



## Pre-Pour Concrete Slab Report

Inspection Date: 25 Mar 2020

Property Address: Greenvale Area, Vic



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

# Inspection details

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Property Address: Greenvale Area, Vic

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Date: 25 Mar 2020

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Report Type: New Home Construction

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## Client

Name:

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Email Address:

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Phone Number:

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## Consultant

Name: Les Camilleri Ph: 0411807766

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Email Address: les@masterpropertyinspections.com.au

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Licence / Registration Number: A25361

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Company Name: Master Property Inspections

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Company Address: Victoria

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Company Phone Number: 0411 807766

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## General description of property

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Building Type:	Detached house
Number of Storeys:	Two storey
Siting of the building:	Not Applicable
Gradient:	The land is gently sloping
Site drainage:	The site is inadequately drained, however at this stage of the build
Orientation of the property:	The facade of the building faces northeast Note. For the purpose of this report the façade of the building contains the main entrance door.
Weather conditions:	Dry

## Primary method of construction

Main building – floor construction:	Slab on ground
Main building – wall construction:	Not Applicable
Main building – roof construction:	Not Applicable
Other timber building elements:	NOT APPLICABLE
Other building elements:	Not Applicable

## Special conditions or instructions

Special requirements, requests or instructions given by the client or the client's representative -

There are no special conditions or instructions

# Accessibility

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## Areas Inspected

The inspection covered the Readily Accessible Areas of the property. Please note obstructions and limitations to accessible areas for inspection are to be expected in any inspection.

- The site
- Slab

The inspection does not include areas which are inaccessible due to obstructions, or where access cannot be gained due to unsafe conditions.

## Obstructions and Limitations

The following obstructions may conceal defects:

- Not Applicable

Obstructions increase the risk of undetected defects, please see the overall risk rating for undetected defects.

## Inaccessible Areas

The following areas were inaccessible:

- Not Applicable

Any areas which are inaccessible at the time of inspection present a high risk for undetected building defects. The client is strongly advised to make arrangements to access inaccessible areas urgently.

# Summary

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SUMMARY INFORMATION: The summary below is used to give a brief overview of observations made in each inspection area. The items listed in the summary are noted in detail under the applicable sub headings within the body of the report. The summary is NEVER to be relied upon as a comprehensive report and the client MUST read the entire report and not rely solely on this summary. If there is a discrepancy between the information provided in this summary and that contained within the body of the Report, the information in the body of the Report shall override this summary. (See definitions & information below the summary to help understand the report)

Evidence of safety hazards	<b>Not Found</b>
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Evidence of non compliant works	<b>Found</b>
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Evidence of substandard workmanship	<b>Not Found</b>
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Evidence of incomplete works	<b>Not Found</b>
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## Additional specialist inspections

It is Strongly Recommended that the following Inspections and Reports be obtained prior to any decision to purchase the Property and/or before settlement. Obtaining these reports will better equip the purchaser to make an informed decision.

Not Applicable



# Significant items

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## Safety Hazard

No evidence was found.

## Non Compliant

### Non Compliant 2.01

Location: Post-Pour Slab - All Areas

Finding: Mesh Too Close To The Perimeter.

1. The reinforcement mesh is sitting too close to the perimeter boxing to sections of the dwelling. 40mm to external exposure, to the entire perimeter boxing is required.

This mesh will need to be cut back or repositioned before the slab is poured to provide sufficient concrete cover to the reinforced steel.

Extract from NCC Volume 2:

(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 :

- ( i ). 40mm to unprotected ground.
- ( ii ) 30mm to a membrane in contact with the ground.
- ( iii ) 20mm to an internal surface.

( iv ) 40mm to external exposure.

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All AREAS to the ENTIRE slab should be checked CAREFULLY to identify any further defects that are the same as this defect.



## Non Compliant 2.02

Location: Post-Pour Slab - All Areas

Finding: Trench Mesh or Steel Bars Sitting On Or Touching The Vapour Barrier Membrane.  
2. There are numerous areas where the reinforcement trench mesh or steel bars are sitting on or touching the vapour barrier (membrane).

The reinforcement fabric is designed to be located on bar chairs. The current installation puts the mesh touching the bottom of the trench or waffle beam. Other areas of mesh are in contact with the sides of the beams.

These sections must be repositioned to provide 30mm of concrete cover to comply with the NCC volume 2 section 3.2.3.2 d) (ii).

( ii ). 30mm to a membrane in contact with the ground.

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All AREAS to the ENTIRE slab should be checked CAREFULLY to identify any further defects that are the same as this defect.



## Non Compliant 2.03

Location: Post-Pour Slab - All Areas

Finding: various areas of reinforced steel that has not been secured.

4. I noted various areas of reinforced steel that has not been secured (tie wire or that alike) in a manner to prevent the reinforcement to move during the concrete pour.

These areas must comply with the NCC Volume 2 section 3.2.3.2 (f), (i) inserted below.

(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 800mm centres for steel fabric.

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All AREAS to the ENTIRE slab should be checked CAREFULLY to identify any further defects that are the same as this defect.





## Non Compliant 2.04

Location: Post-Pour Slab - All Areas

Finding: polyethylene vapour barrier not installed as per BCA - Part 3.2.2.6  
Defective Vapour Barrier Installation - Damaged/Punctured and/or overlapping Defective.

It was noted at the time of inspection that a vapour barrier had not be installed in accordance with AS2870 and BCA Part 3.2.2.6.

Whilst the majority of the vapour barrier system has been done correctly there are minor areas of non compliance to repair.

- 1/ All over laps are not taped as described below.
- 2/ All the rips and/or damaged area needs to be taped.
- 3/ Some areas are not up to future ground and/or finished paving or concrete heights and must be extended with 200mm overlay and taped.
- 4/ Somes areas whilst listed above are Damaged / Ripped / Not Consistent And Sealed with 200mm Overlay And Taped / Not High Enough / Non Existent must ALL be repaired.

The polyethylene vapour barrier from beneath the concrete floor slab must be turned up the external side faces of its edge beams. Failing to install the vapour barrier correctly will allow moisture ingress via slab edge dampness into the internal timber wall skins and/or the floor coverings if not done.

The polyethylene vapour barrier must properly extended up the external side faces of the edge beams to at least the height of future finished ground level or paving i.e. 75mm below the damp-proof course and bottoms of the weepholes, after which any termite barriers that are in place, if required, will also need to be properly instated.

Without a vapour barrier installed, these areas are non-compliant with Australian Standards and are susceptible to excessive moisture, which may create major secondary defects as the building ages. Rectification works are necessary as soon as possible to ensure all standards are met.

NCC 2016 Building Code of Australia - Volume Two

3.2.2.6 Vapour barriers

A vapour barrier must be installed under slab-on-ground construction for all Class 1 buildings and for Class 10 buildings where the slab is continuous with the slab of a Class 1 building as follows—

(a) Materials

A vapour barrier must be—

- (i) 0.2 mm nominal thickness polyethylene film; and
- (ii) medium impact resistant, determined in accordance with criteria specified in clause 5.3.3.3 of AS 2870; and
- (iii) be branded continuously “AS 2870 Concrete underlay, 0.2 mm Medium impact resistance”.

(b) Installation

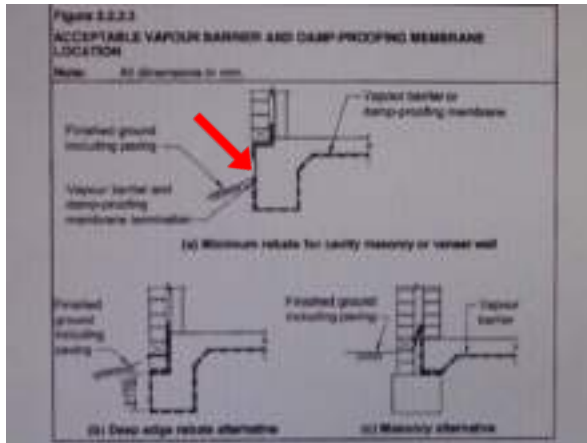
A vapour barrier must be installed as follows—

- (i) lap not less than 200 mm at all joints; and

- (ii) tape or seal with a close fitting sleeve around all service penetrations; and
- (iii) fully seal where punctured (unless for service penetrations) with additional polyethylene film and tape.
- (c) The vapour barrier must be placed beneath the slab so that the bottom surface of the slab is entirely underlaid and extends under edge beams to finish at ground level in accordance with Figure 3.2.2.3.

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All AREAS to the ENTIRE slab should be checked CAREFULLY to identify any further defects that are the same as this defect.



## Non Compliant 2.05

Location: Post-Pour Slab - All Areas

Finding: Pipe penetrations through the vapour barrier.  
The pipe penetrations through the vapour barrier have not been fully taped and require further works.  
There are also numerous cuts and tears throughout the vapour barrier that have not been taped correctly.  
These will need to be taped up and photographed before the pour is started.

I refer the builder to the NCC Volume 2.

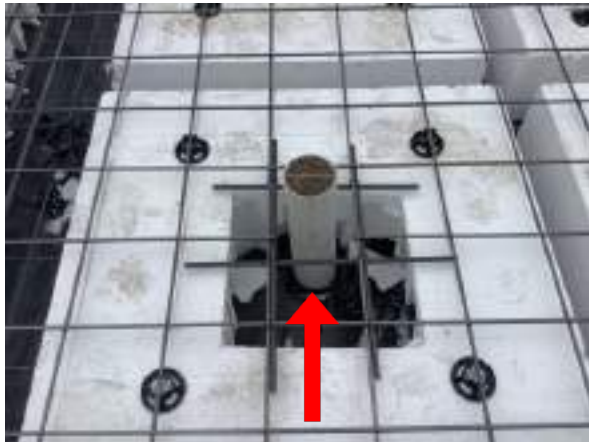
3.2.2.6 Vapour Barriers.

( b ) Installation.

A vapour barrier must be installed as follows -

- ( i ) lap not less then 200 mm at all joins. And
- ( ii ) tape or seal with a close fitting sleeve around all service penetrations.

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All AREAS to the ENTIRE slab should be checked CAREFULLY to identify any further defects that are the same as this defect.





## Non Compliant 2.06

Location: Post-Pour Slab - All Areas

Finding: Defective Earthing To Steel Mesh.

The earthing facility installed to the dwellings slab steel as required in AS 3000 Requires additional wire tie.

I refer the builder to AS 3000, clause 5.6.2.5 that states "Any conductive reinforcing within a concrete floor or wall forming part of a shower or bathroom shall be bonded to the earthing system".



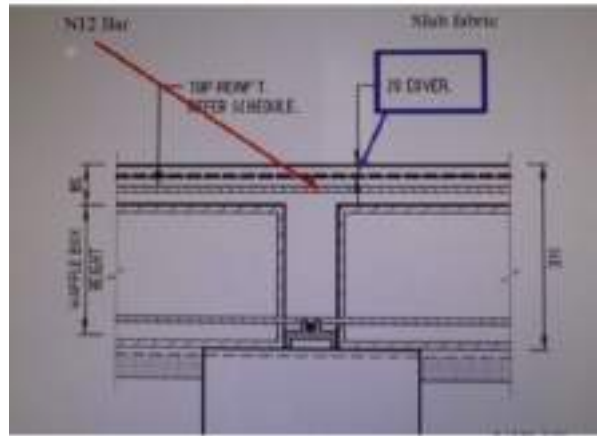
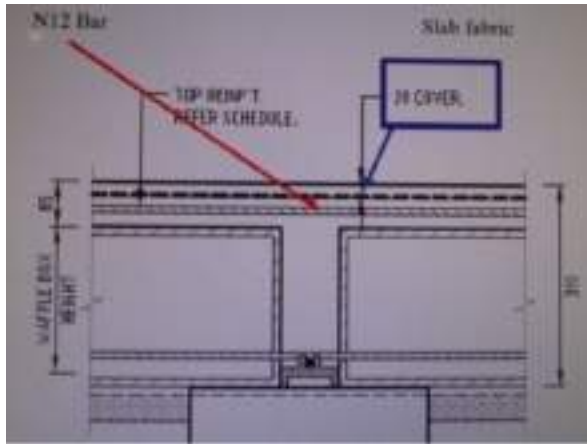
## Non Compliant 2.07

Location: Post-Pour Slab - All Areas

Finding: Min 20mm Slab Fabric For Steel Mesh  
Several N12 bars have been installed to the top of slab fabric. The engineering details calls for such bars to be installed below slab fabric to ensure sufficient concrete cover is provided. The steel must be re-worked below slab fabric.

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All AREAS to the ENTIRE slab should be checked CAREFULLY to identify any further defects that are the same as this defect.



## Substandard Workmanship

No evidence was found.

## Incomplete

No evidence was found.

## Additional comments

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### Particulars of Our 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.

#### 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.

## Noted Items

### For Your Information

#### For Your Information 5.08

Location: For Your Information

Finding: Advice Summary.

This inspection was performed in accordance with current "Australian Standards" & in accordance with current "Standards & Tolerances" as outlined by the Victorian Building Commission.

The inspection is a visual inspection of the property as presented by the builder.

This inspection performed does not in any way attempt to verify site dimensions, finished dimensions of the completed sections or parts of the building, levels, wall alignments, floor alignments, or ceiling alignments.

The inspection performed does not in any way attempt to verify contractual conditions.

This report contains a list of a number of defects that in our judgement require rectification.

## For Your Information 5.09

Location: For Your Information

Finding: Special Notes

Particulars of Our 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.

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## For Your Information 5.10

Location: For Your Information

Finding: Concrete Mix Must Comply With :

### 3.2.3.1 Concrete

Concrete must comply with the following:

- (a) Concrete must be manufactured to comply with AS 3600; and—
- (i) have a strength at 28 days of not less than 20 MPa (denoted as N20 grade); and
- (ii) have a 20 mm maximum nominal aggregate size; and
- (iii) have a nominal 100 mm slump.
- (b) Water must not be added to the mix to increase the slump to a value in excess of that specified.
- (c) Concrete must be placed, compacted and cured in accordance with good building practice.

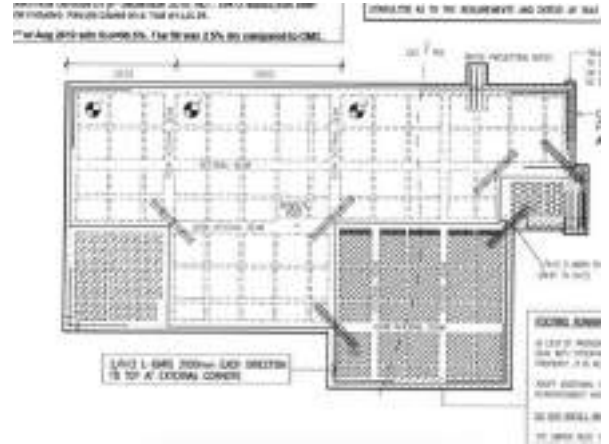


## For Your Information 5.11

Location: General Site Photos

Finding: Site Photos.  
Additional photos are provided for your general reference.





### For Your Information 5.12

Location: Post-Pour Slab - All Areas  
Finding: Thickness Of Steel Mesh.  
Additional photos are provided for your general reference.

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All AREAS to the ENTIRE slab should be checked CAREFULLY to identify any further defects that are the same as this defect.



# Conclusion

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## Building consultant's summary

**The Pre-Pour timber boxing and steel had defects that have been repaired as highlighted in the report whilst I was onsite.**

**The vapour barrier system was incomplete, however the Concretor's have informed me that they will do all the repairs to the vapour barrier once they take the timber boxing off as the concrete starts to set and I can re-inspect this defect at post slab inspection.**



# Terms on which this report was prepared

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