

INNOVATION THROUGH COLLABORATION

Thermal Bridging Analysis for  
neuSTONE Ltd

undertaken by

The BIM Collective Research Group  
Waterford Institute of Technology



# Research Brief

neuSTONE Ltd require the evaluation of the thermal performance of the products within a typical cavity wall construction at both cill & head details.

Make recommendations on improvements to cill and head detailing for additional performance improvements.

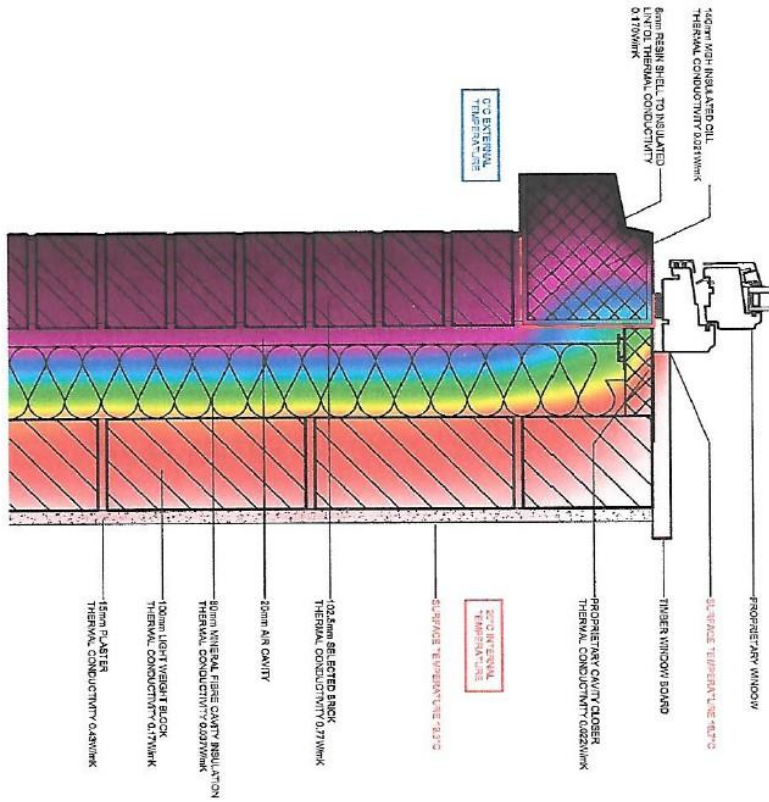
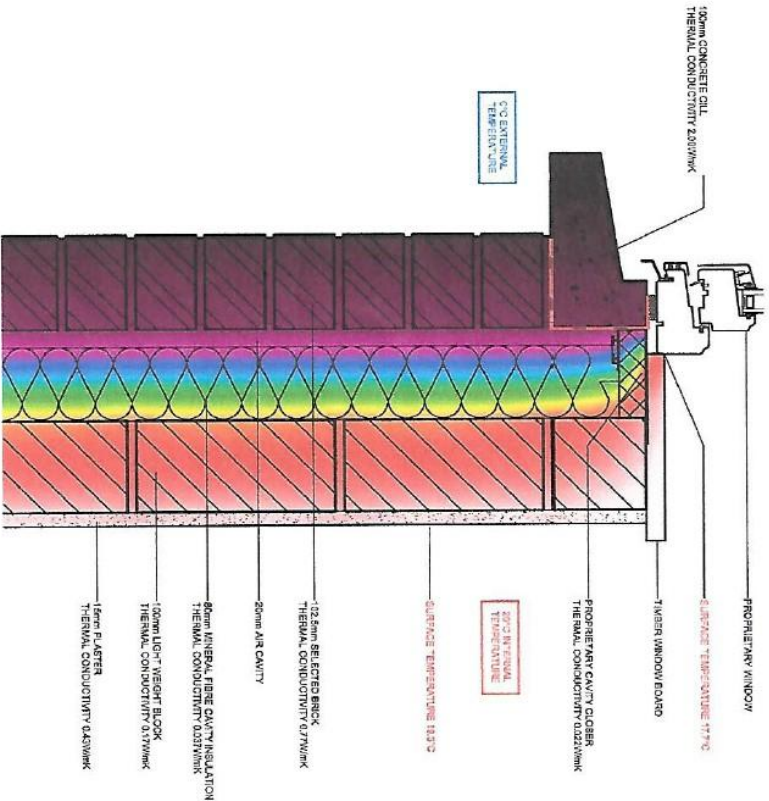
## Deliverables

Evaluation of the thermal performance of the products within a typical cavity wall construction at both cill & head details using Linear thermal transmittance values (Psi value) calculated in accordance BR 497 (2007).

Conduct a comparative analysis between typical details using precast concrete products and neuSTONE Ltd insulated alternatives and make recommendations on improvements to the detailing for additional performance improvements.

# Compliance Standards

- Building Regulations 2010 (2013 edition England) Conservation of Fuel & Power Approved Document L1A
- Accredited Construction Details:
  - MCI-WD-02: Head Detail
  - MCI-WD-04: Cill Detail
- Linear thermal transmittance values (Psi value) calculated in accordance BR 497 (2007)
- U-Values Calculated to ISO 6946:2007



Note: Thermal Conductivity for resin has been assumed as 0.17W/mK and no reinforcing accounted for as details of both were not available at time of analysis

NOTES:  
 1. This drawing is the property of the BIM Collective Research Group and shall not be used for any other project without the written permission of the BIM Collective Research Group.  
 2. Do not scale from this drawing - The Report is the only source of truth.  
 3. Refer to the Report for details of the drawing.



Client:	REUSTONE LTD	Job No:	V0009
Project:	Thermal Analysis of Insulated Cill & Head Details	Dwg No:	006
Drawing:	Wall Type 2: Brick Partial Fill Cavity Concrete & Insulated Cills	Scale:	Analysis
Date:	March 2014	Scale:	A3
Scale:	A4 (shown)	Client:	BIMC
Scale:	A3	Scale:	B3

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