WALLACE
RISK SOLUTIONS

This is a visual only Building Inspection & Report carried out in accordance with AS4349.0

Process REPORT (hereinafter called the "Report")

ALL INSPECT
All Building & Termite Inspections

Inspection Date: 19/01/2016

Property Address: 875 Sample Drive Sample 4300

SERVICES

New Construction
Slab
Frame
Lock-Up
Handover
6 Months Warranty

ALLINSPECT
PO BOX 1104
Park Ridge QLD
Licence 535928
1300254677
ABN 66160880642

Pre-Purchase
Pre-Sale
Commercial
Rental Safety Reports
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Renovation Reports

Contents

If you have any queries with this report or require further information, please do not hesitate to contact the person who carried out the inspection.

Special conditions or instructions

This is a sample report the client must recognise that things will be different in other reports.

The parties

Report number:	10709
Pre-engagement inspection agreement number (if applicable):	was emailed.
Name of Client:	Mr & Mrs Sample
Building company	Phone
Address of Client:	sample road
Client's email:	sample@sample.com.au
Client's telephone number:	0000000000
Consultant's name:	David Tacon
Consultant's licence number	535928
Consultant's mobile number:	0421235310
Company name:	ALLINSPECT
Company address and postcode:	PO BOX 1104 Park Ridge 4125
Company email:	info@allinspect.com.au
Company telephone number:	32970345 1300 25 46 77

Strata or company title properties

Not applicable.

General description of the property

Residential building type:	Detached house.
Number of storeys:	Two storey.
Orientation (to establish the way the property was viewed):	The façade of the building faces southeast. Note. For the purpose of this report the façade of the building contains the main entrance door.
Prevailing weather conditions at the time of inspection:	Dry.
Other:	

Primary method of construction

Main building – floor construction:	Part suspended timber framed and slab-on-ground.
Main building – roof construction:	Timber framed.

Access to Building Sites.

Access to building sites (Domestic Buildings Contract Act 87.1: The building contractor under a regulated contract must permit the building owner or a person authorised by the building owner to have reasonable access to the building site under the building contractors supervison to view any part of the subject work.

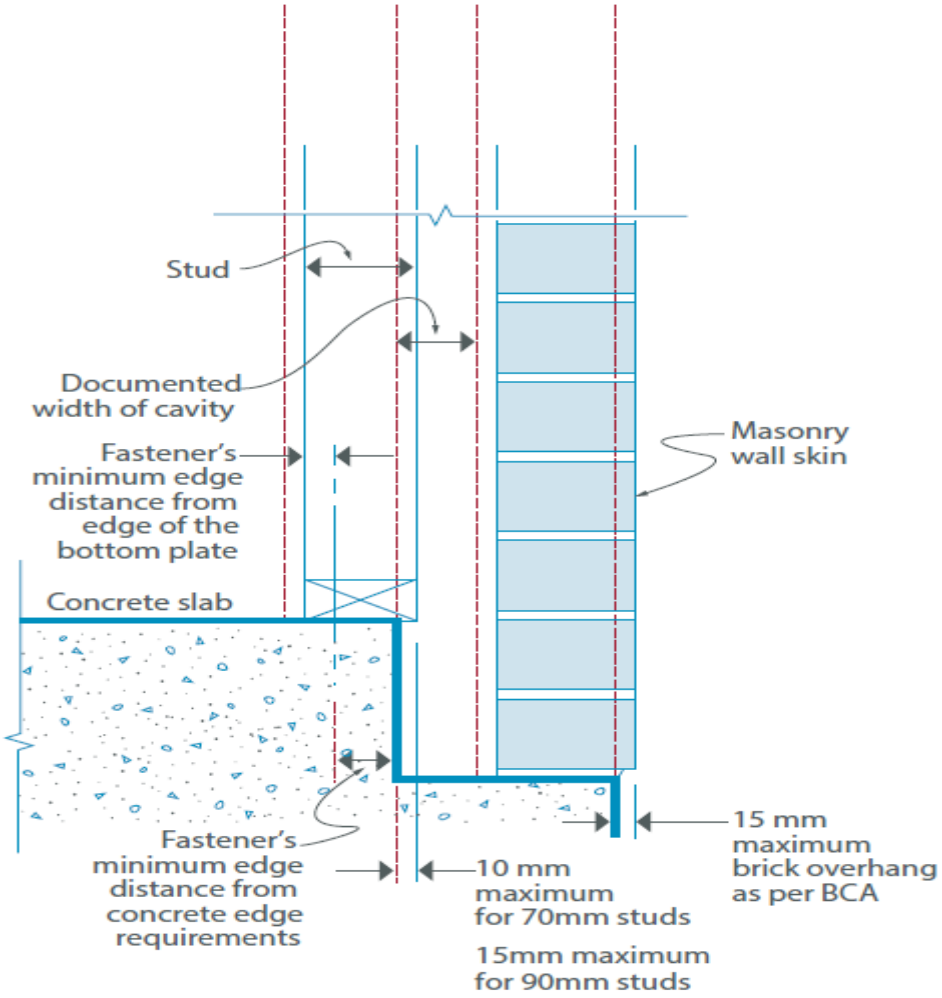
Section D Condition Report

The frame overhang is more than the allowance and needs to be supported in a manner that complies with As 1684.2, clause 6.3.3, and the BCA 15mm for a 90mm frame, and fixings have broken the edges the Standards & Tolerances allowance reference to the 4.11

4.11 Bottom plates that overhang concrete slabs Bottom plates that are at least 90 mm wide and overhang concrete slabs by in excess of 15 mm are defective and bottom plates that are 70 mm wide and overhang slabs by in excess of 10 mm are defective. In each instance, these permissible overhangs, are subject to the minimum edge distance for both the bottom plate and the concrete slab fixing locations being satisfied and minimum cavity widths as required by the Building Code of Australia also being maintained.

Refer Figure 4.11

BOTTOM PLATES THAT OVERHANG CONCRETE SLABS



There are several noggings that need to be installed or in parts reinstalled.
I refer the builder to AS 1684.2, clause 6.2.1.5 which calls for all noggings to be installed at no greater than 1350 mm from top or bottom plate and no greater than 1350 centres.

6.2.1.5 *Nogging*

Where required, wall studs shall have continuous rows of noggings, located on flat or on edge, at 1350 mm maximum centres (see Figure 6.6).

Noggings are not required to be stress-graded.

Unless otherwise specified, the minimum nogging size shall be the depth of the stud minus 25 mm by 25mm thick, or the nogging shall have a minimum cross-section of 50 mm × 38 mm for unseasoned timber and 42 mm × 35 mm for seasoned timber, and shall be suitable, where required, for the proper fixing of cladding, linings, and bracing.

Where required to provide fixing or support to cladding or lining or for joining bracing sheets at horizontal joints, noggings shall be installed flush with one face of the stud.

Where required to permit joining bracing sheets at horizontal joints, noggings shall be the same size as the top or bottom plate required for that bracing wall.

In other cases, noggings may be installed anywhere in the depth of the stud. Stagger in the row of noggings shall be not greater than 150 mm.

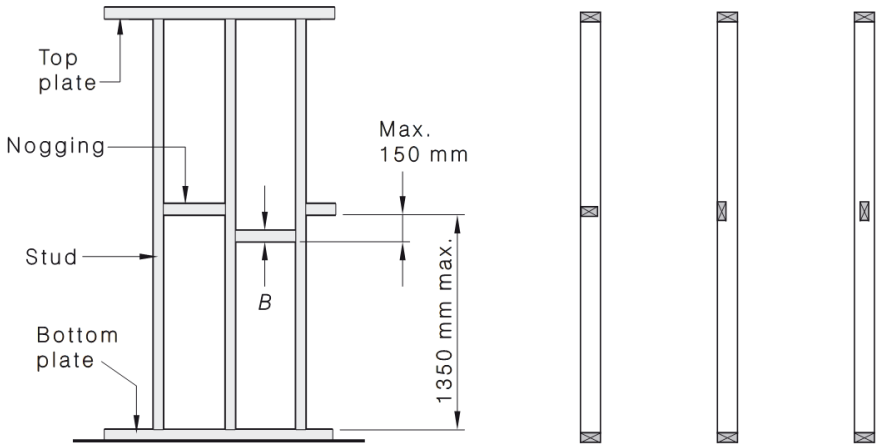


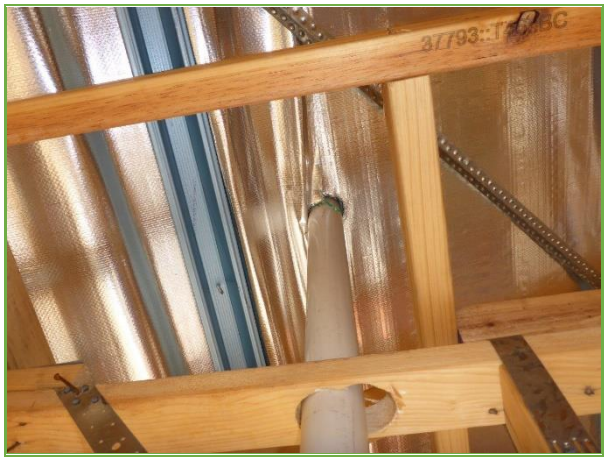
FIGURE 6.6 NOGGING

It was noted at the time of inspection that the **Plasmite Termite Blanket** system appears to be incomplete as the barrier in some areas is not under the frame. The tie down rods that have been install to the outside of the frame have push the termite barrier back to the rebait and doesn't comply with AS 3660.1 2000 and the manufacturers instructions and Deemed-to-Satisfy Provisions are an optional means of achieving compliance with the mandatory Performance Requirements. this will need to be reworked and completed before continuing reference for builder.






It was noted at the time of inspection that there is holes in the roof sarking, thus allowing the transfer of water moisture to the frame roof void, any moisture running down the Roof will now exit into the void. This will in itself cause additional defects at a later stage. This needs to be complete otherwise considerable rework will have to take place to ensure that the builder comply with requirements of the BCA and Australian standards AS 4200-1994. All holes will need to be patched to comply with Energy efficiency requirements “Pliable Building Membranes and Underlay’s” part 2 states: The only tapes that can be used on sisalation are AS 4254 compliant. Please note that any coloured tapes used on the foil side of the sisalation are defective. The tapes used to this side of the sisalation must be designed for installation on a foil surface and hence AS 4254 compliant. Ensuring full coverage of the frame in wall or roof sisalation. Ensuring that penetrations through the sarking by services have been taped to provide a weather tight seal.



Where it is: Frame
What it is: A/C pipes cavity breach
Results: It was noted at the time of inspection that the air condition pipes installed to the cavity area of the dwelling will breach the minimums set down in the bricking Standard.
The BCA/NCC that governs this build clearly states that compliance with AS 4773.2 and AS 3700 is mandated.
As such I refer the plumber and the builder to part 9.2. This part clearly states that a cavity must be a minimum of 25mm. Given that the plumbing pipes in the wall are 40mm to 60mm the builder would need a 70 mm+- cavity to make this work.
I noted from the installed slab that the builder's intentions are to install the cavity at about 25 to 35 mm. Given this configuration, the installation of A/C pipes on site will bridge the cavity.
The plumber will need to return to site and rework all of the external installation prior to brick installation.

9.2 CAVITY

The minimum clear width of any cavity in masonry veneer construction shall be 25 mm and shall be measured clear from any conduit, insulation, or services placed within the cavity.

NOTE: The maximum cavity width is limited by the rating of the wall ties as indicated on the package.

The cavity shall be free of obstructions that would allow the transfer of moisture across the cavity.




Where it is: External
What it is: Ant capping defective and termite film damage.
Results: The ant capping to the dwelling breaches AS 3660.1 inserted below 5.5.2. The film is damage. Deemed-to-satisfy requirements. This will need to be reworked and a form 16 produced before continuing.

Australian Standard A.S. 3660.1-2000 Termite Management Part 1: New Building Work, states that - *'The purpose of termite barriers is to deter concealed entry by termites into a building, above the termite barrier. Termites can build around barriers but their workings or evidence thereof are then in the open where they may be detected more readily during regular inspections.*

5.5.2 The entire width of the external walls, including any cavities in the wall, shall be shielded to the outside wall face.




Where it is: Kitchen Bulk Head and other areas
What it is: lintel Missing
Results: Incomplete Lintel missing
AS 1684.2-2010 states that when openings in NON-LOADBEARING WALLS over 1800mm occur, both internal and external, a lintel shall be installed and the size of the lintel will be determine by table 23, based on the top plate.
All openings over 1800mm will need to be fitted with lintels to comply with the code.
I refer the builder to the above standards book, page 79, section 6.3.6.5 second paragraph. Please note pictures and insert of the code directly from the book.
6.3.6.5 Lintels in non-loadbearing walls
The size of lintels in internal walls supporting ceiling joists only, or supporting hanging beams, shall be determined by using the hanging beam Span Table 23 (see Clause 7.3.7) or the counter beam (beams supporting hanging beams) Span Table 24 (see Clause 7.3.8) for these two applications respectively.
For internal walls where ceiling loads are not supported and wall openings are wider than 1800 mm, the size of the lintel shall be determined from Span Table 23 using a ceiling load width of 1800 mm.
Where wall openings wider than 1800 mm occur in non-loadbearing external walls, a lintel shall be provided and the size of the lintel shall be determined from Span Table 23 using a ceiling load width of 1800 mm.

AS 1684.2 N1/N2 Supp 1 - 2010 Wind classification N1/N2 - Seasoned softwood - Stress grade F5

TABLE 23 HANGING BEAMS - Supporting ceiling loads

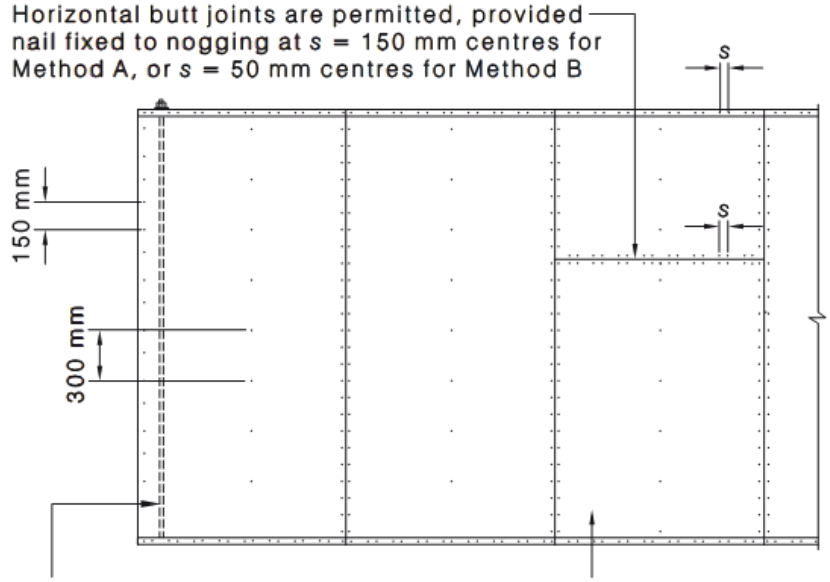
Size DxB (mm)	Ceiling Load Width (mm)							
	1800	2400	3000	3600	4200	4800	5400	6000
	Maximum Beam Span (mm)							
90x35	1300	1200	1200	1100	1100	1000	NS	NS
90x45	1700	1500	1400	1400	1300	1200	1200	1100
120x35	2300	2000	1900	1800	1700	1600	1500	1400
120x45	2700	2400	2200	2000	1900	1700	1600	1600
140x35	2900	2600	2300	2100	2000	1900	1800	1700
140x45	3100	2800	2500	2300	2200	2000	1900	1800
170x35	3400	3100	2800	2600	2400	2300	2200	2000
170x45	3700	3300	3000	2800	2600	2500	2300	2200
190x35	3800	3400	3100	2900	2700	2600	2400	2300
190x45	4100	3700	3400	3100	2900	2800	2600	2500
240x35	4800	4300	3900	3700	3400	3200	3000	2900
240x45	5100	4600	4300	4000	3700	3500	3300	3100
290x35	5700	5200	4700	4400	4100	3900	3600	3400
290x45	6100	5600	5100	4700	4400	4200	4000	3800

NOTES:
i) Maximum spans are based on the support of a maximum ceiling mass of 12 kg/m². For guidance on roof and ceiling mass refer to Appendix B.
ii) Beam ends may be chamfered to a minimum depth of 100 mm or 1/3 of the beam depth, whichever is greater.
iv) Where ceiling joist spans are not the same each side of the beam, the average of the spans may be used.
v) Roof loads shall not be strutted onto hanging beams.
vi) Minimum bearing length = 70 mm at end supports.
vi) Where the depth to breadth ratio exceeds 7:1, G.I. strapping or similar restraint shall be provided to the top edge of the beam at support points. Refer to Clause 7.2.26.
vii) For design parameters refer to Figure 7.20.

Where it is: Numerous Areas
What it is: Bracing over shot
Results: The timber sheet bracing installation is a vital structural member in the overall build of the dwelling. It stops the house from moving when racking forces, such as wind, are applied to a dwelling. The installation of the timber sheet bracing on this house is defective for several reasons. The nails have been over installed or punched through a number of boards.
The outer sheet edge must be secured at a maximum of 150 centres. This dwellings installation fails that requirement. The central studs must all be nailed off at 300 mm centres maximum.
I refer the builder to AS 1684.2, table 8.18 on page 143. The requirements stated above are clearly defined and must be rectified prior to moving forward with the dwelling.

(h) *Plywood* Plywood shall be nailed to frame using 30 × 2.8 ∅ galvanized flat-head nails or equivalent.

For Method A, M12 rods shall be used at each end of sheathed section top plate to bottom plate/floor frame. Method B has no rods but sheathing shall be nailed to top and bottom plates and any horizontal joints at 50 mm centres.



NOTE: For plywood fixed to both sides of the wall, see Clauses 8.3.6.5 and 8.3.6.10.

Minimum plywood thickness, mm		
Stress grade	Stud spacing mm	
	450	600
F8	7	9
F11	6	7
F14	4	6
F27	4	4.5

Fastener spacing (*s*) mm	
Top and bottom plate:	
— Method A	150
— Method B	50
Vertical edges	150
Intermediate studs	300

Fixing of bottom plate to floor frame or slab

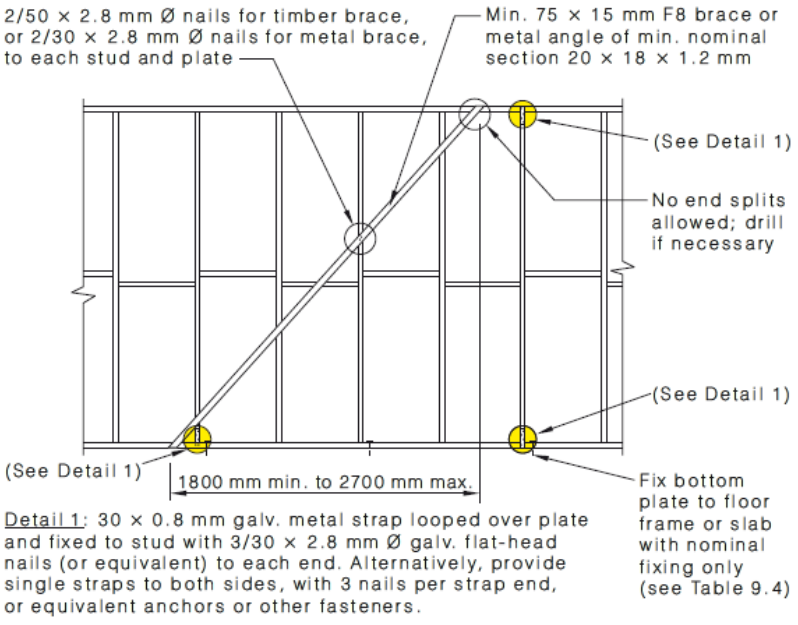
Method A: M12 rods as shown plus a 13 kN capacity connection at max. 1200 mm centres

Method B: A 13 kN capacity connection at each end and intermediately at max. 1200 mm centres

Where it is: Areas
What it is: Missing nails
Results: The steel bracing to the dwelling have not been installed with a minimum of two nails to each stud to the marked up areas only. Most areas are compliant.
I refer the builder to AS 1684.2, page 143, table 8.18 that clearly mandates the requirement of a minimum of two nails to each connection.
In simple terms, bracing stops the dwelling from falling over when forces such as wind are applied to the dwelling. The KN resistance capacity of the dwellings bracing resist these racking forces and stop any adverse effects that may cause damage or injury.
When the bracing is poorly installed, or not installed in accordance with the minimums set out in the Standard, the dwellings capacity to resist the racking force is greatly reduced.
The additional nailing is required to ensure compliance.

AS 1684.2—2010 144

TABLE 8.18 *(continued)*

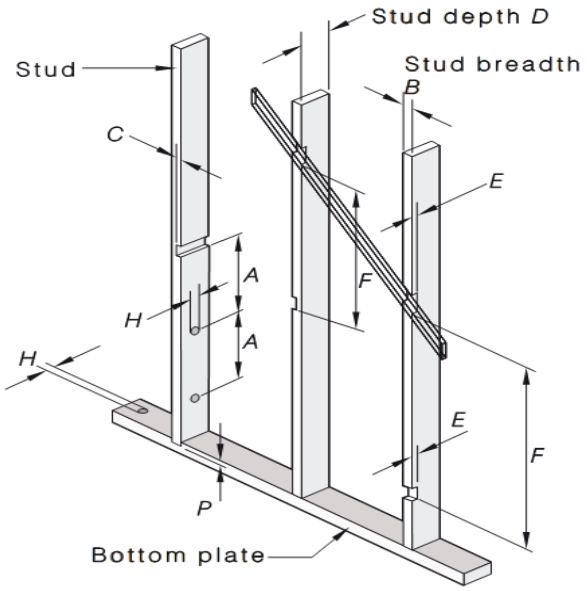
Type of bracing	Bracing capacity kN/m
(c) *Timber and metal angle braces* The maximum depth of a notch or saw-cut shall not exceed 20 mm. Saw-cuts studs shall be designed as notched.	
 Detail 1: 30 × 0.8 mm galv. metal strap looped over plate and fixed to stud with 3/30 × 2.8 mm Ø galv. flat-head nails (or equivalent) to each end. Alternatively, provide single straps to both sides, with 3 nails per strap end, or equivalent anchors or other fasteners.	1.5
(d) *Metal straps—Tensioned—With stud straps*	

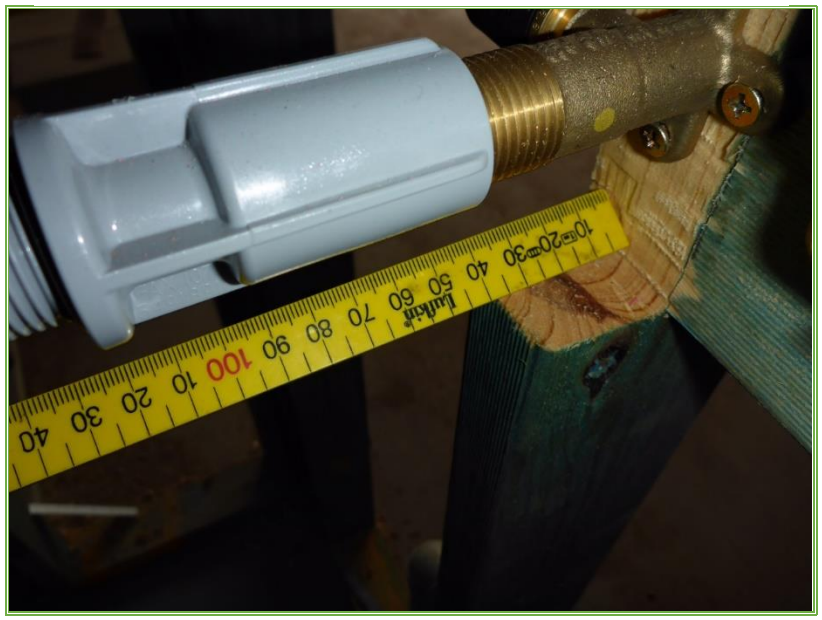
Where it is: Areas
What it is: Over Notching
Results: AS 1684.2, AS 3500.1 and AS 3500.4, notching into a stud must be restricted to 20 mm. See Table 6.1, section (e) below. Some of the plumbing water outlets has been installed via notching the studs depth by 30 mm or greater. This needs to be rectified by installing a supporting timber to the stud where the notch has taken place. I refer the builder to the inserted below.

TABLE 6.1

HOLES AND NOTCHES IN STUDS AND PLATES

Symbol	Description	Limits	
		Notched	Not notched
A	Distance between holes and/or notches in stud breadth	Min. 3*D*	Min. 3*D*
H	Hole diameter (studs and plates)	Max. 25 mm (wide face only)	Max. 25 mm (wide face only)
C	Notch into stud breadth	Max. 10 mm	Max. 10 mm
E	Notch into stud depth	Max. 20 mm (for diagonal cut in bracing only) (see Notes 1 and 2)	Not permitted (see Note 1)
F	Distance between notches in stud depth	Min. 12*B*	N/A
P	Trenches in plates	3 mm max.	





Where it is: Trusses
What it is: Missing nails to joist hangers
Results: Some of the nails are missing to the joist hangers, this is a vital part of the tie down. This will need to be re-worked to comply with AS4440 & AS1684.

Section E Conclusion

In conclusion, following the inspection of surface work in the readily accessible areas of the property, our clients have requested that we place in writing a formal request that all items in this report are rectified. We refer the builder to the builders own contract with our client which calls for the builder to act on ALL KNOW DEFECTS. All items in this report are therefore brought to the builder's attention and are therefore know to the builder. We would suggest that the builder rework the dwelling so that it complies with the minimums set out in the BCA, the Australian Standard and all other relevant requirements.

Section F Important note

Australian Standard AS4349.0-2007 *Inspection of Buildings, Part 0: General Requirements* recognises that a property report is not a warranty or an insurance policy against problems developing with the building in the future. Accordingly, a preventative maintenance program should be implemented for the property which includes systematic inspections, detection and prevention of incipient failure. Please contact the Consultant who carried out this inspection for further advice.

Your attention is drawn to the advice contained in the Terms and Conditions of this Report including any special conditions or instructions that need to be considered in relation to this Report.

Section G Certification

This document certifies that the property described in this Report has been inspected by the Building Consultant in accordance with the level of service requested by the Client and the Terms and Conditions set out in this Report, and in accordance with the current edition of the Report Systems Australia (RSA) Handbook Standard Property Inspection Reports 'Uniform Inspection Guidelines for Building Consultants'.

Authorised Signatory: *David Tacon*

Name: David Tacon Date of Issue: 7 October, 2016