



ManseGroup

02 Independent Quality Assurance: Frame Inspection

02 Independent Quality Assurance: Frame Inspection / [REDACTED]

Complete

Flagged items

19

Inspection type

02 Independent Quality Assurance: Frame Inspection

Job Name

[REDACTED]

Client

[REDACTED]

Site Address

[REDACTED], Australia
[REDACTED]
[REDACTED]

Inspection Date

[REDACTED] 2023

Property description

Single storey
Suspended slab
Timber frame
Sheet roof
Brick Veneer
Rendered brickwork
Lightweight cladding

Inspection completed by

[REDACTED]

Weather

8:30AM: 14°, Sun and some clouds, Wind SW 13km/h, Wind Gusts 26km/h

1.0: GENERAL

9 flagged

INSPECTION PROCESS:

Visual appraisal under normal or special lighting

BOUNDARIES OF THE INSPECTION:

The dwelling and its immediate surroundings within the title boundary on the aforementioned property address. Items inspected are as per the list below.

REPORTING:

Any defects listed in reports will be based on elements that are known to not comply with the following but not limited to; Client supplied project drawings and Specifications, the Building Act 1993, the Building Regulations 2018, National Construction Code/Building Code of Australia Volume Two, AS 4349.0 – 2007 Inspection of buildings, relevant Australian Standards, the Victorian Building Authority Guide to Standards and Tolerances 2015, manufacturers guidelines, and other similar relevant documents.

LEGEND

- DEFECT
- SIGNIFICANT DEFECT
- CLOSED OUT
- OBSERVATION

1.1: GENERAL

9 flagged

1.1.4: Perimeter surface drainage

SIGNIFICANT DEFECT

The highlighted locations do not fall away from the footing, a trench has been formed where water can be trapped and pond.

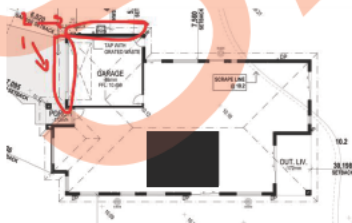


Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

Surface drainage is to be maintained throughout the construction of the house. This is to prevent moisture differences in the soil around the perimeter which could result in movement of footings and foundations. Refer to the specific Engineers drawings/notes and the Soil report. Additionally refer to AS 2870-Residential slabs and footings, part 5.6.3 which outlines specific requirements for class M, H1, H2 and E sites

5.6.3 Drainage requirements

Buildings on moderately, highly or extremely reactive sites shall be provided with drainage systems designed in accordance with the following:

- (a) Surface drainage shall be considered in the design of the footing system and necessary modification shall be included in the design documentation. Surface drainage of the site shall be controlled from the start of site preparation and construction. The drainage system shall be completed by the finish of construction of the building.

1.1.5: Bottom plate overhang

DEFECT

The highlighted recessed slab section have been grouted over and overhang appears to be greater than 20mm, engineer to review

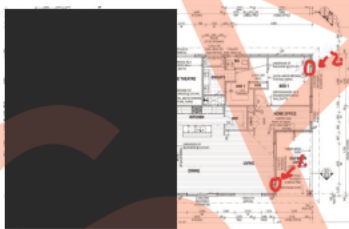


Photo 6



Photo 7



Photo 8

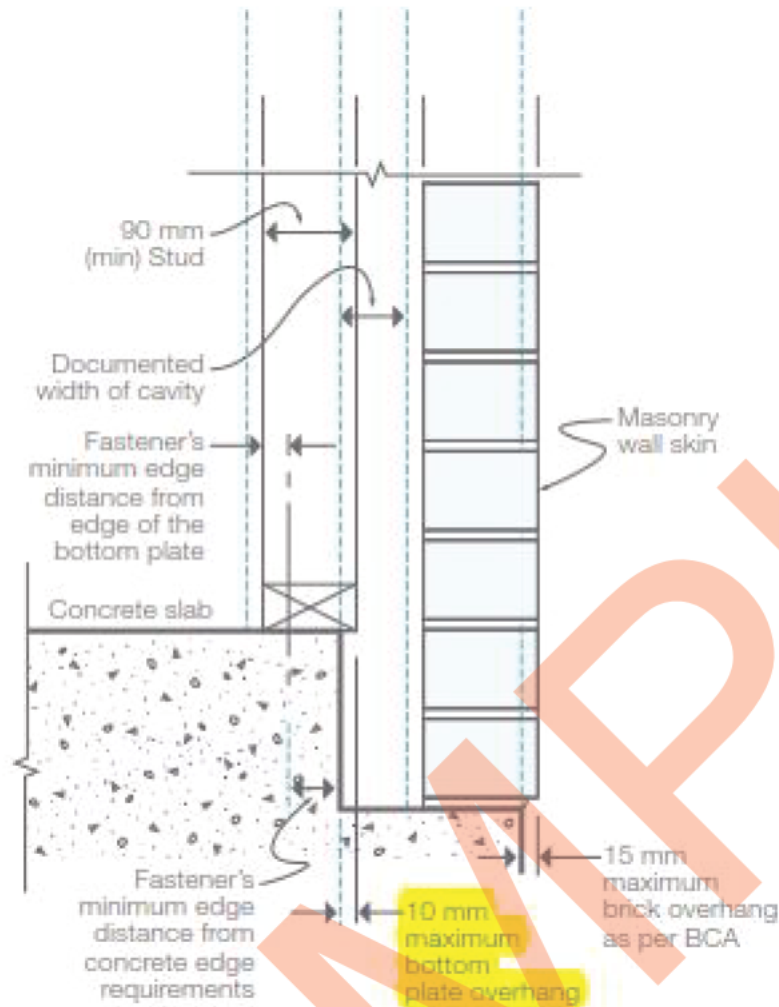


Photo 9



Photo 10

As per the VBA's Guide to Standards and Tolerances section 4.08: "Bottom plates that are 90 mm wide or greater and overhang concrete slabs by more than 10 mm are defective."



1.1.7: Bottom plate secure

DEFECT



Photo 11

Sections of bottom plate are loose and may cause cracking of plasterboard. Refer to AS 2589 - Gypsum linings—Application and finishing section 2.5 FRAMING SUBSTRATES: "Gypsum linings require a stable substrate at the time of installation in order to minimize in-service surface defects."

Other item 1.1.9.

6 flagged

Other item 1.1.9. 1

1 flagged

SIGNIFICANT DEFECT

As per the pre pour inspection report some areas still do not have the vapour barrier terminating as per the National Construction Code.

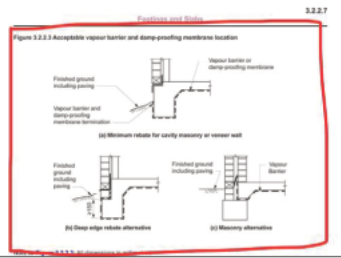


Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20

Other item 1.1.9. 2

1 flagged

SIGNIFICANT DEFECT

Loose Refer installed to perimeter of dwelling.

AS 2870 Residential slabs and footings section 5.2 DRAINAGE DESIGN REQUIREMENTS, 5.2.1

General requirements:

"Surface drainage shall be designed and constructed to avoid water ponding against or near the footing. The ground in the immediate vicinity of the perimeter footing, including the ground uphill from the slab on cut-and-fill sites, shall be graded to fall 50 mm minimum away from the footing over a distance of 1 m and shaped to prevent ponding of water. Where filling is placed adjacent to the building, the filling shall be compacted and graded to ensure drainage of water away from the building."



Photo 21



Photo 22

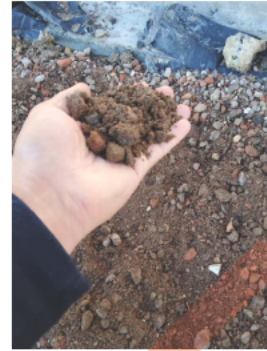


Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28



Photo 29

Other item 1.1.9. 3

1 flagged

DEFECT

The garage boundary slab face has partially been cutback and there is exposed steel reinforcement.



Photo 30



Photo 31



Photo 32

Other item 1.1.9. 4

1 flagged

DEFECT

Som areas where the slab dips abs the bottom plate is gapped have not been rectified, these are consistent with the post pour report.

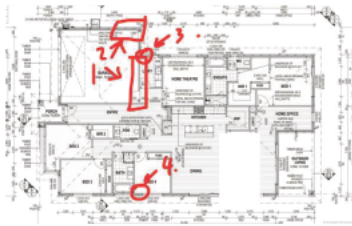


Photo 33

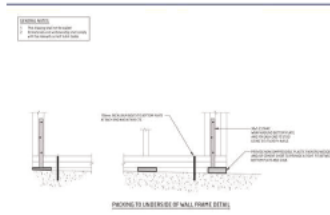


Photo 34



Photo 35



Photo 36



Photo 37



Photo 38



Photo 39



Photo 40



Photo 41

Other item 1.1.9. 5

OBSERVATION

It appears that a product has been used to level the floor in the bathroom/Bed 3.

Please provide product information for review.



Photo 42



Photo 43

Other item 1.1.9. 6

1 flagged

DEFECT

The slab has been ground due to high spot, engineer to review and certify.

Refer to AS 2870 Residential slabs and footings section 6.4.6 Fixing of reinforcement and void formers:

"Reinforcement and void formers shall be fixed in position prior to concreting by means of proprietary spacers, bar chairs with bases, ligatures or other appropriate fixings so as to achieve the required reinforcement position and concrete covers. Reinforcement shall not be placed or located after concreting."



Photo 44



Photo 45



Photo 46

C2: CONCRETE QUALITY FOR CEMENT TYPE A & EXPOSURE CLASSIFICATION A1 SHALL BE AS TABULATED AND SHALL BE VERIFIED BY TESTS (REFER TABLE BELOW). U.N.O. SEE SLAB PLAN FOR A2, B & C CATEGORIES.

ELEMENT	SLUMP	AGG.	CONCRETE GRADE	COVER U.N.O (mm)
SLABS ON GROUND	100mm	20mm	25N	30 TOP
				30 BTH & SIDES
FOOTINGS	100mm	20mm	25N	40 TOP (EXT)
				50 TYPICAL
SUSPENDED SLAB	80mm	20mm	32N	30 TOP
				20 BTH & SIDES
BEAMS	80mm	20mm	32N	45 TYPICAL
				45 TOP
STAIRS	80mm	20mm	32N	35 BTH
				30 SIDES (INT)
WALLS	80mm	20mm	32N	40 SIDES (EXT)
				40 TYPICAL
COLUMN	80mm	20mm	32N	40 TYPICAL

Photo 47

Other item 1.1.9. 7

1 flagged

DEFECT

The garage/entry hall way slab has been cut back, works not as per engineers site instruction.

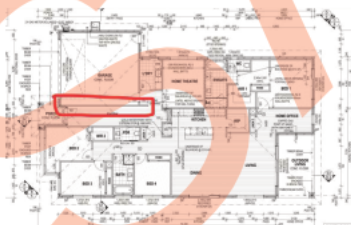


Photo 48



Photo 49



Photo 50



Photo 51



Photo 52



Photo 53

SAMPLE

2.0: STRUCTURAL

2 flagged

2.1: STRUCTURAL

2 flagged

2.1.1: Engineering details/sections appear as per supplied plans

DEFECT

Additional bolts required to rear alfresco beam as per engineers detail due to depth of beam at 470mm.

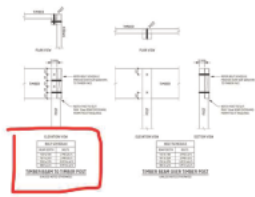


Photo 54



Photo 55



Photo 56

Other item 2.1.4.

1 flagged

Other item 2.1.4. 1

1 flagged

DEFECT

Top plate damaged at girder truss load point.



Photo 57

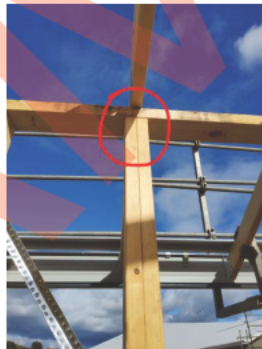


Photo 58



Photo 59

3.0: WALL BRACING

1 flagged

3.1: WALL BRACING

1 flagged

Other item 3.1.4.

1 flagged

Other item 3.1.4. 1

1 flagged

DEFECT

The highlighted living/outdoor living sheet brace/wall has not been provided with the required clearance to the plaster trimmers, this wall is a non load bearing wall.

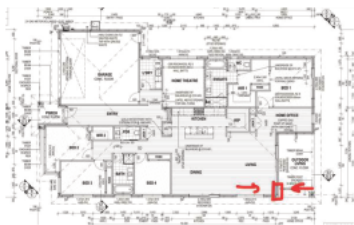


Photo 60



Photo 61



Photo 62

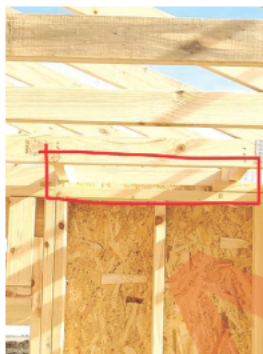


Photo 63

4.0: ROOF TRUSSES

3 flagged

4.1: ROOF TRUSSES

3 flagged

Other item 4.1.13.

3 flagged

Other item 4.1.13. 1

1 flagged

DEFECT

Strut block not installed as per manufacturers specifications.

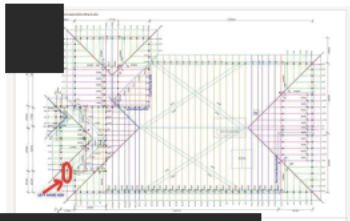


Photo 64



Photo 65

Other item 4.1.13. 2

1 flagged

DEFECT

Large knots to truss chord and Web, manufacturers to review and certify.

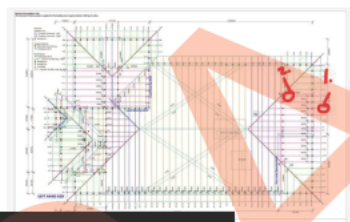


Photo 66



Photo 67



Photo 68



Photo 69

Other item 4.1.13. 3

1 flagged

Truss damaged.

Refer to AS 4440 Installation of nailplated timber roof trusses section 3.10 REJECTION CRITERIA:

"Trusses designed and manufactured for criteria other than those being used on site shall not be used without being approved.

NOTE: Design criteria for trusses should be checked when they are delivered to site to ensure that they are the correct trusses. If any truss has been cut, drilled, damaged, or manufactured in such a way as to impair performance, notification should be given to the truss engineer in order to provide adequate rectification to the truss. Trusses with severely degraded timbers or nailplates due to poor storage shall not be loaded prior to rectification or replacement.

NOTES:

1 Manufacturing error or damage deemed severe enough to warrant attention should include but not be limited to the following:

- (a) Broken or split timbers.
- (b) Missing nailplates on one or both sides of a joint.
- (c) Nailplates obviously misplaced, for example, missing a member at a joint or nailplate not properly embedded.
- (d) Any nailplate showing evidence of flattening of the teeth, or excessive splitting of the timber under the nailplate.

2 A truss supported away from the design location may be rejected.

3 If a fault is discovered after the truss has been loaded, the load should be supported to alleviate the load on the truss until rectified."

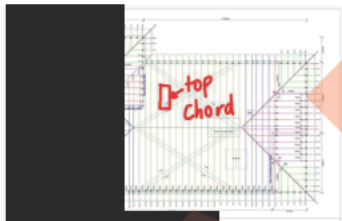


Photo 70



Photo 71



Photo 72



Photo 73

5.1: MISCELLANEOUS

5.1.2: External/internal/load bearing corners shot together

DEFECT

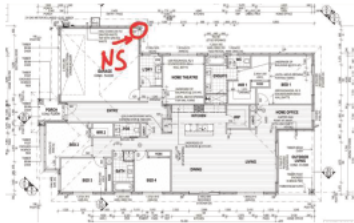


Photo 74



Photo 75

As per AS 1684.4-2010 section 6.2.1.3: "Studs at wall junctions and intersections shall be in accordance with one of the details shown in Figure 6.2. Studs shall be not less in size than common studs. All junctions shall have sufficient studs, which shall be located so as to allow for adequate fixing of linings. Internal and external walls shall be fixed together with a minimum of 2/75 mm nails at 900 mm centres."

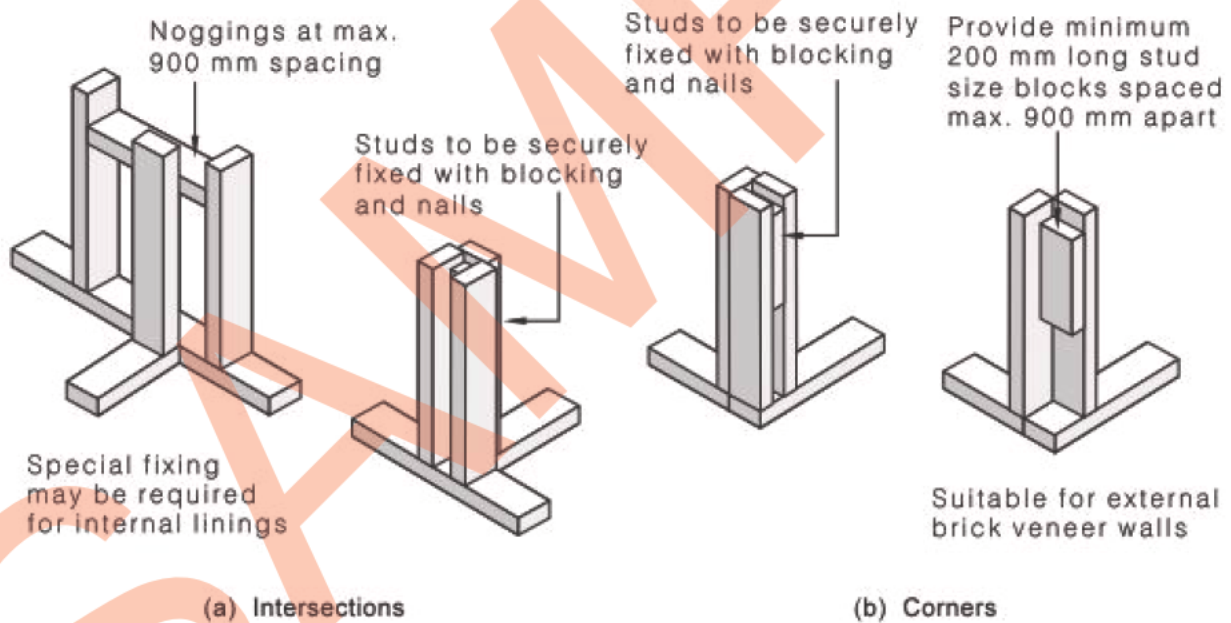


FIGURE 6.2 TYPICAL WALL JUNCTIONS

5.1.4: Top plate straight

DEFECT

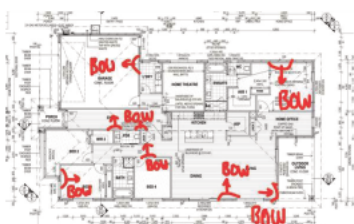
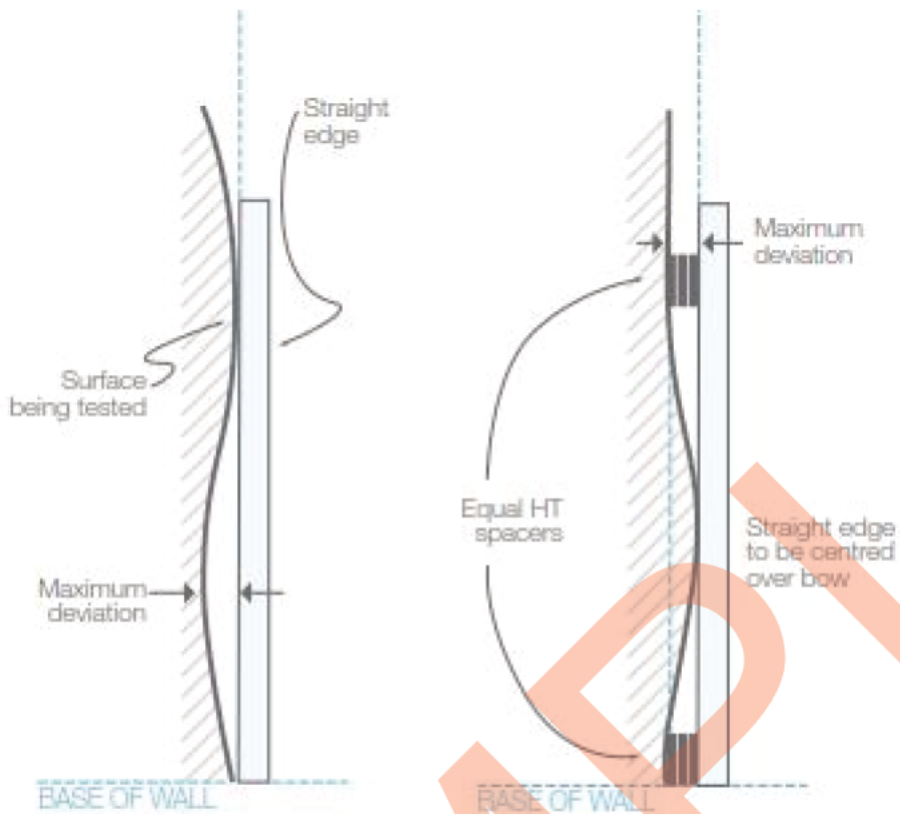


Photo 76

As per the VBA's Guide to Standards and Tolerances section 4.03: "Frames are defective if they deviate from plane (horizontal or vertical bow) by more than 4 mm in any 2 m length of wall."



v) Measurement of bow (surface flatness)

vi) Measurement of bow (surface flatness)

5.1.5: L brackets for wall straightening

DEFECT

The highlighted area is missing L brackets.

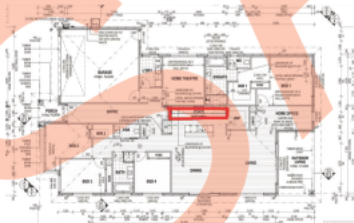


Photo 77



Photo 78

As per AS 4440-2004 section 2.2.3: Non bracing wall for an internal non load bearing wall requires stabilising maximum 1800 mm centres and as per Figure 2.3

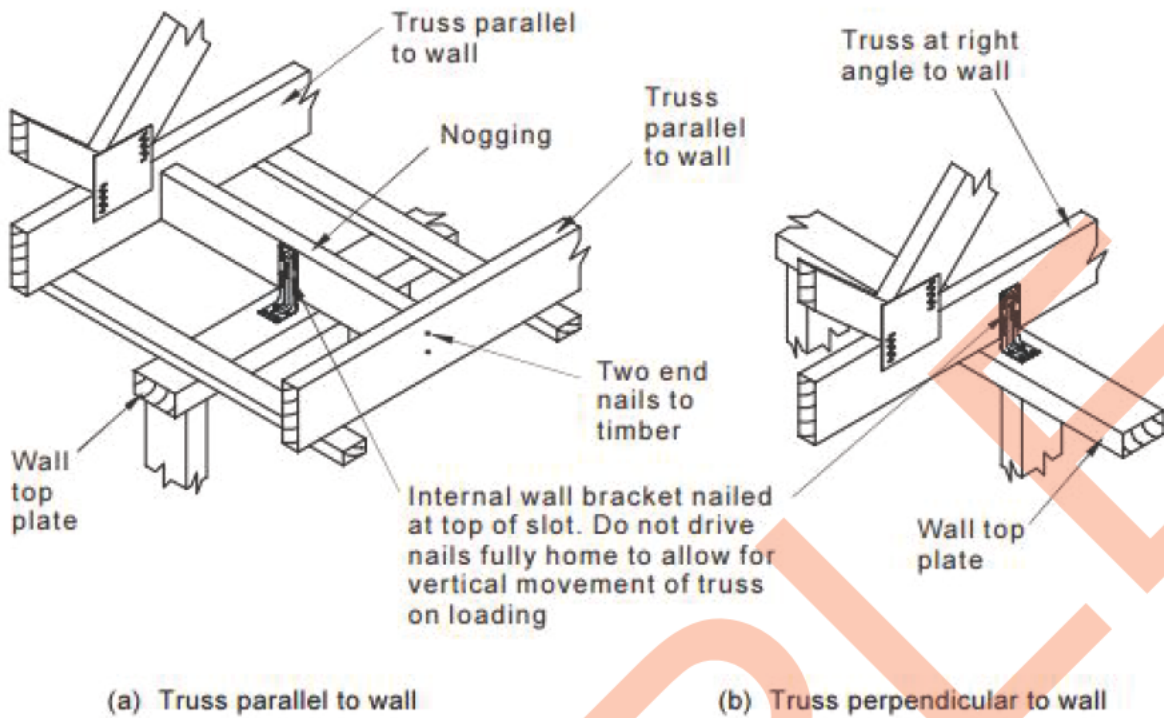


FIGURE 2.3 FIXING OF TRUSSES TO FREESTANDING NON-LOADBEARING WALL THAT IS NOT A BRACING WALL

Other item 5.1.7.

1 flagged

Other item 5.1.7. 1

1 flagged

DEFECT

The nails used for the Lbrackets into the top plates are not the proprietary mitek nails and not as per manufacturers specifications

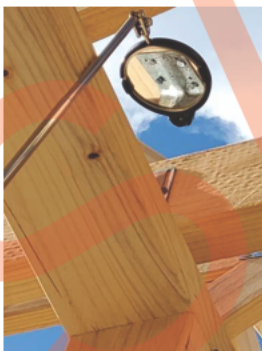


Photo 79



Photo 80

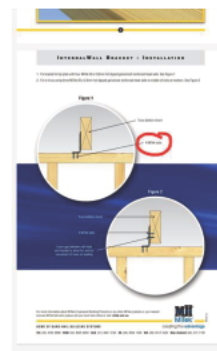


Photo 81

CONCLUSION

LIMITATIONS

Limitations at time of inspection?

[REDACTED]

[REDACTED]

This report is prepared in accordance with AS 4349.0 - 2007: Inspection of buildings. It is not a certificate of compliance of the property within the requirements of any Act, regulation, ordinance, local law or by-law, and is not a warranty against problems developing with the building in the future.

Has there been any previous Quality Assurance Inspections by Manse Group on this project?

Pre pour

Post-pour

CONCLUSION

Conclusion

[REDACTED]

Report completed by

[REDACTED]

[REDACTED]

QUALIFICATIONS:

- Registered Building Practitioner [REDACTED]

[REDACTED]

[REDACTED]