Abhainn

Sustainable Living

in a

Connected Community



PAPER IGLOO

It’s impossible



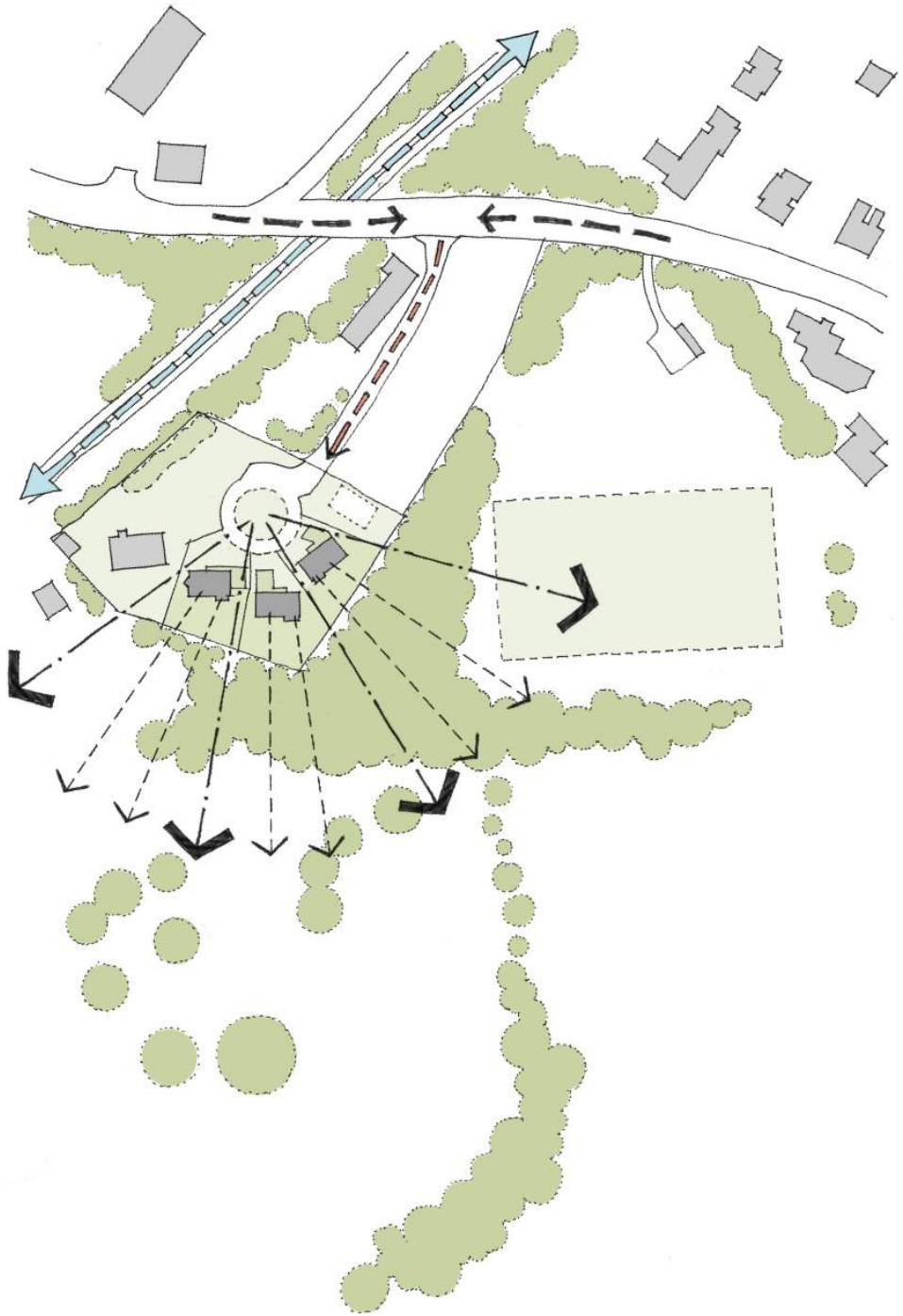






What could it be?

- Creative
- Regional
- Thoughtful
- Resilient
- Low Energy



A dialogue with place

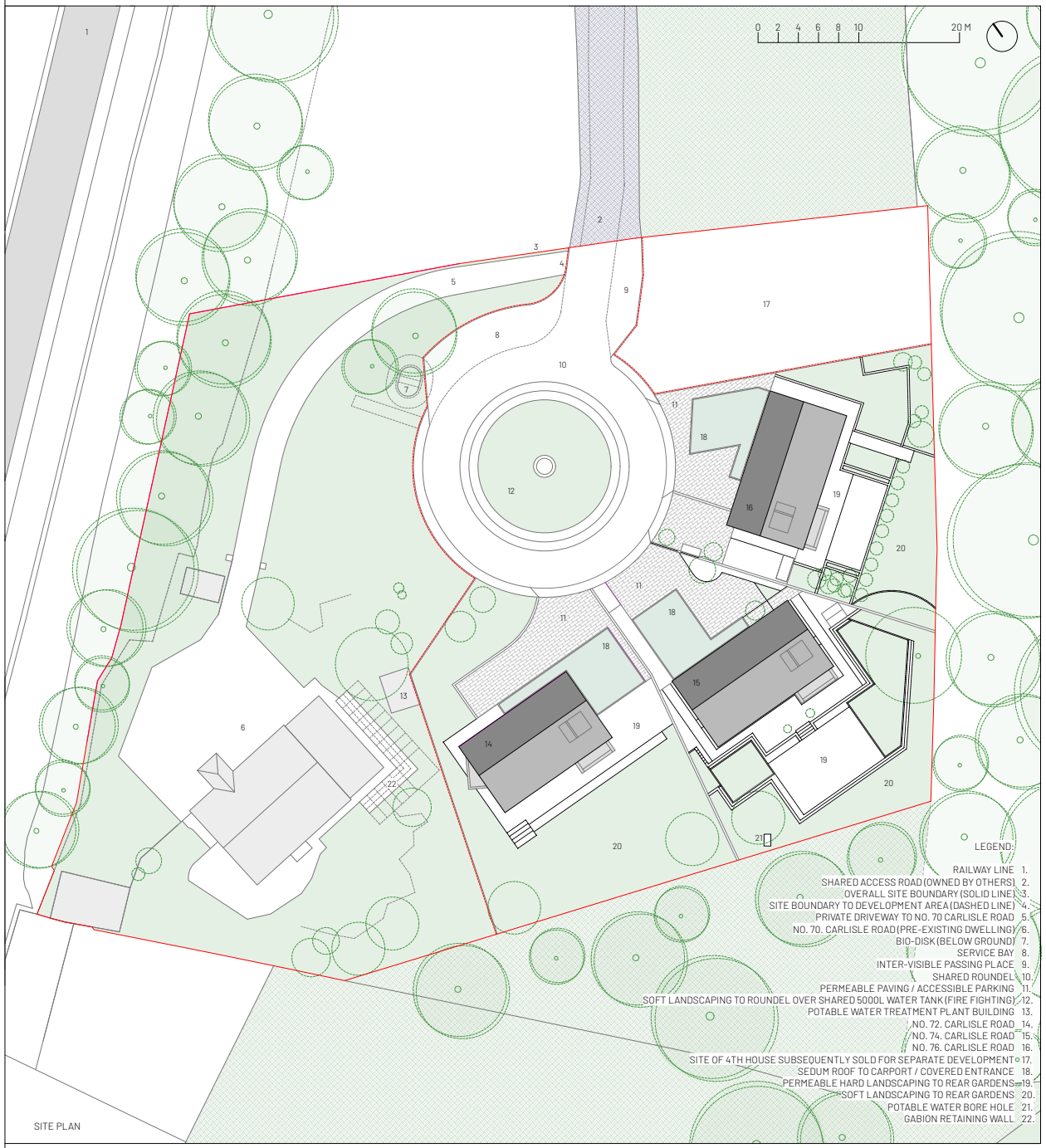
0 20 40 60 80 100 M

LEGEND:

A. CARLISLE ROAD BRIDGE OVER RAILWAY LINE
B. SHARED ACCESS ROAD & PASSING PLACE (OWNED BY OTHERS)
C. SCRUBLAND
D. STABLE / OUTBUILDING (OWNED BY OTHERS)
E. LOCAL FOOTBALL GROUND
F. APPLICATION SITE (FORMER HORTICULTURAL NURSERY ADJACENT TO NO. 70)
G. TREE BELT / WOODED AREA
H. CHATELHERAULT COUNTRY PARK



LOCATION PLAN



SITE PLAN

Beauty with a backbone



Not dreaming – daring

- Contemporary design
- Certified Passivhaus
- Low Carbon
- Exceeds RIBA 2030
- Sustainability Gold



Because less bad isn't good enough

Carbon Dioxide Emissions



Well-Being & Security



Energy for Water Heating



Optimising Performance



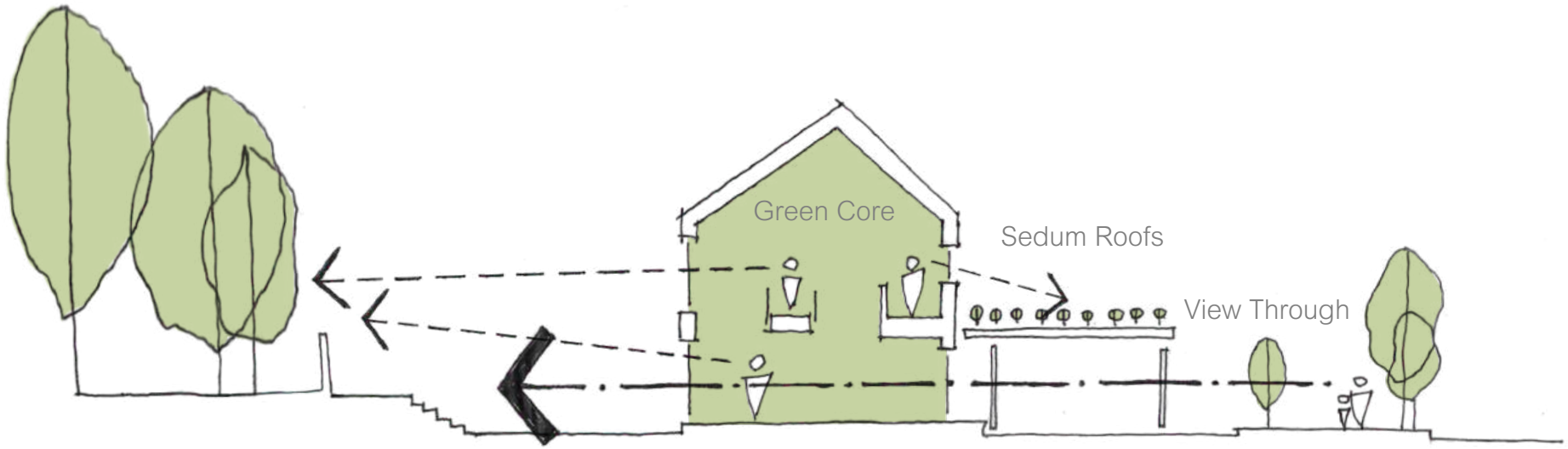
Energy for Space Heating

Flexibility & Adaptability

Water Use Efficiency

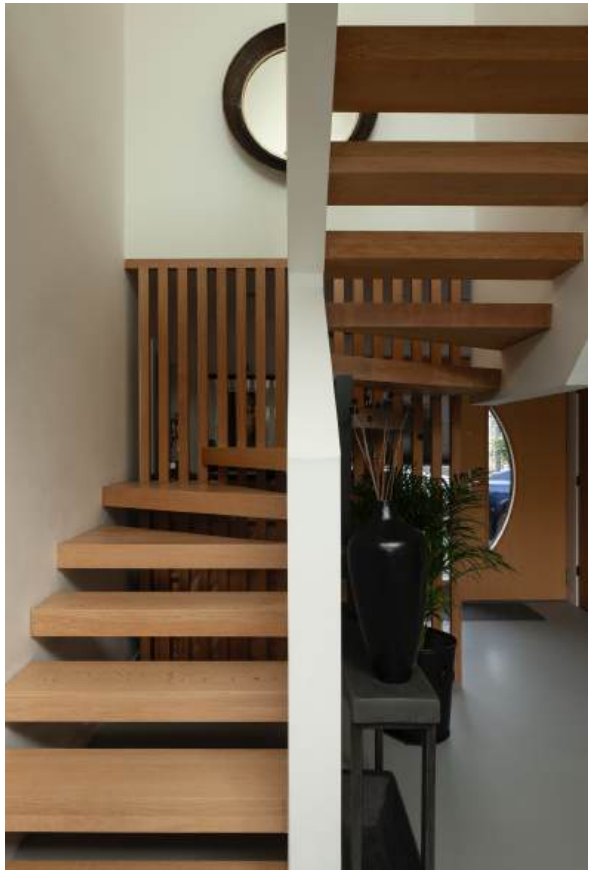
Material Use & Waste

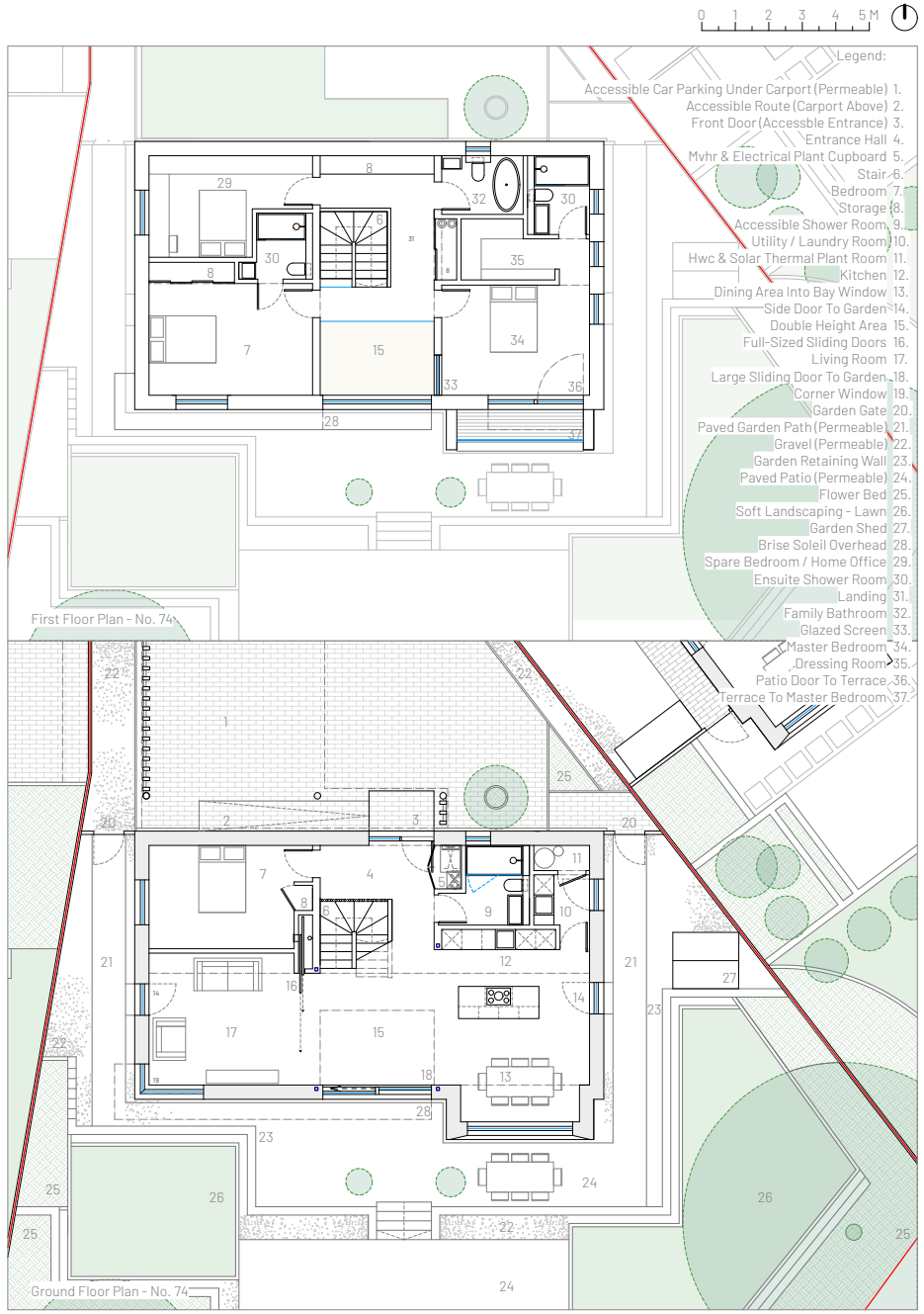
A journey through nature



Crafted with intention







A connected community



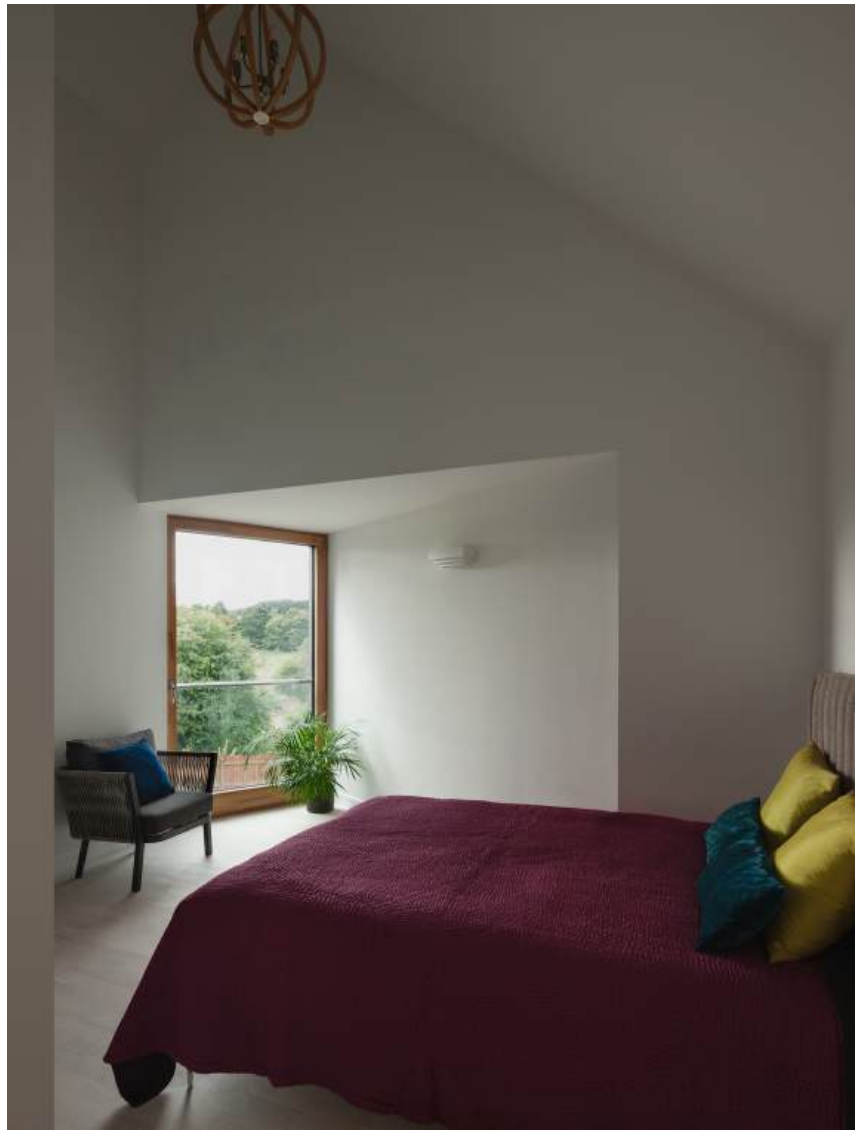
Designing out exclusion



Letting the wild in



Immersed in nature and light





Silent systems



From green to gold

Renewable Energy

Low Operational Energy

Low Embodied Carbon

Flexibility & Adaptability

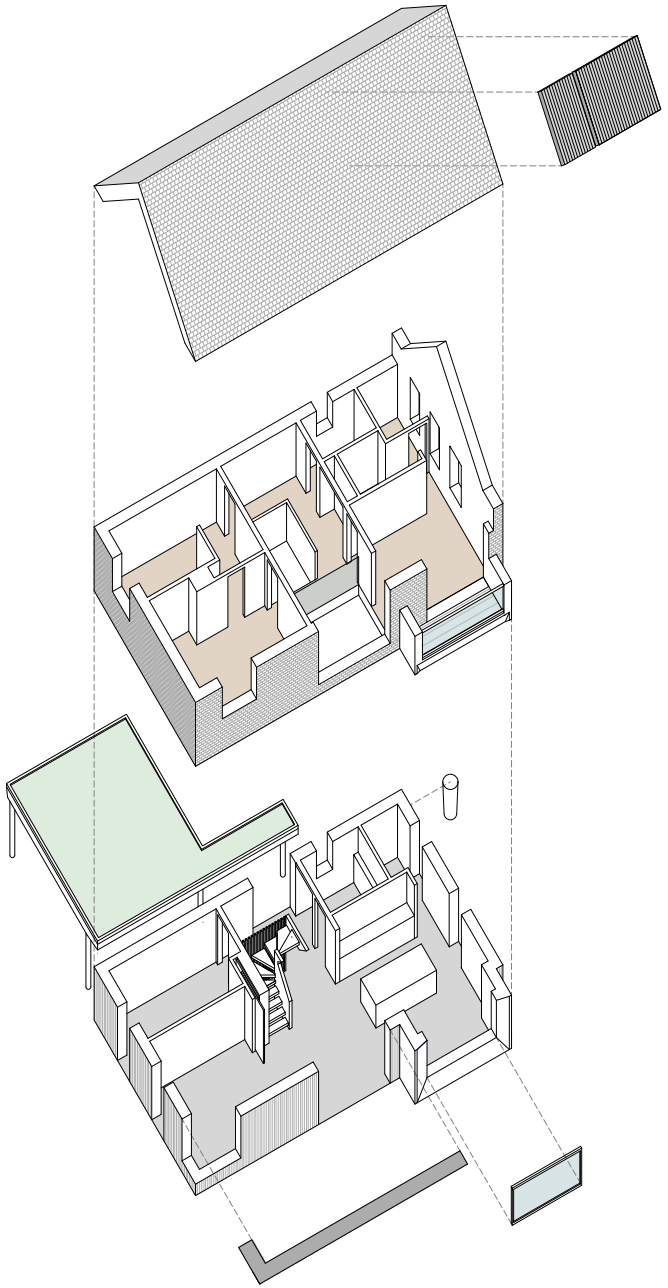
Enhanced Acoustics

Sustainable Surface Water

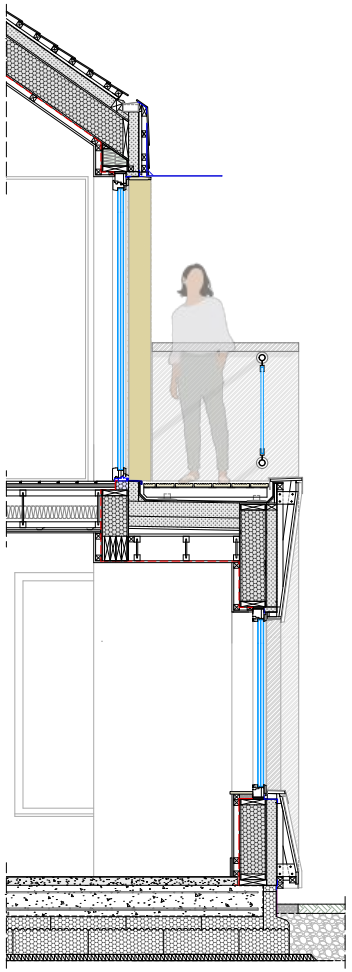
Optimised performance

Water saving measures

Enhanced Daylighting



No gaps,
just performance





Cool and calm

2 – 6 occupants per house

4.9% Overheating / yr (predicted)

24.6% Glazing as % of TFA

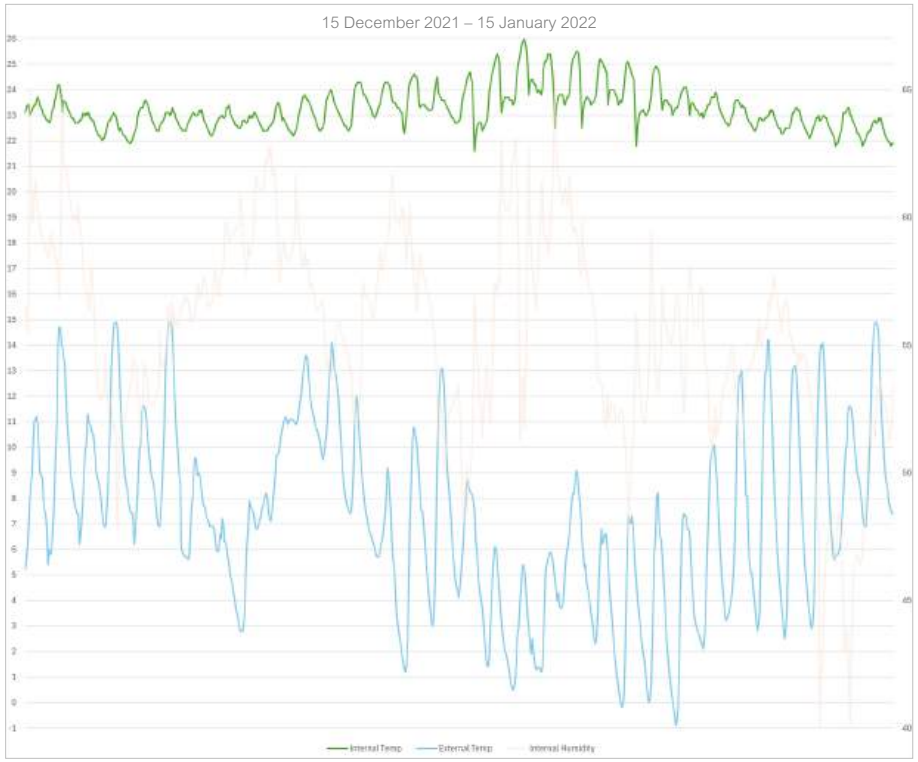


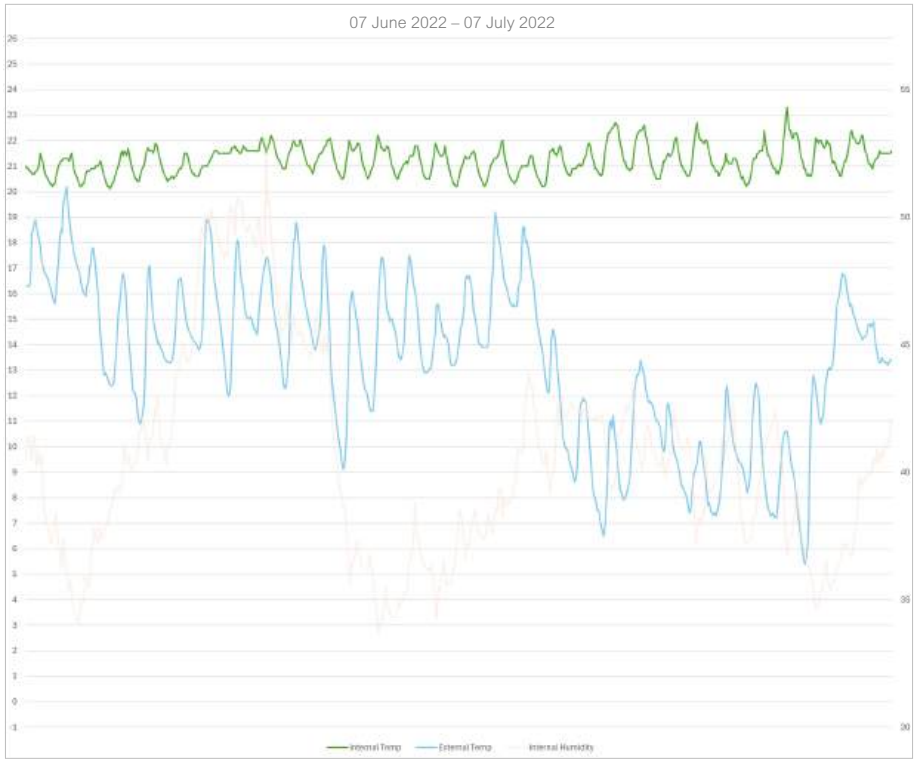
Comfort without compromise

0% Overheating / yr (actual)

“I’m really enjoying living in my new home. It’s been toasty and warm over winter and nice and cool over summer and isn’t costing me much to run.”

- Owner



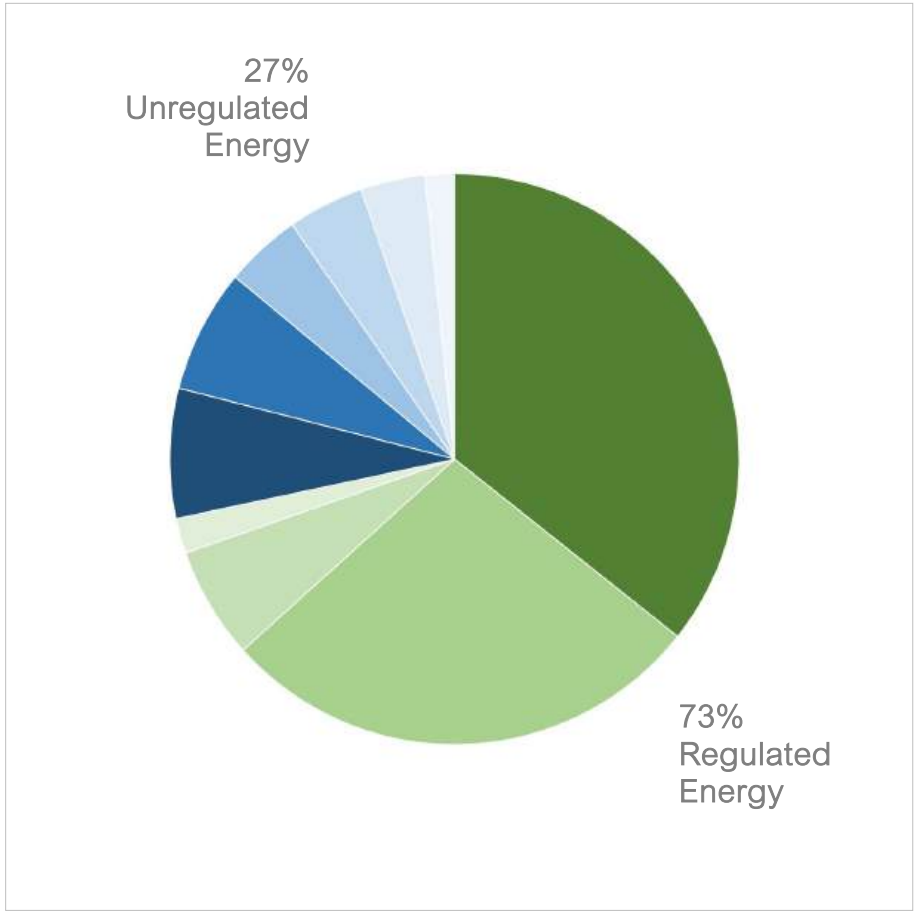


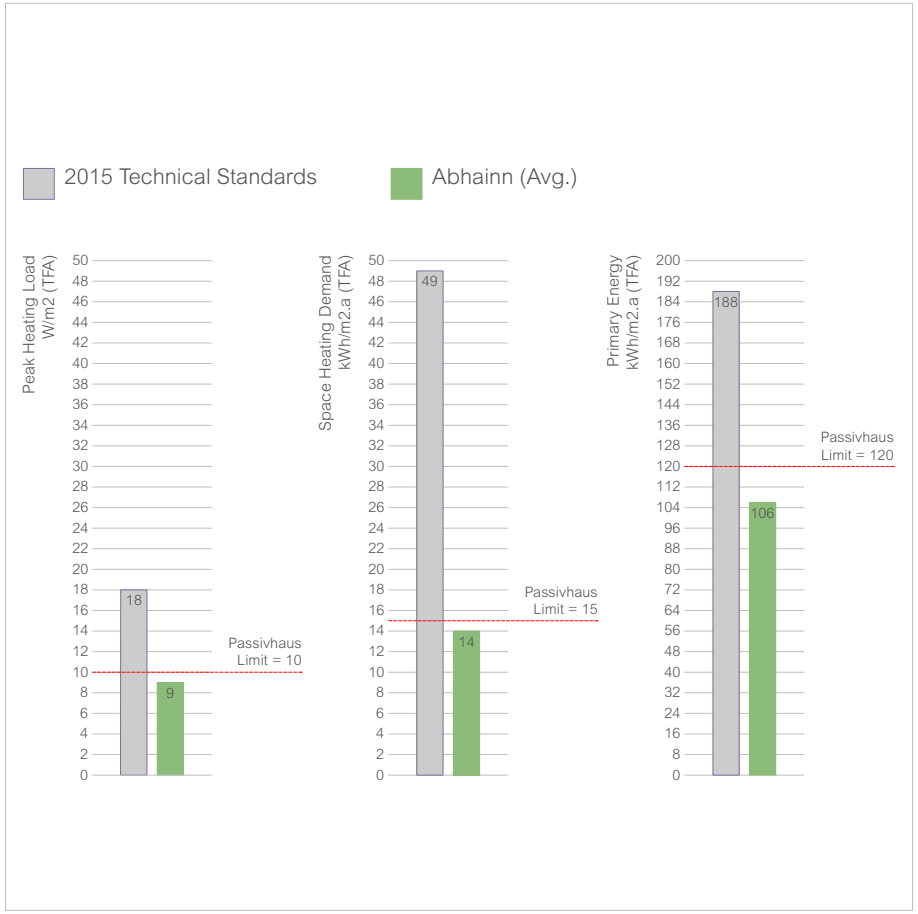
Low energy, maximum performance

Measured energy use:
only **3.5%** variance

Difference due to:
- *higher internal temps*
- *additional tumble dryer*
- *incorrect solar set up*

Comparison with Reg.'s:
29% of the heating energy
25% of the running cost



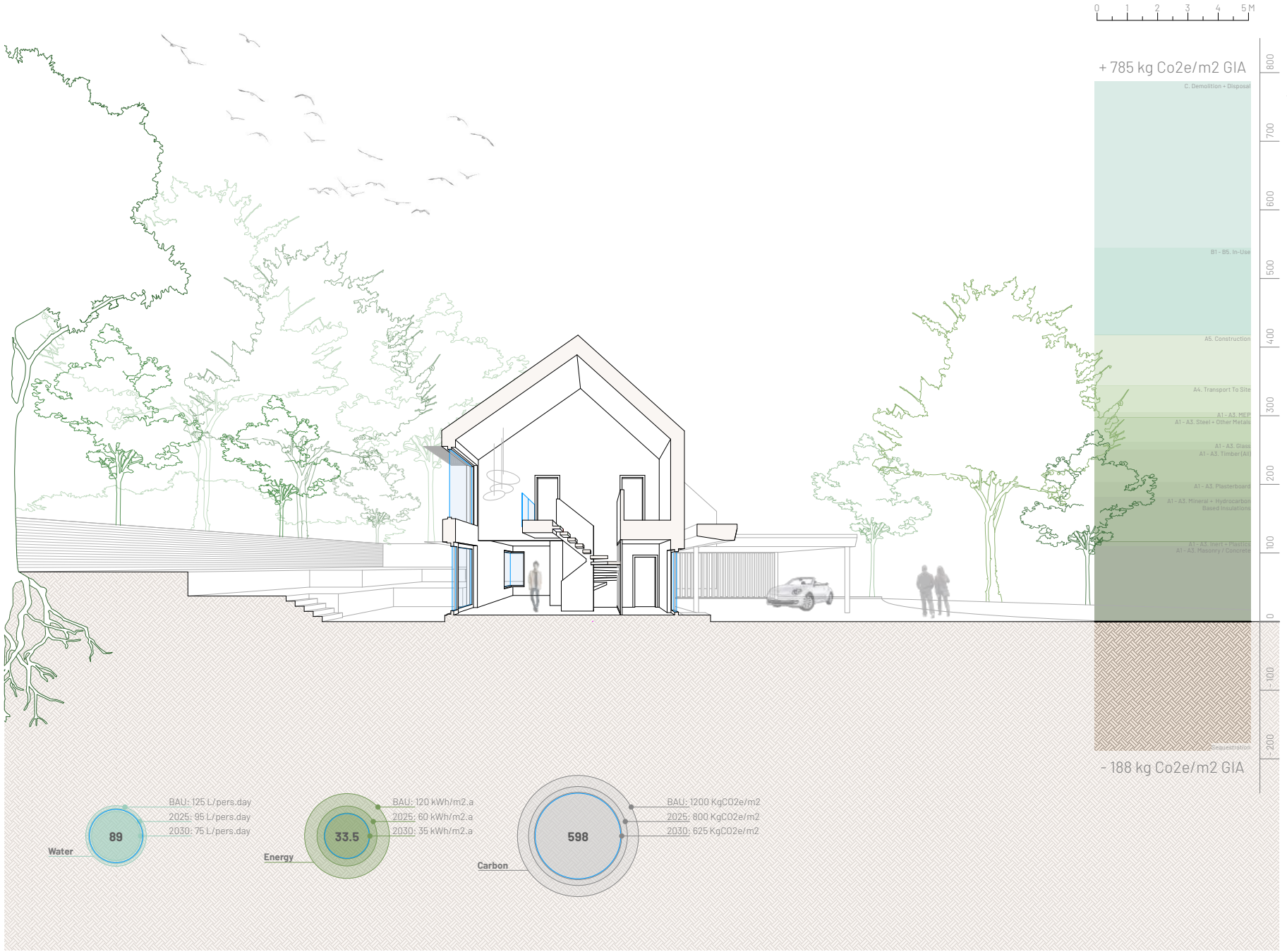


Counting the hidden cost

RIBA 2030
Embodied Carbon
Operational Energy

598KgCO$_2$e/m^2 GIA

RIBA 2025
Potable Water Use



Built to inspire

- Low build cost
  £2340 / m^2 (GIA)
- Low running costs
  £10.48 /m^2 / yr (GIA)
- No combustion
- Replicable
- Scalable



What came next









A future
worth sharing

