

Rampton Drift Retro-fit Project

Introduction

This report contains additional information to supplement the report to the May cabinet meeting.

Grant Application

A bid was made to the CLG for a capital grant of £1.5m for an Eco-Town Demonstrator Project focussing on low-carbon lifestyles. The capital project consisted of two elements:

- (a) A retrofit scheme for homes in the existing community of Rampton Drift estimated at £920,000
- (b) An exhibition and learning facility at the Longstanton Park & Ride site estimated at £580,000

Grant Awarded

The Council was advised on 9 March that the bid had been successful but the amount of the award for the demonstrator project was of £1.135m, £365,000 less than requested. The grant was awarded subject to the agreement of a milestone payment schedule and an option appraisal but we have now been informed that we must also receive confirmation that the new government will continue to support these eco-town schemes.

The budget for the Visitors Centre was established at approximately £580,000 with the remainder to be allocated to the Retrofit Project. The final allocation of the funds provided is yet to be decided but it is expected that the major reduction will have to come from the retrofit element of the project. Approaches to other funding sources are being made to try to obtain match funding. These sources include the EU where it is hoped funding might be available to pay for a project support worker and for the provision of renewable energy sources.

Project Summary

The proposal is to buy two houses, refurbish them both to a very high eco standard and use one as an exhibition centre while letting the other to a family to live in and to allow the property performance to be monitored in use.

A detailed cost appraisal and business plan is being developed for approval by the Department of Communities and Local Government which will identify a long term financial model and a suitable delivery vehicle to replace the SCDC funds used to kick start the project and make the initial purchases.

A preliminary assessment of the costs of renovating the demonstrator projects has been prepared to identify the project out goings and to establish the approximate cost for the work to refurbish the houses. This will be confirmed at a later date through the normal detail design and contract tender process.

Once the demonstrator properties have been renovated they will be used to promote Eco living in all its forms.

The first house will form a permanent live exhibition centre to demonstrate the technology and features that other home owners in Rampton Drift could adopt, the effect that this will have on their ongoing costs and to provide a base for the project workers to advise on the process of the design, construction and financial management required to carry out the improvements.

The second house, the one to be occupied by a family, will let on a short term agreement for at least 18 months to identify the actual running costs, energy usage and carbon emissions.

It is understood that the majority of the houses on Rampton Drift are owner occupied and the key aim of the project is to identify the costs and benefits of carrying out the proposed refurbishment and to encourage and enable the residents to enhance their own properties.

Each of the properties will require different levels of investment to bring them up to the proposed standard and each home owner will have different requirements. A menu of works will be established which could enhance the performance of all the properties in Rampton Drift and which could be carried out by each home owner using their own finance or grants from this fund or from other sources. These options will be offered to the home owners along with professional advice tailored to suit each of the properties

Enhancement Works

The proposals envisage the work to enhance the environmental performance of the properties will be possible on at least two levels, the basic level provision listed below which should be possible to apply to all the houses in Rampton Drift at a reasonable cost and with limited disturbance and an enhanced level provision which will be much more expensive and cause more disruption to the occupiers of the properties and which will have less appeal.

Basic Provision

- Provision of adequate insulation within the roof space.
- Provision of cavity wall insulation if appropriate
- Provision of other forms of insulation to the external walls
- Replacement of windows and doors
- Draught proofing
- Modifications to heating systems

Enhanced Provision

- Provision of new insulated floors with under floor heating
- Provision of solar heated Hot Water systems
- Provision of solar photovoltaic panels for the generation of electricity
- Installation of ground source heating
- Installation of air source heating
- Provision of heat recovery ventilation systems
- Installation of equipment to enable the use of rain water harvesting to save on water consumption

The demonstration properties will be refurbished to the highest practical standard to illustrate to the residents what can be done, the cost, disruption but also the benefits that might be obtained. Additional works will also be required to bring them up to a good modern standard suitable for occupation in 2011 and while not contributing directly to energy saving will allow the more radical enhancement work to take place.

The following schedule which indicates the expected costs of the basic level of refurbishment per property was included in the grant application. It is intended that external funding will cover the costs of the enhanced provision.

No	Element	Existing Assumptions	Proposed Improvement	Budget Cost
1	Roof	Pitched roof with concrete tiles on felt on timber structure with 50mm glass fibre insulation	Additional 200mm insulation	£325
2	Walls	Brick & Block with 50mm cavity & 12.5mm plaster, total thickness assumed 265mm no insulation x 50%	Insert Cavity insulation to external walls	£250
		Block with tiles on battens & 12.5mm plaster & no insulation x 50%	Remove tiles & battens, add insulated render 75mm thick	£425
3	Windows	Doubled glazed / UPVC windows	Replace with high performance triple glazed windows	£5,000
4	External Doors	UPVC Doors	Replace with high performance doors & glazing etc	£1,500
5	Thermal bridging	No insulation at head/ cills / jambs of openings	Add insulation to window & door reveals	£1,200
6	Ground Floor	Solid ground bearing concrete slab with 50mm sand cement screed & plastic floor tiles	Remove screed & install insulated floating floor with under floor heating & carpets in living area	£750
7	Air tightness	No additional measures taken	Seal round windows / doors/ eaves etc	£300
8	Ventilation	Extract fan in bathroom	Mechanical Ventilation Heat Recovery System MVHR	£1,000
9	Heating System	Gas Fired Boiler	New combi boiler	£3,000
10	Water Heating	Gas Fired Boiler / lagged cylinder	Included with item 9	
11	Lighting	Standard Fittings	Low energy light fittings	£50
12	Water	Mains Supply / surface water to soak away	Rainwater collection & use in toilets etc	£500
				£14,300
	Usage Issues	Educate users		
1	Internal temp	Ave 22 deg C	Ave 21 deg C	
2	Reduce hot water usage			
3	Fridge Rating		Install Band A	£250
4	Washing Machine		Install Band A	£350
5	Water consumption		Install 2 No.2.6 l dual flush toilets & tap magic inserts to taps to give 50% savings	£100
				£700