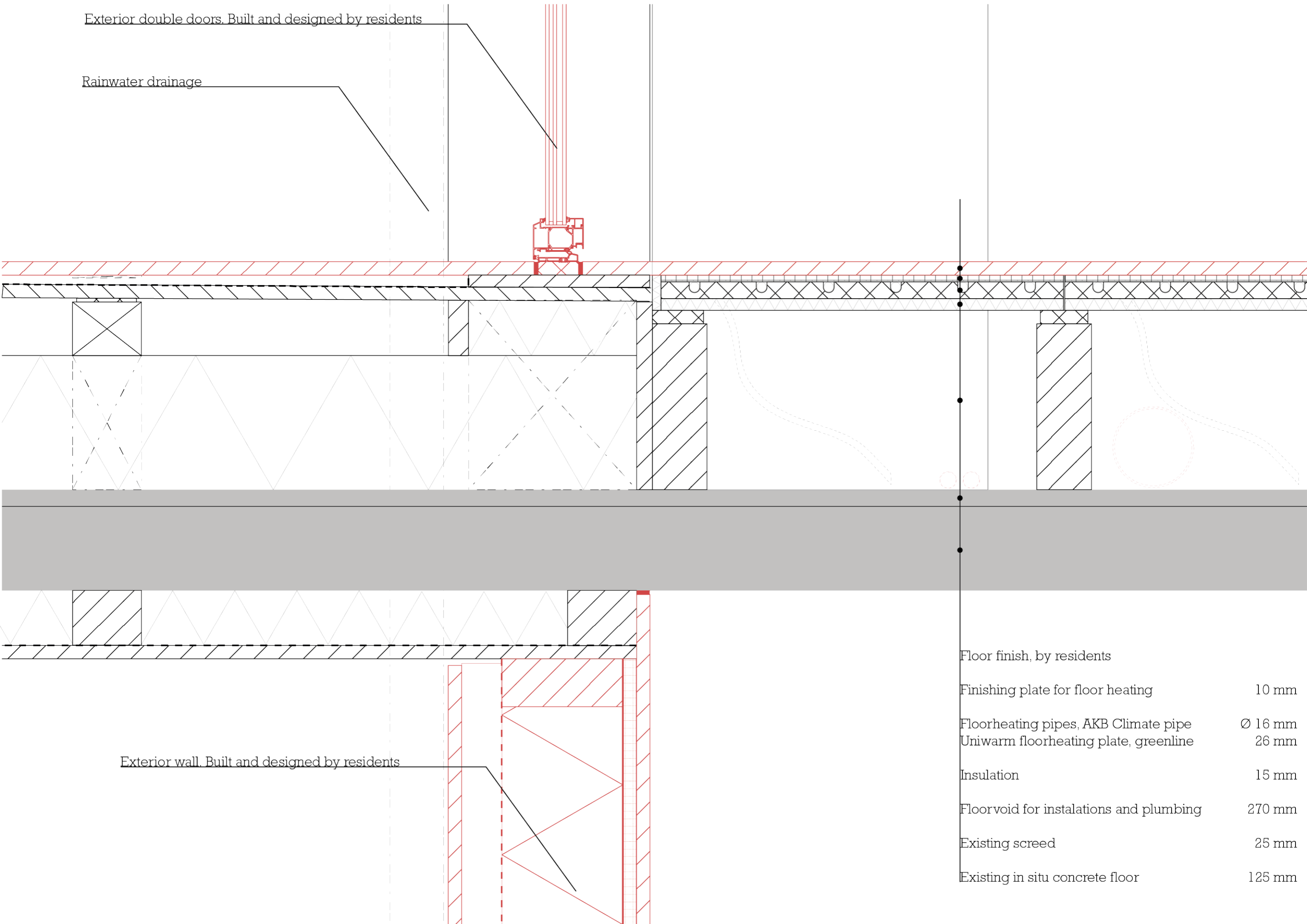
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22000
18500
15000
11500
8000
4500
0





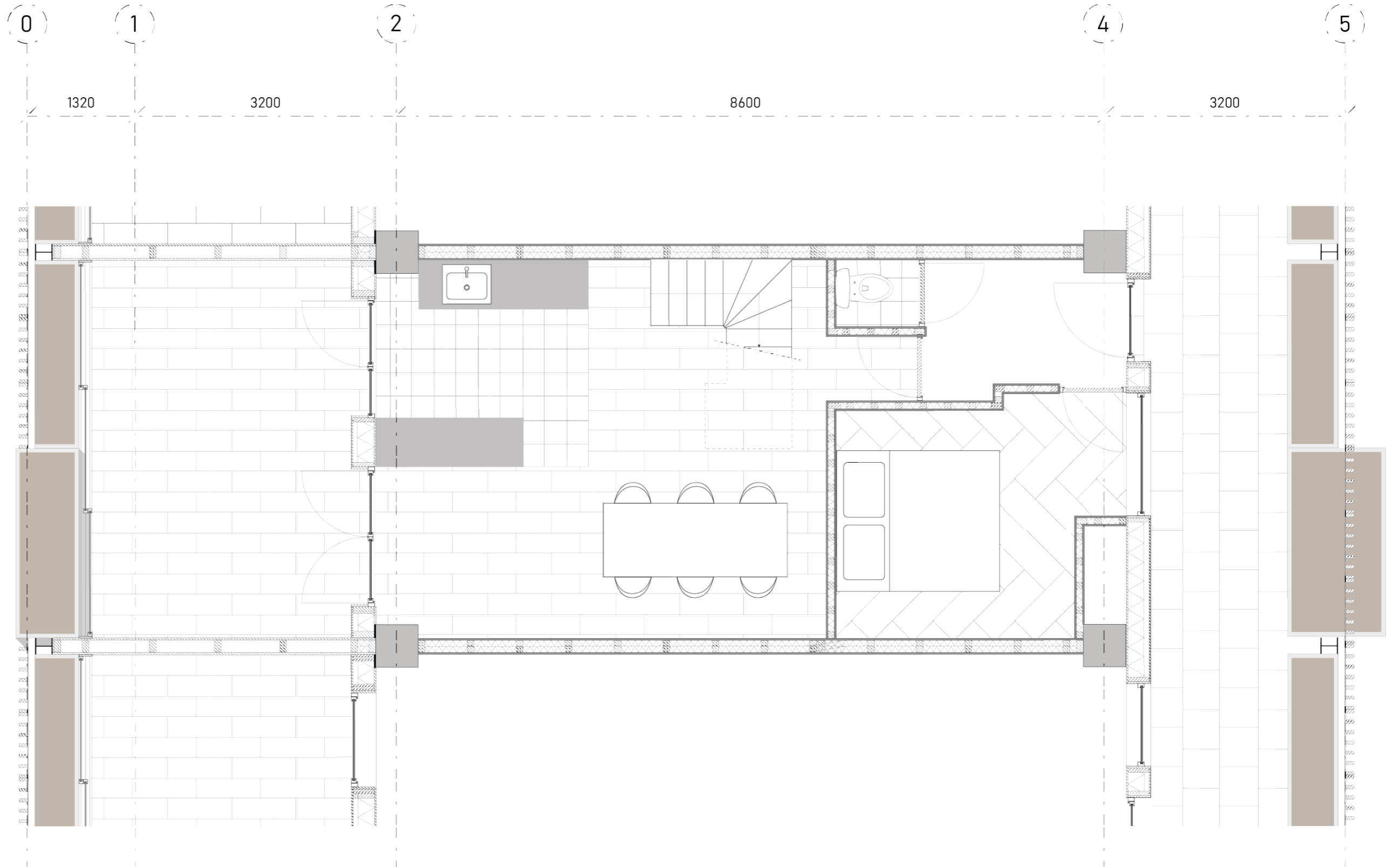


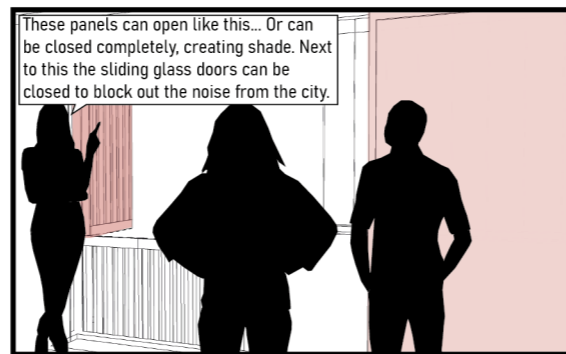
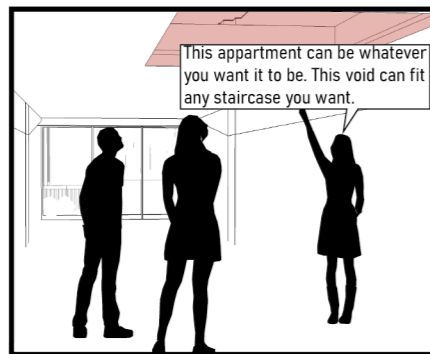
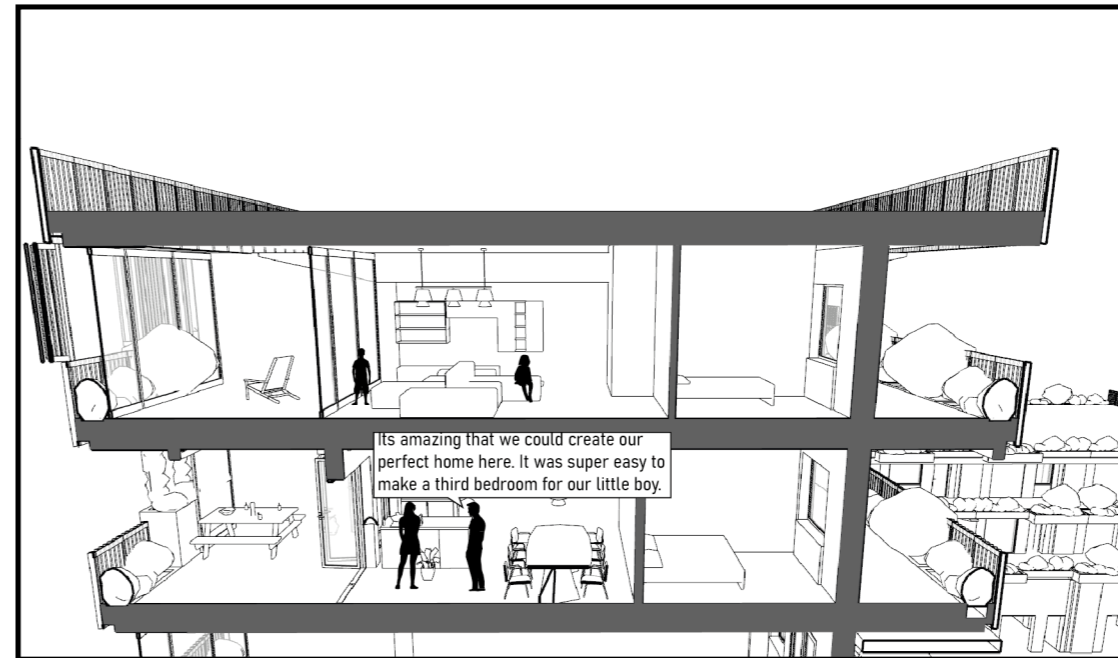
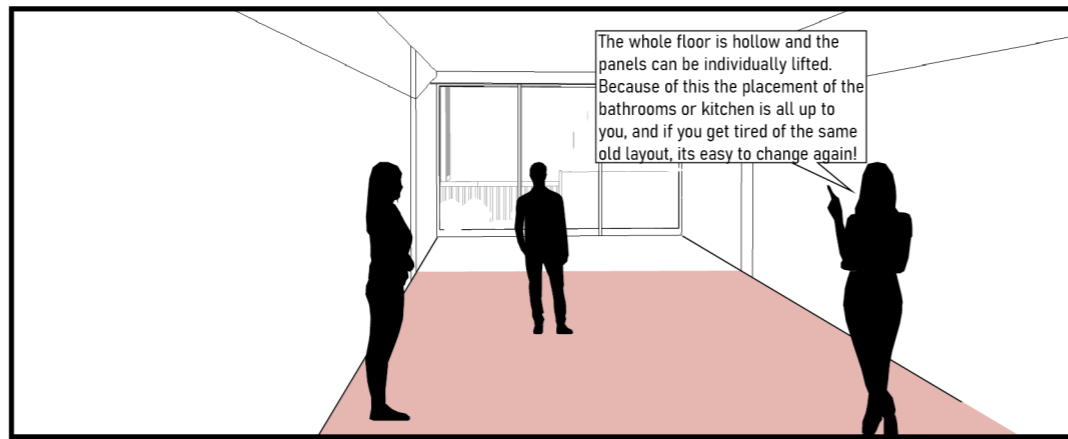
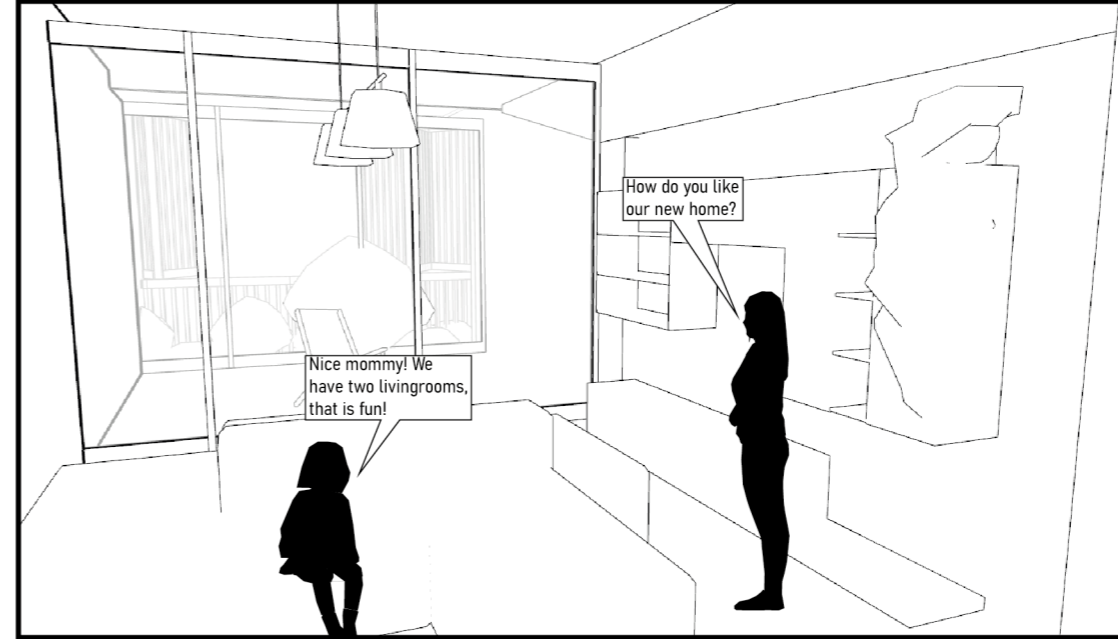
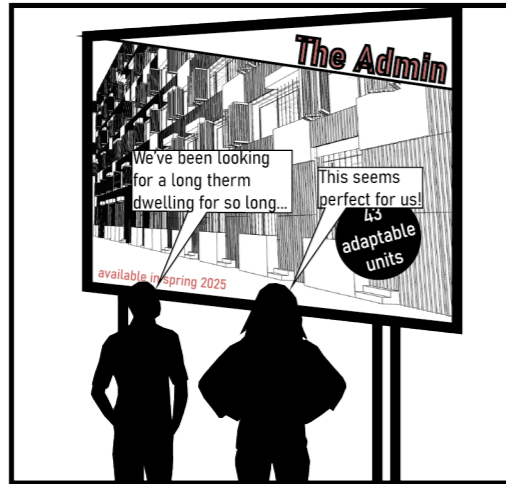


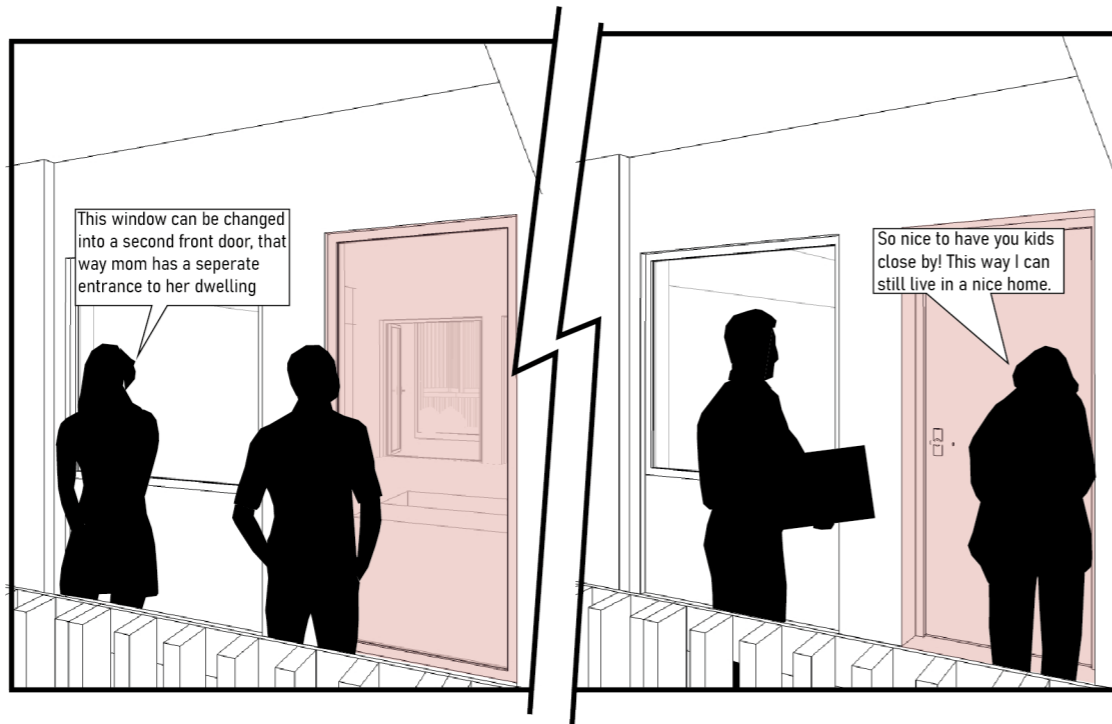
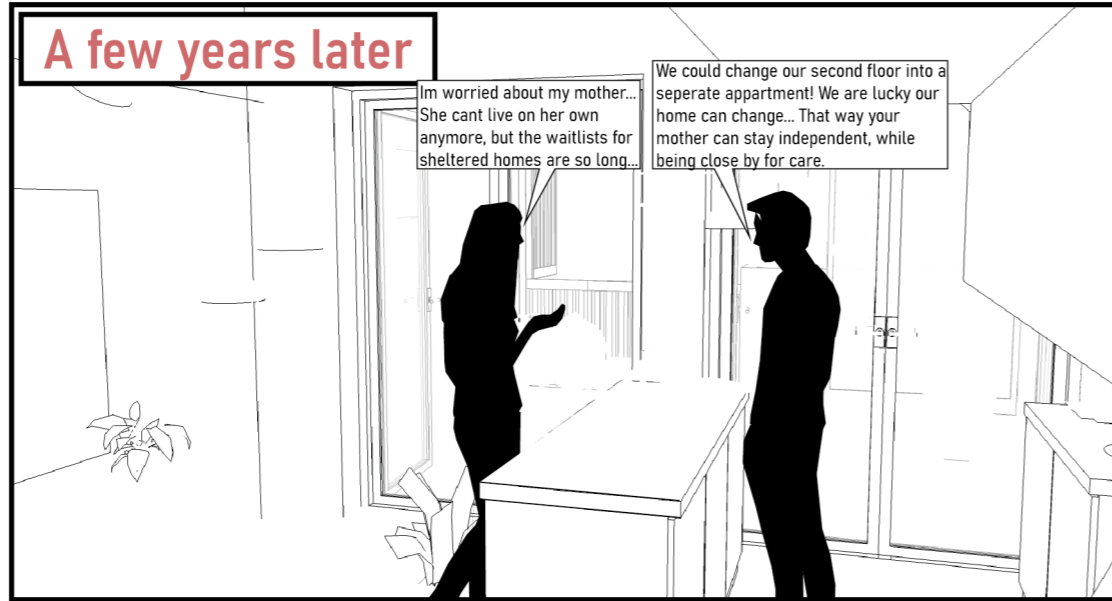
Interior and layout











In Summary

A design that puts the user first.

Adaptable solutions that will allow people to change and grow with their dwellings

Giving users the control over their surroundings

Thanks for listening

