NASH NEWS

OCTOBER 2008

NASH™
NATIONAL ASSOCIATION OF STEEL-FRAMED HOUSING INC.

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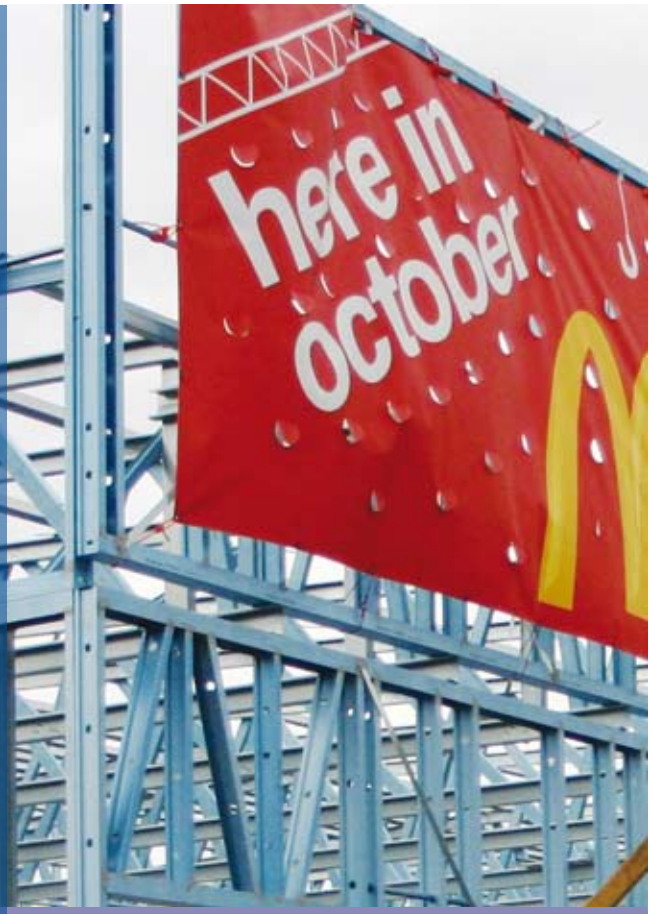


NASH 25th ANNIVERSARY

BUILDING THE DREAM

Peter Tapscott purchased a rural property on the outskirts of Shepparton, 200km north of Melbourne. His intent – to build his family's dream home. With the perfect site chosen, adjacent to a stream running through the treed property, he investigated the different building methods.

A number of factors influenced Peter's selection of framing materials:

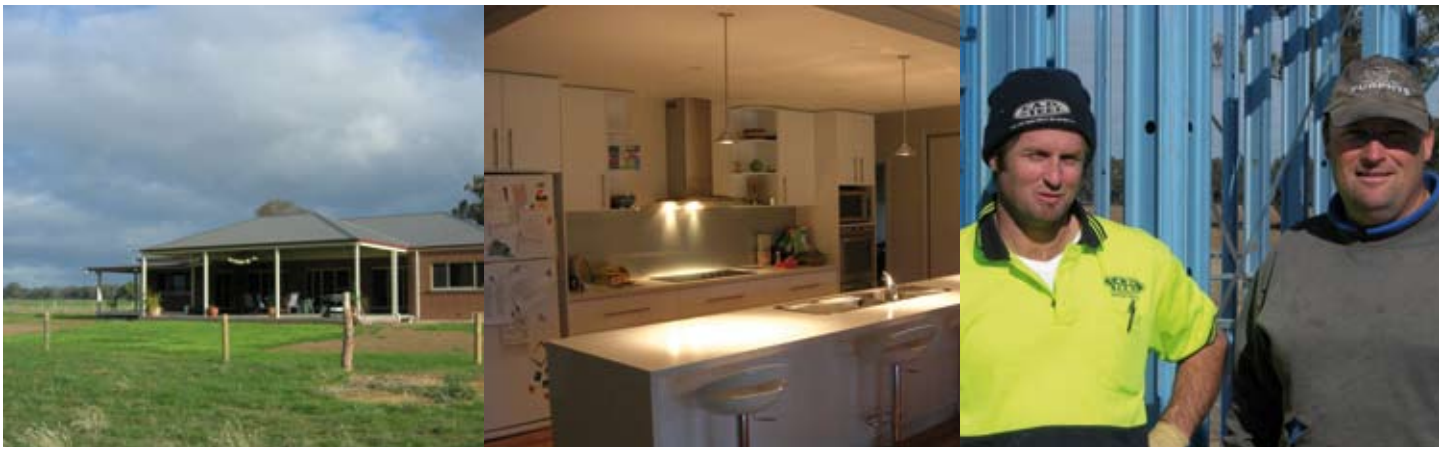
- Peter is a qualified sheet metal worker and is the Production Manager at Furphy Engineering, the Shepparton Fabricator - so he's very familiar and competent working with steel.
- Peter had successfully built a farm shed on his property.
- Colleagues and friends who had built in steel were very happy with their recently completed homes.
- Peter demands a high level of quality from his workers and this expectation naturally flows through to his own project.
- The design required long span trusses, which are easily coped with by steel
- Termites are very active in the region.

In counter balance to the factors above - Peter's father-in-law is a builder who loves timber and strongly believes it is the best way to go. But, despite this advice - Peter chose to build his home with a steel frame.

The local authorities set a minimum ground floor level for flood design. Peter elected to use a Duragal floor system for the ground floor. He obtained three quotes for supply of the steel wall frames and trusses and accepted the price from F.A.D Steel Pty Ltd in Finley NSW, about four hours north of Shepparton.

Dennis Sutton of F.A.D. Steel designed, fabricated and delivered the steel frame to site. Peter then employed the F.A.D. Steel team to erect the steel frame. Peter said, "Dennis was very helpful at all stages of the project and he and his team supplied a high quality frame, which made a wonderful foundation for me to complete the project." Erection was very quick allowing Peter to move on to the next stage of his project.

Peter and his family are now enjoying life in their new home – and his timber-loyal father-in-law? Perhaps a convert – he's very proud of Peter and his family's steel-framed home.



Dennis Sutton F.A.D Steel (LHS) with Peter Tapscott

CHOOSING THE RIGHT BRICK TIE FOR YOUR STUD

With brick veneer construction, the steel stud is assumed to provide support to the brick walls. The load is transferred to the frame through brick ties.

The performance criteria for brick ties are set out in AS2699.1 Built-in Components for Masonry Construction Part 1:Wall Ties. It covers

- **Durability**

AS2669.1 gives the performance tests for durability as well as deemed-to-comply provisions. Within one kilometre of the breaking surf, an R4 tie is required. With steel framing an engineered polymer tie is generally recommended. (Refer NASH News November / December 2007 for more information.)

- **Resistance to water transfer**

As the masonry wall is porous and the cavity forms the water proofing barrier, the tie must be designed so that when it's installed, water cannot flow across the gap.

- **Structural performance – strength and serviceability**

Type A ties are classified depending on their strength:

- Light duty
- Medium duty
- Heavy duty

Failure of the tie is defined when either the tie fails; or deflects more than 1.5mm.

Testing for strength of the tie encompasses:

- mortar embedment of the tie
- the tie
- the fixing of the tie to the stud
- the stud.

During the test, the flange of the stud is not restrained. Therefore, if the ties are attached to the lip of the stud, it is very unlikely that the flange will resist the required load and deflect less than the 1.5mm specified, even for light duty ties. For this reason, the usual practice is to attach the ties to the web of the stud or face fix to the flange with a screw.

In all cases, the testing needs to be carried out on the relevant stud with the brick tie using the actual fixing.

The spacing of brick ties is specified both in the Building Code of Australia and the Masonry Standard AS3700. Around openings, ie. windows, doors, articulation jointed and at intersecting walls, the allowable spacing of brick ties is halved, ie. the number of ties is doubled.

NEW LOOK MCDONALD'S RESTAURANTS – LEADING EDGE DESIGNS SUPPORTED IN STEEL

McDonald's have developed a new contemporary look and feel for their restaurants that represents a significant departure from their traditional offering. McDonald's are changing completely the exterior and most importantly the interior of their restaurants to improve the overall experience for their customers. Steel framing has been chosen to meet these design demands.

McDonald's restaurants have been built with steel frames for over 20 years and this success is continuing in their new designs.

One such McDonald's restaurant that is being noticed for its striking contemporary look is located in the Melbourne suburb of Clayton, at the corner of Princess Highway and North Road, opposite Monash University. The Local Council had previously refused an application for another convenience restaurant and three take-away food premises on the site as it would impact adversely on the amenity of the area due to the style of the buildings, lack of car parking and landscaping setbacks.

The McDonald's design addressed all the Council's issues and provided parking, landscaping setbacks and positioned the building on the site to minimise disruption to residential neighbours. The building has been designed so that all sides enhance visual representation at this significant intersection and there is no 'back face'. It's 34 metres long and 34 metres wide and encompasses kitchen, storage, dining, sales and play areas. 100 people can be seated in the interior dining area.

A design feature is the 5500 mm high parapet walls that hide the two commercial air conditioning units supported on the trusses. The walls also provide a safety barrier for workers on the roof.

Steer Manufacturing has been supplying the walls frames and roof trusses for McDonald's projects across Victoria, including the Clayton project.

In NSW, Webhall Steel Frames and Trusses have been supplying McDonald's - including a very prominent site adjacent to the Sydney domestic air terminal.

In New Zealand, Framtek 2007 is supplying frames and trusses to a number of McDonald's sites.

TRADE TRAINING UPDATE

NEW CONSTRUCTION PACKAGE

The new Construction Training Package CPC08 has been nationally approved. It updates and combines three earlier packages:

1. BCG03 General Construction
2. BCP03 Plumbing and Services
3. BCF00 Off-site Construction

It covers courses for most apprentices in construction including carpentry, bricklaying, plastering, plumbing, concreting, tiling, painting, etc.

Each qualification is composed of a number of core and elective units of competency that workers will require to perform a particular job.

Some of the major components of the new carpentry qualification include:

- The truss unit has changed from being an elective to a core unit and both timber and steel trusses are included as competencies.
- The wall frames unit includes both timber and steel walls.
- Most fit out units allow for steel framing.

The process of reviewing the training packages has changed with more emphasis being placed on continuous improvement in lieu of a major review every 3-5 years.

This provides the opportunity to make changes to the packages as deficiencies are highlighted and new methodologies or products are introduced into the industry.

The next stage of the process for the introduction of CPC08 is that the State Training Authorities will approve the package and allocate funding for teaching the relevant units. It is anticipated that this will happen this year to allow for the new package to commence next year. In practice it is anticipated that most Registered Training Organisations (RTO) (TAFEs and private providers) will commence with the new package in 2010.

NASH has been monitoring and contributing to this review over the last couple of years. The next stage of this will involve the development and provision of training resources eg. notes, presentations, frames, etc. But most importantly it will require the NASH members to be proactive with their local institution so that your enthusiasm and support will infect the institution. Remember the apprentice of today is potentially your next steel frame erector and your future customer.

RECOGNITION OF PRIOR LEARNING

Do you have steel frame erectors or other semi-skilled workers, sub-contracting or on your staff, who do the work of a tradesperson but lack the formal training and hence the formal recognition of their work?

They have picked up considerable skill and expertise by working under experienced trades people? This makes it difficult for them and you, as they find it increasingly hard to get licences to sign off their work.

To overcome this reality problem, the training authorities have introduced the recognition of prior learning pathway to getting these skills recognised.

This pathway has been available for a few years but in the past has been prohibitively expensive. Given the current shortage of trades people, the State Governments are now providing pathway funding.

The typical process involves:

- The candidate answers a written questionnaire to elicit their level of skills and expertise.
- An interview is then held with the applicant to further examine their competence in the various areas.

From this process the assessor will either award the competency or identify areas where the applicant has gaps that need to be covered. The applicant can then attend a TAFE or private provider to undertake training in these areas. Generally the applicant doesn't need to cover the whole unit but only the areas needed to be brought up to speed.

The system and costs vary between the states but generally the applicant is only required to pay normal TAFE fees, which are very reasonable. The initial questionnaire and interview is often free to the applicant.

If you are interested in pursuing this further, please contact your local TAFE college or the NASH National Office for more details.

SBS SETS UP IN THE MIDDLE EAST

Steel Building Systems International (SBS) will be establishing several multimillion dollar manufacturing plants throughout the Middle East over the next six years. Revenue from the venture for the Adelaide based company is expected to be in excess of $150M.

"Our joint venture will see the first plant established in Abu Dhabi, United Arab Emirates, as early as June 2009 and a scheduled roll-out of eight additional plants throughout the Middle East by 2014," Mr Weeks said. The Middle East markets are dealing with a staggering demand for accommodation to house the thousands of people attracted to the employment opportunities. There are an estimated 6.5 million foreign workers in the six Gulf Cooperation Council states - Saudi Arabia, Kuwait, Bahrain, Qatar, the UAE and Oman - making up about 37% of the population.

"Through SBS' innovation, a massive opportunity has been realised in the Middle East. It is testimony to our skills. All the machinery, tools, frames and chassis required for the manufacturing plants are built in South Australia. The complex software that controls all aspects of manufacture is also developed in-house," added Mr Weeks.

The first plant in Abu Dhabi will be fast-tracked operationally with a support team from Australia ramping production to two shifts per day within months after commissioning.

"The nine plants will create 10 million square metres of product per year which is five times South Australia's total market for residential construction of 2 million square metres per year," Mr Weeks said.

Kevin Weeks LHS with SA PREMIER, Mike Rann

NATIONAL INNOVATION REVIEW

Earlier this year the new Federal Minister for Innovation, Industry, Science and Research, Senator Kim Carr, commissioned a review of Australia's National Innovation System. The terms of reference were broad, and intended to draw out the principles, priorities, regulatory obstacles and tax implications of an effective national innovation system.

An eleven-person review panel headed by Dr Terry Cutler, supported by three specialised working groups, drew on a wide range of expertise from industry, education and government, and received over 700 public submissions.

In its submission, NASH recommended that Australia's national innovation system should recognise the importance of SMEs in the Australian economy, and the vital role that Industry Associations play in efficiently reaching, representing and developing them. Effective support programs need to be accessible by SMEs directly and via industry associations who guide them and foster collaboration between them.

The review panel's report makes over 70 recommendations covering:

- support for business innovation (especially in services and knowledge based industries)
- educational and immigration reforms
- fully funding university research
- restoration of funding to public research agencies
- increased engagement with international research partners
- higher inventiveness hurdles for patents
- a move to a more open and accessible innovation system (especially for publicly funded research)
- taxation reforms and
- measures to encourage collaboration between the providers and customers of research services.

The report explains that innovation drives productivity, and productivity growth is important given that Australia's growth is slower than that of OECD countries. Organisational innovation is just as important as scientific and technological innovation, and there is a need to "decouple" innovation from its traditional ownership by the sci-tech sector. Customer-driven innovation is vital, as are "collaboration behaviours" by firms and industries - collaborative organisations tend to be innovative.

In commenting on the report's findings, NASH stressed that including industry associations in the program delivery model adds benefits without adding program cost. When it comes to the drivers of innovative behaviour across the construction industry, basic construction products and services can't be easily exported or traded, so they don't get the same focus as those industries subject to the pressures of global competition.

Innovation leading to improved performance and efficiency is slow – products cost what they cost and perform as they perform. In this environment, it is easy to be deluded that product performance and productivity represent best practice, even if they are well short.

Entire industries have to challenge themselves to do better, and be encouraged by governments to do so, whether or not they are directly exposed to global competitive pressure.

NASH is hopeful that the report will lead to new innovation support programs accessible by members and the industry at large. We will continue to pursue opportunities to contribute to the development of programs, including networking with like-minded organisations such as WTIA and AMTIL.

HEARD IT ON HAMILTON ISLAND

At an Anesthetic Conference, a delegate was heard to comment,

"The termites are bad at Newcastle (NSW) and steel framing is the way to go..."

NASH MEMBERSHIP SUBSCRIPTIONS

NASH membership subscriptions were sent out in July. Thank you to those who've already responded and a gentle reminder to the minority who are yet to respond - your payment is now overdue and we look forward to receiving it shortly.

USE OF THE NASH LOGO

NASH financial members are entitled and encouraged to display the NASH logo on your stationary, promotional literature, website, etc. The NASH logo together with guidelines on its use can be downloaded from the members' section of the NASH website at www.nash.asn.au

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MEMBERS

NASH welcomes the following new members:

Company	Chapter	Activity	Contact
Harnett Transportable Homes	NSW	Supplier of transportable homes	Paul Taylor

Ken Watson

NASH Executive Director