



Retrofitting for the Future with
Parka Wrap
Jon Davies



**PARKA
WRAP**

What is a Parka?



https://www.researchgate.net/publication/238451618_Effect_of_ancient_Inuit_fur_parka_ruffs_on_facial_heat_transfer



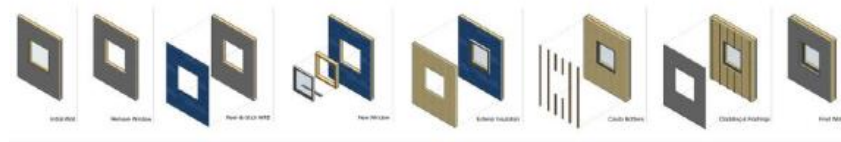
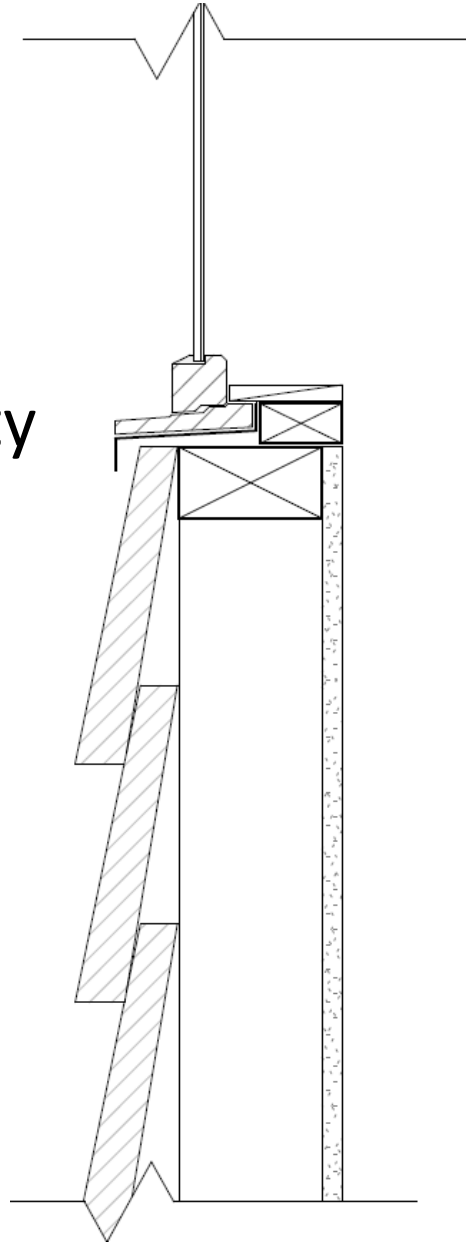
Fig. 2. Example of a fur ruff–sunburst configuration

Parka Wrap beginnings

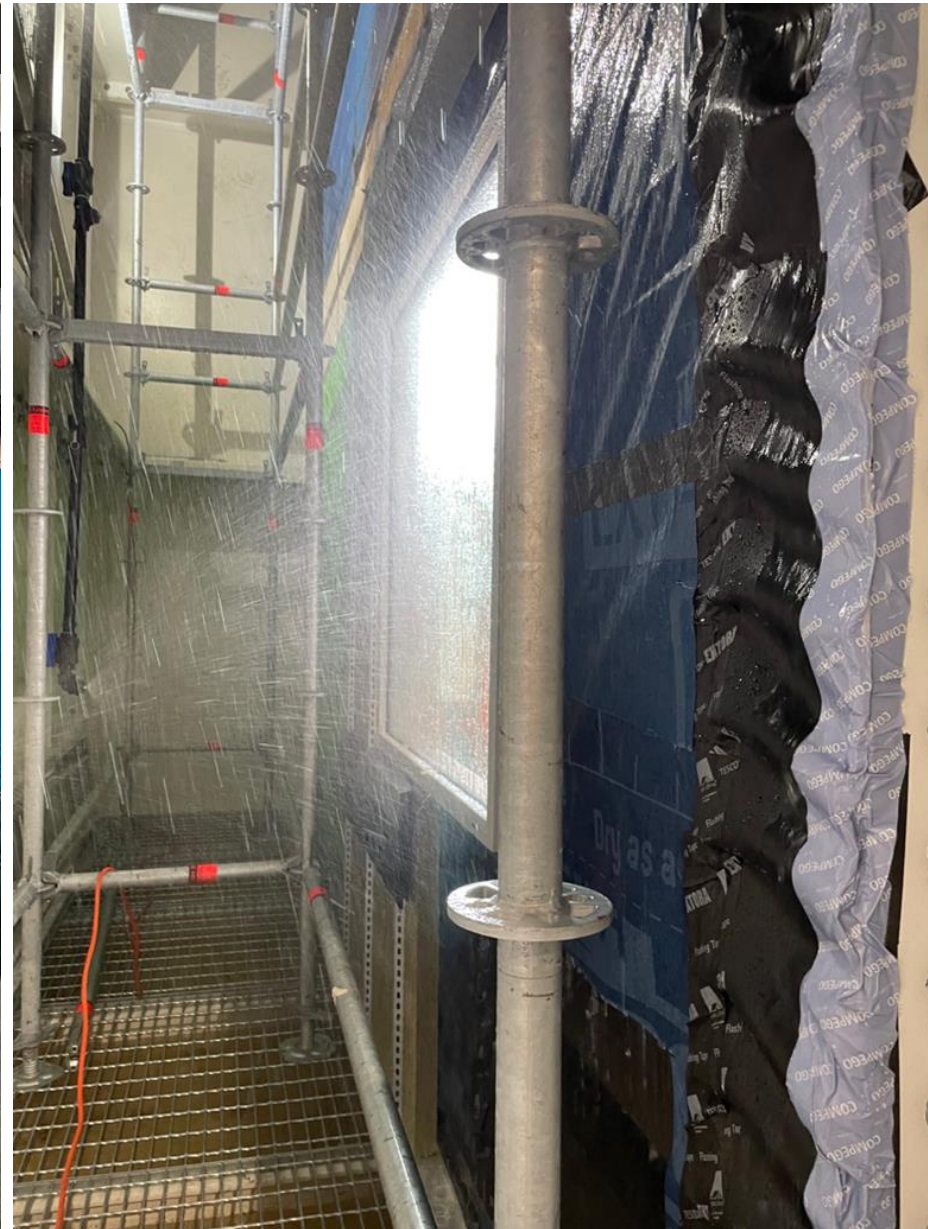
Draughty

Dry

Durable



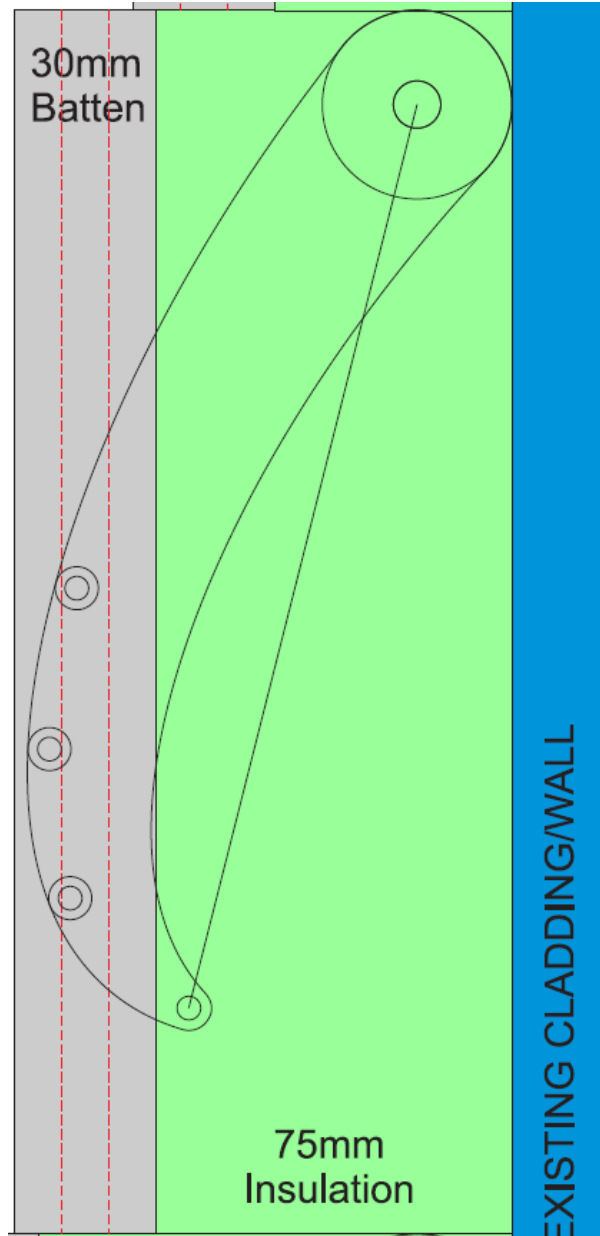
Test, Understand



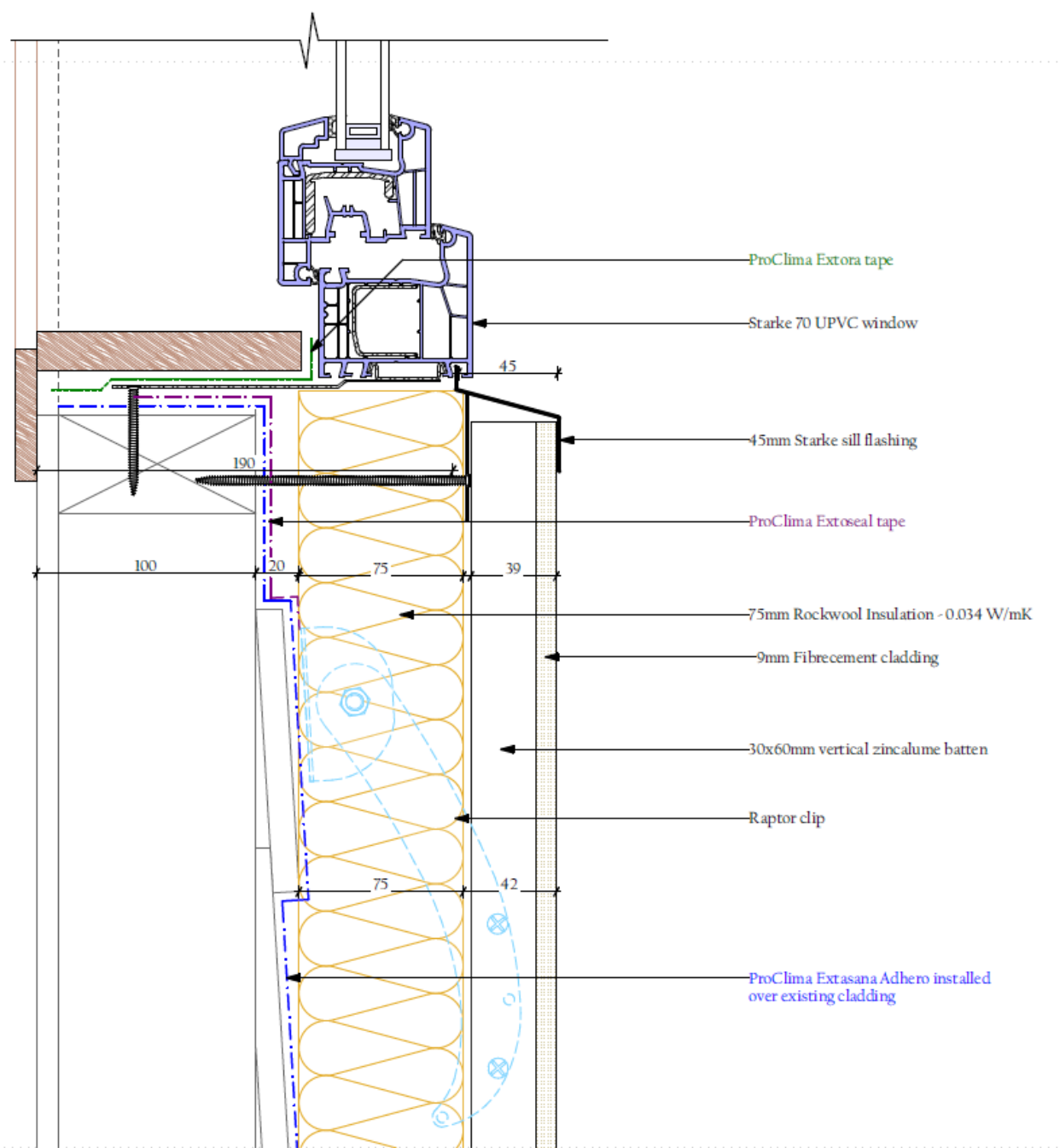
What are the layers?



Parka Wrap geometry



Detail



WINDOW SECTION DETAIL



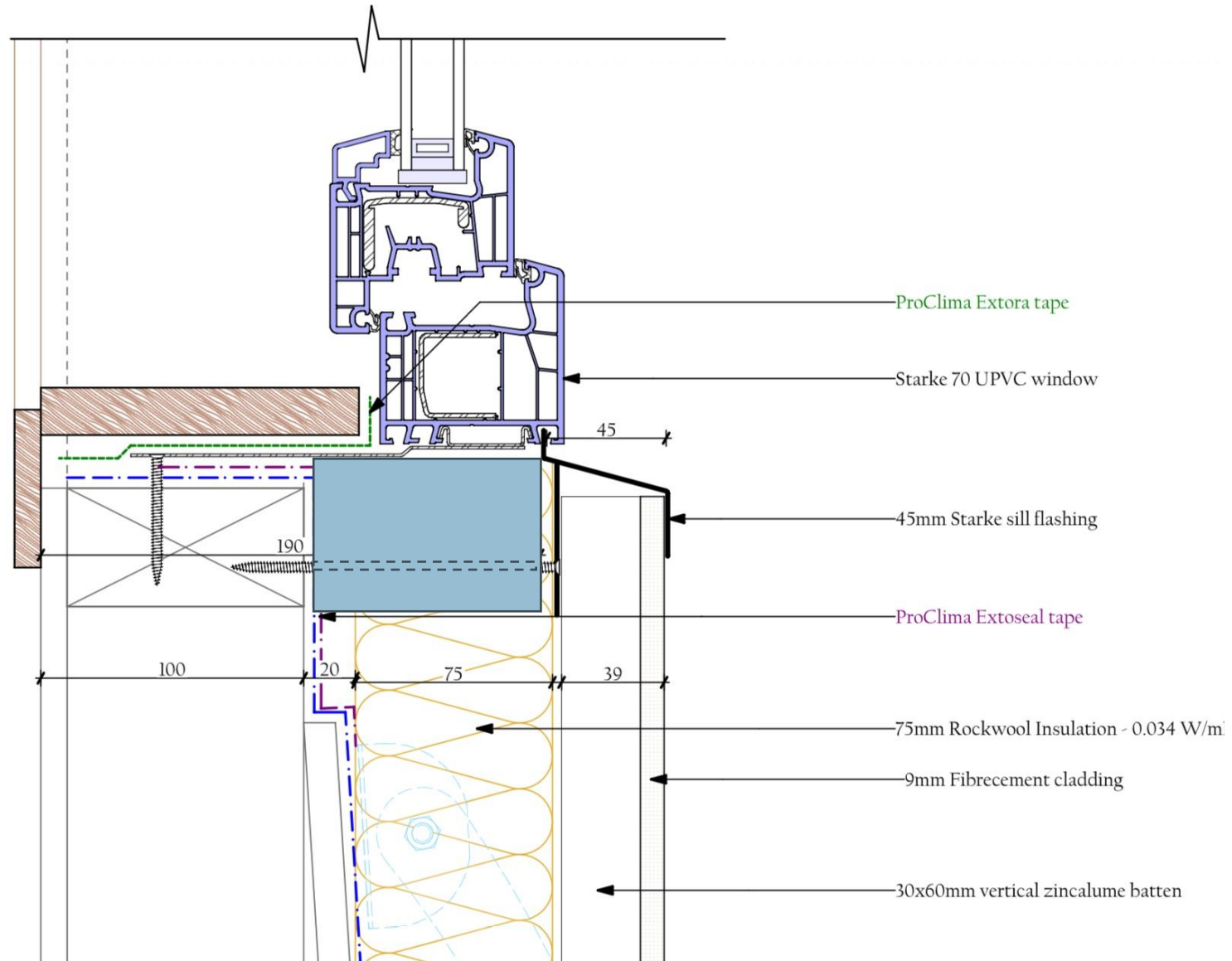
Application → QA simplicity



Window cams – performance, simplicity



Window Cam position



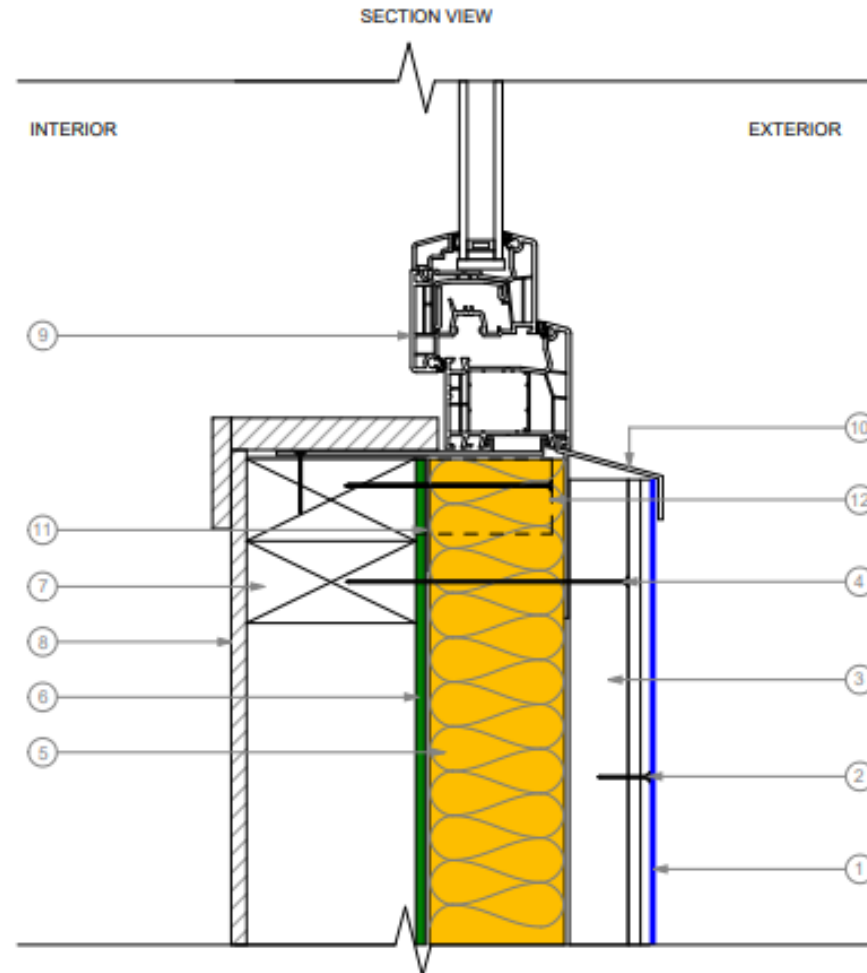
Window Cam position

Key

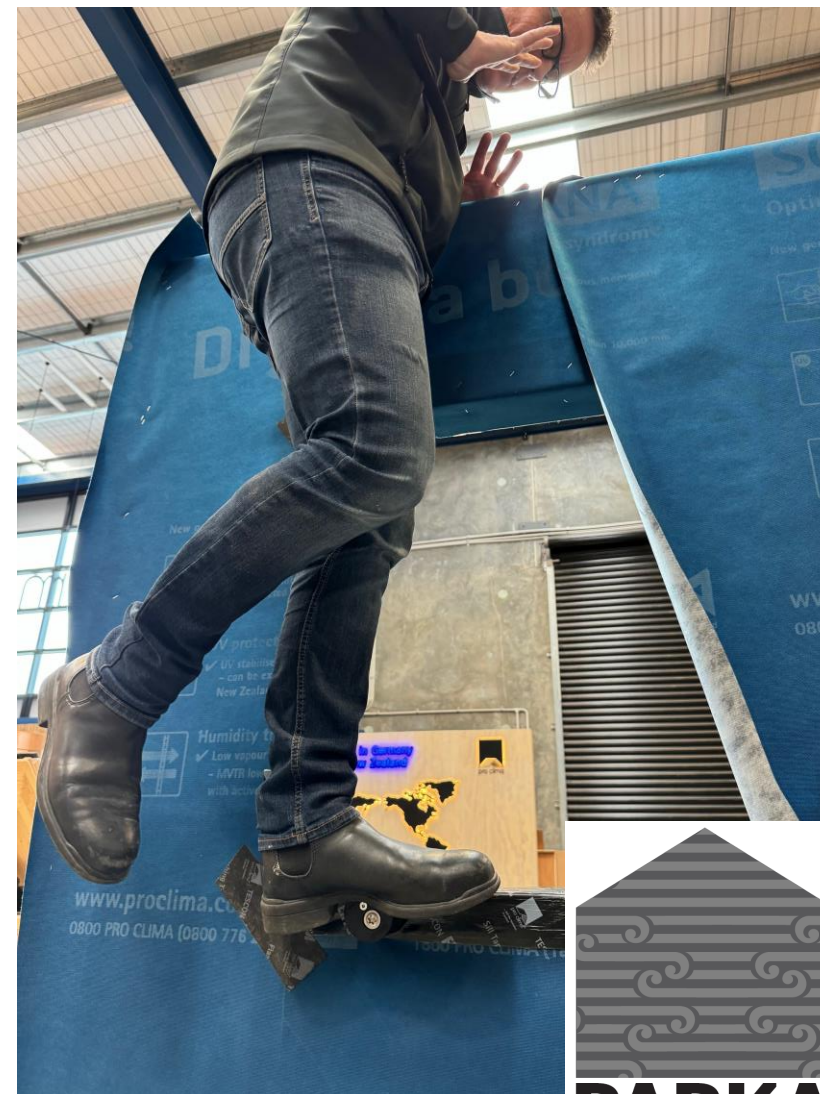
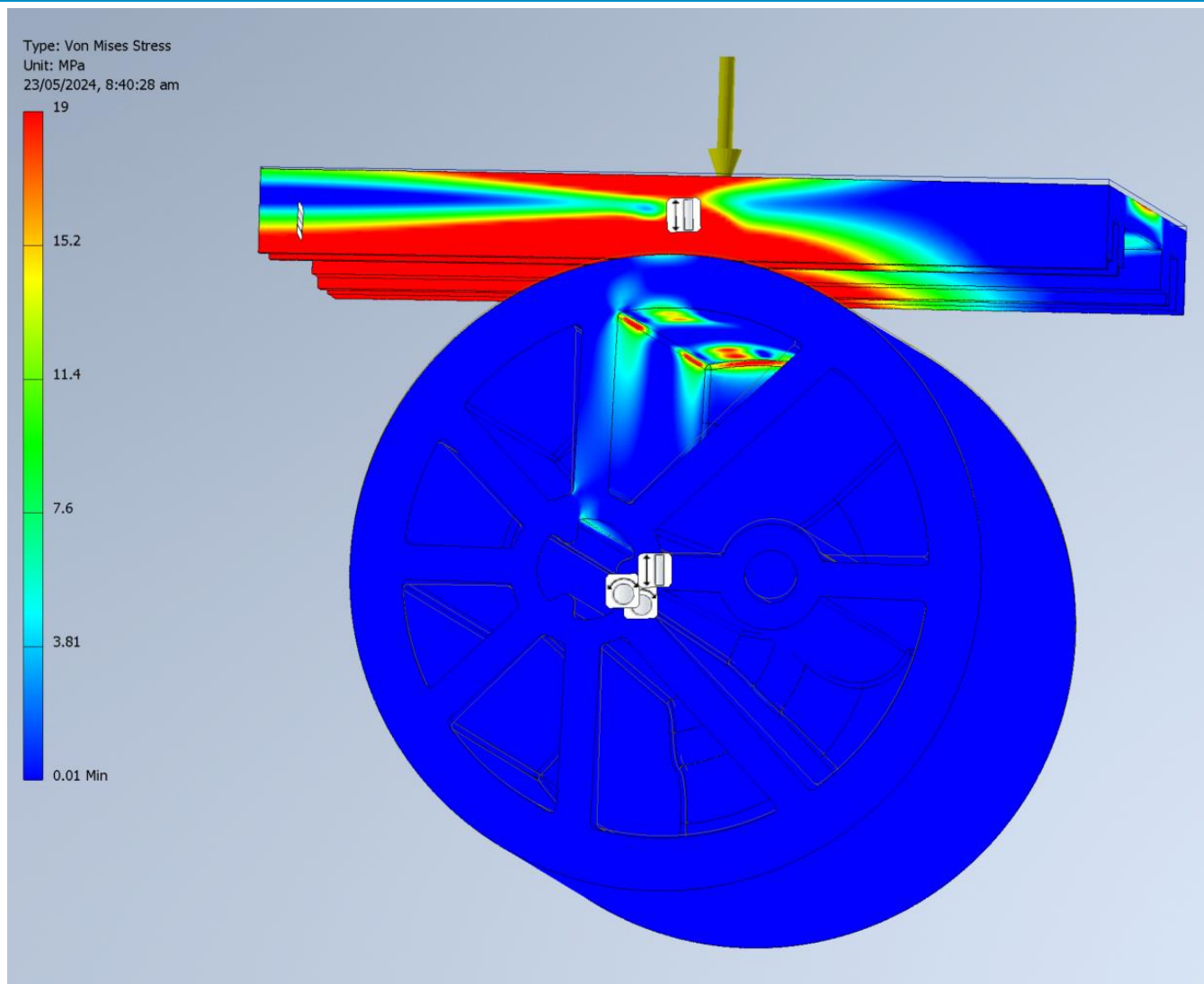
1. Cladding
2. Cladding Fixing
3. Cavity Batten
4. Cavity Batten Fixing
5. Insulation (Enertherm PIR or ROCKWOOL)
6. WRAP (High-performance Underlay and/or Rigid Air Barrier)
7. Timber Framing
8. Internal Lining
9. Thermally Broken Window Frame (Starke UPVC window)
10. Sill Flashing
11. Butyl Flashing Tape (or Equivalent)
12. Window Support Bracket

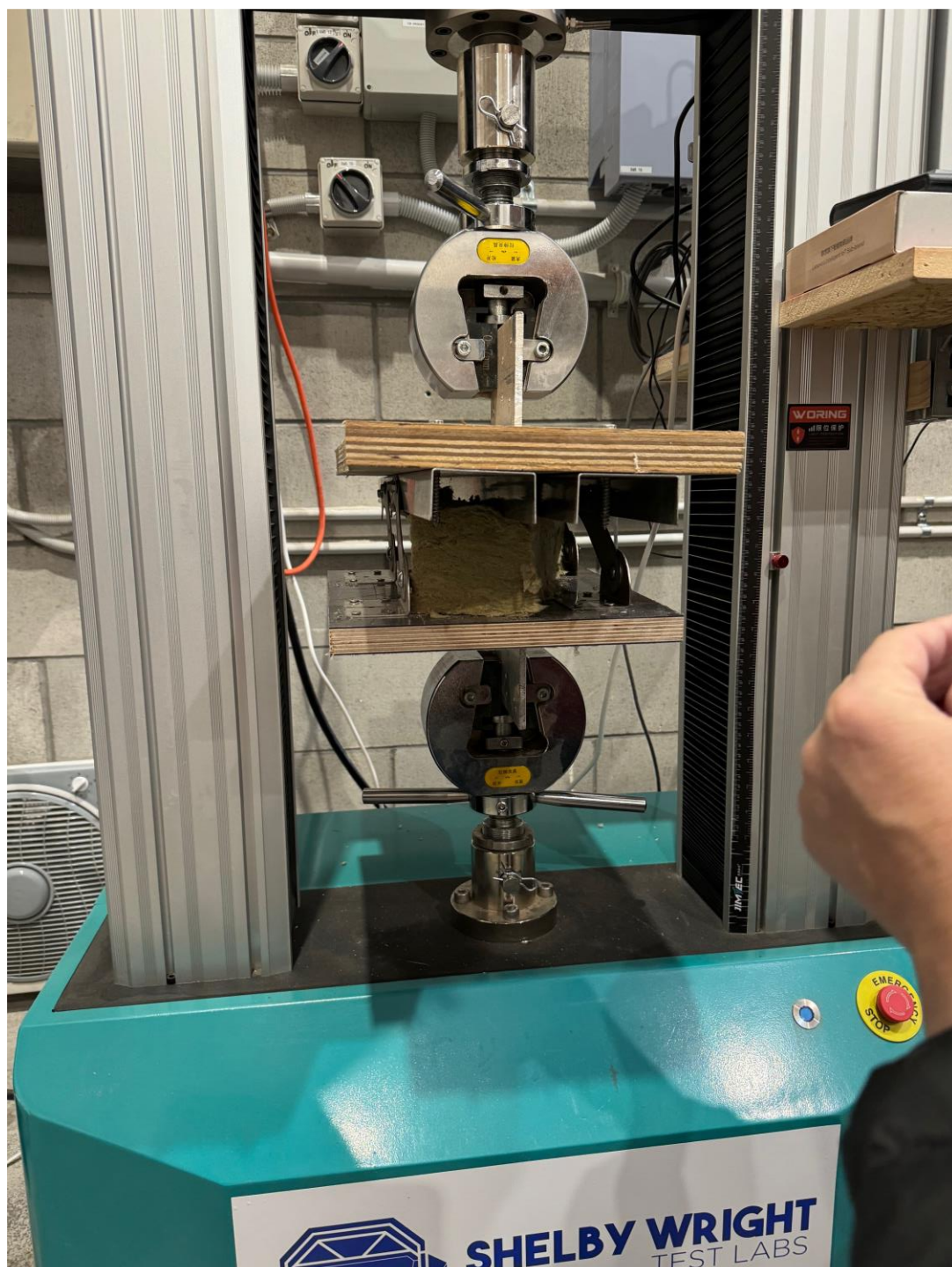
Layers

- Water Shedding
- Water, Air & Vapour Control
- Thermal



Finite Element Analysis





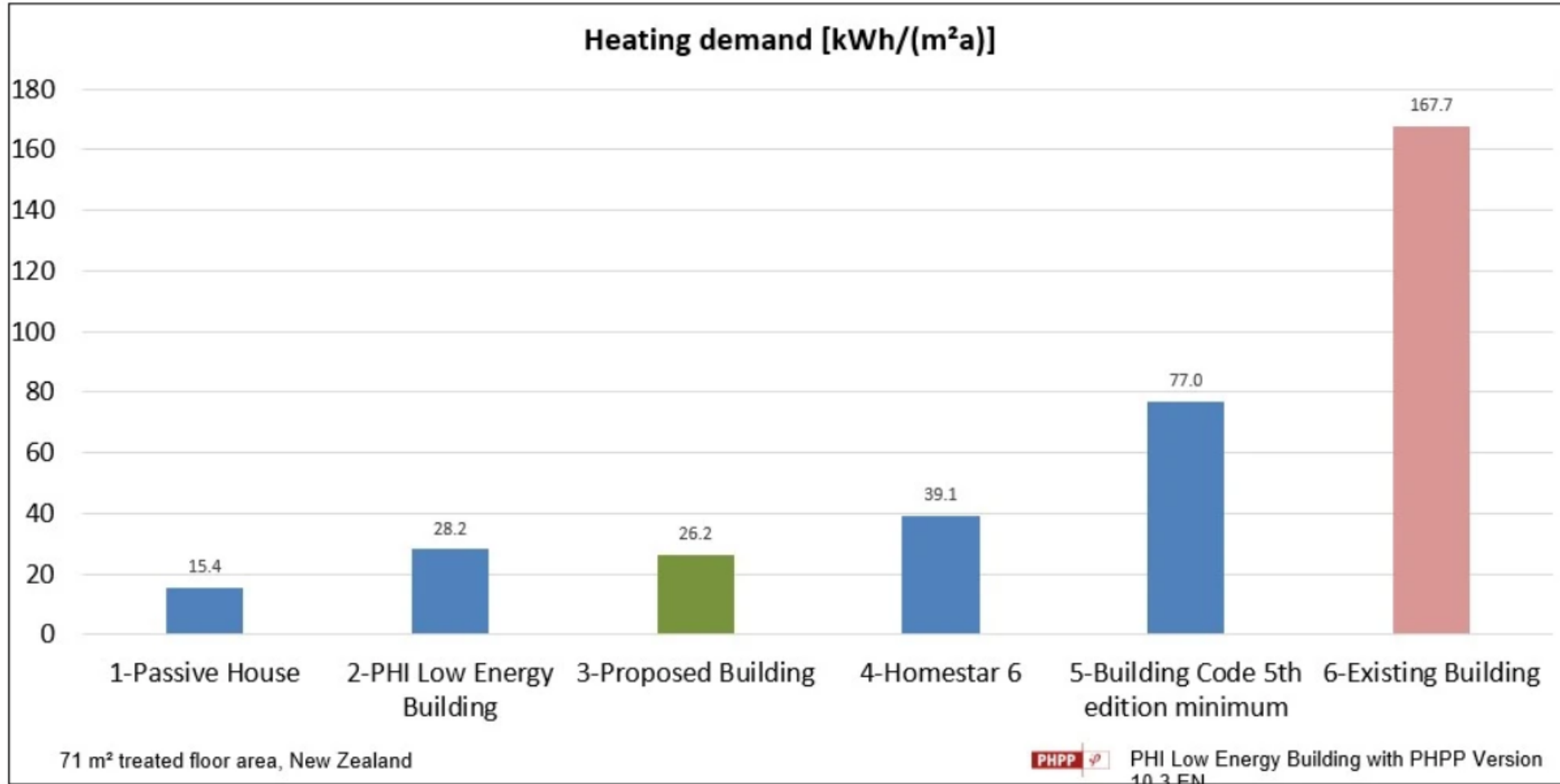
-Disruption, -Waste, -Energy. +Measurable, +Predictable, +Simple



Prove it



What performance at what cost?



Parka Wrap Process

- Investigate structure
- Model energy demand
- Materials selection always including Ventilation (balanced pressure)
- Design and detail
- Consent package
- Quantity survey
- Procurement
- Install and QA/ Audit
- Blower Door test
- Review energy model and update where required
- *Certify to Low Energy Building standard and Homestar



Where to next?



LinkedIn: Parka Wrap Ltd

www.parkawrap.co.nz

Case studies hosted on:

Ecovolution Website

Ara Parka Wrap website



