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Report By:



Site Address:

Client Name:

Phone #:

Email:

Dwelling type:	Double Storey
Dwelling configuration:	House and Garage
Nature of works:	New Build
Stage of inspection:	Frame
Construction Type:	Multiple Claddings
Garage:	Attached
Foundations:	Waffle Slab
Builder:	

Client Brief

I was instructed to inspect the client's new home to write a report as to the overall installation of all items required to construct a new home to completion stage. Our role is to assist the clients in outlining any issues that may be identified as being within the scope of the builder to ensure that all construction items are correctly constructed and completed in a workman like manner and meet with all relevant codes and industry practises. As such the client has engaged our services to assist with this report.

Inspection and Report

Our Inspection is a visual inspection of the overall finishes and the quality of those finishes presented by the Builder. This Report is a list of items that in our judgement do not reach an acceptable standard of quality, level of building practice, or have not been built in a proper workmanlike manner, in relation to the Building Code of Australia, (BCA's) the Building Regulations, any relevant Australian Standards and the acceptable standards and tolerances as set down by the Building Commission.

Access

Access was gained to all required areas of the residence unless noted otherwise within the report. The use of ladders is regulated by the OH&S Regulations 2017, we have not visualised any part of the dwelling that can not be seen by the author with their feet no higher than 2 m from FGL.

Report Conditions

The terms and conditions that our site inspection and this report are carried out and supplied under are listed on the last page of this report.

The building process is progressive and items in this report may or may not be covered during the build by materials installed over a documented defect. We recommend that all clients book a reinspection and state that the builder must present all defects rectified prior to moving forward with the build. All items that we are unable to look at from a previous report will not be included in any future reports. We will use all endeavours to ensure rectification, however we are limited to non-destructive method of detection.

Summary

The results of our inspection have been fully detailed in the attached schedule of Building Defects.

Should the reader of this report have any additional queries or questions in relation to the items set out within it, please do not hesitate to contact the writer via any of the methods detailed at the top of the cover page.

An inspection was conducted at the above address on for the purpose of a general home inspection, requested by the 'client'.

The inspection was conducted with the 'client' present, and details exterior and interior.

The weather was fine at the time of the inspection.

Entry to site was obtained under the Building Act, 1993, section 240 and the Domestic Building Contracts Act, 1995, part 2, **section 17** and 19. We act and make limited representations under the direction of the dwelling owners under these two acts.

Schedule of Defects:

Defects, observations and other related comments from Frame Inspection on.

1.

NCC 2019; 3.1.3.3: - The dwellings slab footings have the opportunity to pool with water due to the way the block has been cut and the lack of soil removal.

Water management on site is paramount to ensuring foundations are not damaged. Water, when seeping down beside the slab, between the slab and the dirt softens the dirt. The soils capacity to withstand the downward pressure of the forces of the weight in the slab is greatly reduced.

The external finished surface surrounding the slab must be drained to move surface water away from the building and graded to give a slope of not less than a minimum of 50 mm over a distance of 1 m.

We also refer the builder to the soil report and engineering drawings that call for the site drainage to be managed via sloping water away from the slab.

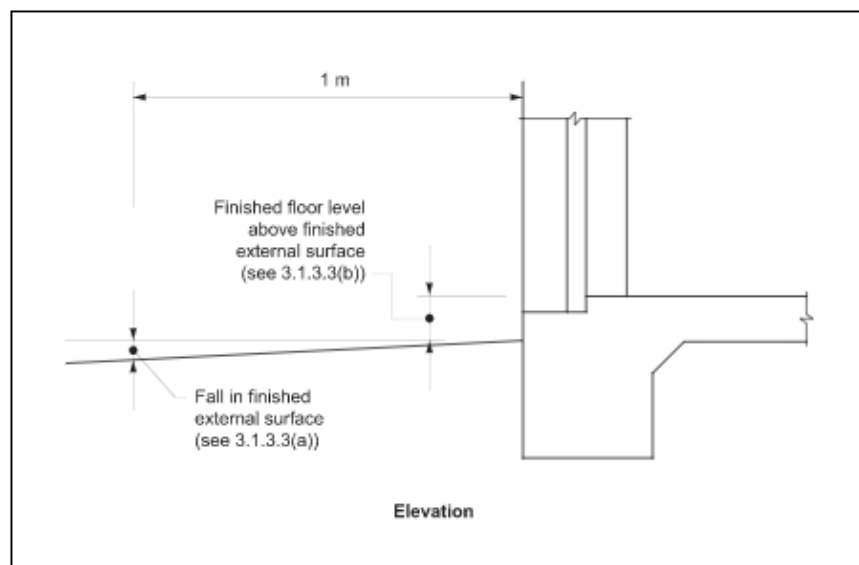
This dwelling has not met this requirement.

3.1.3.3 Surface water drainage

Surface water must be diverted away from Class 1 buildings as follows:

- (a) Slab-on-ground — finished ground level adjacent to buildings:
the external finished surface surrounding the slab must be drained to move *surface water* away from the building and graded to give a slope of not less than (see [Figure 3.1.2.2](#))—
 - (i) 25 mm over the first 1 m from the building in *low rainfall intensity areas* for surfaces that are reasonably impermeable (such as concrete or clay paving); or
 - (ii) 50 mm over the first 1 m from the building in any other case.
- (b) Slab-on-ground — finished slab heights:
the height of the slab-on-ground above external finished surfaces must be not less than (see [Figure 3.1.3.2](#))—
 - (i) 100 mm above the finished ground level in *low rainfall intensity areas* or sandy, well-drained areas; or
 - (ii) 50 mm above impermeable (paved or concreted areas) that slope away from the building in accordance with [\(a\)](#); or
 - (iii) 150 mm in any other case.
- (c) The ground beneath suspended floors must be graded so that the area beneath the building is above the adjacent external finished ground level and *surface water* is prevented from ponding under the building (see [Figure 3.1.3.3](#)).

Figure 3.1.3.2 Site surface drainage

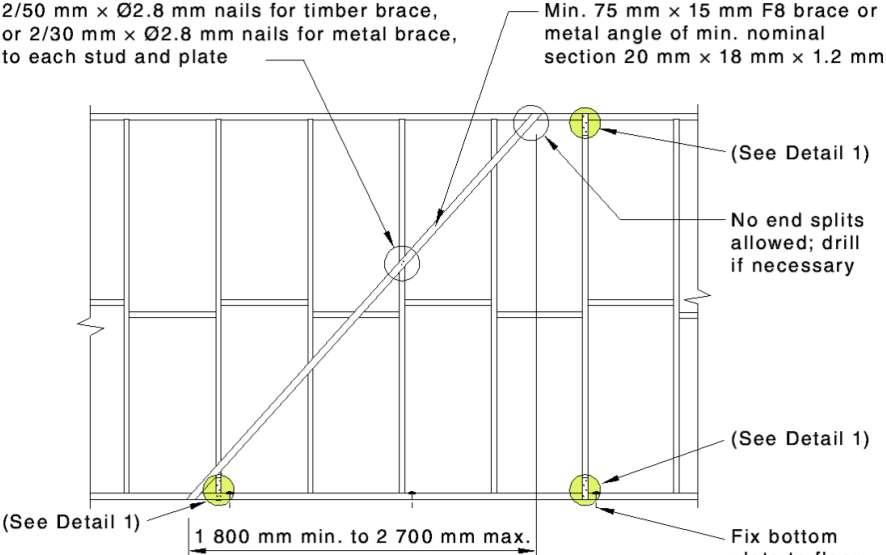




2.

AS 1684.2; Table 8.18 (c): - 2 / 30 x 2.8 mm dia. nails are required at each stud and at top and bottom plates for metal angle braces.
Bracing to this dwelling has not met this requirement.

Table 8.18(c) — Structural wall bracing (maximum wall height 2.7 m)

Type of bracing	Bracing capacity, kN/m
<p>(c) <i>Timber and metal angle braces</i> — The maximum depth of a notch or saw-cut shall not exceed 20 mm. Saw-cuts studs shall be designed as notched.</p> <p>2/50 mm × Ø2.8 mm nails for timber brace, or 2/30 mm × Ø2.8 mm nails for metal brace, to each stud and plate</p>  <p>Min. 75 mm × 15 mm F8 brace or metal angle of min. nominal section 20 mm × 18 mm × 1.2 mm</p> <p>(See Detail 1)</p> <p>No end splits allowed; drill if necessary</p> <p>(See Detail 1)</p> <p>(See Detail 1)</p> <p>1 800 mm min. to 2 700 mm max.</p> <p>Fix bottom plate to floor frame or slab with nominal fixing only (see Table 9.4)</p> <p>Detail 1: 30 mm × 0.8 mm galv. metal strap looped over plate and fixed to stud with 3/30 mm × Ø2.8 mm 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.</p>	<p>1.5</p>





3.

AS 3500.5; 4.18.1: - The stormwater drain system is to be protected against damage. A stormwater riser point has been noted as damaged and rock and soil is restricting the installation. The system is not functioning as intended.

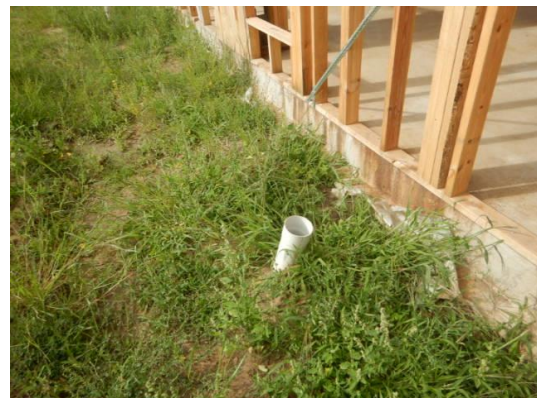
The current installation has not met the following requirement.

4.18 DRAINS

4.18.1 Below ground

Drains below ground shall—

- (a) be laid to an even grade, be straight, and have no lipped joints or internal projections;
- (b) have a minimum number of changes of grade and direction;
- (c) be sized in accordance with the fixture unit loading given in Table 4.9.7;
- (d) be continuously supported under the barrel, other than for cast iron and ductile iron pipes and fittings;
- (e) be protected against damage;
- (f) be watertight;



4.

AS 3500.3 Section 6.3.1.2. Calls for stormwater pipes to be cleaned internally prior to installation and commissioning. Ensuring a functioning stormwater system that is clear from obstruction.

Site stormwater pipes do not meet this requirement

6.3.1.2 *Site stormwater pipes*

Pipes for site stormwater drains shall—

- (a) have joints that comply, where appropriate, with Clauses 2.7 and 4.8;
- (b) where installed below ground, for other than cast iron, ductile iron and galvanized steel, be continuously supported by embedment (see Clause 6.3.5); and
- (c) be cleaned internally prior to installation and commissioning



5.

AS 1684.2; 8.3.6: - The timber sheet bracing installation is to resist horizontal racking forces applied to the building.

Areas of the bracing fail to meet these requirements. Details as follows.

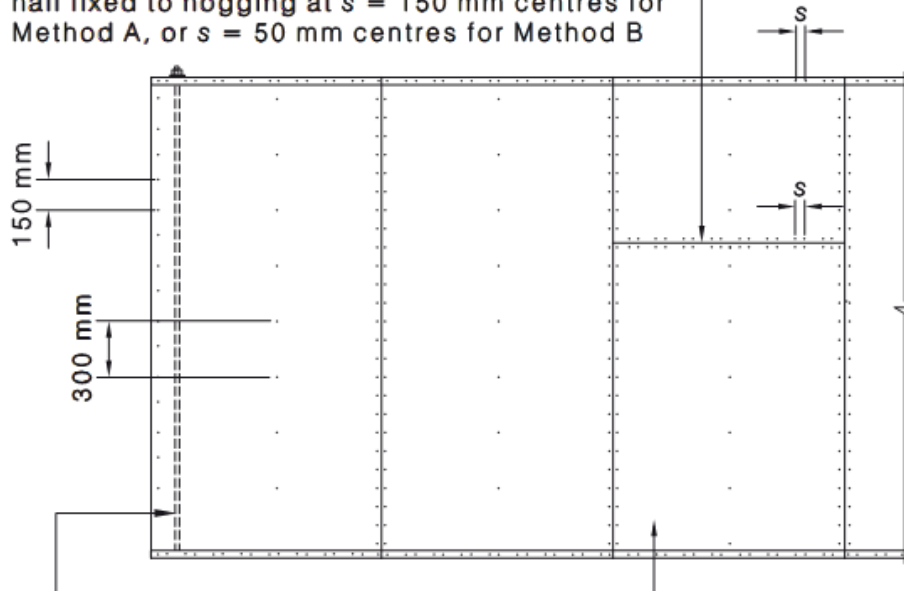
- Clouts fastening the sheet bracing have been over punched. Overshot nails compromise the bracing sheet ability to resist racking forces
- The outer sheet edge to be secured at a maximum of 150 centres.

- Intermediate studs to be nailed off at 300 mm centres maximum.
- Complete or part lengths of the sheet to be nailed off.
- A number of the intermediate studs have not been nailed off and as such the nailing is exceeding 600mm spacing.
- Perimeter nailing is within the 10mm minimum distance from the edge of the sheet.

AS 1684.2, table 8.18.

(h) *Plywood* Plywood shall be nailed to frame using 30 x 2.8 Ø 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.

Horizontal butt joints are permitted, provided nail fixed to nogging at $s = 150$ mm centres for Method A, or $s = 50$ mm centres for Method B



Method A only: M12 rod top to bottom plate each end of sheathed section Sheathed panels shall be connected to subfloor

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		



6.

VBA proactive inspection Program: - Frame overhang exceeding 10mm requires a review from this dwelling's civil Engineer.

Bottom Plates that overhang concrete slabs



- Under AS1684.2 there are no prescribed allowance for timber frame overhangs.
- The Guide to Standards and Tolerances (currently under review) only allows a 90mm wide stud to overhang a maximum of 10mm
- Areas that exceed the allowed tolerance require a review from the relevant registered civil engineer to provide evidence that compliance with the NCC 2019 Volume 2 Part 2.1 is being achieved.

- Reinforcement starter bars into edge of concrete and bulk pour concrete



To make structural changes to the slab, a builder must:

- Seek engineering process and design for both the opening and reinstallation of all support systems such a steel reinforcing.
- Document same.
- Send the engineering to the registered Building Surveyor for approval.
- Have the Surveyor witness the reworking of the slab to ensure that the builder has carried out the works in accordance with the processes and rectification statements in the engineering documentation.
- Ensure that termite protection is installed into any openings, if required.
- Supply a copy of all documentation to our clients as per section 26 of the Domestic building contracts Act 1995.

26. Builder must supply copies of relevant reports etc.

- (1) A builder must give to a building owner a copy of any report, notice, order or other document that the builder is given in relation to the building work being carried out by the builder for the building owner by any public statutory authority, provider of services such as gas, electricity, telephone, water and sewerage or person registered under the **Building Act 1993**, and must do so as soon as practicable after receiving the report, notice, order or document.

Penalty: 20 penalty units.



LHS Alfresco beam point load



Rear internal garage wall



7.

AS 1684.2; Table 9.4: - Lintels shall be nominally fixed to jamb studs with 2 / 75mm x 3.05 diameter nails at each joint.

This requirement has not been met.

Table 9.4 — Nominal fixings for timber members

Joint	Minimum fixing for each joint
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Table 9.4 — Nominal fixings for timber members

Wall framing

Plates to studs and plates to ring beams at 600 mm max. centres	Plates up to 38 mm thick — 2/75 mm × 3.05 mm nails through plate; Plates 38 mm to 50 mm thick — 2/90 mm × 3.05 mm nails through plate; OR 2/75 mm × 3.05 mm nails skewed through stud into plate	
Noggings to studs	2/75 mm × 3.05 mm nail skewed or through nailed	
Timber braces to studs or plates/ring beams	2/50 mm × 2.8 mm dia. nails at each joint	
Lintel to jamb stud	2/75 mm × 3.05 mm dia. nails at each joint	
Bottom plates to joists	Non-loadbearing and non-bracing walls	2/2.8 mm dia. nails at max. 600 mm centres
	Other walls	Plates up to 38 mm thick — 2/75 mm × 3.05 mm nails at max. 600 mm centres Plates 38 to 50 mm thick — 2/90 mm × 3.05 mm nails at max. 600 mm centres
Bottom plates to concrete slab	One 75 mm masonry nail (hand-driven at slab edge), screw or bolt at not more than 1 200 mm centres	
Ribbon plate to top plate	See Clause 2.5 and Clause 9.2.8	
Multiple studs	1/75 mm × 3.05 mm nail at 600 centres max.	
Posts to bearers or joists	1/M12 or 2/M10 bolts (unless otherwise specified)	



Examples, all areas to comply

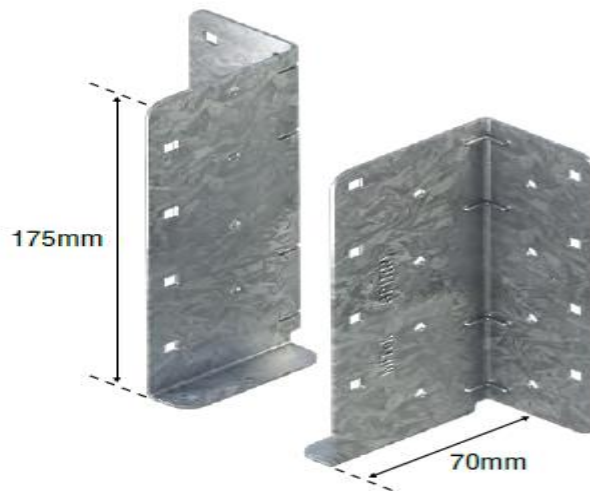
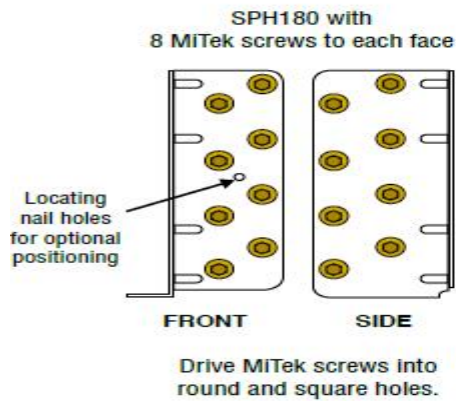
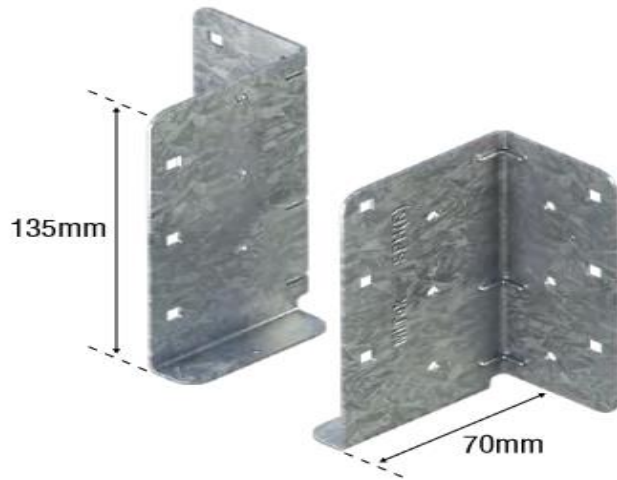
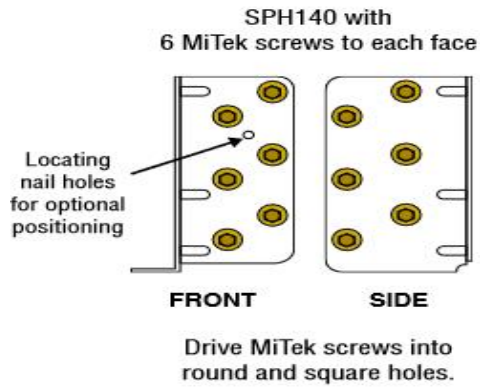
8.

Mitek split hanger installation guide: - A number of the split hanger brackets connections have not been installed as per the manufacturer's guidelines. All defective split hanger brackets must be reworked in order to comply with the manufacturer's minimum requirements.

Blue 65mm screws are required for double beams/trusses.

SPLIT HANGER - SPH140

FIXING POSITION



SPH220 require 10 screws to each face

9.

The Domestic Building Contracts Act 1995; Implied Warranties, sect. 8(a): - The building contractor warrants that work will be carried out in accordance with the plans and specifications set out in the contract.

8. Implied warranties concerning all domestic building work

The following warranties about the work to be carried out under a domestic building contract are part of every domestic building contract—

- (a) the builder warrants that the work will be carried out in a proper and workmanlike manner and in accordance with the plans and specifications set out in the contract;



Complete joist hangers as per joist layout

10.

AS 4440; 2.2.3(c): - Internal wall brackets ('L' brackets) shall be installed to non-load bearing walls at 1800 mm maximum spacings.

The 'L' bracket spacing to areas exceeds 1800 mm. As such, this requirement has not been met.

- (c) *Non-bracing wall* For an internal non-loadbearing wall not designated as a bracing unit, stability of the wall shall be required to resist normal applied force, e.g., when closing doors. The top plate of the wall shall be stabilized at maximum 1800 mm centres. Where trusses are parallel to the wall, nogging shall be used in between the bottom chords and fixed to the bracket. Figure 2.3 gives an example of fixing details.

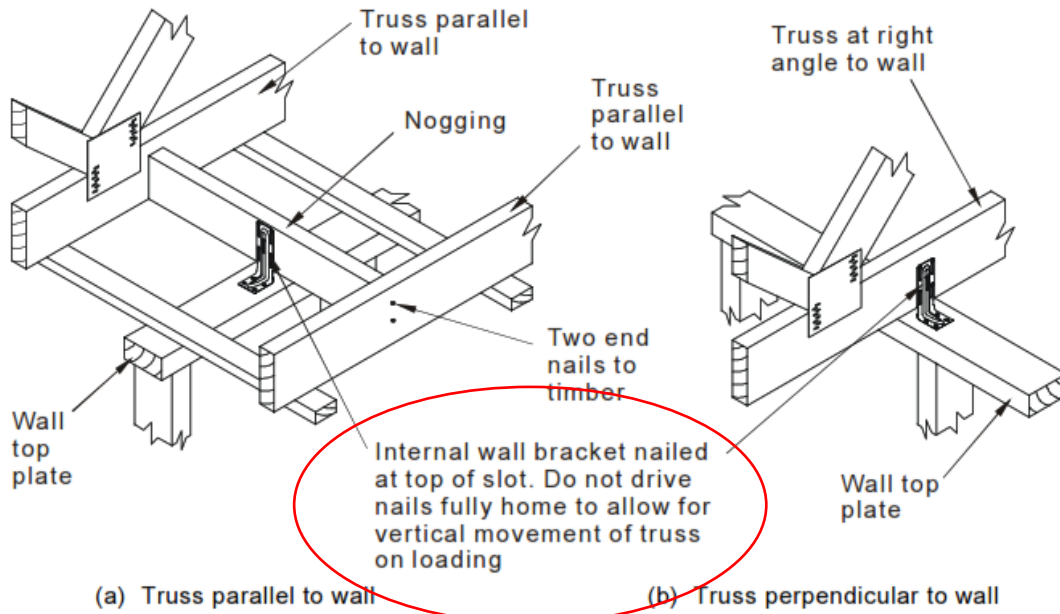


FIGURE 2.3 FIXING OF TRUSSES TO FREESTANDING NON-LOADBEARING WALL THAT IS NOT A BRACING WALL



11.

Victorian Domestic Building Contracts Act; Part 9 s.137: - The vendor (builder) warrants that all materials must be good and suitable for the purpose which they are used. Unless otherwise stated in the contract, materials shall be new.

- (b) the vendor warrants that all materials used in that domestic building work were good and suitable for the purpose for which they were used and that, unless otherwise stated in the contract, those materials were new; and
- (c) the vendor warrants that that domestic building work was carried out in accordance with all laws and legal requirements, including, without limiting the generality of this warranty, this Act and the regulations.



Damaged joist hangers due to bolt location

12.

AS 1684.2; clause 1.7: - Roof loads where applicable shall be transferred through the timber frame to the footings via the most direct route. The maximum offset is $1.5 \times D$ as shown in Fig. 1.5. 'D' being the floor joist depth.

Loadbearing walls offset more than $1.5D$ do not meet this requirement.

1.7 Load paths — Offsets and cantilevers

Where applicable, roof loads shall be transferred through the timber frame to the footings by the most direct route. For floor framing, the limitations imposed regarding the support of point loads and the use of offsets and cantilevers are specified in [Section 4](#).

NOTE 1 This load path in many cases cannot be maintained in a completely vertical way, relying on structural members that transfer loads horizontally. Offset or cantilevered floor framing supporting loadbearing walls may also be used, see [Figures 1.5](#) and [1.6](#).

NOTE 2 Floor members designed as "supporting floor load only" may support a loadbearing wall (walls supporting roof loads) where the loadbearing wall occurs directly over a support or is within 1.5 times the depth of the floor member from the support, see also [Clause 4.3.1.2](#) and [Clause 4.3.2.3](#).

NOTE 3 Other members supporting roof or floor loads, where the load occurs directly over the support or is within 1.5 times the depth of the member from the support, do not require to be designed for that load.

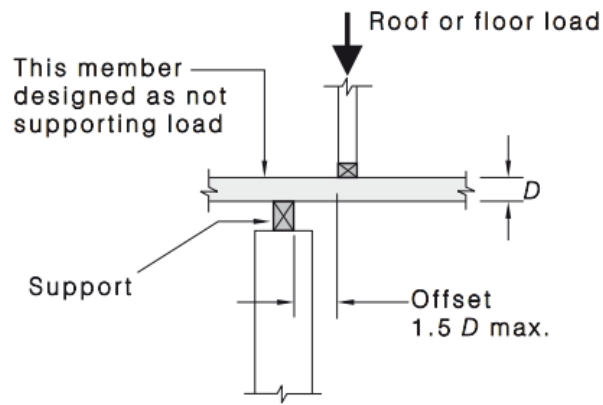


FIGURE 1.5 OFFSET



Single location noted



13.

AS 1684.2; 6.2.1.3: - Corner blocks (and nogging, where applicable) to intersecting walls shall be spaced not more than 900mm apart. Corner wall junctions call for a minimum 200 mm long stud sized blocks.

A number of intersecting walls have not met these requirements.

6.2.1.3 Wall junctions

Studs at wall junctions and intersections shall be in accordance with one of the details shown in Figure 6.3. Studs shall be not less in size than common studs. All junctions shall have sufficient studs, which shall be located so as to allow adequate fixing of linings.

All intersecting walls shall be fixed at their junction with blocks or noggings fixed to each wall with 2/75 mm nails. Blocks or noggings shall be installed at 900 mm max. centres.

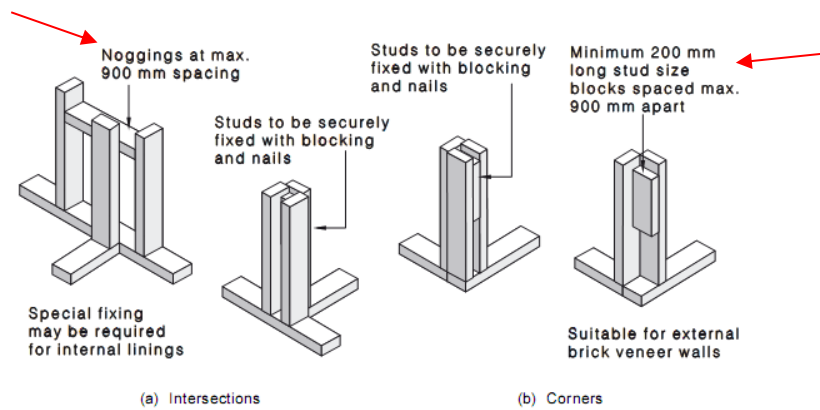


FIGURE 6.3 TYPICAL WALL JUNCTIONS



14.

AS 2589; Clause 4.4.3.1.3: - Perimeter fasteners shall be installed to plasterboard at internal angles, external corners, and wall and ceiling junctions, at a maximum of 300 mm centres.

Note: square set wall ceiling junctions should be installed at 150 mm centres. This includes bulkhead junctions and the like.

Additional members (studs, noggings, trimmers, etc) need to be installed to the areas below in order for the plasterer to meet this requirement.

4.4.3.1.3 *Perimeter fixing*

Fasteners shall be installed at a maximum of 300 mm centres at all internal angles, external corners, wall ceiling junctions with cornices and at openings. For perimeter fastening, fasteners shall be spaced not less than 10 mm or more than 16 mm from the edges and ends of the gypsum plasterboard.

NOTE: Ceiling perimeter fasteners for square set wall ceiling junctions should be installed at 150 mm centres.



15.

Mitek Multigrip Data: -The multigrips are not installed as per installation guide and require reworking. Nailing of all multigrips to be completed as per manufacture's installation guide.

MULTIGRIP - INSTALLATION

INSTALLATION

1. Fix 10 MiTek 30 x 2.8mm hot dipped galvanized reinforced head nails in positions shown according to connector orientation.

DESIGN LOADS

When fixed as shown the design capacities in different directions are given in the Table over.

AS1684 COMPLIANCE

MultiGrip complies as a framing anchor and the corresponding alternative uplift capacities in AS1684 may be used in designs within the confines of this standard.

Figure 1

Figure 2

Figure 3



Noted throughout

16.

Mitek joist hanger installation guide: - A number of the floor joist hanger brackets have not been nailed as per the manufacturer's guidelines. All defective joist hanger brackets must be reworked in order to comply with the manufacturer's minimum requirements.

Identified defects are as follows:

- Insufficient nails

FIXING WITH NAILS

General Installation

1. The JoistHanger should be fixed to the supporting member using the number of nails specified in Table 4.
2. Place the member to be supported in the JoistHanger so that it is firmly against the supporting member.
3. Drive the number of nails into the supported member as specified in Table 4.
4. Where the girder truss \ supporting beam is of multiple ply construction, fasten the bottom chords of the girder truss or the supporting beams with one M12 bolt located within 100mm of each side of the JoistHanger.

Alternatively, use two sufficiently long No. 14 screws in place of one M12 bolt.

Product Code	Size	Dimensions (mm)		
		A	B	C
JH3590	35 x 90	36	84	31
JH35120	35 x 120	36	117	31
JH4090	40 x 90	41	82	31
JH40120	40 x 120	41	115	31
JH40190	40 x 190	41	180	31
JH4590	45 x 90	46	79	31
JH45120	45 x 120	46	112	31
JH45140	45 x 140	46	139	31
JH45190	45 x 190	46	177	31
JH45220	45 x 220	46	214	31
JH5090	50 x 90	51	77	31
JH50120	50 x 120	51	110	31
JH50190	50 x 190	51	175	31
JH65165	65 x 165	65	167	31
JH70160	70 x 160	70	165	31
JH95150	95 x 150	95	152	31

Nails	MiTek 30 x 2.8mm hot dipped galvanised reinforced head.
Screws (alternative fixing with JoistHanger JH70160 and JH95150)	MSA1430 - MiTek No. 14 x 30mm anti-split self-drilling HD galvanised screws with Ruspert® coating for fixing into single supporting beam
	MSA1465 - MiTek No. 14 x 65mm anti-split self-drilling HD galvanised screws with Ruspert® coating for fixing into double 35mm or 45mm wide supporting beam

NAILING REQUIREMENTS

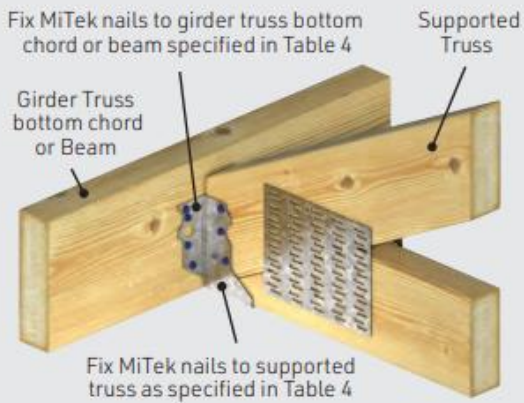
JoistHanger Size (mm)	Fixing to	
	Supporting Member	Supported Member
90	8	6
120 to 140	12	8
150 to 190	20	12
220	28	16

Table 4

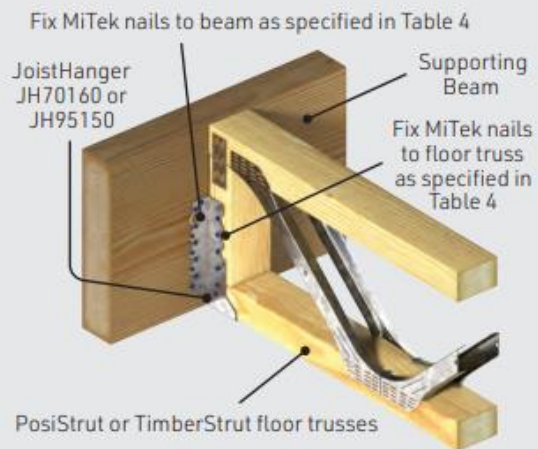
FIXING FLOOR JOIST TO BEAM



FIXING STANDARD TRUSS TO GIRDER TRUSS OR BEAM



FIXING FLOOR TRUSS TO BEAM



17.

James Hardies Scyon Secura External Flooring Installation Guide: - The Scyon Secura External sheet flooring has not been installed as per the following manufacturer's instructions:

- Nail spacing is greater than 200mm max. centres
- Joints have not been sealed
- Butt joints less than the required 5mm
- Fastener heads not sealed
- Fixings closer than the minimum 25mm from tongue and groove edges

- Fixings closer than the minimum 12mm from butt joints
- Floor frame does not have the minimum required 1:100 fall

Dwellings flooring installation has not been completed as per manufacturers installation guide.

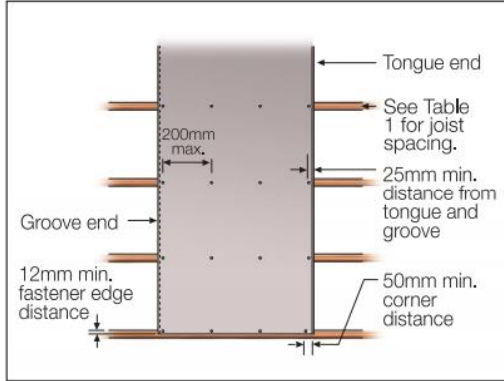


FIGURE 4 FASTENER LAYOUT

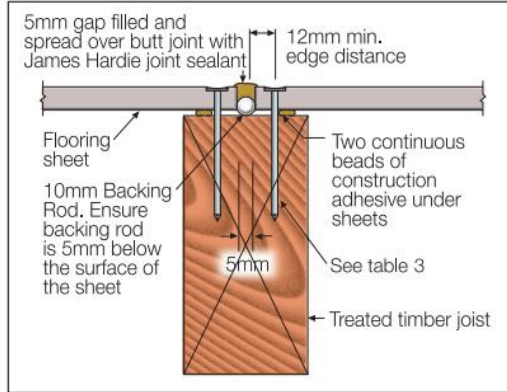


FIGURE 9 BUTT JOINT

Fall

Decks must have a fall to facilitate drainage. Decks must have a fall of at least 1 in 100 away from the building. Floor joists must run in the direction of the fall.

Do not provide fall by packing sheets. The fall can be created by trimming or sloping the joists.

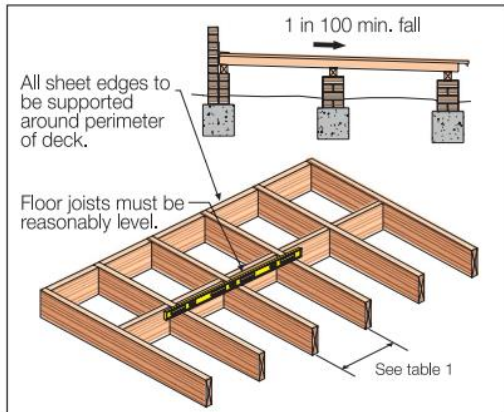


FIGURE 1 FRAME PREPARATION

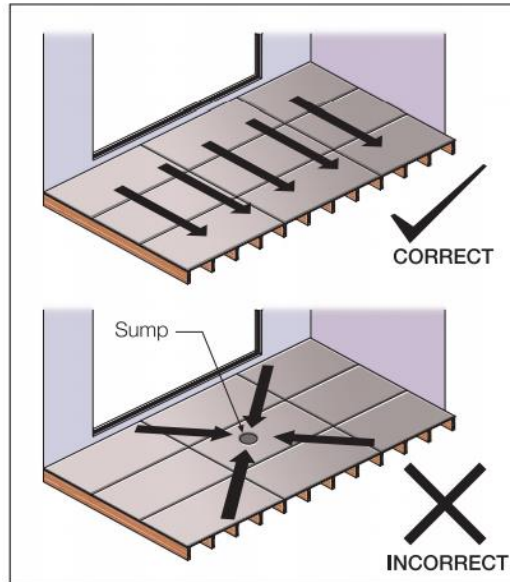


FIGURE 2 DRAINAGE

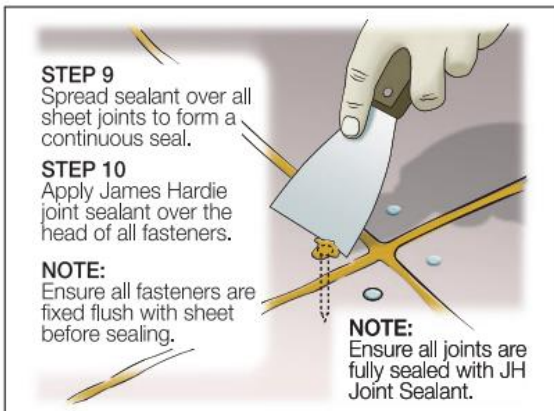


FIGURE 11 SEAL OVER FASTENERS AND JOINTS

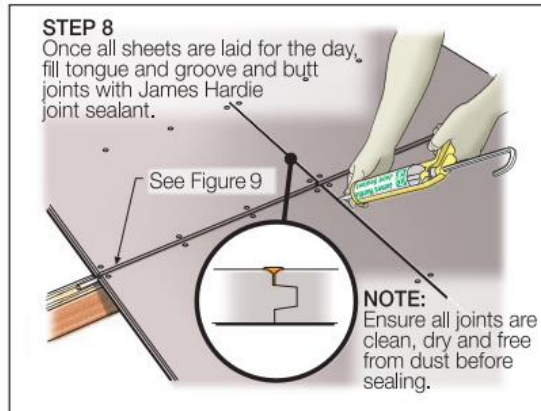
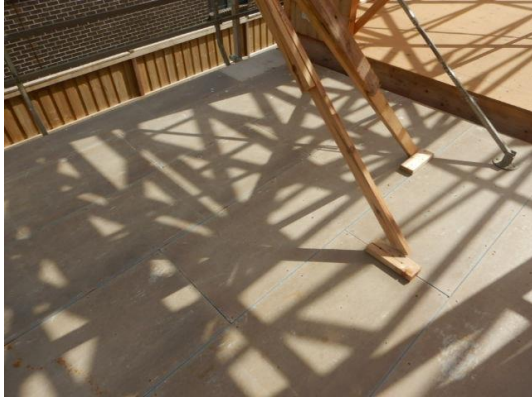


FIGURE 10 SEALING ALL JOINTS



18.

AS 1860.2; 10.4: - Particleboard sheet flooring shall be screwed (not nailed) to I-beam and truss joists.

Fixing of particle board sheet flooring has not met this requirement.

Note: 'Struct-a-floor' sheet flooring may be nailed to Carter Holt Harvey I-beams in accordance with the manufacturer's installation requirements.

10.4 Screws

Selection of screws for use with particleboard flooring sheets shall be in accordance with Table 2.

NOTE: If particleboard flooring is fixed to I-beam and truss joists, screws (not nails) should be used. The flanges may be only 35 mm thick and nails will penetrate through and may not have sufficient holding strength.

TABLE 2
MINIMUM SCREW SIZE/LENGTH COMBINATIONS

Joist material	Flooring thickness, mm	Screw type and size
Timber	19 and 22	No. 10 × 50 mm twin-thread, self-drilling wood screw
	25	No. 14 × 65 mm twin-thread, self-drilling wood screw
Steel	19, 22, 25	No. 9 ×, or 10 × 45 mm countersunk self-embedding head, self-drilling

NOTES:

- 1 Proprietary screws with self-breaking cutter nibs, to provide clearance in timber that is fixed to metal, are available and are preferred for particleboard flooring (see AS 3566.1 and AS 3566.2). Further advice should be obtained from the screw manufacturer.
- 2 Some heavier gauge steel sections may require a No. 12 or No. 14 size screw.
- 3 The screw-driving unit should be adjusted to drive the screw head 2 mm to 3 mm below the panel surface to allow for later sanding. Screws should not be driven more than 3 mm below the panel surface.



19.

Domestic Building Contracts Act 1995: - We refer the builder to the implied warranties where the builder agreed to build the dwelling in a **proper and workmanlike manner and with care and skill.**

8. Implied warranties concerning all domestic building work

The following warranties about the work to be carried out under a domestic building contract are part of every domestic building contract—

- (a) the builder warrants that the work will be carried out in a proper and workmanlike manner and in accordance with the plans and specifications set out in the contract;
- (d) the builder warrants that the work will be carried out with reasonable care and skill and will be completed by the date (or within the period) specified by the contract;



Re-instate stud tie

20.

AS 2589, clause 4.2.2 & VBA Standards and Tolerances: - The deviation in the position of the bearing surface of the finished framing immediately prior to installation of lining, shall not exceed the dimensions provided in Table 4.2.2.

Areas in the dwelling exceed this set allowance.

4.2.2 Finished framing deviations and tolerances

The deviation in the position of the bearing surface of the finished framing immediately prior to installation of lining from a 1.8 m straight edge shall not exceed the values given in Table 4.2.2 when measured over a 1.8 m span at any point [see Figure 4.2.2(A)].

Where the dimensional tolerances of the fixing surface plane fall outside these tolerances, a suitable levelling system shall be used [see Figure 4.2.2(B)].

For wall and ceiling framing that is in accordance with the dimensional tolerances of this Clause, gypsum linings may be fixed directly to the framing with an appropriate fastening system in accordance with Clause 4.4.3.

**TABLE 4.2.2
DEVIATION IN THE POSITION OF THE
BEARING SURFACE OF THE FINISHED FRAMING**

Substrate type	Levels 3 and 4		Level 5	
	Deviation of 90% of area mm	Deviation of remaining area mm	Deviation of 90% of area mm	Deviation of remaining area mm
Steel and timber framing, and battened masonry	4	5	3	4

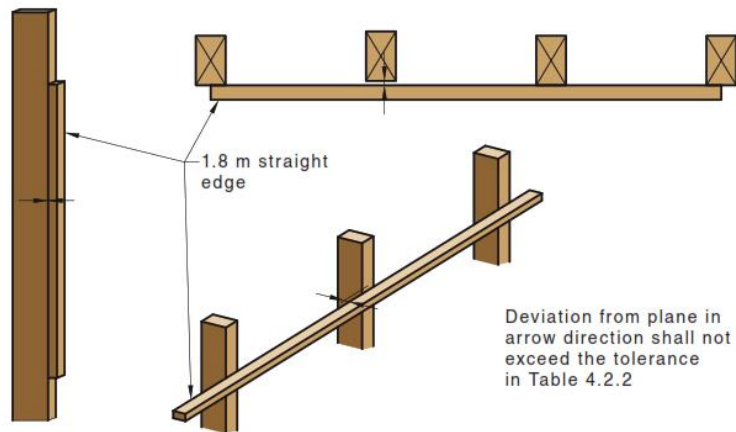


FIGURE 4.2.2(A) ASSESSING FRAMING TOLERANCE



21.

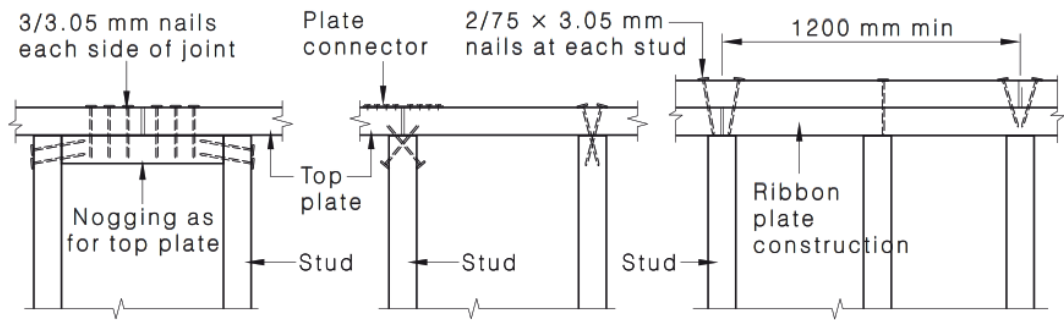
AS 1684.2; 9.2.8: - calls for the installation of a plate connector (gang nail plate or equiv.) at the top of all intersecting walls. Where plates interlock, they are not required.

There are gang nails missing to several of the top plates to the wall's connections. These plates play a vital role in securing one wall to another. It also assists with the racking force resistance on a home.

In areas, top plate connections have not met this requirement.

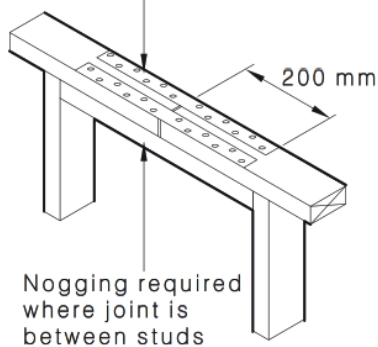
9.2.8 Joining of top plates and ring beam

Top plates and ring beam in walls shall be joined by one of the methods shown in Figure 9.2 for the relevant wind classification.



(a) Suitable for wind classifications N1, N2 and N3

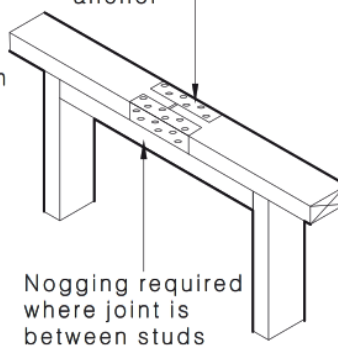
2/30 x 0.8 mm G.I. straps
6/30 x 2.8 mm nails each end of each strap



(d) Suitable for wind classifications N1 to N4

(b) Suitable for wind classifications N1 and N2

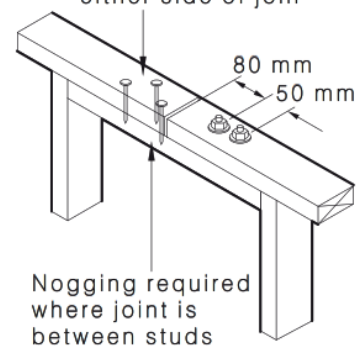
2/framing anchors legs not bent
6/30 x 2.8 mm nails each end of each anchor



(e) Suitable for wind classifications N1 to N4

(c) Suitable for wind classifications N1, N2 and N3

3/No. 14 type 17 batten screws or
2/M10 cup-head bolts either side of joint



(f) Suitable for wind classifications N1 to N4



22.

AS 1684.2; 6.2.1.5: - Wall studs shall have continuous rows of noggings at 1350 mm maximum centres.

Breaks in the continuity of the nogging row through either short or missed nogging means that this requirement has not been met.

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.

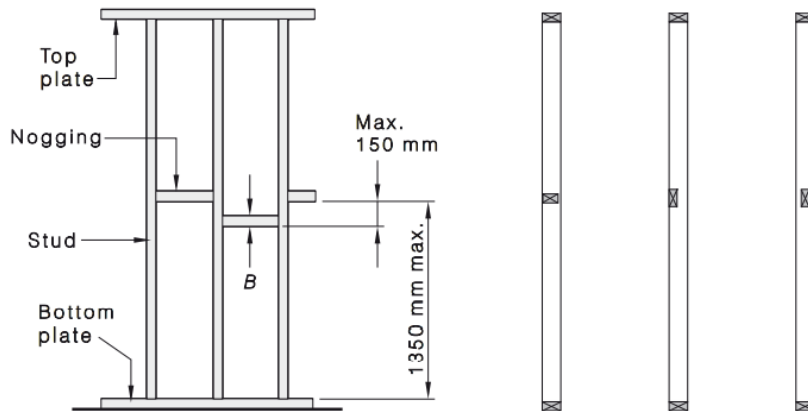


FIGURE 6.6 NOGGING





Rectification Required: YES

TERMS & CONDITIONS OF Darbecca Pty Ltd SITE INSPECTION AND REPORT

1. Purpose

The purpose of our inspection is to identify any defects in the finishes and the quality of those finishes presented by the builder at the stage of works nominated on the front of this report. This report contains a schedule of building defects that in the writer's judgement do not reach an acceptable standard of quality, level of building practice, or have not been built in a proper workmanlike manner relative to the Building Code of Australia, the relevant Australian Standards or the acceptable standards and tolerances as set down by the Building Control Commission.

2. Scope

Our engagement is confined to that of a Building Consultant and not that of a Building Surveyor as defined in the Victorian Building Act, of 1993. We therefore have not checked and make no comment on the structural integrity of the building, nor have we checked the title boundaries, location of any easements, boundary setbacks, room dimensions, height limitations and or datum's, glazing, alpine and bush-fire code compliance, or any other requirements that is the responsibility of the Relevant Building Surveyor, unless otherwise specifically noted within this report.

3. Assumed Finishes

Our inspection was carried out on the quality of the fixtures and finishes as installed, and no investigation of any documentation or statutory requirements was carried out to verify their correctness.

4. Documentation

Unless otherwise noted any contractual documentation made available to us during our inspection is only viewed on an informal basis and we make no certification that the building has been constructed in accordance with them.

5. Non-Destructive Inspection

Unless otherwise noted our inspection was carried out on a non-destructive basis and exclude anything that would have require the removal of any fixtures, fittings, cladding, insulation, sisalation, roofing, lining materials, excavated of any soil or the removal of any part of the plastic membrane.

6. Measurements/Levels

Unless otherwise noted all measurements have been taken with a standard ruler, and levels with either a 900 or 2100mm long spirit level.

7. Services, Appliances, Plants and Equipment

Unless otherwise noted, we did not test or check for appropriateness, capacity, correct installation or certification of any service, appliances, plant and equipment, i.e. heaters, hot water units, air conditioners,

ovens, hotplates, dishwashers, range hoods, spa pump, electrical wiring, gas lines, electricity and water supply, sewer, stormwater and agricultural drains.

8. Client Use

This report has been prepared for the exclusive use of the client/s whose name/s appear/s on the front of this report as supplied by Darbecca Pty Ltd ABN 12 115 961 487. Any other person who uses or relies on this report without the authors written consent does so at his or her own risk and no responsibility is accepted by Darbecca Pty Ltd or the author of this report for such use and or reliance.

9. Report Reproduction

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10. Reference

Any reference contained within this report to the Building Code of Australian, an Australian Standard, a manufacturers technical data sheet or installation instruction is neither exhaustive nor a substitute for the original document and are provided as a guidance only. Darbecca Pty Ltd or the author of this report for the use or reliance upon of the part references contained within this report will accept no responsibility.

11. Report Exclusions

- a) Defects in inaccessible parts of the building including, but not limited to, the roof space and or the sub-floor area unless otherwise noted,
- b) Defects not apparent by visual inspection, or only apparent in different weather or environmental conditions as to those prevailing at the time of the inspection,
- c) Defects that we did not consider significant enough to warrant any rectification work at the time of our inspection,
- d) Defects outside the scope of the client brief
- e) Check measure of rooms, walls and the overall building, for size, parallel and squareness unless otherwise noted,
- f) Landscaping, retaining wall/s, or any structures outside the roofline of the main building unless otherwise noted,
- g) Enquiries of Council or any other Authorities,
- h) Investigation for asbestos and or soil contamination,
- i) Investigation for the presence of any termites or borers and for the correct installation of any termite barriers and or other risk management procedures or devices.
- j) Defects in relation to PVC sewage and storm water pipes are not covered in this inspection. Clients must seek the services of a licenced plumber to check all sewage and storm water pipes.

12. VCAT Suitability

Unless specifically noted this report has not been prepared in-line with the requirements of Practice Note VCAT 2. If you wish to have this report converted to a VCAT 2 Practice Note, please contact our office on 03 5366 6900.