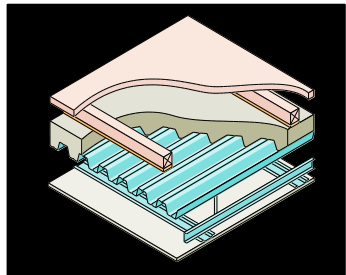
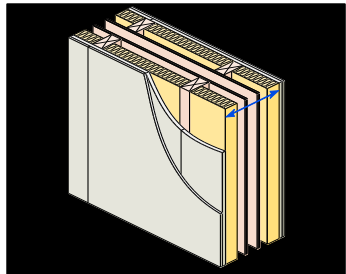
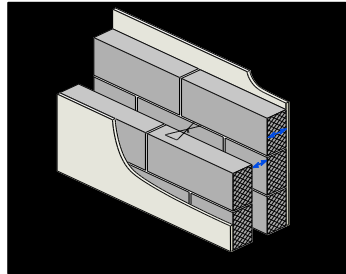


robustdetails®



John Tebbit
Managing Director
Robust Details Limited

Contents



- **Robust Details – the story so far**
- **Design versus actual**
- **Ventilation**
- **Thermal bridging**
- **BIM**
- **Allowable solutions**
- **Summary**
- **The last word(s)**

Robust Details – the story so far



The Building Regulations 2000
The Building (Approved Inspectors etc) Regulations 2000

OFFICE OF THE
DEPUTY PRIME MINISTER

Resistance to the passage of sound

E

APPROVED DOCUMENT

- E1 Protection against sound from other parts of the building and adjoining buildings
- E2 Protection against sound within a dwelling-house etc
- E3 Reverberation in the common internal parts of buildings containing flats or residential premises
- E4 Acoustic conditions

Part E robust details

DO

- Keep cavity and wall ties free from mortar droppings and debris
- Fill all blockwork joints with mortar
- Ensure there is no connection between the brickwork and the wall ties and battens
- Keep any cables for services to a minimum and if used with mortar, ensure cables on each side of the wall to avoid flexing back to back
- Ensure the render is applied to the complete face of wall with all recesses filled to be covered with the floor and ceiling cover
- Refer to Appendix A

DO NOT

- Use any mortar on the face of the wall
- Use any mortar on the face of the wall
- Use any mortar on the face of the wall

DO NOT

- Use any mortar on the face of the wall
- Use any mortar on the face of the wall
- Use any mortar on the face of the wall

DO NOT

- Use any mortar on the face of the wall
- Use any mortar on the face of the wall
- Use any mortar on the face of the wall

DO NOT

- Use any mortar on the face of the wall
- Use any mortar on the face of the wall
- Use any mortar on the face of the wall

- Created in response to Part E 2003
- 10 years and nearly 750,000 registrations
- Running at 99% plus compliance
- 35 walls, 25 floors and more on the way
- Generic and proprietary
- Sample testing, continuous improvement
- Online resources

Design versus Actual

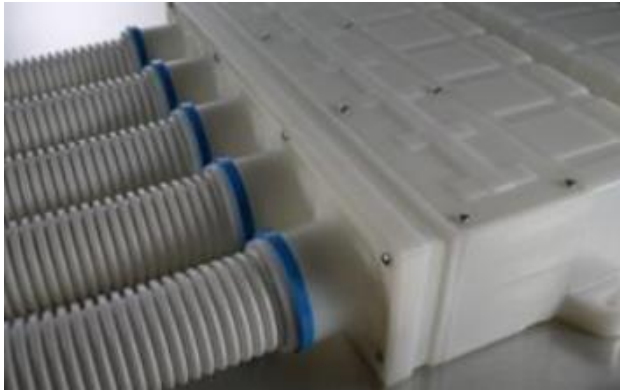


Some homes don't perform as designed



- Design it right, build it right, get the data right
- SAP as a model of reality is OK-ish
- Issues seem to be linking processes
- Could we standardise process and product a bit
- Possible role for Robust Details

Ventilation



- MEV and MVHR becoming more common
- 25,000 in dwellings, 15,000 in non-domestic
- Issues with design, installation, commissioning
- Looking at a pattern book approach
 - Robust technical systems
 - Noise, usability also factors for owners
- Piloting 2014/15 with selected partners

Thermal bridging



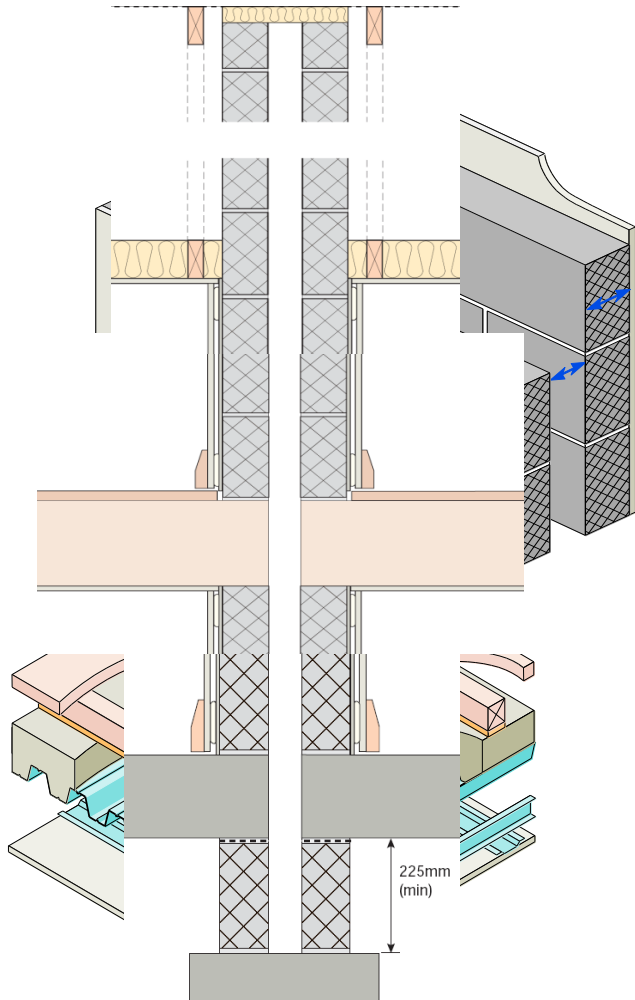
constructive

DETAILS

- Becoming critical in Part L 2013
- Multiple sources of guidance
 - Government
 - NHBC and Industry
 - Constructive Details
- Buildable, checkable, robust, sustainable?
- Integration with BIM

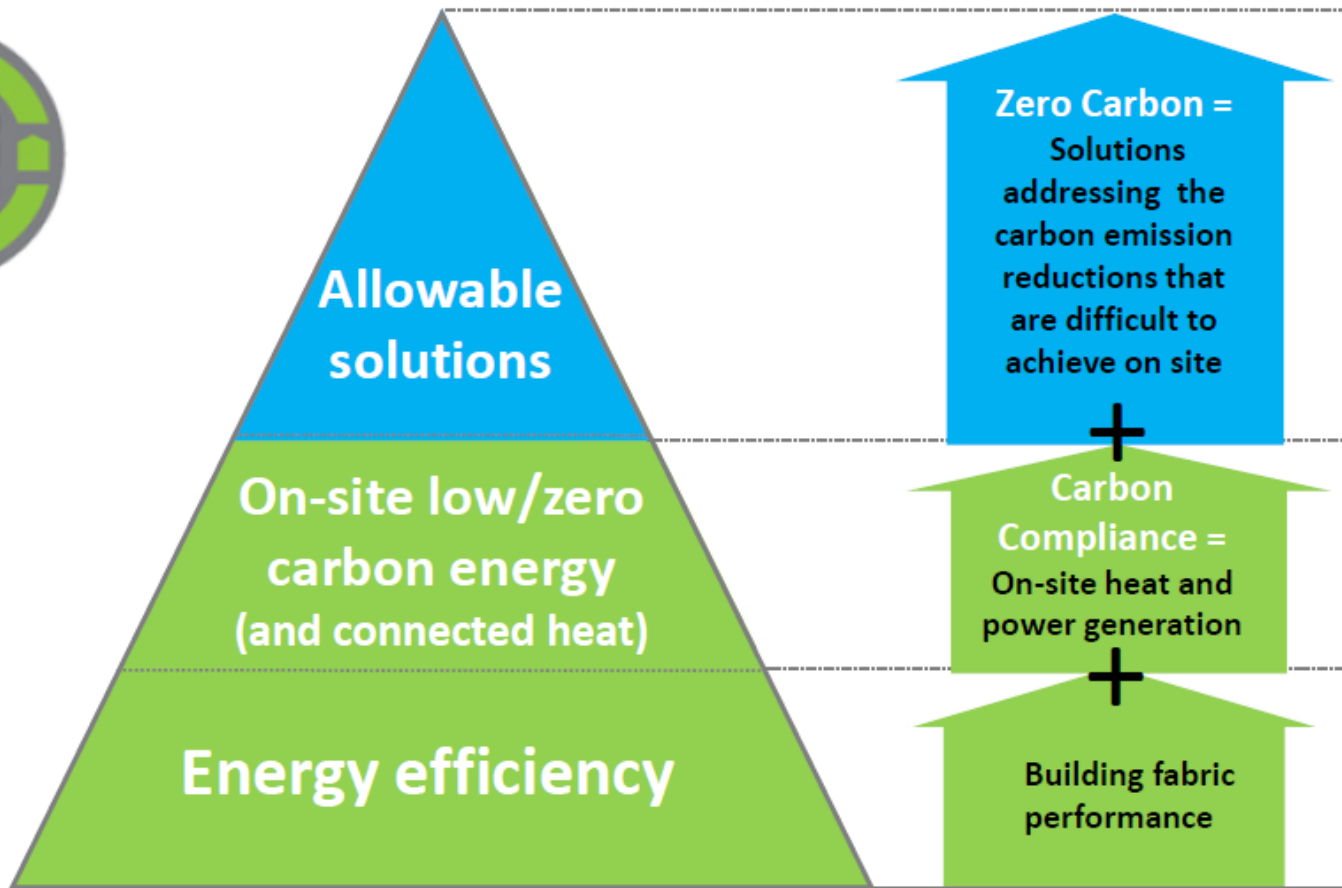


BIM



- The scary bit – it will transform construction
- Comforting bit – more on processes than stuff
- Standardised, structured data is key
- Pretty 3D drawings are secondary
- Working on it so we are ready when you are

Allowable Solutions



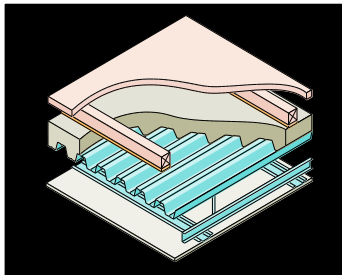
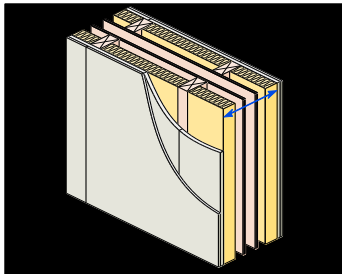
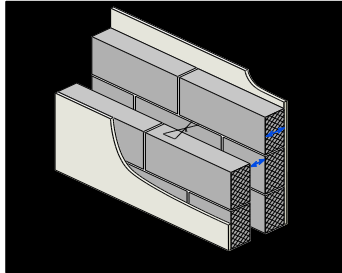
Allowable Solutions



**Allowable
solutions**

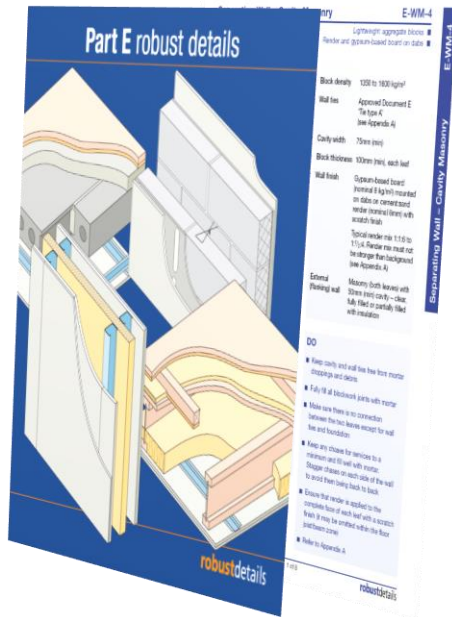
- We are not interested in what its spent on
- Are interested in making it easy to use
 - Integrate with SAP, Part L and building control
 - Demo developed of a system
 - Maximise choice, minimise administration costs
 - Trialling soon with ZCH and others

Summary



- Part E, 10 years, $\frac{3}{4}$ million homes, 99% right
- Pattern book for processes and products
- Inspection, learning, improvement
- Design versus actual – let's see
- Ventilation – working on it right now
- Thermal bridging – issue is business model
- Allowable solutions – trials so we are ready

The final word(s)

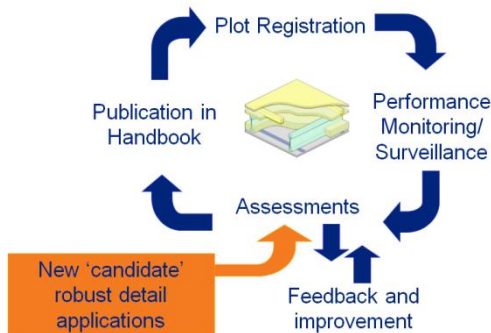


We are here to deliver solutions for you

- Pattern book,
- Plot based
- Test the population
- Close the loop and improve

Must be cost effective and deliver certainty

Any areas where you think we could help you?



thank you



www.robustdetails.com