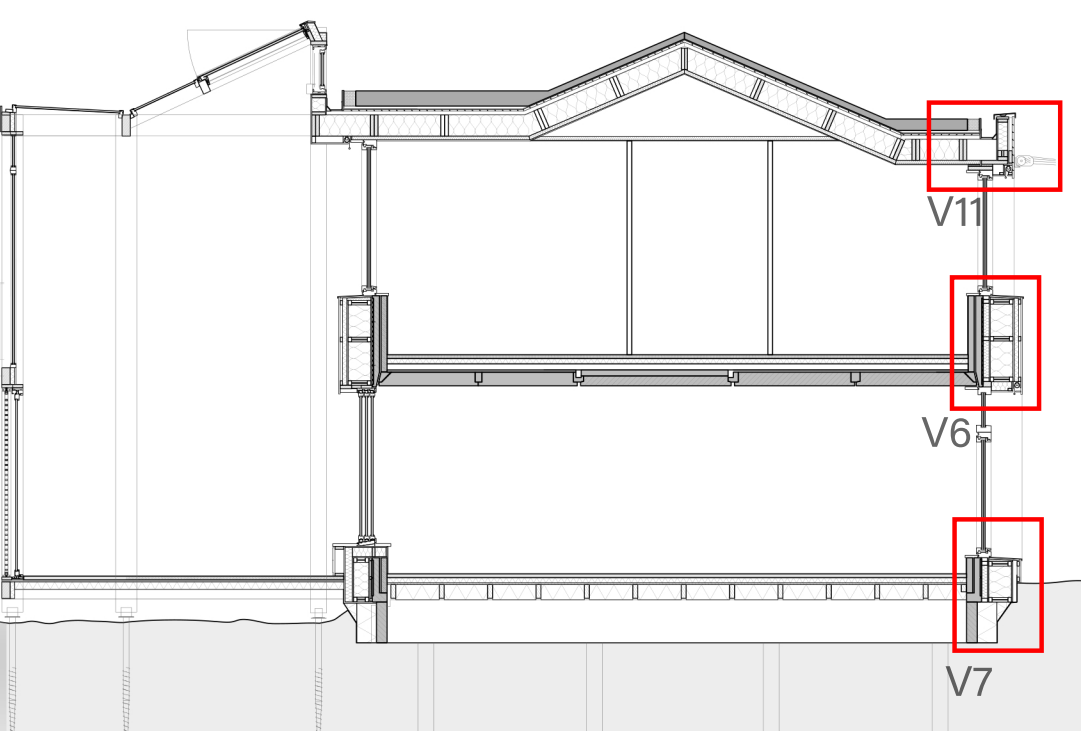
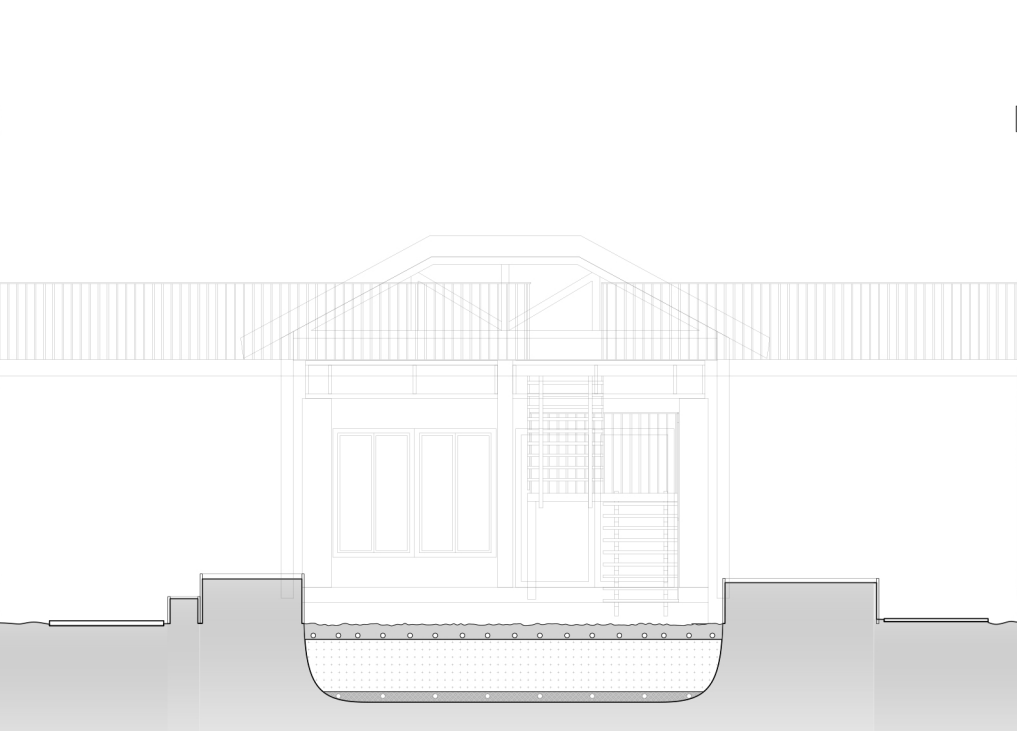
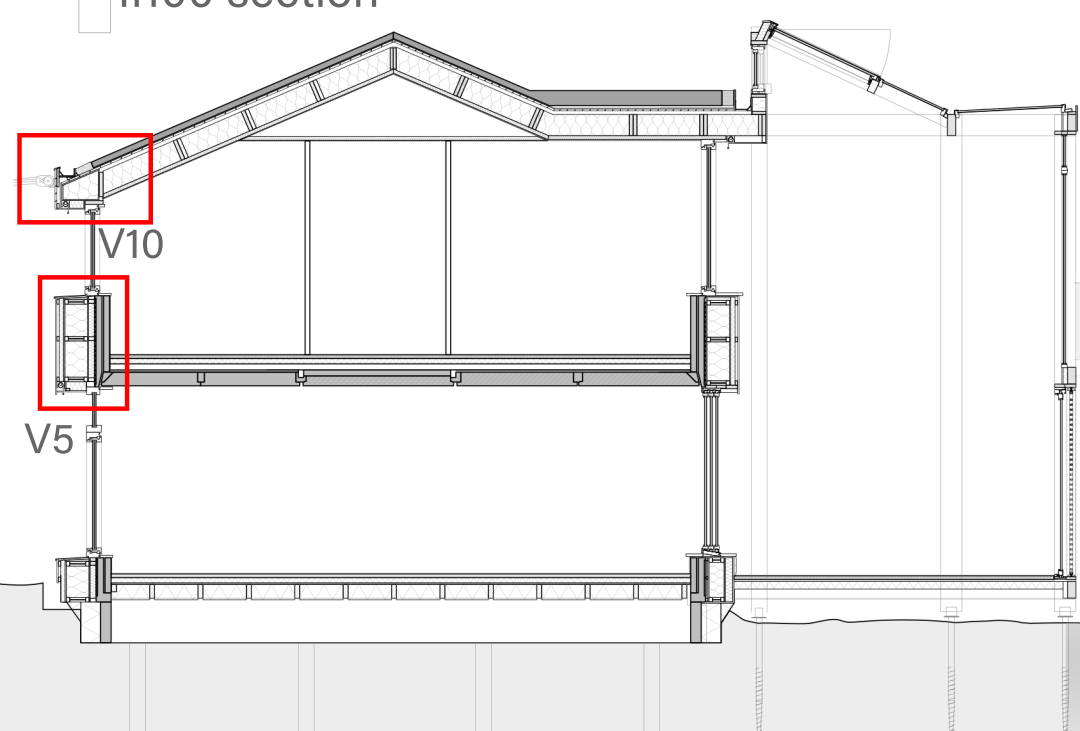
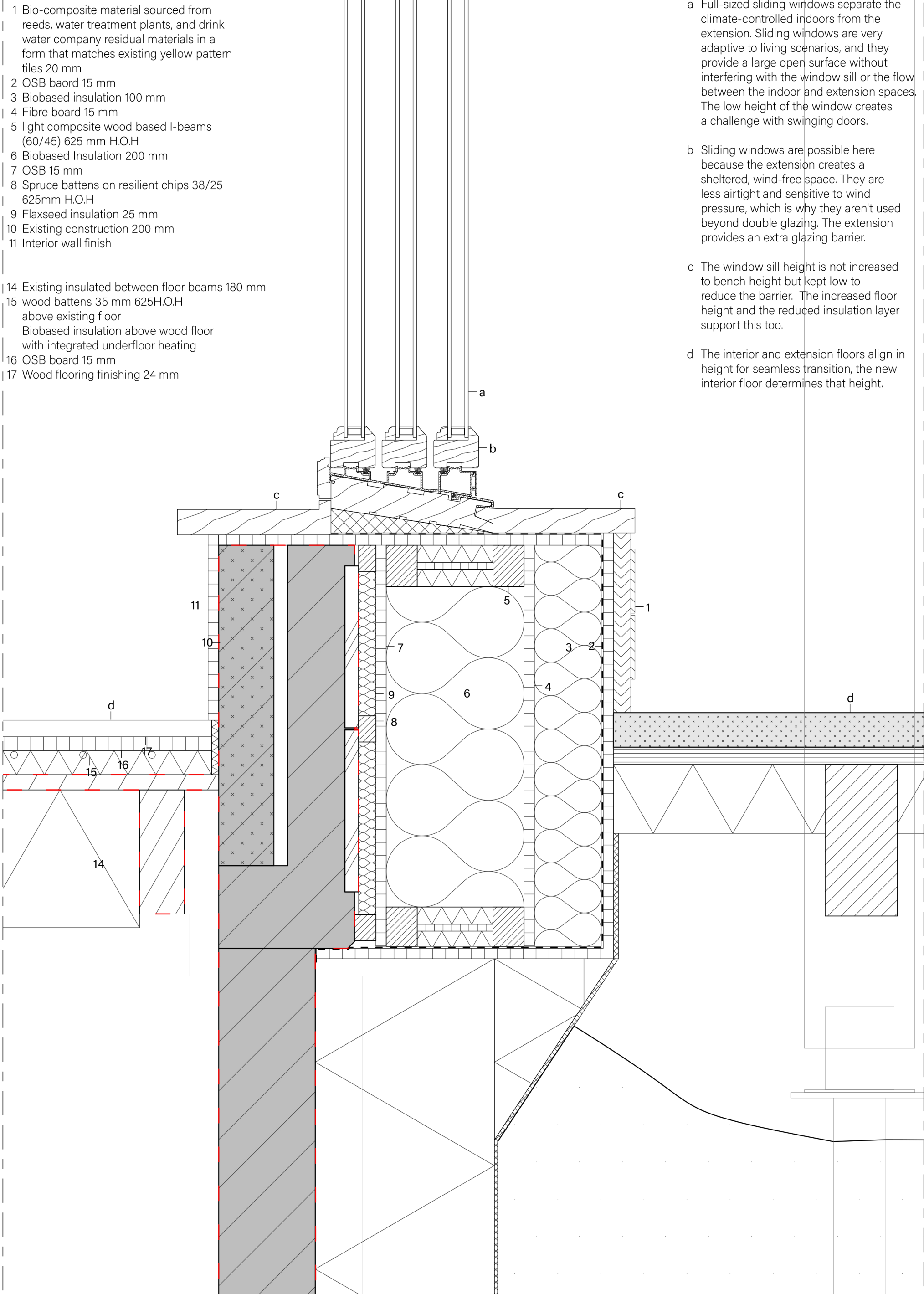


1:20 section
1:100 section

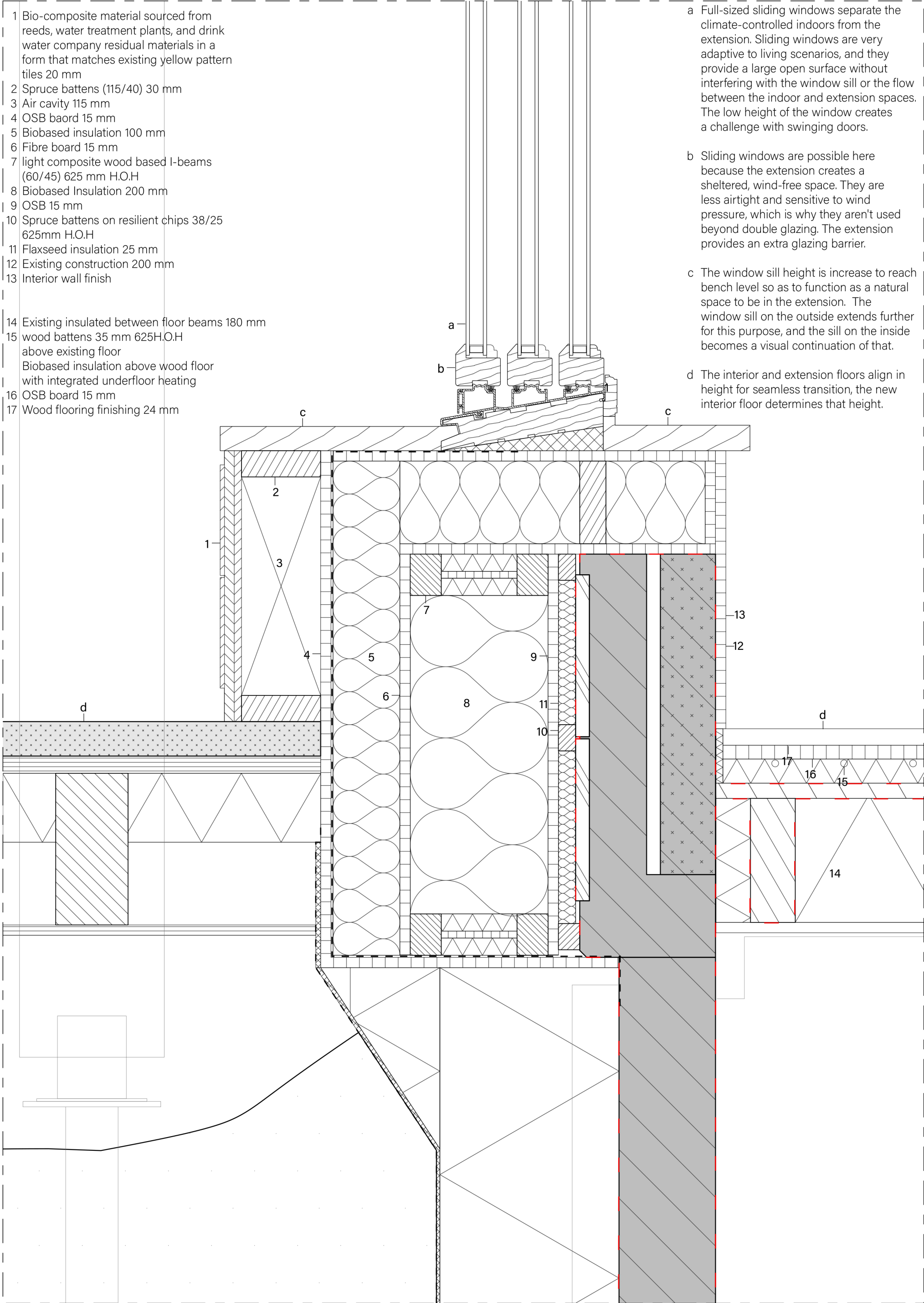




- 1 Bio-composite material sourced from reeds, water treatment plants, and drink water company residual materials in a form that matches existing yellow pattern tiles 20 mm
- 2 OSB board 15 mm
- 3 Biobased insulation 100 mm
- 4 Fibre board 15 mm
- 5 light composite wood based I-beams (60/45) 625 mm H.O.H
- 6 Biobased Insulation 200 mm
- 7 OSB 15 mm
- 8 Spruce battens on resilient chips 38/25 625mm H.O.H
- 9 Flaxseed insulation 25 mm
- 10 Existing construction 200 mm
- 11 Interior wall finish

- 14 Existing insulated between floor beams 180 mm
- 15 wood battens 35 mm 625H.O.H above existing floor
- Biobased insulation above wood floor with integrated underfloor heating
- 16 OSB board 15 mm
- 17 Wood flooring finishing 24 mm

- a Full-sized sliding windows separate the climate-controlled indoors from the extension. Sliding windows are very adaptive to living scenarios, and they provide a large open surface without interfering with the window sill or the flow between the indoor and extension spaces. The low height of the window creates a challenge with swinging doors.
- b Sliding windows are possible here because the extension creates a sheltered, wind-free space. They are less airtight and sensitive to wind pressure, which is why they aren't used beyond double glazing. The extension provides an extra glazing barrier.
- c The window sill height is not increased to bench height but kept low to reduce the barrier. The increased floor height and the reduced insulation layer support this too.
- d The interior and extension floors align in height for seamless transition, the new interior floor determines that height.



- 1 Bio-composite material sourced from reeds, water treatment plants, and drink water company residual materials in a form that matches existing yellow pattern tiles 20 mm
- 2 Spruce battens (115/40) 30 mm
- 3 Air cavity 115 mm
- 4 OSB board 15 mm
- 5 Biobased insulation 100 mm
- 6 Fibre board 15 mm
- 7 light composite wood based I-beams (60/45) 625 mm H.O.H
- 8 Biobased Insulation 200 mm
- 9 OSB 15 mm
- 10 Spruce battens on resilient chips 38/25 625mm H.O.H
- 11 Flaxseed insulation 25 mm
- 12 Existing construction 200 mm
- 13 Interior wall finish

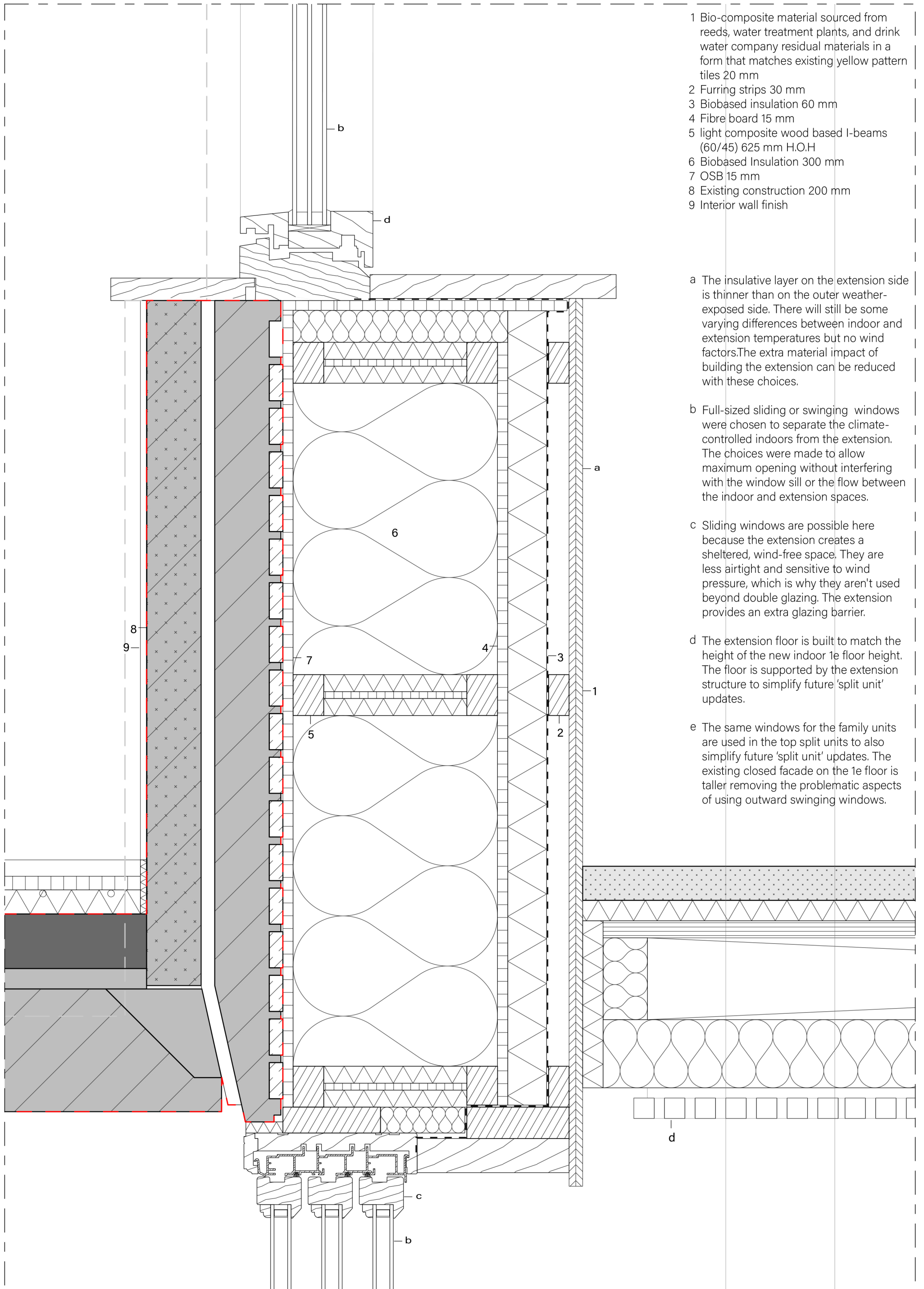
- 14 Existing insulated between floor beams 180 mm
- 15 wood battens 35 mm 625H.O.H above existing floor
- Biobased insulation above wood floor with integrated underfloor heating
- 16 OSB board 15 mm
- 17 Wood flooring finishing 24 mm

a Full-sized sliding windows separate the climate-controlled indoors from the extension. Sliding windows are very adaptive to living scenarios, and they provide a large open surface without interfering with the window sill or the flow between the indoor and extension spaces. The low height of the window creates a challenge with swinging doors.

b Sliding windows are possible here because the extension creates a sheltered, wind-free space. They are less airtight and sensitive to wind pressure, which is why they aren't used beyond double glazing. The extension provides an extra glazing barrier.

c The window sill height is increase to reach bench level so as to function as a natural space to be in the extension. The window sill on the outside extends further for this purpose, and the sill on the inside becomes a visual continuation of that.

d The interior and extension floors align in height for seamless transition, the new interior floor determines that height.



- 1 Bio-composite material sourced from reeds, water treatment plants, and drink water company residual materials in a form that matches existing yellow pattern tiles 20 mm
- 2 Furring strips 30 mm
- 3 Biobased insulation 60 mm
- 4 Fibre board 15 mm
- 5 light composite wood based I-beams (60/45) 625 mm H.O.H
- 6 Biobased Insulation 300 mm
- 7 OSB 15 mm
- 8 Existing construction 200 mm
- 9 Interior wall finish

a The insulative layer on the extension side is thinner than on the outer weather-exposed side. There will still be some varying differences between indoor and extension temperatures but no wind factors. The extra material impact of building the extension can be reduced with these choices.

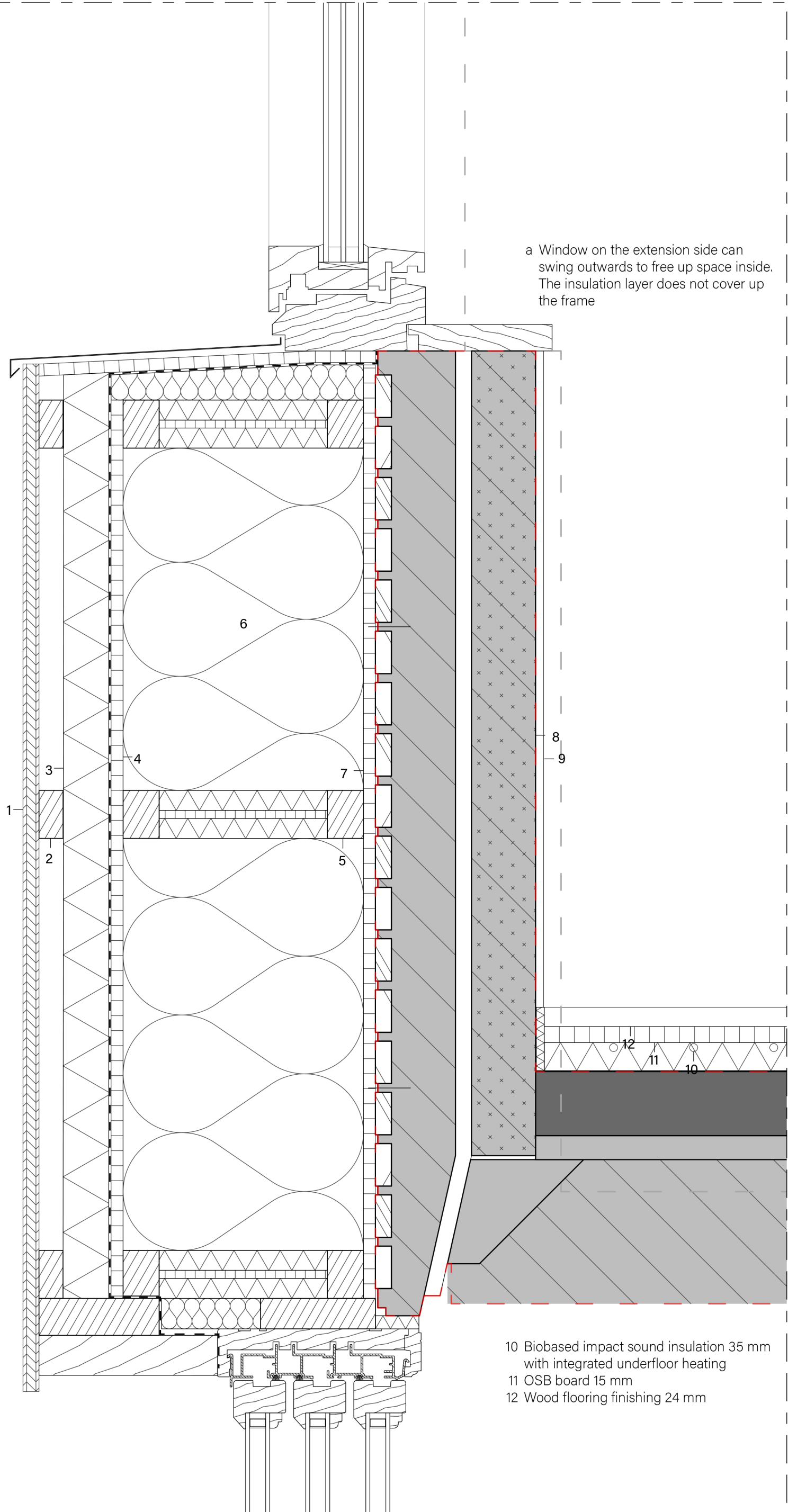
b Full-sized sliding or swinging windows were chosen to separate the climate-controlled indoors from the extension. The choices were made to allow maximum opening without interfering with the window sill or the flow between the indoor and extension spaces.

c Sliding windows are possible here because the extension creates a sheltered, wind-free space. They are less airtight and sensitive to wind pressure, which is why they aren't used beyond double glazing. The extension provides an extra glazing barrier.

d The extension floor is built to match the height of the new indoor 1e floor height. The floor is supported by the extension structure to simplify future 'split unit' updates.

e The same windows for the family units are used in the top split units to also simplify future 'split unit' updates. The existing closed facade on the 1e floor is taller removing the problematic aspects of using outward swinging windows.

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- 2 Furring strips 30 mm
- 3 Biobased insulation 60 mm
- 4 Fibre board 15 mm
- 5 light composite wood based I-beams (60/45) 625 mm H.O.H
- 6 Biobased Insulation 300 mm
- 7 OSB 15 mm
- 8 Existing construction 200 mm
- 9 Interior wall finish

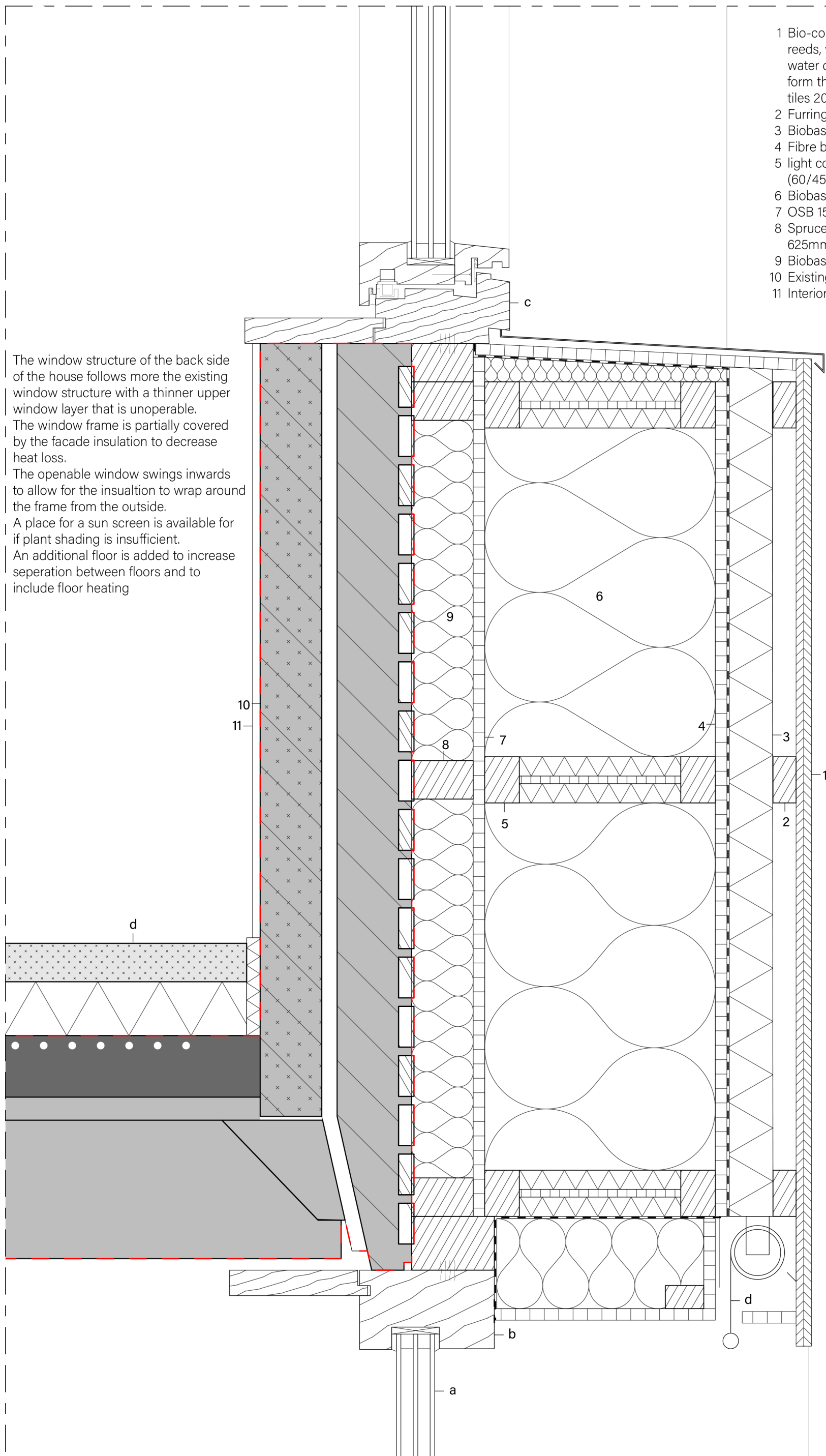


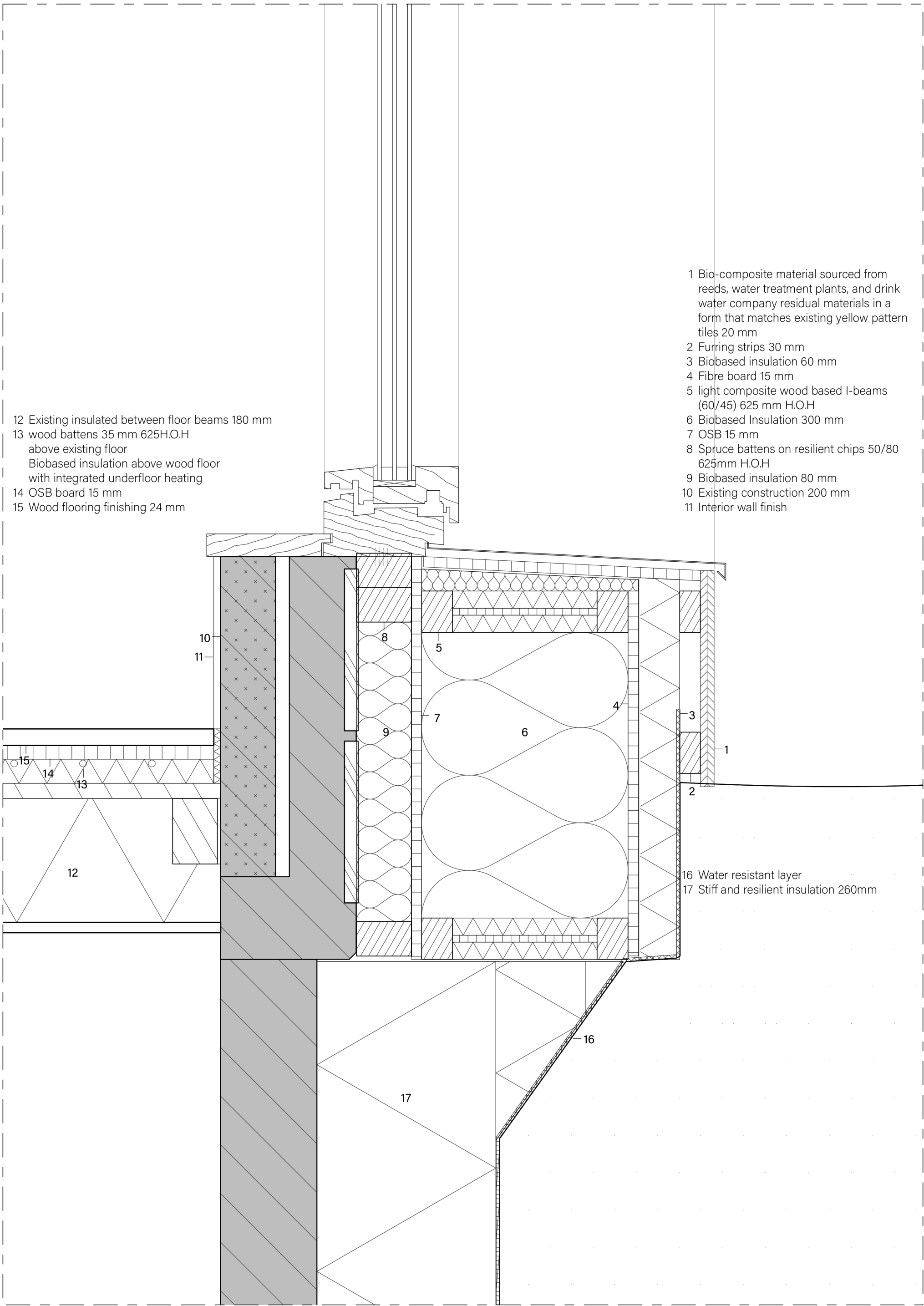
a Window on the extension side can swing outwards to free up space inside. The insulation layer does not cover up the frame

- 10 Biobased impact sound insulation 35 mm with integrated underfloor heating
- 11 OSB board 15 mm
- 12 Wood flooring finishing 24 mm

- 1 Bio-composite material sourced from reeds, water treatment plants, and drink water company residual materials in a form that matches existing yellow pattern tiles 20 mm
- 2 Furring strips 30 mm
- 3 Biobased insulation 60 mm
- 4 Fibre board 15 mm
- 5 light composite wood based I-beams (60/45) 625 mm H.O.H
- 6 Biobased Insulation 300 mm
- 7 OSB 15 mm
- 8 Spruce battens on resilient chips 50/80 625mm H.O.H
- 9 Biobased insulation 80 mm
- 10 Existing construction 200 mm
- 11 Interior wall finish

- a The window structure of the back side of the house follows more the existing window structure with a thinner upper window layer that is unoperable.
- b The window frame is partially covered by the facade insulation to decrease heat loss.
- c The openable window swings inwards to allow for the insulation to wrap around the frame from the outside.
- d A place for a sun screen is available for if plant shading is insufficient.
- e An additional floor is added to increase separation between floors and to include floor heating

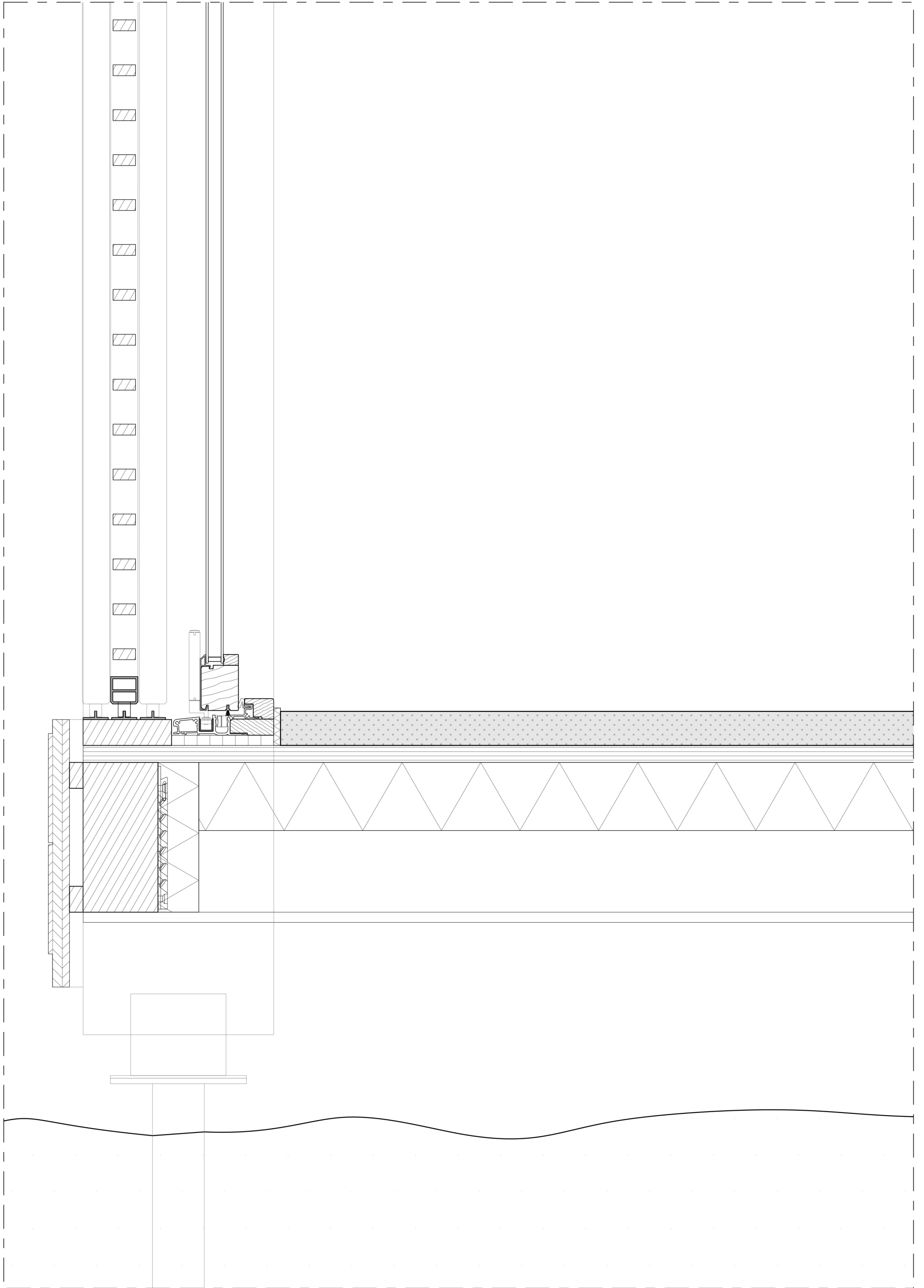


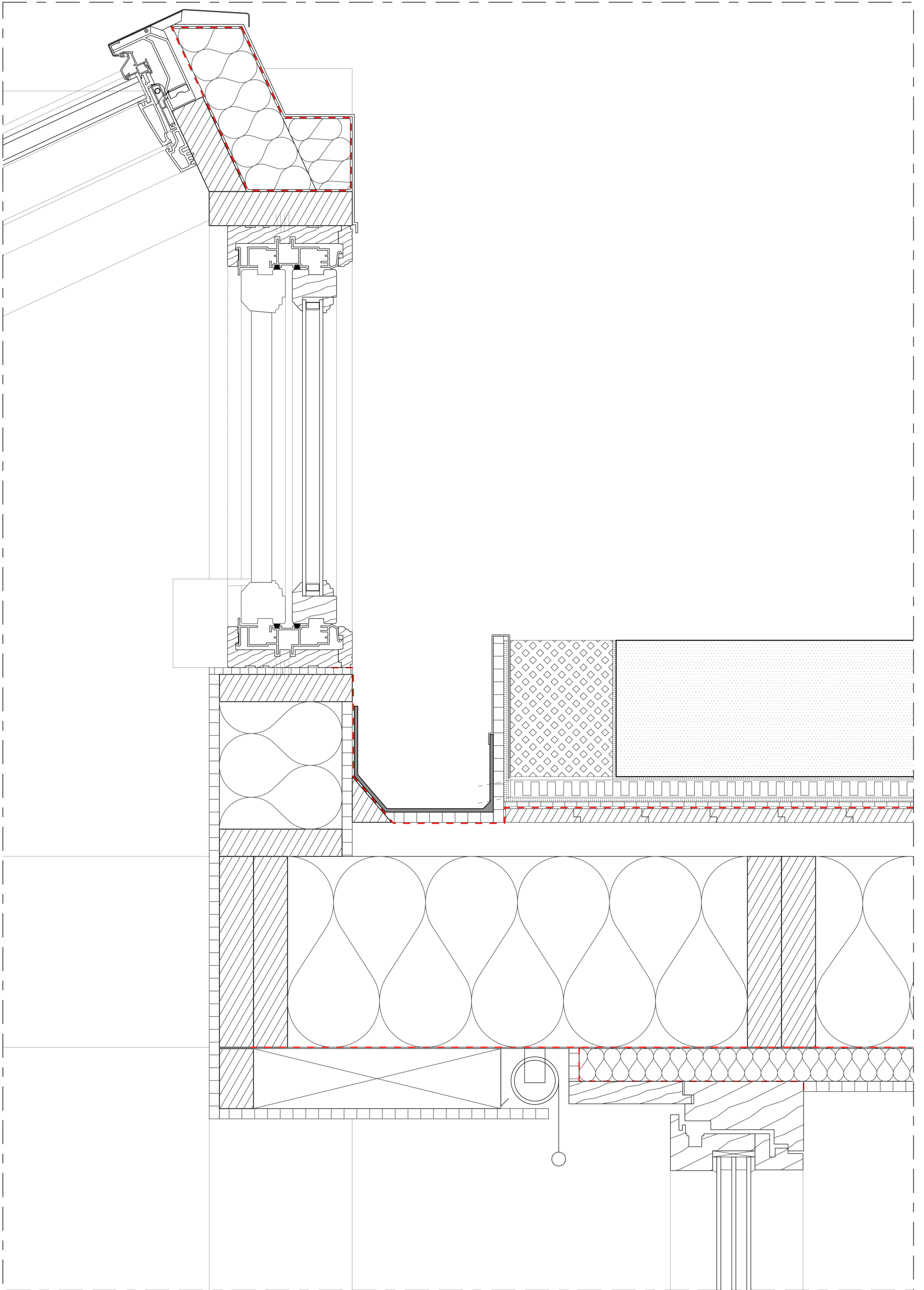


- 12 Existing insulated between floor beams 180 mm
- 13 wood battens 35 mm 625H.O.H above existing floor
- Biobased insulation above wood floor with integrated underfloor heating
- 14 OSB board 15 mm
- 15 Wood flooring finishing 24 mm

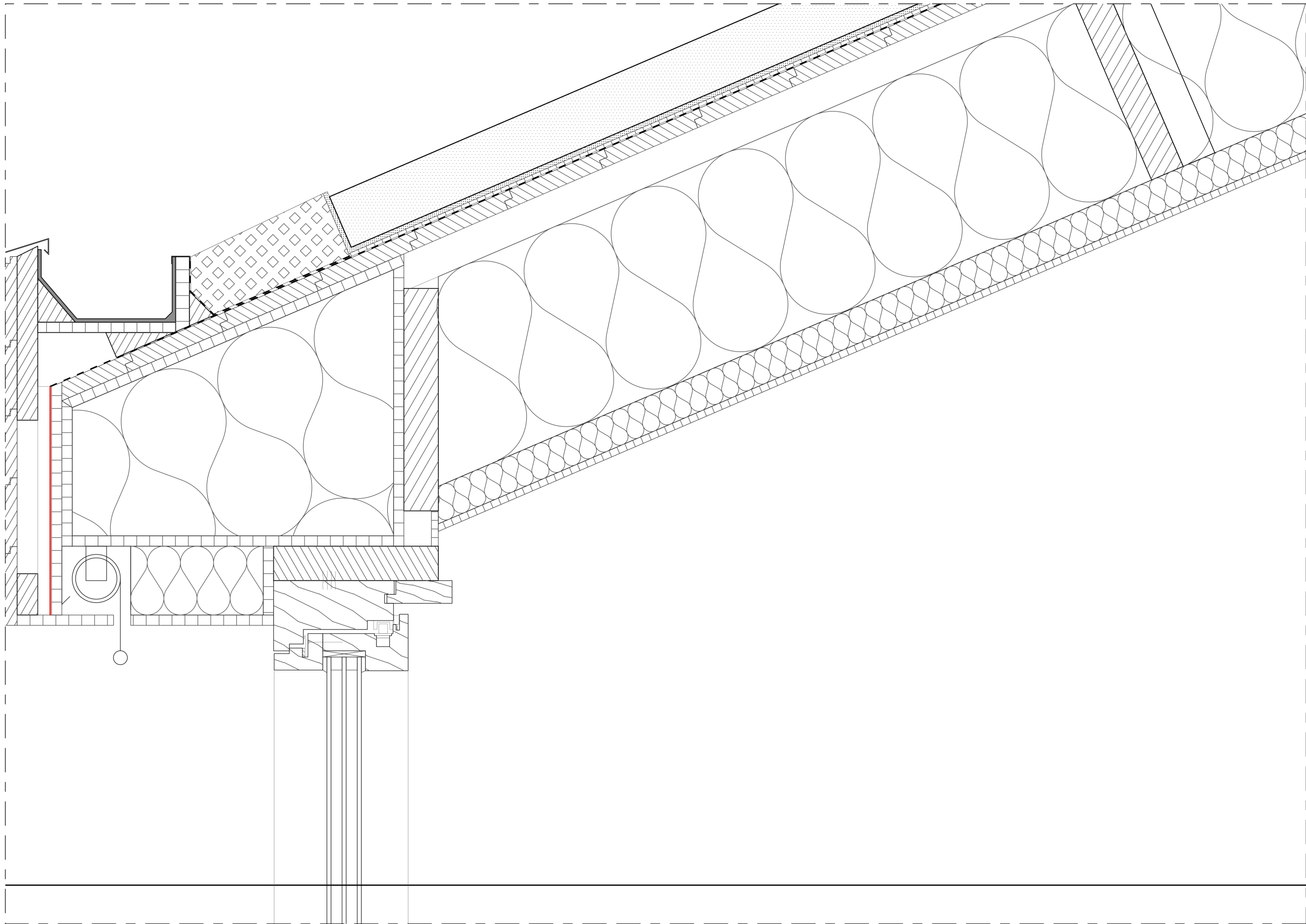
- 1 Bio-composite material sourced from reeds, water treatment plants, and drink water company residual materials in a form that matches existing yellow pattern tiles 20 mm
- 2 Furring strips 30 mm
- 3 Biobased insulation 60 mm
- 4 Fibre board 15 mm
- 5 light composite wood based I-beams (60/45) 625 mm H.O.H
- 6 Biobased Insulation 300 mm
- 7 OSB 15 mm
- 8 Spruce battens on resilient chips 50/80 625mm H.O.H
- 9 Biobased insulation 80 mm
- 10 Existing construction 200 mm
- 11 Interior wall finish

- 16 Water resistant layer
- 17 Stiff and resilient insulation 260mm

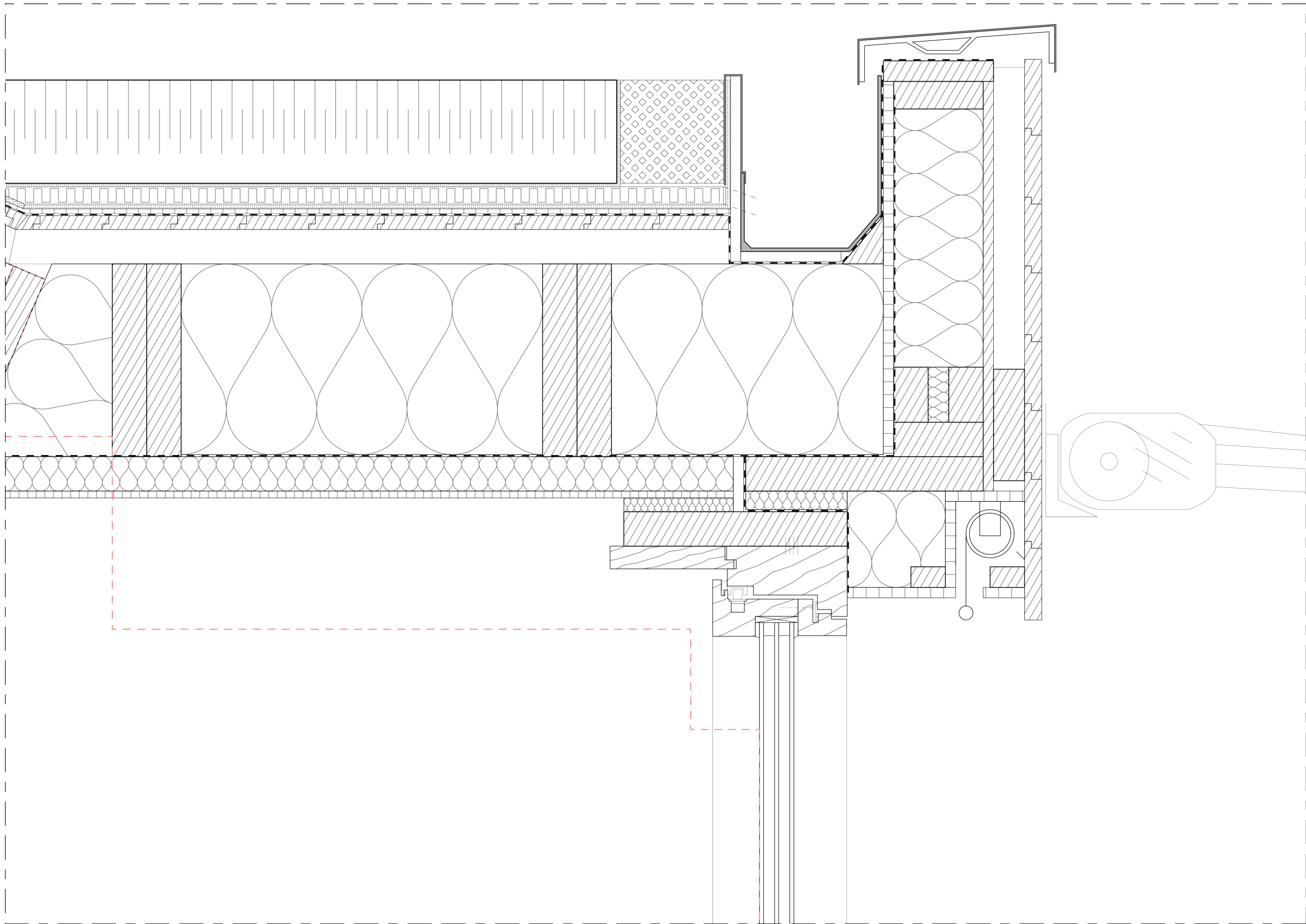




V9



V10



V11