

32 Mount Ararat South Road, Nar Nar Goon

Expert Structural Engineer Evidence

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Issue 02

Inspection & Report by: Farhad Shabanpoor
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Report reviewed by: Andrew McMillan
Associate Director

**Planning Panels Victoria
Amendment C234 to the Cardinia Planning**



Table of Contents

1. Expertise To Prepare This Report..... 2

2. Scope of Works 2

3. Background 3

4. Report Exclusions 4

5. Existing Conditions..... 4

6. Recommendations 4

Appendix A: Site Investigation Photos 6

1. Expertise To Prepare This Report

I am a civil and structural consultant and have been involved in civil and structural design of residential and commercial structures over the past 7 years. I have conducted several inspections and prepared reports and provided expert evidence on structural performance of existing structures post-construction. During my professional career, I have work as civil and structural engineer in several consulting firms outline below:

RST Consulting Engineers – Springvale

Involved in design of residential and multi-units structures

SFC Consulting Engineers – Pakenham

Performed civil and structural design for residential and commercial structures and involved in several site inspections

Intrax Consulting Engineer – South Melbourne

Acting as senior engineer and team leader, leading a team of 11 structural design engineers

Adams Consulting Engineers – Melbourne

Design Engineer, involved in design of various types of structures and involved in several site inspections

2. Scope of Works

Adams Consulting Engineers Pty Ltd were requested by Nick Robins (Taylors Development Strategists) to visually inspect an existing dwelling at 32 Mount Ararat South Road, Nar Nar Goon and provide a report on their existing current structural condition based on following:

- ❖ Has the part demolition done to the house affected its structural integrity? Or it is limited to finishes and detailing etc?
- ❖ Are there any other significant structural issues that would impact upon whether the structure can be retained?

I was subsequently requested (by Nick Robins of Taylors) to prepare expert evidence on behalf of SR Holdings Investment Pty Ltd for the Panel considering Amendment C234 to the Cardinia Planning Scheme.

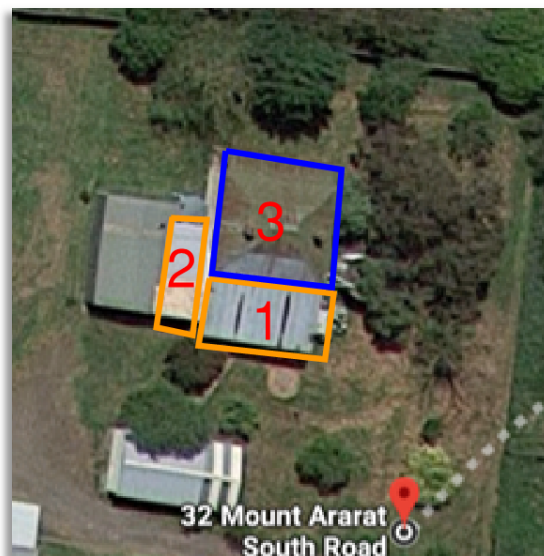
3. Background

The site is located at the southern end of Princes Highway and Mount Ararat South Road.



Inspected structures are located at the north east corner of the lot. The structures can be identified as per following:

1. Alfresco (South) - metal roof cladded and wall extensions presumed constructed as an extension to main building;
2. Roof extension of main building (West) – metal roof connecting main building roof to the recently built shed;
3. Main building (North) – metal roof cladded, weather board wall cladded single storey structure supported on timber bearers and stumps;



4. Report Exclusions

This report excludes:

- Assessing the presence of asbestos and removal procedure of any such material from the site;
- Assessing embedded footing under natural ground and their condition

5. Existing Conditions

I visually inspected the above site on the 17th May, 2018 and recorded this with photographs as shown in Appendix A.

The following items were noted in regards to the existing condition of the structures. Please refer to attached photos.

➤ Alfresco:

- **Roof:** roof of the alfresco was collapsed and metal clad, fascia and the gutter were badly damaged. Roof metal cladding was corroded in several locations (Refer Photo 1 & 2);
- **Wall:** walls and timber posts were collapsed. The timber stud walls supporting the roof were termite infested, Timber weatherboard claddings to the sides of alfresco were damaged as a result of roof collapse (Refer Photo 3,4, 5, 6 & 7);
- **Foundation:** alfresco area was covered with an infill slab with some cracking (Refer photo 8).

➤ Roof Extension:

- **Roof:** metal roof was partially damaged and collapsed as a result of alfresco collapse. Some of the roof rafters still connected to the main building were still in good condition (Refer photo 9 & 10);
- **Foundation:** None

➤ Main Building:

- **Roof:** Metal roof sheeting and box gutters were found to be corroded at some areas and roof sheeting detached from the roof battens. Two brick chimneys on the roof were found to be collapsed. The collapse of the chimneys has caused some damage to the roof and gutters (Refer photo 11, 12 & 13);
- **Ceiling:** Some part of ceiling was damaged as a result of the moisture penetrating through the roof. Collapsing of ceiling was also observed in some areas of roof (Refer photo 14 & 15);
- **Walls:** termite infested studs walls were observed throughout many areas of the main building. At some areas stud walls were exposed to weathering and moisture due to damaged cladding (Refer photo 7,17,18 & 19);
- **Floor/ Subfloor:** timber floor boards and Joists were broken in several areas of the building due to impact and termite infestation. Concrete stumps were found to be in good condition (Refer photo 20,21,22 & 23).

6. Recommendations

- ❖ **Has the part demolition done to the house affected its structural integrity? Or it is limited to finishes and detailing etc?**

The collapse of alfresco and part of roof extension was found to be as a result of termite infestation. As per findings, termite infestation resulted in damaging the stud walls supporting the sides of the alfresco and this resulted in collapse in a potential storm event. The collapse has resulted in extensive damage to weatherboard cladding, roof sheeting, gutter and adjacent roof extension beyond repair. Hence, removal of both front alfresco and the side roof extension is recommended.

❖ **Are there any other significant structural issues that would impact upon whether the structure can be retained?**

Inspection of structural elements of the main building shows deteriorating effects resulting from age, termite infestation and moisture. The damaged, rusted roof has caused water leaking into the structure and resulted in collapse and rotting of some wall members. Termite has also caused damage to stud walls, flooring and joists beyond repair in several areas. It can be concluded that main building's structural elements will not be performing structurally as intended and as a result they may be replaced.

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.

Please contact the undersigned with any queries relating to the above report.

A handwritten signature in black ink, appearing to read 'Farhad', is written over a light-colored, textured background.

Report prepared by:

Farhad Shabanpoor
Civil & Structural Design Engineer

Appendix A: Site Investigation Photos



Alfresco Roof - Photo 1



Alfresco Roof - Photo 2



Alfresco Wall - Photo 3



Alfresco Wall - Photo 4



Alfresco Wall - Photo 5



Alfresco Wall - Photo 6



Alfresco Wall - Photo 7



Alfresco Slab - Photo 8



Roof Extension - Photo 9



Roof Extension - Photo 10



Main Building Roof - Photo 11



Main Building Roof - Photo 12



Main Building Roof - Photo 13



Main Building Ceiling- Photo 14



Main Building Ceiling- Photo 15



Main Building Wall- Photo 16



Main Building Wall- Photo 17



Main Building Wall- Photo 18



Main Building Wall- Photo 19



Main Building Floor- Photo 20



Main Building Floor- Photo 21



Main Building Floor- Photo 22



Main Building Floor- Photo 23