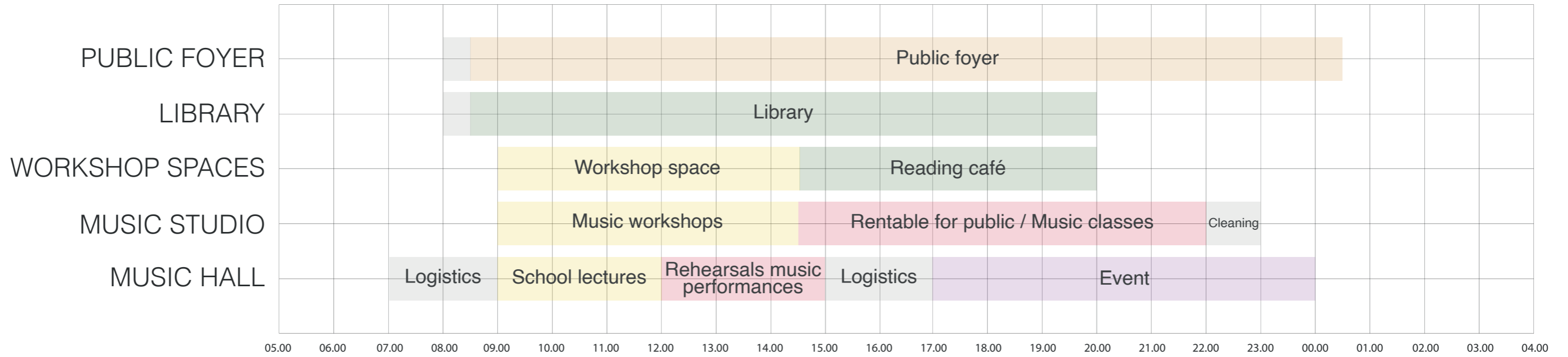


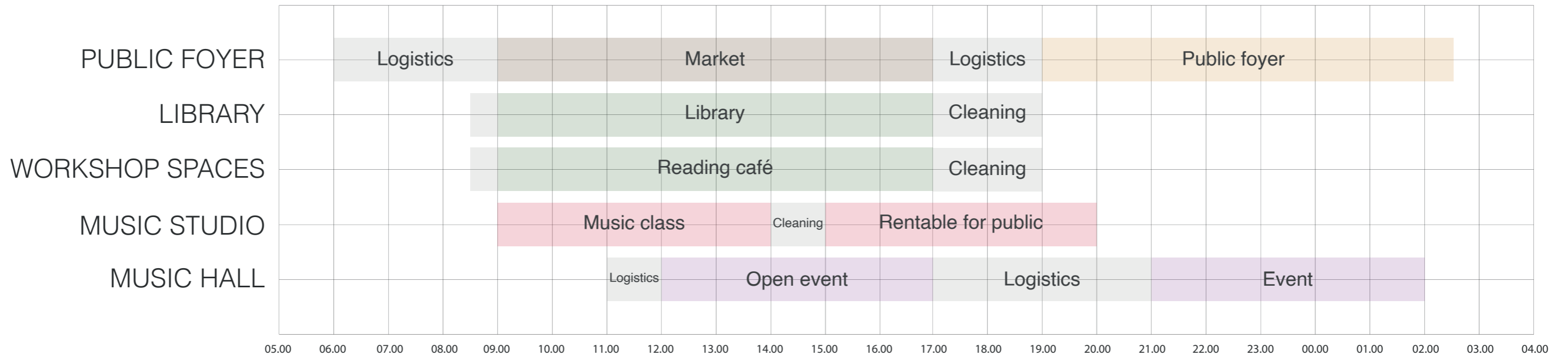
MONDAY-FRIDAY

OPENING HOURS



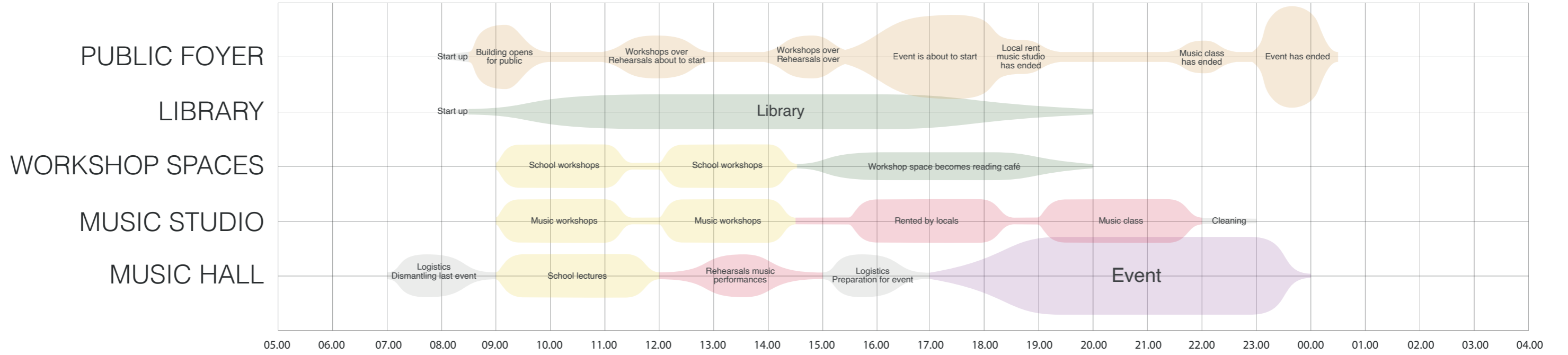
SATURDAY

OPENING HOURS



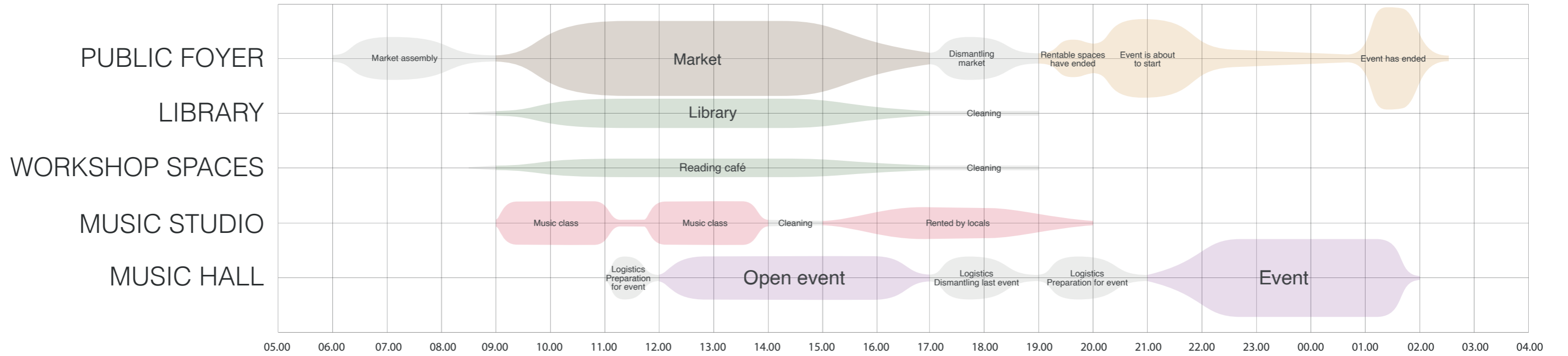
MONDAY-FRIDAY

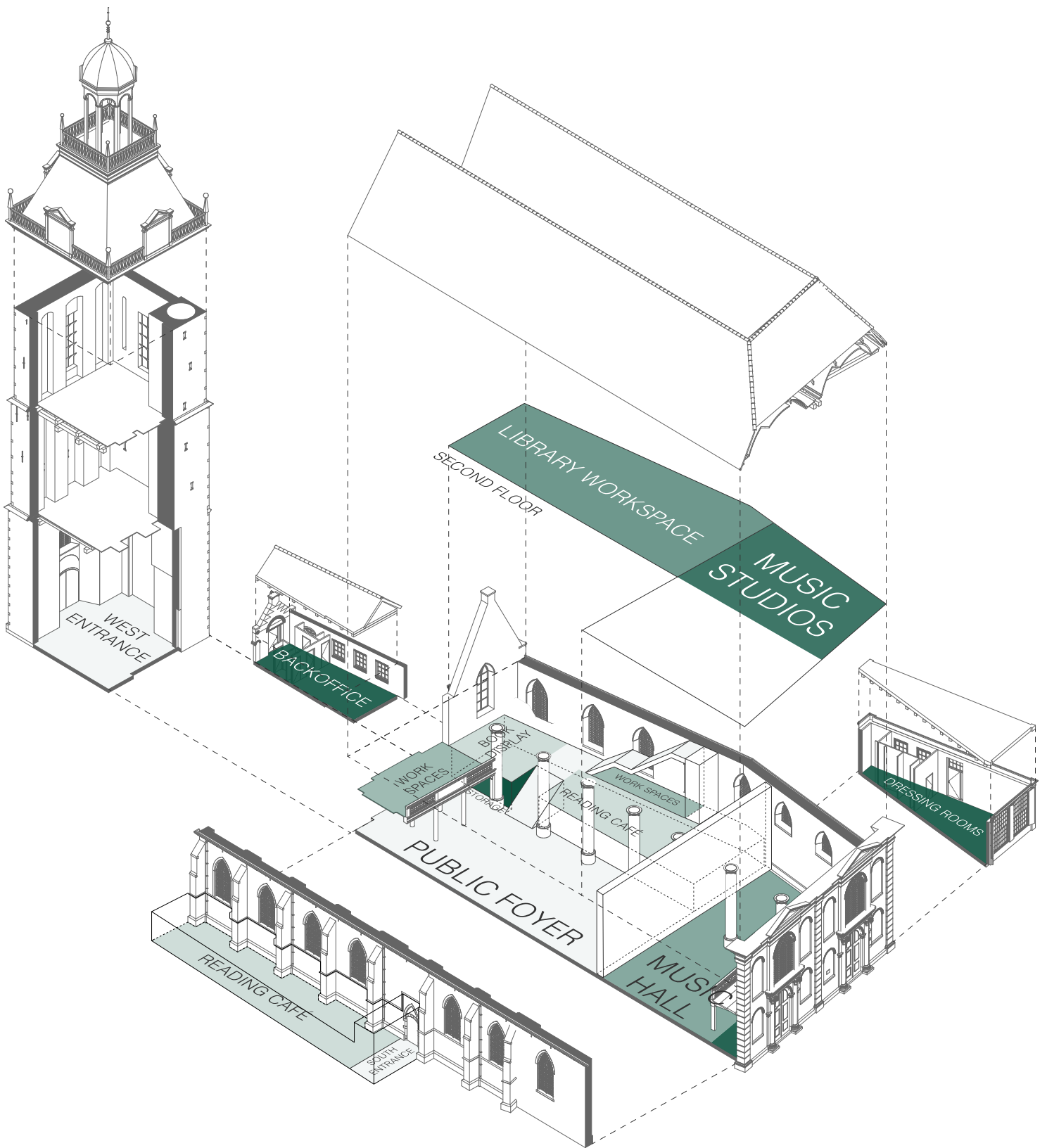
ACTIVITY SCHEME



SATURDAY

ACTIVITY SCHEME

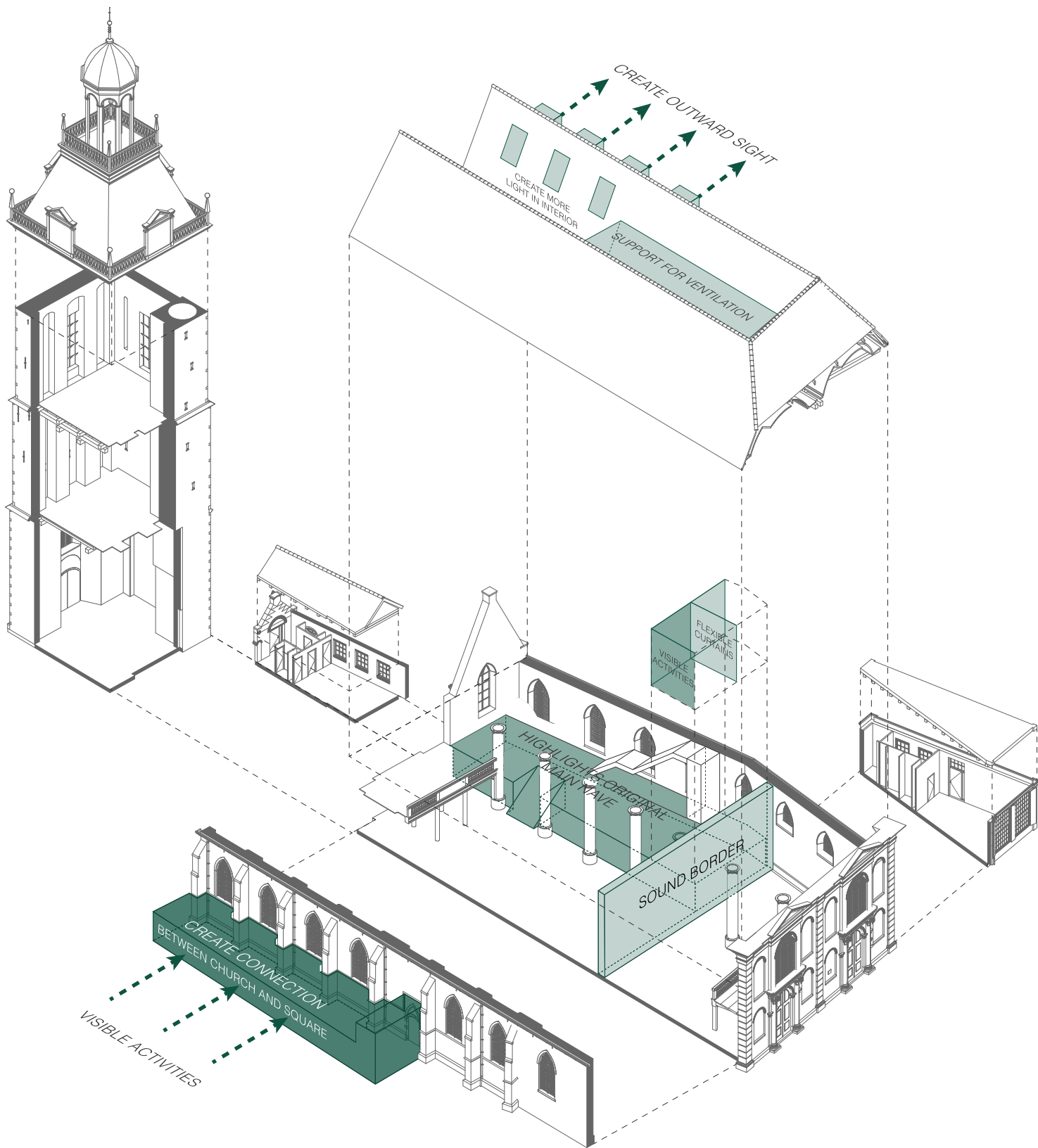


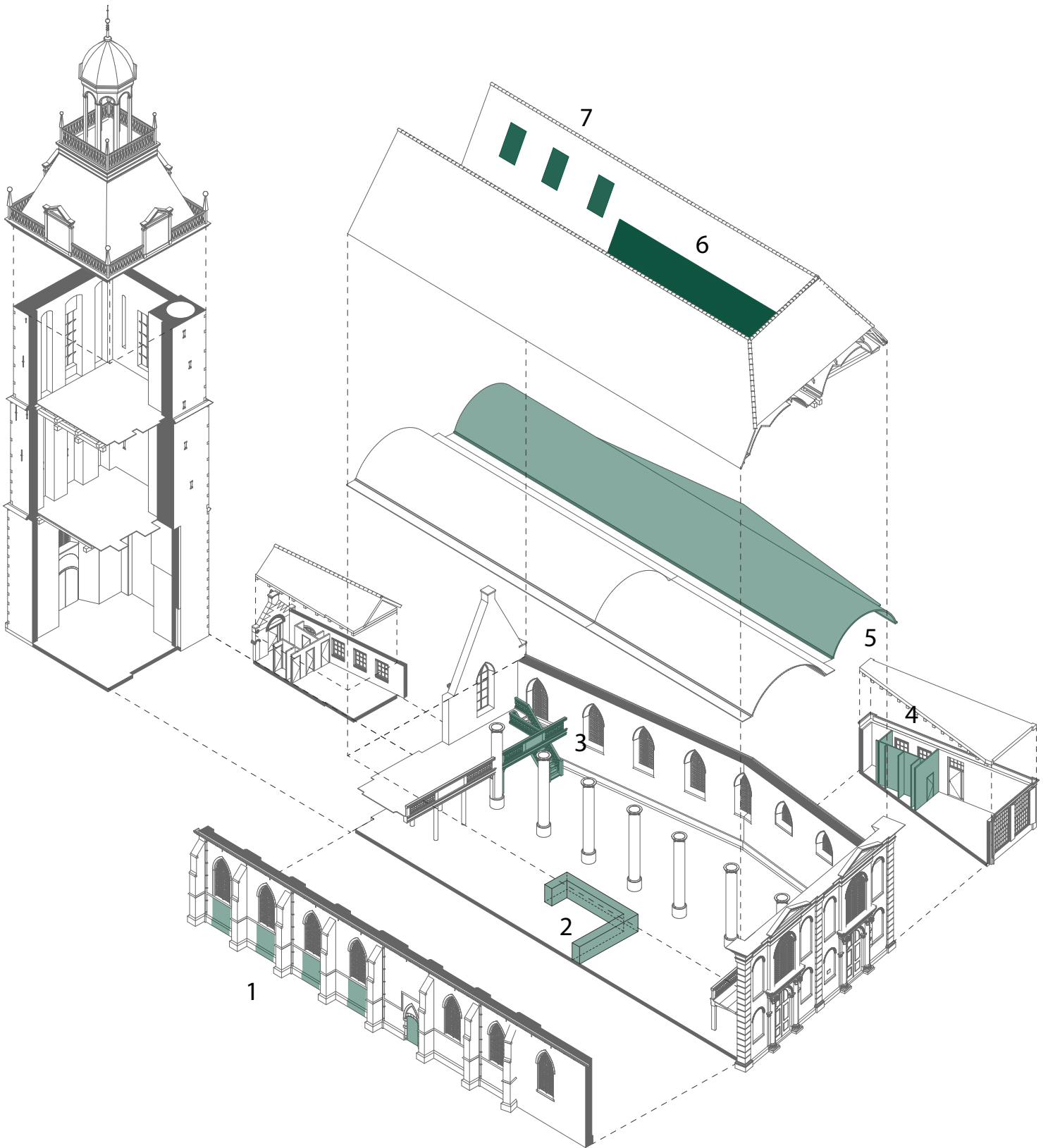


PUBLIC

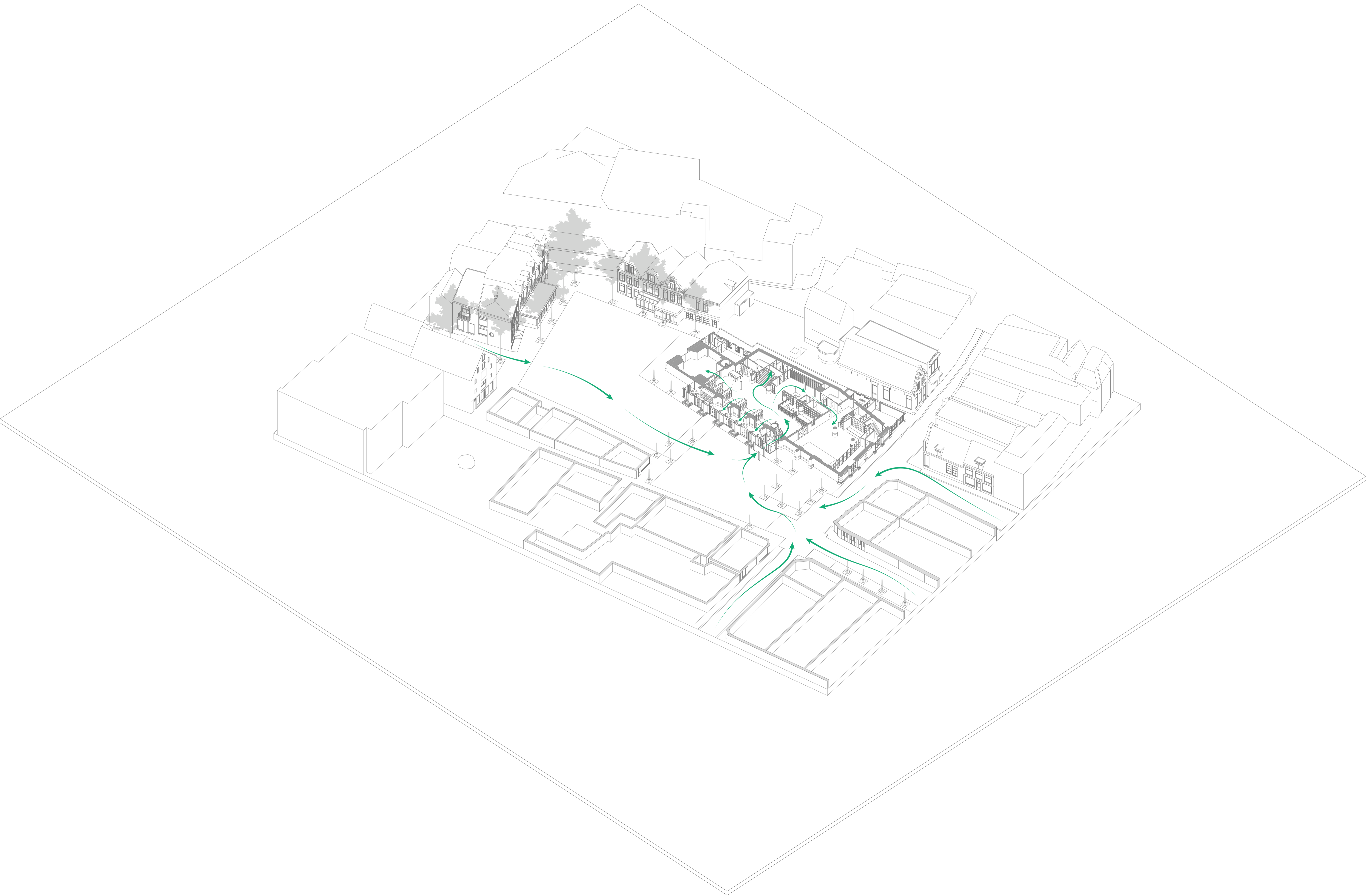


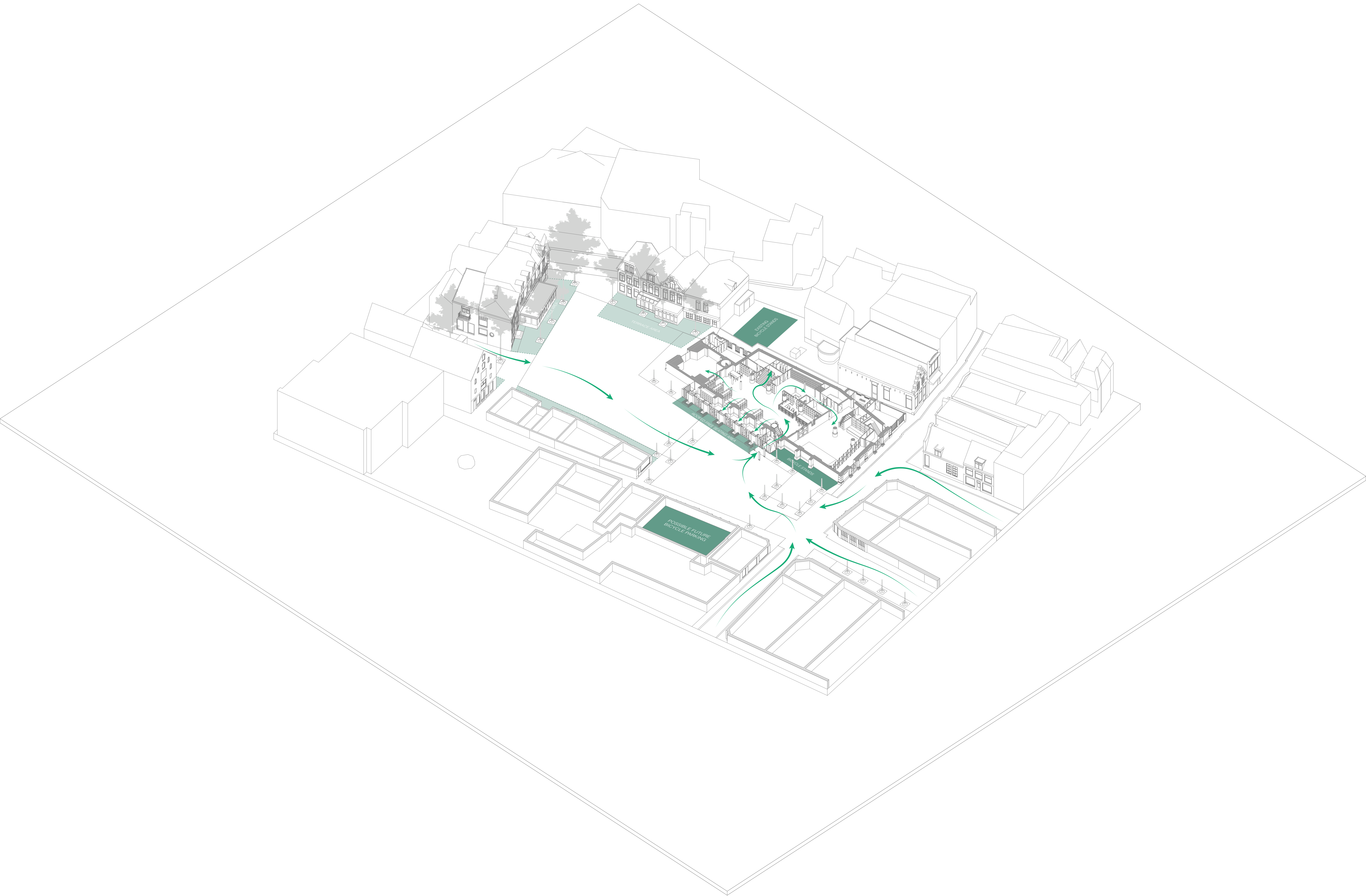
PRIVATE

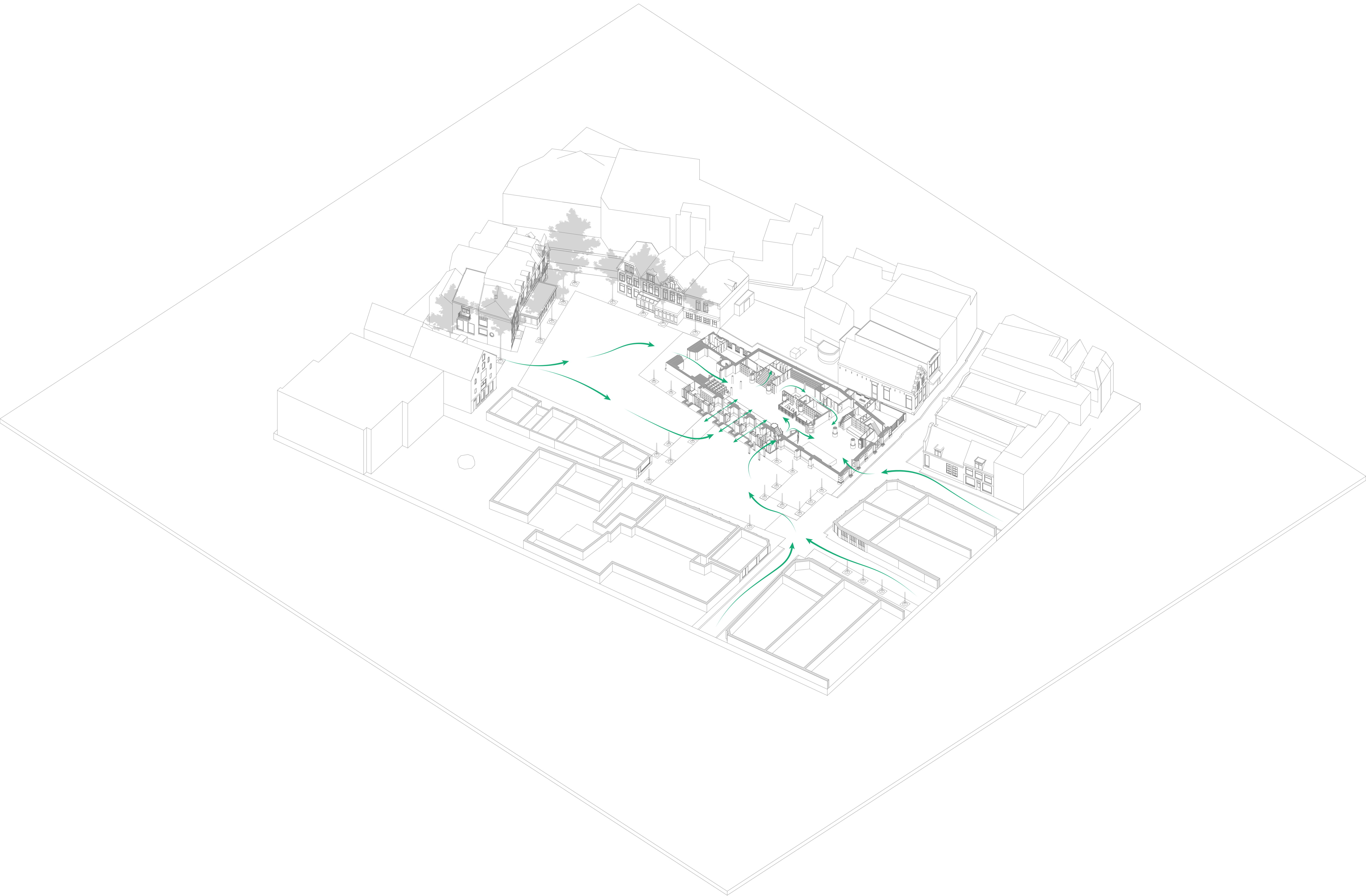


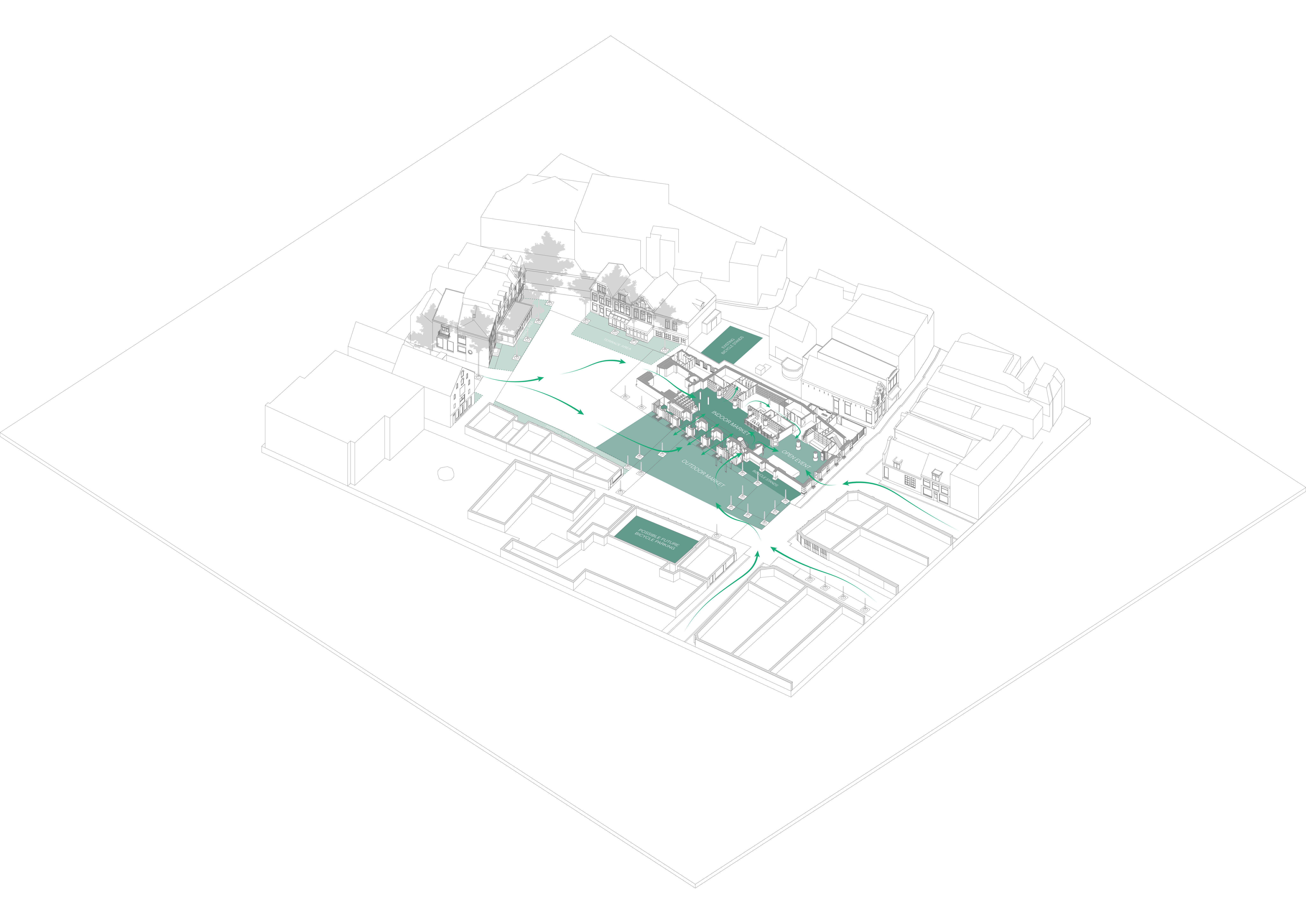


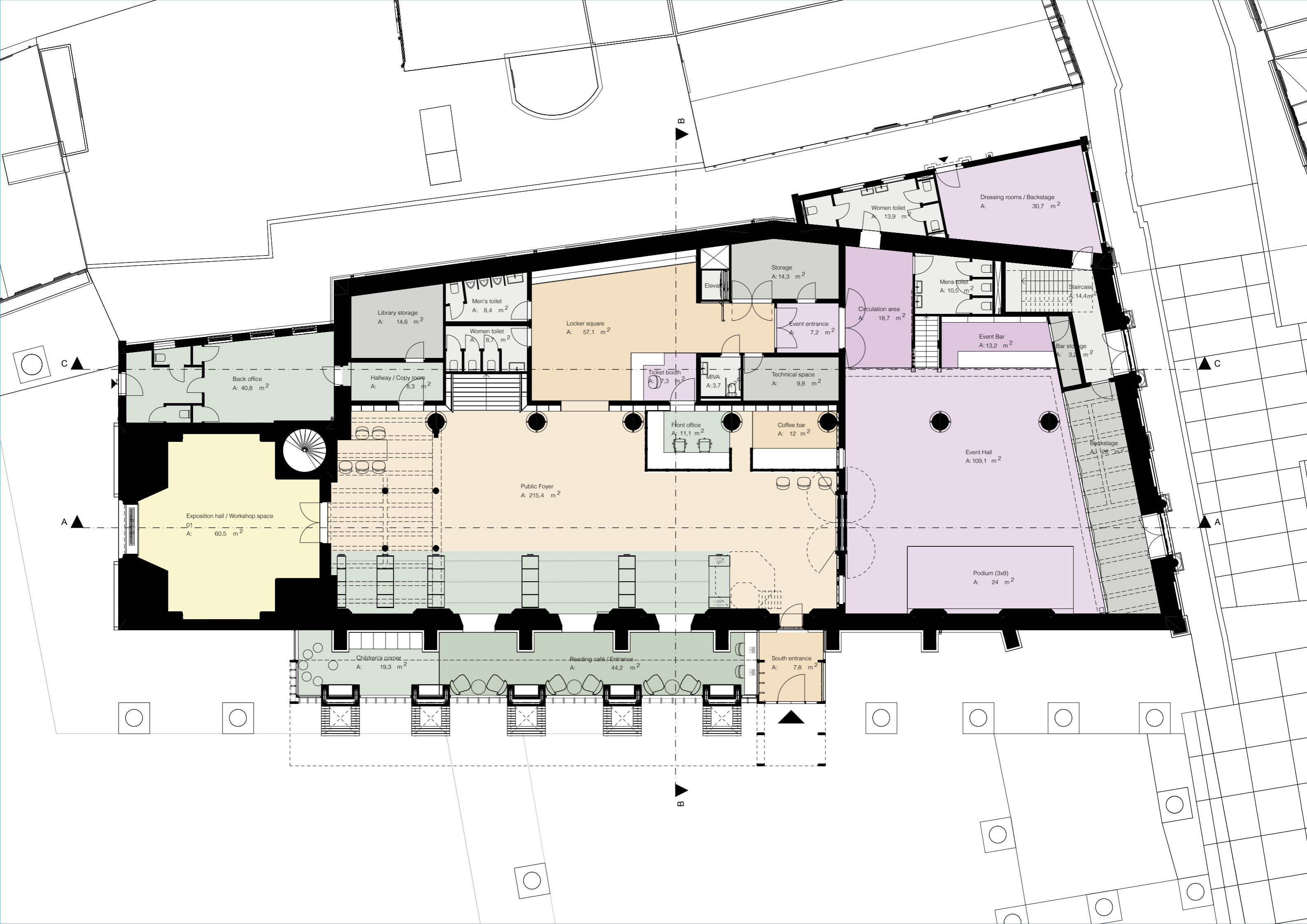
REMOVED / REPLACED
 REUSED IN THE BUILDING

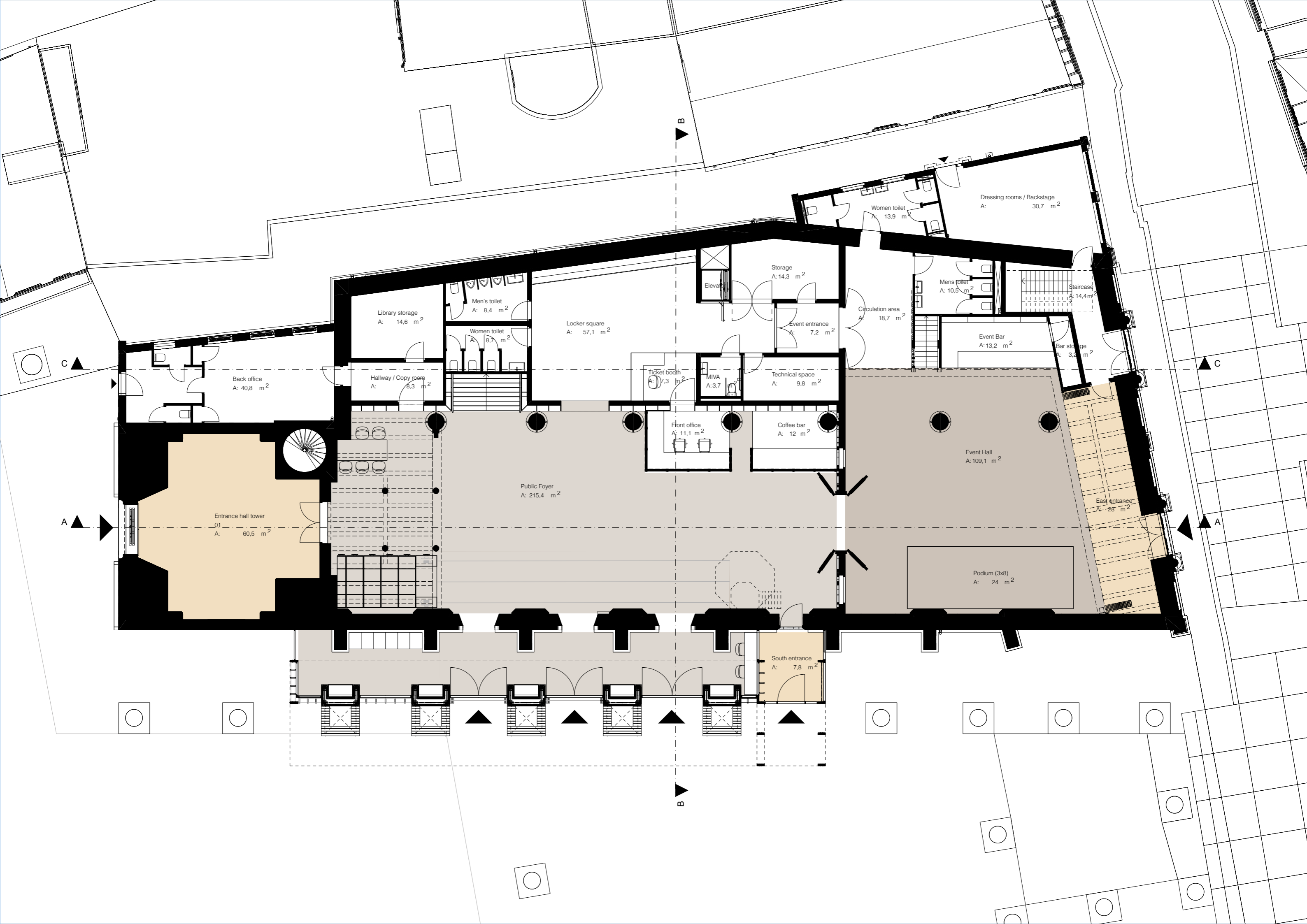


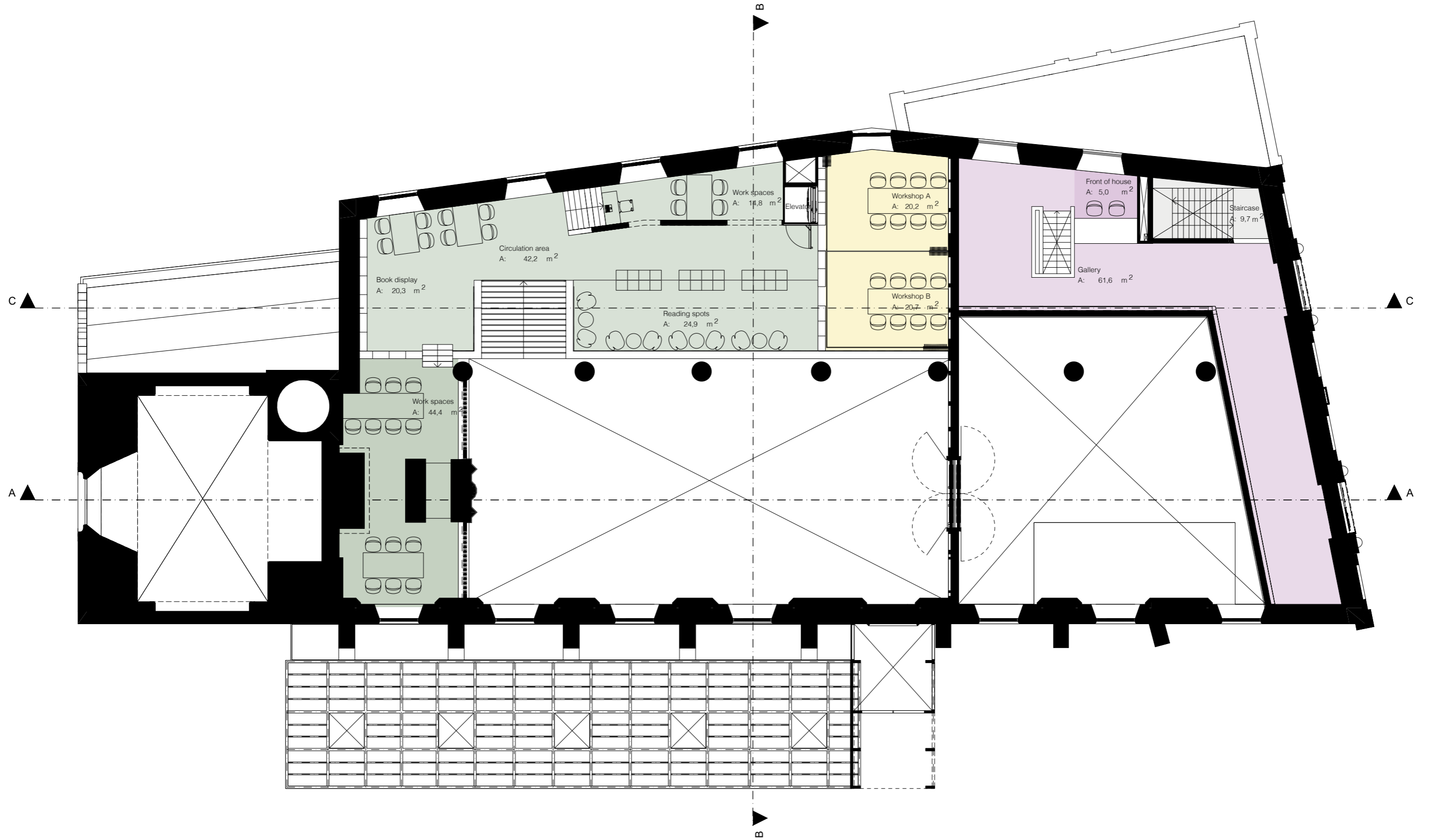


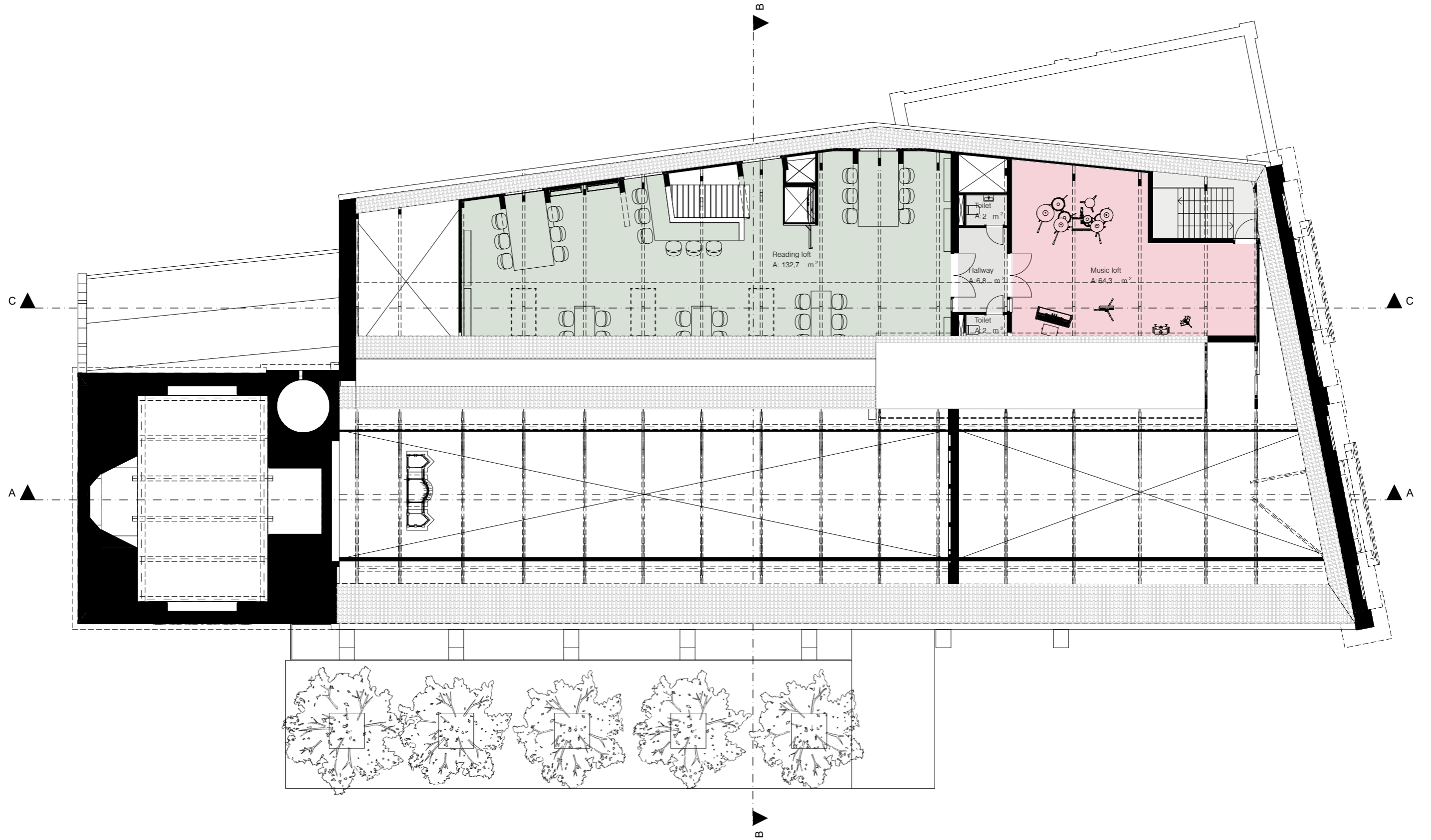


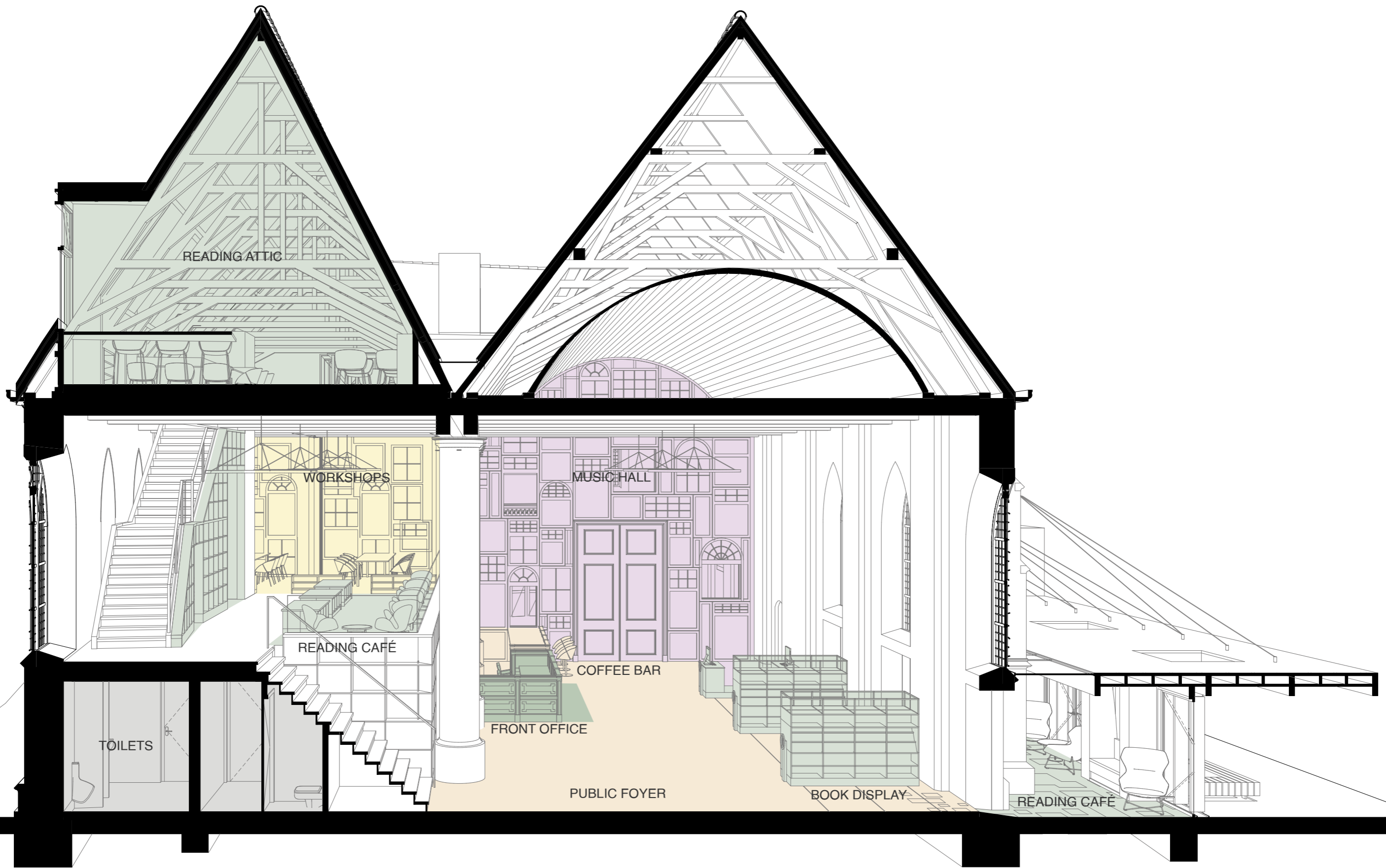












READING ATTIC

WORKSHOPS

MUSIC HALL

READING CAFÉ

COFFEE BAR

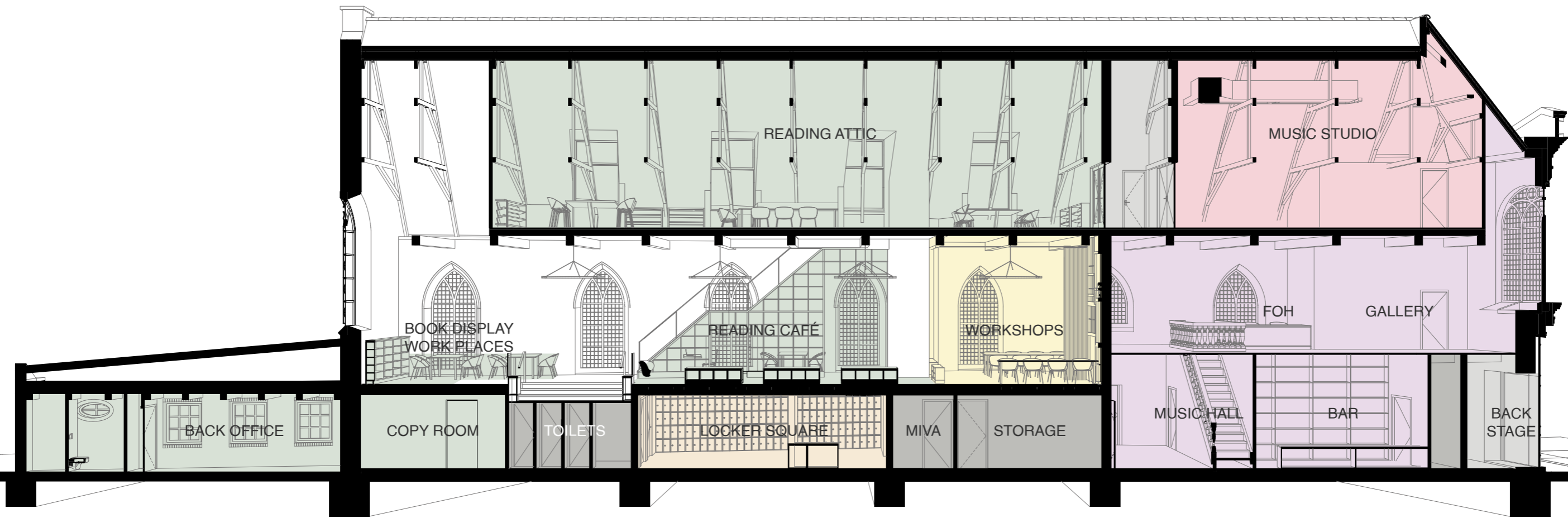
FRONT OFFICE

PUBLIC FOYER

BOOK DISPLAY

TOILETS

READING CAFÉ









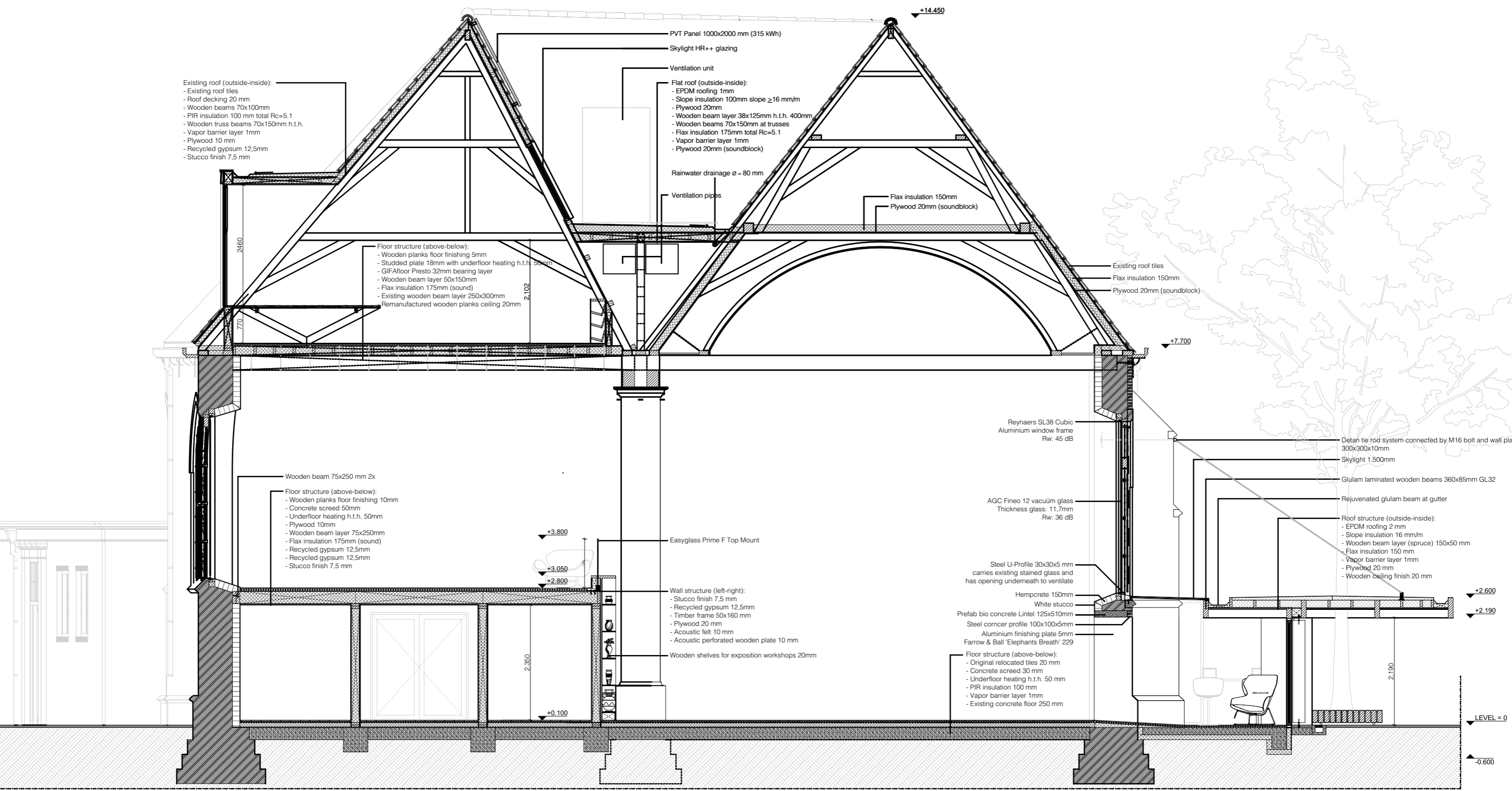






SECTION

CROSS-SECTION BB



Existing roof (outside-inside):
 - Existing roof tiles
 - Roof decking 20 mm
 - Wooden beams 70x100mm
 - PIR insulation 100 mm total Rc=5.1
 - Wooden truss beams 70x150mm h.t.h.
 - Vapor barrier layer 1mm
 - Plywood 10 mm
 - Recycled gypsum 12,5mm
 - Stucco finish 7,5 mm

PVT Panel 1000x2000 mm (315 kWh)
 Skylight HR++ glazing
 Ventilation unit
 Flat roof (outside-inside):
 - EPDM roofing 1mm
 - Slope insulation 100mm slope ≥ 16 mm/m
 - Plywood 20mm
 - Wooden beam layer 38x125mm h.t.h. 400mm
 - Wooden beams 70x150mm at trusses
 - Flax insulation 175mm total Rc=5.1
 - Vapor barrier layer 1mm
 - Plywood 20mm (soundblock)

Floor structure (above-below):
 - Wooden planks floor finishing 5mm
 - Studded plate 18mm with underfloor heating h.t.h. 50mm
 - GIFAfloor Presto 32mm bearing layer
 - Wooden beam layer 50x150mm
 - Flax insulation 175mm (sound)
 - Existing wooden beam layer 250x300mm
 - Remanufactured wooden planks ceiling 20mm

Wooden beam 75x250 mm 2x
 Floor structure (above-below):
 - Wooden planks floor finishing 10mm
 - Concrete screed 50mm
 - Underfloor heating h.t.h. 50mm
 - Plywood 10mm
 - Wooden beam layer 75x250mm
 - Flax insulation 175mm (sound)
 - Recycled gypsum 12,5mm
 - Recycled gypsum 12,5mm
 - Stucco finish 7,5 mm

Wall structure (left-right):
 - Stucco finish 7,5 mm
 - Recycled gypsum 12,5mm
 - Timber frame 50x160 mm
 - Plywood 20 mm
 - Acoustic felt 10 mm
 - Acoustic perforated wooden plate 10 mm
 Wooden shelves for exposition workshops 20mm

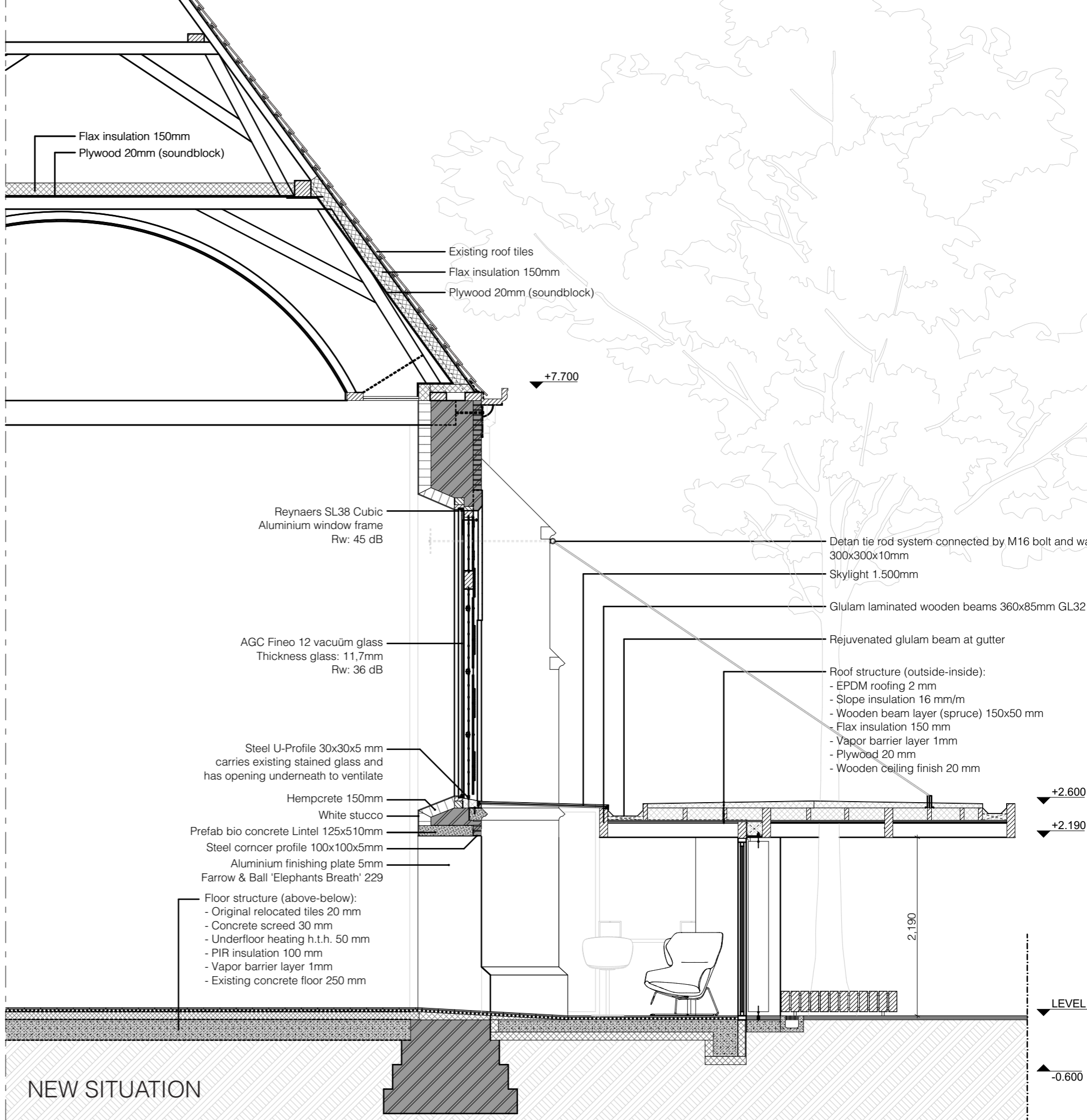
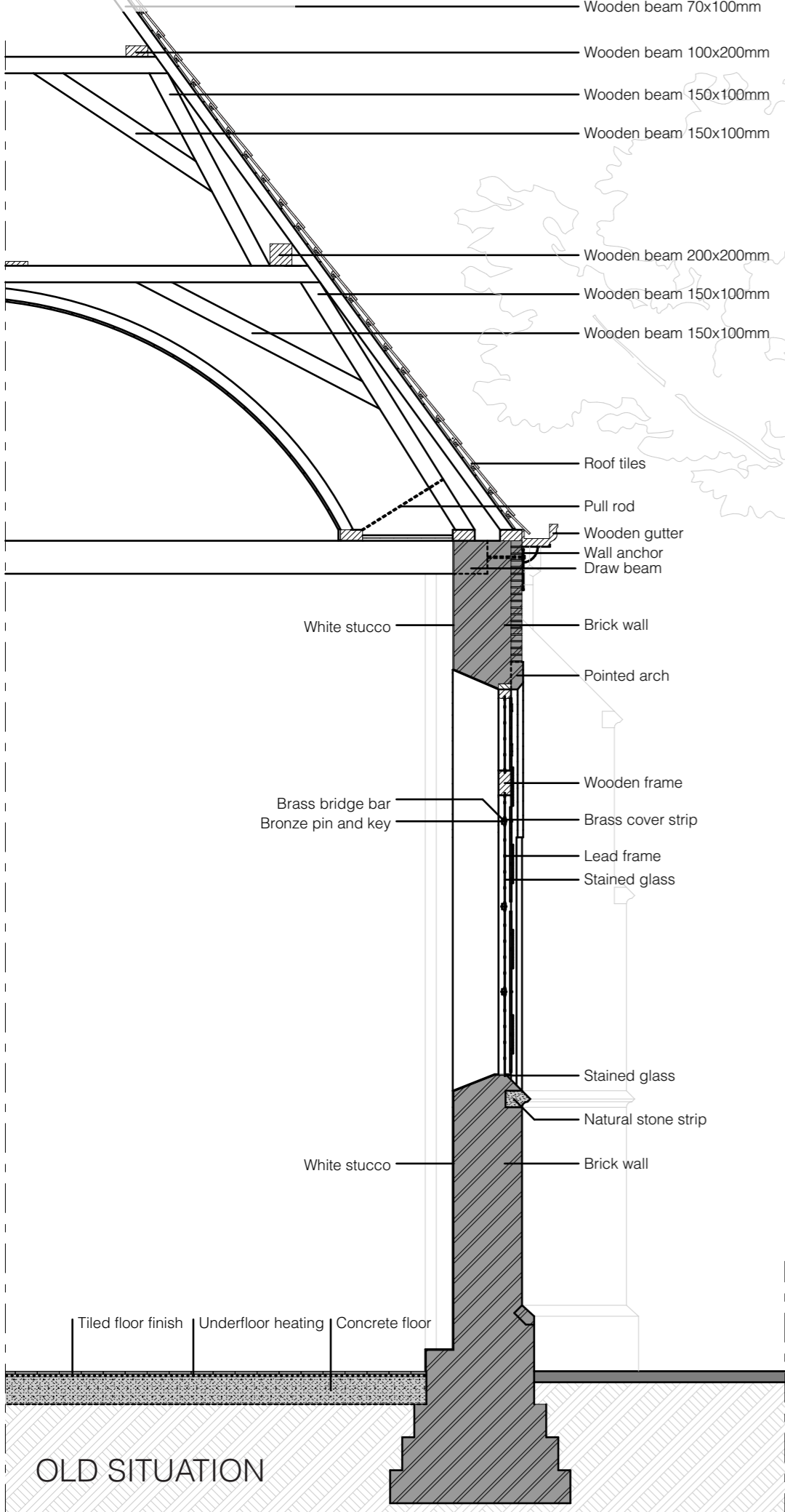
Reynaers SL38 Cubic Aluminium window frame Rw: 45 dB
 AGC Fineo 12 vacuum glass Thickness glass: 11,7mm Rw: 36 dB
 Steel U-Profile 30x30x5 mm carries existing stained glass and has opening underneath to ventilate
 Hemprecrete 150mm
 White stucco
 Prefab bio concrete Lintel 125x510mm
 Steel corner profile 100x100x5mm
 Aluminium finishing plate 5mm
 Farrow & Ball 'Elephants Breath' 229
 Floor structure (above-below):
 - Original relocated tiles 20 mm
 - Concrete screed 30 mm
 - Underfloor heating h.t.h. 50 mm
 - PIR insulation 100 mm
 - Vapor barrier layer 1mm
 - Existing concrete floor 250 mm

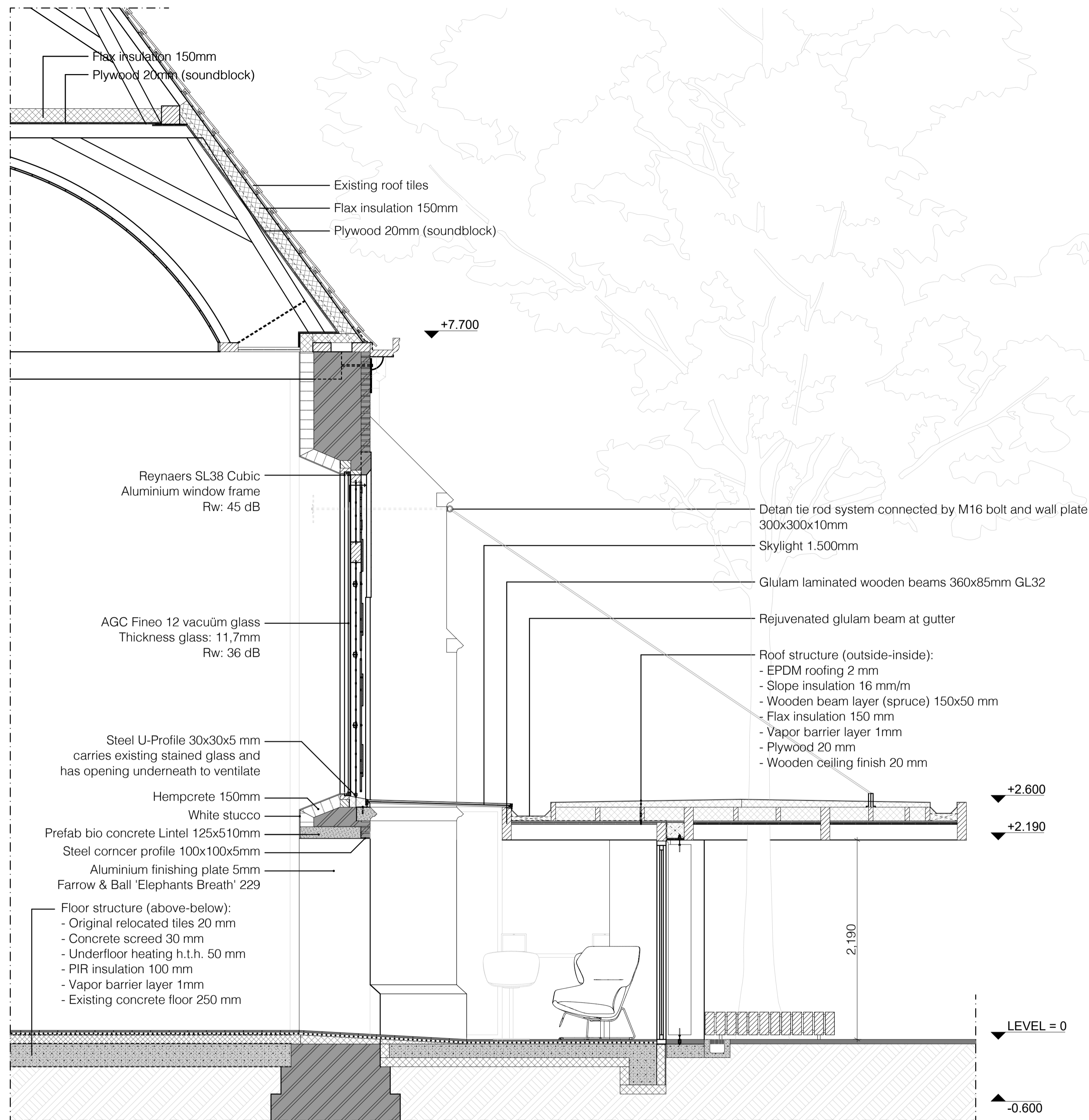
Existing roof tiles
 Flax insulation 150mm
 Plywood 20mm (soundblock)
 Detan tie rod system connected by M16 bolt and wall plate 300x300x10mm
 Skylight 1.500mm
 Glulam laminated wooden beams 360x85mm GL32
 Rejuvenated glulam beam at gutter
 Roof structure (outside-inside):
 - EPDM roofing 2 mm
 - Slope insulation 16 mm/m
 - Wooden beam layer (spruce) 150x50 mm
 - Flax insulation 150 mm
 - Vapor barrier layer 1mm
 - Plywood 20 mm
 - Wooden ceiling finish 20 mm

LEVEL = 0
 +14.450
 +7.700
 +3.800
 +3.050
 +2.800
 +2.600
 +2.190
 -0.600

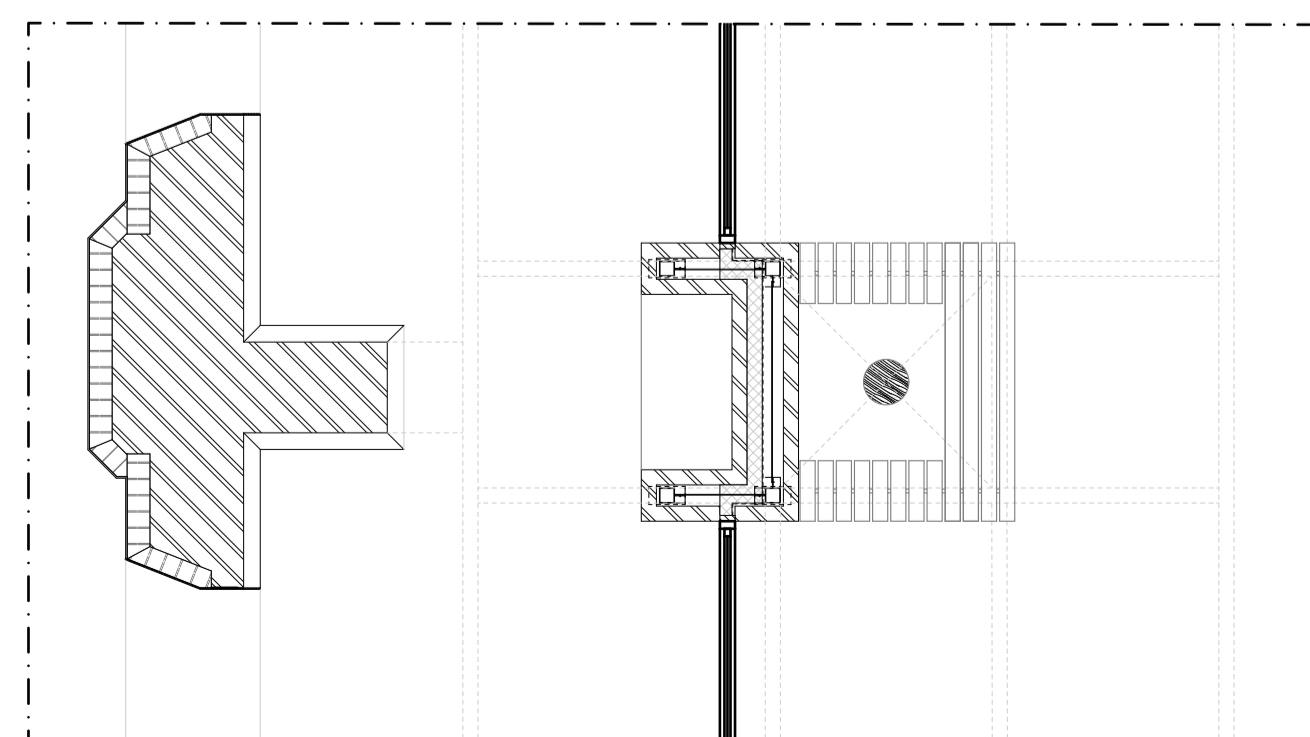
FRAGMENT

SOUTH FACADE OLD-NEW

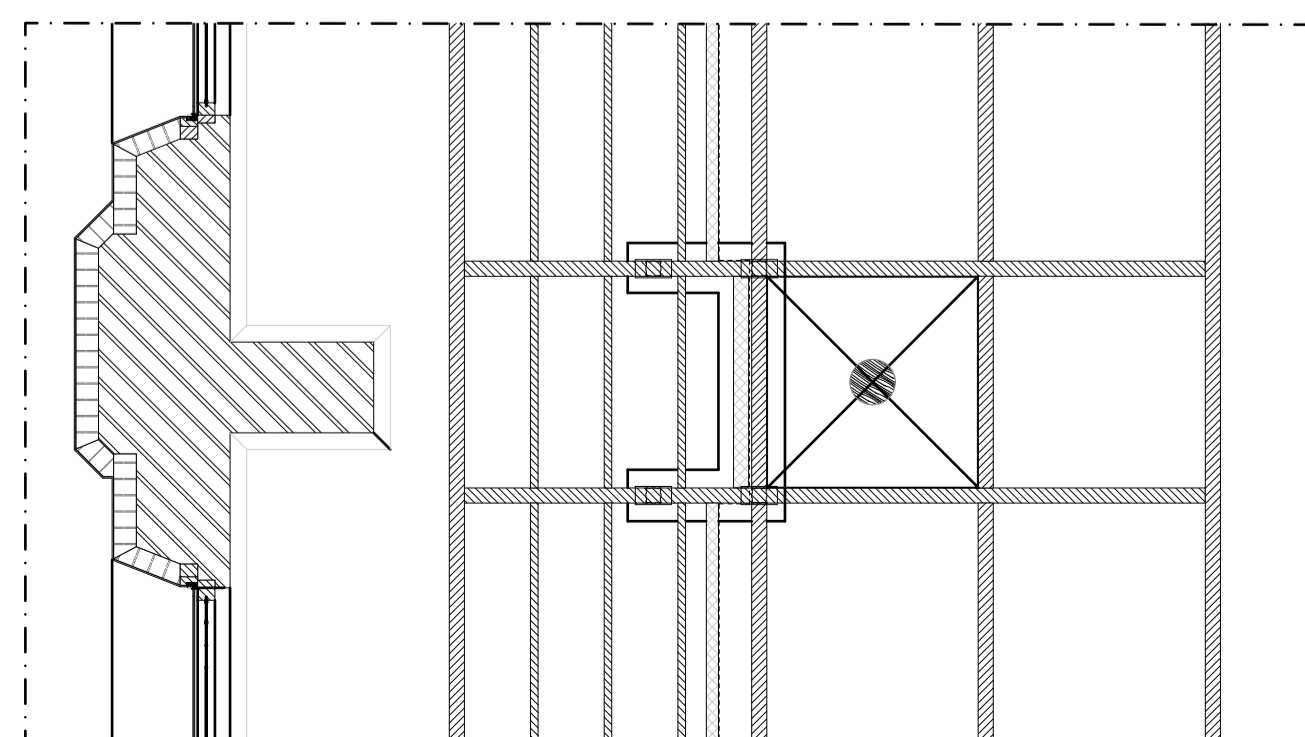




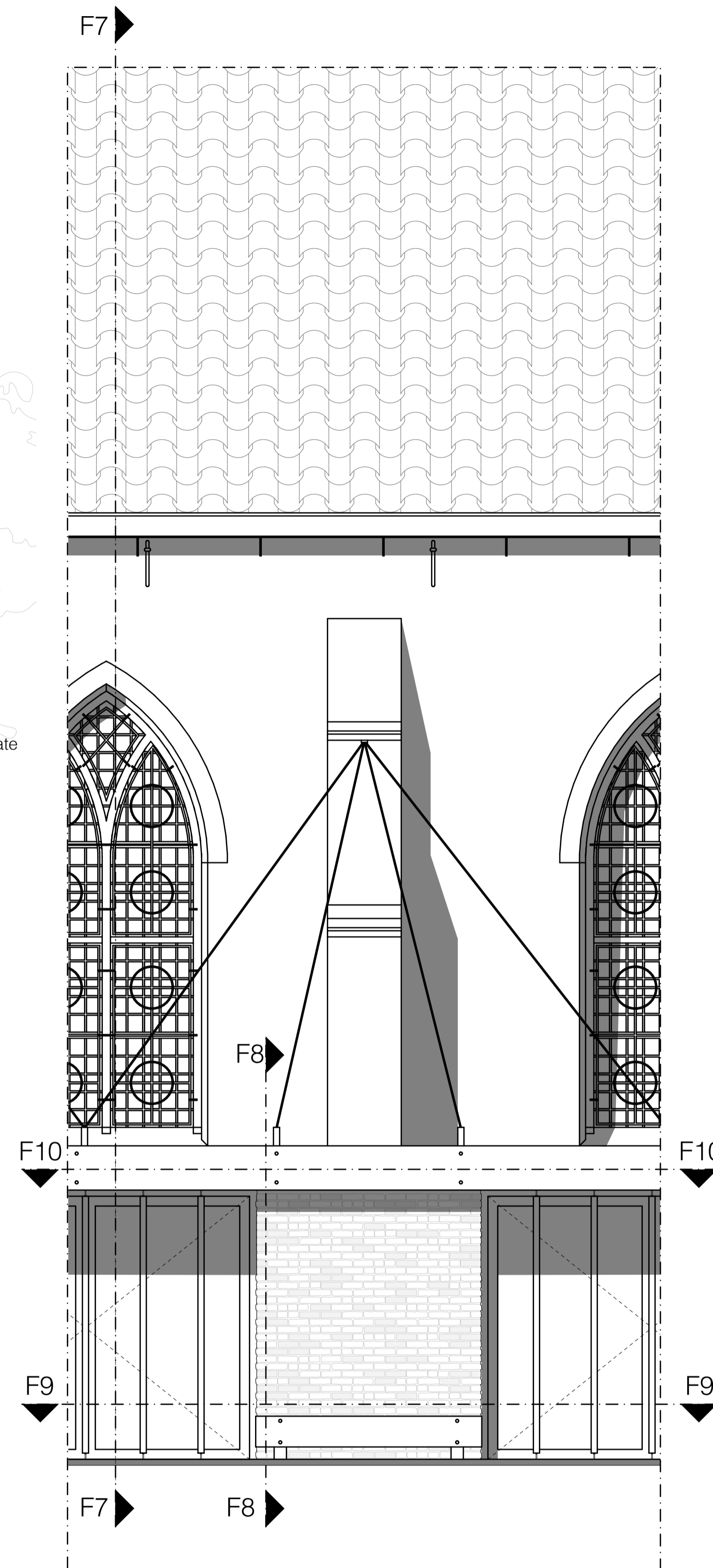
Vertical section F5 1:30



Horizontal section F6 1:30

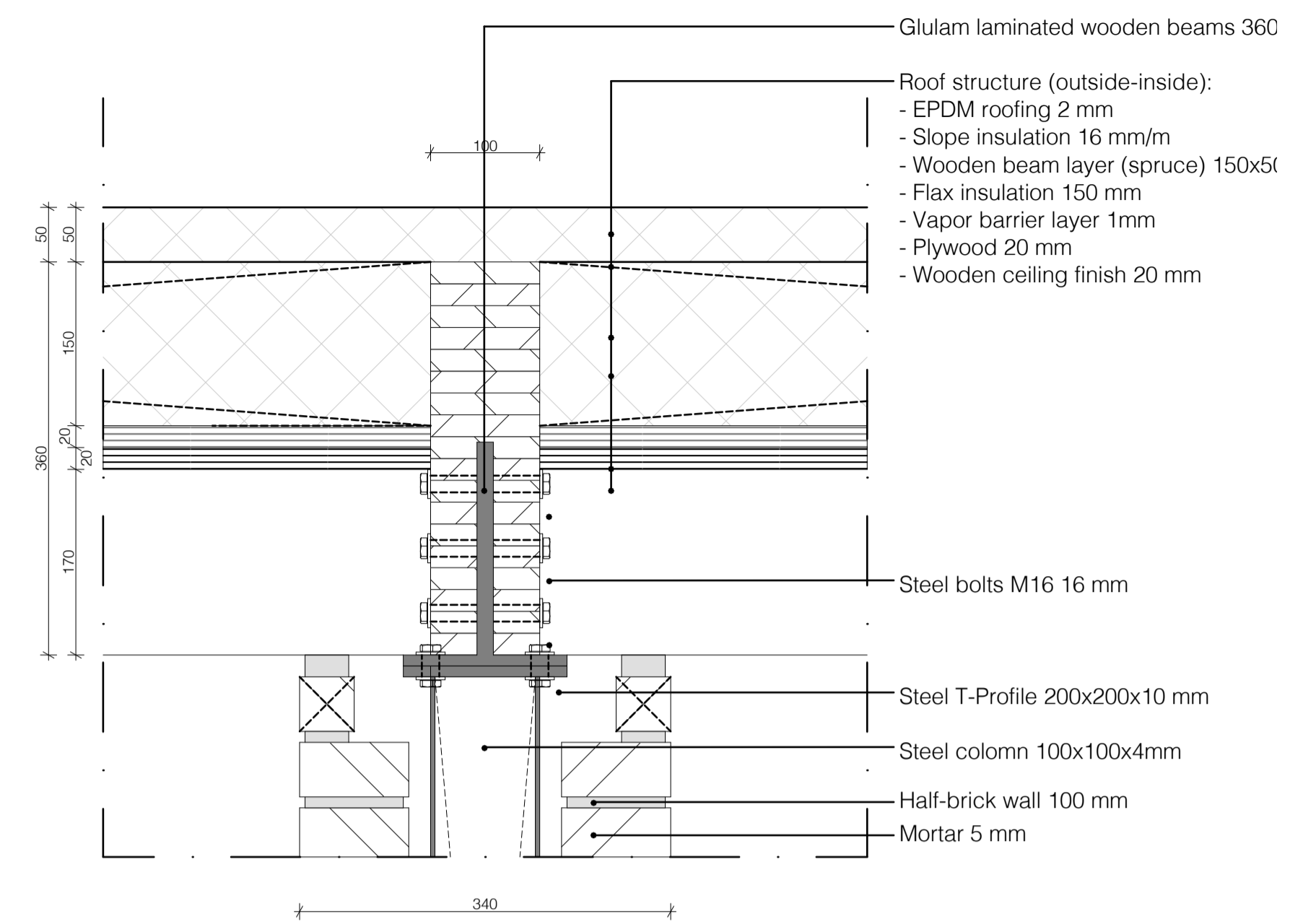


Horizontal section F6 1:30

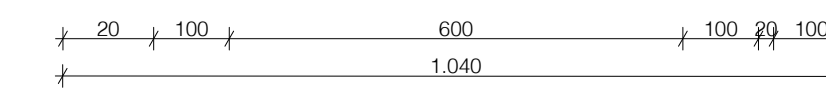
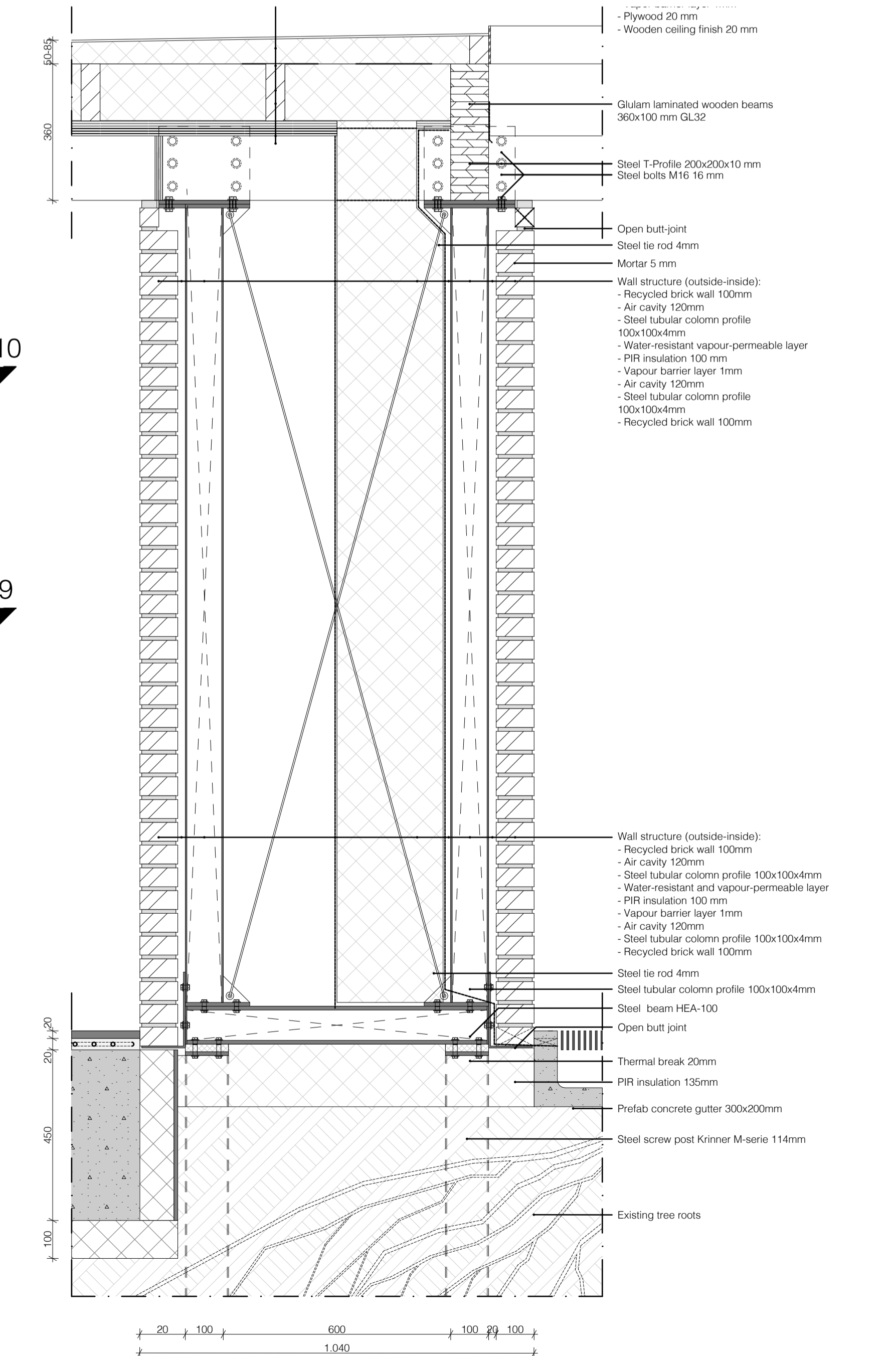


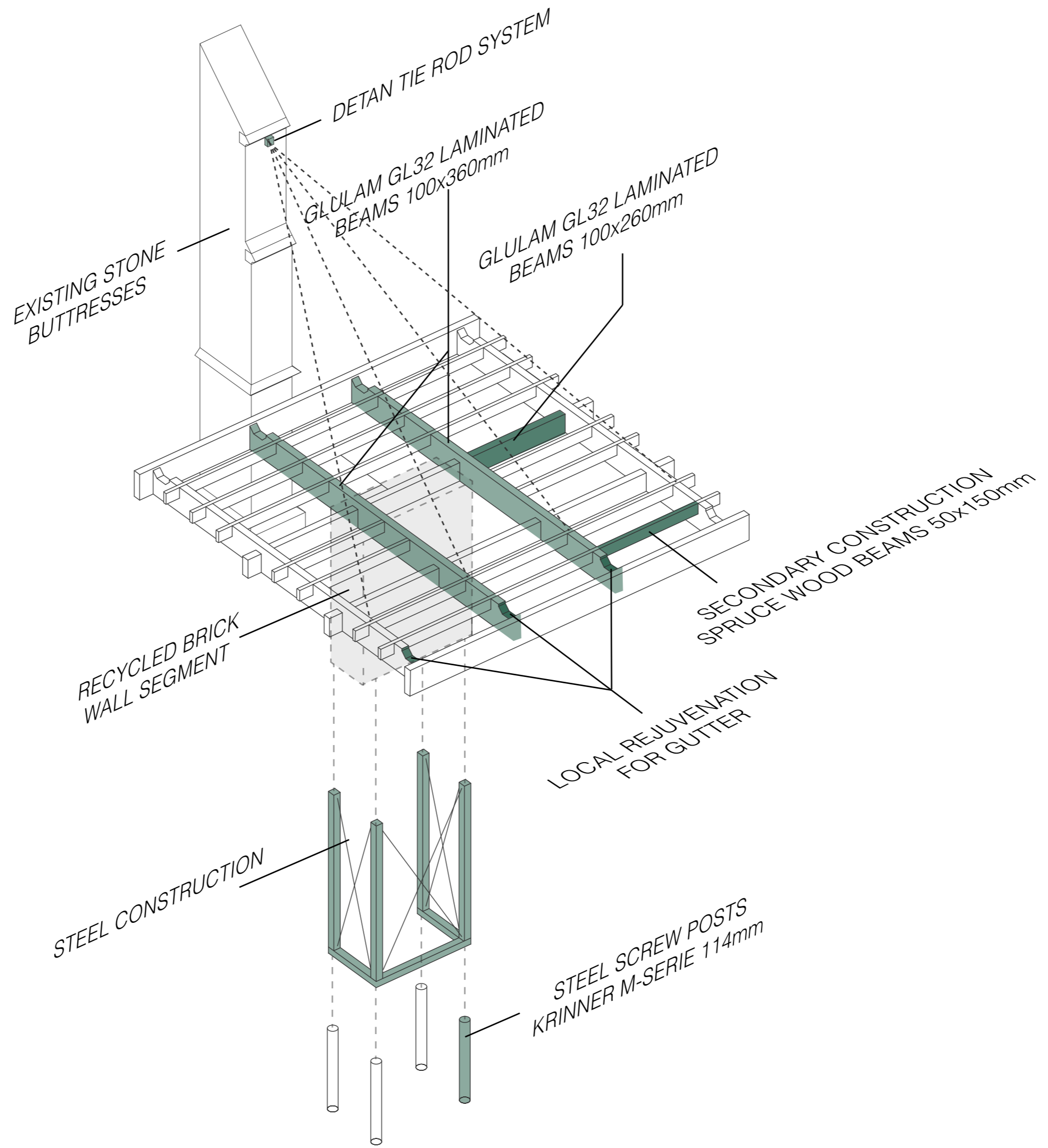
Front view 1:30

Detail V05 1:10



Vertical section F8 1:20





V01

- Existing roof tiles
- Existing roof boarding 20 mm
- Flax insulation 150mm
- Plywood 20mm (soundblock)

+7.700

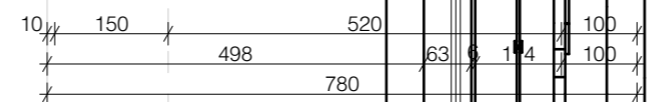
Existing gutter

- Hempcrete 150mm
- White stucco

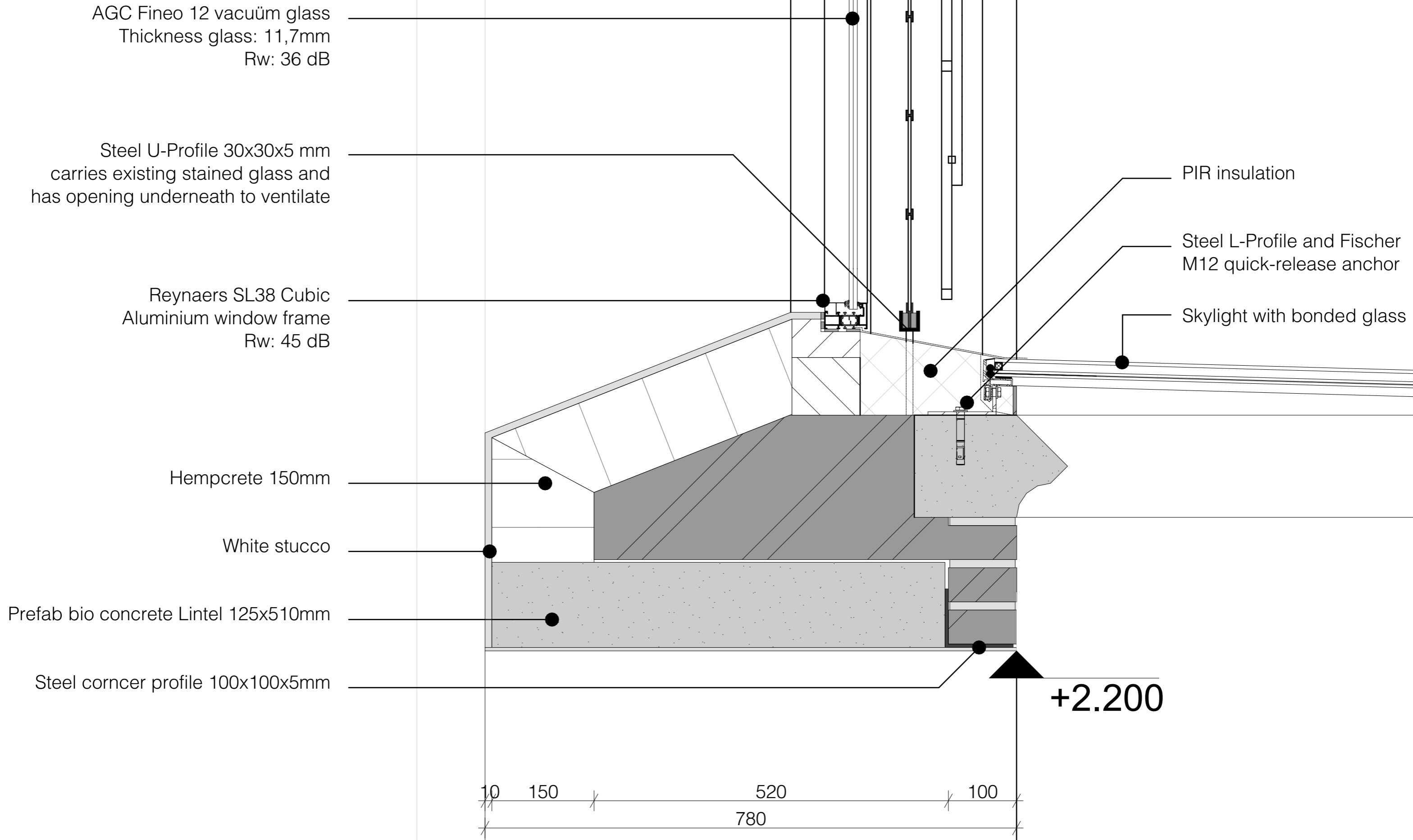
Reynaers SL38 Cubic Aluminium window frame
Rw: 45 dB

- Steel plate 300x300x10 mm
- Steel plate 100x100x6 mm
- AGC Fineo 12 vacuüm glass
Thickness glass: 11,7mm
Rw: 36 dB

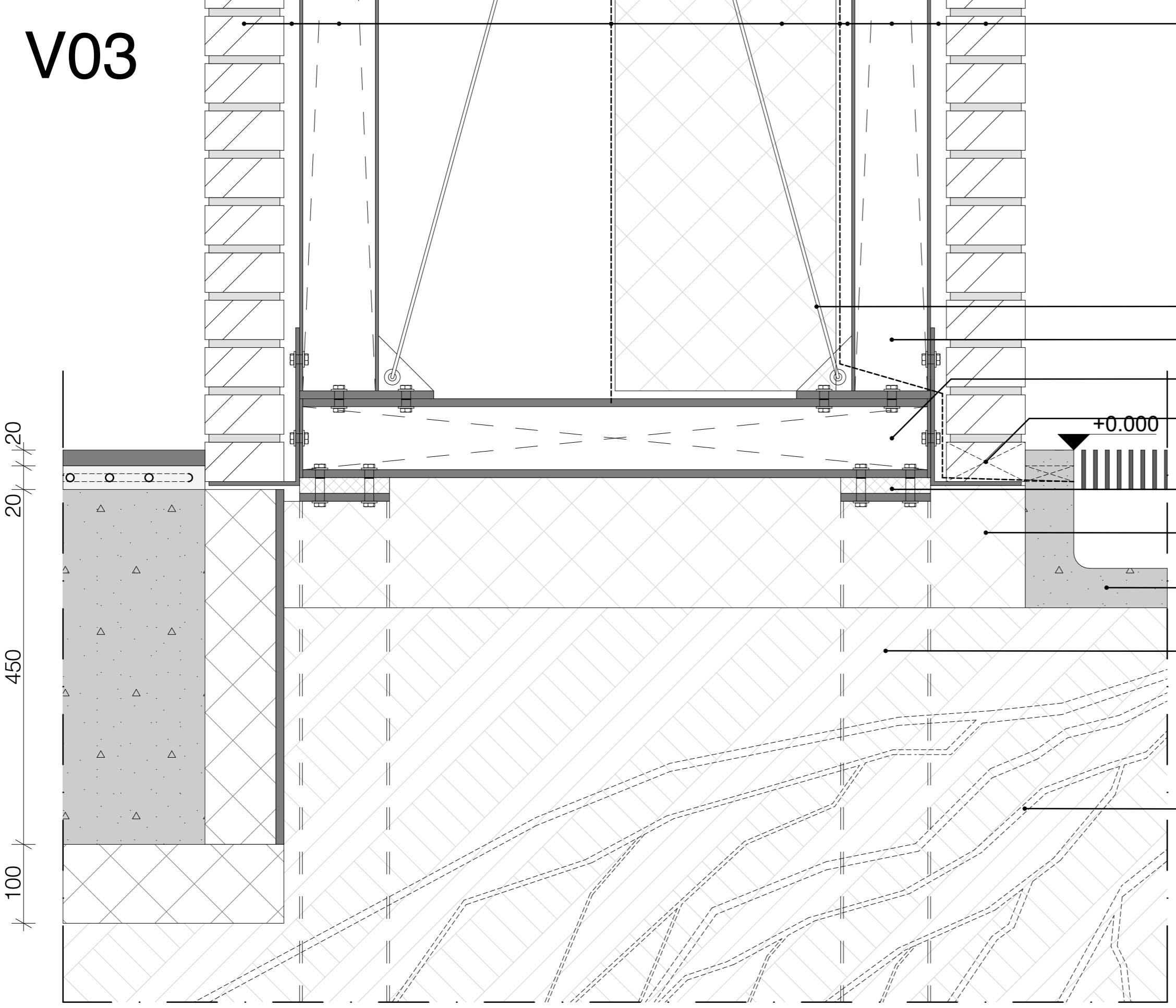
- Existing stained glass window
- Openings in stained glass for ventilation of the cavity
- Detan tie rod system connected by M16 bolt



V02



V03



- Wall structure (outside-inside):
- Recycled brick wall 100mm
- Air cavity 120mm
- Steel tubular column profile 100x100x4mm
- Water-resistant and vapour-permeable layer
- PIR insulation 100 mm
- Vapour barrier layer 1mm
- Air cavity 120mm
- Steel tubular column profile 100x100x4mm
- Recycled brick wall 100mm

- Steel tie rod 4mm
- Steel tubular column profile 100x100x4mm

- Steel beam HEA-100
- Open butt joint

- Thermal break 20mm
- PIR insulation 135mm

- Prefab concrete gutter 300x200mm
- Steel screw post Krinner M-serie 114mm

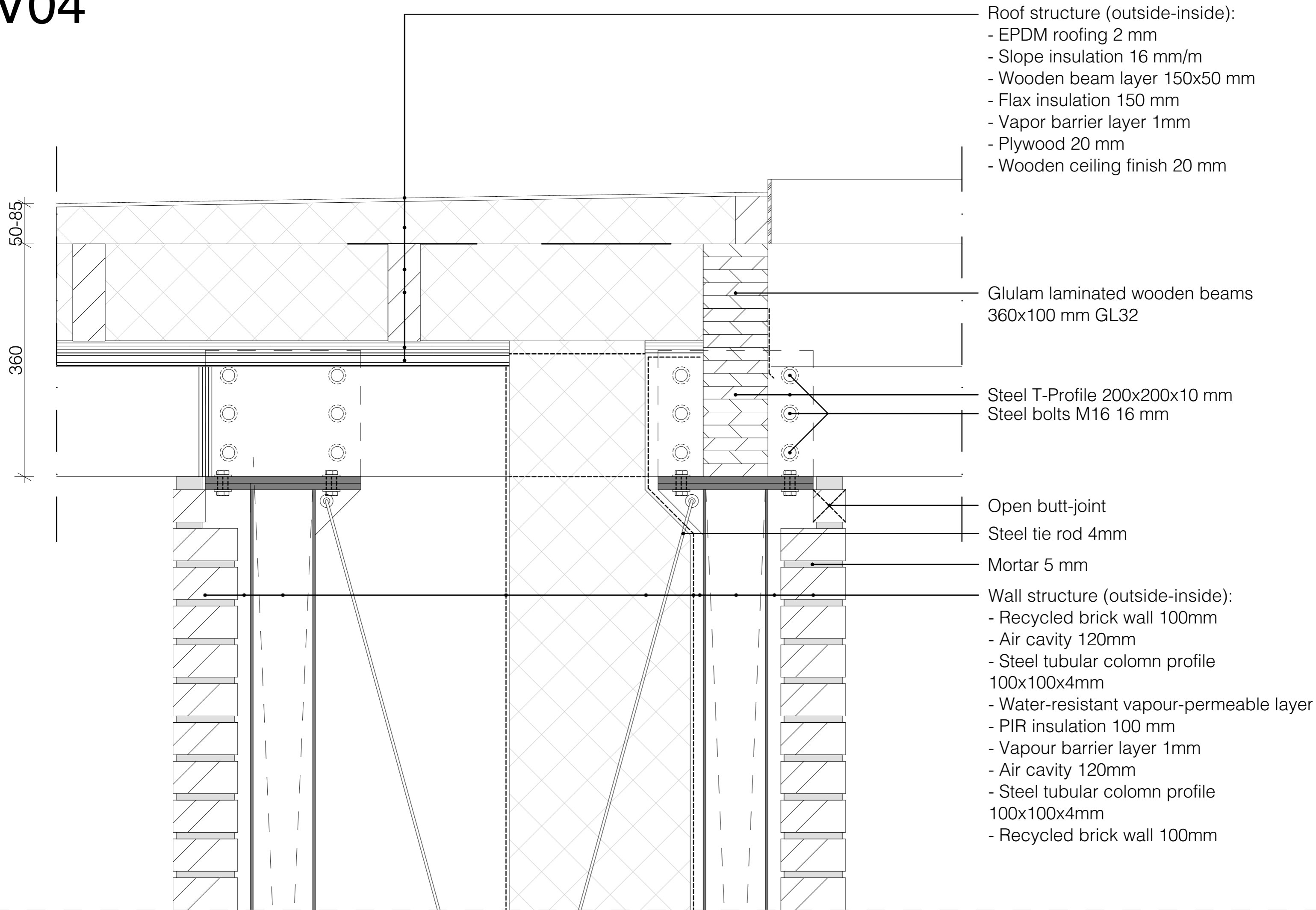
- Existing tree roots

20
20
450
100

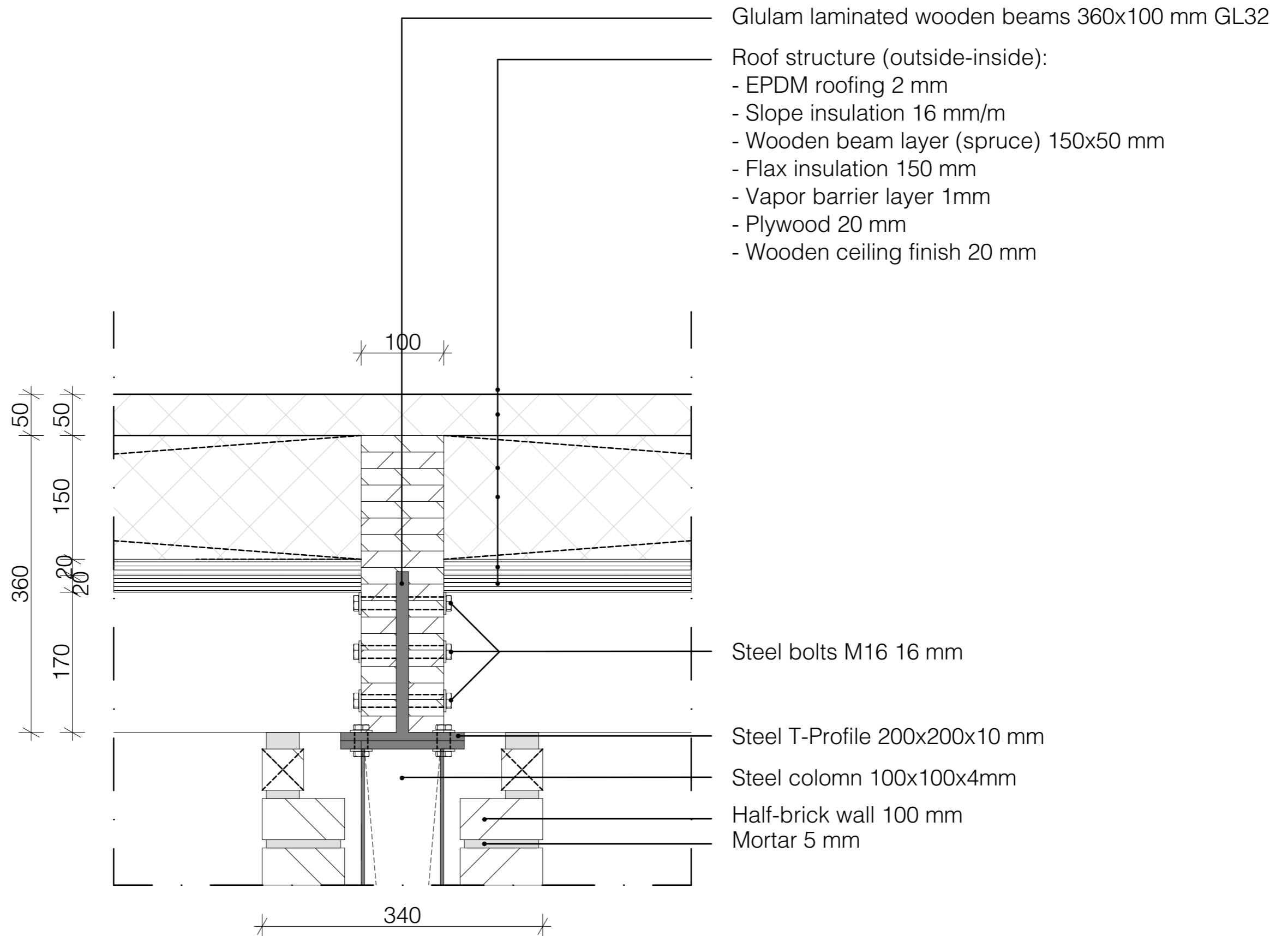
+0.000

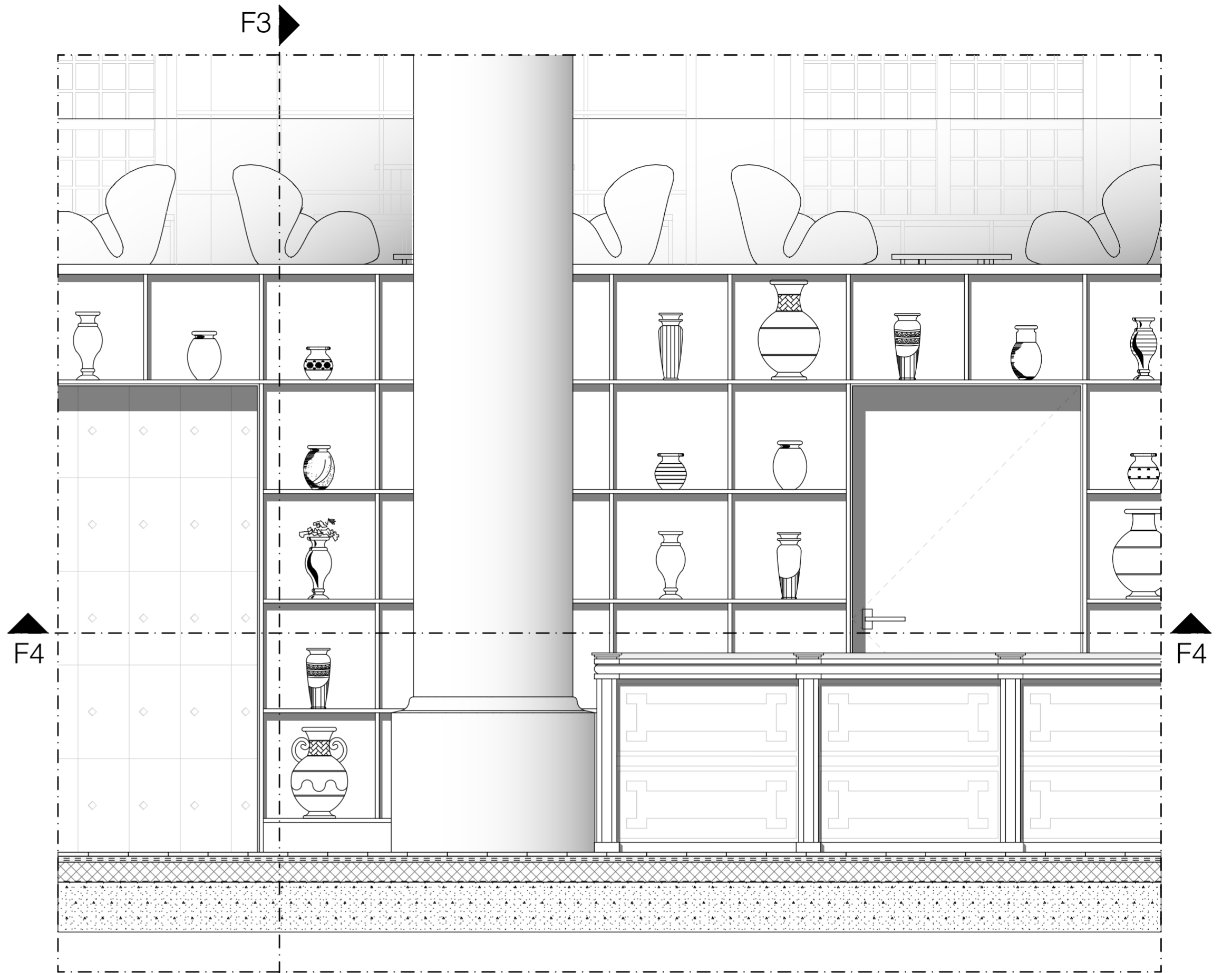
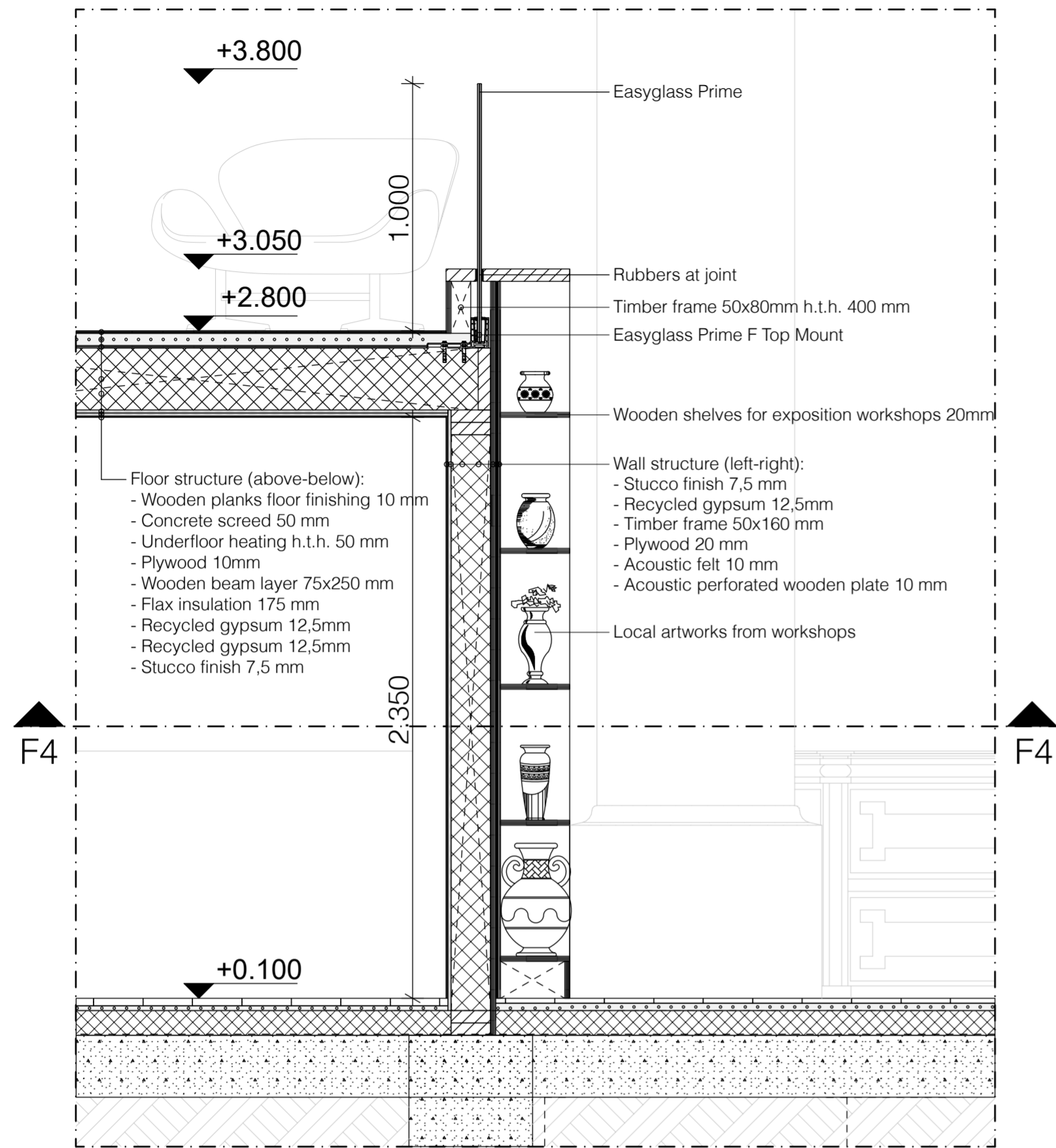
20 100 600 100 20 100
1.040

V04

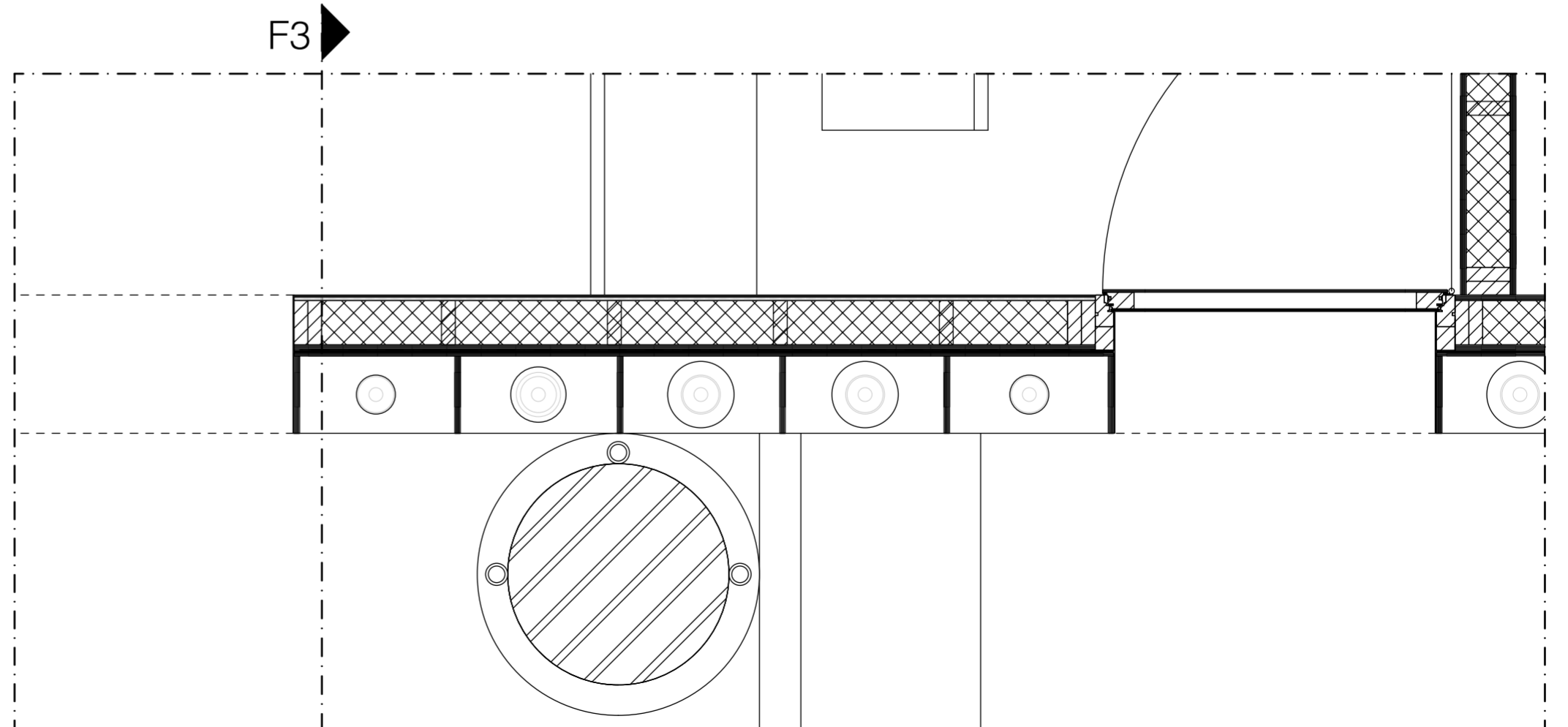


V05

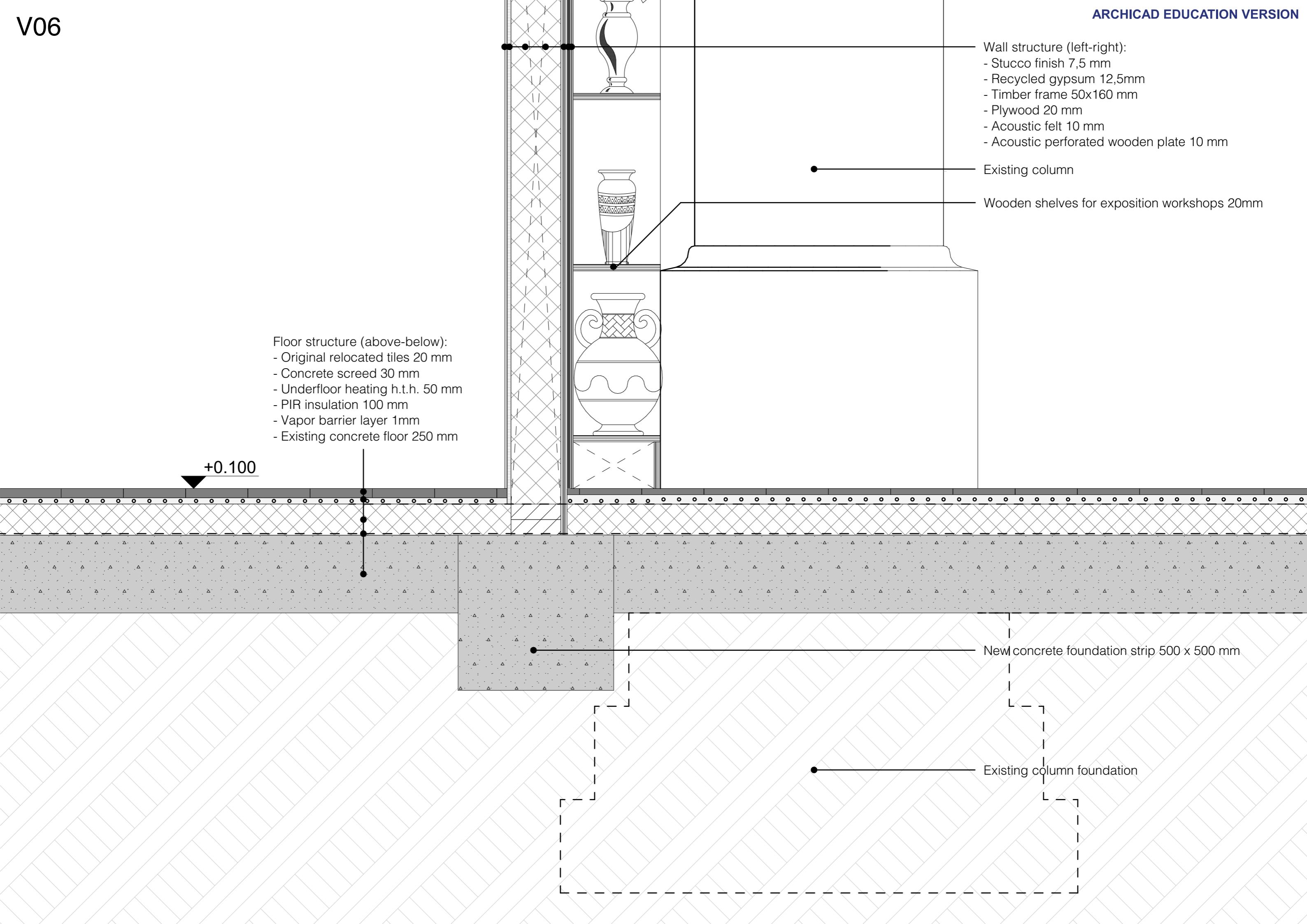


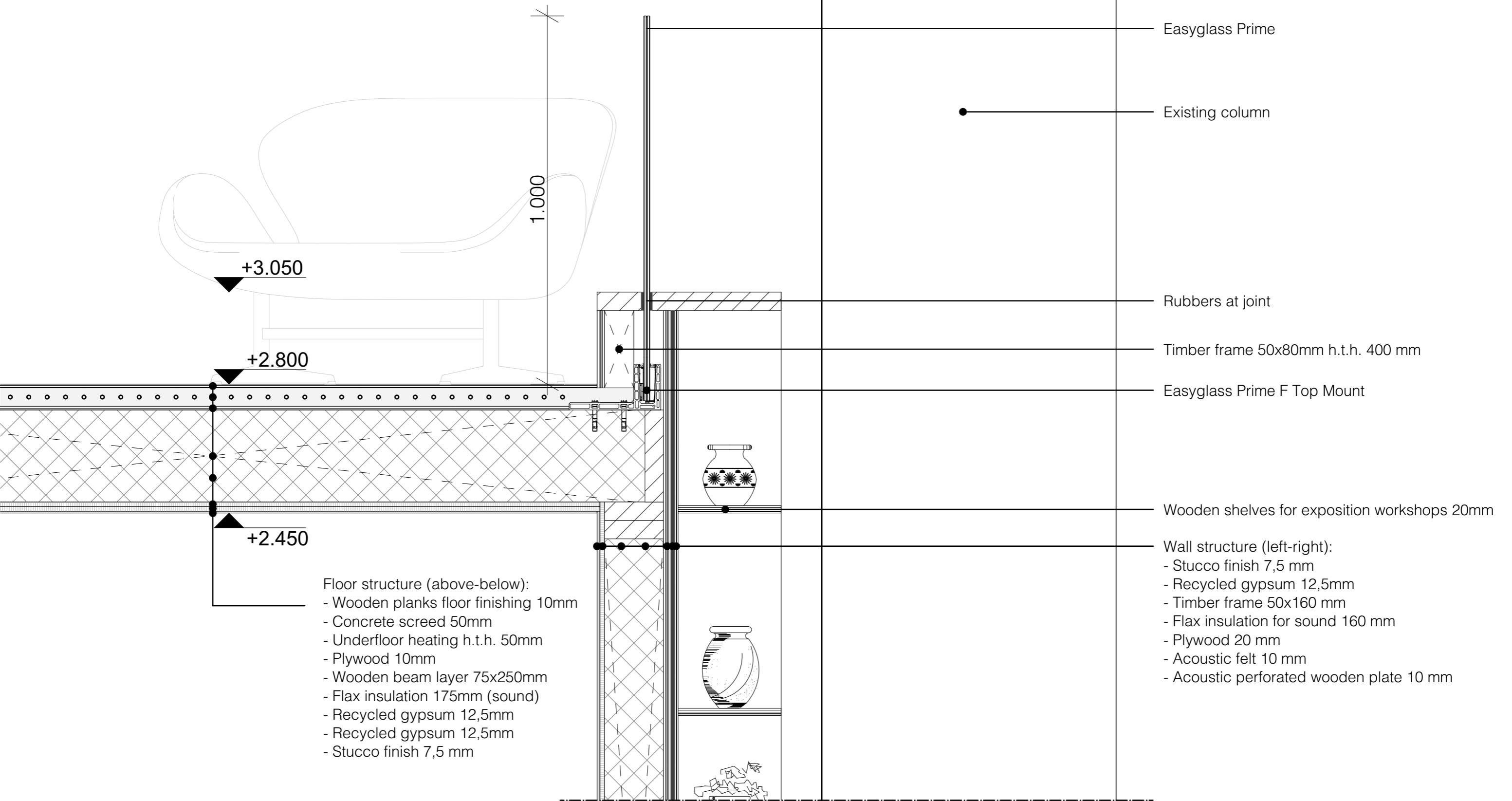


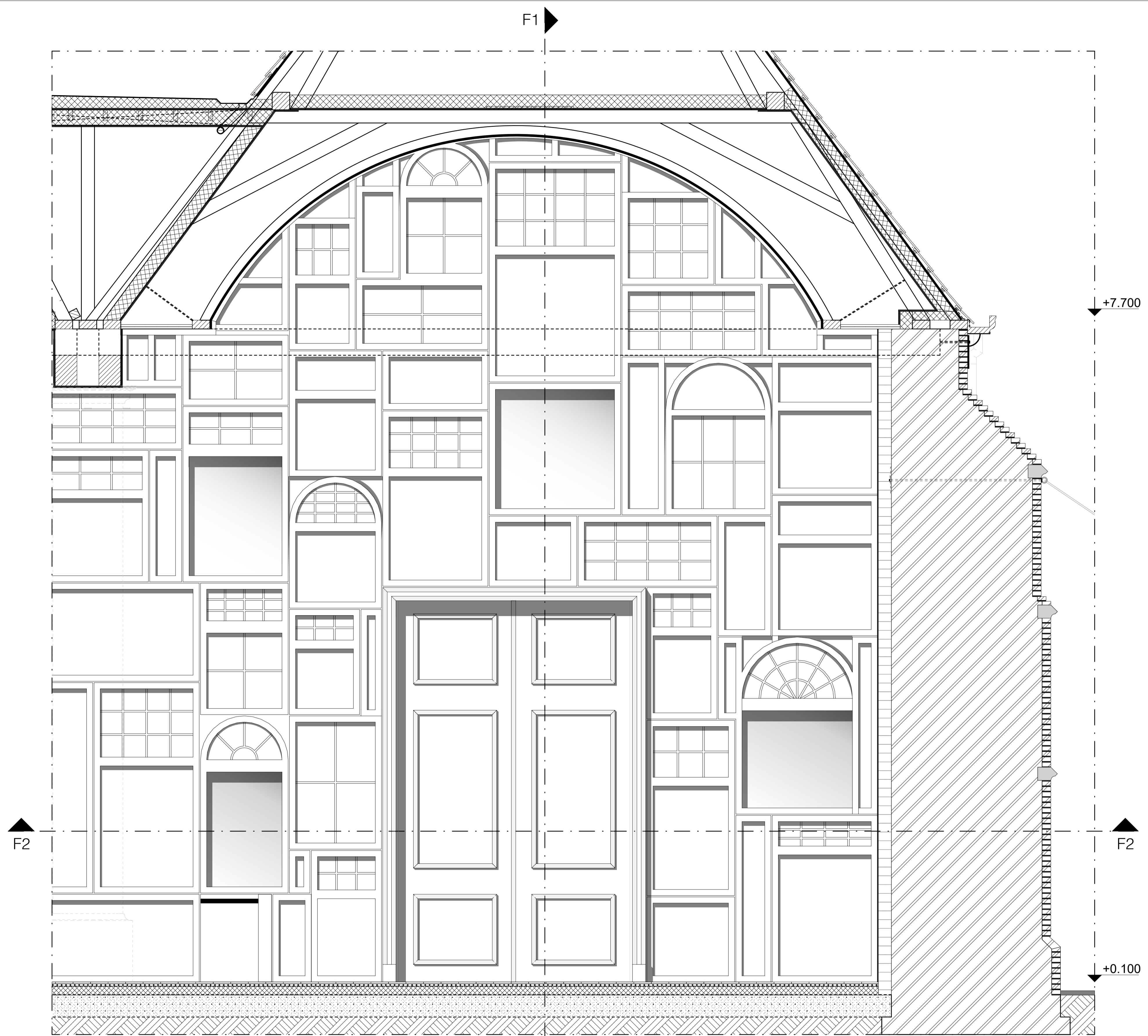
Front view 1:20 F3



Horizontal section F4 1:20 F3







- Wall structure (left-right):
- White paint finish
- Harvested wooden window frames
- Air cavity 11mm
- 3 layers recycled gypsum 25-12.5-12.5 mm
- Timber frame 38x100 mm
- Felt insulation 100 mm
- Air cavity / Rubbers between wood 5mm
- Felt insulation 100 mm
- Timber frame 38x100 mm
- 3 layers recycled gypsum 25-12.5-12.5 mm
- Acoustic felt 10 mm
- Wooden slats finish 10 mm

- Insulation 28mm
- White painted plywood finish 10 mm

- Reynaers SL38 Cubic
- Aluminium window frame 2x
- Rw: 45 dB

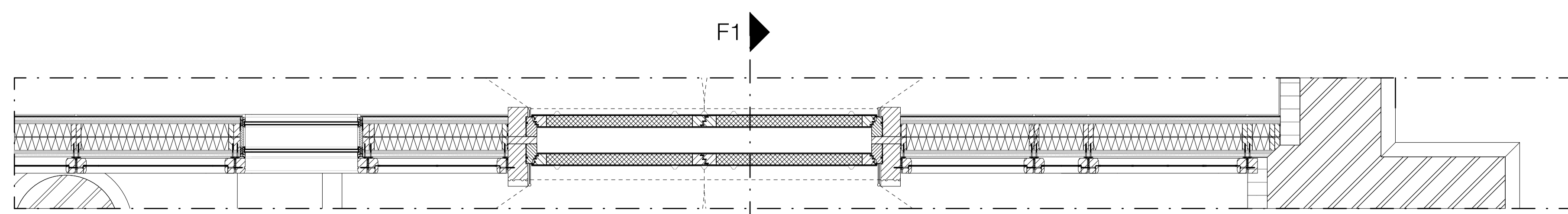
- Steel profile with 5 mm adjustment space
- Triple gap seal

- Door structure (left-right):
- White paint finish
- Plywood 9 mm
- Timber frame 38x82 mm
- Felt insulation 82 mm
- Plywood 9 mm
- White paint finish

- Wheel support in rails
- Double drop sill

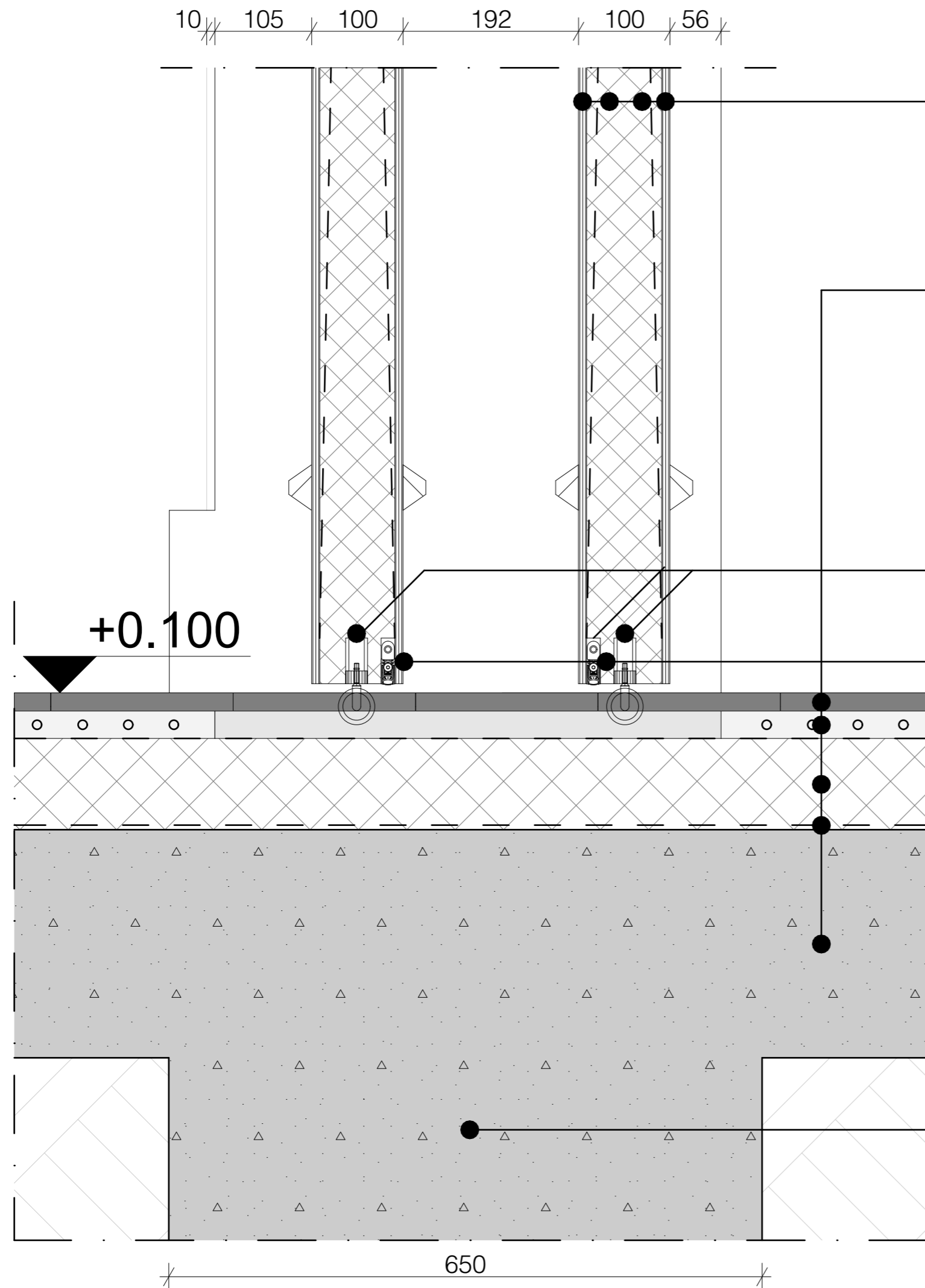
Front view 1:20

Vertical section F1 1:20



Horizontal section F2 1:20

V08



Door structure (left-right):

- White paint finish
- Plywood 9 mm
- Timber frame 38x82 mm
- Felt insulation 82 mm
- Plywood 9 mm
- White paint finish

Floor structure (above-below):

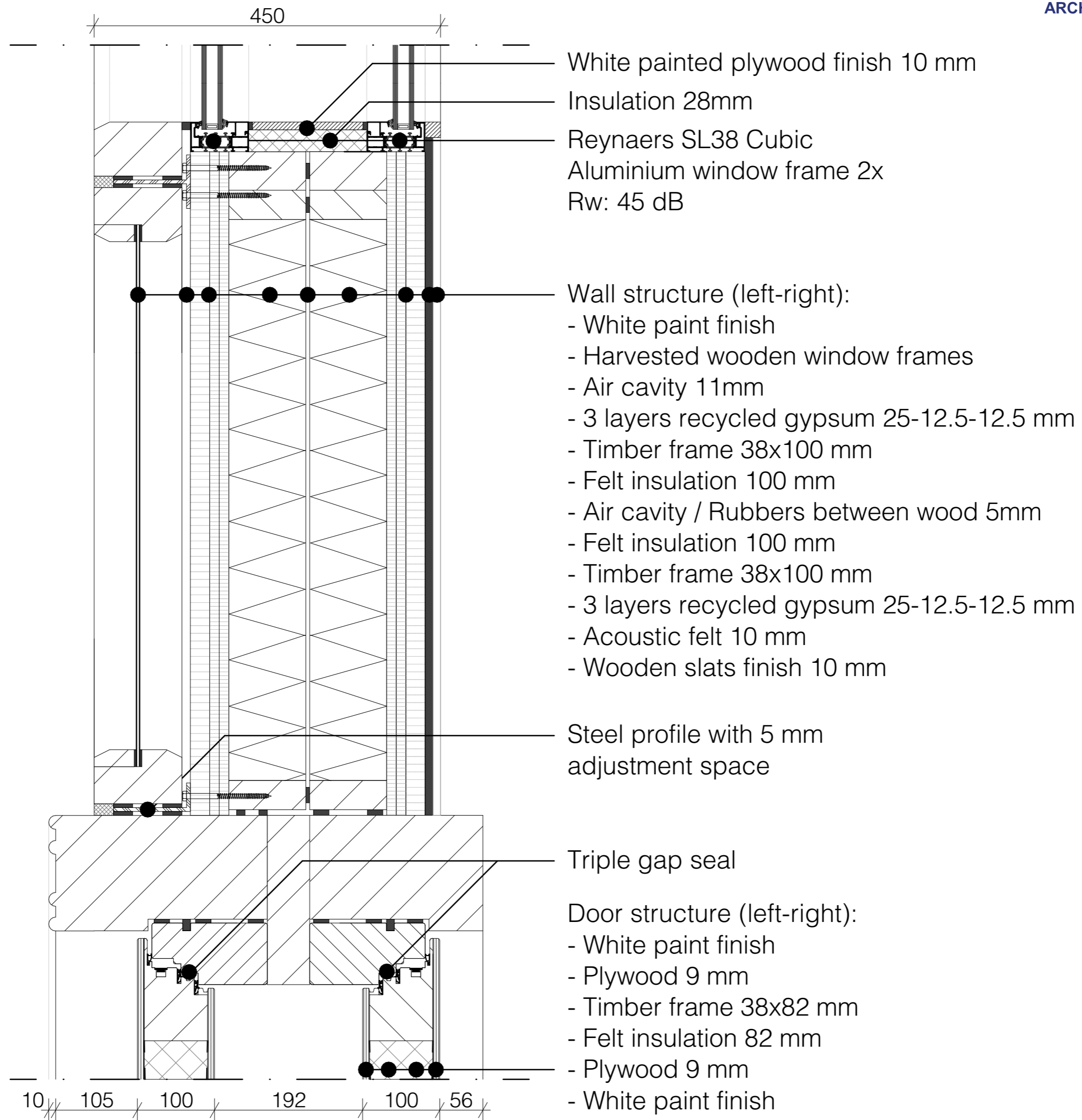
- Original relocated tiles 20 mm
- Concrete screed 30 mm
- Underfloor heating h.t.h. 50 mm
- PIR insulation 100 mm
- Vapor barrier layer 1mm
- Existing concrete floor 250 mm

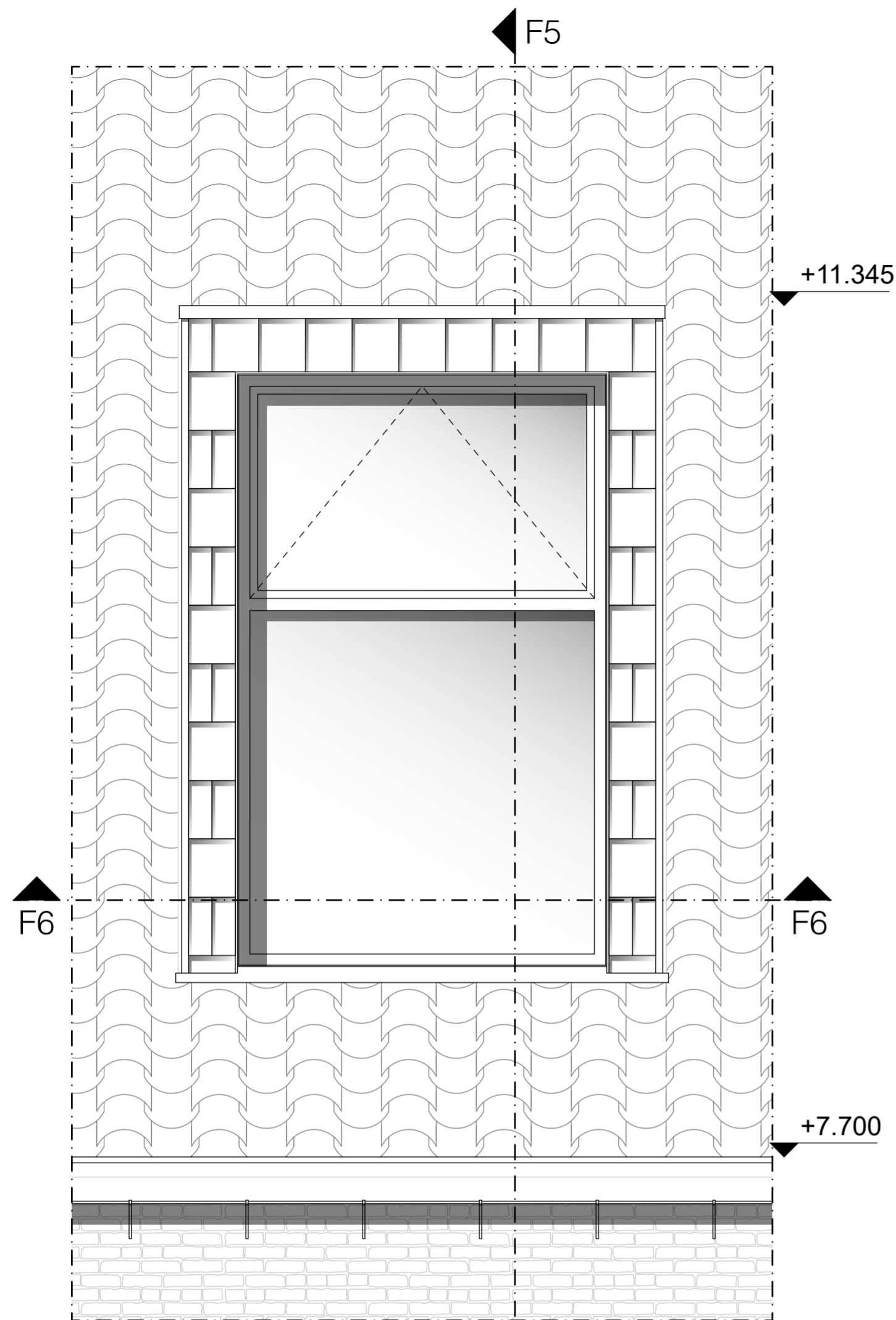
Wheel support in rails

Double drop sill

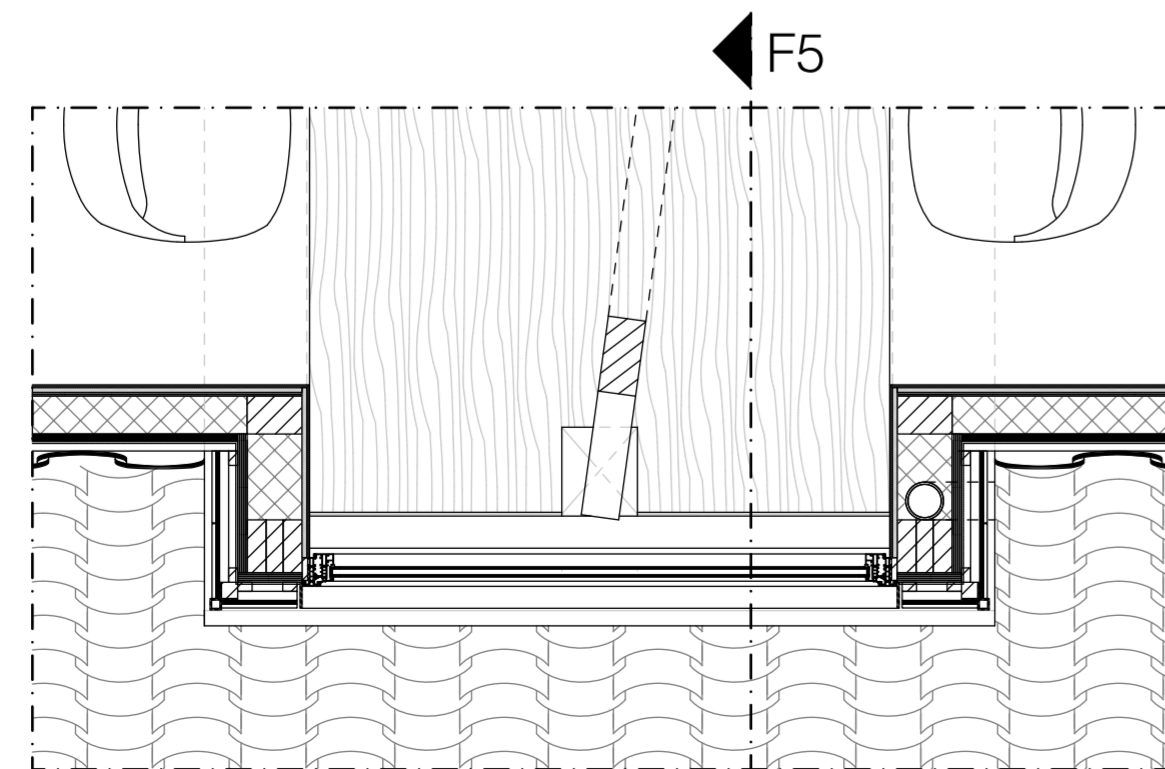
New concrete foundation strip 650 x 500 mm

V09

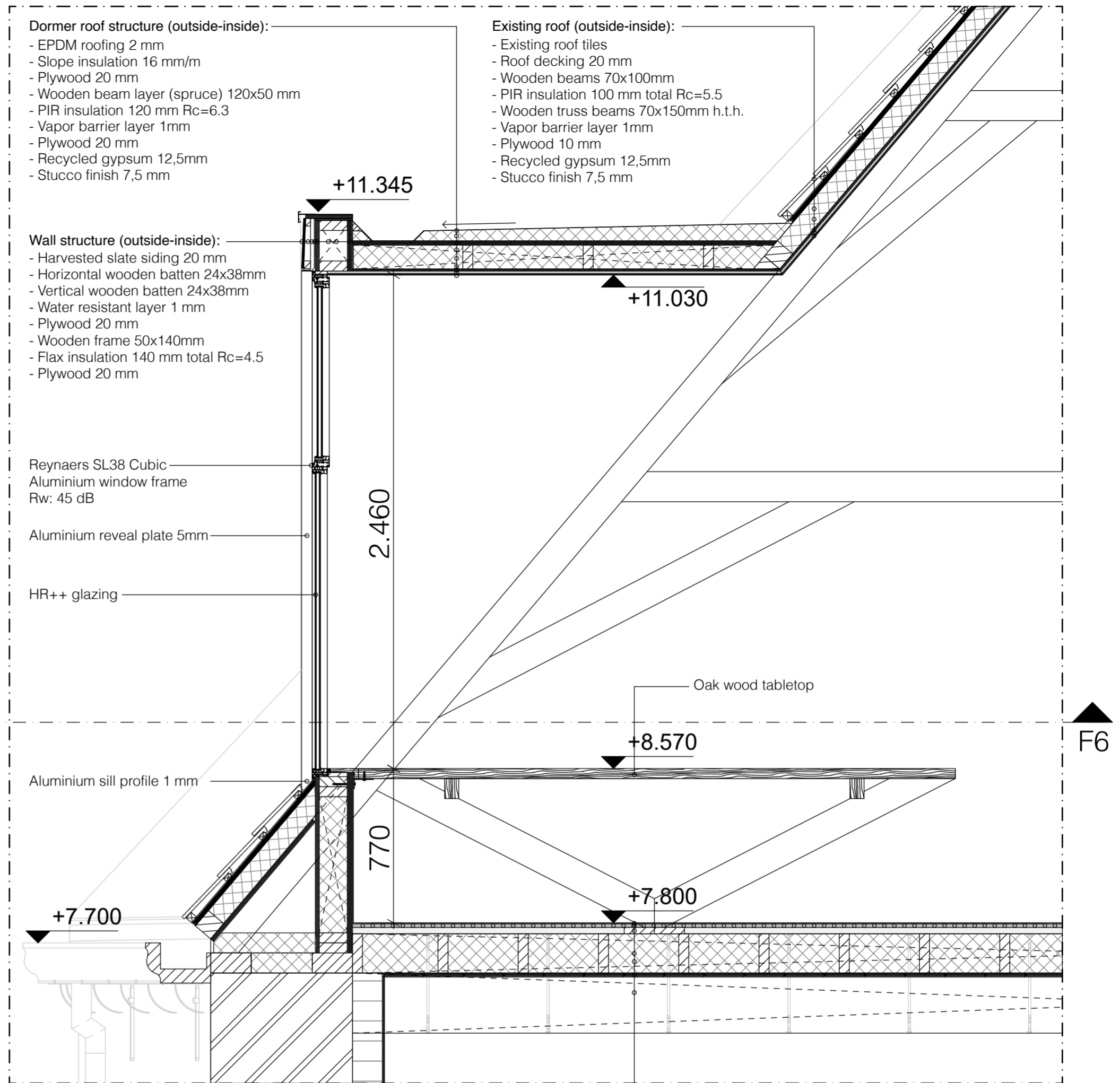




Front view 1:20



Horizontal section F6 1:20



Vertical section F5 1:20

- Dormer roof structure (outside-inside):**
- EPDM roofing 2 mm
 - Slope insulation 16 mm/m
 - Plywood 20 mm
 - Wooden beam layer (spruce) 120x50 mm
 - PIR insulation 120 mm Rc=6.3
 - Vapor barrier layer 1mm
 - Plywood 20 mm
 - Recycled gypsum 12,5mm
 - Stucco finish 7,5 mm

- Existing roof (outside-inside):**
- Existing roof tiles
 - Roof decking 20 mm
 - Wooden beams 70x100mm
 - PIR insulation 100 mm total Rc=5.5
 - Wooden truss beams 70x150mm h.t.h.
 - Vapor barrier layer 1mm
 - Plywood 10 mm
 - Recycled gypsum 12,5mm
 - Stucco finish 7,5 mm

- Wall structure (outside-inside):**
- Harvested slate siding 20 mm
 - Horizontal wooden batten 24x38mm
 - Vertical wooden batten 24x38mm
 - Water resistant layer 1 mm
 - Plywood 20 mm
 - Wooden frame 50x140mm
 - Flax insulation 140 mm total Rc=4.5
 - Plywood 20 mm

Reynaers SL38 Cubic
Aluminium window frame
Rw: 45 dB

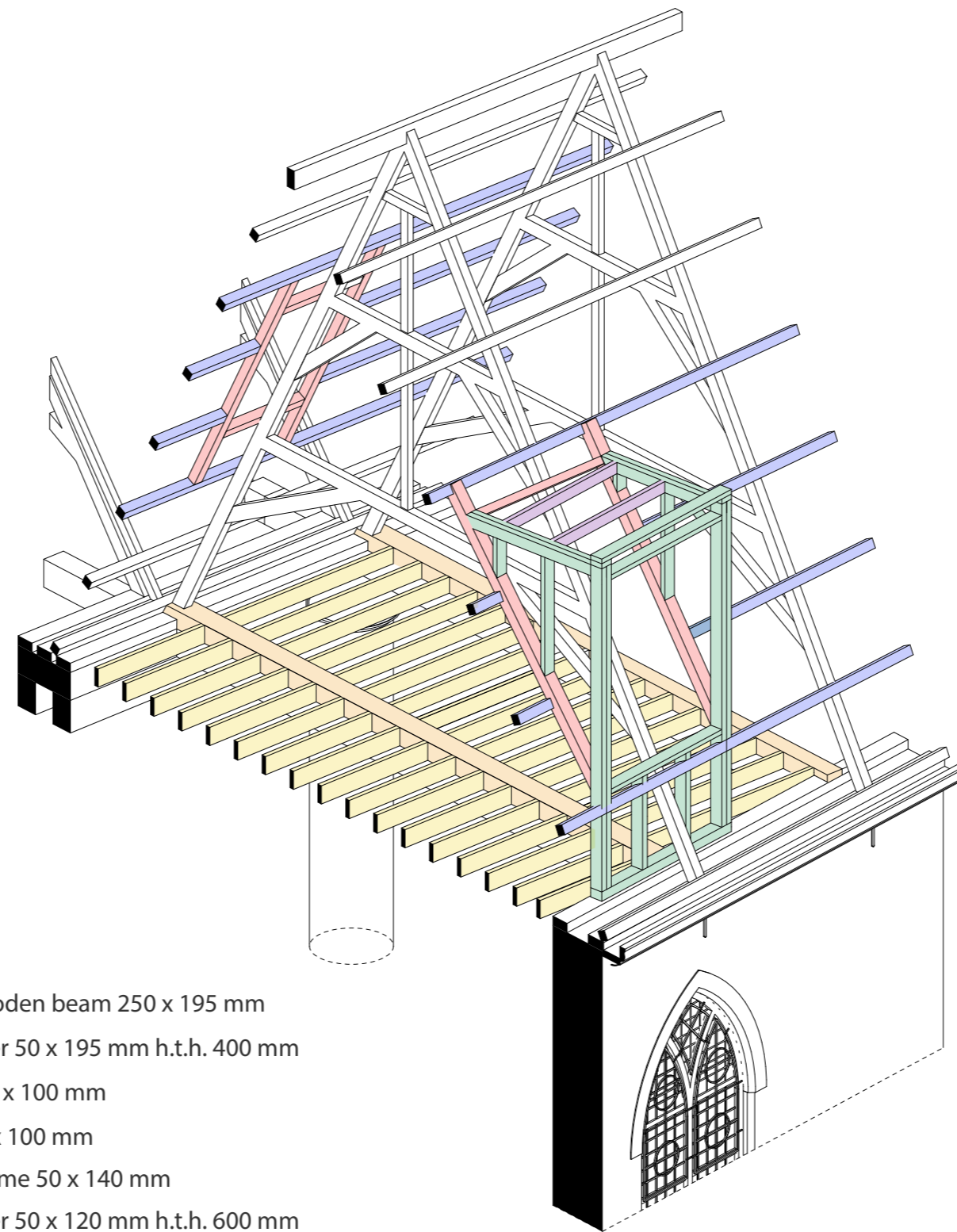
Aluminium reveal plate 5mm

HR++ glazing

Aluminium sill profile 1 mm

Oak wood tabletop

- Floor structure (above-below):**
- Wooden planks floor finishing 5mm
 - Studded plate 18mm with underfloor heating h.t.h. 50mm
 - GIFAfloor Presto 32mm bearing layer
 - Wooden beam layer 50x150mm
 - Flax insulation 175mm (sound)
 - Existing wooden beam layer 250x300mm
 - Remanufactured wooden planks ceiling 20mm



- Reinforcement wooden beam 250 x 195 mm
- Wooden beam layer 50 x 195 mm h.t.h. 400 mm
- Wooden beam 100 x 100 mm
- Trimming bar 100 x 100 mm
- Wooden timber frame 50 x 140 mm
- Wooden beam layer 50 x 120 mm h.t.h. 600 mm

Aluminium reveal plate 5mm

HR++ glazing

Reynaers SL38 Cubic
Aluminium window frame
Rw: 45 dB

Aluminium sill profile 1 mm

Existing roof (outside-inside):

- Existing roof tiles
- Roof decking 20 mm
- Wooden beams 70x100mm
- PIR insulation 100 mm
total Rc=5.1
- Wooden truss beams
70x150mm h.t.h.
- Vapor barrier layer 1mm
- Plywood 10 mm

Oak wood tabletop

Floor structure (above-below):

- Wooden planks floor finishing 5mm
- Studded plate 18mm with
underfloor heating h.t.h. 50mm
- GIFAfloor Presto 32mm bearing layer
- Wooden beam layer 50x150mm
- Flax insulation 175mm (sound)
- Existing wooden beam layer
250x300mm
- Remanufactured wooden
planks ceiling 20mm

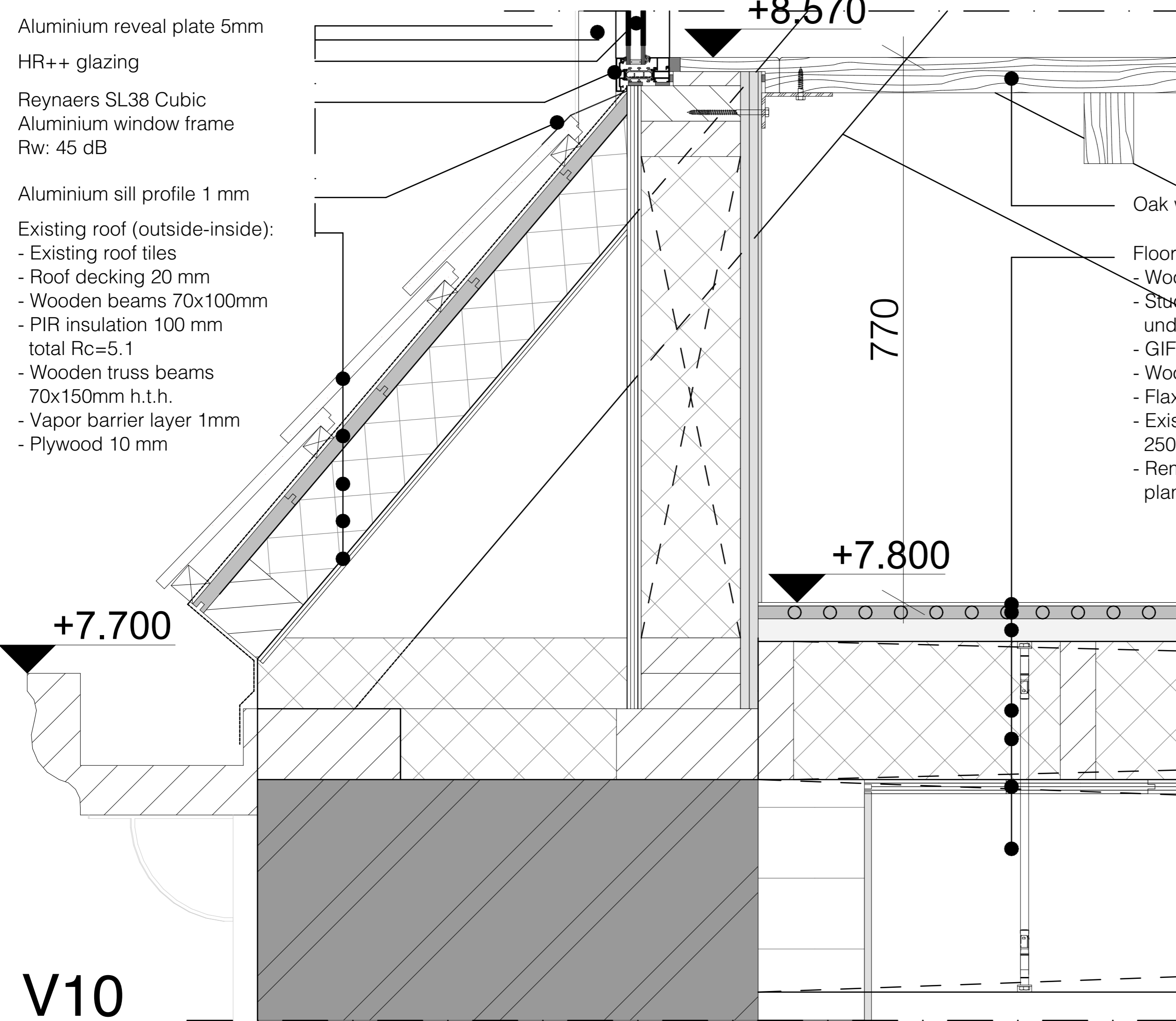
+8.570

770

+7.800

+7.700

V10



V11

+11.345

+11.030

Wall structure (outside-inside):

- Harvested slate siding 20 mm
- Horizontal wooden batten 24x38mm
- Vertical wooden batten 24x38mm
- Water resistant layer 1 mm
- Plywood 20 mm
- Wooden frame 50x140mm
- Flax insulation 140 mm total $R_c=5.1$
- Plywood 20 mm

Dormer roof structure (outside-inside):

- EPDM roofing 2 mm
- Slope insulation 16 mm/m
- Plywood 20 mm
- Wooden beam layer (spruce) 120x50 mm
- Flax insulation 120 mm
- Vapor barrier layer 1mm
- Plywood 20 mm
- Recycled gypsum 12,5mm
- Stucco finish 7,5 mm

Aluminium reveal plate 5mm

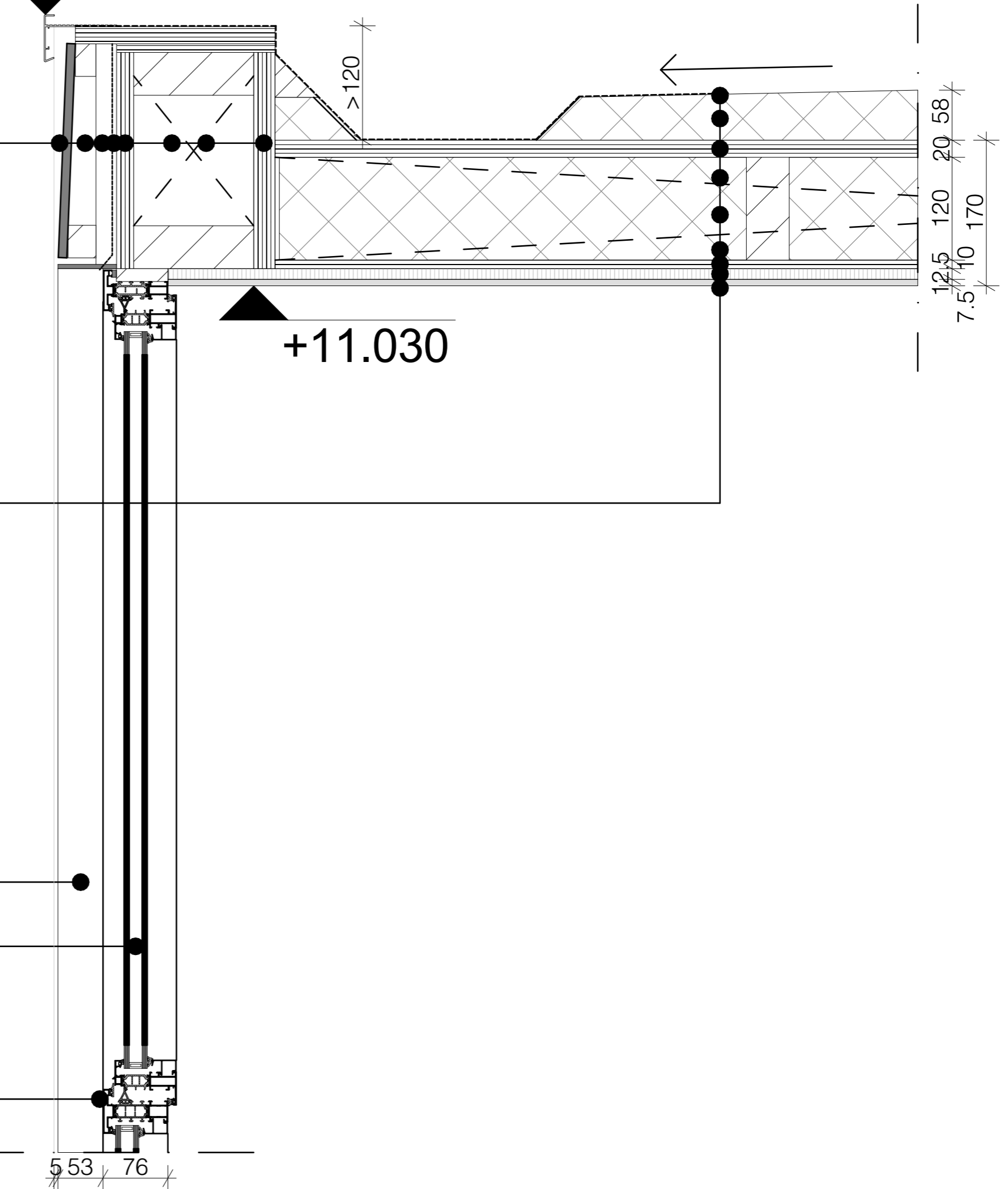
HR++ glazing

Reynaers SL38 Cubic
Aluminium window frame

Rw: 45 dB

5 53 76

12,5 20 58
120 170
7,5



V12

Ventilation unit SystemAir HHFlex stacked plate changer
Max air flow 4.780 m³/h - Actual air flow 4.600 m³/h

PVT Panel 1000x2000 mm (315 kWh)

Flat roof (outside-inside):
- EPDM roofing 1mm
- Slope insulation 100mm slope ≥ 16 mm/m
- Plywood 20mm
- Wooden beam layer 38x125mm h.t.h. 400mm
- Wooden beams 70x150mm at trusses
- Flax insulation 175mm total Rc=5.1
- Vapor barrier layer 1mm
- Plywood 20mm (soundblock)

Ventilation shafts 600 x 650 mm

Rainwater drainage $\varnothing = 80$ mm

+10.230

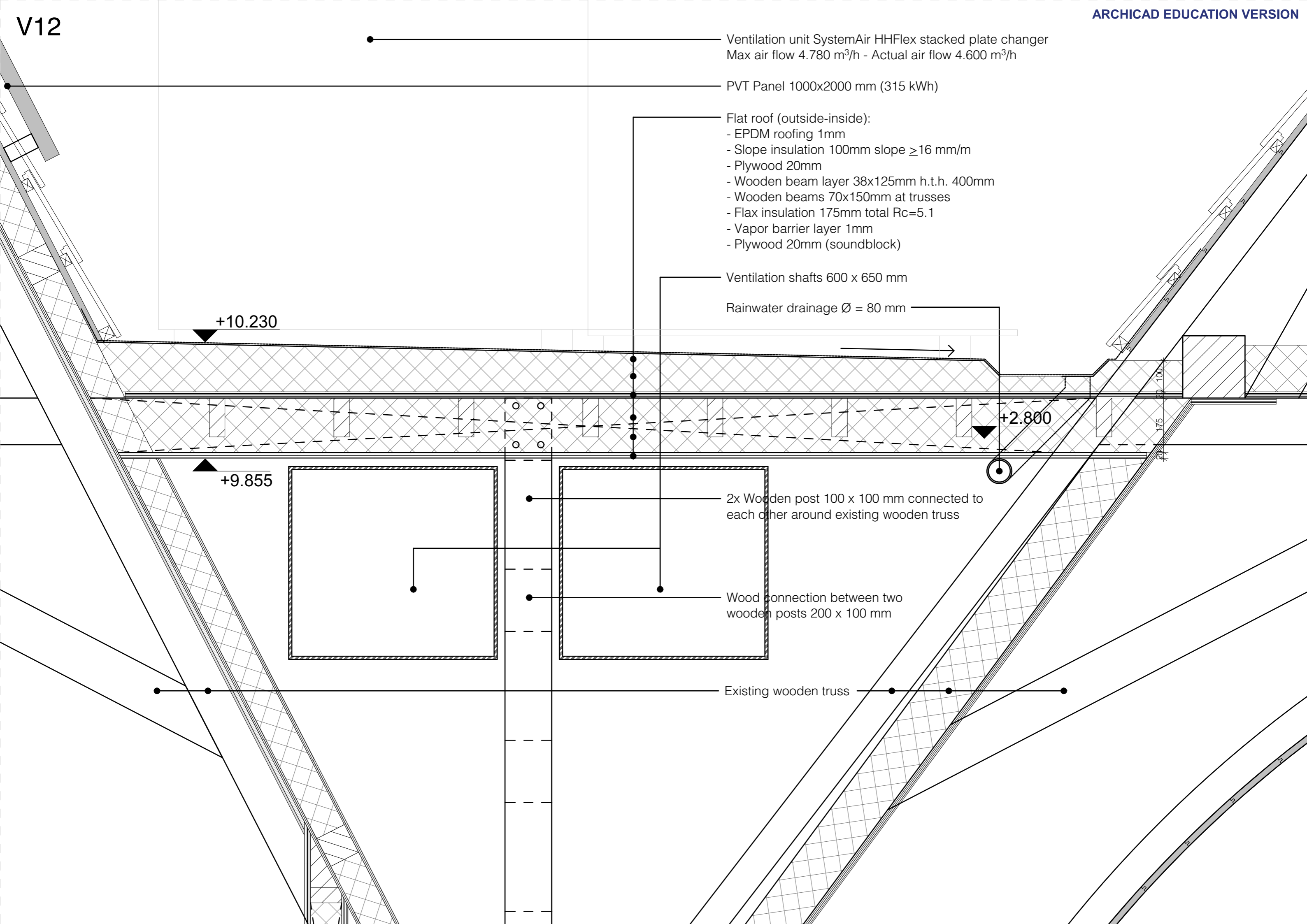
+2.800

+9.855

2x Wooden post 100 x 100 mm connected to each other around existing wooden truss

Wood connection between two wooden posts 200 x 100 mm

Existing wooden truss



PVT PANELS ON ROOF
 The roof of the church will be covered with 87 PVT panels.
 The average yearly revenue is 315 kWh per solar panel.
 $87 \times 315 = 27.405$ kWh yearly revenue in total

NORTH ROOF INSULATION
 The roof will be insulated on the inside with 100mm PIR insulation. Labda-value: 0,019 W/mK.
 $(0,1 / 0,019 \times = 5,3)$
 This results in an RC of 5,3.

SOUTH ROOF INSULATION
 The roof will be insulated on the inside with 150mm flax insulation. Labda-value: 0,035 W/mK.
 $(0,15 / 0,035 \times = 4,3)$
 This results in an RC of 4,3.

CHURCH WALL INSULATION
 The church walls will be insulated on the inside with 150mm hempcrete insulation. Labda-value: 0,071 W/mK
 $(0,15 / 0,071 = 2,11)$
 The stone walls themselves are >600mm in thickness.
 Labda-value: 0,66 W/mK
 $(0,6 / 0,66 = 0,91)$
 This results in an RC of 3,0

EXTENSION ROOF INSULATION
 The roof will be insulated on the inside with 150mm flax insulation. Labda-value: 0,023 W/mK.
 $(0,15 / 0,023 \times = 6,52)$
 This results in an RC of 6,52.

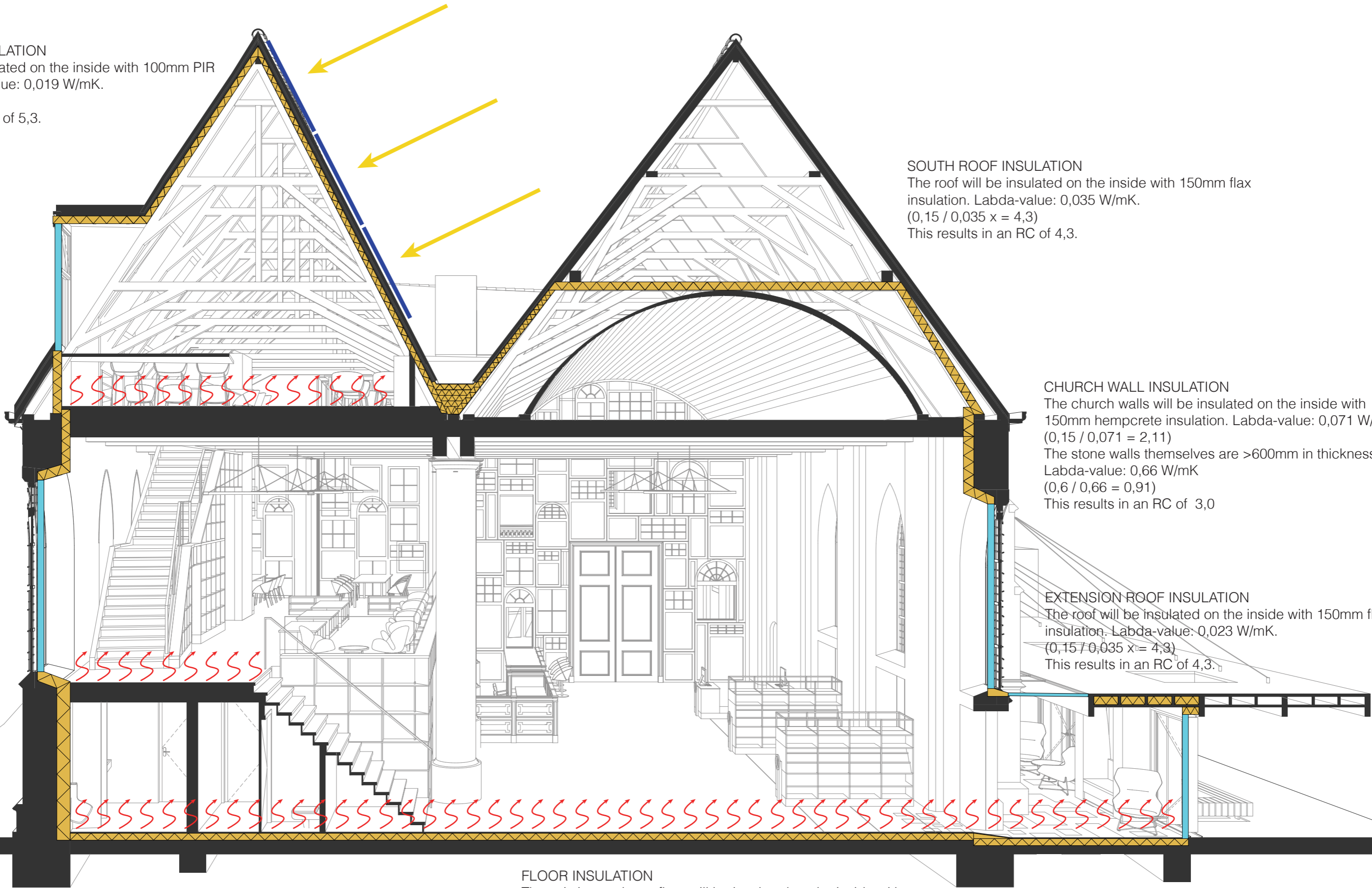
FLOOR INSULATION
 The existing and new floor will be insulated on the inside with 100mm PIR insulation. Labda-value: 0,019 W/mK.
 $(0,1 / 0,019 \times = 5,3)$
 This results in an RC of 5,3.

CROSS-SECTION

- INSULATION
- SOUND INSULATION
- HR++ GLAZING (Rw: 50 dB)
- SOLAR PANELS
- S

 FLOOR HEATING
- ↑↓

 WARM / COLD WATER

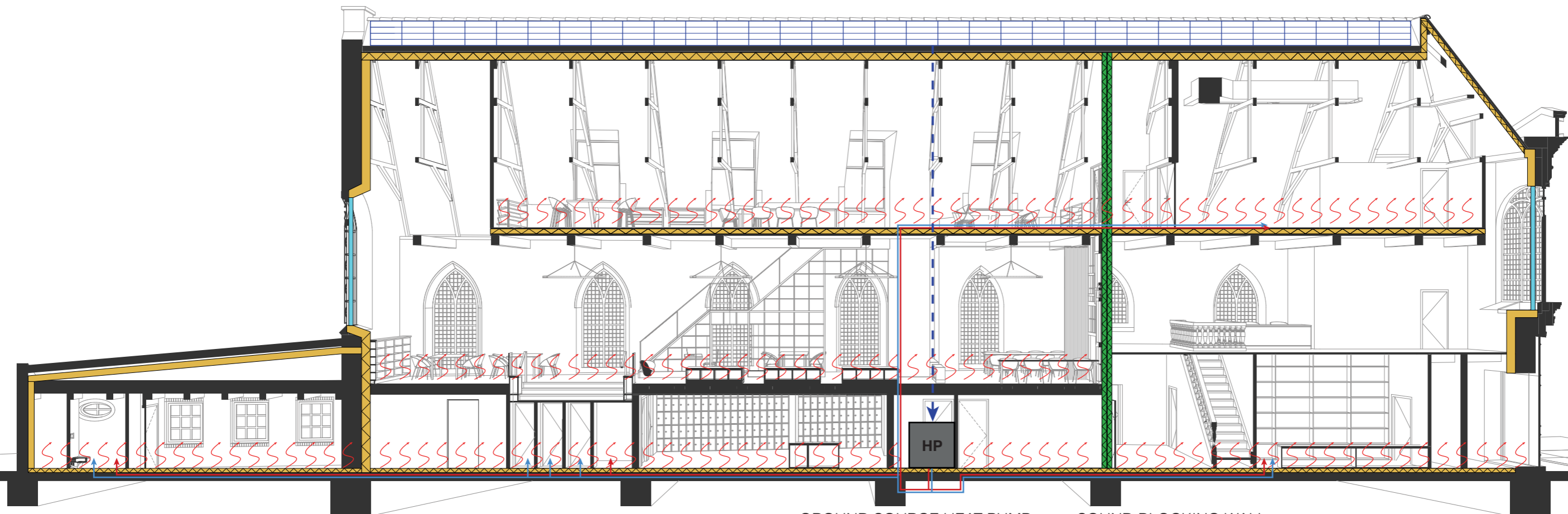


PVT PANELS ON ROOF

The roof of the church will be covered with 87 PVT panels.
 The average yearly revenue is 315 kWh per solar panel.
 $87 \times 315 = 27.405$ kWh yearly revenue in total

NORTH ROOF INSULATION

The roof will be insulated on the inside with 100mm PIR insulation. Labda-value: 0,019 W/mK.
 $(0,1 / 0,019 \times = 5,3)$
 This results in an RC of 5,3.

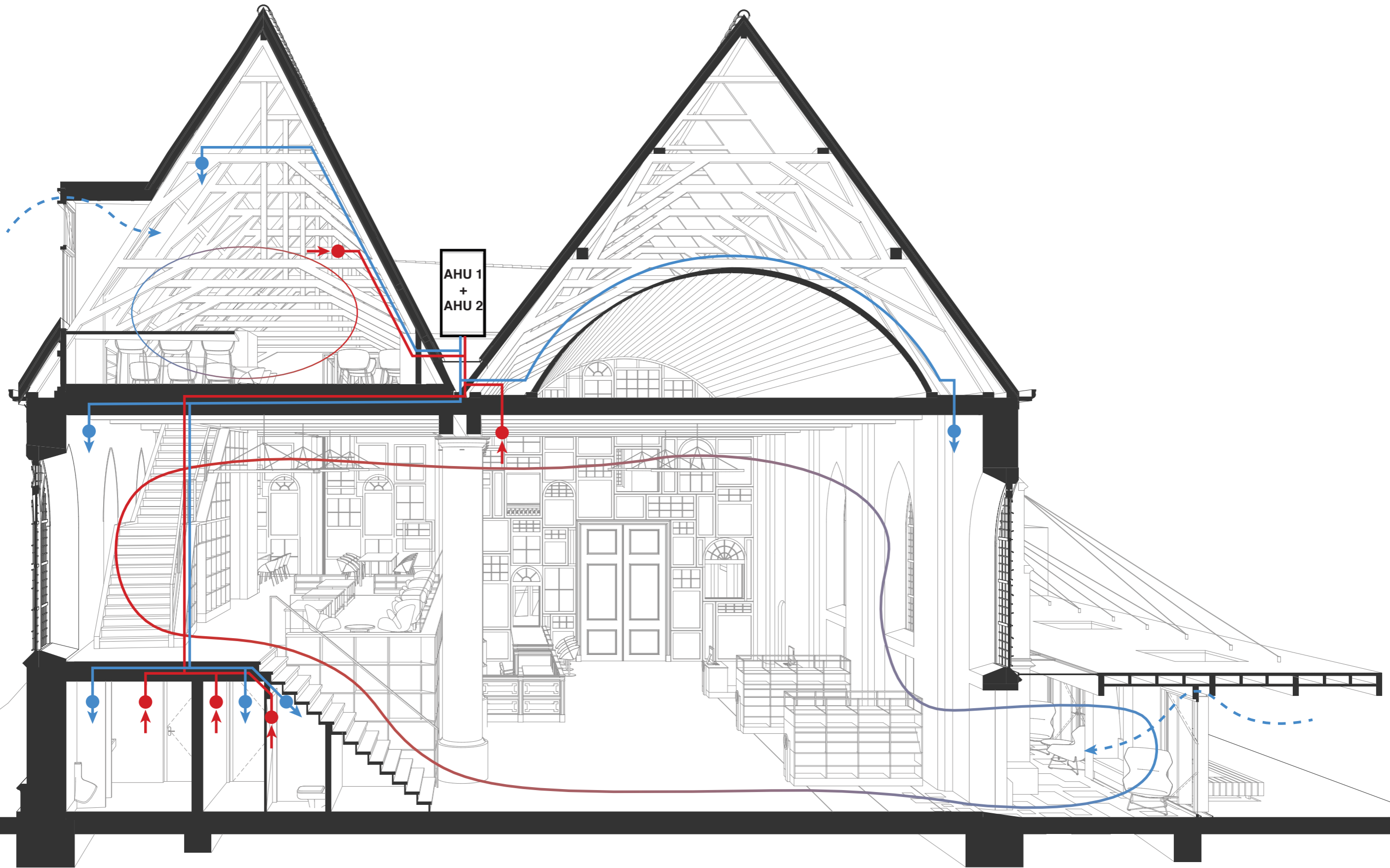


GROUND SOURCE HEAT PUMP
 All vertical pipes are located in the shaft between the elevator

SOUND BLOCKING WALL
 The wall extends from the ground floor until the roof. Structure: double wooden frame with 2x recycled gipsum and air cavity in between.
 Rw: 78 dB

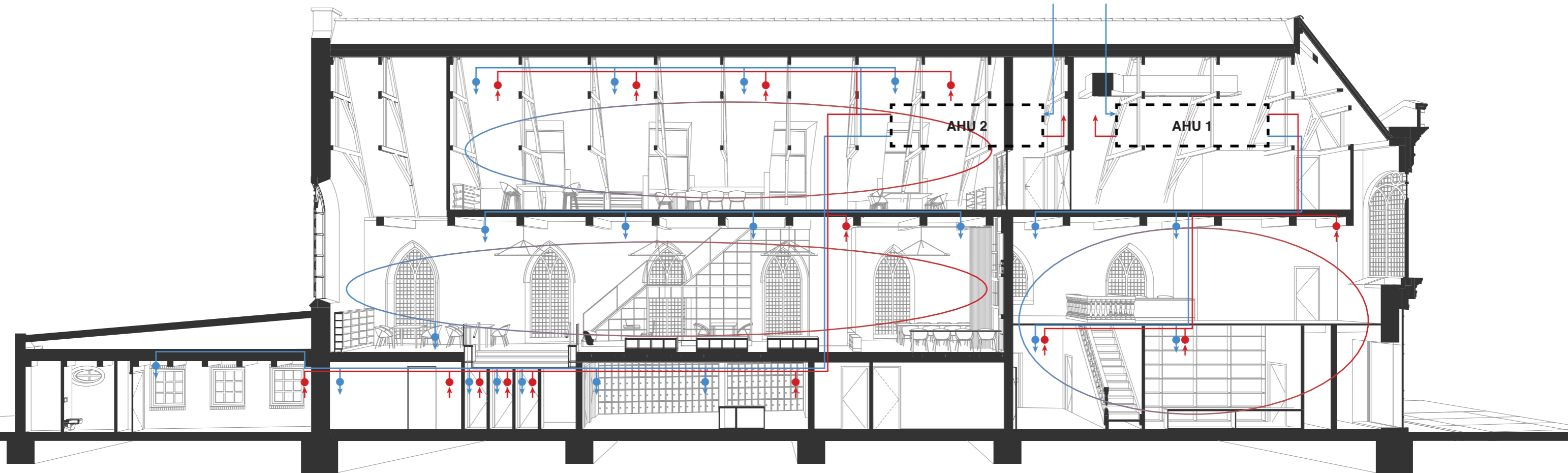
LONGITUDINAL SECTION

- INSULATION
- SOLAR PANELS
- SOUND INSULATION
- FLOOR HEATING
- HR++ GLAZING (Rw: 50 dB)
- WARM / COLD WATER



AHU 1
+
AHU 2

- FRESH AIR SUPPLY
- - - NATURAL VENTILATION
- DIRTY AIR EXTRACTION
- AIR CIRCULATION



- ↓ FRESH AIR SUPPLY
- - → NATURAL VENTILATION
- ↑ DIRTY AIR EXTRACTION
- AIR CIRCULATION