

BDP.

HOUSING
INDUSTRY LEADERS

The view from Prospecthill Court

Edward Dymock Architect Associate Director



Change the destiny of the buildings
Change the destiny of their tenants



2018 Retrofit : Project context

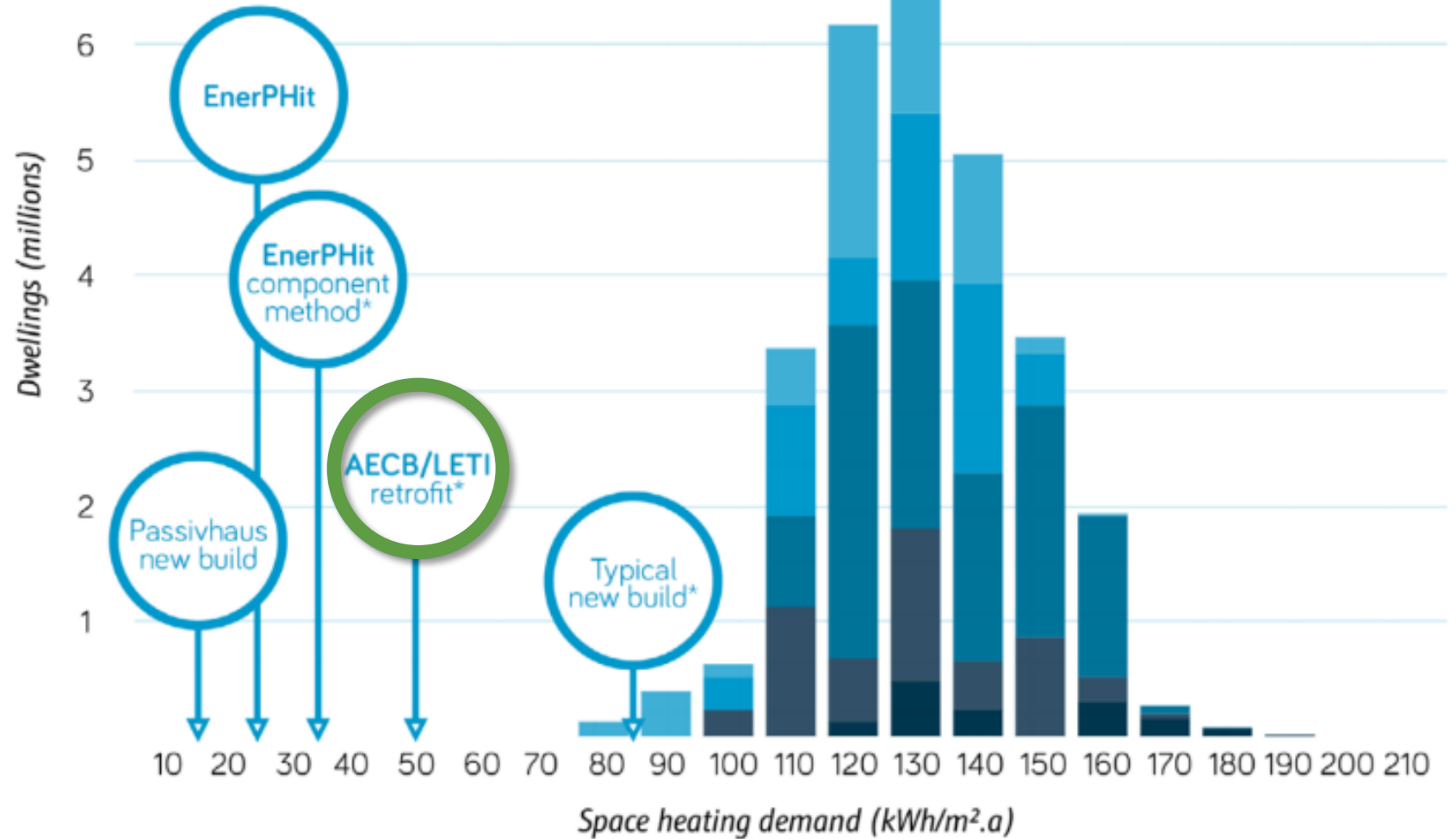


Cladding failure. Project context



Cladding failure: Project context

AECEB CarbonLite Retrofit



*average values, as these approaches accommodate a range of space heat demand outcomes

UK housing stock breakdown by space heating demand and building form

AECEB CarbonLite Retrofit

Space heating demand <50 kWh/m².yr

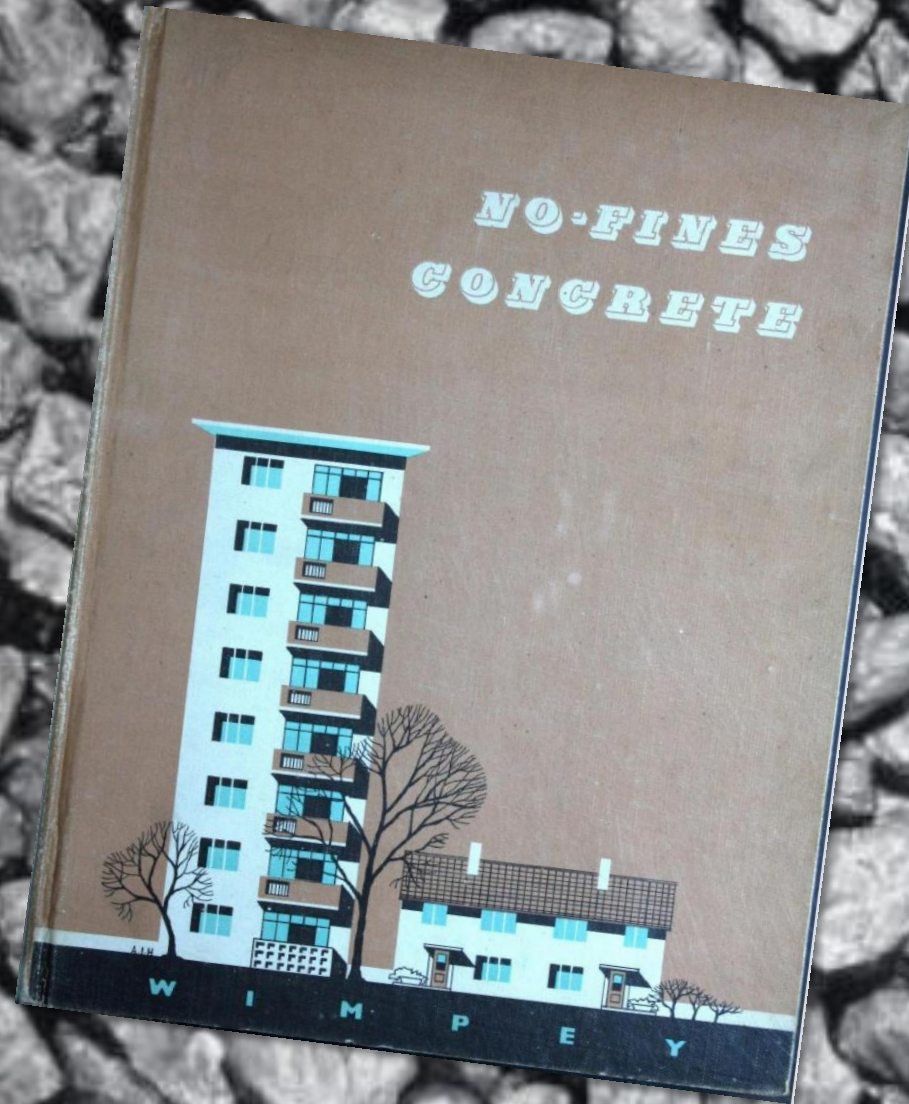
Airtightness <2.0m³/m²/hr@50Pa

Ventilation with heat recovery not essential

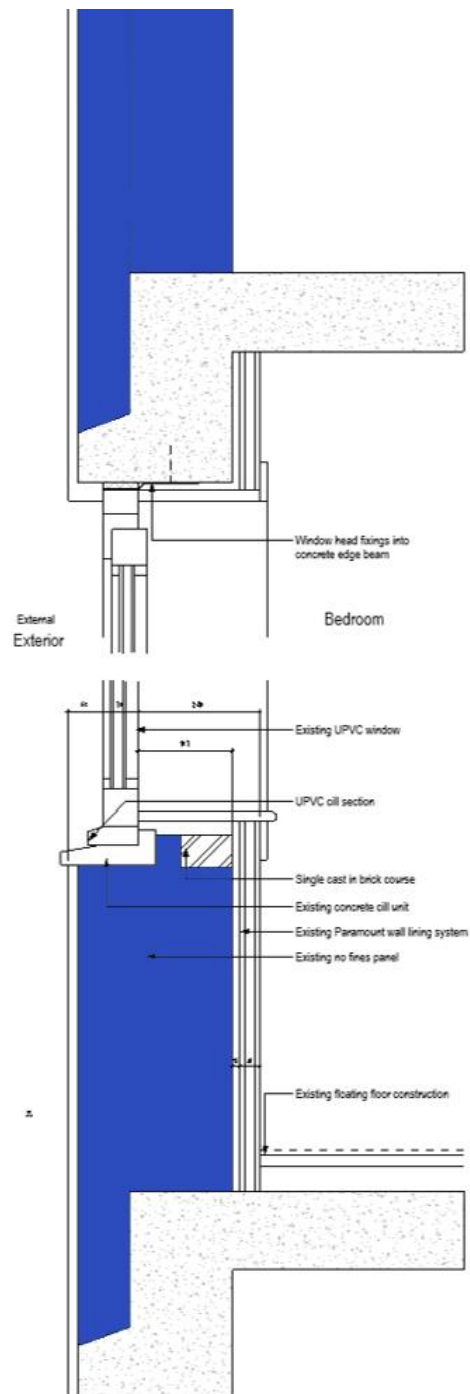
Uses the Passivhaus Planning Package (PHPP)

Considers retrofit risks: moisture, overheating etc.

Post war innovation



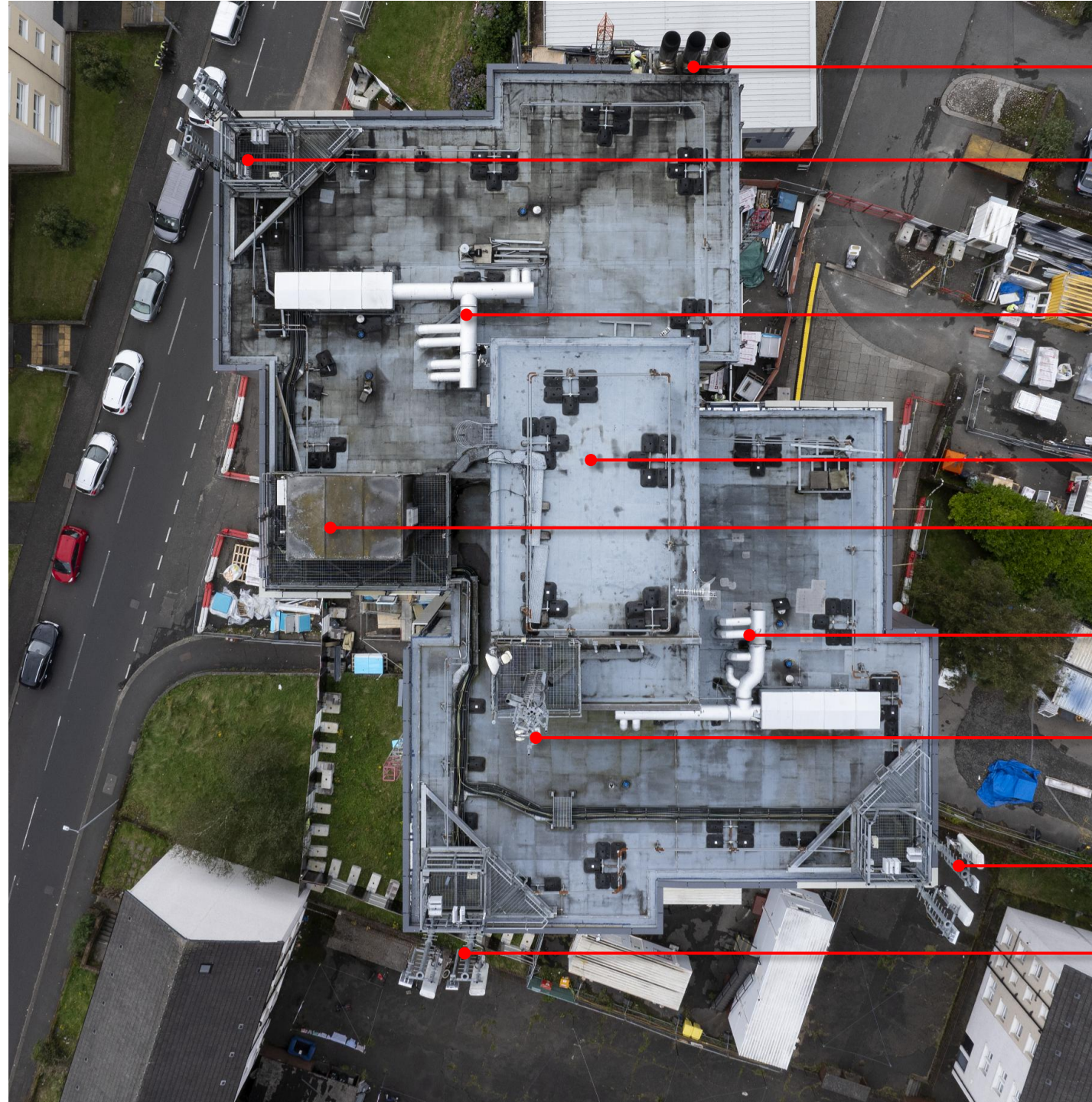
Post war innovation



Energy Centre



Roof



Energy centre flues

Telecoms infrastructure

Bathroom stack ventilation duct & fan unit

Lift overrun

Tank

Bathroom stack ventilation duct & fan unit

Telecoms infrastructure

Telecoms infrastructure

Telecoms infrastructure

Challenges

Existing air permeability



Range of air permeability test results

3.35m³/m².h @ 50pa

6.63m³/m².h @ 50pa

Discovering



*“Tenants need to feel good, safe,
with the contractor in their homes.”*

Tenant Liaison

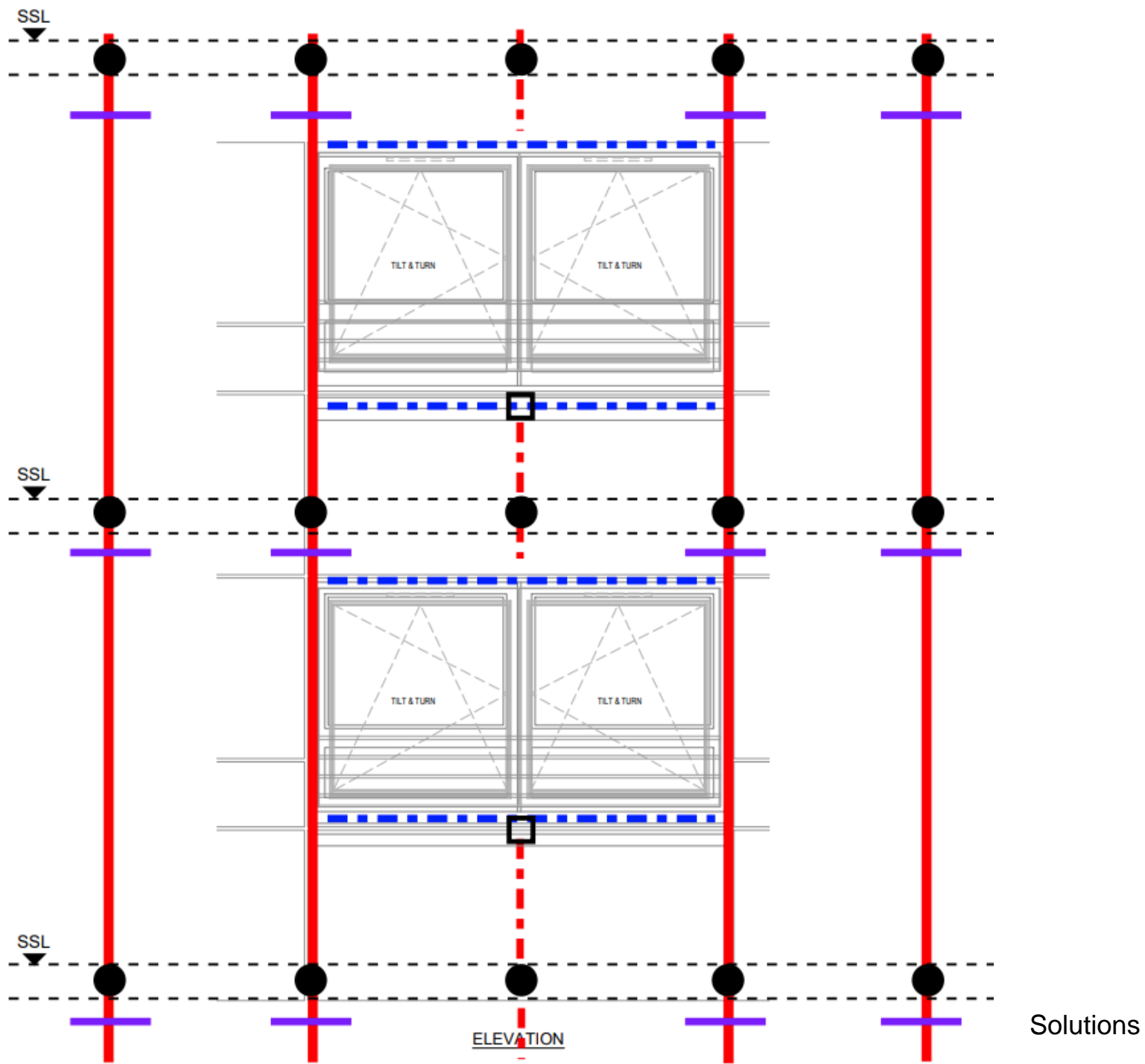
- ❑ Dedicated tenant liaison role
- ❑ **“*Ninety clients, not one*”**
- ❑ First-hand knowledge of tenants
- ❑ Regular contact
- ❑ Flexible working
- ❑ The Pilot Flat as a quiet space



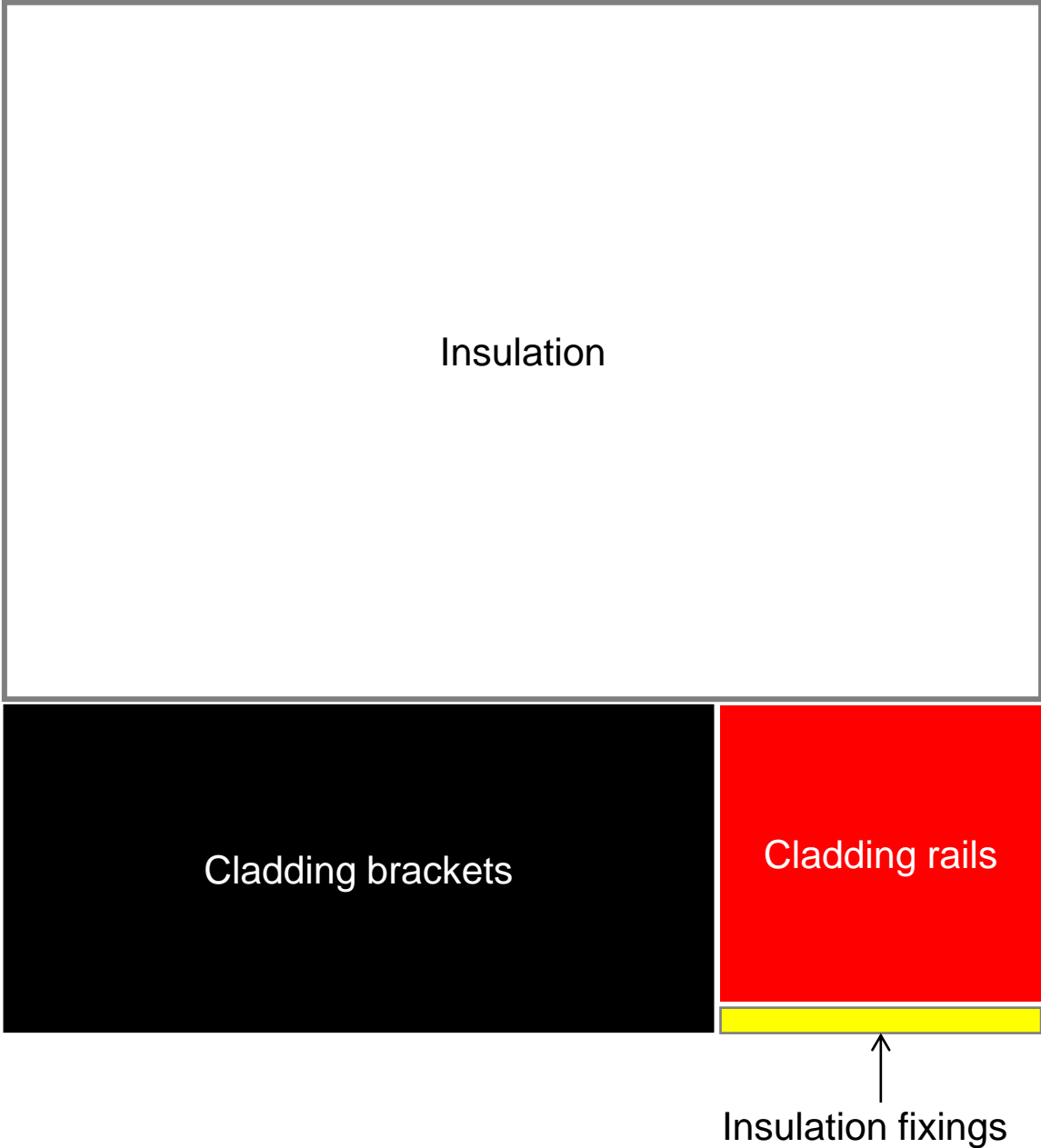
Work inside the flats

- Remove old window
- Install triple glazing to new window pod
- Fix new sills, architraves and decoration
- Install extract vent in kitchen
- Undercut internal doors
- Insulate bare hot water pipes
- Install L1 smoke alarm system

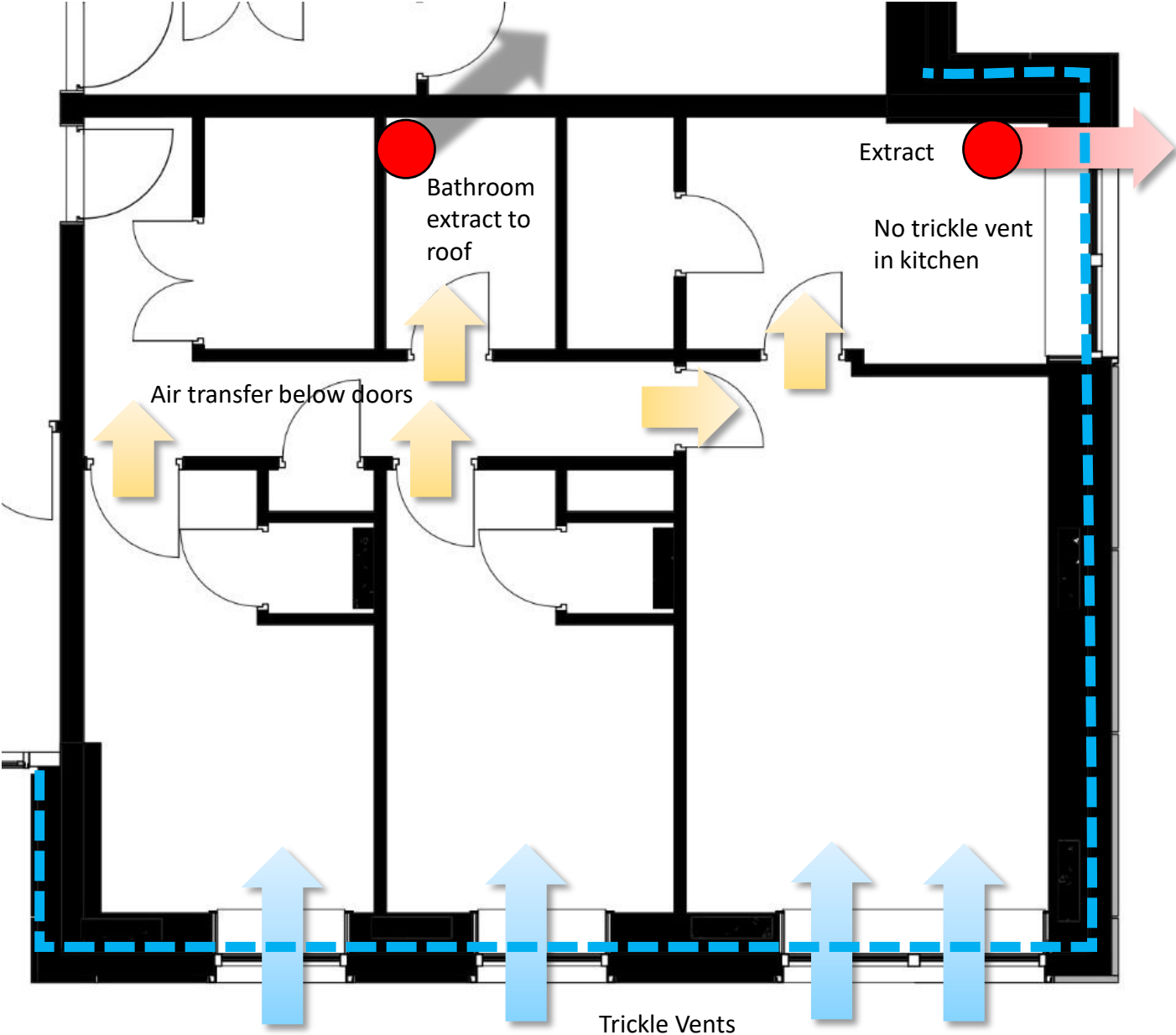
No fines means
no fix



Heat loss through cladding

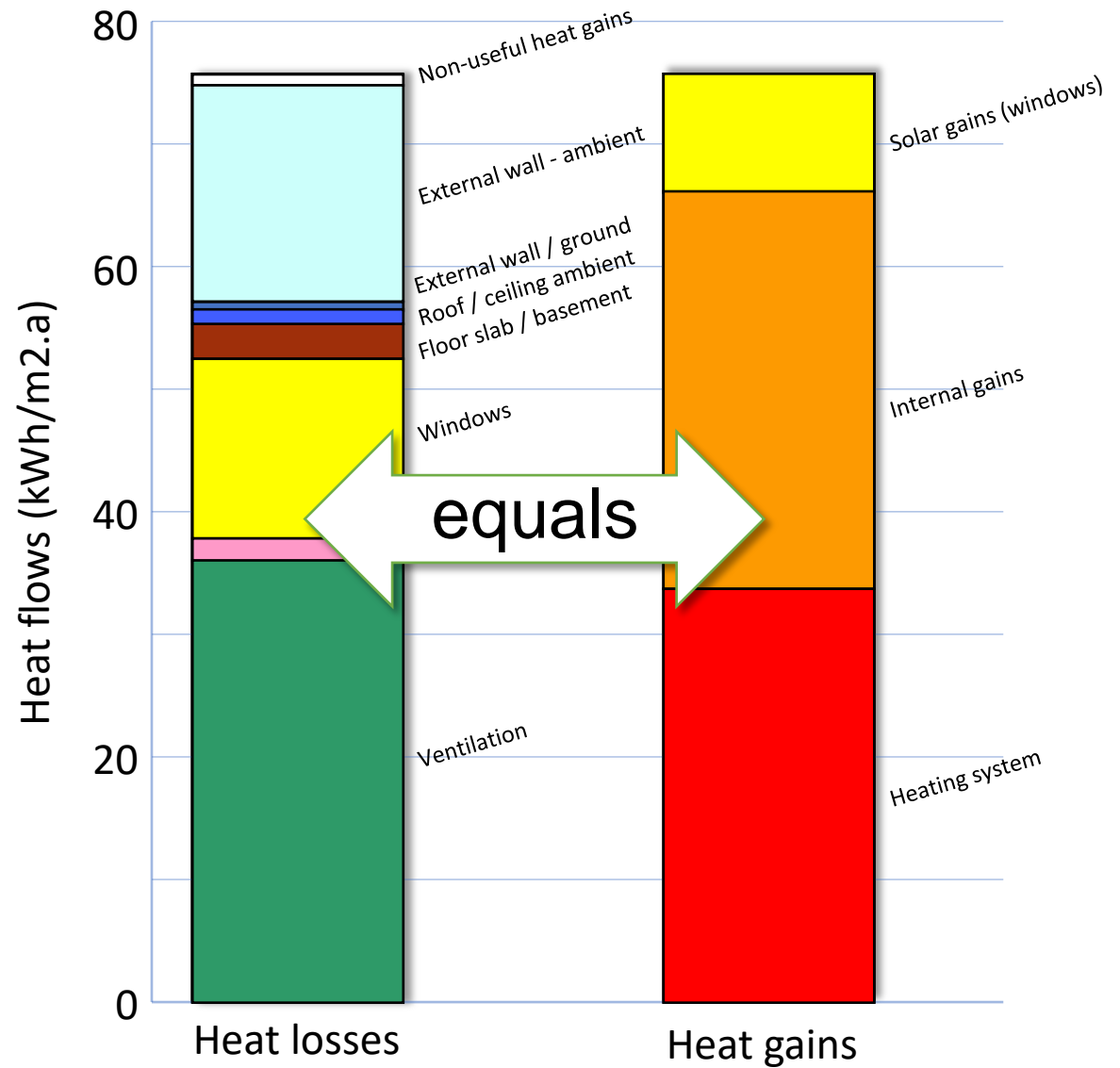


Ventilation



Trickle Vents

Energy Balance







Results

Tenants' view of the specification

*"I can feel a big difference now that I have my new windows and cladding on the building. **Looking forward to seeing reductions in my energy bills.**"*

"I could feel the difference right away."

*"The windows... wow, just wow. I cannot hear any noise; the **quality is first class.**"*

*"Delighted to work is complete in my flat, hopefully I will reap the **benefits in my heating costs.**"*

*"The rain used to be so noisy on my old windows. But recently I got soaked when I went to the shops: **I didn't know it was raining!**"*

*"There are much **fewer draughts** now."*

"I didn't know it was windy today."

Tenants' view of the process

*"Thank you for the offer of the respite flat, it was so peaceful and chilled and **made a big difference to an otherwise stressful day for me..**"*

*"Everyone couldn't have been nicer I **struggle to speak to people because of my autism, but everyone has been so lovely.**"*

*"**Normally I moan about everything,** but I am gutted to say that I cannot find fault in any of the work (or workers) Kier have used in my home – **100% satisfied**"*

*"Catherine has been so **accommodating to my needs.** You have been a superstar Kate, thank you for being some understanding."*

*"**I've lived through upgrading in my home before,** but this time has been so different & that's thanks to **communications regarding the works,** also polite and friendly staff carrying out the work."*

*"The workmen are lovely **clean workers** and always made me feel at ease."*

Lessons and thoughts

- ❑ Know your building
- ❑ What is the baseline?
- ❑ Ambitious targets drive collaborative teams
- ❑ The project is as much about *people* as it is property
- ❑ Soft skills are critical. How to retain them?
- ❑ Concerns using the air infiltration test for a flat as a proxy for whole building test
- ❑ Ventilation & user control – communication with the *next* tenant

“So often the wish to do something extraordinary gets in the way of doing something right.”

Graham Morrison, Stirling Prize Finalist



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