



ABN 12 115 961 487
PO Box 88
Bacchus Marsh Vic 3340
Phone: (03) 5366 6900
Email: admin@darbecca.com.au



Site Address:

Client Name:

Phone #:

Email:

| | |
|--------------------------------|------------------|
| Dwelling type: | Double Storey |
| Dwelling configuration: | House and Garage |
| Nature of works: | New Build |
| Stage of inspection: | Final |
| Construction Type: | Brick Veneer |
| 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.

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 Final Inspection on.

1.

AS 4773.2—2010 APPENDIX B1 & Domestic Building Contracts Act 1995; AS 3700; 1.5.2.27; 12.4: - The cleaning down of masonry is best done each day, as the work is constructed. The removal of mortar smears and the removal of stains should be done in a workmanlike manner.

Brick cleaning and mortar finish requirements have not been met.

B1 GENERAL

The cleaning down of masonry is best done each day, as the work is constructed. The removal of mortar smears and the removal of stains should be done in such a manner that the work is not damaged.

B6 CLEANING PROCEDURE FOR NEW EXTERNAL MASONRY

Commence cleaning by rubbing down the masonry with a stiff brush, assisted by a scraper to remove any large lumps of mortar.

Drench the front of the masonry with clean water to wash off loose dirt and to reduce absorption of the cleaning agent into the masonry units.

1.5.2.27 Mortar joints

One of the following:

- (a) *Flush joint* A joint that is finished flush with the surface of the masonry units.
- (b) *Raked joint* A joint that is raked out to a specified depth behind the face of the masonry.
- (c) *Tooled joint* A joint, including flush joint and raked joint, in which the surface is trowelled or ironed to a smooth, dense finish.

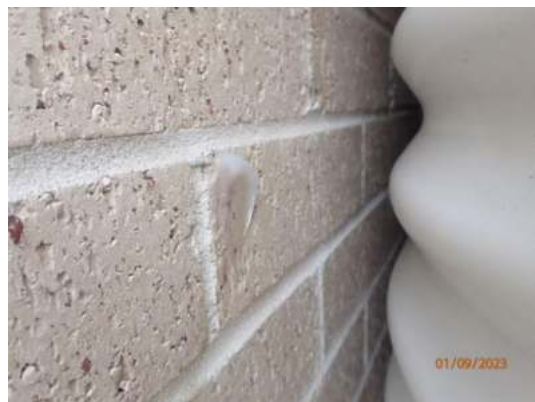
NOTE: Mortar joints for other than AAC are classified according to the types of finish given to their exterior surface.

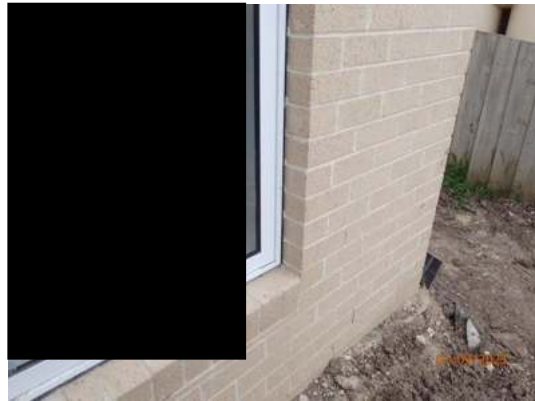
8. Implied warranties concerning all domestic building work

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;









2.

NCC table 3.4.4.7 The lintels to the dwelling shall not present with surface rust. Rust to be mechanically removed and the steel coated in two coats of Alkyd Primer.

The dwelling does meet this requirement

Table 3.4.4.7 Protective coatings for steelwork

| Environment | Location | Minimum protective coating |
|--------------------------------|----------|---|
| Moderate <small>Note 1</small> | Internal | No protection <i>required</i> in a permanently dry location <small>Note 8</small> |
| Moderate <small>Note 1</small> | External | Option 1. 2 coats alkyd primer Option 2. 2 coats alkyd gloss Option 3. Hot dip galvanised 300 g/m ² min |

| Environment | Location | Minimum protective coating |
|--------------------------|----------|--|
| | | Option 4. Hot dip galvanised 100 g/m ² min plus— (a) 1 coat solvent based vinyl primer; or (b) 1 coat vinyl gloss or alkyd. |
| Severe ^{Note 2} | Internal | Option 1. 2 coats alkyd primer Option 2. 2 coats alkyd gloss |
| Severe ^{Note 2} | External | Option 1. Inorganic zinc primer plus 2 coats vinyl gloss finishing coats Option 2. Hot dip galvanised 300 g/m ² Option 3. Hot dip galvanised 100 g/m ² min plus— (a) 2 coats solvent based vinyl primer; or (b) 2 coats vinyl gloss or alkyd. |

Notes to Table 3.4.4.7:

- Moderate = More than 1 km from *breaking surf* or more than 100 m from salt water not subject to *breaking surf* or non-heavy industrial areas.
- Severe = Within 1 km from *breaking surf* or within 100 m of salt water not subject to *breaking surf* or heavy industrial areas.
- Heavy industrial areas means industrial environments around major industrial complexes.
- The outer leaf and *cavity* of an external masonry wall of a building, including walls under open carports are considered to be external environments. A part of an internal leaf of an external masonry wall which is located in the roof space is considered to be in an internal environment.
- Where a paint finish is applied the surface of the steel, work must be hand or power tool cleaned to remove any rust immediately prior to painting.
- All zinc coatings (including inorganic zinc) require a barrier coat to stop conventional domestic enamels from peeling.
- Refer to the paint manufacturer where decorative finishes are required on top of the minimum coating specified in the table for protection of the steel against corrosion.
- Internal locations subject to moisture, such as in close proximity to kitchen or bathroom exhaust fans are not considered to be in a permanently dry location and protection as specified for external locations is *required*.
- For applications outside the scope of this table, seek specialist advice.



3.

Standards Australia HB 39: - The gutters and roof sheeting must be fully cleaned of metal particles, roof screws, pop rivets, mortar, paint, and the like.

The roof and gutter installation to this dwelling has not met this requirement.

3.6 CLEANING UP

Normal installation practices such as drilling and cutting usually leave offcuts and metallic swarf on or around the roof area. These materials and all other debris, including blind rivet shanks, nails and screws are to be cleaned from the roof area and gutter regularly during the installation process as unsightly staining of the surface due to oxidation of the metal particles will result, leading to corrosion and possible failure of the roofing material or guttering. Where practicable, the entire installation should be cleaned down with a blower vac, swept or, alternatively, if a water supply is available, hosed down at the completion of the work.



4.

NCC 7.2.7 & AS 3500.3 part 4.7.2.2:- Sealant joints shall be used in conjunction with mechanical connections or fasteners, and spaced at not more than 40 mm centres. Flashings and capping connections do not meet these requirements.

7.2.7 Flashings and cappings

[2019: 3.5.1.7]

- (d) Joints in *flashings* and cappings must be not less than 75 mm, lapped in the direction of the fall of the roof, and fastened at intervals not more than 40 mm.

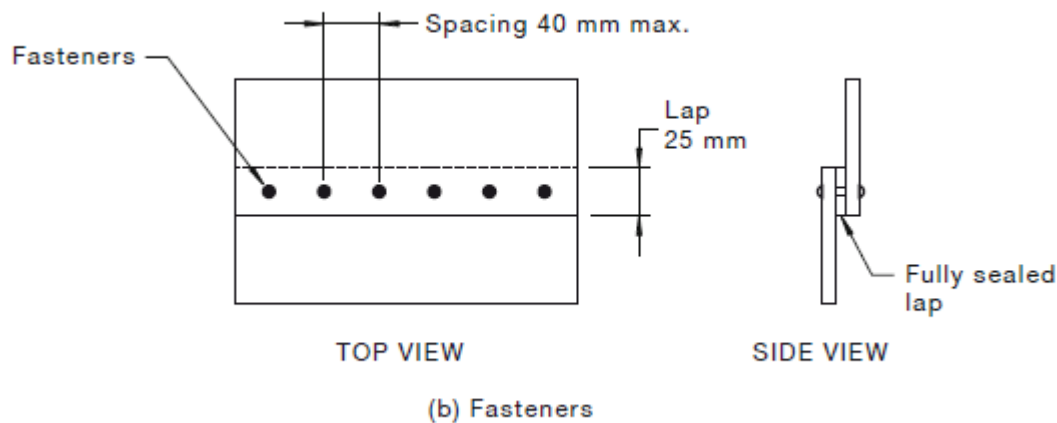
4.7.2.2 Sealant

Sealant joints shall be used in conjunction with mechanical connections or fasteners as specified in AS/NZS 2179.1, and spaced at not more than 40 mm centres. The sealant shall be sandwiched between clean surfaces of the components of the joint to ensure a positive seal and to protect the sealant from exposure to ultraviolet radiation.

Laps shall be as per Clause 4.7.2.3.

4.7.2.3 Laps

The laps for eaves gutters shall be not less than 25 mm. The laps for box gutter fasteners shall be spaced at not more than 40 mm centres and not less than 10 mm from the edges of the joint.



5.

AS 2047; 7.3.1: - There are a number of window rubbers that been installed short or have fallen back behind the external brickwork. The gap shall be sealed with suitable flexible mouldings or UV rated flexible caulking to resist water penetration.

7.3.1 General

A gap shall be provided between the window and the surrounding structure sufficient to prevent loads being imposed on the window, allowing for thermal expansion of the window and for structural movement as described in Clauses 7.3.2 and 7.3.3.

The gap shall be sealed with suitable flexible mouldings or flexible caulking to resist water penetration, or other weatherproofing methods shall be used.





6.

AS 3500.3: 5.3.1.3 & 6.3.4: -The stormwater pipe documented is presenting with fall away from the legal point of discharge. All must drain towards the LPOD at a minimum of 1:100.

5.3.1.3 Ponding

Except for on-site stormwater detention (OSD) systems, ponding of stormwater shall only occur temporarily at sag pits complying with Clause 5.4.10.1.

6.3.4 Gradients

The minimum gradient of a site stormwater drain shall be as given in Table 6.3.4.

NOTE: No maximum gradient is specified, but designers should be aware of the possibility of scour of pipes by rapid flows, particularly by sediment-laden water.

TABLE 6.3.4

MINIMUM GRADIENT OF SITE STORMWATER DRAINS

| Nominal size | | Minimum gradient | | Nominal size | | Minimum gradient | |
|--------------|-------|------------------|-----|--------------|-------|------------------|--|
| DN | Aust. | NZ | DN | Aust. | NZ | | |
| 90 | 1:100 | 1:90 | 225 | 1:200 | 1:350 | | |
| 100 | 1:100 | 1:120 | 300 | 1:250 | 1:350 | | |
| 150 | 1:100 | 1:200 | 375 | 1:300 | 1:350 | | |



7.

NCC, part 3.1.3.5: - It was noted the storm water system is presenting with less than the required coverage to the areas as documented in the photographs below.

All areas must meet the minimum standards set out in the NCC.

3.1.3.5 Stormwater drainage

Where a stormwater drainage system is installed, it must comply with the following:

- (a) The position and manner of discharge of the stormwater drainage system must be to the satisfaction of the *appropriate authority*.
- (b) The stormwater drainage system must be designed so that any overflow during heavy rain periods is prevented from flowing back into the building.

Explanatory information:

The manner of discharge of stormwater drainage systems includes consideration of discharge points. Some examples of discharge points which may be acceptable to the *appropriate authority* are:

- (a) A legal discharge point at the allotment boundary.
- (b) On-site catchment systems, such as stormwater tanks.
- (c) On-site soil drainage systems, such as soaker wells.

- (c) Cover to stormwater drains:
the cover to 90 mm Class 6 UPVC stormwater drains installed underground must be not less than—
- (i) under soil — 100 mm; or
 - (ii) under paved or concrete areas — 50 mm; or
 - (iii) under areas subject to light vehicle traffic—
 - (A) reinforced concrete — 75 mm; or
 - (B) paved — 100 mm.

Explanatory information:

Different depths of soil cover (or no cover at all) can be achieved using other types of pipes. The cover specified is measured from the top of the pipe to either the finished ground level or, in the case of paved or concreted areas, to the underside of the paving or concrete.



8.

AS 4773.2, part 9.6.2.1: - Veneer walls shall be drained to weep holes spaced at 1200 mm maximum centres. The raking of the perpendicular joints shall extend the full width of the masonry including the bed joint.

Blocked and/or partially blocked weep holes to this dwelling do not meet these requirements.

Special care must be taken to ensure the DPC flashing is not damaged / breached.

9.6.2 Flashings and weepholes

9.6.2.1 Cavity flashings

A cavity flashing that is also a DPC shall extend across the full width of the masonry skin. Flashing that protrudes past the face of the wall shall be either cut off or turned down.

→ Veneer walls shall be drained by weepholes at 1200 mm maximum centres. The raking of perpendicular joints to form weepholes shall extend the full width of masonry (through the wall) including bed joint at the level of the flashing.

→ Where cavity flashings are penetrated, the flashing shall be punched through or cut from the inside of the wall, and be fitted around the penetration and sealed.



Examples – check all

9.

Standards Australia HB 39; 5.7.6: - Downpipe brackets to be spaced at intervals not exceeding 2m vertically and 1m on a slope

This requirement has not been met.

5.7.6 Downpipes

For the installation of downpipes, see AS/NZS 3500.3. In addition, for best practice, the following are to be observed:

- (a) *Connection* Downpipes to be connected to the base of rainheads or sumps.
- (b) *Internal gutters* Downpipes from internal gutters to be connected to sumps with appropriate overflow provision, or discharged into external rainheads with appropriate overflow provision.
- (c) *Fastening* Downpipes to be securely fastened to walls and structures so as to withstand movement due to thermal expansion or weight due to a partial or total blockage.
- (d) *Spacing* Downpipe brackets to be spaced at intervals not exceeding 2 m vertically and 1 m on a slope (see Figure 5.7.6).

NOTE: Support systems for metal downpipes should comply with AS/NZS 2179.1.

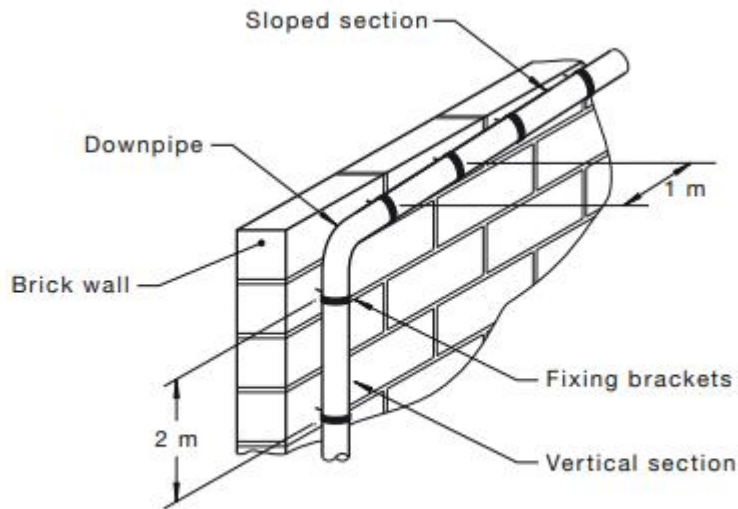


FIGURE 5.7.6 DOWNPIPE FASTENINGS



Examples – check all
10.

AS 3660.1 ;1.4.1.13: -There is termite reticulation pipe left uncovered in a number of areas around the home. This in effect nullifies the rest of the termite protection system as it has left a gateway for the termite’s entry into the home. A termite management system is defined as a product, or a coordinated system designed to mitigate the risk of concealing access by subterranean termites causing significant damage to the structure.

The reticulation system presenting uncovered does not meet these requirements. Installation to be completed as per AS 3660 and the proprietary guidelines.

1.4.1.13 Termite management system

A product or a coordinated system designed to mitigate the risk of concealed access by subterranean termites causing significant damage to a structure.

NOTE: Termite management systems are typically comprised of integrated components, inspection zones and inspection regime.



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.

Part 9—Liability

s. 137D

- (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 FC



Bent channel



Cover delaminated



Dent edge





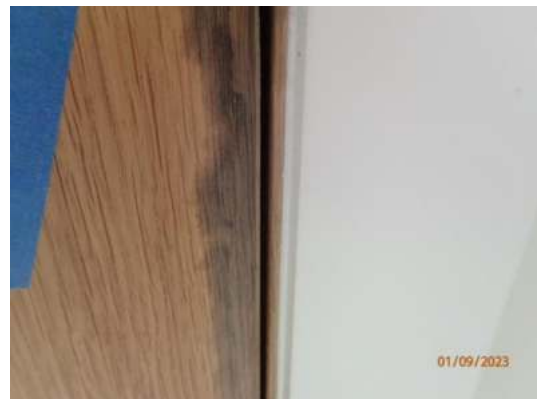
Chip



Chip



Stained
12.



AS 2311; C4; 6.8:- The final inspection should ensure the following where appropriate: The painted surface shows uniformity of gloss, colour and opacity. A correct range of dry film thickness of paint. Freedom from painting defects such as paint application defects; and brush marks, roller coater marks, spray application defects and those irregularities in texture, which are inconsistent with good trade practise.

Painted areas have not met these requirements.

C4 FINAL INSPECTION

The final inspection should ensure the following where appropriate:

- (a) The painted surface shows—
 - (i) uniformity of gloss, colour and opacity;
 - (ii) correct range of dry film thickness of paint;
 - (iii) freedom from painting defects such as—
 - (A) tackiness and paint application defects; and
 - (B) brush marks, roller coater marks, spray application defects and those irregularities in texture, which are inconsistent with good trade practice.

NOTE: Differences in appearance will occur; however, where such differences are not clearly discernible from a distance of typically 1.5 to 2 m when viewed under normal lighting conditions the finish is usually considered acceptable. Joinery should be also inspected for the presence of light surface grit or coarse particles which may only be identified by touching the surface.

- (iv) General cleanliness and absence of disfigurement, related to paint application.

NOTE: Surfaces, fixtures and fittings should be checked to ensure that they have been masked or removed, and that all paint spills or stains have been removed as set out in the specifications.

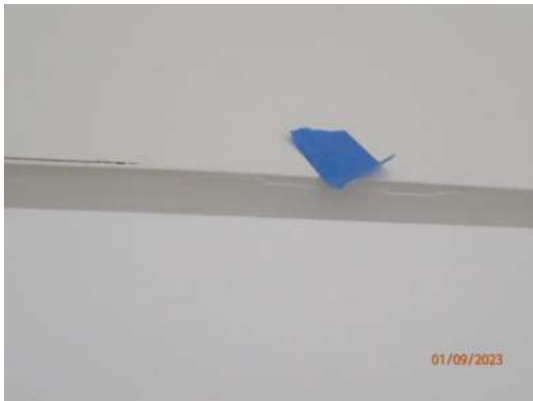
- (b) The surrounding area is clean, tidy and undamaged, and all of the paint contractor's materials, equipment and debris related to the work performed, are removed from the premises or site.

6.8 TOUCH UP

Touching up is the recoating of only a small portion of a surface in order to conceal damage or defects. It generally applies only to the period shortly after the application of paint to the rest of the surface, as it is not feasible to achieve a match between newly applied paint and the same paint affected by in-service conditions such as weather, wear or soiling. Achieving a touch up that is invisible under all or most conditions of lighting and viewing requires the application of the same sample of paint that was originally applied to the surface, by a method matching the original application method, to achieve a film build, surface texture and sheen level matching the surrounding area. Hence, touch ups call for technique, skill and practice.

The brush or roller sleeve should be similar to those used in the original application, as should the equipment loading, speed, and pressure and direction of application. Alternatively, combined application methods may be used, such as brushing to apply paint to the affected area, followed by laying off with a slightly dampened roller to provide a match with the surrounding rolled texture. Ironically, the absence of surface texture in sprayed films does not make touching up easier but virtually impossible, as it allows the borderline that surrounds any touch up area to stand out more clearly, even if all else matches. Full gloss finishes are also difficult to match as the junction between the old and new surface is difficult to obliterate.

Ease of touching up generally increases with decrease in gloss level, consistent with the general principle that flatter paints conceal surface irregularities better.





13.

AS 4386; 12 & 13: - Cabinet door and drawer fronts are defective if they do not align, or do not have consistent gaps, and can be seen from a normal viewing position.

Cabinetry to this dwelling has not met this requirement.

12 FITTING DOORS AND DRAWERS

When all the cabinets and worktops have been installed the doors and drawers shall be adjusted to ensure a line up of the edges of the doors and flush fitting with other adjacent components or in accordance with manufacturer's installation instructions.





14.

NCC; 3.12.3.5: - Ceilings, walls, floors, and openings such as a window frame must be constructed to minimise air leakage when forming part of the external fabric. Junctions and penetrations must be sealed with close fitting architrave, skirting, or cornice; or expanding foam, rubber compressive strip, caulking or the like.

Architraves to perimeter walls, that are not close fitting, must be sealed off.

3.12.3.5 Construction of ceilings, walls and floors

- (a) Ceilings, walls, floors and any opening such as a *window* frame, door frame, *roof light* frame or the like must be constructed to minimise air leakage in accordance with (b) when forming part of the external fabric of—
 - (i) a *conditioned space*; or
 - (ii) a *habitable room* in *climate zones* 4, 5, 6, 7 and 8.
- (b) Construction *required* by (a) must be—
 - (i) enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions; or
 - (ii) sealed at junctions and penetrations with—
 - (A) close-fitting architrave, skirting or cornice; or
 - (B) expanding foam, rubber compressive strip, caulking or the like.

Explanatory information:

1. A close fitting internal lining system is considered to include an allowance for minimum lining movement gaps at wall, floor and ceiling junctions.
2. Caulking includes sealant, mastic or other gap filling material.
3. In 3.12.3.5(b)(ii), penetrations include windows, doors, roof lights, flues, exhaust fans, heating and cooling ductwork and the like.



Check all

15.

AS 2688; 6.2.2; Hume, Corinthian Door care and Maintenance; Terms and conditions: - Door Leaves are defective if they do not have all sides, top and bottom edges sealed/painted in accordance with manufacturers specifications. The following manufacturers are examples only.

6.2.2 Sealing

Doors shall be sealed on all faces and edges in accordance with the manufacturer's specifications (see Clause 3.4).

NOTES:

- 1 Timber and most timber products or other porous materials are generally hygroscopic and dimensionally influenced by changes in moisture content caused by changes within their surrounding environment. Therefore, it is necessary to adequately seal all surfaces and edges of the door, to prevent absorption or loss of moisture (see Clause 3.4.2).
- 2 It is necessary to maintain an ongoing adequate paint protection as specified by the paint manufacturer's to prevent deterioration of the door.

Hume: Immediately after fitting and prior to hanging, the entire door including the top and bottom edges must be painted. Use a good quality paint or coating system and always follow the paint manufacturer's advice. Pay particular attention to internal vs external paint systems and use the one appropriate to where you are hanging the door. This includes doors that are supplied raw, or factory primed. If staining, must use exterior grade varnish/sealer to prevent absorption of moisture. Always follow the varnish/sealer manufacturer's advice.

Corinthian: Failure to seal doors within one month from the date of delivery with two coats of paint or sealer/varnish to both faces and all edges, including top and bottom, will void warranty. The entire door should be Finished immediately after fitting and before hanging; this includes behind the hinges, and lock and most importantly, the top and bottom edges should be Finished. Always follow the paint/stain manufacturer's instructions on the number of coats required. The top, bottom and sides of the door need to receive the same number of coats as the door face.

This requirement has not been met and may void warranty.



16.

AS 2688; 4.1.2; 7.2: - Doors shall have a clearance of 3 ± 1 mm between vertical members of a door frame/door jamb and door leaves.

This requirement has not been met.

4.1.2 Doorsets

For doors exceeding the dimensions of Table 4.1, structural adequacy shall be ensured, and the tolerances given in Table 4.1 shall still apply.

Doors shall have a clearance of 3 ± 1 mm between the vertical and horizontal members of a door frame/door jamb.

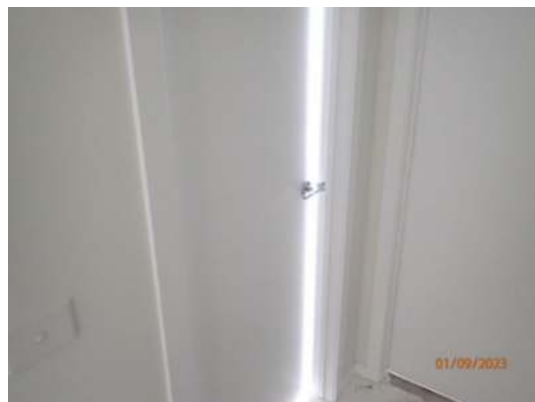
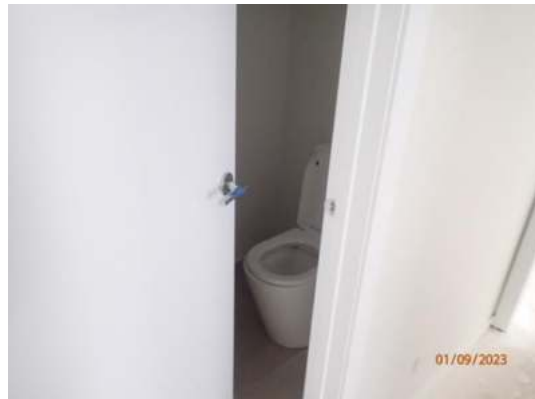
Clearance at the bottom of the door shall not exceed 15 mm after the installation of floor coverings.

NOTE: For doors complying with the NCC requirements for lift-off doors, the 3 ± 1 mm clearance at the top of the door does not apply.

7.2 CLEARANCES FOR HINGED DOORS

Door leaves shall be fitted to their door frames to meet the clearance requirements set out in Clause 4.1.2.

NOTE: The leading edges of doors may be splayed if required to prevent binding between stile and jamb.





17.

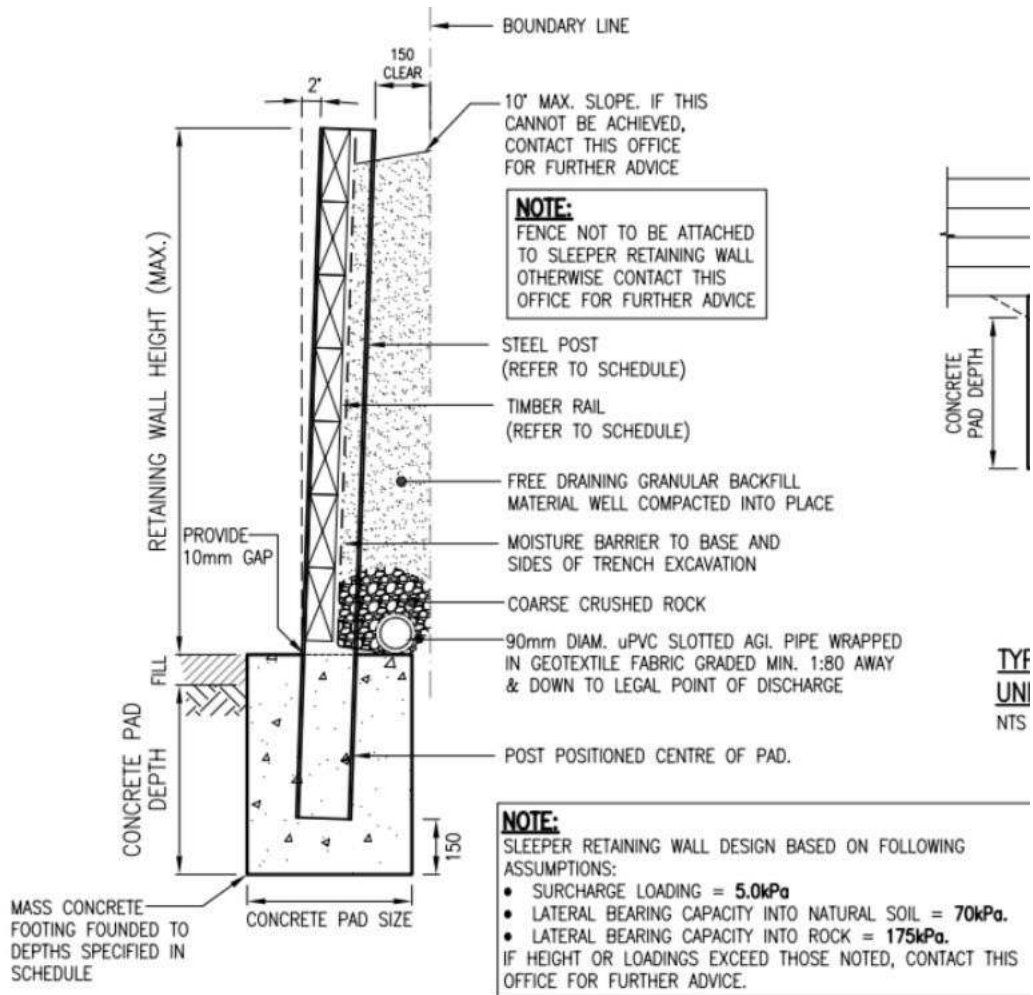
The Domestic Building Contracts Act 1995; Implied Warranties, sect. 8(a): - The building contractor warrants that work will be carried out in accordance with the plans and specifications set out in the contract.

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;

Pipes to be connected to legal point of discharge.



TYPICAL STEEL POST & TIMBER SLEEPER RETAINING WALL DETAIL – RETAINING CUT
N.T.S.





18.

NCC; O2.4.1, F2.4.1, & P2.4.1: -

- Objective – safeguard the occupants and protect the building from damage
- Functionality – avoid creation of unhealthy or dangerous conditions
- Performance – prevent water from penetrating into concealed spaces

Toilet pans have not been fully sealed and as such, do not comply with these requirements.

Objective

O2.4.1 Wet areas

The Objective is to safeguard the occupants from illness or injury and protect the building from damage caused by the accumulation of internal moisture arising from the use of *wet areas* in a building.

Functional statements

F2.4.1 Wet areas

A building is to be constructed to avoid the likelihood of—

- (a) the creation of any unhealthy or dangerous conditions; or
- (b) damage to building elements,

caused by dampness or water overflow from bathrooms, laundries and the like.

Performance Requirements

P2.4.1 Wet areas

To protect the structure of the building and to maintain the amenity of the occupants, water must be prevented from penetrating—

- (a) behind fittings and linings; or
- (b) into concealed spaces,

of sanitary facilities, bathrooms, laundries and the like.



19.

AS 4773.2: - Articulation Joints (AJ's) shall be vertical (not toothed).

Toothed articulation joints to this dwelling's brickwork are non-compliant.

7.2 ARTICULATION JOINTS

Where appropriate, articulation joints shall be used in masonry walls to limit the potential cracking or distress that could be caused by footing movement.

Articulation joints shall be provided in unreinforced masonry walls longer than 5 m long. This requirement does not apply to slabs and footings that have been designed in accordance with AS 2870 for non-articulated masonry.

Articulation joints are not required for Class A and Class S sites or for reinforced masonry designed in accordance with Section 12.

Articulations joints shall not be located above garage door openings.

NOTE: Articulation joints in line with the edge of the opening are permitted.

Articulation joints shall be vertical (not toothed), full-height of the masonry, and free of mortar.



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 | 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 |

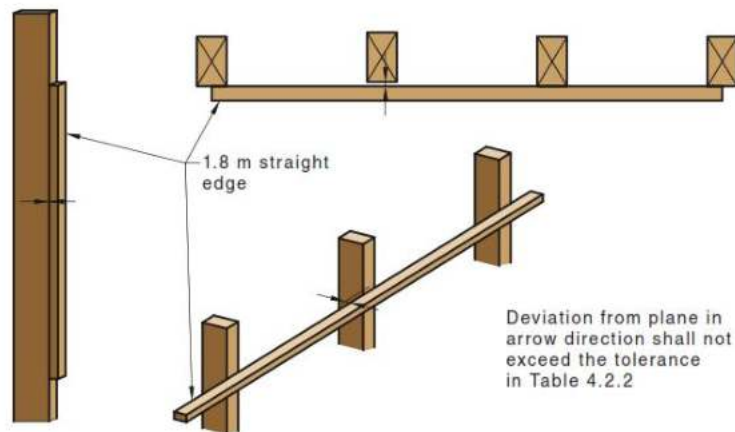
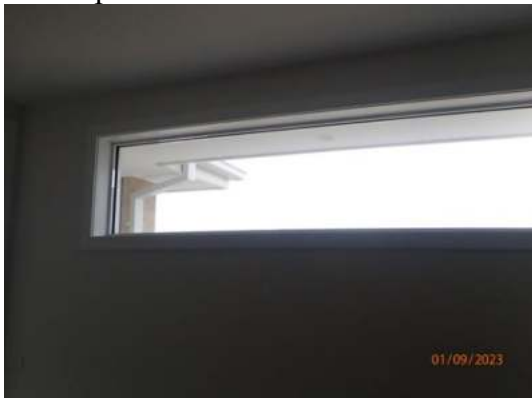


FIGURE 4.2.2(A) ASSESSING FRAMING TOLERANCE



Out of plumb



Ceiling out of level - WIR



21.

AS 2589; 4.2.2: -Lined wall surfaces, internal and external, are defective if they deviate from plain (bow) by more than 4 millimetres within any 1.8 metre length of wall.

Visible hollows defined by thickening of skirting and cornice lines required plaster floating / skimming to fill the hollow.

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 |

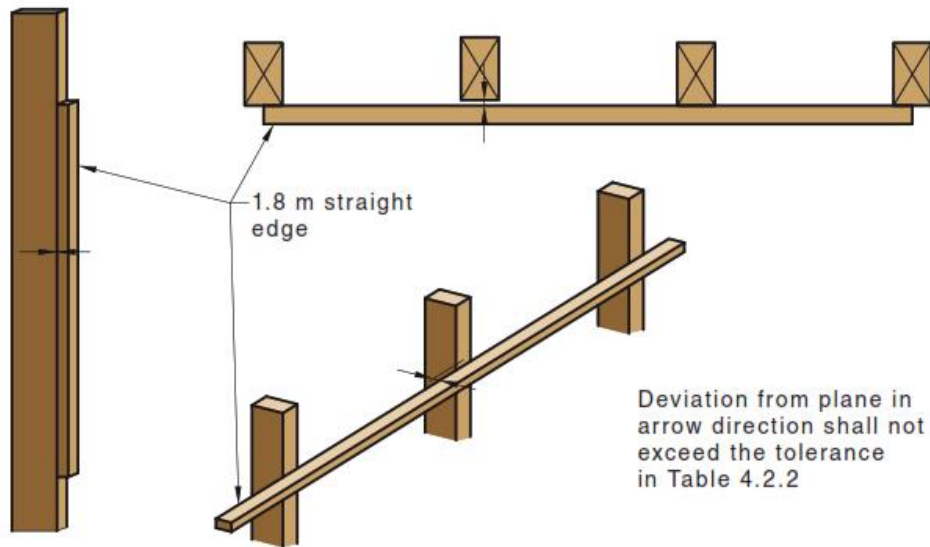
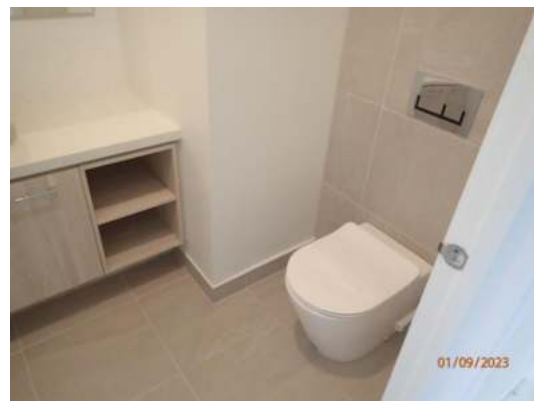
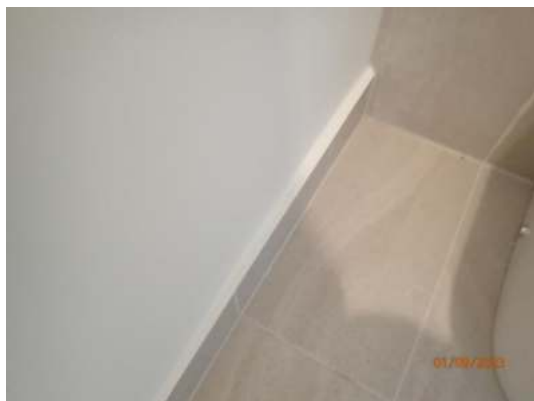


FIGURE 4.2.2(A) ASSESSING FRAMING TOLERANCE



22.

NCC 2019; 3.12.3.3 & A6.0: -An external door between a Class 1 building and an opening must be sealed when serving a conditioned space. This door is classed as an external door in the NCC as it separates an air-conditioned environment (Class 1) with the external environment (Class 10).

Please note that the NCC under A6.0 (2) calls for each class of building to be treated as separate. However; under A6.0 exemption 1, it allows dealing as one class if the difference is less than 10%. As such the builder if treating as:

- Separate: The builder must class the door as external and seal it.
- All as Class 1: The builder must fully seal the panel lift doors to the garage as these are now external parts of a class one building.

This requirement has not been met.

3.12.3.3 External windows and doors

- (a) An external door, internal door between a Class 1 building and an unconditioned Class 10a building, openable *window* and other such opening must be sealed when serving—
 - (i) a *conditioned space*; or
 - (ii) a *habitable room* in *climate zones* 4, 5, 6, 7 and 8.
- (b) A seal to restrict air infiltration—
 - (i) for the bottom edge of a door, must be a draft protection device; and
 - (ii) for the other edges of a door or the edges of an openable *window* or other such opening, may be a foam or rubber compressible strip, fibrous seal or the like.
- (c) A *window* complying with the maximum air infiltration rates specified in AS 2047 need not comply with (b)(ii).

A6.0 Determining a building classification

- (1) The classification of a building or part of a building is determined by the purpose for which it is designed, constructed or adapted to be used.
- (2) Each part of a building must be classified according to its purpose and comply with all the appropriate requirements for its classification.



23.

AS 3740; 3.9.1: - Water stop angles at cavity sliding doors shall return / terminate into the door frame and be waterproofed in order to comply with the requirements of this AS.3740 and the NCC.

Water stops to this dwelling have not met this requirement.

3.9 JUNCTIONS

3.9.1 Perimeter flashing

3.9.1.1 General

The following list specifies the minimum requirements for the treatment for various junctions. Junctions may be either wall to floor or wall to wall. Either the floor or wall may be waterproof, water resistant or have no treatment specified.

The types of junctions that shall be used are as follows:

- (a) *Type 1* Where waterproof to waterproof surfaces meet, the waterproofing shall be continuous across the junctions and, where required, incorporate an appropriate bond breaker.
- (b) *Type 2* Where waterproof to water-resistant surfaces meet, a bead of sealant shall be deemed to be a waterproof junction.
- (c) *Type 3* Where water-resistant to water-resistant surfaces meet, a bead of sealant shall be deemed to be a water-resistant junction.
- (d) *Type 4* Where non-water-resistant to water-resistant surfaces meet, a bead of sealant shall be deemed to be a water-resistant junction.
- (e) *Type 5* Perimeter flashing to wall/floor surfaces shall be continuously sealed to the horizontal surface and have a vertical leg of a minimum of 25 mm above the finished floor level, except across doorways, and the horizontal leg shall be a minimum width of 50 mm.

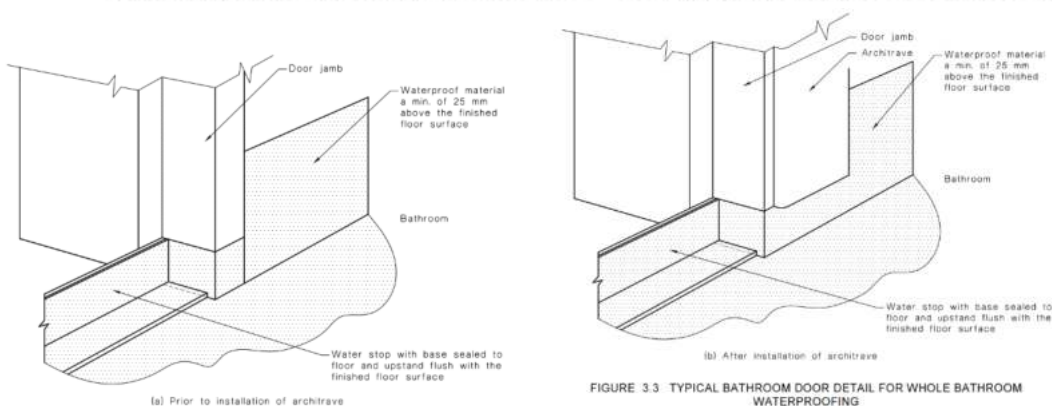
3.9.1.2 Perimeter flashing at floor level openings

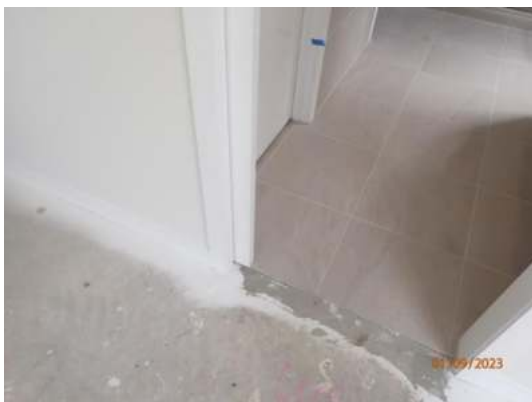
The following applies:

- (a) *For whole wet area floor waterproofing* A water stop that has a vertical leg finishing flush with the top of the finished floor level shall be installed at floor level openings. The floor membrane shall be terminated to create a waterproof seal to the water stop and to the perimeter flashing.

NOTE: For typical bathroom detail for whole bathroom waterproofing, see Figures 3.3(a) and 3.3(b).

- (b) *For other than whole wet area floor waterproofing* A water stop that has a vertical leg finishing flush with the top of the finished floor level shall be installed at floor level openings. The water stop shall be waterproofed to the perimeter flashing.





24.

AS 4386: - On completion of installation all screwheads to be capped or concealed.

The cabinetry to this dwelling has not met this requirement.

13 ON COMPLETION OF INSTALLATION

Before handing over the completed assembly, the following shall be carried out:

- (a) Clean all components of dust and debris.
- (b) Test all doors, drawers and hardware for operation and check that alignments match specifications.
- (c) Check for rough edges and sand, or smooth, as necessary.
- (d) Cap or conceal all visible screwheads.
- (e) Fill gap between wall and panel with a paintable gap filler, where cabinets, infill panels, refrigerator panels, worktops and any other finished panels butt to walls.



25.

AS 1860.2; clause 12: - Particle board flooring shall not be sanded more than 2mm within 50mm of any supported edge. A maximum of 1mm may be sanded off to the remaining general panel area.

Swelling / hygro-expansion of the particle board flooring presents as in-excess of 2mm to the supported edges. Sanding of the flooring may result in a breach of AS.1860.2 and the manufacturer's installation guide.

12 SURFACE FINISHING

The following requirements apply to the finishing of particleboard flooring:

- (a) The floor shall be inspected for dampness before proceeding with finish operations; if found to be excessively damp, it shall be left until its moisture content is 15% or less.

NOTE: This is particularly important where exposure to weather has occurred.

- (c) If the floor is to be covered with carpet, the surface shall be firm and tight with no loose flakes or particles.

NOTES:

- 1 If the surface has been exposed to the weather, rough or uneven areas should be spot sanded after punching the nails or countersinking the screws.
- 2 Full sanding may be necessary if the particleboard flooring has been subjected to prolonged rain during the exposure period.
- 3 Sanding before carpet laying should be with 40-60 grit closed coat paper only.

- (e) The depth of material removed shall not exceed the following, except where otherwise specified by the manufacturer:

(i) Over the general panel area 1 mm.

(ii) Within 50 mm of any supported edge 2 mm.

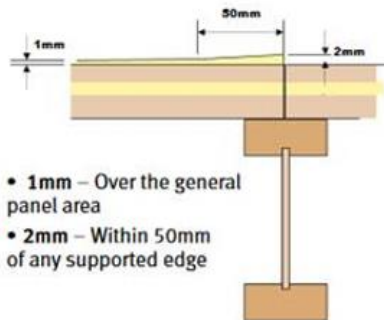
- (f) All surfaces shall be cleaned to remove dust.

Extract from CHH Manufacturer installation guide:

Platform Exposure

The product may be exposed to the weather for up to three months. However, it is always advisable to enclose the building as soon as possible after laying the floor.

Minor swelling that may result due to prolonged exposure to weathering (resulting from the hygro-expansivity of particleboard) can be removed by sanding following the enclosure of the building. The depth of material removed shall not exceed the following:



- 1mm – Over the general panel area
- 2mm – Within 50mm of any supported edge



26.

AS 3958.1, part 5.4.3, sub (a) & (f): - cutting of tiles must be smooth and of an even width.

The installation fails these requirements.

5.4.3 Fitting

The cutting and fitting of tiles and accessories should be carried out as follows:

- (a) Cut edges smooth and install the tile without jagged or flaked edges.
- (b) Fit the tile closely where the edges will be covered by trim, escutcheons or other similar devices.
- (c) Do not install single tiles in more than one piece unless no alternative is possible.
- (d) Unless otherwise specified, maintain the heights of wall tile work in full courses to the nearest obtainable dimension.
- (e) With due allowance to tolerances for the tiles, make the corners of all tiles flush and level with corners of adjacent tiles.
- (f) Keep all joint lines, including mitres, straight and of even width, with due allowance for the tolerance of the tile.



Tiles to internal corner cut short



27.

AS 2589; 3.1.4: - A level 4 finish for all gypsum linings is the acceptable standard for all habitable and visible parts of the dwelling. All jointing cement / jointing compound shall be finished evenly and be free of tool marks and ridges in preparation for decoration.

Areas of the plastering have not met these requirements.

Note: Garage areas also require a level 4 finish.

1.2 APPLICATION

This Standard provides a choice of different levels of finish, which allows for flexibility of application. Unless otherwise specified, compliance with this Standard is achieved by a Level 4 finish for all gypsum linings except for those areas which are non-visible and generally non-habitable (i.e. non-walk-in cupboards, concealed storage areas and non-livable attics) where a Level 3 finish is acceptable.

This Standard is suitable for use with gypsum plasterboard in accordance with AS/NZS 2588, fibre-reinforced gypsum linings in accordance with Clause 2.3 and gypsum cornices in accordance with Clause 2.4.

3.1.4 Level 4

Level 4 shall be the default level for gypsum lining.

Flat, matt 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 cement/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.



28.

AS 1860.2; 10.3: - Fixings shall be driven flush or maximum 1mm below the surface.

Fixing heads left proud may be seen and felt through the future floor coverings and cause premature wear of carpets and vinyls.

Nails, applied by hand or with a nailing machine, shall comply with the following:

- (a) Nails shall be driven flush initially and not punched below the surface until immediately prior to sanding (see Clause 12).
- (b) Nailing machines shall be adjusted so that the heads of the nails penetrate the surface by not more than 1 mm. The use of a flush drive attachment, a chisel drive nail machine or similar is required.



Example – check all
29.

It was noted the exhaust system installed in the bathroom, sanitary compartment or laundry have not been discharged in accordance with NCC 2019 part 3.8.7.3, as such the builder is to vent the roof space via a shaft or duct to outside air or, to the roof space in accordance with NCC 2019 part 3.8.7.4 as per the insert below.

3.8.7.3 Flow rate and discharge of exhaust systems

- (a) An exhaust system installed in a kitchen, bathroom, *sanitary compartment* or laundry must have a minimum flow rate of—
 - (i) 25 L/s for a bathroom or *sanitary compartment*; and
 - (ii) 40 L/s for a kitchen or laundry.
- (b) Exhaust from a bathroom, *sanitary compartment*, or laundry must be discharged—
 - (i) directly or via a shaft or duct to *outdoor air*, or
 - (ii) to a roof space that is ventilated in accordance with 3.8.7.4.

3.8.7.4 Ventilation of roof spaces

- (a) Where an exhaust system covered by 3.8.7.3 discharges into a roof space, the roof space must be ventilated to *outdoor air* through evenly distributed openings.
- (b) Openings *required* by (a) must have a total unobstructed area of 1/300 of the respective ceiling area if the roof pitch is more than 22°, or 1/150 of the respective ceiling area if the roof pitch is not more than 22°.
- (c) 30% of the total unobstructed area *required* by (b) must be located not more than 900 mm below the ridge or highest point of the roof space, measured vertically, with the remaining *required* area provided by eave vents.



Duct not connected

30.

NCC 2019, 3.12.1.1: - Where required, insulation must be installed so that it abuts or overlaps adjoining insulation, and forms a continuous barrier with ceilings, walls, bulkheads, floors or the like, in accordance with Clause 3.12.1.1, (a), (i) & (ii) below.

This installation has not met these requirements.

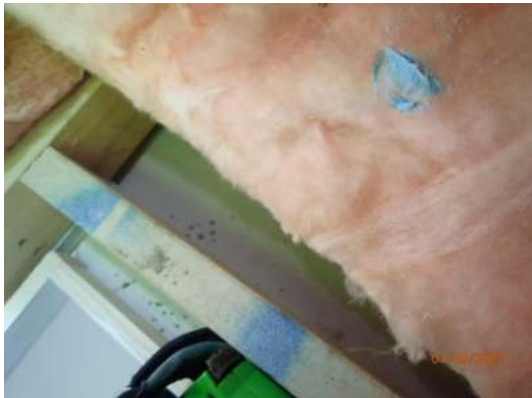
Acceptable Construction Practice

3.12.1.1 Building fabric thermal insulation

- (a) Where *required*, insulation must comply with AS/NZS 4859.1 and be installed so that it—
- (i) abuts or overlaps adjoining insulation other than at supporting members such as columns, studs, noggings, joists, furring channels and the like where the insulation must butt against the member; and
 - (ii) forms a continuous barrier with ceilings, walls, bulkheads, floors or the like that inherently contribute to the thermal barrier; and

Explanatory information:

1. For example, in a two storey house with the second storey set back, the insulation in the first storey wall, the second storey wall and the roof over the set-back must be continuous. Therefore if the roof over the set-back has insulation on a horizontal ceiling, then insulation is also needed on the vertical in any ceiling space in order to connect the ceiling insulation to the second storey wall.
2. To form a continuous barrier, insulation should be placed in gaps between window and door jambs, heads and sills, and the adjoining wall framing unless a gap is otherwise *required*. This may need to be compressible to allow for movement between members.



31.

Domestic Building Contracts Act 1995: - The builder warrants that all work will be carried out in a proper and workmanlike manor, with reasonable care and skill.

The following items will need to be completed or repaired same.

Domestic Building Contracts Act 1995
Act No. 91/1995

Part 2—Provisions that Apply to all Domestic Building Contracts

s. 8

PART 2—PROVISIONS THAT APPLY TO ALL DOMESTIC BUILDING CONTRACTS

Division 1—General Warranties⁴

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;



Gap





Service window



Fascia out of level & alignment with bed joint



Reapply caulking





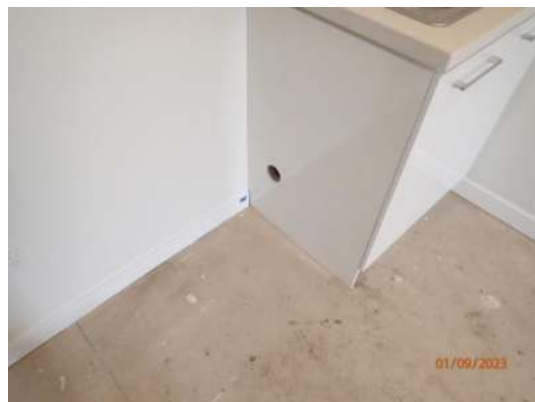
Gap



Install light



Skirting short

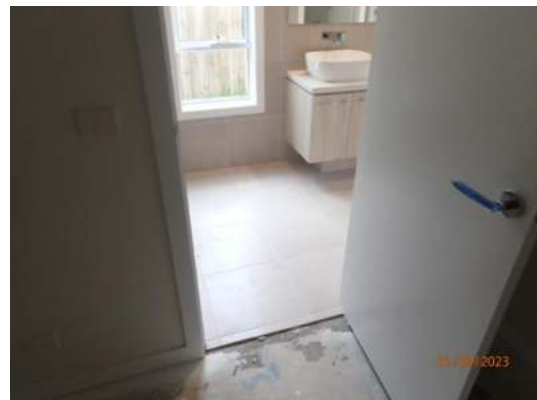




Rework plate installation



Adjust striker



Gap



Caulk





Install hinge



Repair - fridge void



Arch out of plumb – top section



Service windows



Check low flow



Install end panel spacer



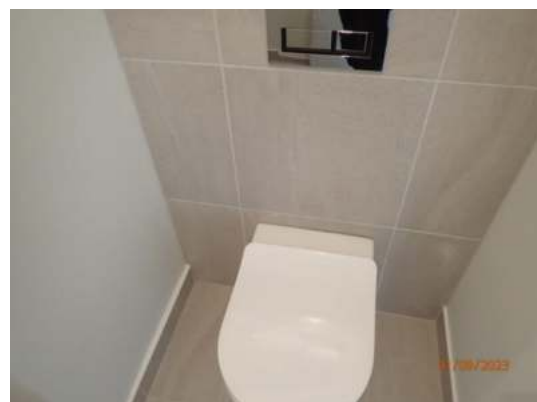
Gap



Latch not flush



Caulk





Stricker not recessed



Gaps



Caulking incomplete through

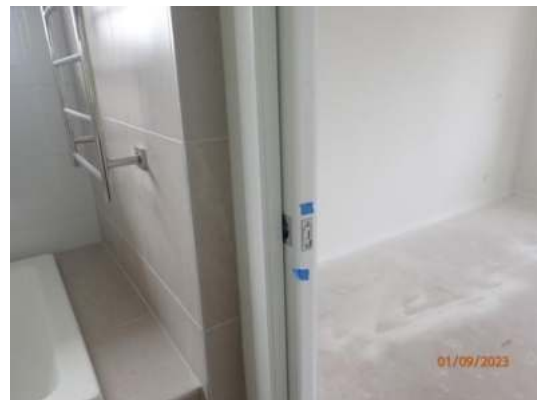


Master – service window cannot open





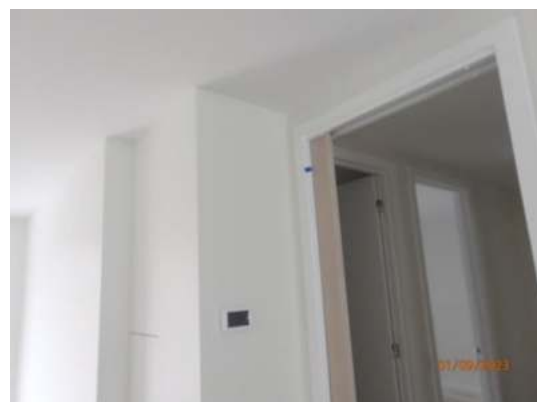
Rework plate installation - rough



Cover plate short



Adjust cavity slider margins





Install hinge



Caulk



Install manhole cover



Install latch to master double doors



Gap to kickers – check all





Install screws



Install globes



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 Certifier as defined in the Queensland Building Act, of 1975. 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 Certifier, 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.

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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.