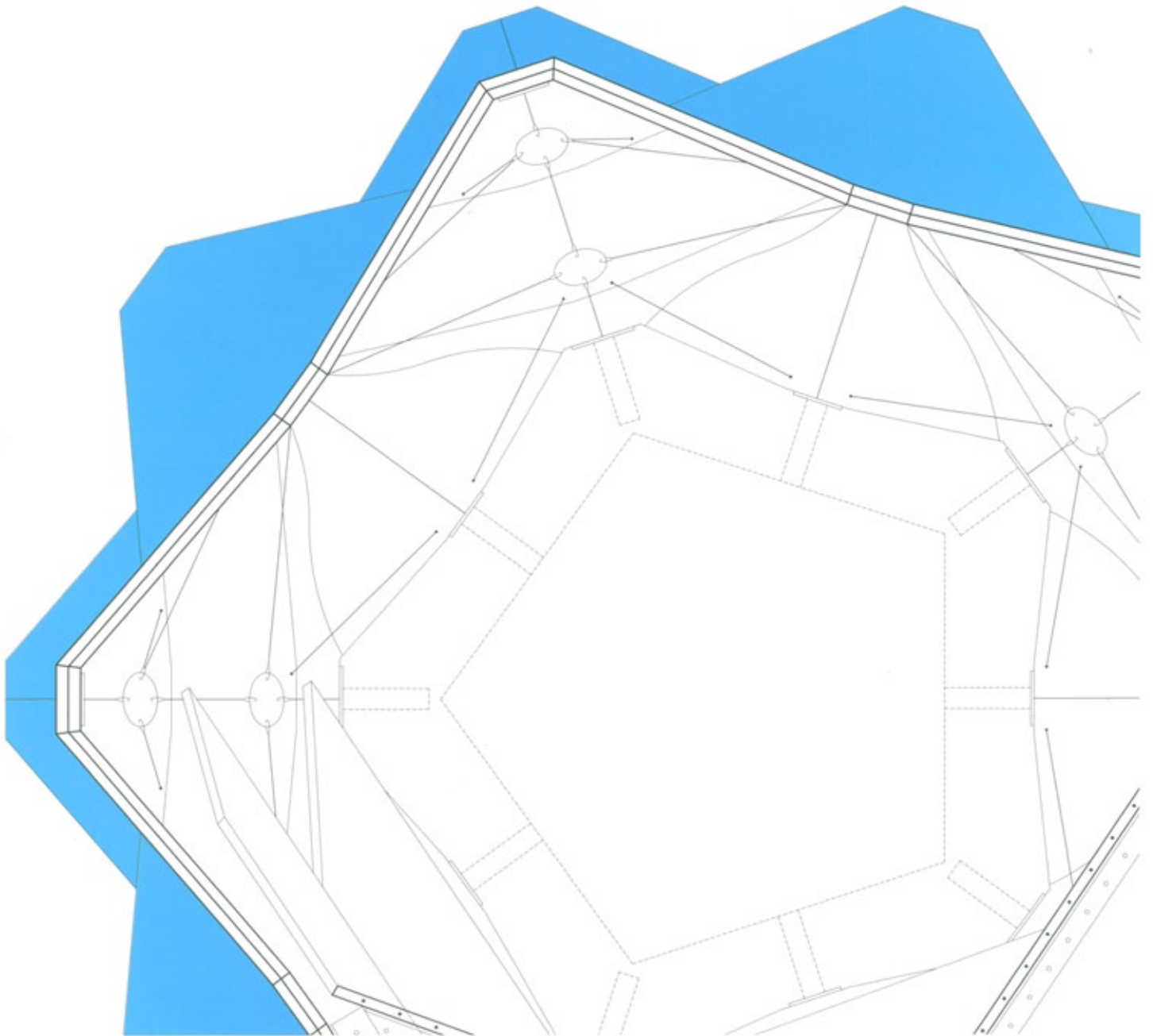


English Edition

# DETAIL

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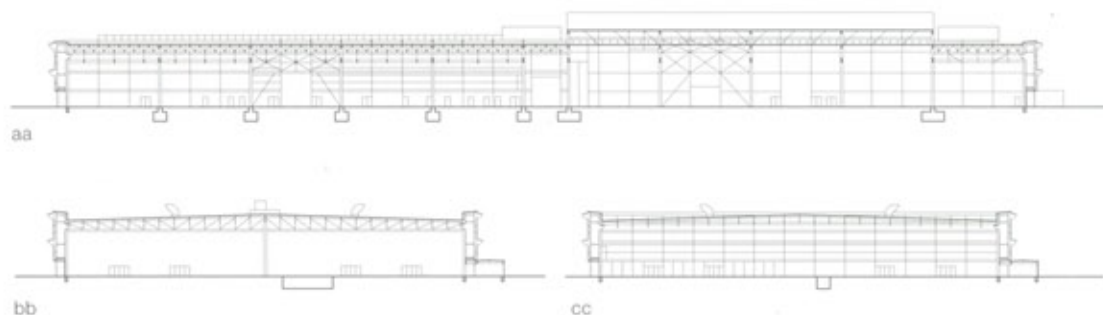


## Trade-Fair Hall in Paris

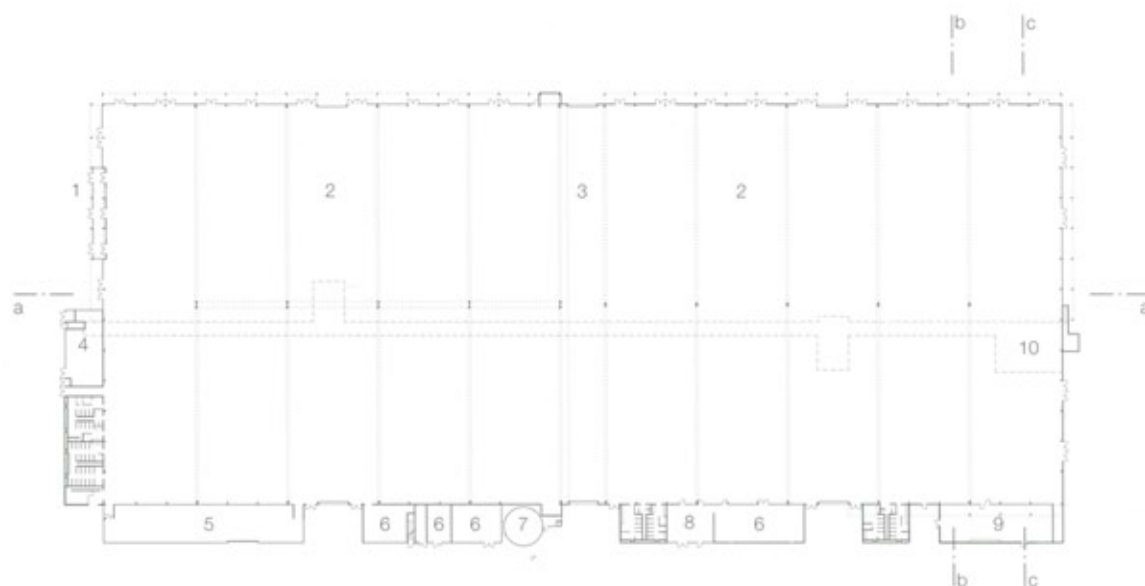
Architects:  
Anne Lacaton & Jean Philippe Vassal, Paris  
Assistants:  
Marion Cadran, Emmanuelle Delage,  
Benjamin Dubreu, Frédéric Hérard  
Structural engineers:  
Cesma, Bordeaux  
Others involved in the project: see page 444

The new trade-fair hall north of Paris constitutes the first phase of a 300 000 m<sup>2</sup> expansion. Since such spaces are only in use periodically, this new building is designed to host a variety of other events and to adhere to high environmental standards. Thus, the higher, free-span wing of the bi-partite hall can be transformed as needed; for example, an auditorium structure accommodating an audience of eight hundred to two thousand can be set up within it. A double-skin facade made of corrugated polycarbonate sheets surrounds the steel construction and furnishes the hall with daylight and facilitates natural ventilation. In this interstitial space, which is two metres wide, climbing

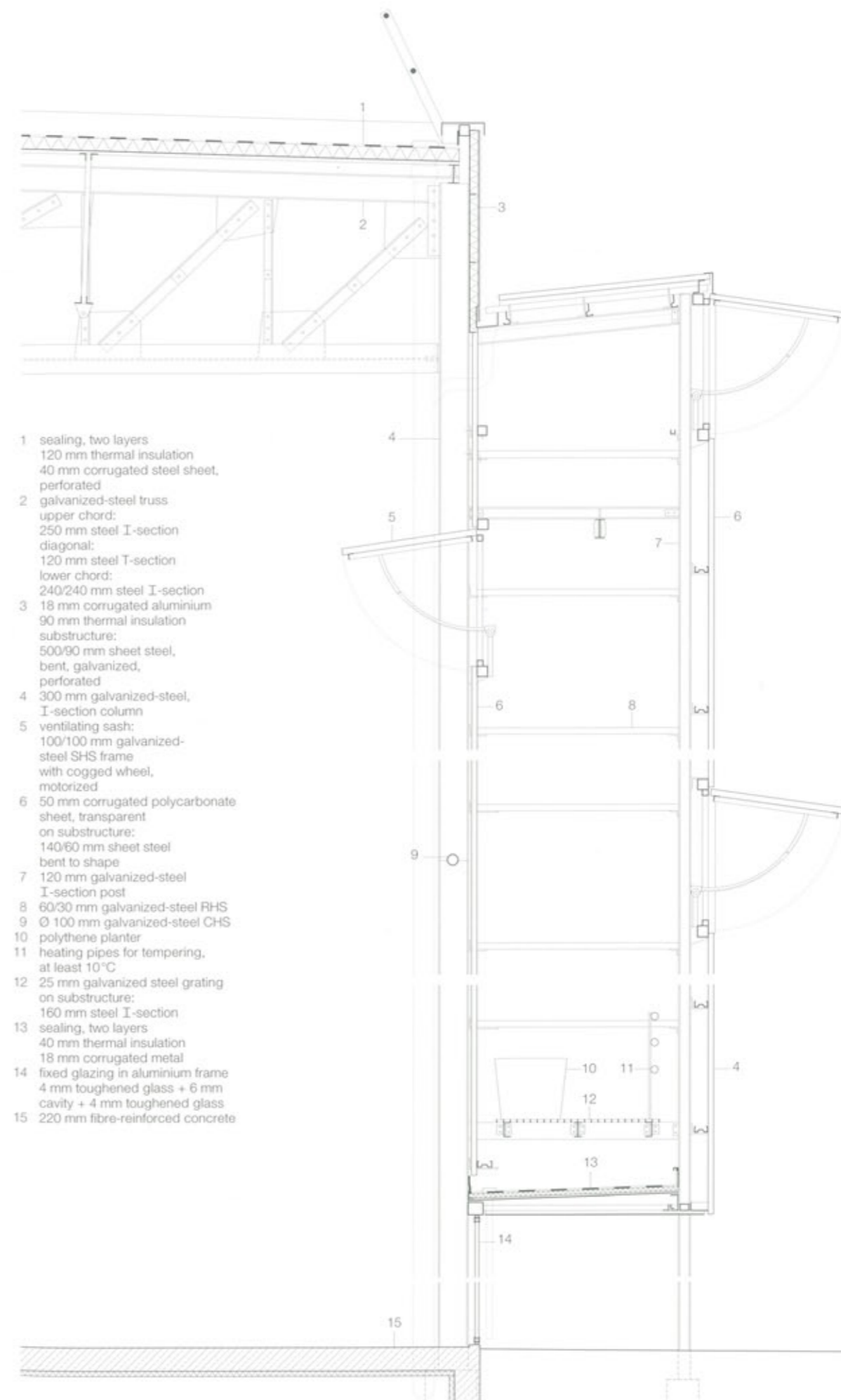
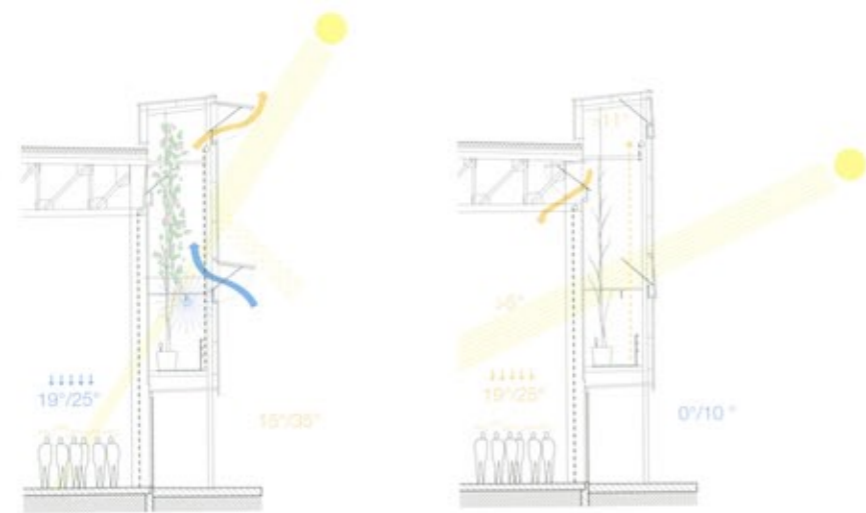
plants have already occupied the steel structure. During the warm months, these leaves provide additional protection from the sun by blocking out some of its rays. This greenhouse creates a buffer zone which links or separates the outer and inner zones as needed via ventilating sashes. In winter, warmed air is directed into the hall; in summer, the inner facade and the sun protection (aluminium-lined roller blinds in the interstitial space) remain closed during the day, while at night the cool air is allowed to flow into the hall. The watering system for the plants, the heat pump and the illuminaires are fully automated and regulated by a central system.



Sections  
Floor plan  
scale 1:1500



- 1 Entrance
- 2 Exhibition zone
- 3 Mobile partition wall
- 4 Technical services
- 5 Auditorium storage
- 6 Storage
- 7 Sprinkler depot
- 8 Exhibitors' reception
- 9 Catering
- 10 Technical services shaft

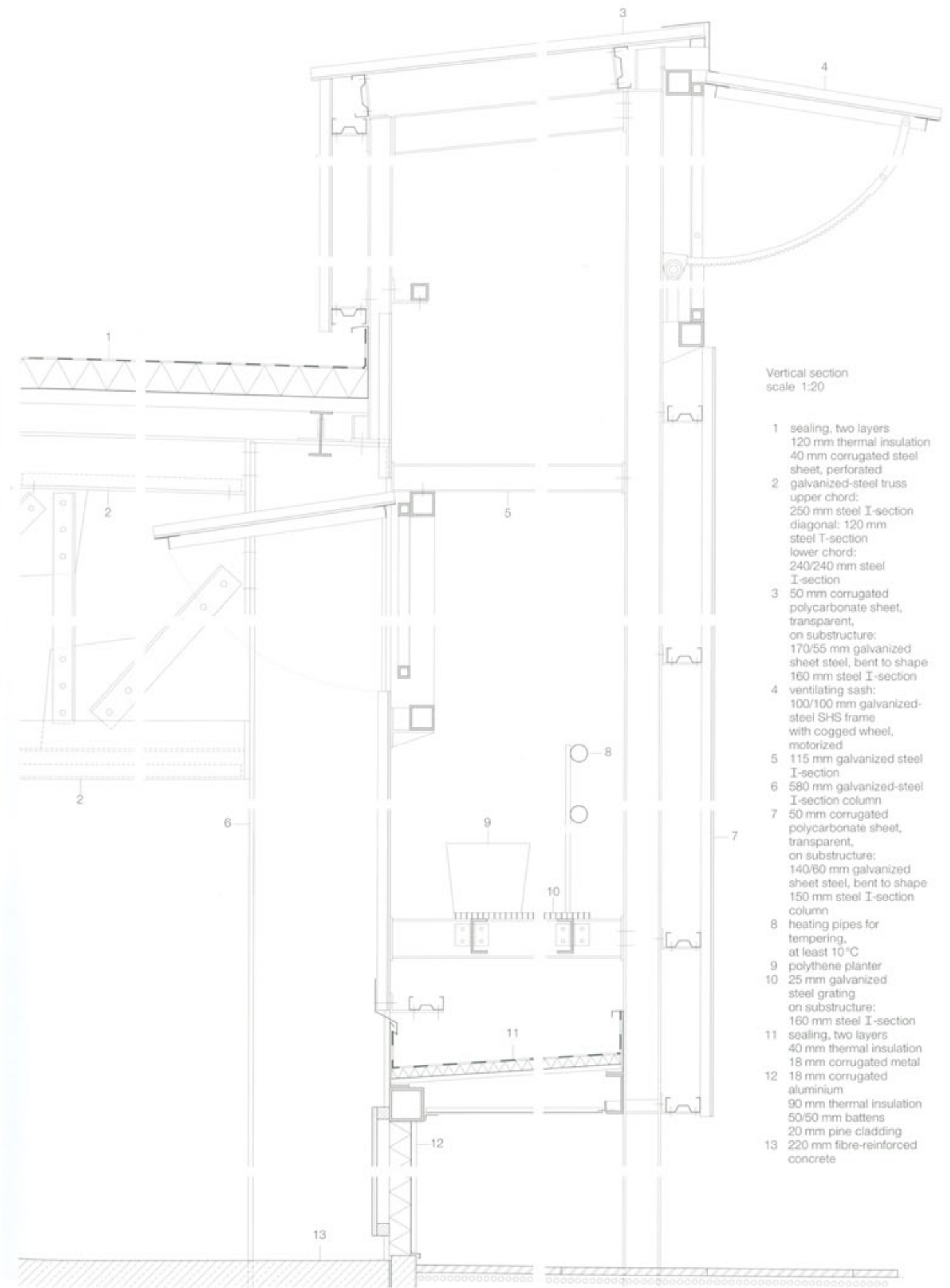


Climate-control diagrams  
summer • winter  
scale 1:100

Vertical section  
scale 1:50

- 1 sealing, two layers  
120 mm thermal insulation  
40 mm corrugated steel sheet,  
perforated
- 2 galvanized-steel truss  
upper chord:  
250 mm steel I-section  
diagonal:  
120 mm steel T-section  
lower chord:  
240/240 mm steel I-section
- 3 18 mm corrugated aluminium  
90 mm thermal insulation  
substructure:  
500/90 mm sheet steel,  
bent, galvanized,  
perforated
- 4 300 mm galvanized-steel,  
I-section column
- 5 ventilating sash:  
100/100 mm galvanized-  
steel SHS frame  
with cogged wheel,  
motorized
- 6 50 mm corrugated polycarbonate  
sheet, transparent  
on substructure:  
140/60 mm sheet steel  
bent to shape
- 7 120 mm galvanized-steel  
I-section post
- 8 60/30 mm galvanized-steel RHS
- 9 Ø 100 mm galvanized-steel CHS
- 10 polythene planter
- 11 heating pipes for tempering,  
at least 10°C
- 12 25 mm galvanized steel grating  
on substructure:  
160 mm steel I-section
- 13 sealing, two layers  
40 mm thermal insulation  
18 mm corrugated metal
- 14 fixed glazing in aluminium frame  
4 mm toughened glass + 6 mm  
cavity + 4 mm toughened glass
- 15 220 mm fibre-reinforced concrete





Vertical section  
scale 1:20

- 1 sealing, two layers  
120 mm thermal insulation  
40 mm corrugated steel  
sheet, perforated
- 2 galvanized-steel truss  
upper chord:  
250 mm steel I-section  
diagonal: 120 mm  
steel T-section  
lower chord:  
240/240 mm steel  
I-section
- 3 50 mm corrugated  
polycarbonate sheet,  
transparent,  
on substructure:  
170/55 mm galvanized  
sheet steel, bent to shape  
160 mm steel I-section
- 4 ventilating sash:  
100/100 mm galvanized-  
steel SHS frame  
with cogged wheel,  
motorized
- 5 115 mm galvanized steel  
I-section
- 6 580 mm galvanized-steel  
I-section column
- 7 50 mm corrugated  
polycarbonate sheet,  
transparent,  
on substructure:  
140/60 mm galvanized  
sheet steel, bent to shape  
150 mm steel I-section  
column
- 8 heating pipes for  
tempering,  
at least 10°C
- 9 polythene planter
- 10 25 mm galvanized  
steel grating  
on substructure:  
160 mm steel I-section
- 11 sealing, two layers  
40 mm thermal insulation  
18 mm corrugated metal
- 12 18 mm corrugated  
aluminium  
90 mm thermal insulation  
50/50 mm battens  
20 mm pine cladding
- 13 220 mm fibre-reinforced  
concrete