

LMW DESIGN GROUP PTY LTD

STRUCTURAL AND HYDRAULICS ENGINEERS

AND BUILDING CONSULTANTS

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25/01/2022

Attention: Anthony Sofios

Dear Sir

**RE: PROPOSED NEW RESIDENCE
AT No. 7 LOVILLE AVE PEAKHURSTS**

STRUCTURAL ASSESSMENT OF PROPOSED DA2021/0207

A structural assessment was carried out on the above proposed building, at the clients request, **to ascertain the structural necessity of the southern wall of the garage/turning area of the proposed secondary dwelling.** To ascertain the structural importance of these elements two computer finite element analysis's were carried out

OPTION A involves the computer model with 4 blade columns, the number and size of the columns could be reduced slightly and the results would not alter significantly. The maximum deflection will be in the order of 5mm, complies with AS3600.

OPTION B is the same computer model with the 4 blade columns removed, the deflection of the slab has increased to 84.5 mm, which is excessive and does not comply with AS 3600.

In light of the Finite Element analysis results, it is considered structurally necessary to have Some form of support along the line of the wall that is proposed to be deleted. If you have any further questions please do not hesitate to contact the under signed.

Respectfully yours,

LMW Design Group Pty. Ltd.



Steven W Waters

B.E.Syd. Civil,

M.Eng.Sc. U.N.S.W. Struct,

MIE. Aust., C.P.Eng.

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LMW Design Group Pty.Ltd Structural and Hydraulics Engineers and Building Consultants.

Incorporated in New South Wales

Director: Steven W Waters B.E.Syd.,M.Eng.Sc. N.S.W., MIE. Aust., C.P.Eng.,

OPTION A

Four Blade Columns proposed alongside Southern end of secondary dwelling parking area.

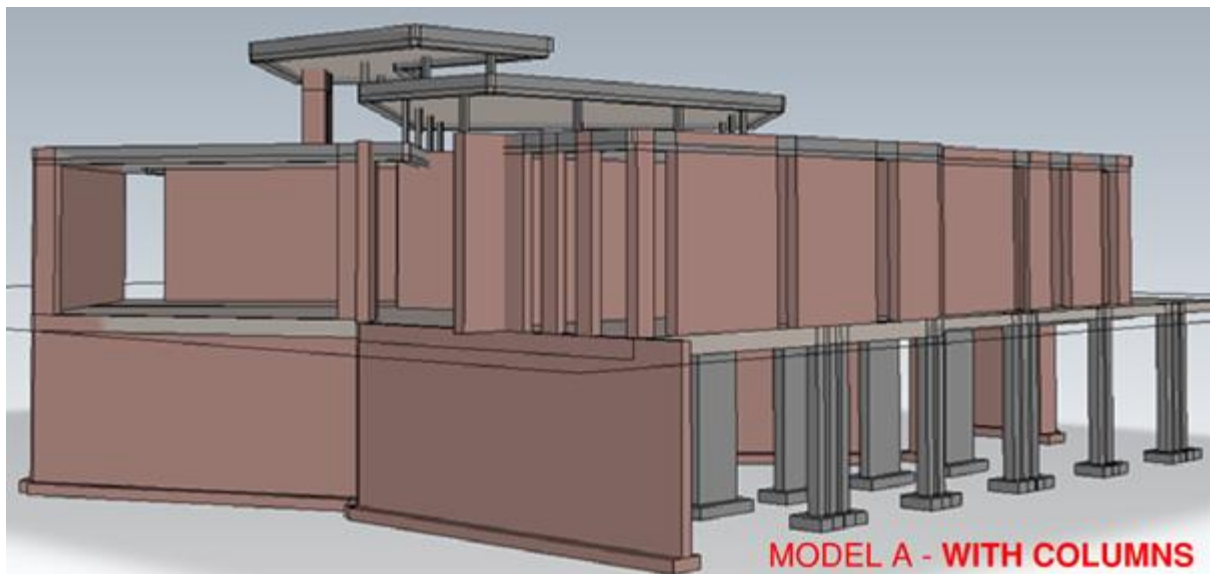


Image (A1) – 3D Computer Model input for structural assessment

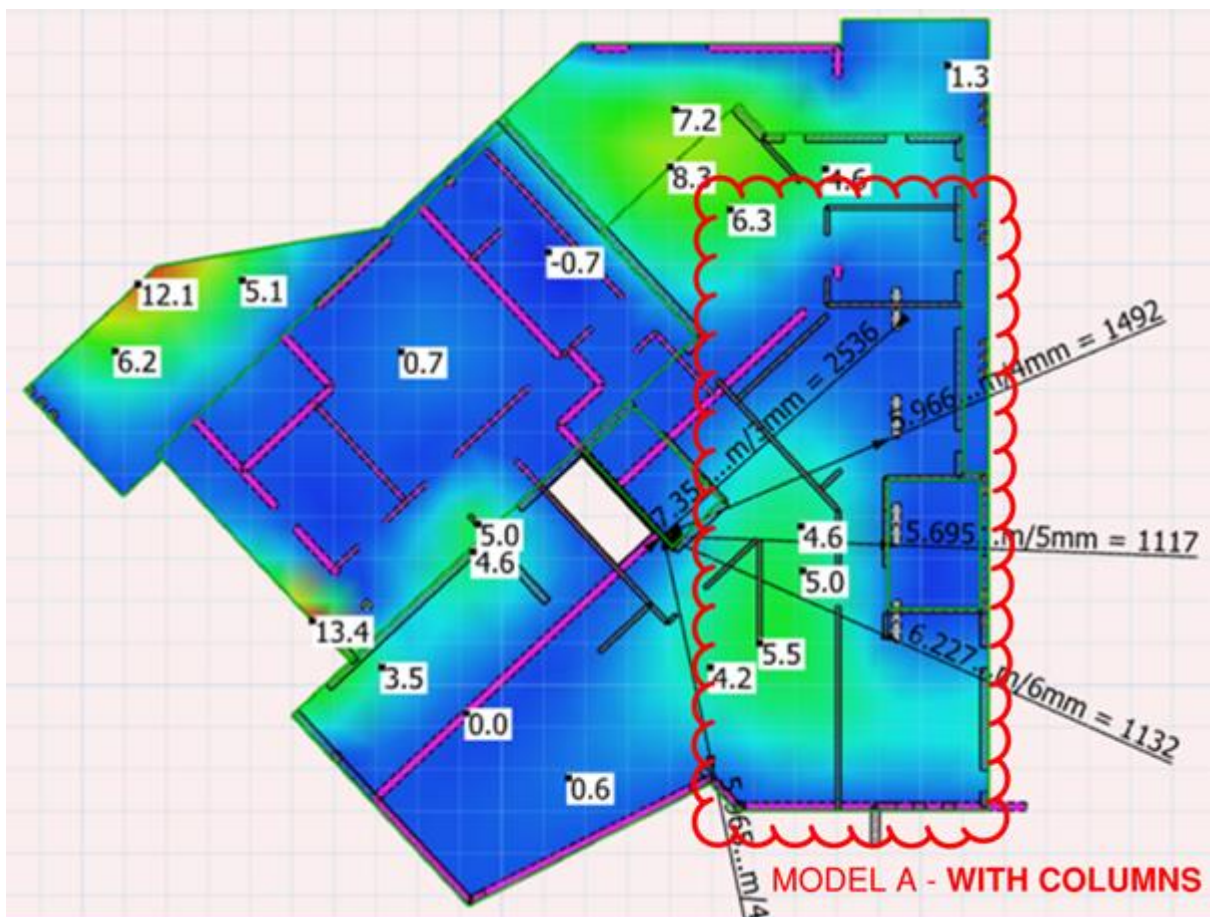


Image (A2) – Resultant Deflection of Slab

OPTION B

Complete removal of Southern wall adjoining the secondary dwelling parking area.

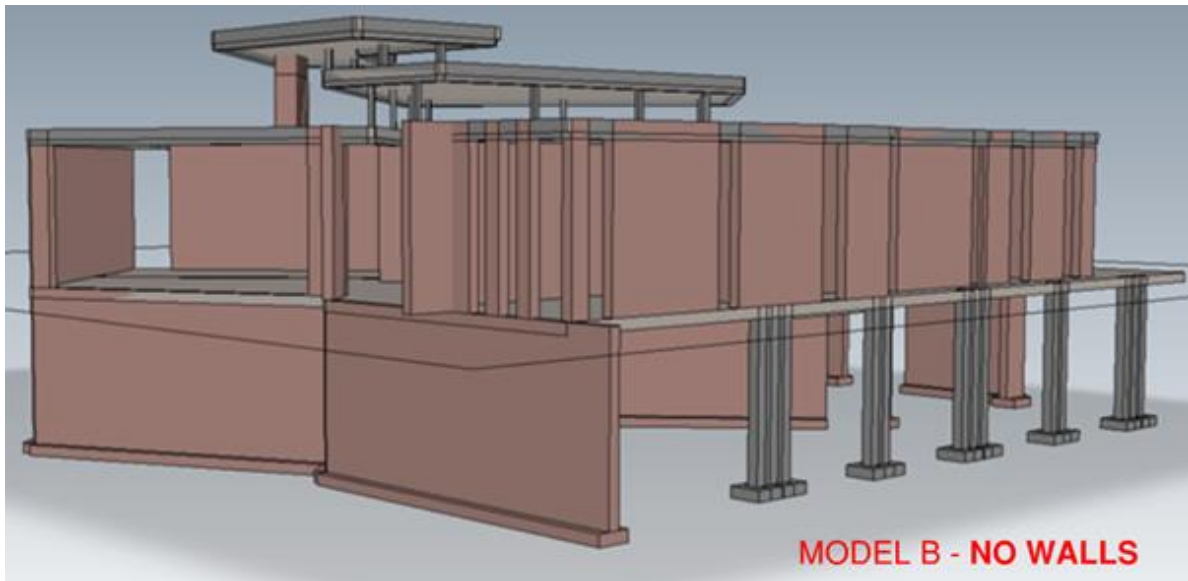


Image (B1) – 3D Computer Model input for structural assessment

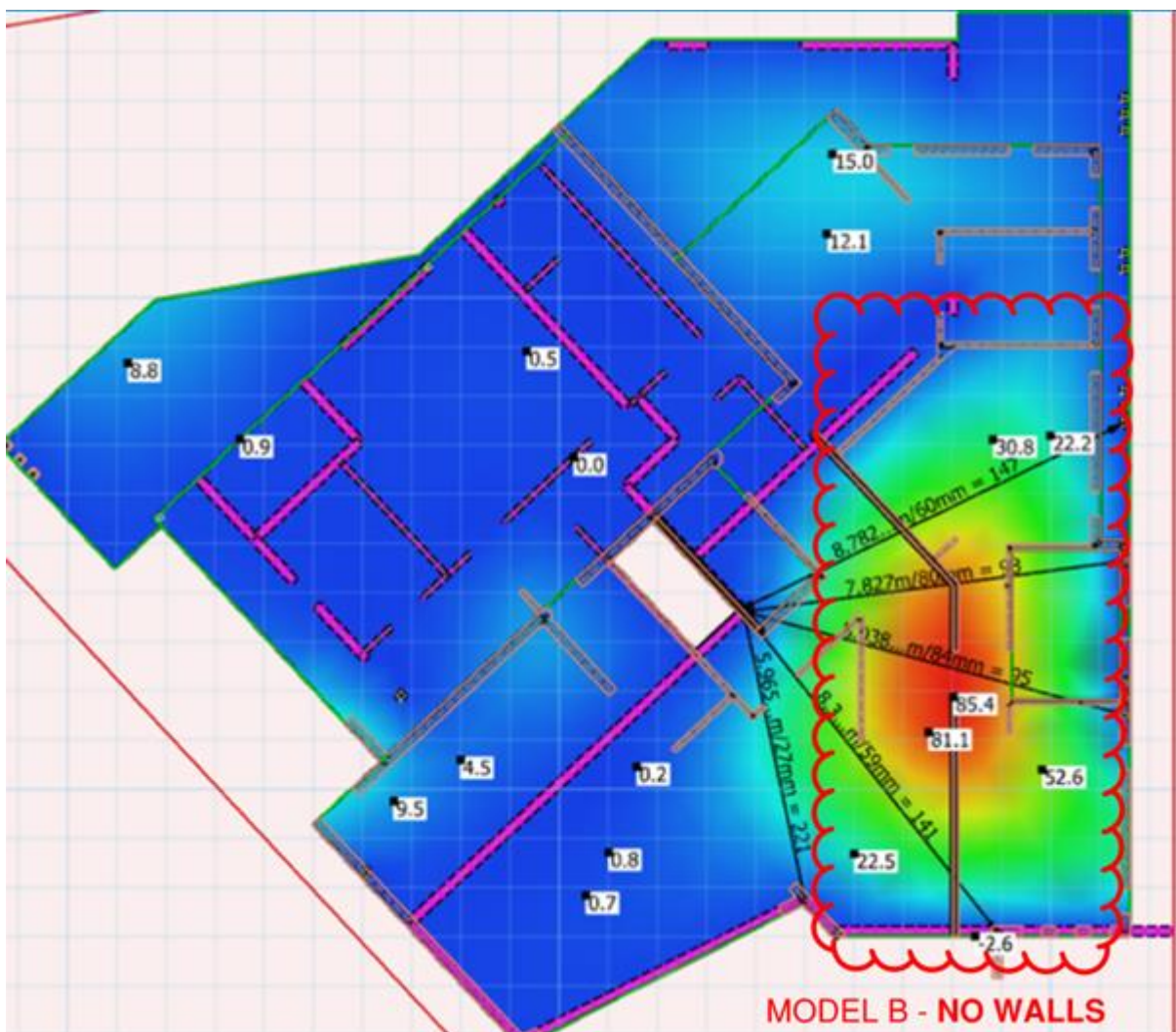


Image (B2) – Resultant Deflection of Slab