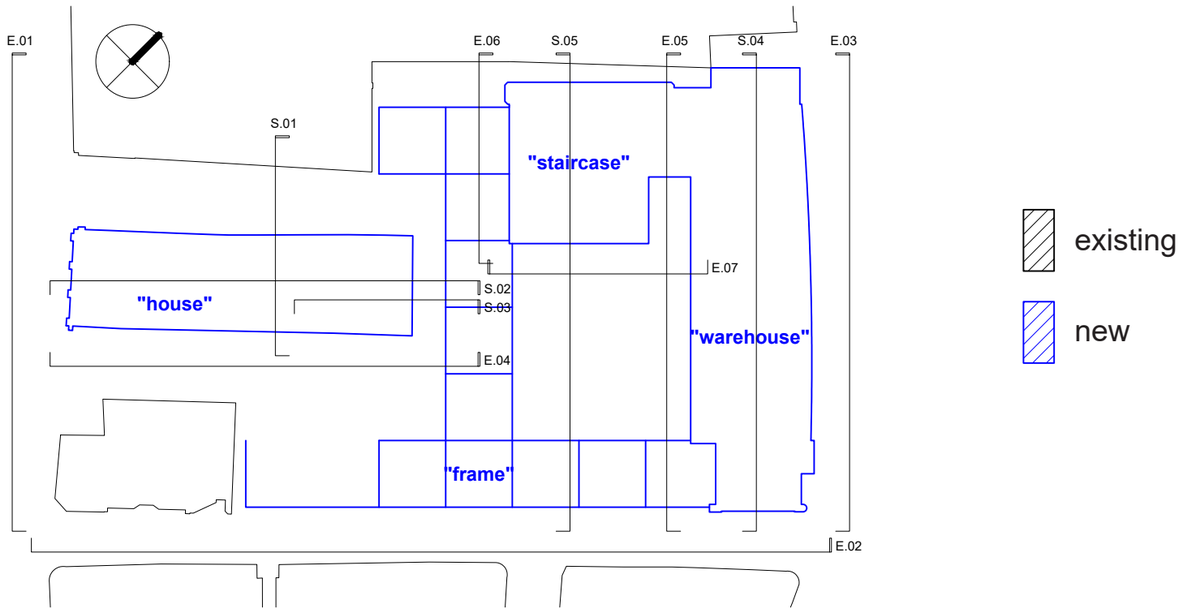
between the **museum as city** *and* **city as museum**

drawing set

Stephan Bastiaans
Explore Lab 29
05 11 2020

reading guide

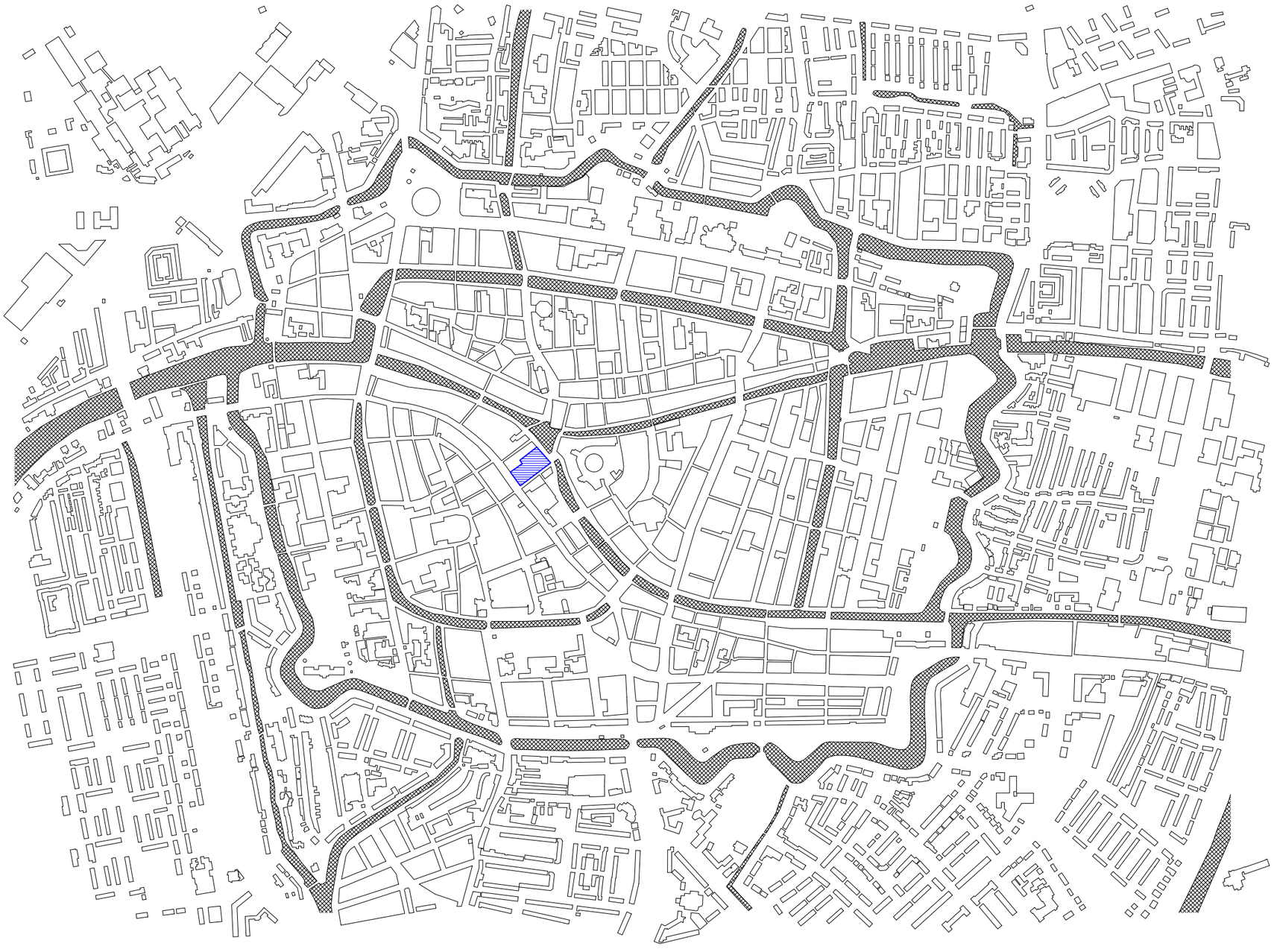


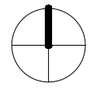
existing

new

location

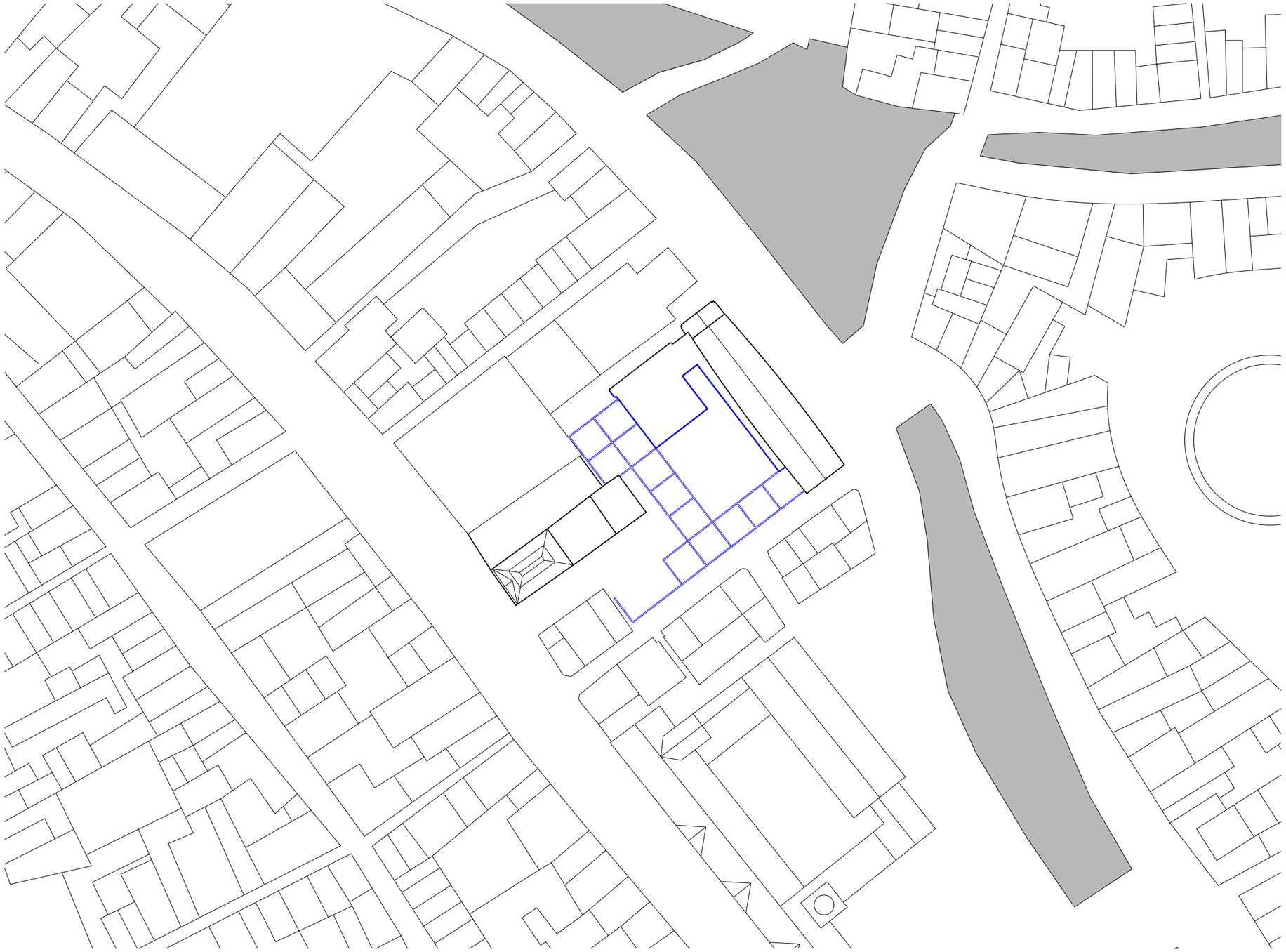
1:10000





0 100 200 500m

situation
1:1000

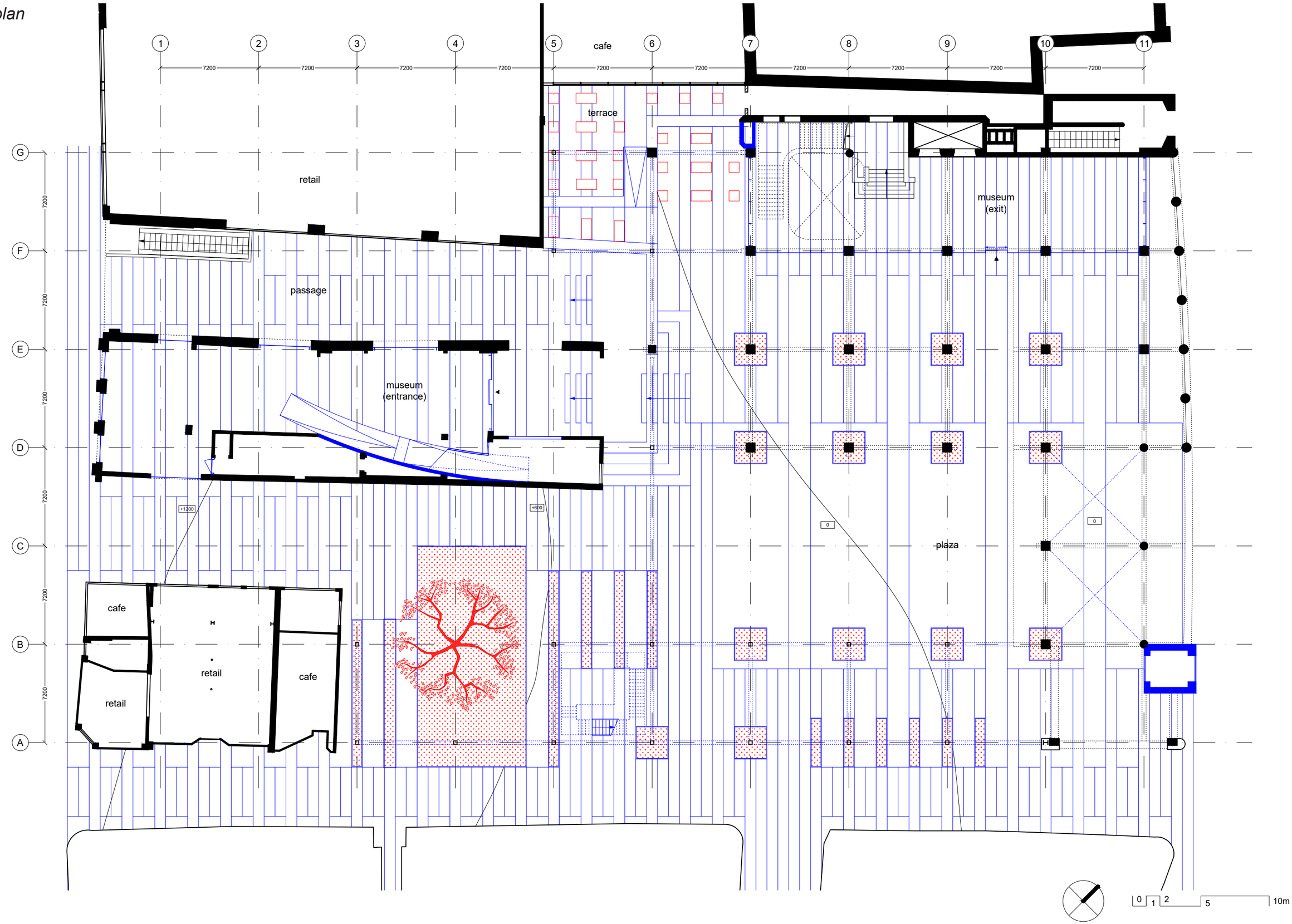


0 10 20 50m

maaiveld

floor plan

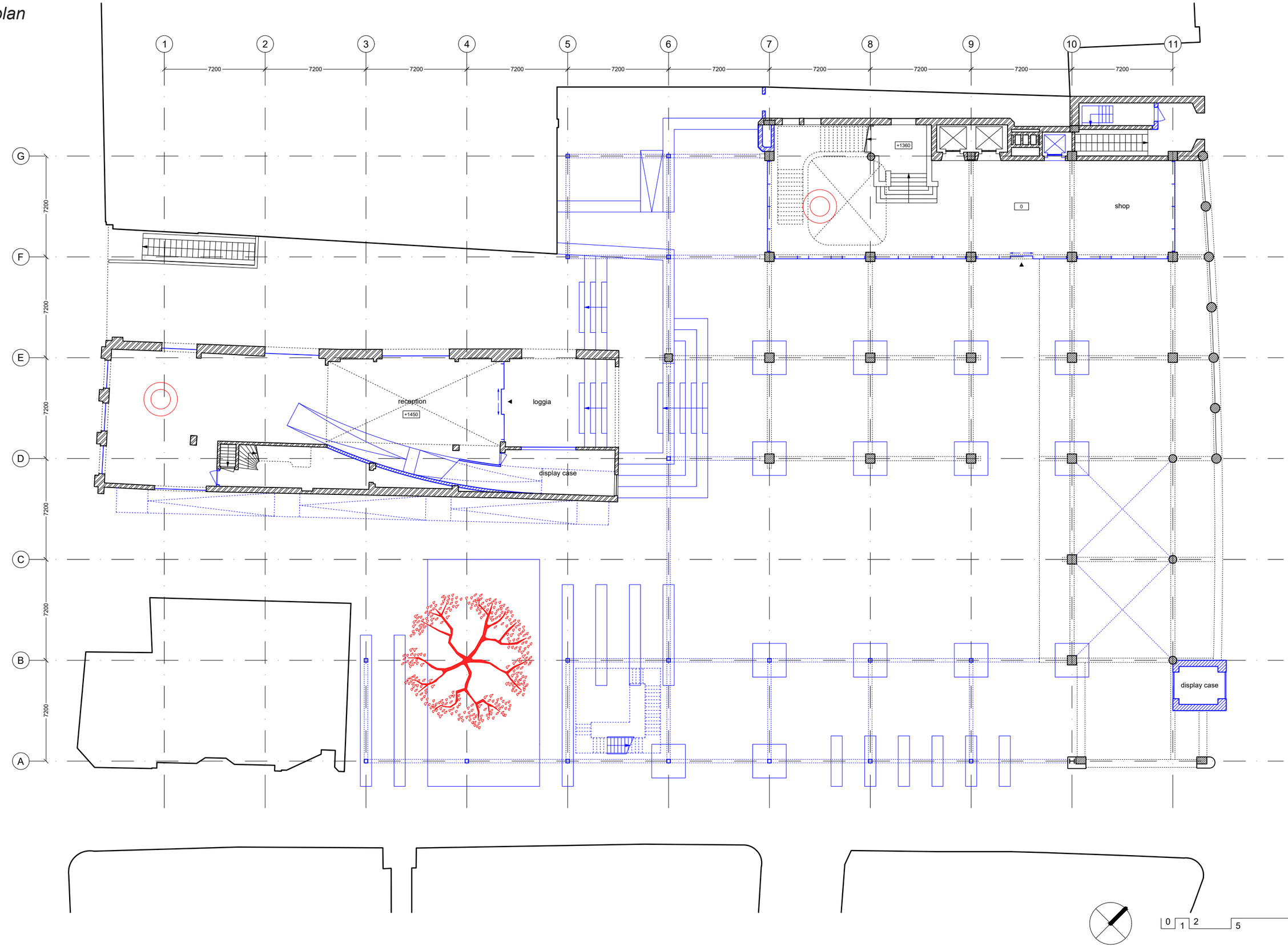
1:250



00

floor plan

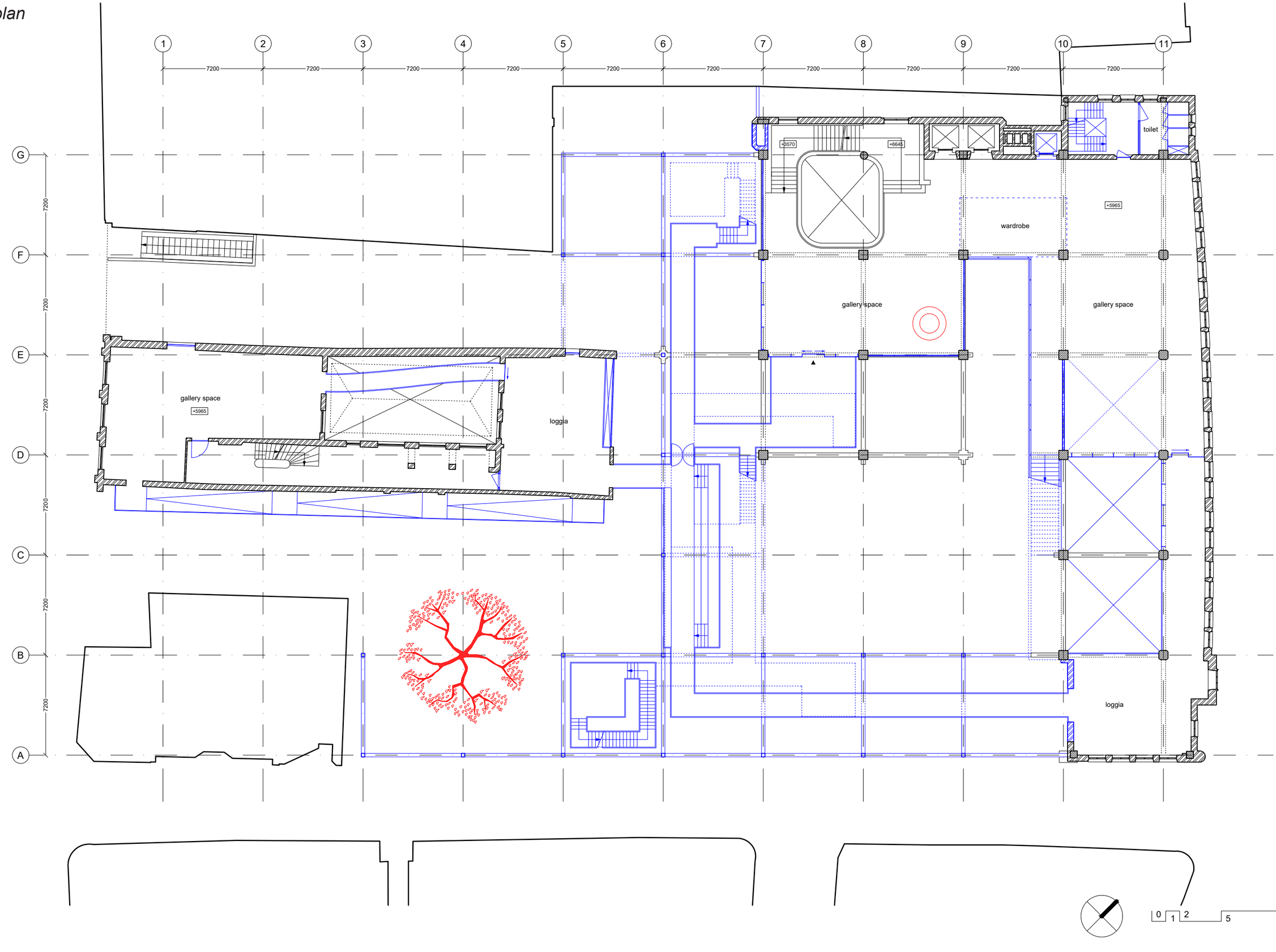
1:250



01

floor plan

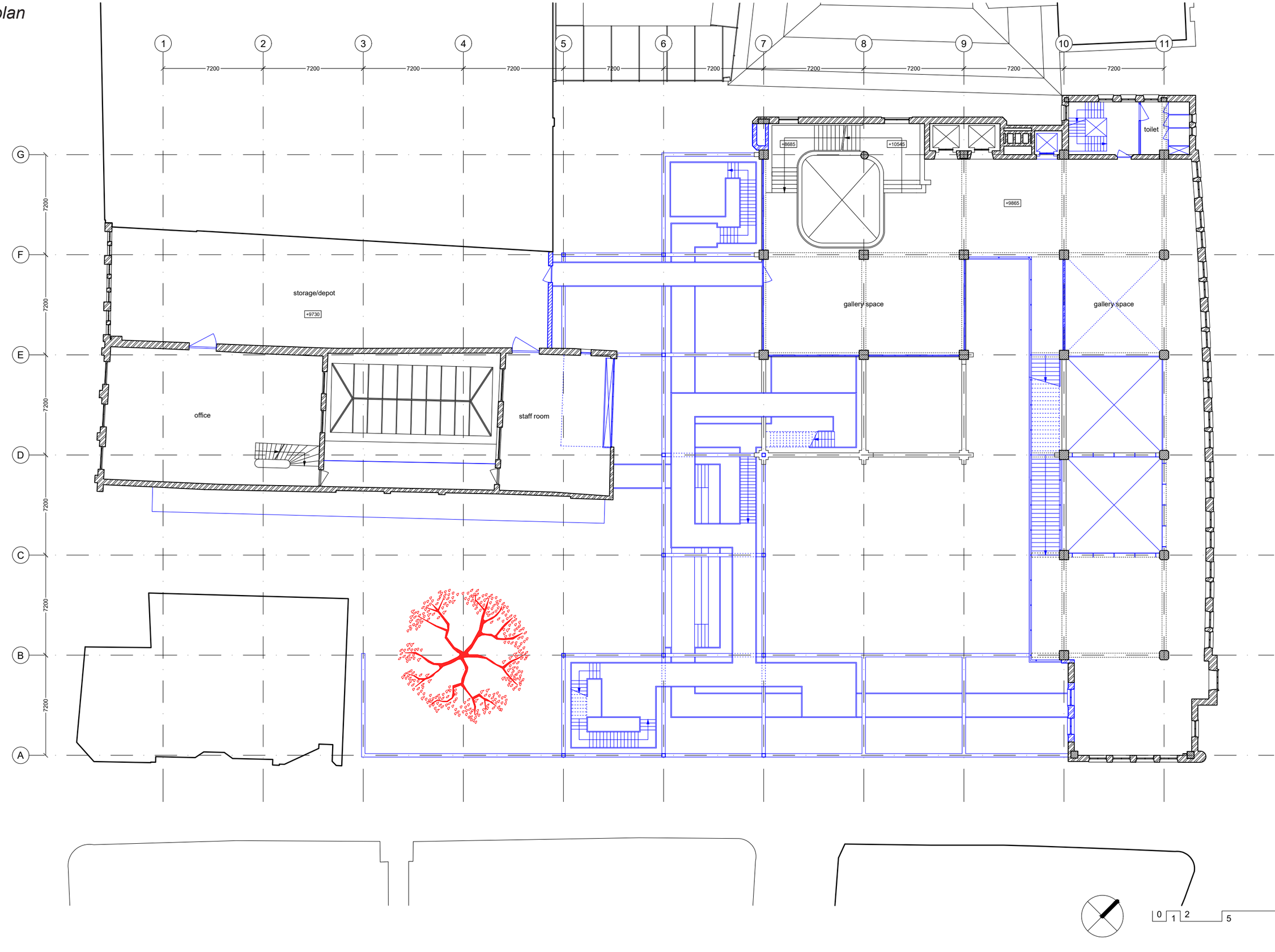
1:250



02

floor plan

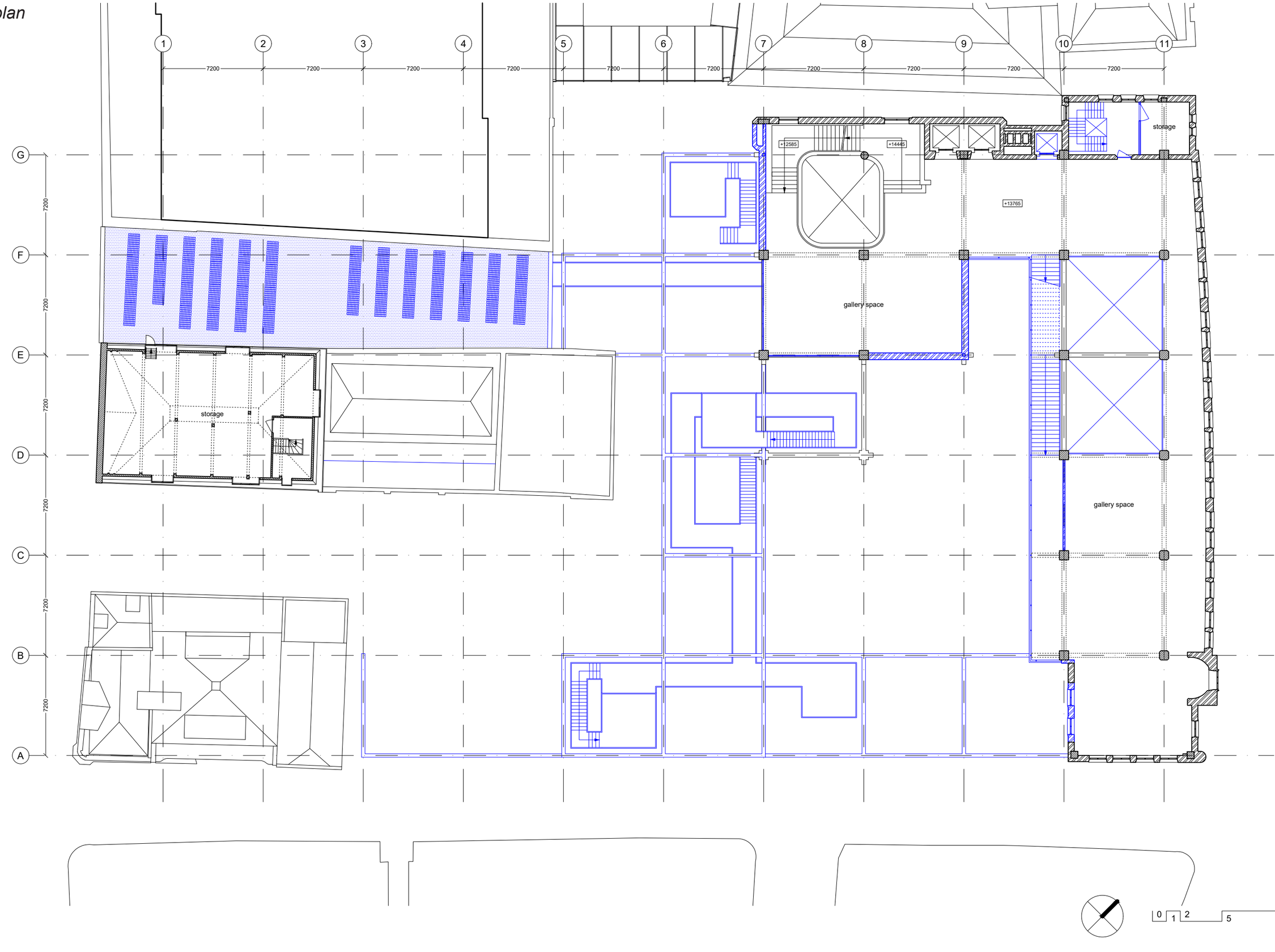
1:250



03

floor plan

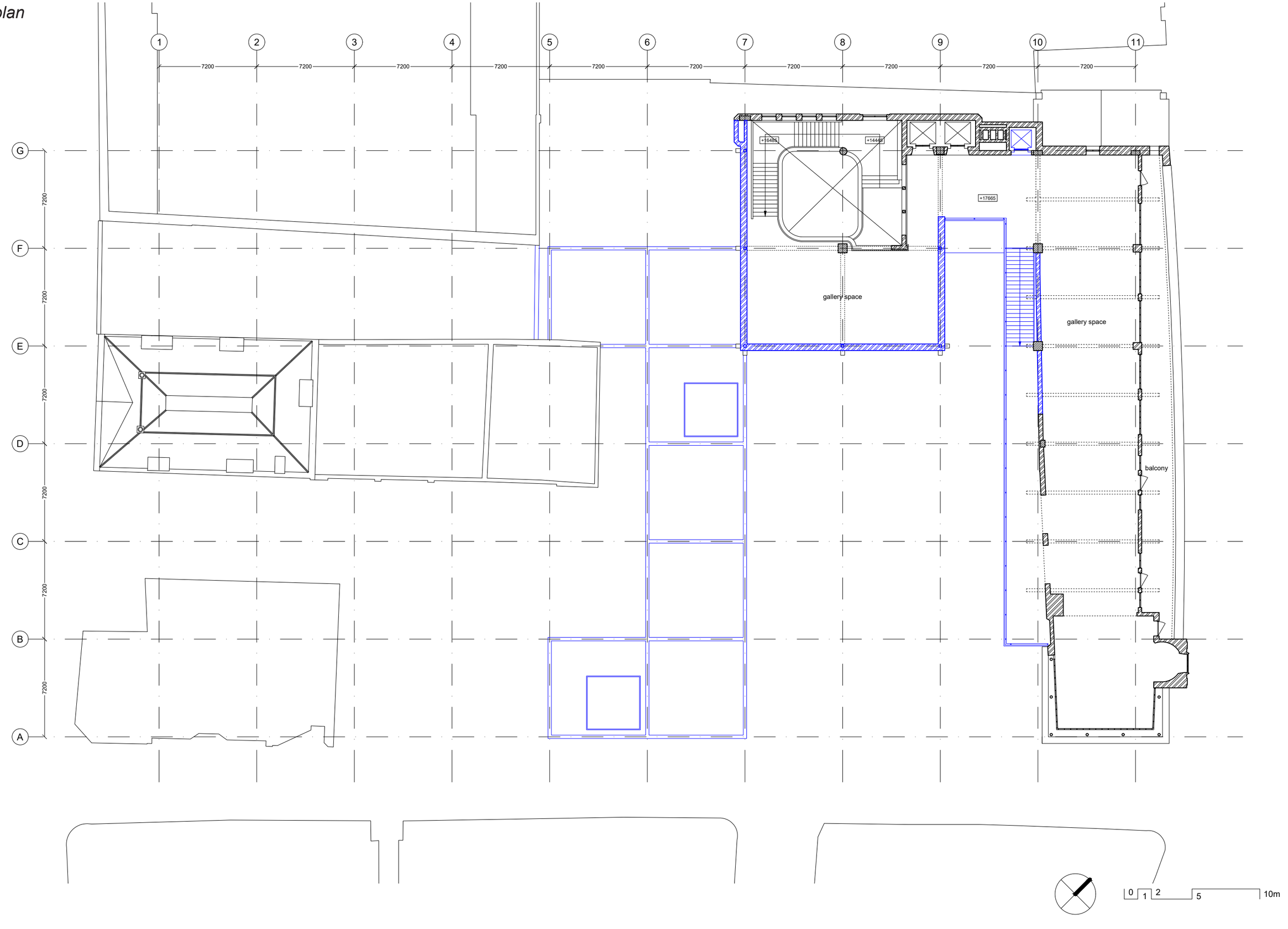
1:250



04

floor plan

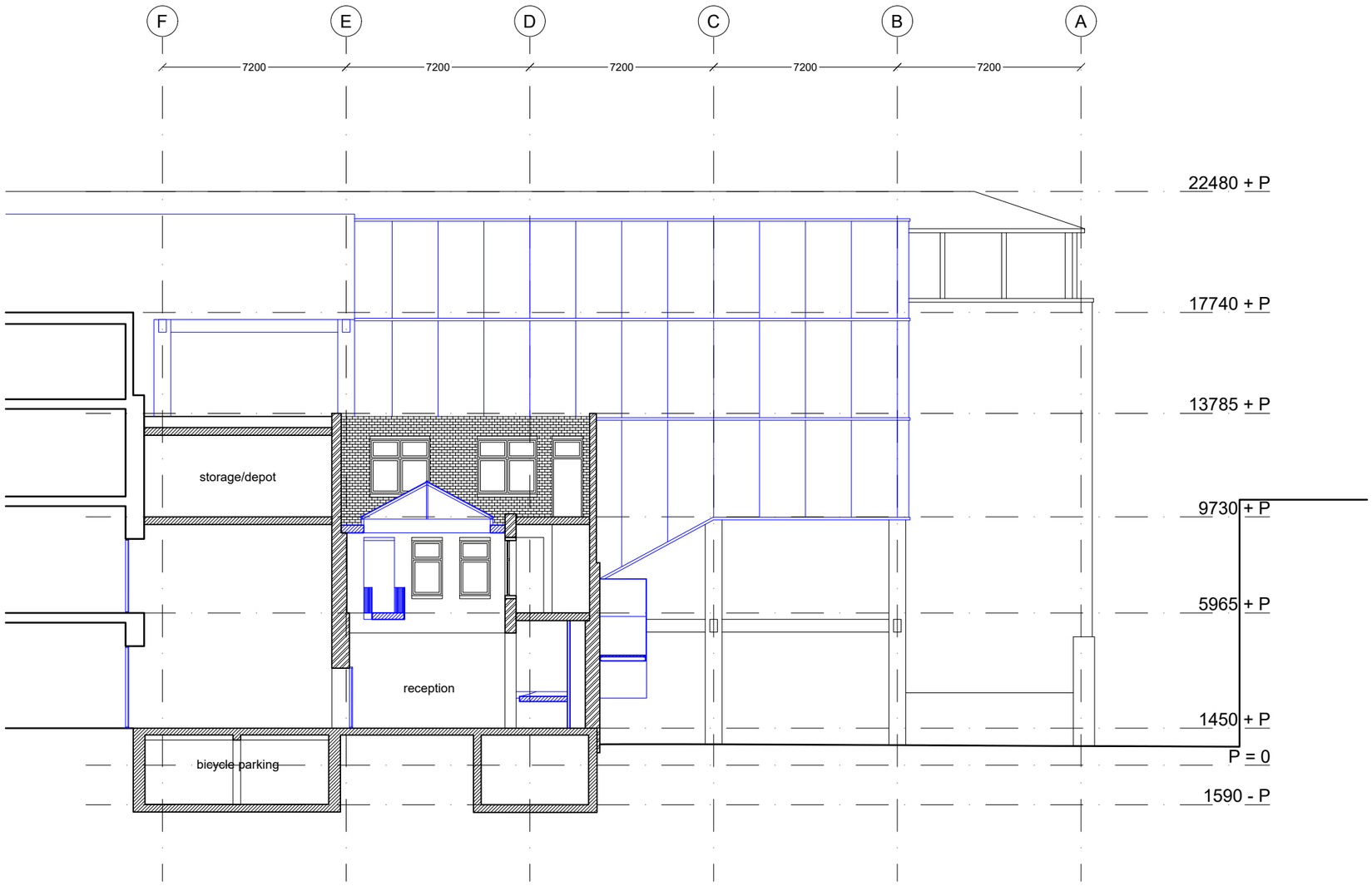
1:250



passage - house

cross section S.01

1:200

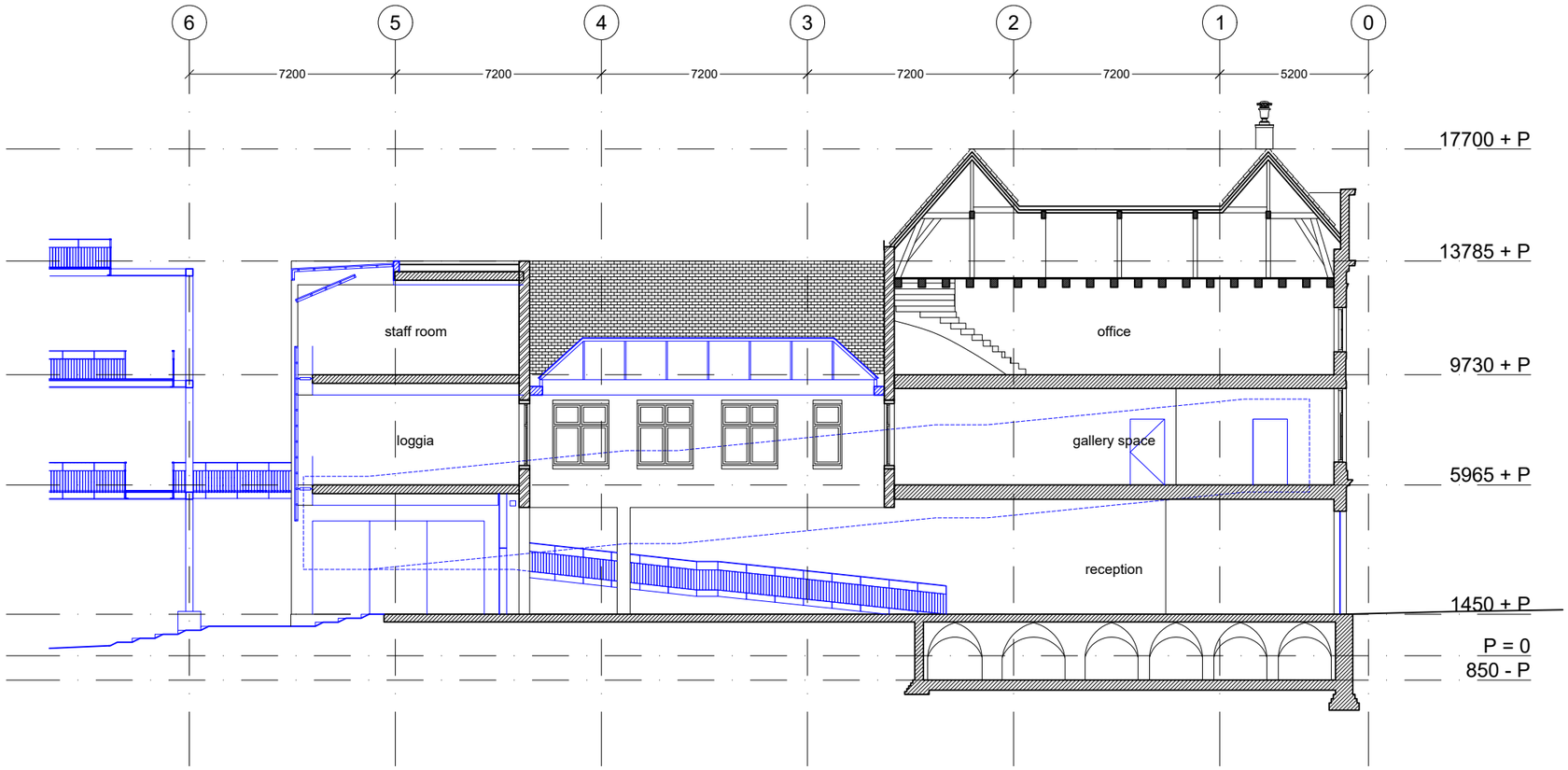


0 1 2 5 10m

house

longitudinal section S.02

1:200

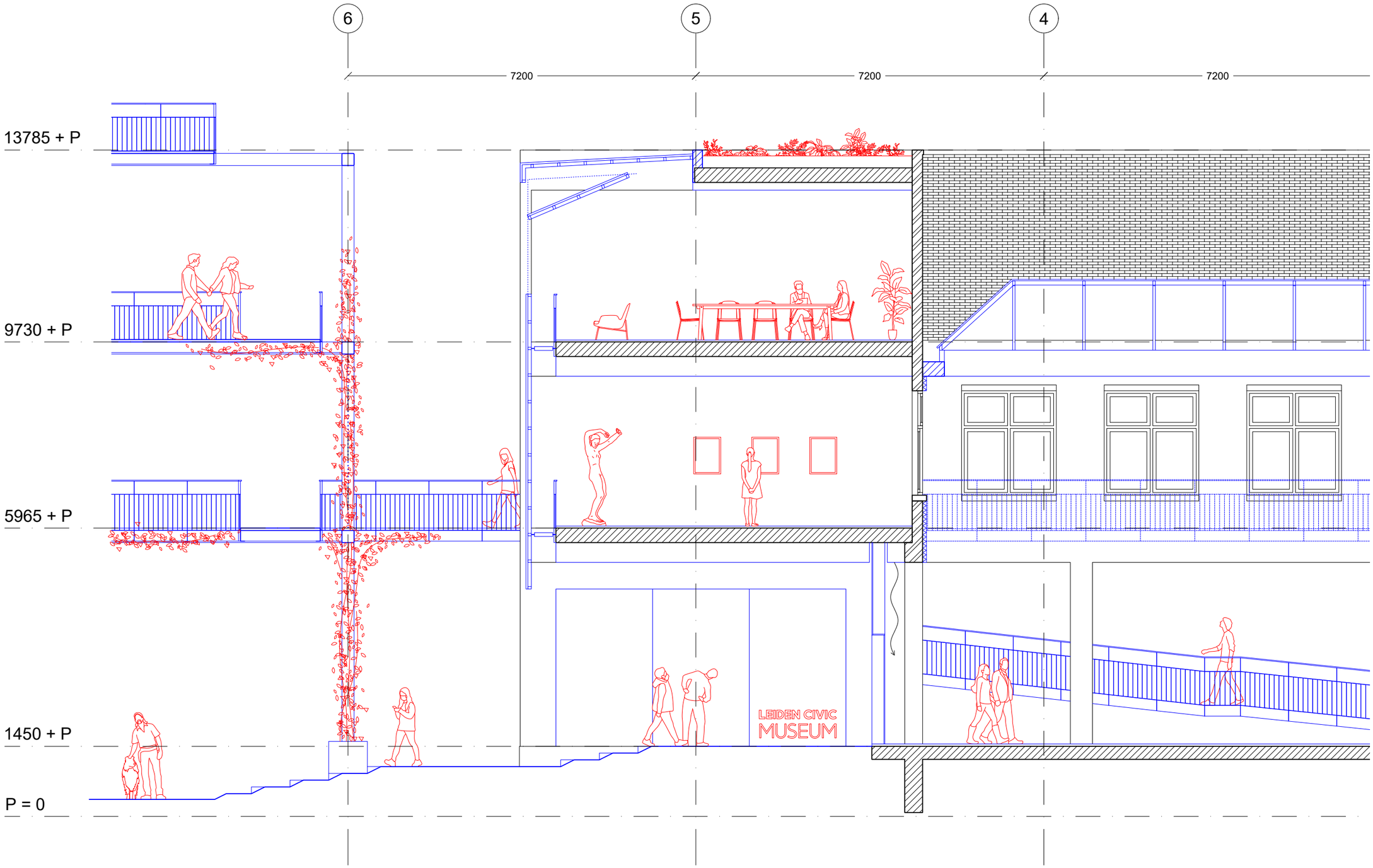


0 1 2 5 10m

house

longitudinal section S.03

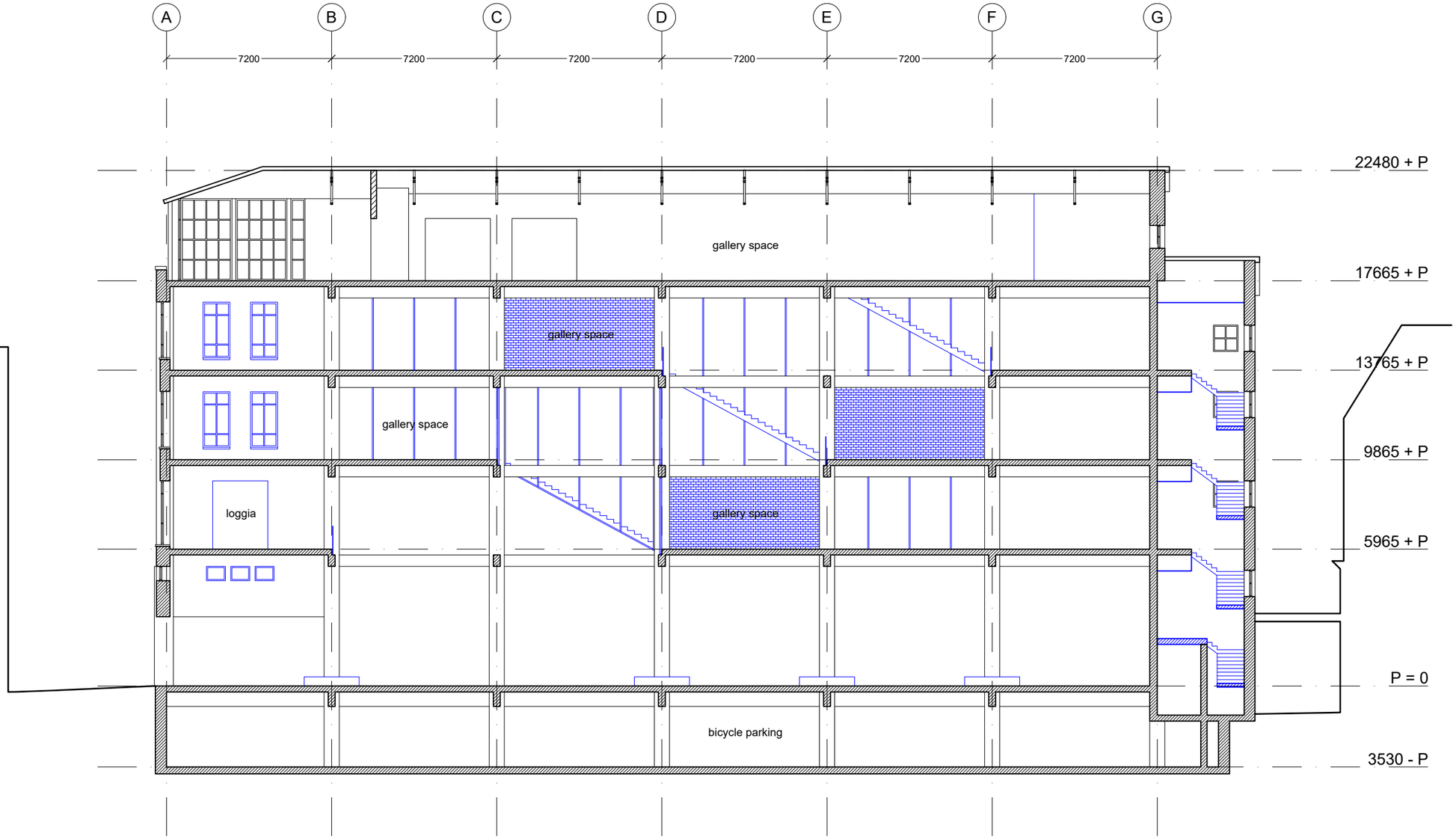
1:80



warehouse

longitudinal section S.04

1:200



0 1 2 5 10m

Breestraat

south west elevation E.01

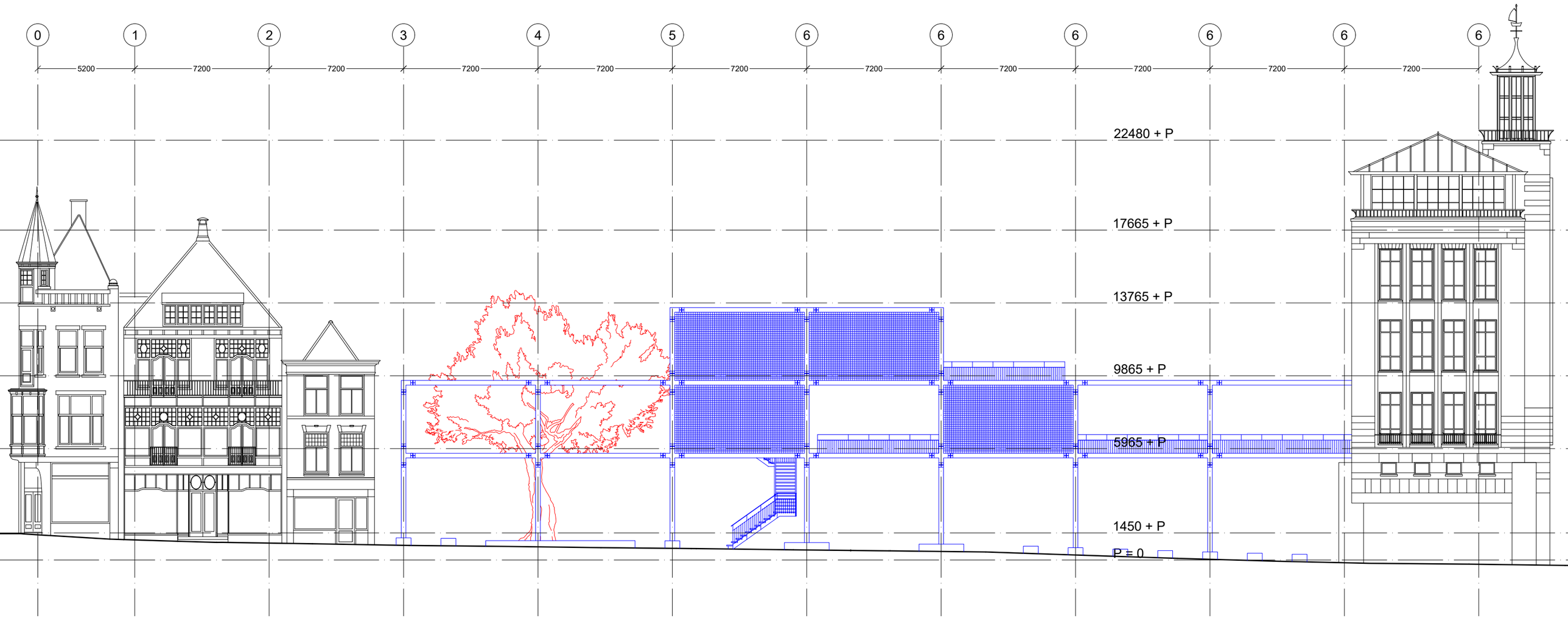
1:200

0 1 2 5 10m

Maarsmansteeg

south east elevation E.02

1:200



0 1 2 5 10m

Aalmarkt

north east elevation E.03

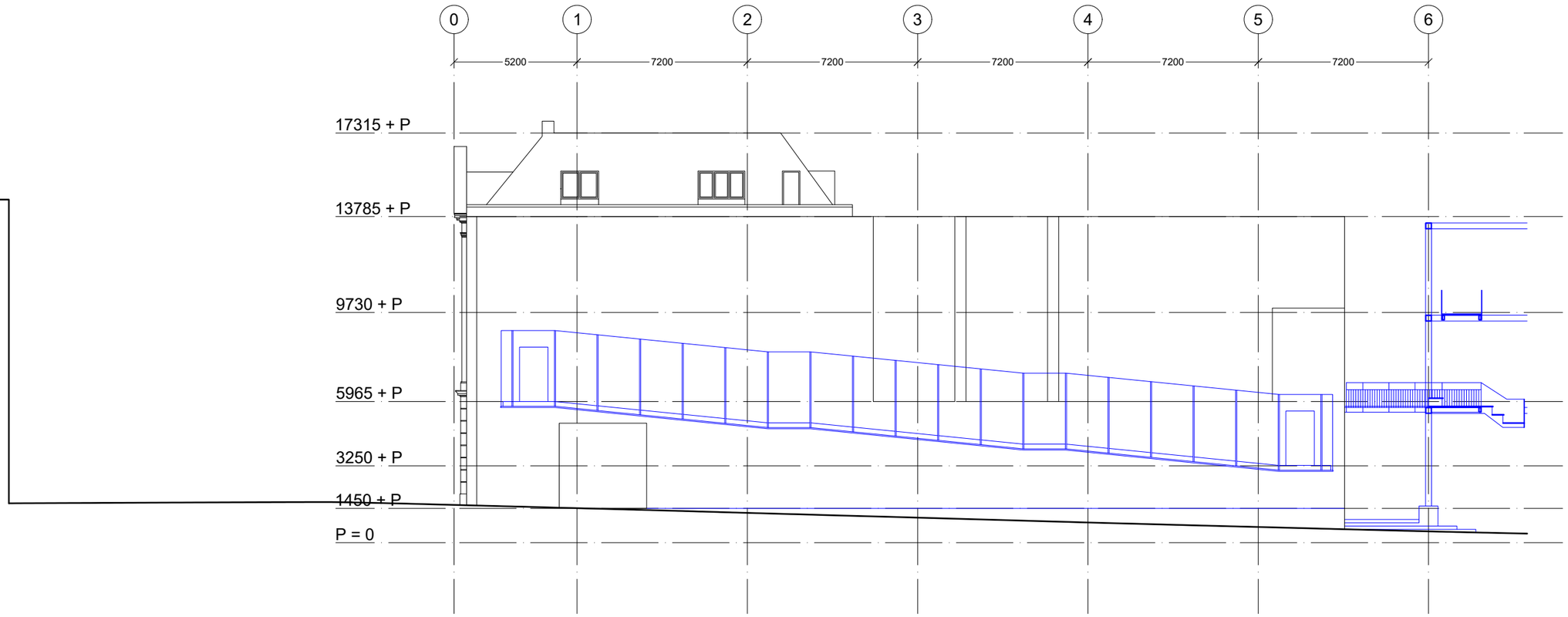
1:200

0 1 2 5 10m

house

south east elevation E.04

1:200

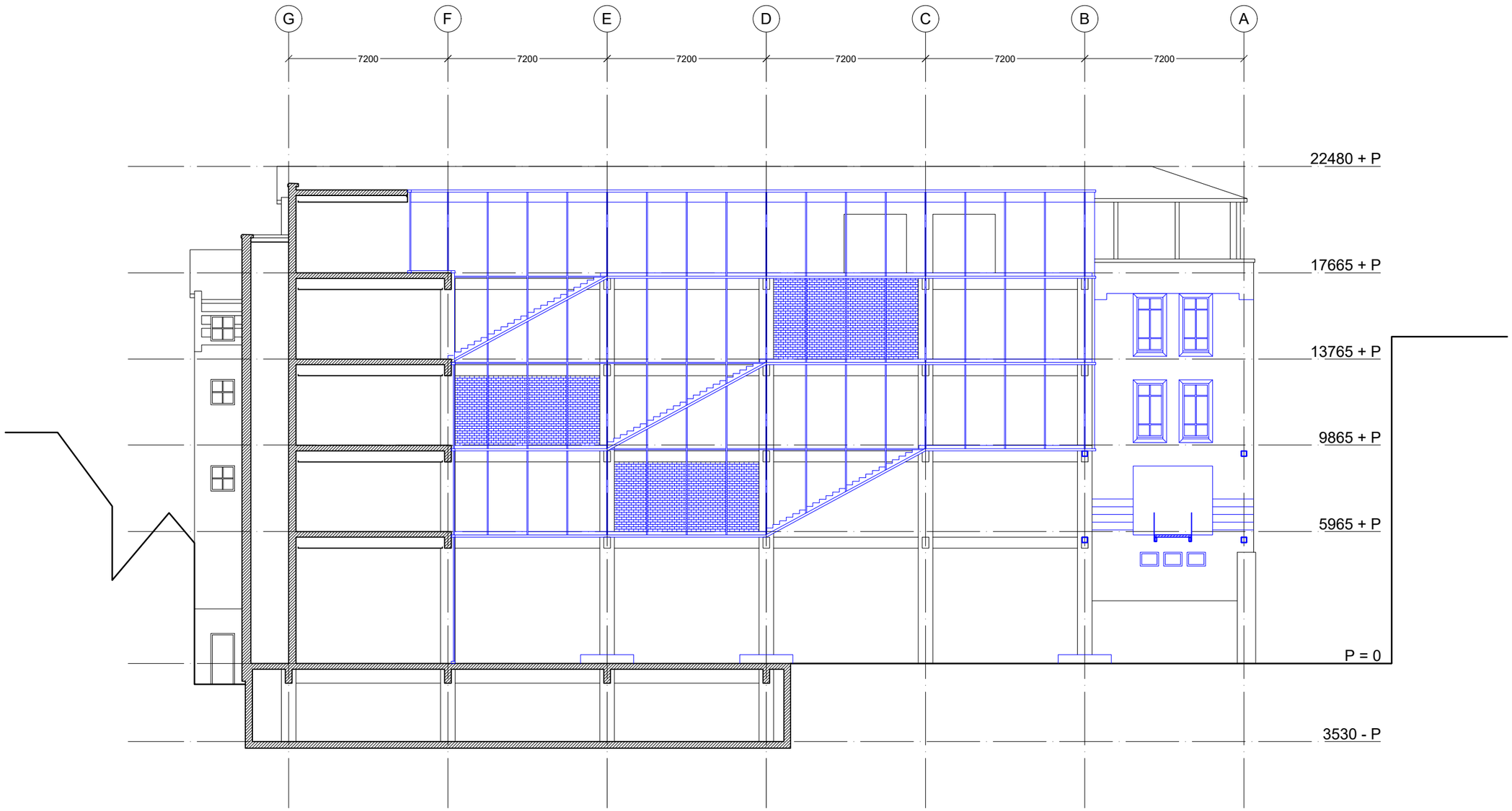


0 1 2 5 10m

warehouse

south west elevation E.05

1:200

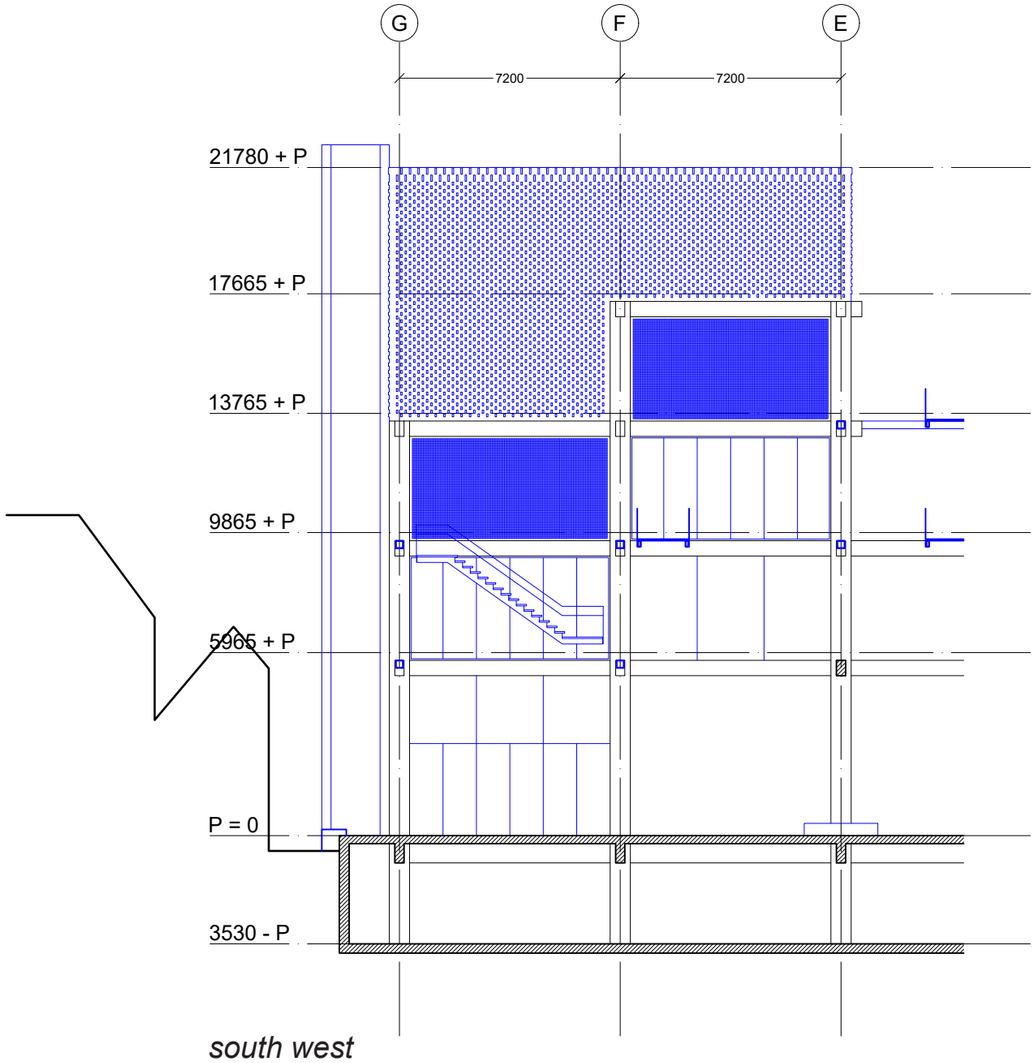


0 1 2 5 10m

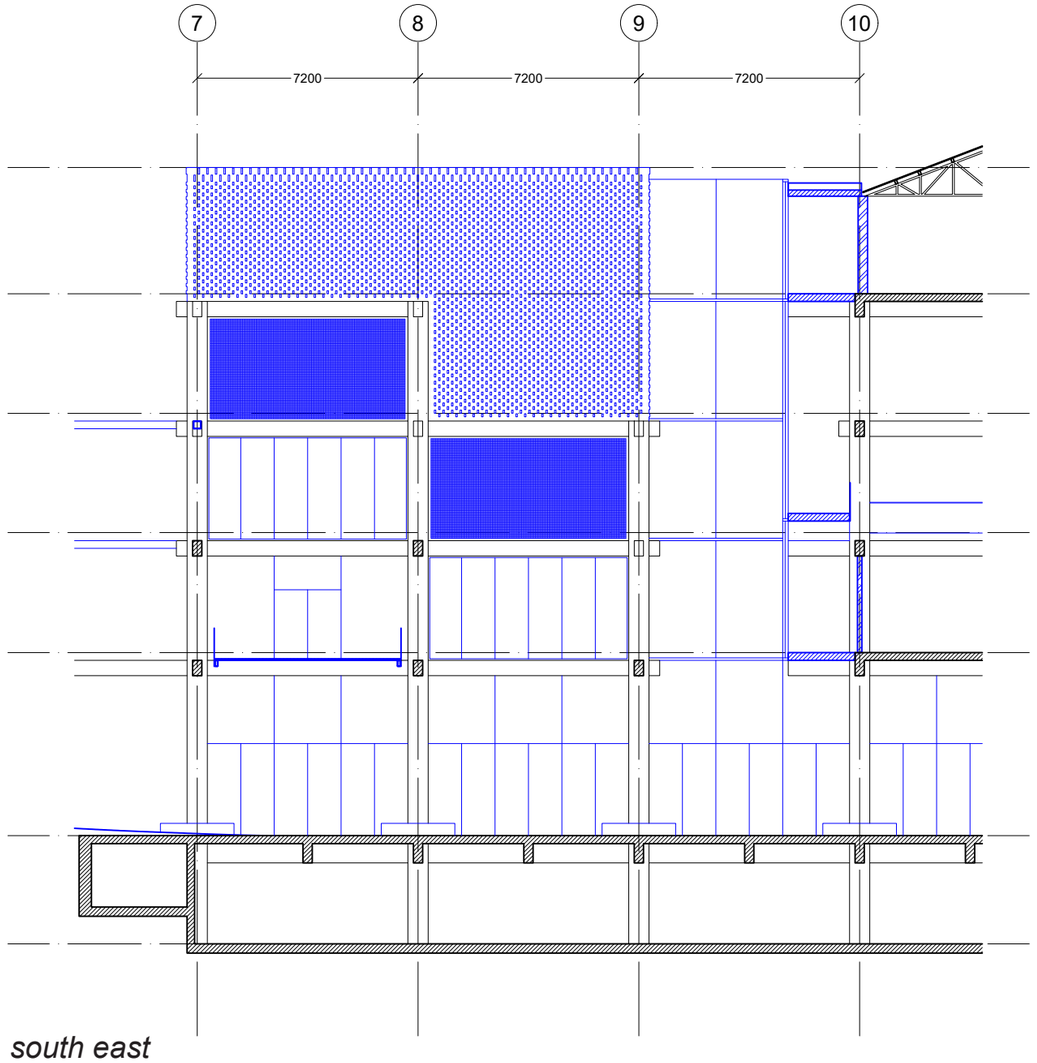
staircase

elevation E.06, E.07

1:200



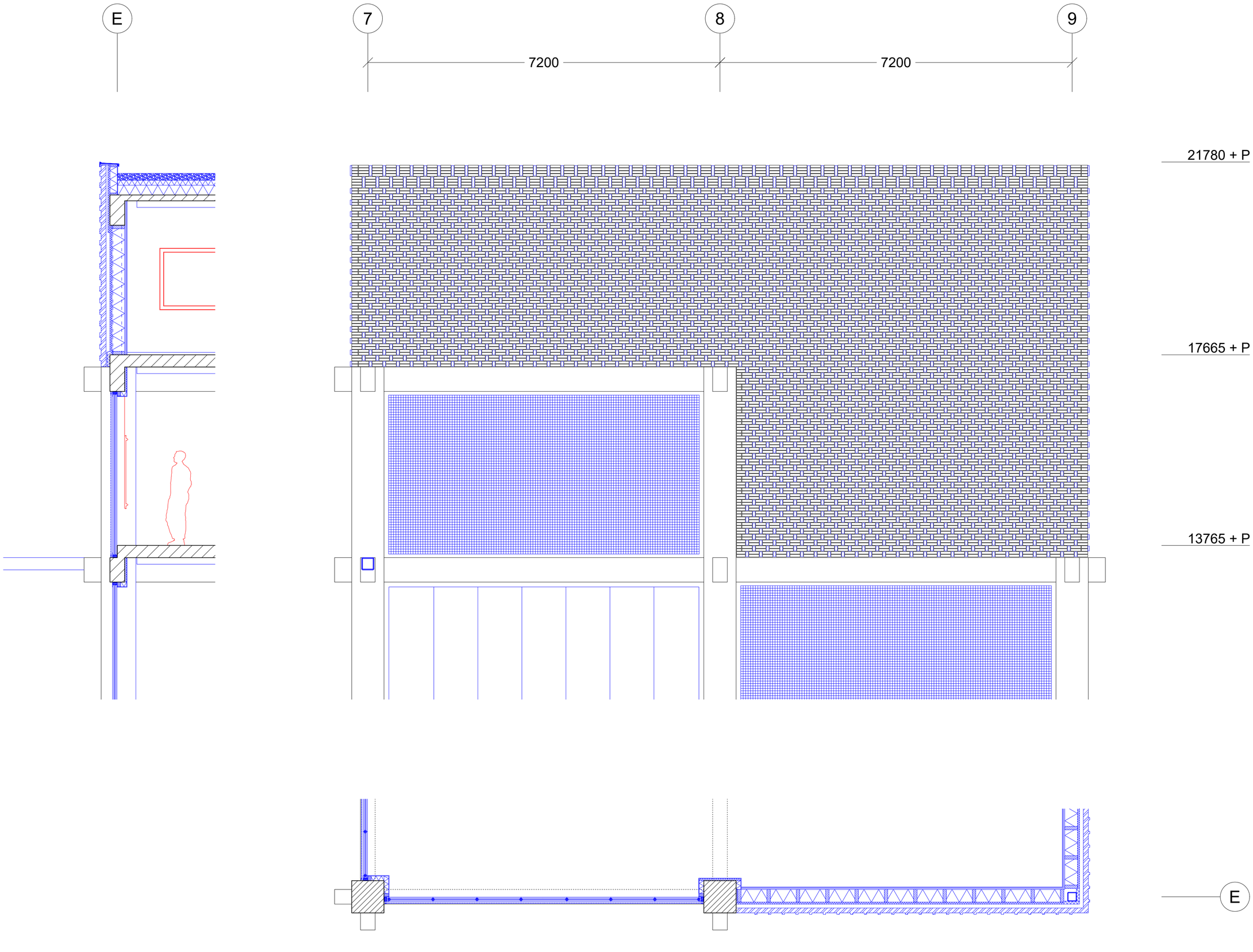
south west



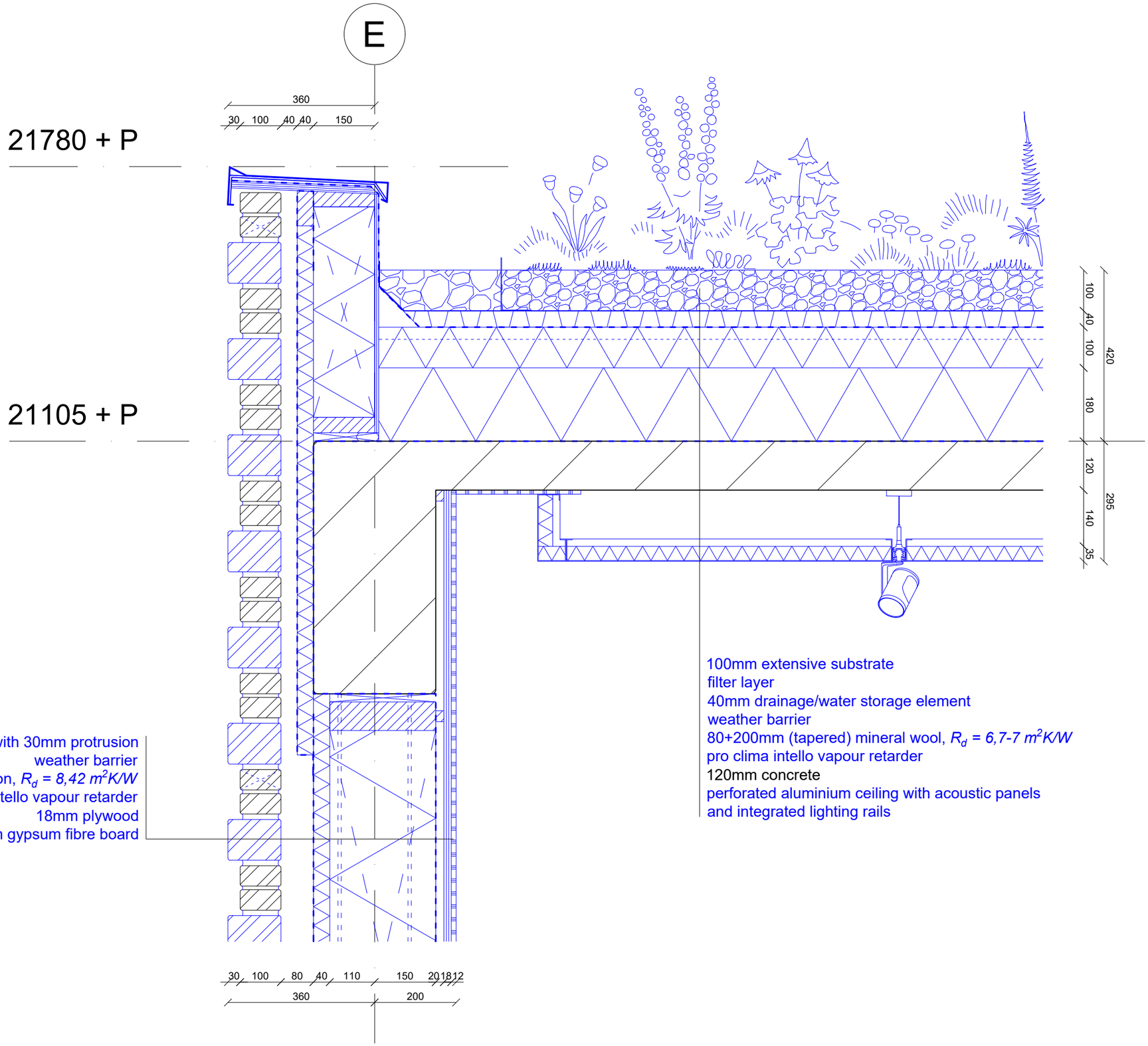
south east

0 1 2 5 10m

staircase
fragment
1:50

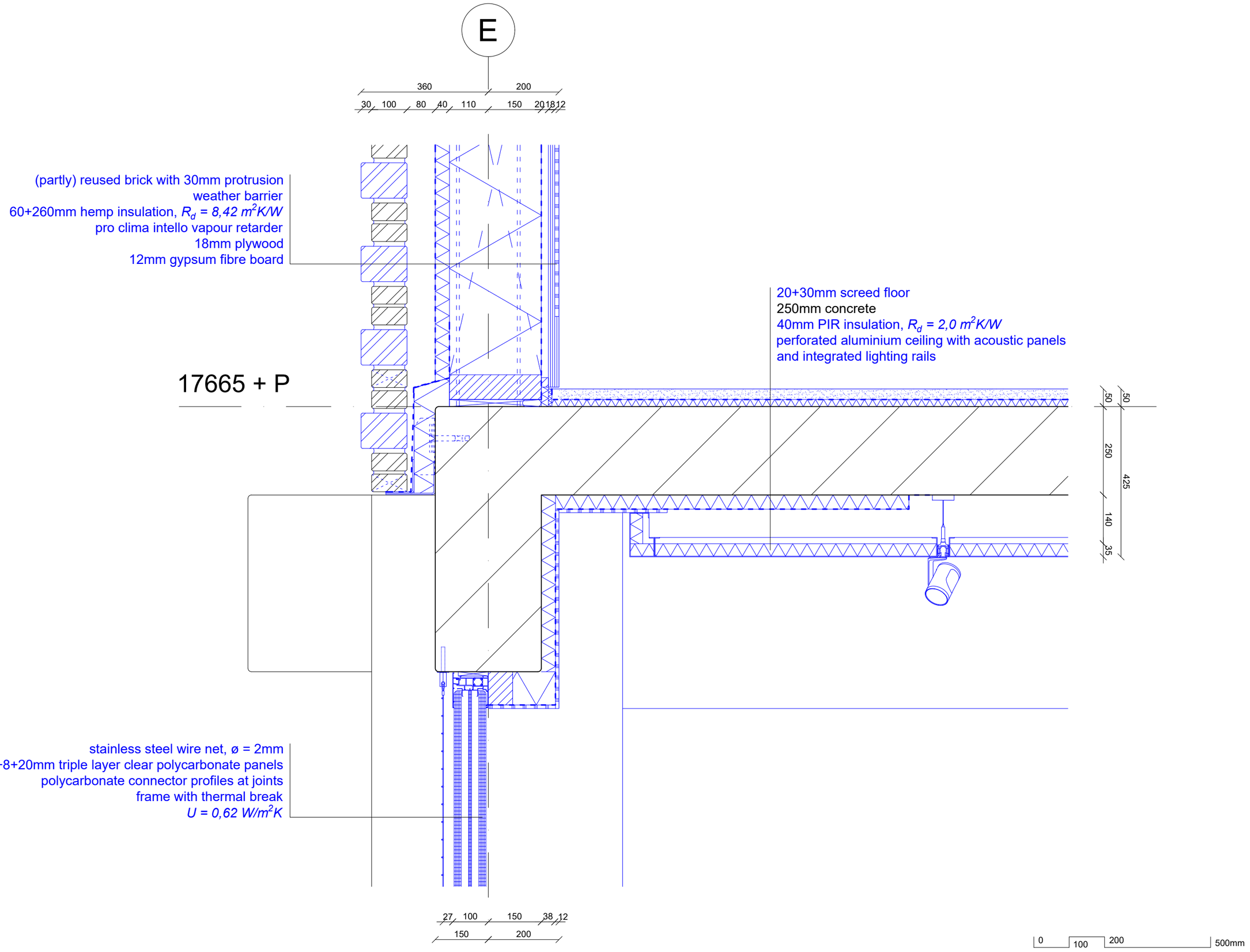


staircase
roof detail
1:10

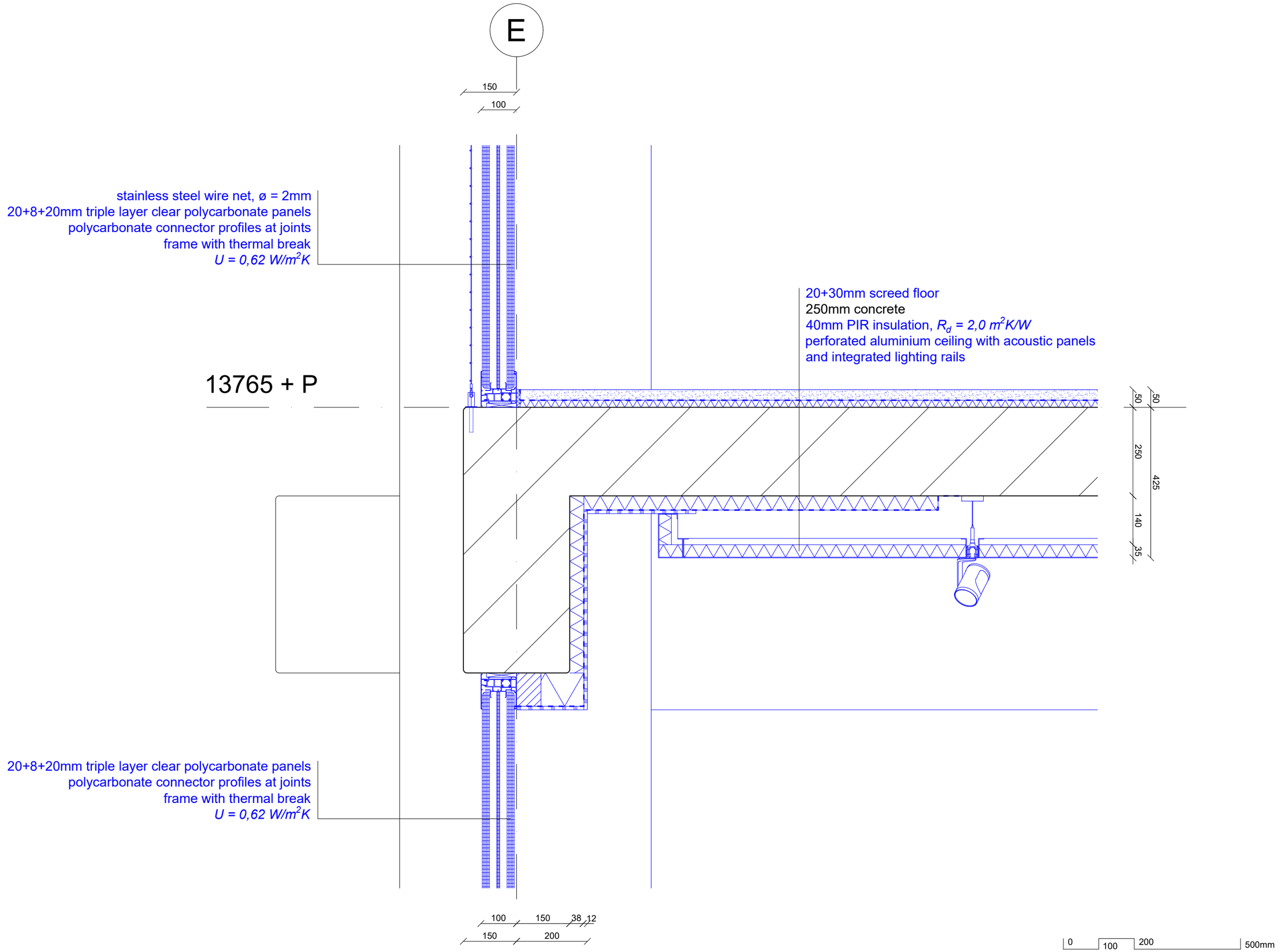


0 100 200 500mm

staircase
vertical detail
1:10



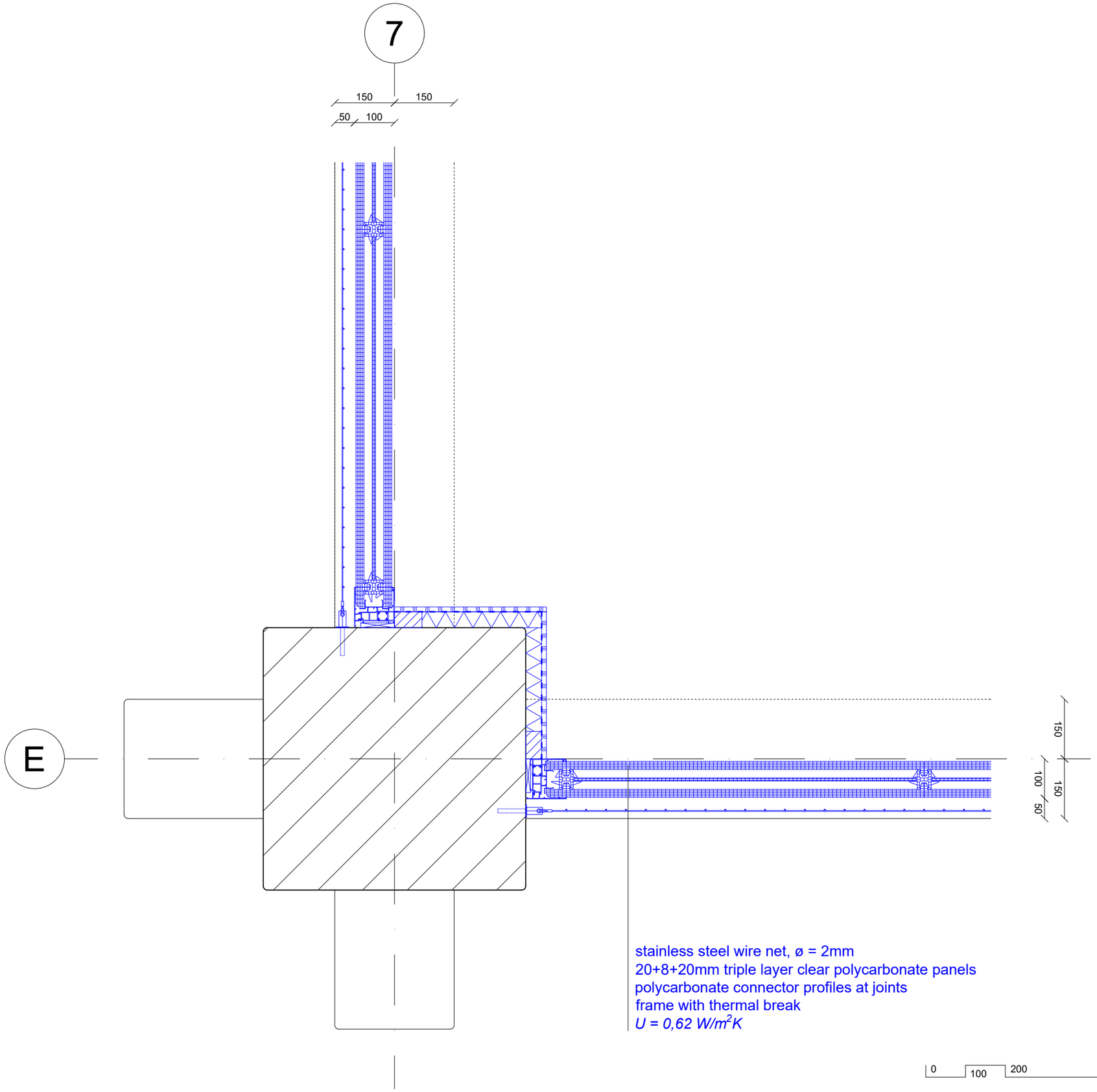
staircase
vertical detail
1:10



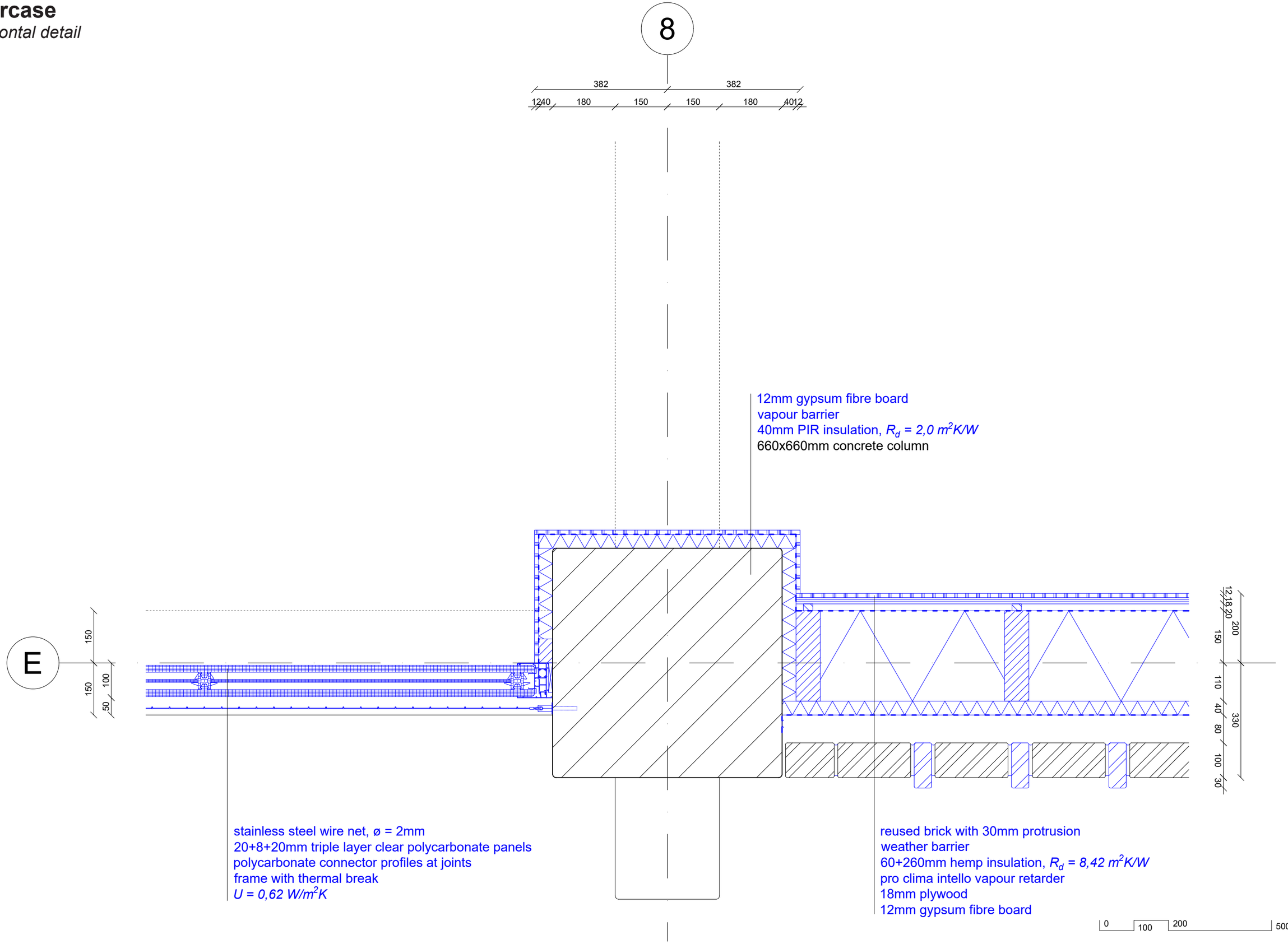
staircase

horizontal detail

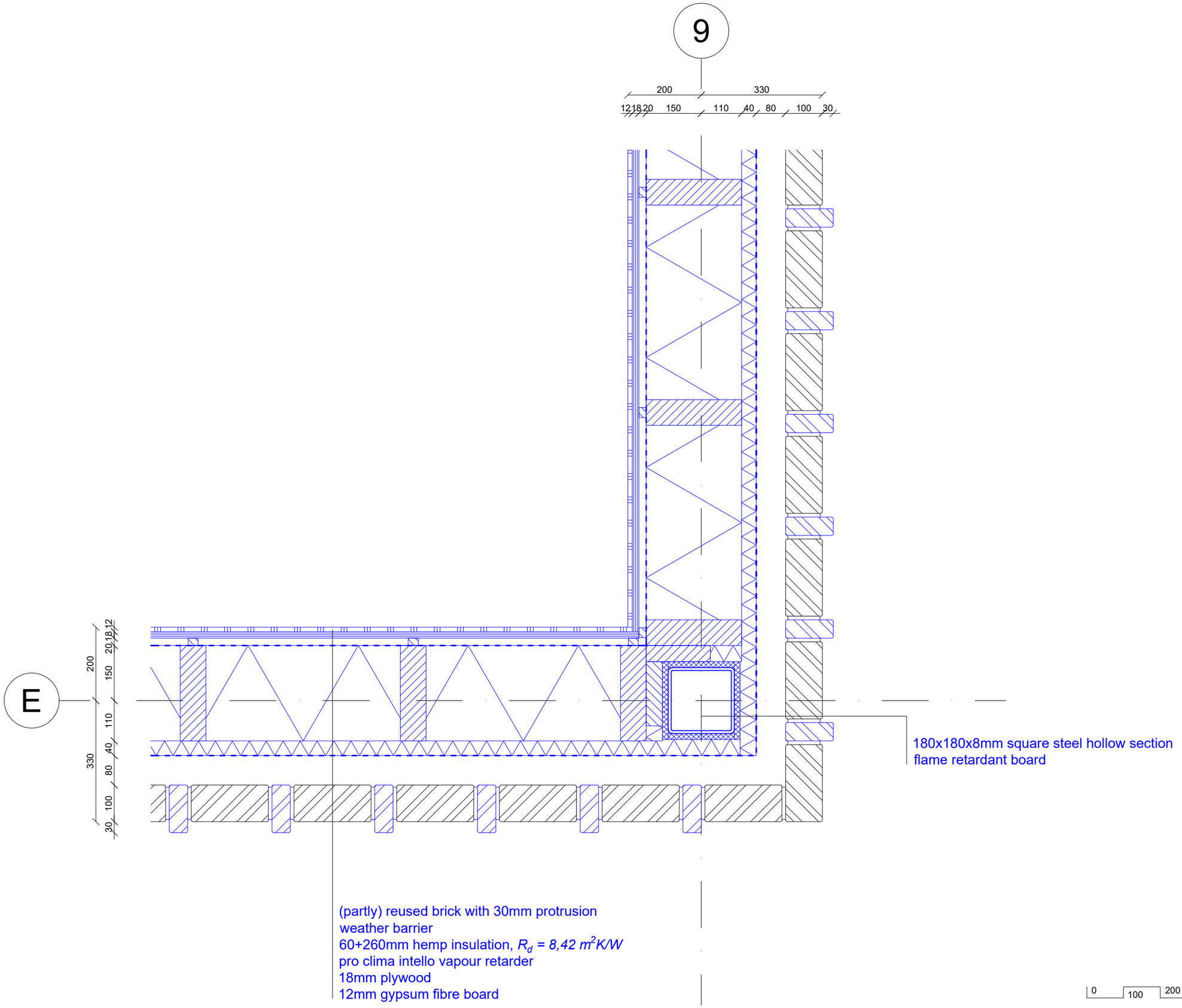
1:10



staircase
horizontal detail
1:10



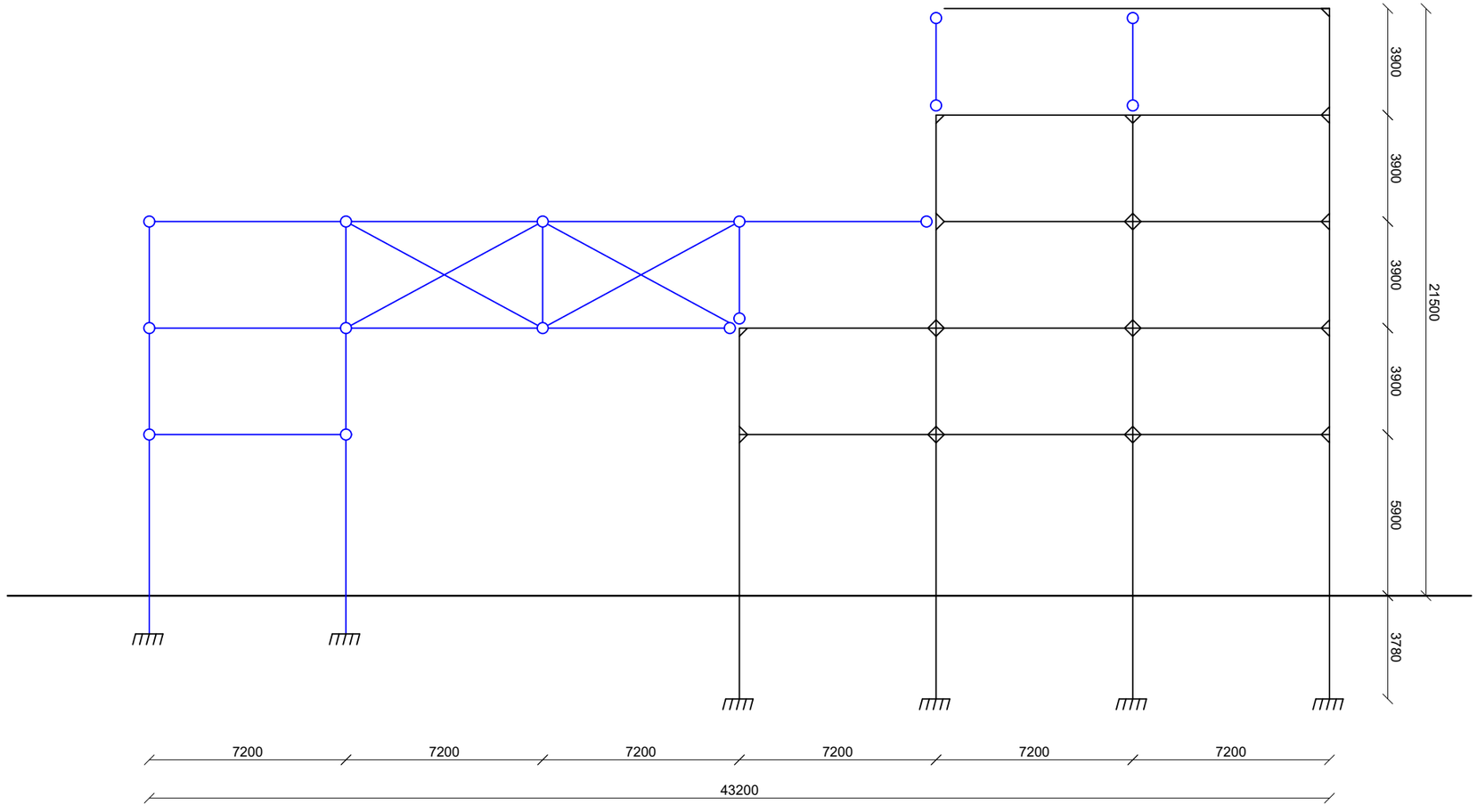
staircase
corner detail
1:10



frame

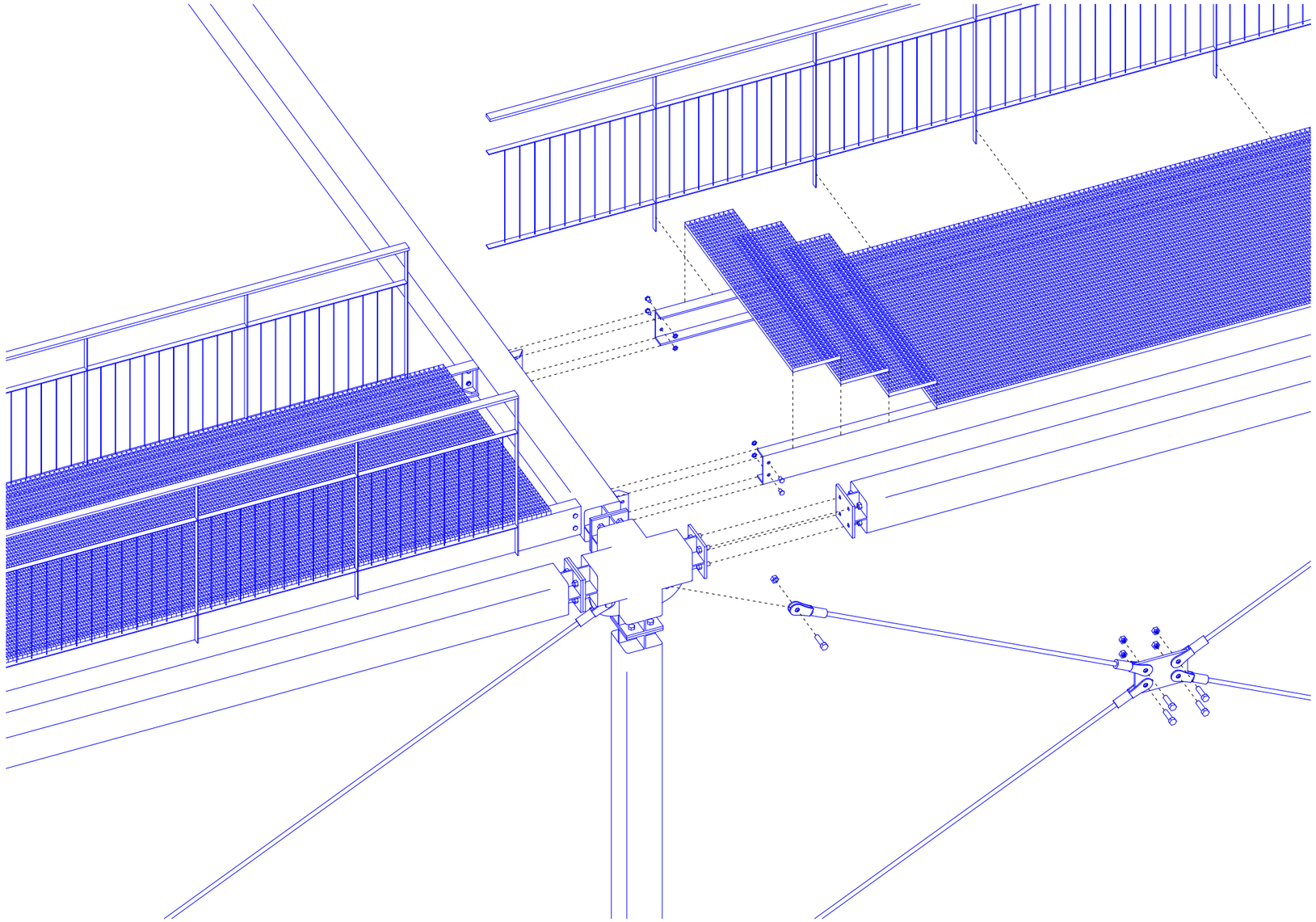
structural diagram

1:200

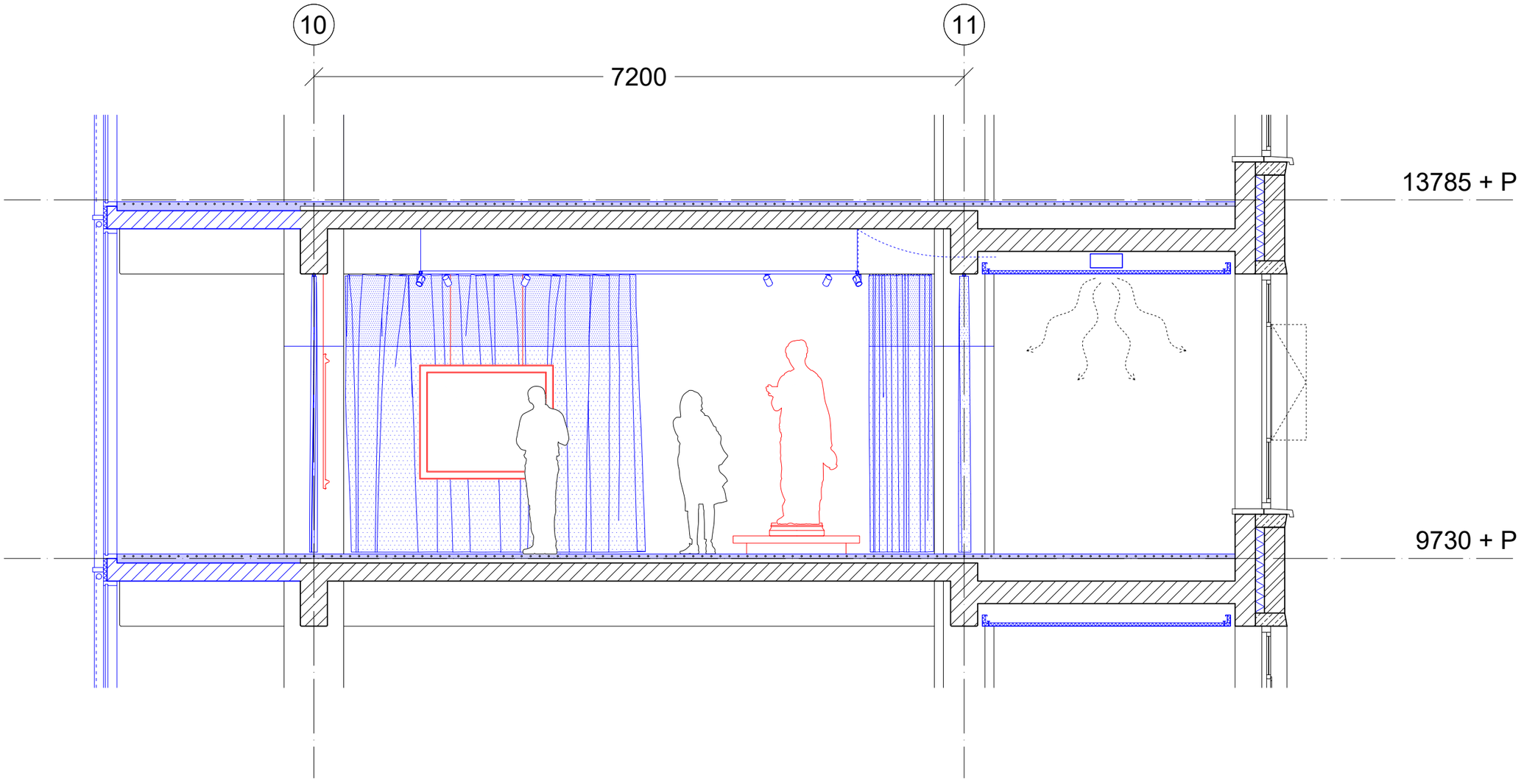


0 1 2 5 10m

frame
assemblage



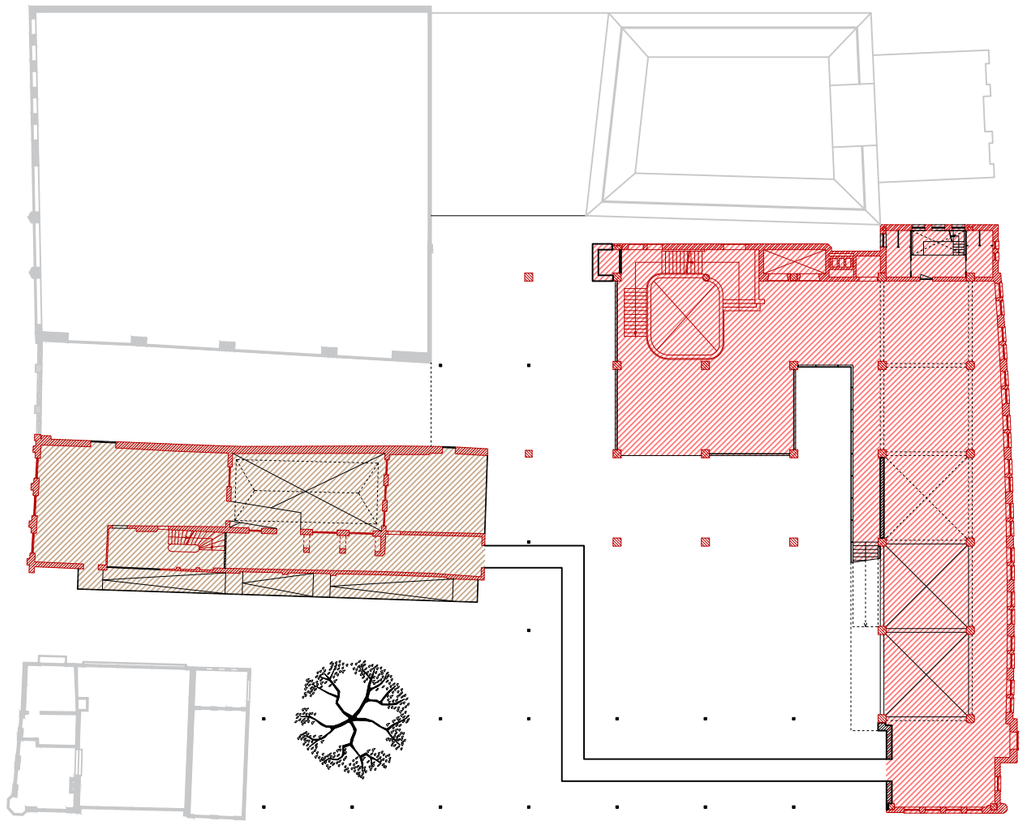
warehouse
gallery section
1:50



0 0,5 1 2m

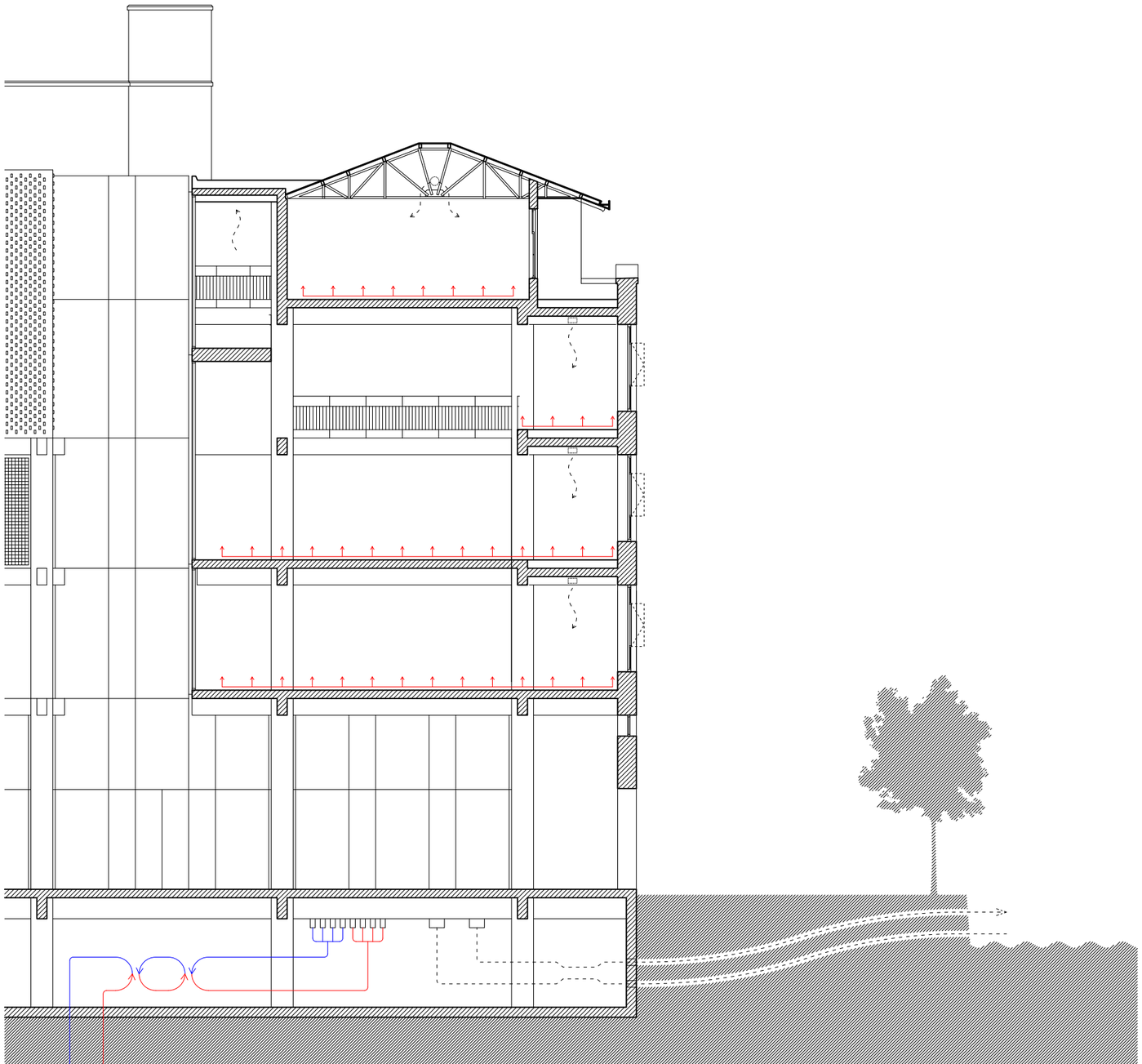
climate design

zoning



warehouse

climate scheme, winter situation

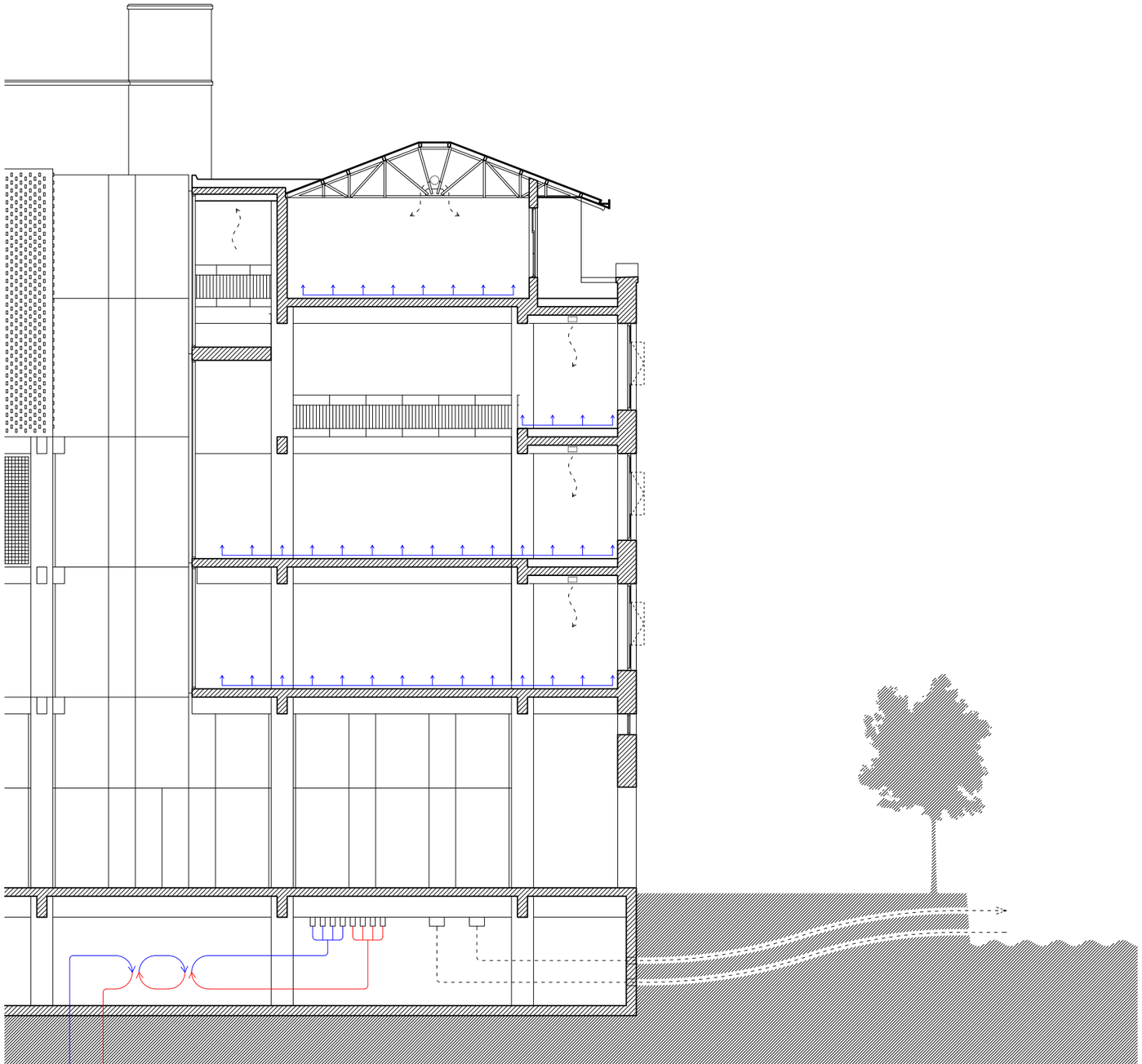


heating:
ground-coupled heat exchanger
heat pump
floor heating

ventilation:
heat exchanger

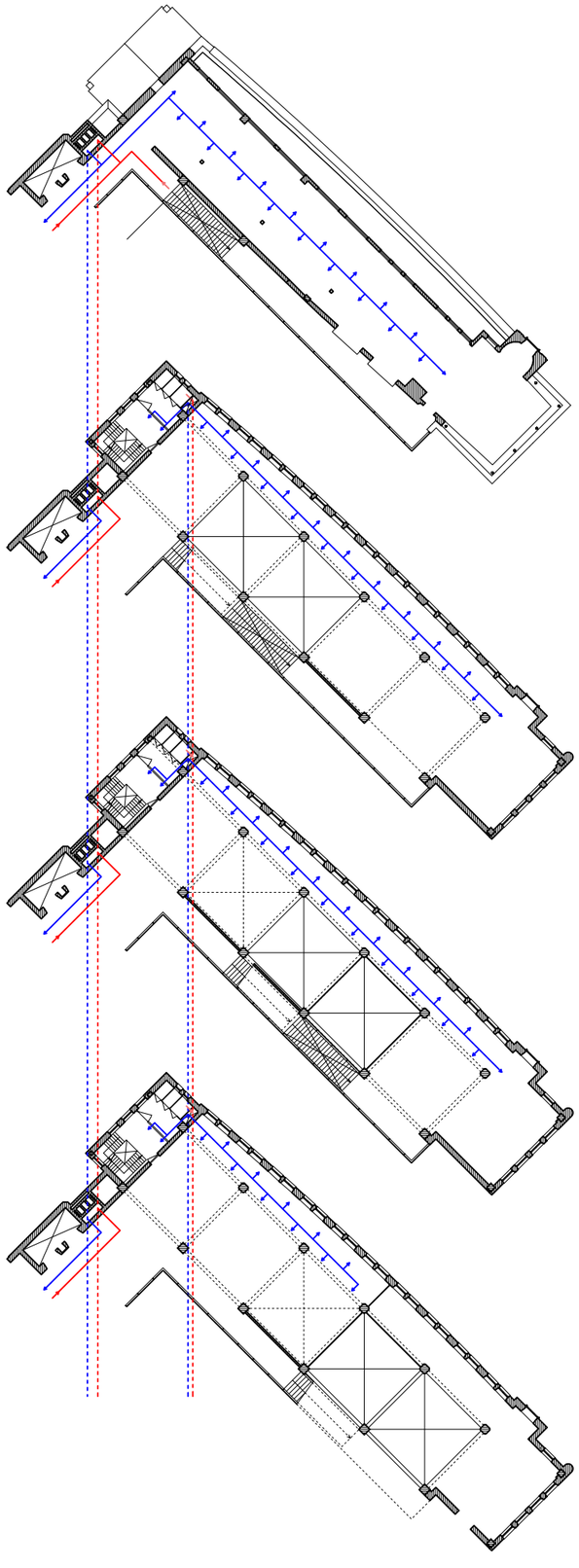
warehouse

climate scheme, summer situation



cooling:
ground-coupled heat exchanger
heat pump
floor heating

warehouse
ventilation calculations



occupation: **160 people** (1600m^2)
ventilating regulations (Bouwbesluit 2012): **4dm^3/s/person**
V_{max} = **3m/s**

total ventilation: **664dm^3/s**
duct: 664dm^3/s : 3m/s = 22,1dm^2 = **ø530mm**

04 museum
floor area: **420m^2**
occupation: **42 people**
ventilation: 42 x 4dm^3/s/person = **168dm^3/s**
duct: 168dm^3/s : 3m/s = 5,6dm^2 = **200 x 280mm**

03 museum
floor area: **390m^2**
occupation: **39 people**
ventilation: 39 x 4dm^3/s/person = **156dm^3/s**
duct: 156dm^3/s : 3m/s = 5,2dm^2 = **200 x 260mm**

addendum
toilet: 2 x 7dm^3/s = **14dm^3/s**
staircase: 16m^3 x 0,5 dm^3/s/m^2 = **8dm^3/s**
ventilation: **24dm^3/s**

02 museum
floor area: **390m^2**
occupation: **39 people**
ventilation: 39 x 4dm^3/s/person = **156dm^3/s**
duct: 156dm^3/s : 3m/s = 5,2dm^2 = **200 x 260mm**

addendum
toilet: 2 x 7dm^3/s = **14dm^3/s**
staircase: 16m^3 x 0,5 dm^3/s/m^2 = **8dm^3/s**
ventilation: **24dm^3/s**

01 museum
floor area: **280m^2**
occupation: **28 people**
ventilation: 28 x 4dm^3/s/person = **112dm^3/s**
duct: 112dm^3/s : 3m/s = 3,7dm^2 = **200 x 190mm**

addendum
toilet: 2 x 7dm^3/s = **14dm^3/s**
staircase: 16m^3 x 0,5 dm^3/s/m^2 = **8dm^3/s**
ventilation: **24dm^3/s**