



ABN 12 115 961 487
PO Box 88
Bacchus Marsh Vic 3340
Phone: (03) 5366 6900



Site Address:

Client Name:

Phone #:

Email:

Dwelling type:	House and Garage.
Dwelling configuration:	Double Storey
Nature of works:	New Building.
Stage of inspection:	Fixing & Waterproofing.
Construction Type:	Hebel.
Garage:	Attached.
Foundations:	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.

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.

Please note: **A fee of \$350.00 per hour**, or part thereof, plus GST will be charged for any clarification required by the builder, or any of the builders' employees, and a purchase order for same will be required prior to any contact between Darbecca Pty Ltd and the builder.

An inspection was conducted at the above address on 27/04/2021 for the purpose of a general home inspection, requested by the 'client'.

The inspection was conducted without the 'client' present, and details exterior and interior.

The weather was overcast 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's owners under these two acts.

Schedule of Defects:

1. Item previously noted, not rectified at the time of Inspection on 27/04/21.

The dwellings slab footings can pool with water due to the way the block has been cut and the lack of back filling.

The NCC is very clear in its requirements to have the soil graded from the start away from the dwelling as a minimum of 50 mm over 1 m. This has not been done. We refer all to the NCC, part 3.1.3.3.

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

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.

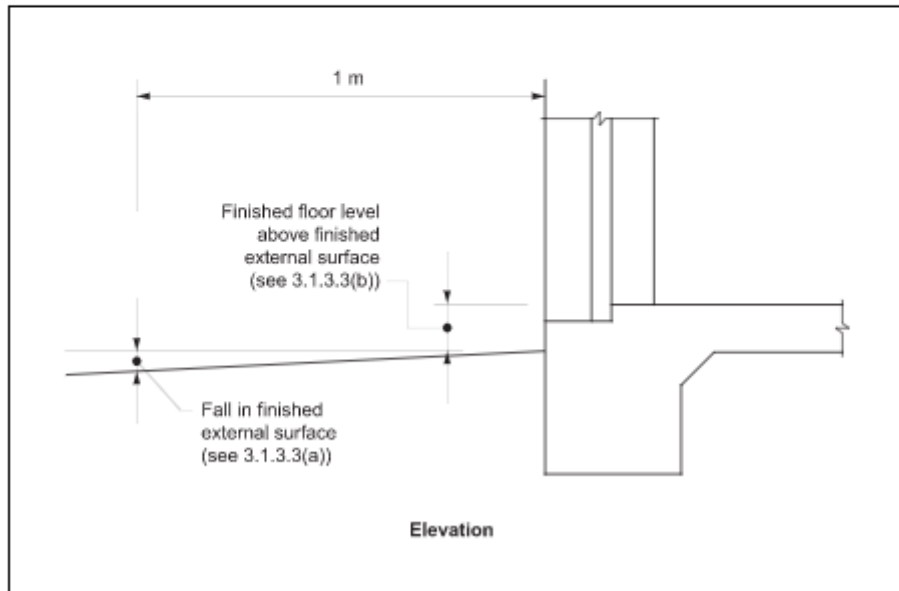
(b) Slab-on-ground — finished slab heights:

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. Item previously noted, not rectified at the time of Inspection on 27/04/21.
The NCC 2019; Part 2.2 Damp and Weatherproofing: - A building including any associated site work must be constructed in a way that protects people and other property from the adverse effects of redirected surface water.

Temporary downpipes have come away from the gutters and need to be reattached.

Part 2.2 Damp and weatherproofing

Explanatory information:

Objective

O2.2

The Objective is to—

- (a) safeguard occupants from illness or injury and protect the building from damage caused by—
 - (i) surface water; and
 - (ii) external moisture entering a building; and
 - (iii) the accumulation of internal moisture in a building; and
 - (iv) discharge of swimming pool waste water; and
- (b) protect other property from damage caused by—
 - (i) redirected surface water; and
 - (ii) the discharge of swimming pool waste water.

Functional statements

F2.2.1 Surface water

A building including any associated sitework is to be constructed in a way that protects people and other property from the adverse effects of redirected surface water.



3. Item previously noted, not rectified at the time of Inspection on 27/04/21.
VBA Guide to Standards and Tolerances; 2.08: - New concrete floors must not differ more than 4 mm over any 2 m length or 10 mm in any room or area.

We measured random areas of the concrete slab with a 2 m straight edge and found the slab levels to have not met this requirement.

Note: The builder cannot claim the 10 mm in any room because the 4 mm over 2 m requirement has been breached.

2.08 Levelness of concrete floors

Except where documented otherwise, new floors are defective if within the first 24 months of handover they differ in level by more than 10 mm in any room or area, or more than 4 mm in any 2 m length. The overall deviation of floor level to the entire building footprint shall not exceed 20 mm. Refer to Item I of this Guide where the new floor is to abut an existing floor.

Note -

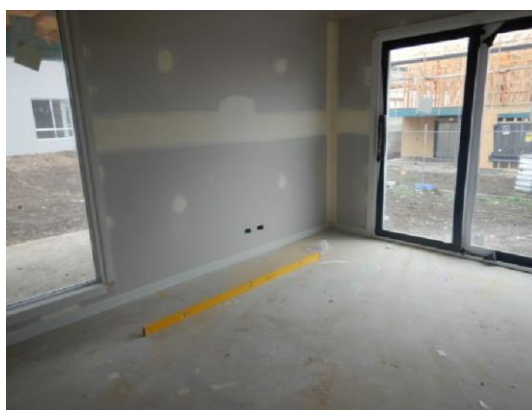
→ Denotes direction of fall

○ Denotes rise in slab

✕ Denotes low area in slab



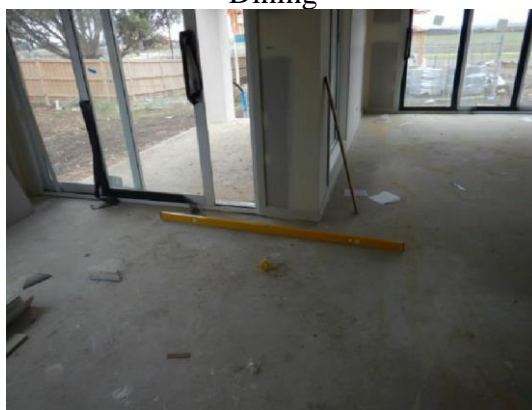
Kitchen



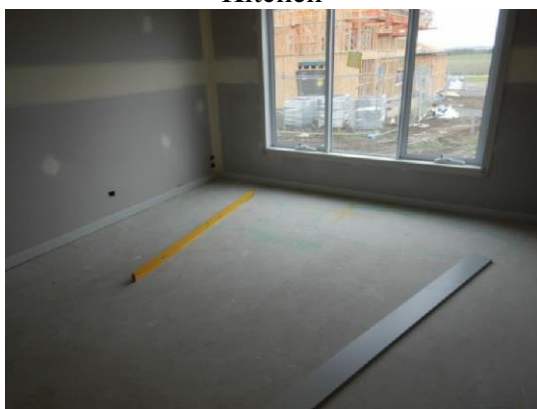
Dining



Kitchen



Dining



Theatre

4. Item previously noted, not rectified at the time of Inspection on 27/04/2
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.



5. Item previously noted, not rectified at the time of Inspection on 27/04/21.
It is noted that the alfresco pier does not align with the slab edge as per the approved plans. Builder to rework or supply updated approved plans.
Extract from approved plans:

CORRECT INSTALLATION OF FRAMES

1. Fit flashing to window surround as required.
2. Measure the frame opening to ensure that there is sufficient room for the product and additional packing.

Stud Opening

Height = O/A reveal size + adequate clearance

Width = O/A reveal size + adequate clearance

Clearance dimensions vary between manufacturer's products. For adequate clearance, refer to instructions.

3. Frame must be packed plumb, square and not twisted between the openings. Ensure the sill is fully supported. Failure to do so may result in sill roll on sliding windows.

Sills on all windows and doors must be straight and level and should be packed and secured.

To ensure the satisfactory long term performance of sliding doors, the sill should be fully supported. Where the sill projects during construction the sill should be fully supported.

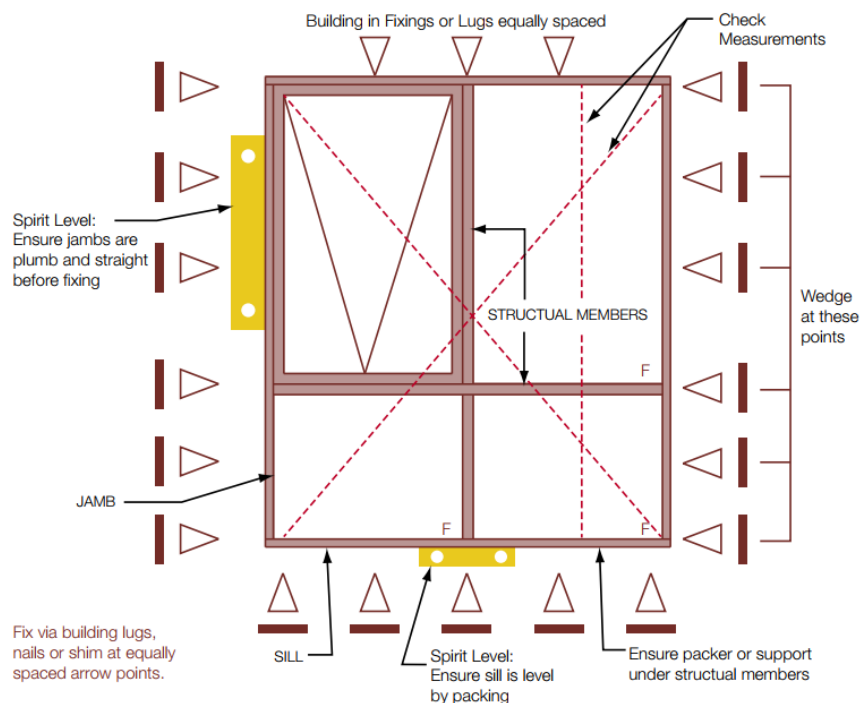
Keep sashes closed whilst installing frames.

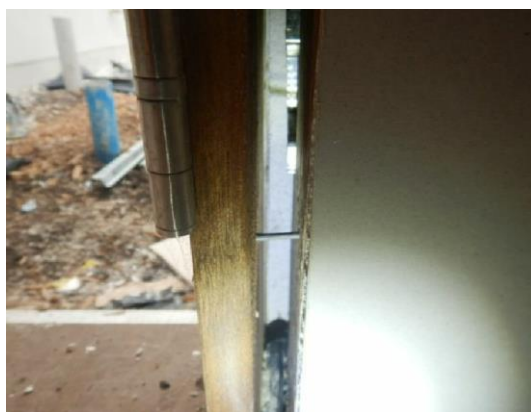
Secure frames with a fixing of a gauge and spacing appropriate for the wind load.

In brick veneer constructions, aluminium frames should be secured by nailing or screwing through reveal into stud work.

INSTALLATION

Figure 11 Installation Summary





7. Item previously noted, not rectified at the time of Inspection on 27/04/21.

Some of the bottom reveals too wide windows are presenting with significant fall back towards the window.

Many window manufactures require a 7 mm cement sheet or pine board strip placed in the cavity to support the heavy glazed section; this was not present at the time of inspection. This often also results in bows to the top styles long after the windows are installed.

We refer the builder to AS2047 - 2014.

7.2 INSTALLATION

7.2.1 General

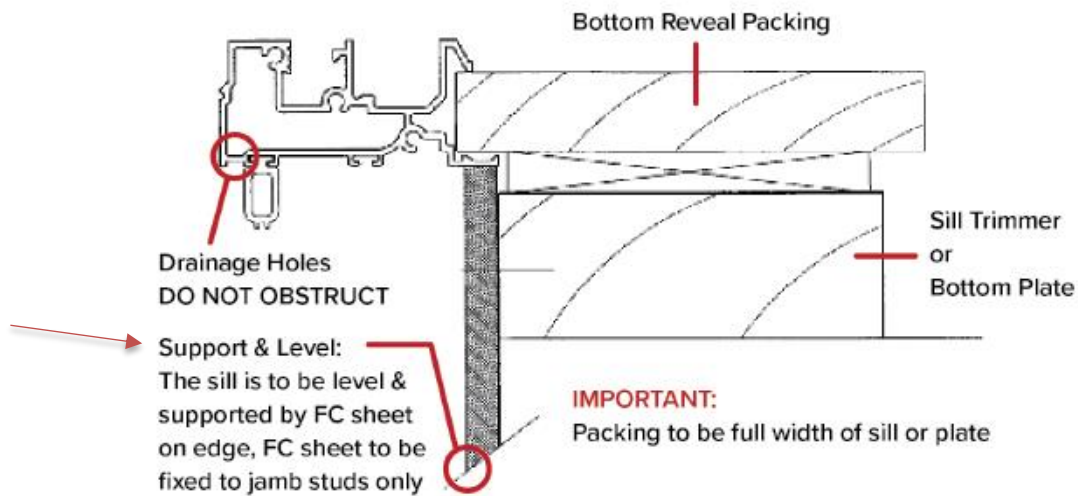
Openings in buildings into which windows are to be installed shall be of sufficient size to allow the window frame to be installed level and plumb.

Windows shall only be installed in locations for which they are designed in accordance with this Standard.

Window assemblies shall be fixed into the building using recognized building practices. Fixing shall not deform the window assembly. Non-loadbearing window assemblies shall not carry building loads.

Installed windows assemblies shall prevent water penetration and excessive air infiltration.

NOTE: Window manufacturers' installation procedures may need to be followed for particular installations.



All areas to comply

- 8. Item previously noted, concealed at the time of Inspection on 27/04/21.
Builder to confirm rectification carried out prior to concealing this item.**

AS 2589; 2.6.2 & AS 1684.2; Appendix E: - The maximum moisture content for seasoned timber at the time of installing gypsum linings shall be less than 15%.

This seasoned pine house frame currently exceeds this maximum.

AS 2589:

2.6.2 Moisture content for Australia

The maximum moisture content for seasoned timber framing at the time of installing gypsum linings shall be less than 15%, in accordance with Appendix E of AS 1684.2. The moisture content of timber framing shall be measured in accordance with Appendix A.

NOTE: Moisture content within the timber frame may be affected by factors, such as environmental conditions refer to AS 1684.2 and AS 1684.3).

AS 1684.2:

APPENDIX E
MOISTURE CONTENT AND SHRINKAGE
(Informative)

E1 MOISTURE CONTENT

Timber should have a moisture content appropriate to its use.

- Structural timber may be either seasoned (moisture content 15% or lower) or unseasoned (moisture content greater than 15%). Milled products (flooring, joinery, etc.) should be seasoned.

If you have any serious concerns about mould, we strongly recommend the services of:

Dr Cameron Jones

<http://www.drcameronjones.com>

1300132350 OR 0414998900

cameron@drcameronjones.com



All Areas to comply.



**9. Item previously noted, concealed at the time of Inspection on 27/04/21.
Builder to confirm rectification carried out prior to concealing this it.**

Many areas were noted to present with severe mould or like.

I am not a mould specialist; therefore, I will not comment on the impact the observed mould (or material which appears to resemble mould) could have on the structure. I have included the details of a mould specialist below.

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Director

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Defects, observations and other related comments from the Fixing & Water Proofing Inspection on the 27/04/2021:

10.

We noted areas where the stormwater riser pipes are showing rocks and dirt within the pipe junctions.

The builder will need to clear these excesses from within the junction as part of the AS 3500.3 plumbing regulations commissioning process obligations.

As a result, the builder will need to rework this plumbing connection to present a functioning stormwater system that is clear from obstruction.

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



11.

There are a few windows/bricks that have been installed short AS 2047 calls for installation in a manner that restricts water ingress and excessive air infiltration. Some reworking will need to take place. If the builder intends on using a silicon to bridge small gaps, the silicon must be neatly applied and be UV rated.

7.2 INSTALLATION

7.2.1 General

Openings in buildings into which windows are to be installed shall be of sufficient size to allow the window frame to be installed level and plumb.

Windows shall only be installed in locations for which they are designed in accordance with this Standard.

Window assemblies shall be fixed into the building using recognized building practices. Fixing shall not deform the window assembly. Non-loadbearing window assemblies shall not carry building loads.

Installed windows assemblies shall prevent water penetration and excessive air infiltration.

NOTE: Window manufacturers' installation procedures may need to be followed for particular installations.



12.

It was noted some elements of work associated with fixing and plastering of the walls, cornices and architraves have not been completed at the time of inspection. All works will require to be set in accordance with the requirements for a level 4 finish prior to application of base coat painting.

9.13 Level of finish for plasterboard

Unless documented otherwise, a plasterboard finish is defective if Level 4 finish (as defined below) is not provided.

Level 4 finish³

A Level 4 finish shall be the default level for gypsum lining, unless specified otherwise.

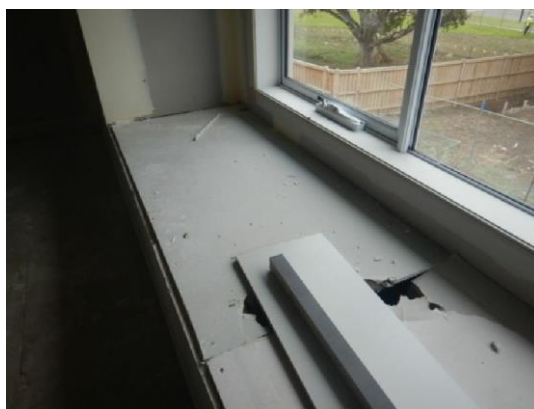
Flat or low sheen paints shall be used for this Level 4.

All joints and interior angles shall have tape embedded in jointing cement/jointing compound and a minimum of two separate coats of jointing cement/jointing compound applied over all joints, angles, fastener heads and accessories.

All jointing compound shall be finished evenly and be free of tool marks and ridges in preparation for decoration.

Notes:

1. In critical lighting conditions, surface imperfections may still be apparent in a Level 4 surface finish.
2. Where gloss, semi-gloss and deep tone paints are used, surface imperfections will be more evident.

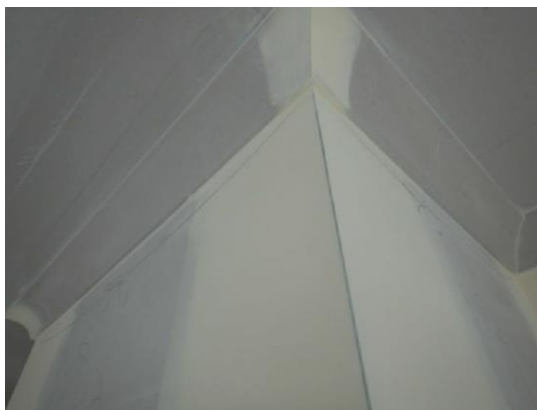


13.

We noted the plaster wall below the cornice in a few areas is showing a noticeable bow. This bow is causing visible thickening of the cornice adhesive at the junction to the cornice bottom edge.

The builder will need to plaster float these areas to present a flat plastered surface that aligns evenly to the cornice underside. Thus, ensuring a proper finish with reasonable care and skill.





14.

There are a few areas in the home that exceed the allowance of 4 mm tolerance over 2 m.

- out of plumb walls (OOP)
- ceiling or cornice out of level (C-OOL)

Please refer to photographs below:

As stated, the acceptable allowance is 4 mm over 2 m. These walls will need to be reworked to ensure that the builder complies with this requirement.

4.03 Straightness of steel and timber frame surfaces

Frames are defective if they deviate from plane (horizontal or vertical bow) by more than 4 mm in any 2 m length of wall. Refer to Diagram E.

We also refer the builder to AS 2589, clause 4.2.2.

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

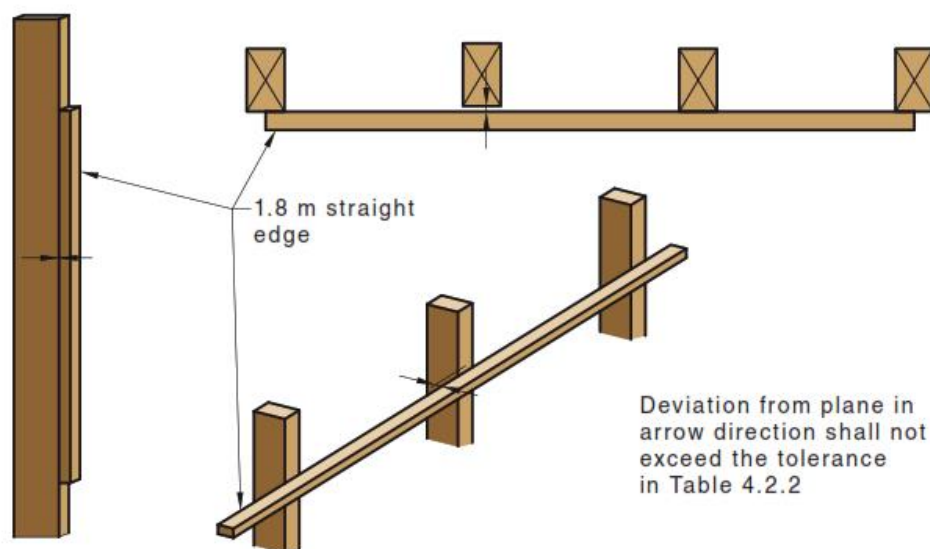


FIGURE 4.2.2(A) ASSESSING FRAMING TOLERANCE



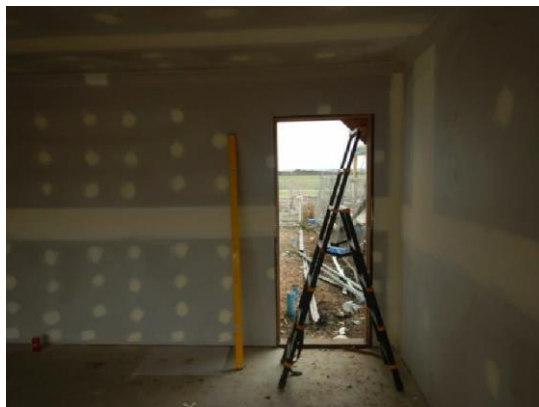
OOL Porch



OOL Meterbox

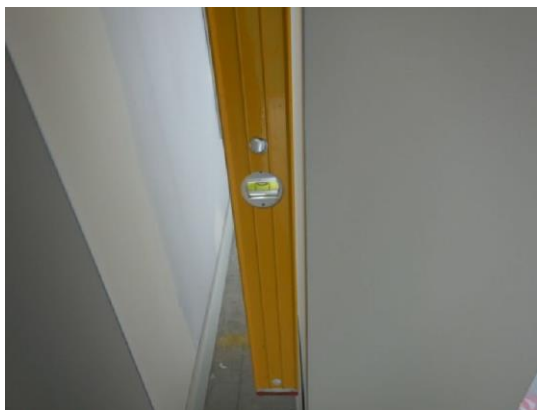


C-OOL Garage



OOL Garage





OOP entry



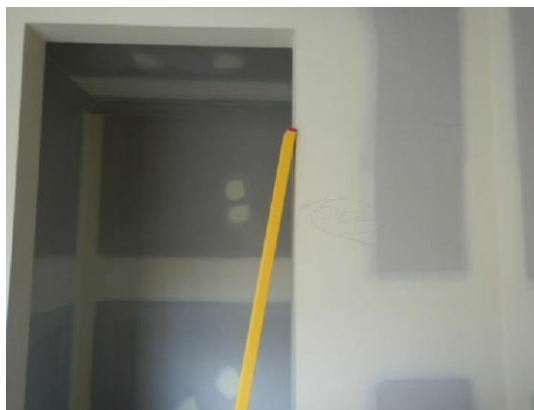
D-OOP Dining



OOP Ensuite

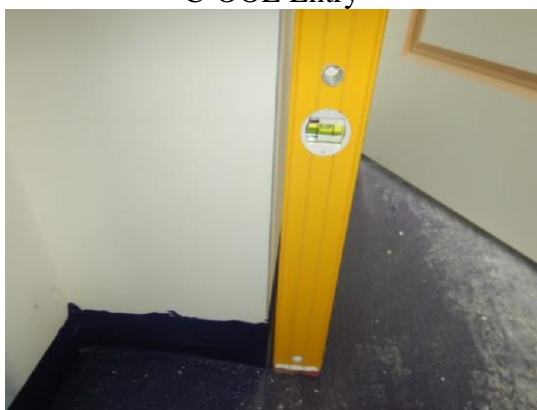


OOP Ensuite

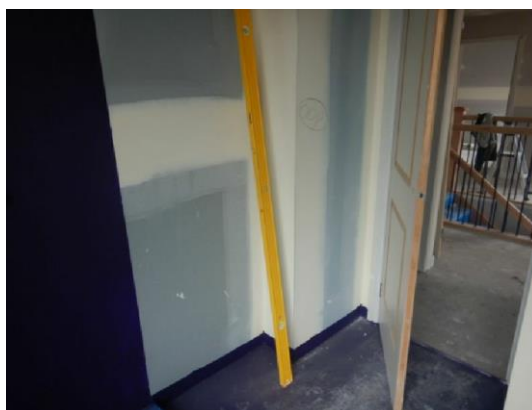




C-OOL Entry



OOP Bathroom



15.

We noted some small holes, cracks, or gaps in various sections to the waterproof membrane in wet areas (marked with blue tape).

All areas must be sealed waterproof in accordance with the NCC Volume 2 and the manufactures specifications.

Waterproof means the property of a material that does not allow moisture to penetrate through it.



Ensuite

16.

As per the inserted from AS 3500.3, the roof must be reworked to ensure the roof is not subjected to premature corrosion. Note that complete drainage is called for in the Standard.

4.4.3 Corrosion due to crevices

↖ Metal roof drainage systems and support systems shall be designed and installed to achieve complete drainage or drying. Shielded areas capable of causing permanent ponding shall be avoided to prevent the possibility of intense localized corrosion known as crevice corrosion.

NOTE: This type of attack results from contact of metal with moisture and salts under oxygen-deficient conditions in which trapped moisture cannot readily evaporate. It can be caused by lap joints, absorbent gaskets, holes, crevices under bolt or rivet heads, or surface deposits, including non-metallic materials such as elastomeric materials, plastics, fabrics, lifted paint films or accumulated solids.



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 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 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.

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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.