HALINA ENGINEERS PTY LTD
ABN: 85 639 248 114
w: halina.com.au
e: harry@halina.com.au
t: 0402 296 323

HALINA ENGINEERS

Our Reference: **5177-SL03_A**

Monday, 24 June 2024

Thu Nguyen & Tuan Bui

Dear Sir/Madam,

STRUCTURAL DESIGN CERTIFICATION
Re: The Proposed Carport
At 19 Schofield Avenue, Earlwood NSW 2206

As requested, I would advise that, the structural design of the proposed carport at the above-mentioned address prepared by **Halina Engineers** as shown on the attached drawings are accordance with *NCC Volume 2, Building Code of Australia (BCA) 2022 and Housing Provisions Standard 2022* for the below design parameters:

1) Loading:

General principles of loading calculation and loading combinations to Australian Loading Code AS1170.0-2002 and other relevant codes as below:

a) Dead Load
   i) Self-weight of the roof and finishes (0.2kPa max)

b) Live Load
   i) Roof: 0.25kPa min or (0.18/A+0.12)kPa or 1.1kN point load to AS 1170.1-2002

c) Wind Load
   i) Wind classification N2 to AS4055-2021.

2) Design Standards:

a) Concrete Structures: AS 3600-2018
b) Steel Structures: AS4100-2020
c) Aluminium Structures: AS1664.1-1997.

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3) Notes

a) Existing concrete slab by others. Assume min 150mm thick with SL82 top mesh.

b) Concrete grade N25 (F'c=25MPa at 28-days of age), exposure classification A1 to AS3600, reinforcement as shown on the drawings.

c) Aluminium grade 6063-T6 to AS1664.1-1997.

4) Serviceablity: Design complies with the below mentioned deflection criteria.

a) Roof under dead load: deflection < span/500.

b) Roof under live load: deflection < span/250.

c) Roof under wind load: deflection<span/200.

If you have any further enquiries regarding this matter, please do not hesitate to contact the undersigned.

Yours faithfully
HALINA ENGINEERS

Ha Nguyen
BE (Hons) PhD MIEAust CPEng NER 4188792 - PE0001349 - RPEQ24385 – TAS727649808
Principal Structural Engineer/Director

Enclosed: Drawings 5177A-S01 to S05_rev. A