

# Draught-Proofing & Ventilation

22<sup>nd</sup> September 2:00 – 3:30pm



Cambridge  
**Carbon**  
Footprint.org

Claire Graziano

Tom Bragg

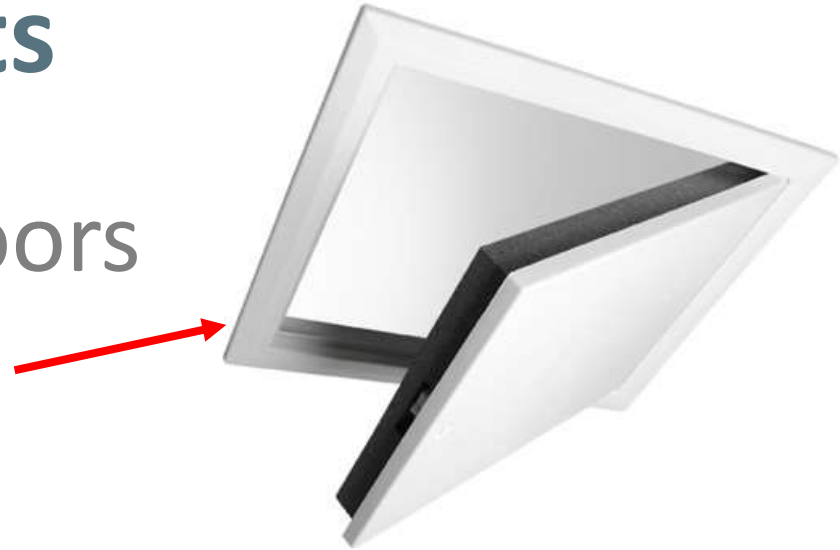
# Cut Draughts: Lower Bills & Emissions

- typically 15% of home energy
- save £25-50 /yr
- be more comfortable
- gain useable space
- reduce climate change



# Finding draughts

- Gaps around doors & loft hatches
- Gaps around windows
- Chimneys that are no longer used



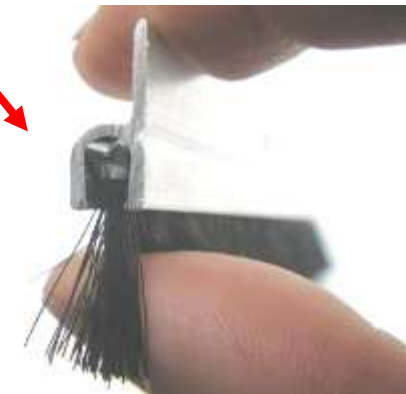
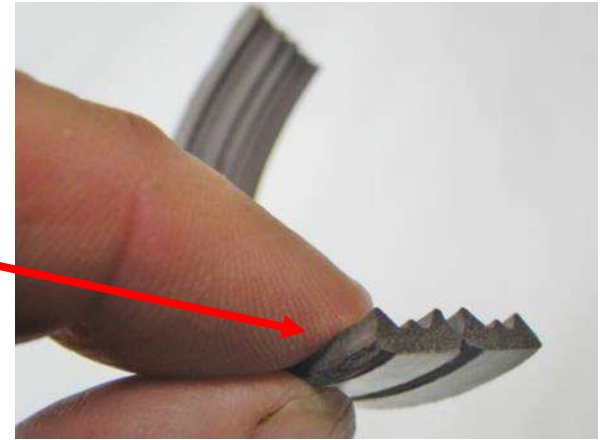
# Finding more draughts

- gaps between skirting board and floor
- between floorboards
- gaps around pipes leading to the outside
- keyholes
- letterboxes



# Fixing Door draughts

- *Adhesive foam strip between door & frame or strip screwed to frame*
- *Brush-strip screwed to bottom of door*
- Letterbox: *Brush strip*
- Keyhole: *cover*



# Fixings Windows

- *adhesive foam strip on frame*
- sash windows: *brush strip*
- *secondary glazing: magneglaze, film*



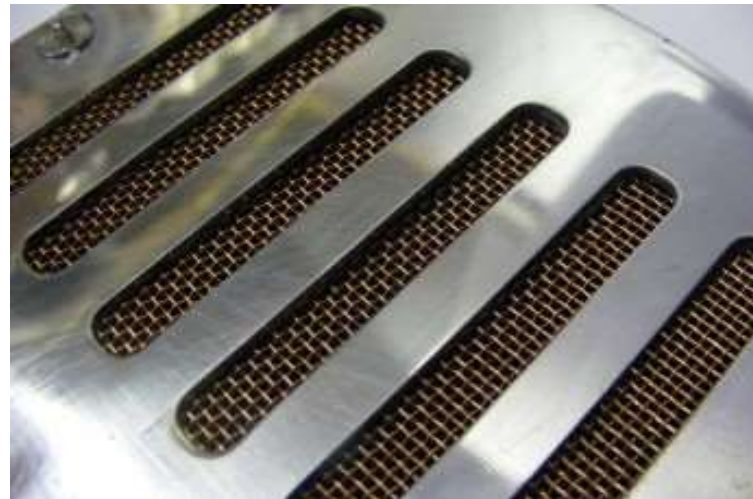
# More Draught-Proofing

- skirting boards: *acrylic sealant*
- between floorboards: [draughtex.co.uk](http://draughtex.co.uk), [stopgaps.com](http://stopgaps.com)
- cracks in walls: *filler*
- pipes to outside: *expanding foam*
- holes - eg: old extractor fans
- unused chimneys: *chimney sheep (or bag)*
- cat flap?



# But we need Ventilation!

- to avoid condensation, mould & poor health
- for safe use of open fires, woodstoves & old boilers





# **So don't Block:**

- airbricks, vents, grilles
- extractor fans
- Window trickle vents



# *Avoid Condensation where possible:*

- *Don't dry clothes indoors*
- *Put lids on pans & simmer gently*
- *Use extractor fans or open windows for a bit*



*Insulate where condensation forms, so the surface is warmer*

# *Buy draught-proofing materials:*

- Mackays, East Rd
- B&Q, Newmarket Rd
- Wilko, Fitzroy St
- Wickes, Newmarket Rd



# Other Events

All 7.30-9.30pm:

**Eco Self-Build** *Wed 26<sup>th</sup> September,*  
*Wesley Methodist Church, Christ Pieces, CB1 1LG*

**Getting Ready for Climate Change** *Mon 15<sup>th</sup> Oct*  
*St Barnabas Church, Mill Road, CB1 2BD*

**Solid Wall Insulation Choices** *Thu 18<sup>th</sup> October*  
*St Barnabas Church, Mill Road, CB1 2BD*

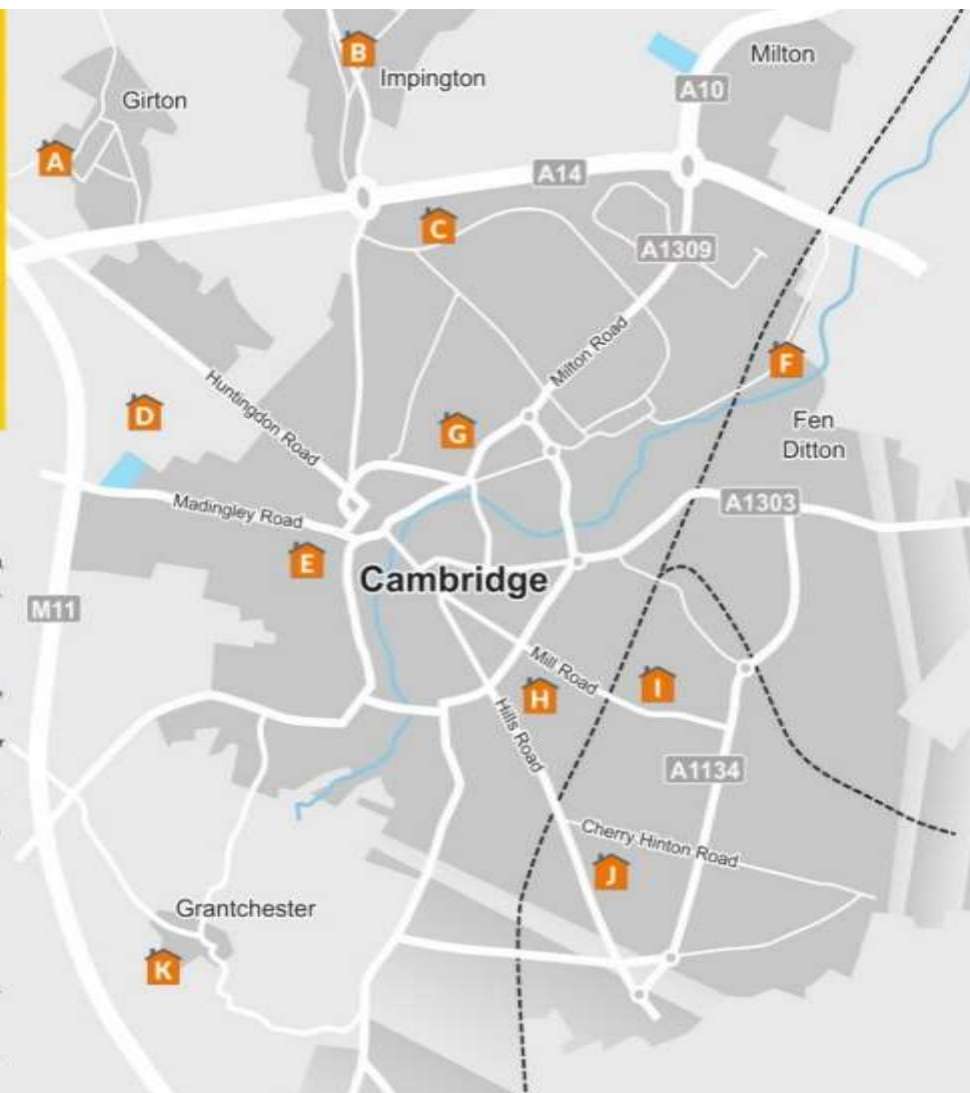


# Open Days Sun 30<sup>th</sup> Sept & Sat 6<sup>th</sup> Oct Booking Essential



**OPEN eco HOMES**  
30 September and 6 October  
Opening doors to low energy homes

- Booking essential. No visit possible without booking.
- Book online at [www.openecohomes.org](http://www.openecohomes.org) or by phone on 01223 301842.
- Tours are free. Maximum 8 people per tour (except Marmalade Lane). Book early to avoid disappointment.
- Tours run on Sunday 30th September and Saturday 6th October at 10.15am, 12 noon, 2pm and 3.45pm, unless otherwise indicated.
- We could not run Open Eco Homes without donations. Please donate on the day, or via [www.openecohomes.org/donate](http://www.openecohomes.org/donate)



## G Harvey Goodwin Avenue 1920s

Open 30 September and 6 October  
Former bungalow **renovation and conversion** into a two-storey family home for five. Features include **highly insulated first floor timber frame conversion**, ground floor external wall insulation, underfloor and roof insulation, solar thermal, thermostatic gas stove.



## H St Barnabas Road, 2016

Open 6 October  
10 people on each tour  
**Award winning self-build** by German eco-constructors Baufritz; the numerous ecological features include **370mm thick factory manufactured HO2 insulated walls**, mechanical ventilation and heat recovery (MVHR), SolarCache PV water heating, electric smog protection.



## I Sedgwick Street 2018

Open 30 September and 6 October  
Stylish **self-build** on constricted site by author and self-builder Mark Brinkley with Mole Architects. Features include class to Passivhaus **Low Energy Building Standard** construction, structural insulated panels (SIPs), mechanical ventilator with heat recovery (MVHR), SolarCache PV with Boost switching for water heating.



## J Rathmore Road 2015

Open 6 October  
Feature packed ultra low energy **self-build** home built for beauty, sociability and minimum running costs. Highlights include **rainwater harvesting system**, 7 zone underfloor heating, triple glazing, insulation between rooms, PV and solar thermal, motion sensor lighting.



## K Nutters Close, Grantchester 2012

Open 30 September and 6 October  
Beautiful Arts and Crafts inspired **self-build** by architect and author husband and wife team. Highlights include air source heat pumps, underfloor heating, integrated PV and solar thermal panels, elm cladding, oak features, computer controlled lighting system, landscaped gardens, roof overting for summer shading.



## A High Street, Girton 2012

Open 30 September  
Beautiful and architecturally unique **self-build**. Features include **rammed earth wall**, structural insulated panels (SIPs), air tightness, passive and pre-heat ventilation, solar PV and thermal, electric car, rainwater harvesting, stored underfloor heating, green roof.



## B Macfarlane Close, Impington 1960

Open 30 September and 6 October  
Very thorough and well-thought out **renovation** with multiple rows and DIY fixes in what was a problem 1960s house. Features include **direct feed solar water heating**, **loved-roof PV system**, **mechanical ventilation and heat recovery (MVHR)**, double glazed in-window blinds, insulation.



## C Marmalade Lane 2018

Open 30 September  
1 tour only at 3.45pm for 30 people  
This **community-build co-housing project**, backed by Cambridge City Council, TownHus and Mole Architects, offers a range of low-energy Swedish Trivoxhus homes built around a shared space and large communal garden. Talk and tour of a choice of houses.



## D Eddington 2018

Open 30 September and 6 October  
This Code for Sustainable Homes Level 5 **show home** in Eddington is built by H&L. Features include high thermal efficiency with insulation and triple glazing, underfloor heating, ducted heating, PV panels, rainwater harvesting, underground automated waste collection.



## E Madingley Road 2010

Open 30 September and 6 October  
**Self-build** with significant use of natural materials has created an exciting, beautiful low energy house. Features include: internal and external wall insulation, solar thermal panels, **ground source heat pump** and rainwater harvesting.



## F Fen Road 1897

Open 30 September and 6 October  
**Renovation** of two Victorian semis converted into one house. Features include internal and external wall insulation, thorough draught proofing, solar thermal panels, underfloor heating, heat zones and woodstove.



## Special tour in February 2019 Cambridge Mosque

Join us in February 2019 for a special tour of Europe's first eco-mosque: ecological features include water recycling, rainwater collection, passive ventilation, PV, heat pumps, natural and LED lighting, timber construction. Details and booking via our website.



# Thermal Imaging

Training sessions

7:30 pm - 9:30 pm:

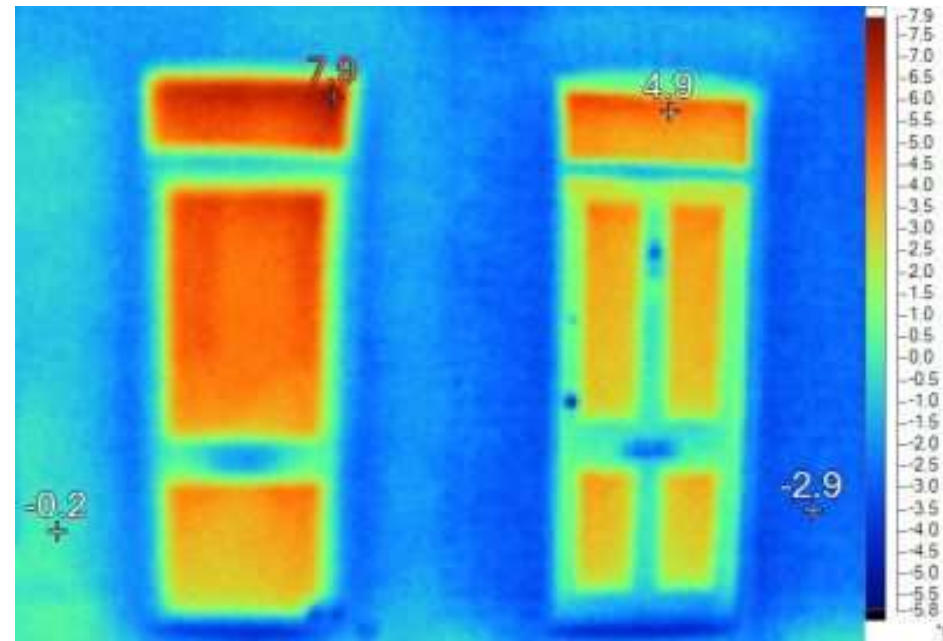
30<sup>th</sup> Oct, 3<sup>rd</sup> Dec, 16<sup>th</sup> Jan, 12<sup>th</sup> Feb



Volunteer to help:

- camera loans
- surveyors

Cambridge  
**Carbon  
Footprint**



Thanks to  
You, volunteers,  
& funders:



**Mole**



**Ecology**  
Building Society

**Good luck.. Claire Graziano**

**Tom Bragg [tom@cambridgecarbonfootprint.org](mailto:tom@cambridgecarbonfootprint.org)**

**these slides on: [openecohomes.org/presentations](http://openecohomes.org/presentations)**