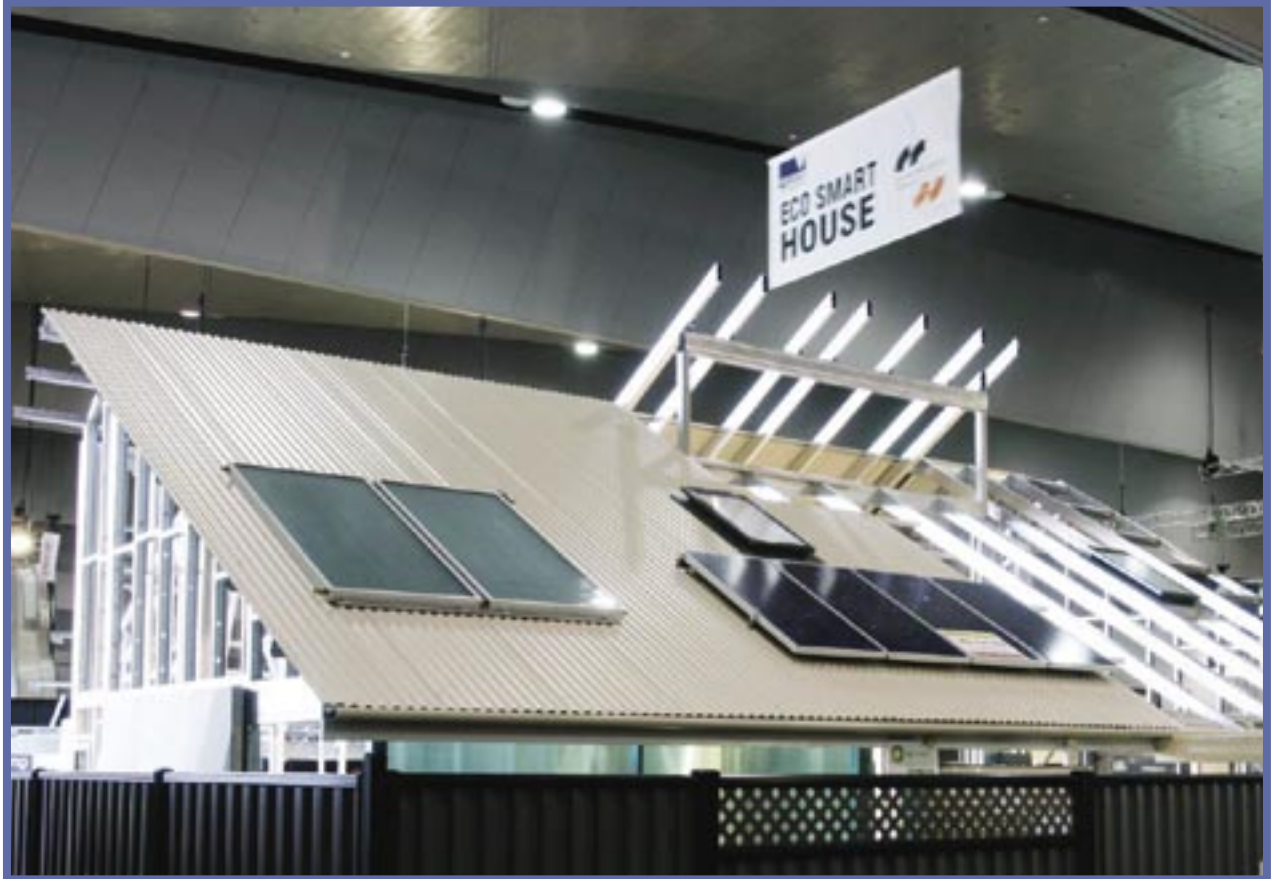


## SUSTAINABLE STEEL SHINES AT MELBOURNE HIA HOME SHOW

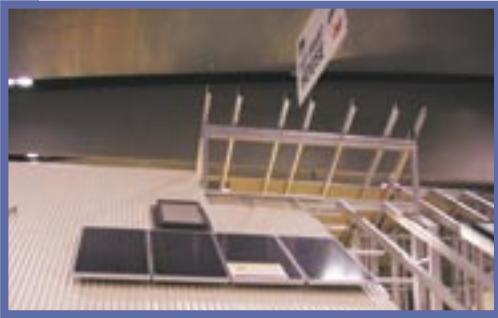


The eco smart sustainable house was the star exhibit at the Melbourne HIA Home Show held in March. The display was comprised of a fully framed and trussed steel home, approximately 150 square metres in size, complemented by a landscaped garden and fencing. The total area occupied 252 square metres at the show. The complete frame and trusses were provided by steel frame solutions of Ballarat. The frame utilised Spantec's boxspan for the raked ceilings.



The Eco Smart Sustainable House was the star exhibit at the Melbourne HIA Home Show held in March. The display was comprised of a fully framed and trussed steel home, approximately 150 square metres in size, complemented by a landscaped garden and fencing.

The total area occupied 252 square metres at the Show. The complete frame and trusses were provided by Steel Frame Solutions of Ballarat. The frame utilised Spantec's Boxspan for the raked ceilings.



## SUSTAINABLE STEEL CONTINUED...

Sustainability in construction has widely been accepted by the industry and consumers since the introduction of the mandatory four and five star house energy rating. Water conservation is also on everybody's mind these days and the use of rain water tanks is extensively promoted by the authorities.

The Eco Smart Sustainable House exhibit gave visitors the opportunity to experience how all building elements come together in a full scale sustainable house. Products and technologies were explained through well designed information boards, while product information was available at brochure stands in the house and the staffed information booth in the garden.

After the Home Show, the Eco Smart Sustainable House was dismantled and moved to its

building site at Sunbury's Jacksons Hill Estate. Here the house will be fully constructed and finished, using the same materials and products. On completion, the house will be open to members of the construction industry. The Eco Smart House is expected to achieve reductions in energy costs not seen before in Australia.

The exhibit was a joint development between BP Architects and Brandjes Environmental Building Consultancy and is a not-for-profit initiative to educate and inform consumers on sustainability. The project received support from the Australian Greenhouse Office, Consumer Affairs Victoria and BlueScope Steel. Congratulations to all involved with this display and in particular Jan Brandjes and John Selvarajoo for their coordination and vision.

## HOUSING OUTLOOK

There are quite a few mixed signals in the market place around housing activity and affordability. The HIA forecasters are predicting a drop of 15% in 2005/06 from the historic high in 2003/04. (See table below.)

Detached housing represents about 70% of the total dwellings. A detailed breakup of the dwelling types by state for the last financial year is presented in the accompanying graph.

Population growth is one of the main drivers of housing demand. This is currently running at about 1.2% and is supported by a steady immigration inflow.

Most members are reporting a steady workload but with a smaller order book than at a similar time last year. There have been a few reports of timber truss manufacturers closing down for short periods due to insufficient workload. Carter Holt Harvey's

Wood Products Division noted in their March Quarter Report that the housing market combined with increased timber industry capacity, had impacted on price and mix resulting in reduced earnings. In response they are reducing capacity at their highest cost mills. Their volumes were down 5% compared to last year and whilst they maintained their prices from last quarter, they were down 7% compared with last year.

### New Dwelling Starts ('000)

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<b>02/03</b>	48.1	45.8	39.3	10.3	20.3	2.1	1.0	3.1	169.9
<b>03/04</b>	43.8	45.3	43.5	10.0	22.4	2.8	1.0	2.9	172.6
<b>04/05</b>	37.3	40.1	37.3	9.6	21.1	2.7	1.2	2.3	152.1
<b>05/06</b>	36.8	39.1	37.1	8.5	18.6	2.5	1.0	2.1	146.6
<b>06/07</b>	40.6	41.6	42.7	8.7	19.2	2.6	1.0	2.2	154.2
<b>07/08</b>	42.5	43.2	45.3	8.9	19.9	2.8	1.1	2.3	162.4

(REF: HIA NATIONAL OUTLOOK MARCH QUARTER 2005)

## LIGHT WEIGHT SEPARATION WALLS BETWEEN DWELLINGS

A separation wall is a common or party wall that separates Class 1 dwellings (townhouses/row houses/units/terraces). It must have a fire rated level (FRL) of 60/60/60 (structural adequacy/integrity/insulation) and a specified acoustic performance depending on the layout. Separation walls have been traditionally built with brickwork or masonry.

Victoria, New South Wales, South Australia and Tasmania have introduced higher acoustic requirements into the 2004 edition of the Building Code of Australia (BCA) (Volume 2 – Part 3.8.6).

Compliance with this amendment requires discontinuous construction in some situations. Performance requirements of the walls are also changed resulting in some significant amendments in deemed-to-satisfy solutions in the BCA. For example, previously 2 leaves of 90mm brick masonry with a 40mm cavity were acceptable. Now 2 leaves of 110mm brick masonry with a 50mm cavity together with either 50mm of insulation or cement render on each outside face are required.

Light weight plasterboard systems have been developed that are compatible with steel framing. It allows the frames to be completed without having to wait for bricklayers and maximises cleanliness of the site. Steel framing also offers:

- faster construction
- reduced foundation loads
- superior acoustic performance.

With plaster board systems, BCA compliance can be achieved with either of two approaches:

- Attach fire rated boards to the outside of the separating walls to attain the required fire rating and add sound insulation batts to attain the acoustic rating.

This method has a few issues to be addressed including:

- provision of power points in the wall;
- provision of a fire and acoustic barrier where the floor and roof members intersect the separating wall; and
- running of vertical services.

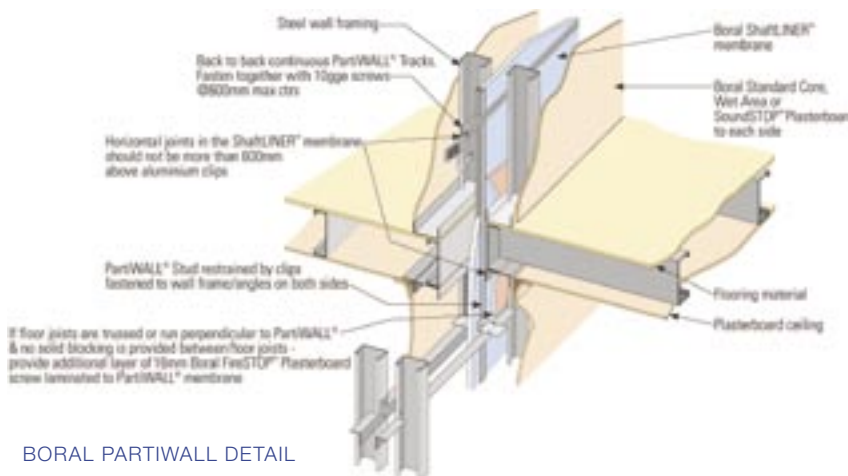
Table 3.8.6.2 of the BCA presents acceptable forms of construction, including steel options, which satisfy the acoustic requirements.

The second approach was developed to provide a simple solution to the issues raised above. A 25mm fire-resistant shaft liner plasterboard panel between the twin wall frames (see diagram below). The shaft liner is run from the foundations to the underside of the cladding. Standard steel framing, in accordance with AS 3623, is placed each side of the wall with a minimum gap between the frame and shaft liner of approximately 20mm (refer to manufacturer details for all relevant data). The continuous shaft liner is the principal barrier and is supplemented with acoustic batts and the internal plasterboard lining. This method allows the inclusion of service penetrations (switches/power points/light fittings/pipes) within the wall as the shaft liner is not penetrated.

The shaft liner can be installed by the frame erector so there are no delays waiting for other trades and can be subjected to weather for up to one month. It should be allowed to dry prior to lining the occupancy areas.

Further information is available on both approaches at:

- BORAL  
[www.boral.com.au](http://www.boral.com.au)
- CSR GYPROCK  
[www.gyprock.com.au](http://www.gyprock.com.au)
- LAFARGE PLASTERBOARD  
[www.plastamasta.com.au](http://www.plastamasta.com.au)
- STEEL FRAMING  
[www.steel framingalliance.com](http://www.steel framingalliance.com)



BORAL PARTIWALL DETAIL

## UPCOMING CONFERENCES

### HIA Home & Building Expo

26 to 29 May 2005

BRISBANE CONVENTION  
AND EXHIBITION CENTRE

Strong representation from the steel framing industry will be the attraction. NASH is hosting a display that includes exhibits from:

- Quickframe
- Henrob
- Spantec
- Integrated Steel Solutions
- Metal Forming Technologies
- Smorgon Steel LiteSteel Technologies

We look forward to seeing you and your customers at the Expo. If you can assist with hosting the NASH display please contact us.

### China International Steel Construction Congress and Expo 2005

26 to 29 September 2005

BEIJING CHINA

Residential steel framing will form one of the streams. Visit [www.constex.com](http://www.constex.com) for information.

### Members

NASH welcomes the following new member:

#### Company

Metal Forming Technologies

#### Activity

Roll former and software suppliers

#### Contact

Glen Tasker

#### Location

Auckland NZ

NASH also welcomes its new strategic alliance with the Association of Wall & Ceiling Industries Vic Inc. The alliance builds upon a similar relationship with the Association in South Australia and NSW.

Ken Watson  
Executive Director

