



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:	Single Storey
Dwelling configuration:	House and Garage
Nature of works:	New Build
Stage of inspection:	Pre Pour-Steel
Construction Type:	Multiple Claddings
Garage:	Attached
Foundations:	Waffle Slab

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 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 owners under these two acts.

Schedule of Defects:

Defects, observations and other related comments from Pre Pour-Steel Inspection on.

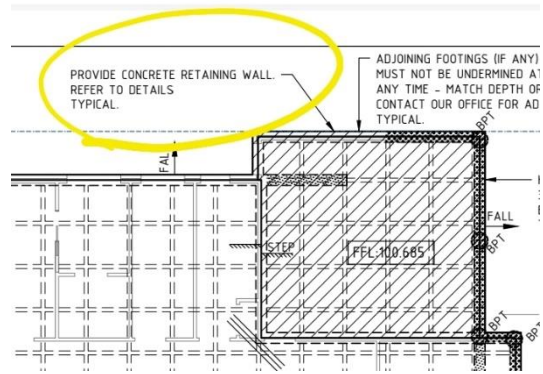
Note; the concreters must ensure the correct concrete cover to all steel reinforcement during the pour.

All photos within this report are examples only. Builder to check all areas.

To be completed prior to commencing concrete pour

1.

Engineer & builder to clarify concrete retaining wall requirements. Could not locate any details on engineering plans provided. No allowance for retaining wall on site.



2.

NCC 2019, 3.2.3.2 (d): - Pod debris and steel offcuts can potentially compromise the minimum concrete cover to reinforcement. The minimum distance from the outer edge of reinforcement bars to an internal surface is 20mm.

This dwelling's ribs and edge beams contain excessive amounts pod debris and / or steel offcuts.

3.2.3.2 Steel reinforcement

- (d) Footings and slabs-on-ground must have concrete cover between the outermost edge of the reinforcement (including ligatures, tie wire etc.) and the surface of the concrete of not less than the following:
- (i) 40 mm to unprotected ground.
 - (ii) 30 mm to a membrane in contact with the ground.
 - (iii) 20 mm to an internal surface.
 - (iv) 40 mm to external exposure.





3.

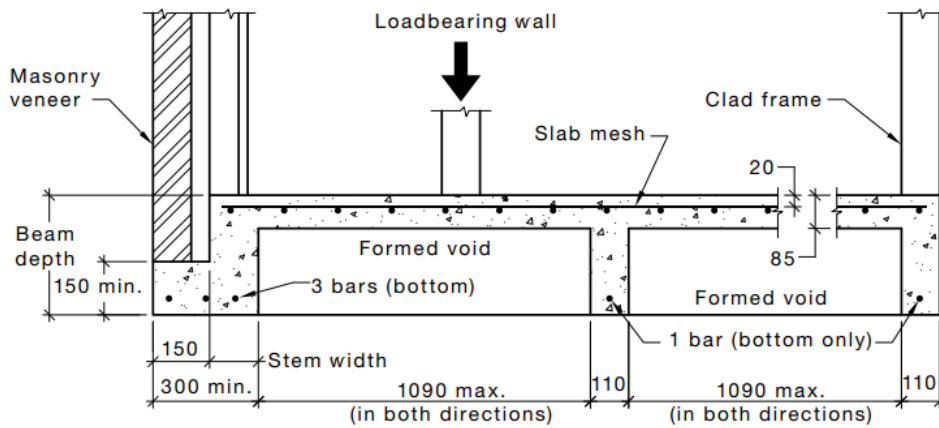
AS 2870; 3.4.1: - The minimum widths for edge beams and internal ribs shall be in accordance with Figure 3.4 (below).

Beam and rib widths to this dwelling do not meet this minimum requirement due to pods having moved. Areas require adjustment prior to the pour and must be maintained throughout the pour.

3.4 WAFFLE RAFTS

3.4.1 General

Waffle rafts shall be specified in accordance with Figure 3.4. Modifications to the details given in Figure 3.4 shall not be undertaken without engineering design in accordance with Section 4.



DIMENSIONS IN MILLILMETRES

FIGURE 3.4 (in part) WAFFLE RAFT



4.

AS 3500.5; 2.4.7 & 4.5.1: -The smart pan connection for the WC and/or shower has not been installed yet.

The current unglued installation should be installed by a registered plumber but likely be assembled by the concreter on the day of pour.

The following to be completed to this installation if assembled by the concreter –

- If a large area of mesh is cut out, the concreter will need to put extra support steel around the smart pan.
- The builder will need to substantiate the smart pan installation with photographs that document the compliant use of solvent cement and priming fluid.

Solvent cement shall not be installed without priming fluid. Photographic substantiation to be forwarded to client.

2.4.7 Solvent cement joints and priming fluid

Pipes and fittings of PVC material shall be joined by solvent cementing (using a suitable cleaner/primer) in accordance with AS/NZS 2032.

Solvent cements and priming fluids for PVC-U and PVC-M pipes and fittings shall comply with AS/NZS 3879.

Solvent cement shall be Type P, green colour, and priming fluid shall be red colour.

Solvent cement shall not be used without priming fluid.

4.5.1 Solvent cement and priming fluid

Solvent cement and priming fluid used for jointing plastic pipes and fittings shall comply with AS/NZS 3879 as appropriate.

Solvent cement shall not be used without priming fluid.

NOTE: The colour of the priming fluid should be different from the colour of the pipe to which it is applied and the solvent cement. Generally, the priming fluid is pink. The solvent cement is—

- for Type P PVC, green (Australia) or blue or gold (New Zealand);
- for Type N PVC, blue (Australia) or clear (New Zealand);
- for Type P ABS, grey; or
- for Type G, clear.

AUSTRALIAN STANDARDS

AS/NZS 3500 Plumbing and drainage Standards series provides that solvent cement shall not be used without priming fluid; that the priming fluid be red; and that they comply with AS/NZS 3879.

SAFE USE

Ensure that directions on the containers of solvent cement and primers are followed at all times and always refer to the manufacturer's Material Safety Data Sheet (MSDS).



Red priming fluid



Blue Solvent Cement Type N



Green Solvent Cement Type P



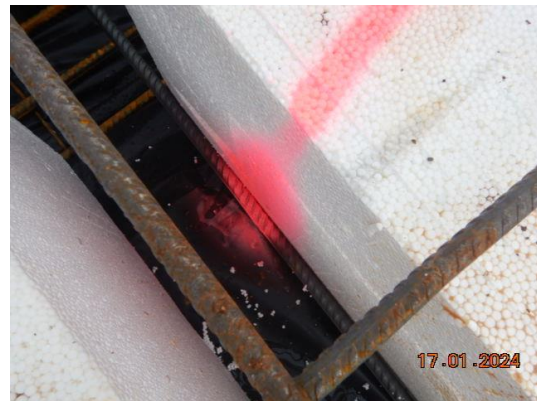
5.

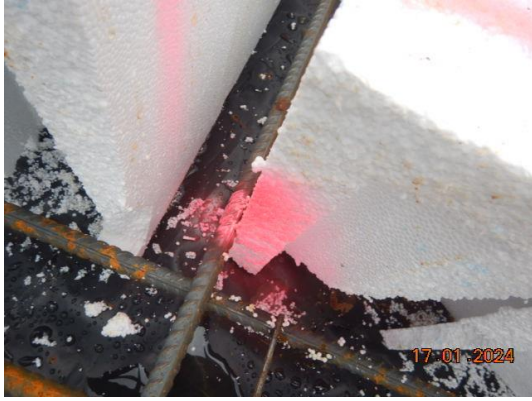
NCC 2019, 3.2.3.2 (d): - The minimum distance from the outer edge of reinforcement bars to an internal surface (such as a plumbing pipe, waffle pod, or the like) is 20mm.

Areas of reinforcement steel to this dwelling do not comply with this minimum requirement.

3.2.3.2 Steel reinforcement

- (d) Footings and slabs-on-ground must have concrete cover between the outermost edge of the reinforcement (including ligatures, tie wire etc.) and the surface of the concrete of not less than the following:
- (i) 40 mm to unprotected ground.
 - (ii) 30 mm to a membrane in contact with the ground.
 - (iii) 20 mm to an internal surface.
 - (iv) 40 mm to external exposure.





6.

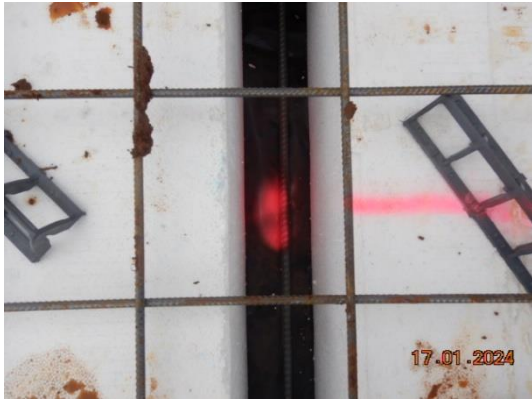
NCC 2019, 3.2.3.2 (d): - The minimum distance from the outer edge of reinforcement bars and a vapour barrier in contact with the ground is 30mm.

Areas of reinforcement steel to this dwelling do not comply with this minimum requirement.

3.2.3.2 Steel reinforcement

- (d) Footings and slabs-on-ground must have concrete cover between the outermost edge of the reinforcement (including ligatures, tie wire etc.) and the surface of the concrete of not less than the following:
- (i) 40 mm to unprotected ground.
 - (ii) 30 mm to a membrane in contact with the ground.
 - (iii) 20 mm to an internal surface.
 - (iv) 40 mm to external exposure.





7.

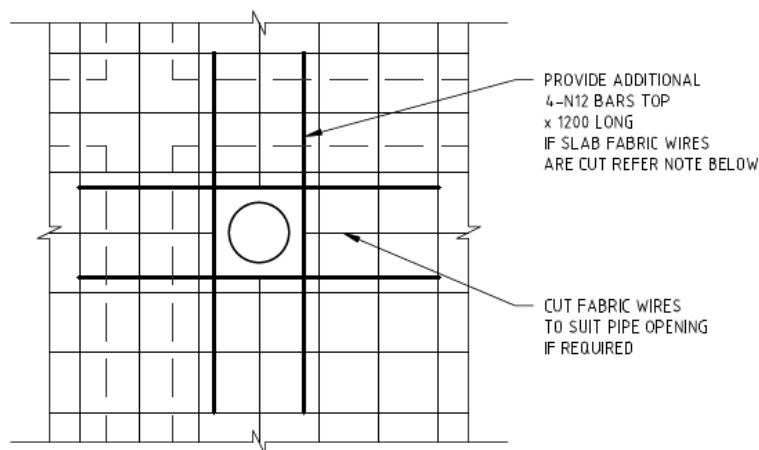
The Domestic Building Contracts Act 1995; Implied Warranties, sect. 8(a): - The building contractor warrants that work will be carried out in accordance with the plans and specifications set out in the contract.

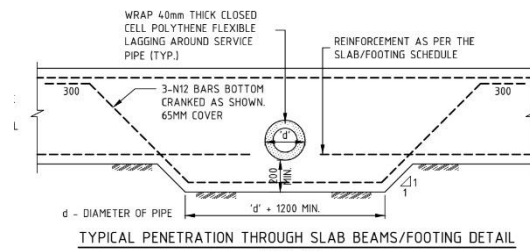
8. Implied warranties concerning all domestic building work

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;

There are a small number of pipe penetrations that have not been complimented with the required steel as per the attached engineering extract.





No cover to pipes through slab beams/ no additional reinforcement installed as per engineering plans

8.

AS 2870, 5.3.2 (e) & NCC 2022, 4.2.11: - At 'T & 'L' intersections, the bars shall be continued across the full width of the intersection.

There are areas where this requirement has not been met.

AS 2870

5.3.2 Reinforcement

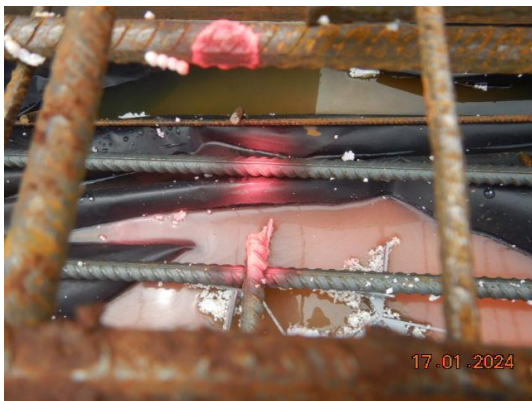
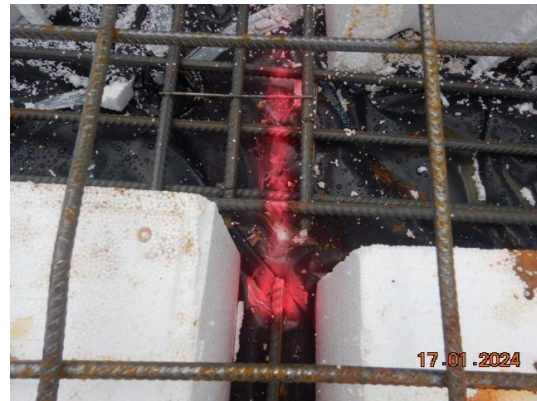
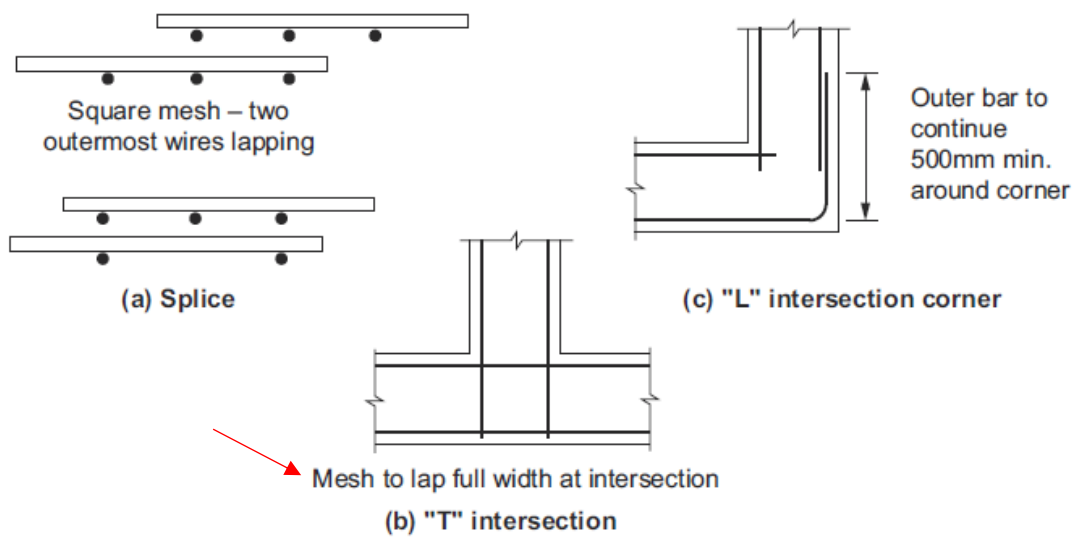
(e) Reinforcing bars shall have a lap length at splices not less than 500 mm up to a bar diameter of 12 mm, and not less than 700 mm up to a bar diameter of 16 mm. At T- and L-intersections, the bars shall be continued across the full width of the intersection. At L-intersections, one outer bar shall be bent and continued 500 mm, or a bent lap bar 500 mm long shall be provided on each leg.

NCC 2022

Table 4.2.11b: Minimum lap for reinforcement

Reinforcement	Minimum splice	Minimum lap at "T" intersections	Minimum lap at "L" intersections
Steel reinforcing bars ≤12 mm diameter	500 mm	Full width across the junction	One outer bar must be bent and continue 500 mm (min) around corner
Steel reinforcing bars >12 mm to ≤16 mm diameter	700 mm	Full width across the junction	One outer bar must be bent and continue 500 mm (min) around corner
Trench mesh	500 mm	Full width across the junction	Full width across the junction
Square and rectangular mesh	The two outermost transverse wires of one sheet must overlap the two outermost transverse wires of the other	Not applicable	Not applicable

Figure 4.2.11a: Splice, L and T intersections



9.

NCC 2019, 3.2.3.2 (f)(i): - All reinforcement must be firmly fixed in place to prevent it moving during the pour

Areas of reinforcement have not been tied and therefore do not comply with the NCC.

3.2.3.2 Steel reinforcement

- (f) Reinforcement must be placed as follows:
- (i) All reinforcement must be firmly fixed in place to prevent it moving during concreting operations.
 - (ii) Reinforcement must be supported off the ground or the forms by bar chairs made from wire, concrete or plastic.
 - (iii) When using wire chairs the minimum concrete cover (see 3.2.3.2(d)) to the uncoated portion of the chair must be obtained.
 - (iv) Wire chairs on soft ground or plastic membrane must be placed on flat bases.
 - (v) Bar chairs must be spaced at not more than 800 mm centres for steel fabric.



10.

NCC 3.2.2.3: - Footings and slabs must be founded on soil with an allowable bearing pressure of 50 kPa.

The documented areas present as disturbed because of recent rain.

As we do not possess the equipment to accurately determine the kPa, the homeowner should seek determination from the building surveyor directly. The engineer may need to be engaged.

3.2.2.3 Foundations for footings and slabs

Footings and slabs, including internal and edge beams, must be founded on soil with an allowable bearing pressure as follows:

- (a) Slab panels, load support panels and internal beams — natural soil with an allowable bearing pressure of not less than 50 kPa or *controlled fill* or *rolled fill* compacted in accordance with 3.2.2.2.
- (b) Edge beams connected to the slab — natural soil with an allowable bearing pressure of not less than 50 kPa or *controlled fill* compacted in accordance with 3.2.2.2(a)(iii) and extending past the perimeter of the building 1 m with a slope ratio not steeper than 2 horizontal to 1 vertical (see Figure 3.2.2.1).
- (c) Pad footings, strip footings and edge beams not connected to the slab, must be—
 - (i) founded in natural soil with an allowable bearing pressure of not less than 100 kPa; or
 - (ii) for Class A and S *sites* they may be founded on controlled sand fill in accordance with 3.2.2.2(a).



11.

AS 3000; 5.6.2.5: - Any conductive reinforcing within a concrete floor or wall forming part of a shower or bathroom shall be bonded to the earthing system of the electrical installation.

The reinforcement mesh to this dwelling has not been earthed and therefore has not met this requirement.

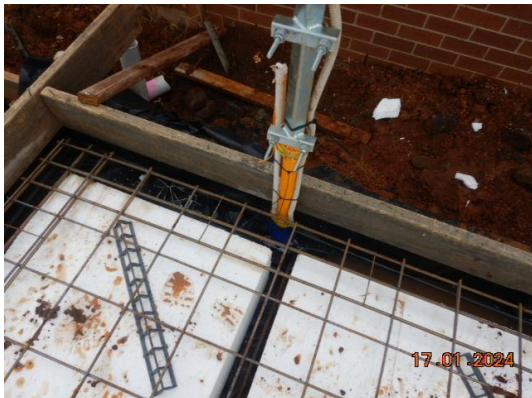
5.6.2.5 Showers and bathrooms

Any conductive reinforcing within a concrete floor or wall forming part of a shower or bathroom shall be bonded to the earthing system of the electrical installation to avoid any potential differences that may occur between conductive piping (including taps, drain, etc.) connected to, or in contact with, the electrical installation earthing system and the concrete floor or wall.

An equipotential bonding conductor, in accordance with Clause 5.6.3, shall be connected between the reinforcing material and any part of the earthing system within the room.

NOTES:

- 1 A conductive grille or reinforcement mesh laid in the floor and connected to the equipotential bonding conductor may also be used.
- 2 Conductive tie-wires used during construction of reinforced concrete structures are considered to be an adequate electrical bond between the conductive reinforcing components. Provided that the reinforcement is satisfactorily electrically connected together, one point of connection of the bonding conductor to the reinforcement is satisfactory where bonding is required at more than one location.
- 3 Although not a requirement for existing concrete floors or walls, the practice should be adopted wherever practicable.



12.

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;



No shower recesses. Builder to clarify if required.

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

This report cannot be reproduced in part; it must only be done so in full.

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.