



Scotland's Housing Expo

Case Study produced by the A+DS Sust. Programme.



Architecture+DesignScotland
Ailtearachd is Dealbhadh na h-Alba

Scotland's Housing Expo

Scotland's Housing Expo in 2010 was the first of its kind in the UK. It demonstrates a creative response to the desire for innovation and encouraged the exploration of new housing standards for sustainable design, innovative construction, energy efficiency and the use of low Carbon and renewable systems and technologies.



^ Finnish Housing Fair, Espoo 2006

BACKGROUND

Prompted by the Scottish Government's desire to bring the Finnish model of a Housing Expo to Scotland, Highland Council initiated the project with the active support of the Scottish Government, Sust. – the Government's Sustainability in Architecture Programme, Forestry Commission Scotland, Royal Incorporation of Architects in Scotland (RIAS), Highlands and Islands Enterprise, Highland Birchwoods, Homes for Scotland and Inverness Architectural Association. Highland Housing Alliance (HHA) were responsible for the implementation with Cadell2 (now known as AREA) as their appointed masterplanners.

Inverness is one of the fastest growing cities in Europe, but in the rush to accommodate rapid expansion, ideas such as creating a strong sense of place and community have been sadly neglected. The 4 hectare site at Balvonie, Braes is located next to a planned new local centre in Milton of Leys. The Expo is a first phase of 55 homes on the site, with 45 further houses scheduled in a second phase on the same site.



^ Finnish Housing Fair, Espoo 2006

APPROACH

The aim of the Expo was to stimulate and showcase imaginative new approaches to 21st Century housing, allows a comparison between the standard house builders product, as is evident within the immediate area, and housing with properly planned community infrastructure. Cadell2 established an urban design proposal setting a strong spatial vision and placemaking agenda for the site. A broad range of house sizes, formats and tenures was set to create a diverse community.

Cadell2's (now known as AREA) Urban Design Framework contained a Design Code that formed the brief for an RIAS design competition held in 2007. Intense interest in the competition inspired participation by leading architects in Scotland. Each of the successful architects were asked to form a plot development team with a developer or a Housing Association, to purchase a plot and finance construction, however this financial model did not survive the economic downturn and the Highland Housing Association had to step up as developer.

The distinctive design of the masterplan is inspired by the character of the immediate landscape; by the moor and forest edge, by the elevated shelf of 18th century pasture, and by the wooded dens and burns cutting through the steep slopes below. This has led to sheltering buildings, to bridges and causeways leading to them, to new water channels, to newly planted tree lines. All of this reflects analysis of the wider landscape structures and patterns.

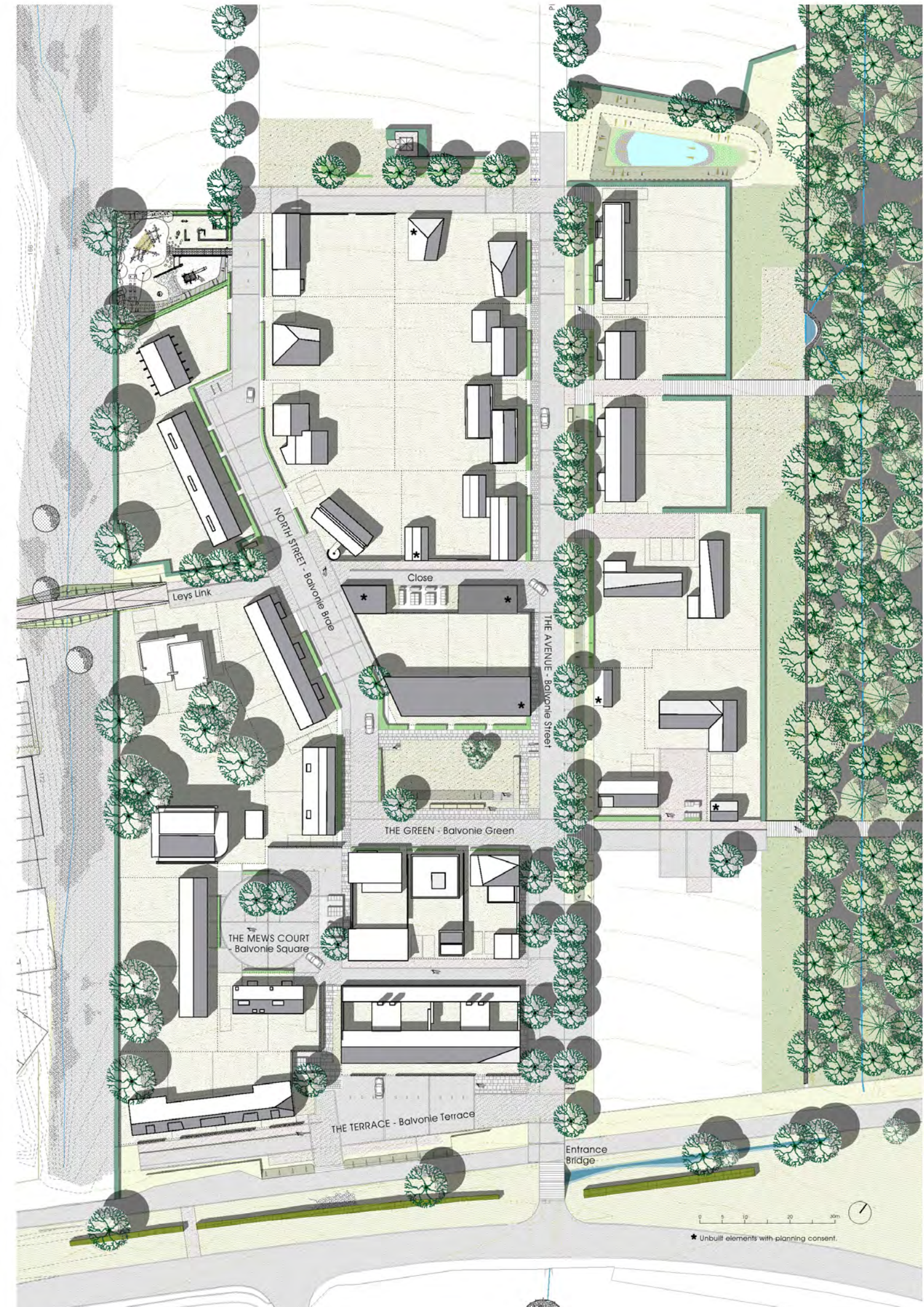
<< Scotland's Housing Expo, Inverness



Expo site context plan ^

View from South West corner of the site v





NORTH STREET - Balvolie Bce

Leys Link

Close

THE AVENUE - Balvolie Street

THE GREEN - Balvolie Green

THE MEWS COURT
Balvolie Square

THE TERRACE - Balvolie Terrace

Entrance
Bridge

0 5 10 20 30m

* Unbuilt elements with planning consent.

Scotland's Housing Expo

Elements of the existing landscape are carefully preserved: a walled drinking trough, drystone dykes, surviving fragments of moorland, native forest. Inspired by settlements in the rugged landscapes of the Highlands, the housing layout of the Expo makes sheltered streets by using buildings as a buffer against the wet and windy local climate.

The streets and housing layout are inspired by the sociable qualities of settlements in the Highlands such as crofting communities with their nearby common grazing areas where farming work was shared in winter time, or Hirta, St Kilda where an island parliament was held outdoors on the streets.

A series of innovative urban design strategies have been used in the Expo, geared towards a more social, healthy and sustainable lifestyle; and a safer, sheltered and inspiring residential environment. It seeks to create a sense of community, designed by collaboration between the masterplanners and the plot architects.



^ Expo site, February 2010



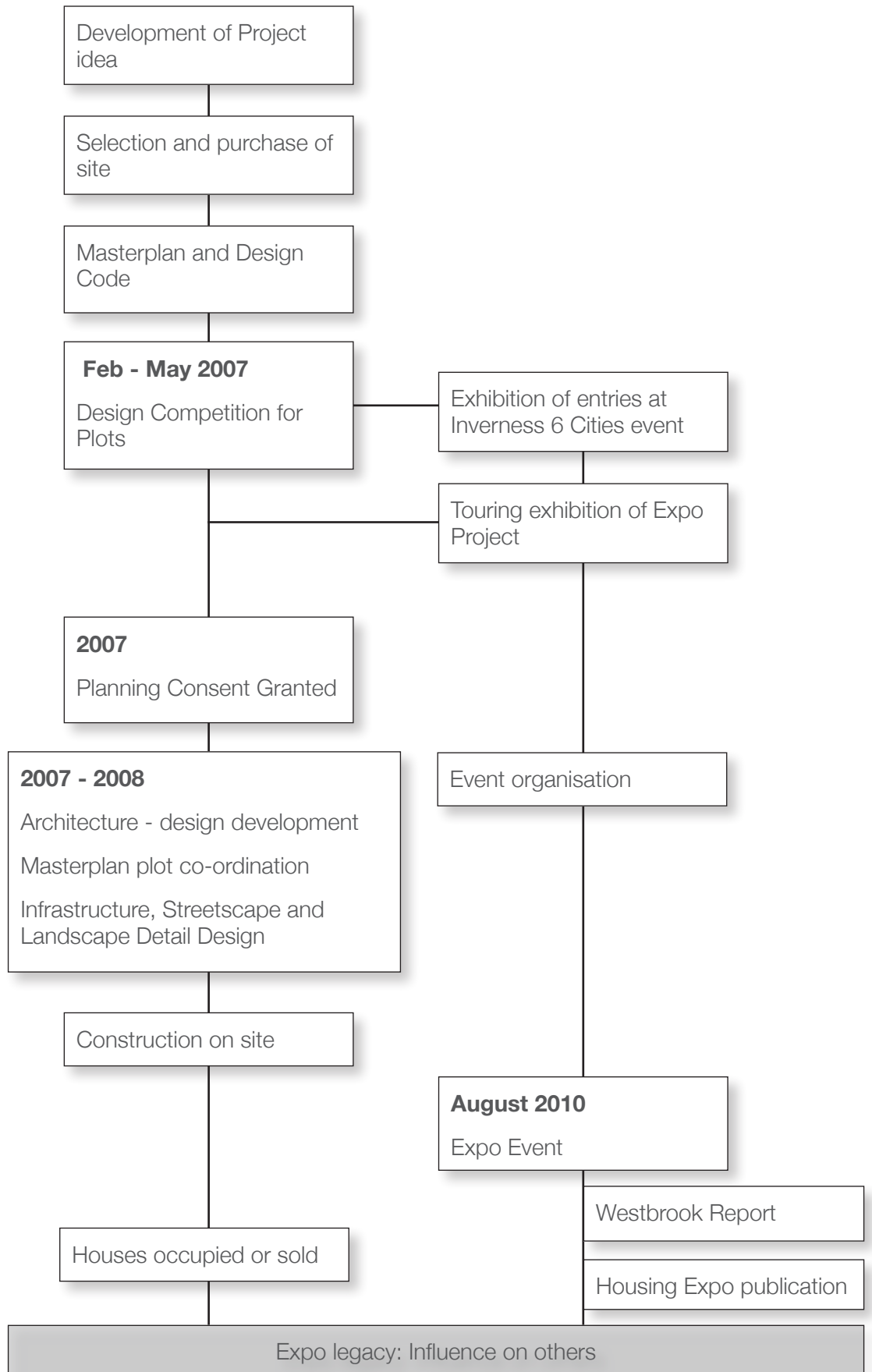
^ Sociable qualities of the Highlands

<< Plan of the Expo site

Expo site, June 2010 ✓



Scotland's Housing Expo





The Expo Event August 2010





^ Internal view - Plot 11

v Internal view - Plot 22





Expo collectable trump-style cards ^

Timberplay play area v





^ My Sust House Games

v Claystation: ReModelling Home



Scotland's Housing Expo



^ Signage at Scotland's Housing Expo

RESULT

The whole process of creating this ambitious project for the first time in the UK involved a significant learning curve for everyone, including the architects. The result was the creation of 52 diverse, unique and visionary interpretations of future living, all set in an overall vision for community living.

The key objective of the Expo was to showcase innovative, sustainable housing and place-making to a wide audience to help change attitudes towards house and place design. Since the event, a number of studies and reviews have commenced with a view to collecting both anecdotal and formal feedback on the impact that the research has had in this respect.

IN USE

At the start of 2011, people were beginning to move into the houses, turning Scotland's first Housing Expo into the Braes of Balvonie – a community in what Wayne Hemmingway has described as the best housing development in the UK.

“We have established what it means to deliver an Expo and the level of interest amongst the general public exceeded expectation” Susan Torrance, Chief Executive HHA.

COMMENTS ON THE MASTERPLAN

In The Scottish Government Planning Advice Note, PAN 83, Masterplanning, September 2008, Rob Cowan comments:

“It will be a showpiece of urban design, presenting a form of layout very different to Scottish house-builders' standard models. There are very few imaginative, alternative models of new residential development to be seen in Scotland, or indeed in the UK, so this will fill a real gap.

The degree of thought that has gone into the masterplan has been high... much will depend on the detailed design and construction of the houses: what compromises are made in the late stages; and how the eventual residents respond to the opportunities that the place offers.

The expectations of developers, the building industry, architects and the public will not be changed by a single, relatively small initiative, but the highland housing fair [Scotland's Housing Expo] looks set to make a significant contribution.”

Scotland's Housing Expo

AT THE AUGUST 2010 EVENT

Speaking at the press launch of the Expo on 6th August, Wayne Hemingway said: "I have visited many housing projects in recent years judging Building for Life Awards and this would score better than anything I have seen yet, it fits all the assessment criteria, better than anything I have seen in England. I will spread the word at CABE and all English planners should be bussed here to see it.....The masterplan is excellent."

The Expo Event August 2010 √



Scotland's Housing Expo



^ Signage at Scotland's Housing Expo

KEY LESSONS

The Expo successfully opened to the public in August 2010 attracting over 34,000 visitors in one month. Feedback confirmed that there is an appetite amongst the public and the industry to explore and advance innovation in placemaking, streetscape design and sustainable housing.

The Urban Design objectives of the masterplan have been largely realised in the Expo. Some elements of the planned public realm and architecture were missing or omitted in the run-up to August 2010 due to time constraints, however, the majority of these elements were completed after the public event.

The Expo has demonstrated aspirations for creating well-designed, energy-efficient and sustainable communities by building a permanent community in Inverness. The completed phase 1 allows a direct comparison with the standard house builders product, evident in the surrounding area.

Locally sourced materials were incorporated in the streetscape including: natural Caithness paving; reclaimed granite setts; Nairn gravel retained in Bodpave; reclaimed hardwood railway sleepers; Scottish glacial boulders and Scottish larch in the walls; boardwalks; reclaimed granite streetscape seating and swale storm barriers.

The HHA has 24 private houses to sell in order to repay the bank and release The Scottish Government guarantee – no small feat in the financial climate of 2011. A post Expo focus group review highlighted some of the key lessons learned from the Expo:

- we need to find ways to fund innovation and to encourage use of local materials which may be more expensive, but local manufacturers also need to undertake product development to compete with continental imports;
- the same message is true for the promotion and use of Scottish timber, a cause which in some ways prompted the Expo, but which needs concentrated research and development work;
- the financial equation does not add up at the moment and developers are being asked to fund higher than current building regulation requirements with no added value for a post 2010 Building Standard Regulations house.

Additionally, one point raised in relation to the success or otherwise of such an event is the need for a true champion to promote it.

FURTHER INFORMATION

A book exploring the story of the Expo and further information about each of the plots can be found here: <http://www.scotland.gov.uk/Resource/Doc/347799/0115858.pdf>

THE EXPO AS BUILT

PLOT 1



House Name Stealth Terrace
Architect JM Architects
House Type Terrace of 4 houses

PLOT 2



House Name The Stone House
Architect NORD
House Type Terrace of 4 houses

PLOT 3



House Name The Shed House
Architect The Highland Council
House Type Terrace of 3 houses

PLOT 4.1



House Name The Timber House
Architect John Gilbert Architects
House Type Terrace of 4 houses

PLOT 4.2



House Name The Healthy House
Architect Andrew Black Design
House Type 2 Semi-detached houses

PLOT 4.3



House Name Lios Gorm
(Green place to live)
Architect David Blaikie Architects
House Type 2 storey house, upper flat and fully accessible lower flat

PLOT 5



House Name The Corner House
Architect JM Architects
House Type Detached house with workshop

PLOT 6



House Name Woodrock
Architect AIM Design
House Type Detached house with workshop

PLOT 7



House Name House No 7
Architect David Somerville Architects
House Type Detached house with office

PLOT 8



House Name The Apartments
Architect Keppie Design
House Type 6 flats

PLOT 9



House Name Three on Nine
Architect Graham Mitchell Architects
House Type Terrace of 3 houses

PLOT 11



House Name The Passive House
Architect HLM Architects
House Type Terrace of 3 houses

PLOT 12



House Name The Gem
Architect Trevor Black Architects
House Type Detached house

PLOT 14



House Name The Skylight Home
Architect Richard Murphy Architects
House Type Detached house

PLOT 15



House Name The Modular House
Architect Bracewell Stirling Architects
House Type Detached house with office

PLOT 16



House Name White House
Architect Graeme Massie Architects
House Type Detached house

PLOT 17



House Name The Secret Garden
Architect Rural Design
House Type Detached house

PLOT 18



House Name The Whole Life House
Architect Brennan and Wilson Architects
House Type Detached house

PLOT 19



House Name Twin Peaks
Architect Joseph Thurrott Architects
House Type Detached house

PLOT 20



House Name Plot 20
Architect Keppie Design
House Type Detached house

PLOT 21



House Name Black House
Architect Graeme Massie Architects
House Type Detached house

PLOT 22



House Name House HS
Architect Malcolm Fraser Architects
House Type 2 Semi-detached houses

PLOT 23



House Name The Skewed House
Architect Oliver Chapman Architects
House Type 2 Detached houses

PLOT 24



House Name RED Homes
Architect McLean Architects
House Type 2 Semi-detached houses

PLOT 25



House Name The Flower House
Architect A + J Burridge
House Type Detached house

PLOT 26



House Name The Hardcore
Softhouse
Architect Studio KAP Architects
House Type 2 Semi-detached
houses

PLOT 27



House Name House NS
Architect Malcolm Fraser
Architects
House Type Detached house



Project Information

Location: Braes of Balvonie, Milton of Leys, Inverness
Date Completed: August 2010

Architects:

A+J Burridge	AIM Design
Andrew Black Design	Bracewell Stirling
Brennan and Wilson Architects	Cadell2 (now known as AREA)
David Blaike Architects	David Sommerville Architects
Graeme Massie Architects	Graham Mitchell Architects
HLM Architects	JM Architects
John Gilbert Architects	Joseph Thurrott Architects
Keppie Design	Locate Architects
Malcolm Fraser Architects	McLean Architects
NORD	Oliver Chapman Architects
Richard Murphy Architects	Rural Design
Studio KAP Architects	The Highland Council
Trevor Black Architects	

Image Credits:

- Alan Dimmick
- Cadell2 (now known as AREA)
- Ewen Wetherspoon
- Graeme Massie Architects
- Ian Baird
- Johnny Cadell
- Kate Hendry
- The Highland Housing Alliance

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