

Design considerations:

Royal Commission on
the Ancient and Historical
Monuments of Scotland





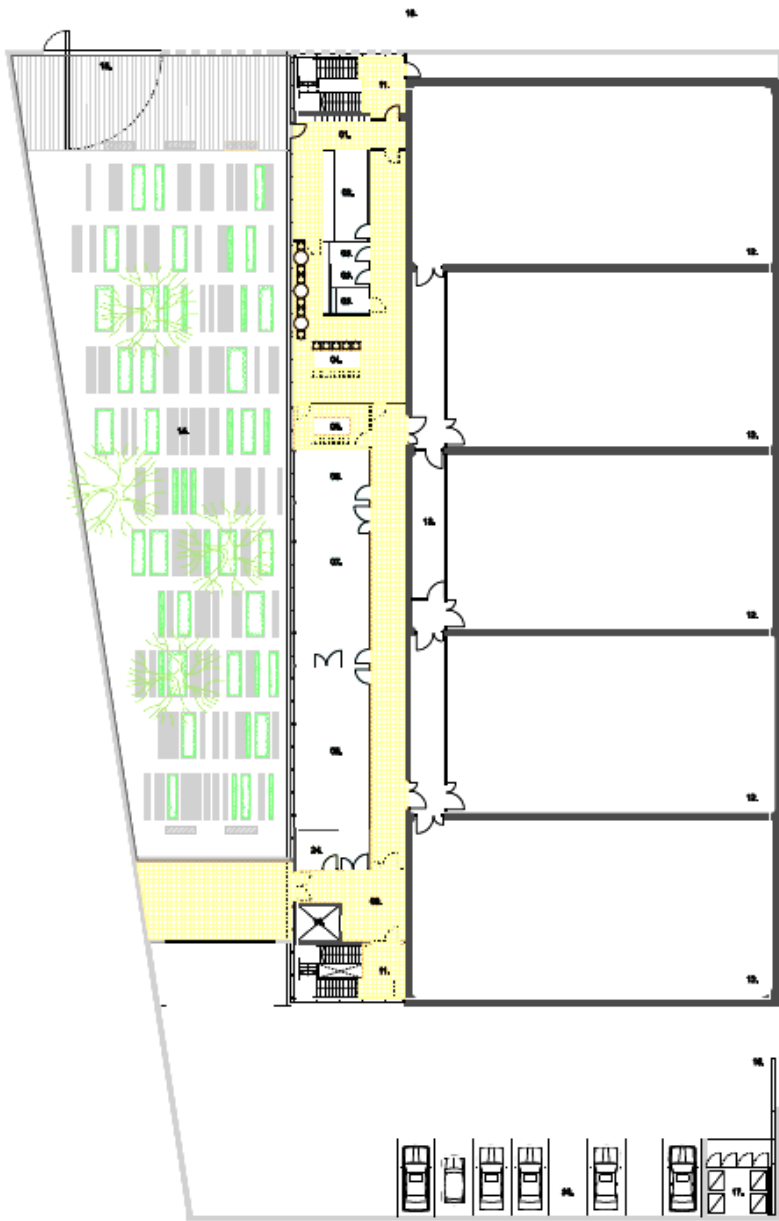




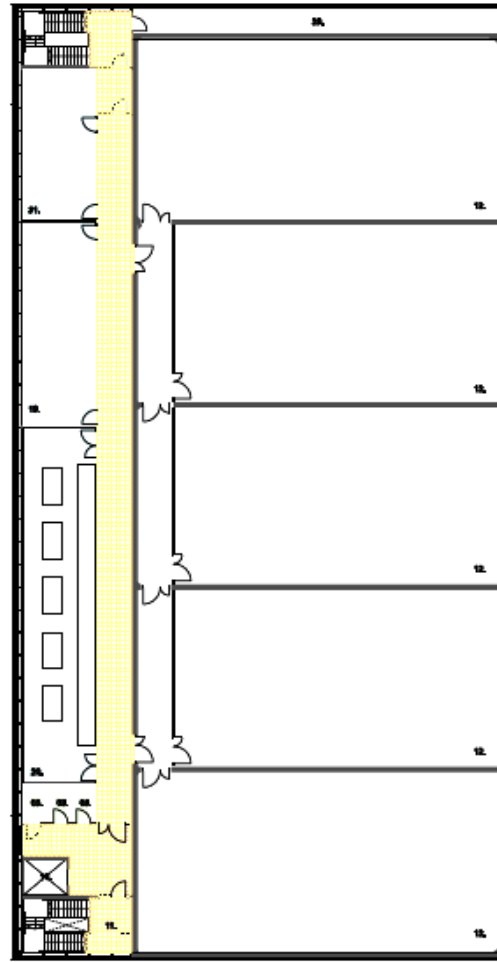


View from north west

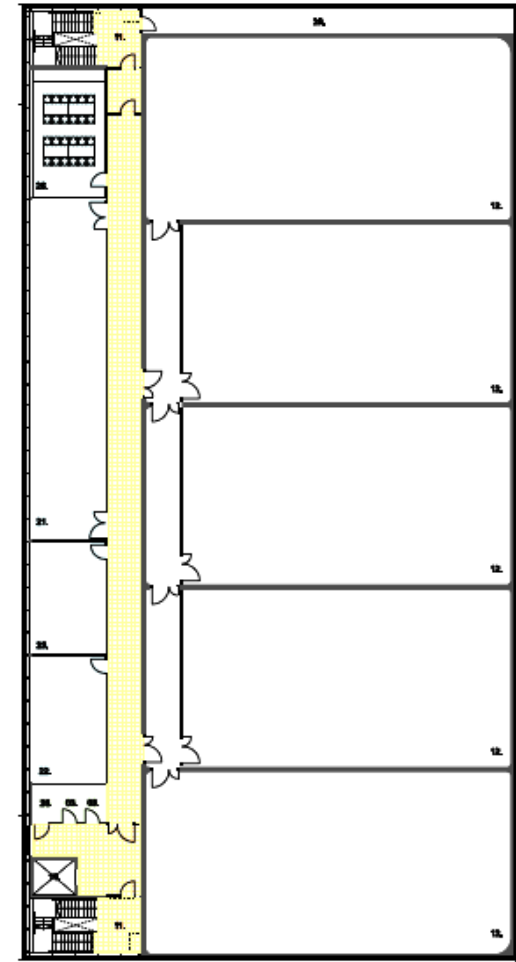




GROUND FLOOR PLAN



FIRST FLOOR PLAN

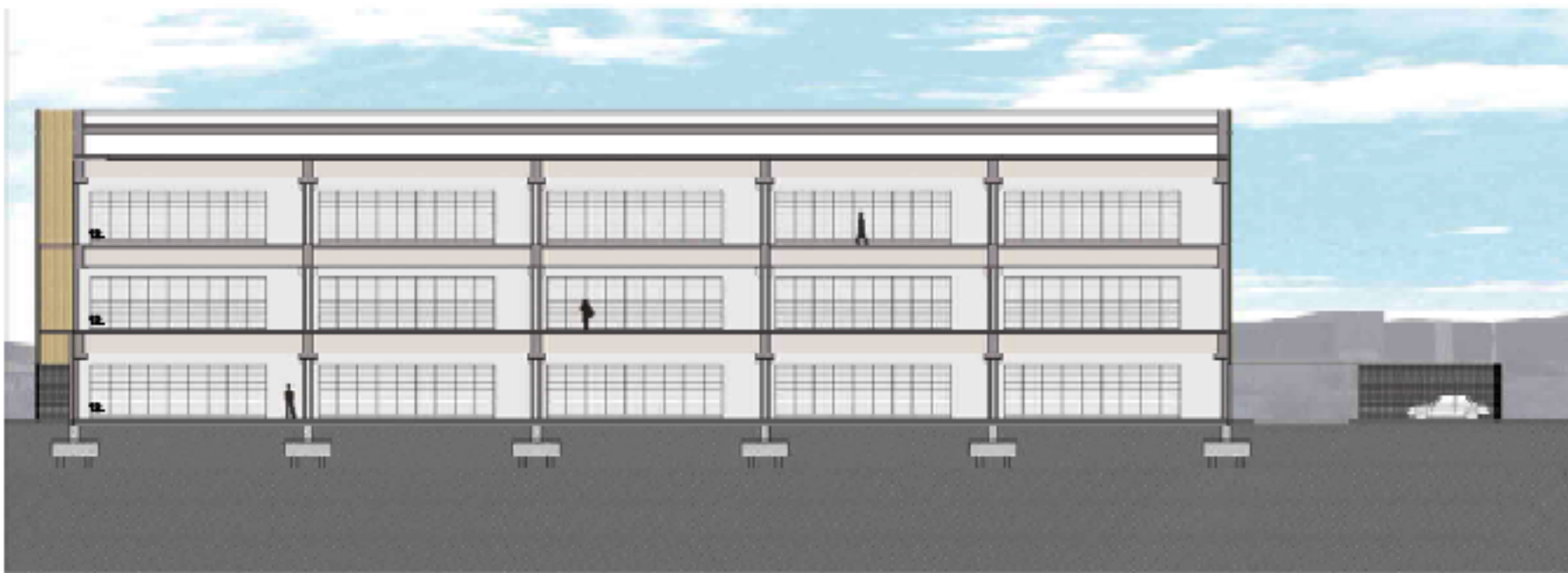


SECOND FLOOR PLAN

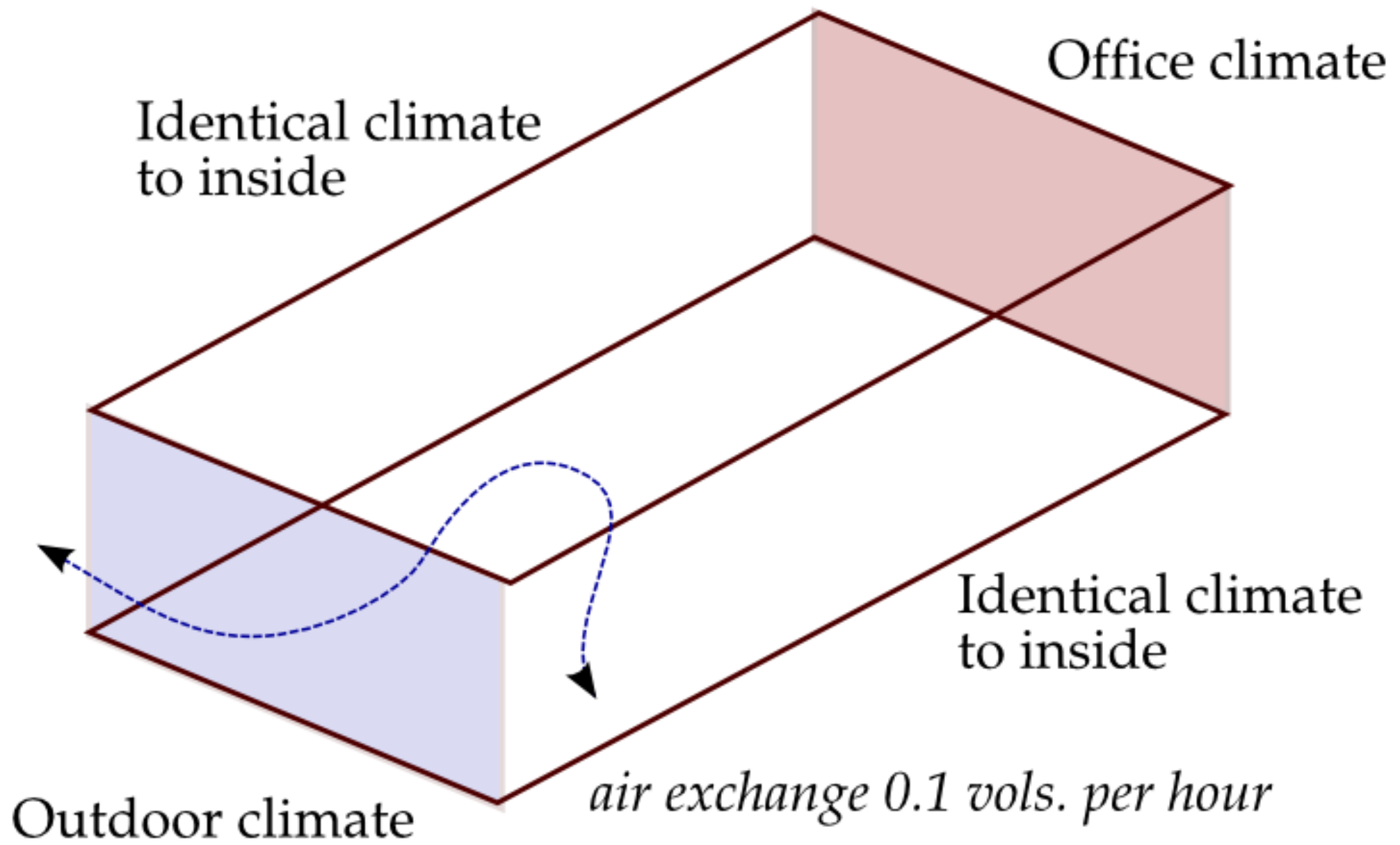
Each room is 24 x 12 m

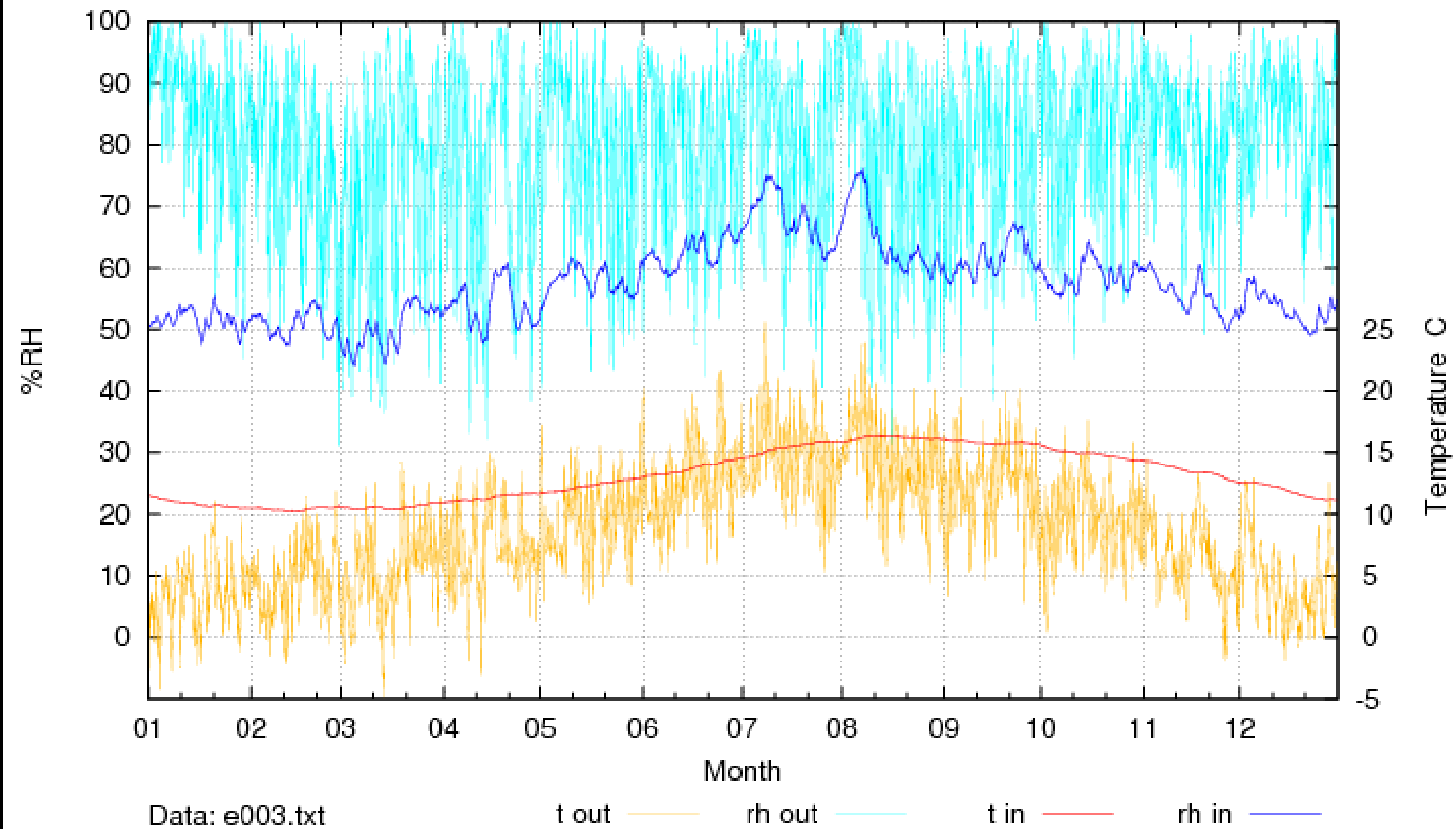


SECTION AA

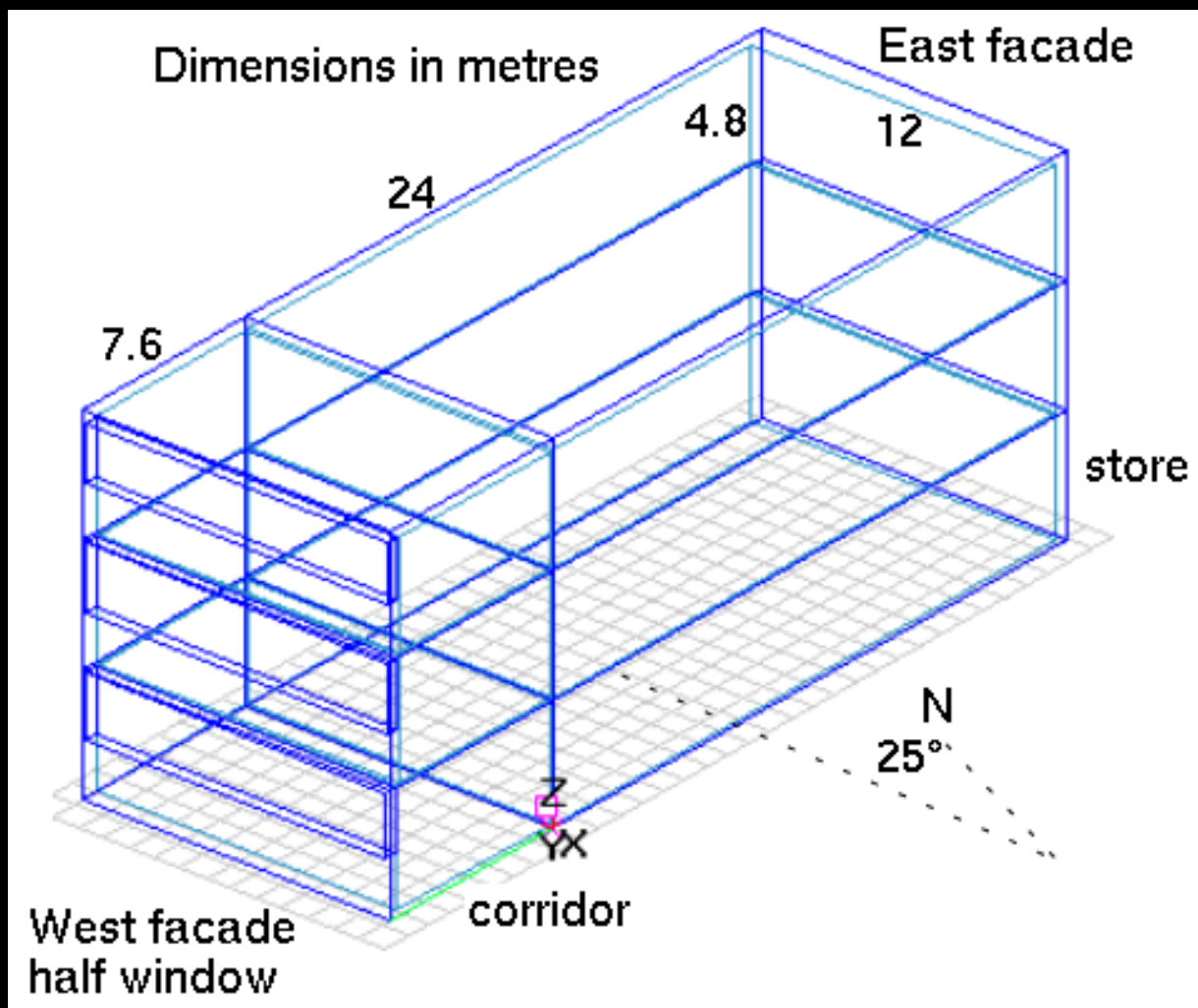


SECTION BB

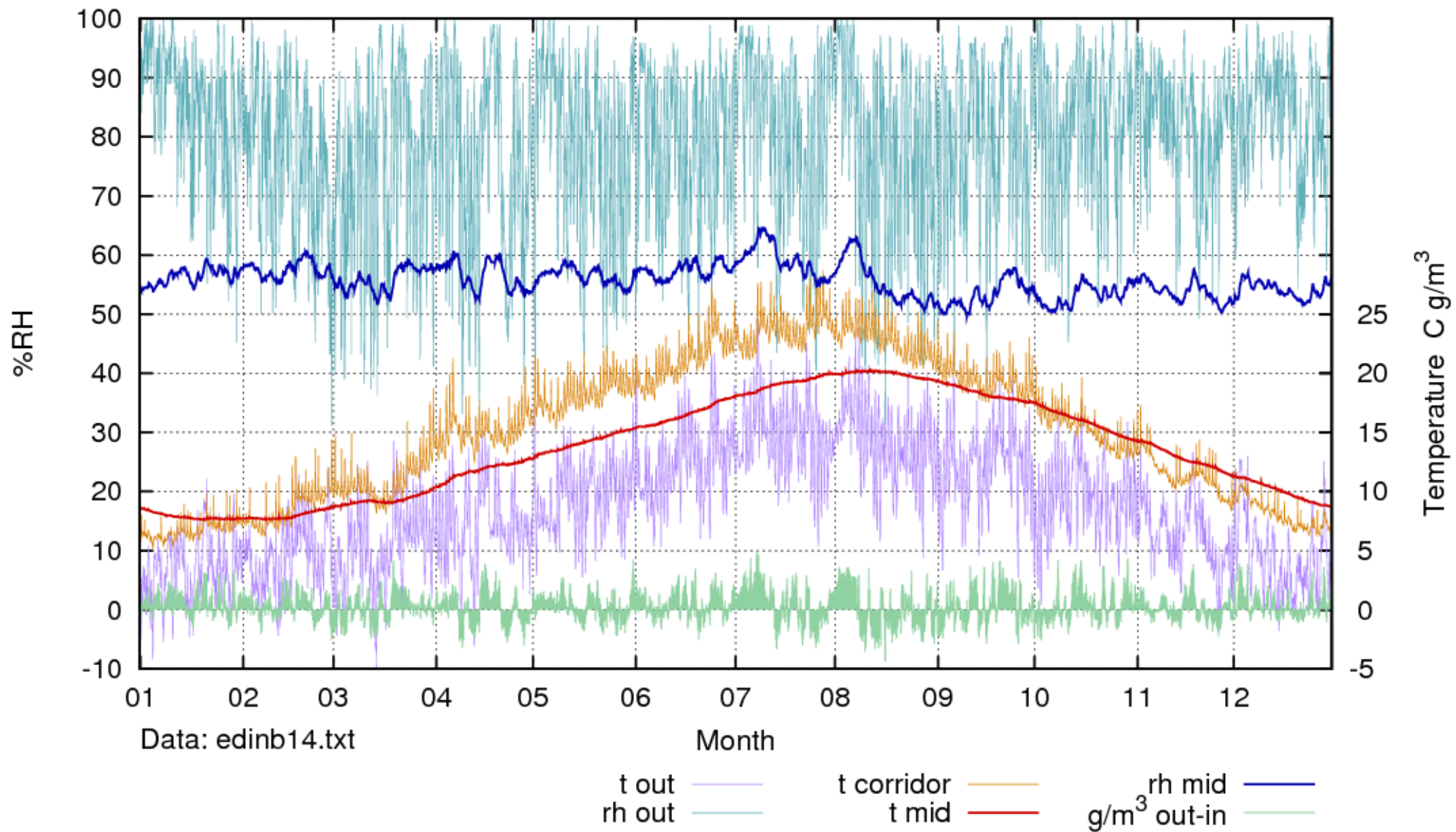


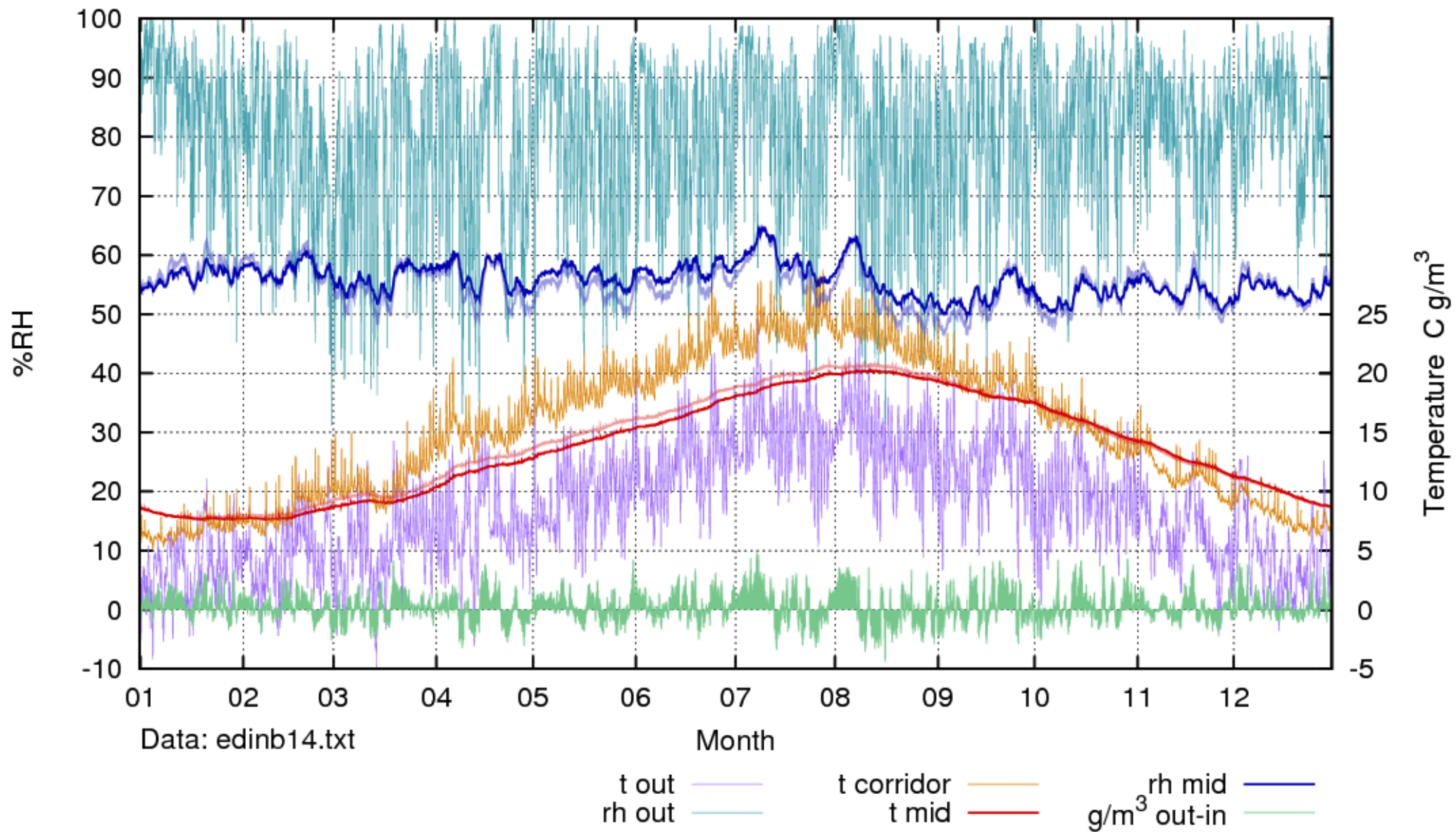


External wall: 200 mm insulation – 300 mm cellular concrete blocks
 Wall to corridor: 150 mm concrete
 Internal walls 100 mm paper
 Corridor temperature constant 20°C



Corridor now used as solar heating device with varying temperature through the year.
 Corridor – archive wall is 250 mm lightweight concrete.
 Outside wall east is 200 mm insulation, 250 mm lightweight concrete.
 Outside wall west is half as east wall, half double glazed window.
 Air exchange rate to corridor 0.1 per hour.
 Inside wall surfaces buffered by paper.





The pale traces show the unbuffered RH and temperature