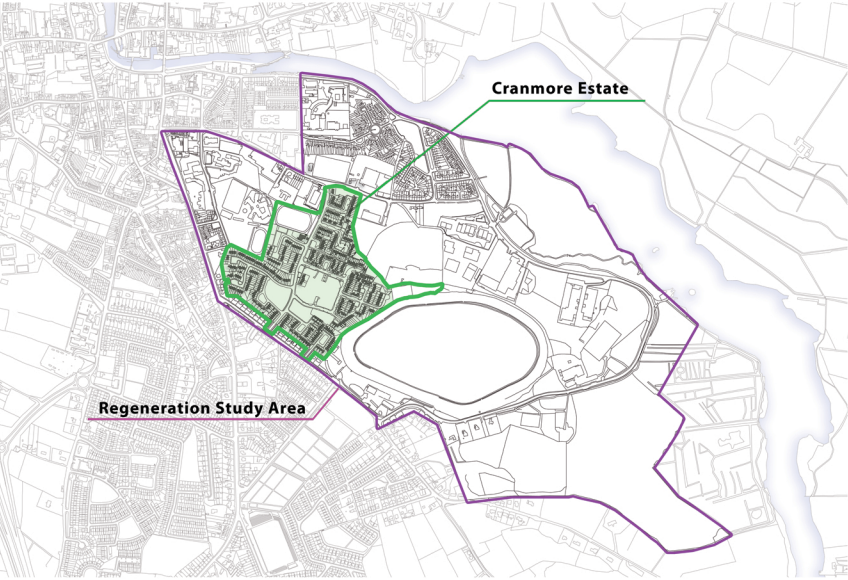


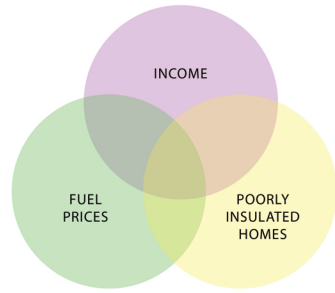
Thermal Upgrades

Addressing The Energy Performance of Housing in the Regeneration Area

Basis of Need Stage 2 Analysis



Cranmore Estate: The Focus of the Rengeneration Project



Factors of Fuel Poverty

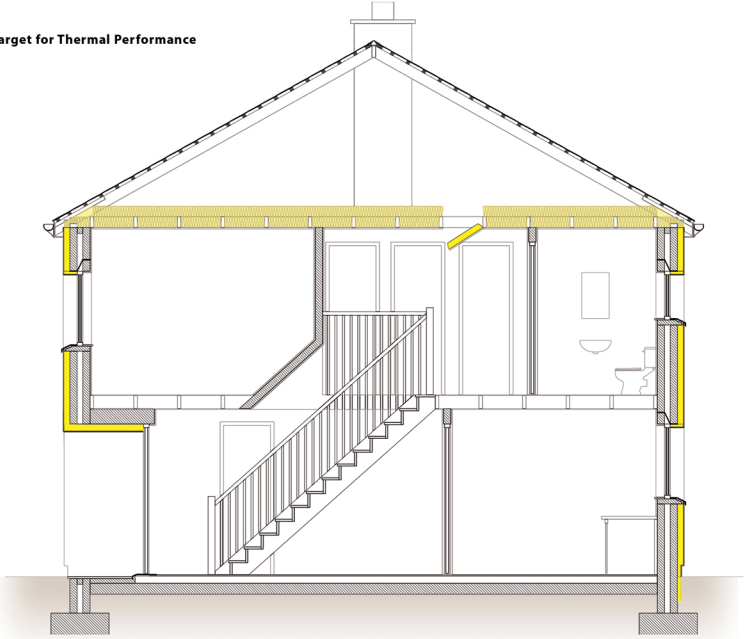
What is Fuel Poverty ?

Households living on low incomes in housing with poor levels of insulation are likely to struggle with the costs of adequately heating their homes, especially as fuel costs rise. This is known as 'Fuel Poverty'.

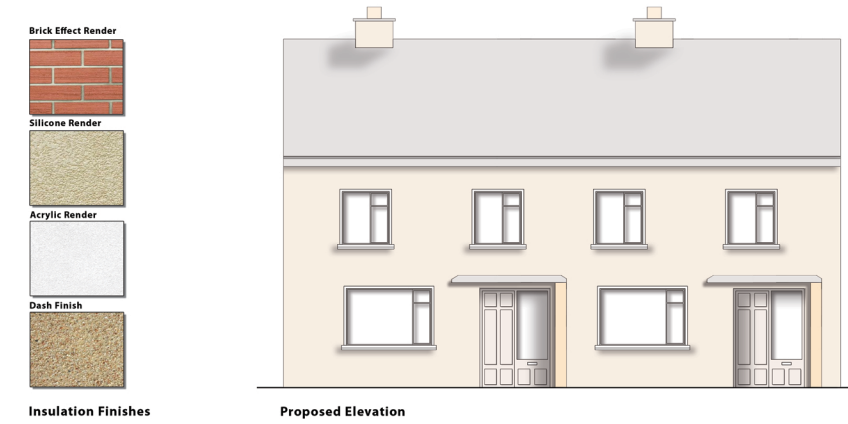
Making the houses more energy efficient will make the house:

- Easier to heat
- More comfortable to live in
- Reduces energy demand
- More affordable heating costs

Setting a Target for Thermal Performance



Proposed Cross Section Indicating New Insulation Zones



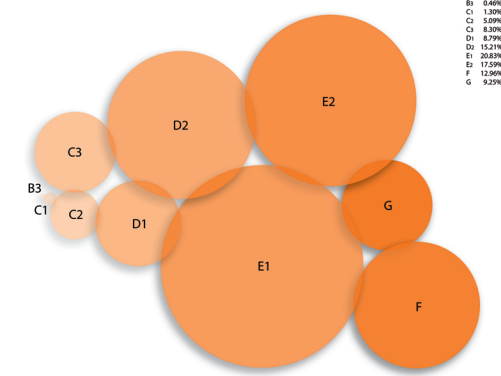
Proposed Elevation

Energy Performance of the Existing Houses:

- Our Stage 2 report identified Cranmore as one area in need of energy efficiency improvement works. Cranmore Estate is the focus of the Regeneration Project.
- Some thermal improvement works have already been completed, but there are still issues of fuel poverty within the area.

Energy Performance Rating of Housing in Cranmore:

- Housing can be rated according to its energy performance. This is known as the Building Energy Rating (BER).
- The rating is a measure of how well a house performs. The lower the rating, the more a house costs to heat.
- Most of the houses in the Cranmore area (both Social Housing and Privately owned) have ratings in the E category.



BER Ratings for existing Cranmore Housing
Based on findings from 2012 SEAI Insulation Scheme

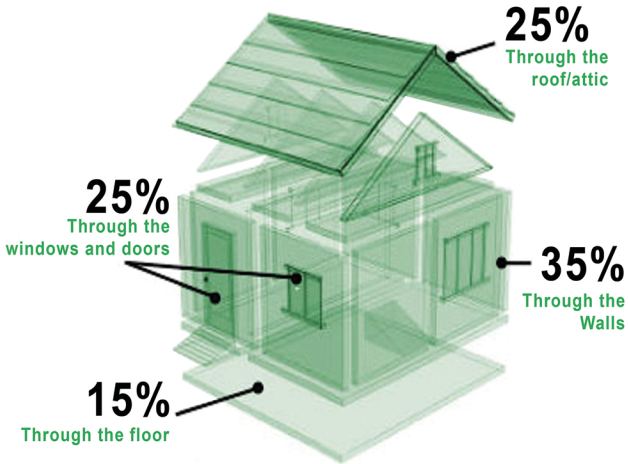
How can we improve the energy efficiency of the house?

There are a number of ways to improve the energy efficiency of a house:

- Provide or improve Attic Insulation: 25% of heat is lost through the roof.
- Replace windows or doors: 25% of heat is lost through windows and doors (most of the houses in SCC housing in Cranmore have been recently replaced.)
- Improve energy performance of the walls: 35% of heat is lost through the walls. There are a number of ways this can be done:
 - Cavity Fill Insulation: This approach is only possible where there is a cavity of the correct size, and where the cavity is clear. It is difficult to do for some of the housing in Cranmore, depending on when they were built. Each house has to be individually assessed to see if it is suitable.
 - Dry lining Internally: This approach can be quite disruptive for the residents of the house, requiring refitting of all electrical, plumbing, bathrooms and kitchens.
 - External Insulation: This method can also require a lot of adjustment works as the diagrams show; around windows and doors, the roof and to the end walls of terraces.
- Each house or terrace will need to be assessed to see which approach to insulation is the best solution.
- We recommend that energy efficiency works are the key to improving the quality of the housing in Cranmore Estate.

Sourcing Funding for Energy Improvement Measures:

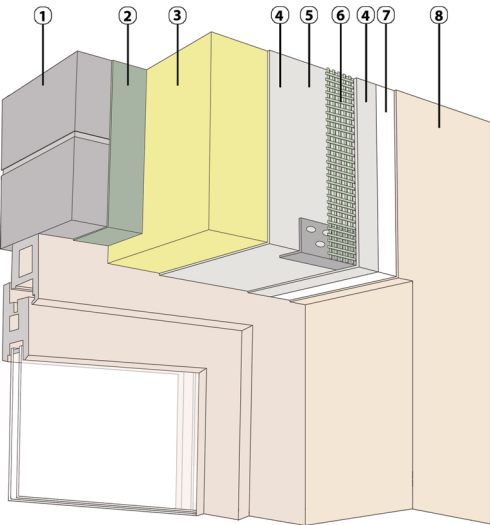
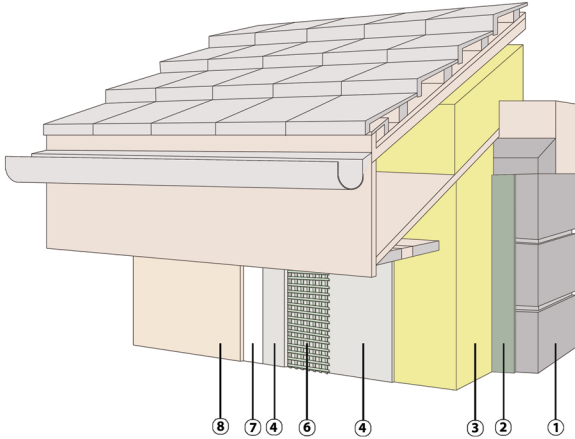
- The regeneration project will identify the available sources of funding for thermal upgrade works, and will explore appropriate ways to secure such funding.



Areas of Heat Loss Through the Roof, Walls, Windows and Doors

External Insulation:

- If an external rendered insulation was pursued as an option, there are a number of details to be considered, such as the roof, windows and gable walls at the end of the terrace.



1: Existing Block Work
2: Adhesive Layer
3: Thermal Insulation
4: Basecoat
5: Angle Bead
6: Fibreglass Mesh
7: Primer Coat
8: External Render
9: Existing Sill
10: Insulated Window Sill



Finished Example of External Insulation

