

Case Study No.18

Community Sustainability, Low Environmental Impact

Albyn Housing Society, Craite Barn, Applecross, Highland

Type:	New build and conversion of barn and slaughterhouse		
Number of units:	8		
SAP rating:	75 (average)		
Carbon emission	2 tonnes/new build unit/annum, 2.4 tonnes /rehab unit/annum (estimated)		
U-values:	roof 0.17 (slate), 0.17 (metal) Wm ² C Walls 0.26 (stone), 0.25 (timber) 0.23 Wm ² C Floors 0.21 Wm ² C		
Fuel Costs:	n/a		
Works cost:	£632,000 (2004 prices)		
Unit cost:	£96,775 (2006 prices)		
Completion date:	2004		
Monitoring or PoE:	Yes, evaluation of LLI has confirmed that local housing and business needs have been met		
Contacts:	Client:	Albyn Housing Society	Donald Lockhart 01349 852978
	Architect:	David Somerville Architect	David Somerville 01463 861442
	Builder:	M M Miller Ltd	01955 602746

There is an acute need for affordable rented housing in many parts of the Highlands. Housing provision faces difficulties of land availability, water supply and sewage treatment, and high construction costs. Additional supply may not always meet local needs, however, if allocation policies are applied without reference to the specific circumstances of remote communities. This small housing development addresses local housing need directly through an innovative letting initiative, helping to sustain the local community. The housing also has a reduced environmental impact in an area of high landscape quality.



Figure 18.1 The Grade B listed barn conversion on the left and the new build (ahead and right) in courtyard layout.

Key Features

Social and Management

Community sustainability, community participation, local lettings initiative, and partnership

Community involvement: the local community and the Highlands Small Communities Housing Trust identified a shortage of affordable rented housing in the remote Applecross community. Young people could not find suitable and affordable homes, and the local economy was threatened by a potential labour shortage. The provision of even a small number of houses can have a very significant impact on remote communities, and for Albyn it was important that any provision should both meet local housing need while also fitting into the local landscape and preserving its unique character. The community's desire to secure new housing for key-workers and to protect the school roll had to be balanced against their concerns about the impact such development might have on their small community. Building on the groundwork carried out by the Trust, Albyn engaged in a consultation process with local people, which included detailed discussions about design and layout.

Local lettings initiative: Albyn's allocation policy is designed to ensure equal opportunities, but if applied irrespective of local circumstances could pose a threat to the sustainability and character of remote communities in scenically attractive areas. In co-operation with the local community, Albyn developed a local lettings initiative designed to ensure that the housing provided met local need. The main criterion agreed with the community was to identify people with a local connection living in unsatisfactory conditions. A post occupancy evaluation has confirmed that the housing has met local needs and ensured the continuing availability of labour for local businesses.

Partnership: there has been full co-operation throughout (from identification of need, through planning and design, to final letting) between all interested parties. These include the local community and landowner, the Highlands Small Communities Housing Trust, Albyn Housing Society, and the Highland Council. Need was identified by the local community and the Trust, the land was acquired and made available to Albyn by the Trust, and the project advanced through the Ross and Cromarty Local Housing Development Forum. The Forum is administered by the Highland Council and involves planners and roads staff from the Council, Albyn, the Trust, Communities Scotland and other relevant agencies.



Figure 18.2 The traditional form of neighbouring farm is echoed in the new development.



Figure 18.3 The barn and slaughterhouse conversions.

Working with the Site

Local character

The project involves the conversion of a Grade-B listed barn and adjoining slaughterhouse into three dwellings and the construction of five new houses, one of which is suitable for a wheelchair-user. Care was taken to integrate the site within the surrounding landscape rather than screen it from the local area.

Architect David Somerville arranged the houses around a courtyard. Careful consideration of scale, form and use of local materials mean the new buildings work with the old to form an integrated whole. The project was commended in the Royal Town Planning Institute's Scottish Awards for Quality in Planning in 2004. Judges praised the mix of materials, which include local stone and timber-cladding. Roofs are a mix of slate and metal sheeting, the latter being traditionally used in the area. A footpath was laid to connect the development to the main part of Applecross village.

Other Features

Saving Resources

Low environmental impact

The dwellings have been designed to reduce their environmental impact and incorporate a variety of features.

The corrugated metal roofing consists of sinusoidal steel fixed to timber purlins with 80mm Rockwool insulation. There is Rockfall-insulated sarking over the rafters and 150mm rockwool between the trusses. All fixings are stainless steel and all separable for reuse.

The timber beams in the 1.5 storey houses are glulamated with a steel post and beam assembly to provide lateral stability at the centre of each house.

The untreated timber cladding was specified as home grown European larch but there is also some local Douglas fir.

There is no paint to the cladding or masonry, and the windows and fascias are painted with water based paints. Lime render has been applied to the former slaughterhouse.

Heating is provided by Morso wood burning stoves and electric storage heaters.

Costs and maintenance

Of the total cost of £793,394, HAG provided £544,502 and Social and Environmental Grant £31,000. There were also contributions of £14,500 from Ross and Cromarty Enterprise and £12,804 from Scottish Water with £190,528 private finance. The buildings have been designed for low maintenance.



Figure 18.4 Corrugated metal roof for the barn conversion.



Figure 18.5 The slaughterhouse showing untreated timber cladding.