



# NATIONAL ASSOCIATION OF STEEL-FRAMED HOUSING INC

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### GUIDANCE SHEET - NASH N-13 dated 12<sup>TH</sup> January 2012

#### **BRICK CLADDING**

NASH has carried out extensive testing on brick cladding systems on light steel frame construction in collaboration between the University of Melbourne, the University of Auckland, the Heavy Engineering Research Association (HERA), the Building Research Association of New Zealand (BRANZ), NASH-NZ and NASH-Australia with feedback at all stages of loading selection and performance requirements from the New Zealand Department of Building and Housing (DBH). These tests also involved a full size earthquake simulation.

As a result of these tests the following method of construction is recommended as accepted practice for the construction of brick clad steel frame buildings using type EH ties within the scope of NZS 3604 and NASH Standard Residential and Low-rise Steel Framing: Part 1 Design Criteria.

#### **STANDARD**

Brick veneer shall comply with the requirements of NZS 4210-2001

#### **TIES**

Wall ties shall comply with AS/NZS 2699.

#### **THERMAL BREAK**

A thermal break is required between the stud and the brick tie. The tie should be screwed firmly to the thermal break but should not crush it. Thermal break requirements can be found in NASH N-11 freely downloadable from [www.nashnz.org.nz/publications](http://www.nashnz.org.nz/publications)



Tie fixed to thermal break (Wrap emitted for clarity)

#### **FIXING SCREW**

The screw used to fix the tie to the steel frame must have a pull out value of at least 1.25kN ultimate design capacity in accordance with AS/NZS 4600.

This can be achieved with a 12 gauge type 17 or 10-16x16 tek screw fixed into 0.75mm or thicker material. Other fixing options can be used provided they meet the performance requirements.

#### **DURABILITY**

Screw coatings should match the brick tie durability requirement. Where galvanised ties are acceptable screws shall be a minimum class 3. Where Stainless ties are required the screw should be Stainless steel.

#### **Disclaimer**

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