

Construction Compliance

DATE 14/11/2022

TO Richard Crookes Constructions Pty Ltd

PROJECT Upgrade to Chatswood High School – Building S

I, Bryan King

of SCP Consulting Pty Ltd

at Level 20, 1 Market Street, Sydney NSW 2000

Hereby certify that:

- 1 I am a practicing structural engineer certified under NER.
- 2 I am the holder of documentary evidence from Engineers Australia to that effect.
- I am currently practicing as a Structural Engineer with SCP Consulting Pty Ltd, of which I am a Director.
- I have carried out, or have caused to have carried out, periodic inspections of the structural work during the construction. SCP Consulting did not act in a supervisory capacity and could only observe the status of the work at the time of the inspection.
- In accordance with DA Condition D10a, I am satisfied that the structural works inspected for the above project have been constructed in accordance with the intent of the structural engineering drawings and written engineering instructions issued up to the time of the inspections.
- In accordance with DA Condition D10b, the drawings listed have been checked with those listed on the final Design Certificate. The structural engineering drawings referred to in this certificate are:

| DRAWING # | TITLE | REVISION |
|------------------|---------------------------------|----------|
| HS-STR-S-DW-0000 | TITLE SHEET | 4 |
| HS-STR-S-DW-0010 | LOWER GROUND FLOOR LOADING PLAN | 1 |
| HS-STR-S-DW-0011 | GROUND FLOOR WEST LOADING PLAN | 2 |





| DRAWING # | TITLE | REVISION |
|------------------|---|----------|
| HS-STR-S-DW-0012 | GROUND FLOOR EAST LOADING PLAN | 1 |
| HS-STR-S-DW-0013 | LEVEL 1 WEST LOADING PLAN | 2 |
| HS-STR-S-DW-0014 | LEVEL 1 EAST LOADING PLAN | 2 |
| HS-STR-S-DW-0015 | LEVEL 2 WEST LOADING PLAN | 2 |
| HS-STR-S-DW-0016 | LEVEL 2 EAST LOADING PLAN | 2 |
| HS-STR-S-DW-0017 | LEVEL 3 WEST LOADING PLAN | 2 |
| HS-STR-S-DW-0018 | LEVEL 3 EAST LOADING PLAN | 2 |
| HS-STR-S-DW-0301 | FOOTING PLAN - WEST | 9 |
| HS-STR-S-DW-0302 | FOOTING PLAN - EAST | 7 |
| HS-STR-S-DW-0305 | FOOTING DETAILS SHEET 1 | 5 |
| HS-STR-S-DW-0306 | FOOTING DETAILS SHEET 2 | 3 |
| HS-STR-S-DW-0307 | FOOTING DETAILS SHEET 3 | 3 |
| HS-STR-S-DW-0308 | FOOTING DETAILS SHEET 4 | 3 |
| HS-STR-S-DW-0401 | COLUMN SCHEDULE SHEET 1 | 5 |
| HS-STR-S-DW-0402 | COLUMN SCHEDULE SHEET 2 | 2 |
| HS-STR-S-DW-0403 | COLUMN SCHEDULE SHEET 3 | 2 |
| HS-STR-S-DW-0501 | WALL SCHEDULE & ELEVATIONS SHEET 1 | 2 |
| HS-STR-S-DW-0502 | WALL SCHEDULE & ELEVATIONS SHEET 2 | 5 |
| HS-STR-S-DW-0503 | WALL SCHEDULE & ELEVATIONS SHEET 3 | 4 |
| HS-STR-S-DW-0801 | STAIR SCHEDULES SHEET 1 | 1 |
| HS-STR-S-DW-0802 | STAIR SCHEDULES SHEET 2 | 4 |
| HS-STR-S-DW-0850 | TYPICAL R.C. STAIR DETAILS - FLIGHT TYPES | 2 |
| HS-STR-S-DW-0851 | TYPICAL R.C. STAIR DETAILS - LANDING TYPES | 1 |
| HS-STR-S-DW-0901 | LOWER GROUND FLOOR GENERAL ARRANGEMENT PLAN - WEST | 11 |
| HS-STR-S-DW-0905 | SLAB ON GROUND DETAILS SHEET 1 | 2 |
| HS-STR-S-DW-0906 | SLAB ON GROUND DETAILS SHEET 2 | 2 |
| HS-STR-S-DW-0907 | SLAB ON GROUND DETAILS SHEET 3 | 3 |
| HS-STR-S-DW-0910 | GROUND FLOOR GENERAL ARRANGEMENT PLAN - WEST | 9 |
| HS-STR-S-DW-0911 | GROUND FLOOR GENERAL ARRANGEMENT PLAN - EAST | 7 |
| HS-STR-S-DW-0915 | GROUND FLOOR DETAILS SHEET 1 | 2 |
| HS-STR-S-DW-0920 | LEVEL 1 GENERAL ARRANGEMENT PLAN - WEST | 6 |



| DRAWING # | TITLE | REVISION |
|------------------|--|----------|
| HS-STR-S-DW-0921 | LEVEL 1 GENERAL ARRANGEMENT PLAN - EAST | 7 |
| HS-STR-S-DW-0930 | LEVEL 2 GENERAL ARRANGEMENT PLAN - WEST | 6 |
| HS-STR-S-DW-0931 | LEVEL 2 GENERAL ARRANGEMENT PLAN - EAST | 7 |
| HS-STR-S-DW-0940 | LEVEL 3 GENERAL ARRANGEMENT PLAN - WEST | 7 |
| HS-STR-S-DW-0941 | LEVEL 3 GENERAL ARRANGEMENT PLAN - EAST | 6 |
| HS-STR-S-DW-0950 | CORE LID PLAN - WEST | 3 |
| HS-STR-S-DW-0951 | CORE LID PLAN - EAST | 2 |
| HS-STR-S-DW-0960 | SUSPENDED SLAB DETAILS - SHEET 1 | 3 |
| HS-STR-S-DW-0961 | SUSPENDED SLAB DETAILS SHEET 2 | 5 |
| HS-STR-S-DW-1001 | ROOF STEEL FRAMING PLAN - WEST | 3 |
| HS-STR-S-DW-1002 | ROOF STEEL FRAMING PLAN - EAST | 2 |
| HS-STR-S-DW-1010 | STEEL ELEVATIONS SHEET 1 | 2 |
| HS-STR-S-DW-1050 | STEEL DETAILS SHEET 1 | 1 |
| HS-STR-S-DW-1051 | STEEL DETAILS SHEET 2 | 1 |
| X-STR-W-DW-0001 | GENERAL NOTES SHEET 1 | 2 |
| X-STR-W-DW-0002 | GENERAL NOTES SHEET 2 | 1 |
| X-STR-W-DW-0450 | COLUMN DETAILS SHEET 1 | 1 |
| X-STR-W-DW-0451 | COLUMN DETAILS SHEET 2 | 1 |
| X-STR-W-DW-0550 | TYPICAL WALL DETAILS SHEET 1 | 1 |
| X-STR-W-DW-0551 | TYPICAL WALL DETAILS SHEET 2 | 1 |
| X-STR-W-DW-0552 | TYPICAL WALL DETAILS SHEET 3 | 1 |
| X-STR-W-DW-0555 | DINCEL WALL DETAILS | 1 |
| X-STR-W-DW-0701 | MASONRY WALL DETAILS SHEET 1 | 2 |
| X-STR-W-DW-0702 | MASONRY WALL DETAILS SHEET 2 | 1 |



- 7 In providing this Certificate, I have relied upon the following documentation supplied to me regarding the construction:
 - Copies of our Engineering Inspection Reports signed off that any rectification work noted in the reports has been completed.
 - Signed copies of certification of bearing pressures by the Geotechnical Engineer.
 - Documents indicating the 28-day compression strengths achieved by test cylinders taken from the concrete supplied.
 - Copies of certification of the fabrication and erection of the structural steel by the subcontractor.
- 8 This Certificate excludes the following elements which have been designed and, constructed and certified by others:
 - Post tensioned floor slabs by Australian Post-Tensioning Pty Ltd.
 - Piled foundation by ACECivil Pty Ltd.
 - Roof Structure by AUSTRUSS.
- 9 This certificate does not relieve any other party of its responsibilities, liabilities or contractual obligations.

Yours faithfully SCP Consulting Pty Ltd

Bryan King
Director

Bryan King Beng (Struct), MIEAust CPEng NER APEC Eng IntPE(Aus)





DESIGN CERTIFICATE

Ref. : FPD-7471-4 Date : 23-02-2022

Project : CHATSWOOD EDUCATIONAL PRECINCT - HIGH SCHOOL - BUILDING S

Type of Building Work : FOUNDATION PILES

Dear Sir/Madam,

I would like to affirm that ACE Civil Pty have designed the foundation piles in accordance with the design documentation, regulatory and other statutory requirements. This includes but not limited to:

Documents which are the subject of this certificate:

Design Report Ref. FDP-7471-R3 dated 23 July 2021, by ACE Civil Pty Ltd

Drawing No. HS-STR-S-ACE-DW-FP 0301, Issue B, 11 October 2021 by ACE Civil Pty Ltd

Drawing No. HS-STR-S-ACE-DW-FP 0301_B, Issue B, 11 October 2021 by ACE Civil Pty Ltd

Drawing No. HS-STR-S-ACE-DW-FP 0301 _A, Issue A, 29 September 2021 by ACE Civil Pty Ltd

Drawing No. HS-STR-S-ACE-DW-FP 0302, Issue A, 29 September 2021 by ACE Civil Pty Ltd

Drawing No. HS-STR-S-ACE-DW-FP 0302 A, Issue A, 29 September 2021 by ACE Civil Pty Ltd

Drawing No. HS-STR-S-DW-0301, Issue 8, dated 14 December 2021 by SCP

Drawing No. HS-STR-S-DW-0302, Issue 6, dated 24 November 2021 by SCP

Drawing No. HS-STR-S-DW-0305, Issue 4, dated 14 December 2021 by SCP

Drawing No. HS-STR-S-DW-0306, Issue 3, dated 20 October 2021 by SCP

Drawing No. HS-STR-S-DW-0307, Issue 3, dated 14 December 2021 by SCP

Structural Detailed Design Report Revision C, dated 21 December 2020 by SCP

Geotechnical Report - PSM, Report No. PSM 3730-006R-REV 3 dated 18/02/20 and PSM 4133-003R dated 03/11/20

I certify that this design is structurally adequate and complies with BCA 2019 (Building Code of Australia), in particular Section B – Structure, and all relevant Australian Standards referenced in that section and Specification A1.3 of that code.

The basis on which this certificate is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon, are as follows:

- Australian Standards AS 1170.0-2002 Structural Design Actions Part 0 General Principles
- Australian Standards AS1170.1-2002 Structural Design Actions Part 1 Permanent, Imposed and Other Actions.
- Australian Standards AS 1170.2-2011 Structural Design Actions Part 2 Wind Actions
- Australian Standards AS1170.4-2007 Structural Design Actions Part 4 Earthquake Actions in Australia
- Australian Standards AS3600-2018, Concrete structures.
- Australian Standards AS2159-2009, Piling Design and installation.
- BCA 2019 Amendment 1

I also certify that I am an appropriately qualified and competent person practicing in the relevant area of work. I have recognised relevant experience in the area of work being certified. My employer holds appropriate current professional indemnity insurance to the satisfaction of the building owner or the principal authorising the design work being certified.

Ahmed Karim

BSc MSc MIEAust CPEng NER RPEQ



INSTALLATION CERTIFICATE

| Ref. | : | IC-FP-7471-4 |
|--|----------------|--|
| Date | : | 23-02-2022 |
| Project | : | Chatswood Educational Precinct - High School - Building S |
| Type of Building Work | : | Foundation Piles |
| Pursuant to the provisions Code of Australia: | of the Enviro | onment Planning and Assessment Regulations 2000 and Clause A2.2 of the Building |
| I Ahmed Karim | | of ACE Civil Pty Ltd |
| confirm that the works har requirements. This include | | mpleted in accordance with the design documentation, regulatory and other statutory ited to: |
| 1. ACE Civil Design | Structural Dra | awings: |
| a) HS-STR-S-AC | E-DW-FP 030 | 01, Issue B, 11 October 2021 by ACE Civil Pty Ltd |
| b) HS-STR-S-AC | E-DW-FP 030 | 01_B, Issue B, 11 October 2021 by ACE Civil Pty Ltd |
| c) HS-STR-S-A | E-DW-FP 03 | 01 _A, Issue A, 29 September 2021 by ACE Civil Pty Ltd |

- 2. Architectural Drawings by Architectus Drawings:
 - a) HS-AR-S-DW-1000, Revision 0, dated 28 January 2022
 - b) HS-AR-S-DW-1001, Revision 0, dated 28 January 2022
 - c) HS-AR-S-DW-1002, Revision 0, dated 28 January 2022
- Geotechnical engineering including piling, pile caps and shotcrete walls has been installed in accordance with Geotechnical Report by PSM Consult Pty Ltd, Report PSM4133-003R dated 03 November 2020
- 4. Australian Standards AS 1170.0-2002 Structural Design Actions Part 0 General Principles

d) HS-STR-S-ACE-DW-FP 0302, Issue A, 29 September 2021 by ACE Civil Pty Ltd e) HS-STR-S-ACE-DW-FP 0302_A, Issue A, 29 September 2021 by ACE Civil Pty Ltd

- 5. Australian Standards AS1170.1-2002 Structural Design Actions Part 1 Permanent, Imposed and Other Actions.
- 6. Australian Standards AS 1170.2-2011 Structural Design Actions Part 2 Wind Actions
- 7. Australian Standards AS1170.4-2007 Structural Design Actions Part 4 Earthquake Actions in Australia
- 8. Australian Standards AS3600-2018, Concrete structures.
- 9. Australian Standards AS2159-2009, Piling Design and installation.
- 10. BCA 2019 Amendment 1

I also certify that I am an appropriately qualified and competent person practicing in the relevant area of work. I have recognised relevant experience in the area of work being certified. My employer holds appropriate current professional indemnity insurance to the satisfaction of the building owner or the principal authorising the design work being certified.

Ahmed Karim

BSc MSc MIEAust CPEng NER RPEQ



Our Reference: N21005 - Cert 009

21/010/2022

Dear Sir/Madam.

RE: Structural Certificate – Chatswood PS & HS – Pacific Highway Site Structural Certification of Engineering DesignSSDA -9483 Condition D10 Submission Prior to OC

We hereby certify that this firm has undertaken the structural engineering design and documentation of selected items at the above project within the requirements of;

- the Building Code of Australia,
- AS3600 2018/Amdt 1-2019,
- AS1170.0:2002 Structural Design Actions Part 0 General Principles
- AS1170.1:2002 Structural Design Actions Part 1 Permanent, Imposed and Other Actions
- AS1170.2:2011 Structural Design Actions Part 2 Wind Actions
- AS1170.4:2007 Structural Design Actions Part 4 Earthquake Actions in Australia
- AS4100:2020 Steel Structures
- and accepted engineering practice.

The selected structural elements covered by this certification include the following items:

- Building S GF
- Building S L1 P1
- Building S L1 P2
- Building S L1 P3
- Building S L2 P1
- Building S L2 P2
- Building S L2 P3
- Building S L3 P1
- Building S L3 P2
- Building S L3 P3

We hereby confirm that in line with SSD 9483 Condition D10, D10a and D10b the site has been periodically inspected and the Certifier is satisfied that the structural works is deemed to comply with the final design drawings and as amended by issued Quantum Consulting Engineers Site Instructions / Reports. We hereby confirm the drawings listed on the Inspection Certificate have been checked with those listed on the final Design Certificate/s.

This certificate does not relieve the Builder of their responsibility as supervisors and to ensure the Quantum Consulting Engineers pre-pour site inspection reports are completed in full.

If you require any further information regarding this matter, do not hesitate to contact this office.

p. hat

Yours sincerely

Lance Rogers
Managing Director
B.E.(Civil), MIEAust, NPER

Building SQuantum Drawing List

| Building | Drawing | # | Rev |
|------------|-----------------------------------|----------------|-----|
| Building S | GF CONCRETE PROFILE PLAN | HS-PT-S-DW-060 | 2 |
| Building S | GF BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-061 | 2 |
| Building S | GF TOP REINFORCEMENT PLAN | HS-PT-S-DW-062 | 2 |
| Building S | GF POST TENSIONING PLAN | HS-PT-S-DW-063 | 2 |
| Building S | L1 P1&2 CONCRETE PROFILE | HS-PT-S-DW-065 | 4 |
| Building S | L1 P1&2 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-066 | 4 |
| Building S | L1 P1&2 TOP REINFORCEMENT PLAN | HS-PT-S-DW-067 | 6 |
| Building S | L1 P1&2 POST TENSIONING PLAN | HS-PT-S-DW-068 | 5 |
| Building S | L1 P3 CONCRETE PROFILE | HS-PT-S-DW-070 | 3 |
| Building S | L1 P3 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-071 | 3 |
| Building S | L1 P3 TOP REINFORCEMENT PLAN | HS-PT-S-DW-072 | 2 |
| Building S | L1 P3 POST TENSIONING PLAN | HS-PT-S-DW-073 | 2 |
| Building S | L2 P1&2 CONCRETE PROFILE | HS-PT-S-DW-075 | 4 |
| Building S | L2 P1&2 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-076 | 4 |
| Building S | L2 P1&2 TOP REINFORCEMENT PLAN | HS-PT-S-DW-077 | 6 |
| Building S | L2 P1&2 POST TENSIONING PLAN | HS-PT-S-DW-078 | 5 |
| Building S | L2 P3 CONCRETE PROFILE | HS-PT-S-DW-080 | 4 |
| Building S | L2 P3 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-081 | 3 |
| Building S | L2 P3 TOP REINFORCEMENT PLAN | HS-PT-S-DW-082 | 2 |
| Building S | L2 P3 POST TENSIONING PLAN | HS-PT-S-DW-083 | 2 |
| Building S | L3 P1&2 CONCRETE PROFILE | HS-PT-S-DW-085 | 4 |
| Building S | L3 P1&2 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-086 | 3 |
| Building S | L3 P1&2 TOP REINFORCEMENT PLAN | HS-PT-S-DW-087 | 5 |
| Building S | L3 P1&2 POST TENSIONING PLAN | HS-PT-S-DW-088 | 6 |
| Building S | L3 P3 CONCRETE PROFILE | HS-PT-S-DW-090 | 4 |
| Building S | L3 P3 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-091 | 3 |
| Building S | L3 P3 TOP REINFORCEMENT PLAN | HS-PT-S-DW-092 | 3 |
| Building S | L3 P3 POST TENSIONING PLAN | HS-PT-S-DW-093 | 3 |

Building S Quantum Inspection Report List

| Building | Drawing | # | Rev | Pass |
|------------|-----------------------------------|----------------|-----|------|
| Building S | GF CONCRETE PROFILE PLAN | HS-PT-S-DW-060 | 2 | Yes |
| Building S | GF BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-061 | 2 | Yes |
| Building S | GF TOP REINFORCEMENT PLAN | HS-PT-S-DW-062 | 2 | Yes |
| Building S | GF POST TENSIONING PLAN | HS-PT-S-DW-063 | 2 | Yes |
| Building S | L1 P1&2 CONCRETE PROFILE | HS-PT-S-DW-065 | 4 | Yes |
| Building S | L1 P1&2 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-066 | 4 | Yes |
| Building S | L1 P1&2 TOP REINFORCEMENT PLAN | HS-PT-S-DW-067 | 6 | Yes |
| Building S | L1 P1&2 POST TENSIONING PLAN | HS-PT-S-DW-068 | 5 | Yes |
| Building S | L1 P3 CONCRETE PROFILE | HS-PT-S-DW-070 | 3 | Yes |
| Building S | L1 P3 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-071 | 3 | Yes |
| Building S | L1 P3 TOP REINFORCEMENT PLAN | HS-PT-S-DW-072 | 2 | Yes |
| Building S | L1 P3 POST TENSIONING PLAN | HS-PT-S-DW-073 | 2 | Yes |
| Building S | L2 P1&2 CONCRETE PROFILE | HS-PT-S-DW-075 | 4 | Yes |
| Building S | L2 P1&2 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-076 | 4 | Yes |
| Building S | L2 P1&2 TOP REINFORCEMENT PLAN | HS-PT-S-DW-077 | 6 | Yes |
| Building S | L2 P1&2 POST TENSIONING PLAN | HS-PT-S-DW-078 | 5 | Yes |
| Building S | L2 P3 CONCRETE PROFILE | HS-PT-S-DW-080 | 4 | Yes |
| Building S | L2 P3 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-081 | 3 | Yes |
| Building S | L2 P3 TOP REINFORCEMENT PLAN | HS-PT-S-DW-082 | 2 | Yes |
| Building S | L2 P3 POST TENSIONING PLAN | HS-PT-S-DW-083 | 2 | Yes |
| Building S | L3 P1&2 CONCRETE PROFILE | HS-PT-S-DW-085 | 4 | Yes |
| Building S | L3 P1&2 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-086 | 3 | Yes |
| Building S | L3 P1&2 TOP REINFORCEMENT PLAN | HS-PT-S-DW-087 | 5 | Yes |
| Building S | L3 P1&2 POST TENSIONING PLAN | HS-PT-S-DW-088 | 6 | Yes |
| Building S | L3 P3 CONCRETE PROFILE | HS-PT-S-DW-090 | 4 | Yes |
| Building S | L3 P3 BOTTOM REINFORCEMENT PLAN | HS-PT-S-DW-091 | 3 | Yes |
| Building S | L3 P3 TOP REINFORCEMENT PLAN | HS-PT-S-DW-092 | 3 | Yes |
| Building S | L3 P3 POST TENSIONING PLAN | HS-PT-S-DW-093 | 3 | Yes |



- Unit 1 / 1 Rankin Street Bathurst NSW 2795
- t 1300 BARNSON (1300 227 676)
- e generalenquiry@barnson.com.au
- w www.barnson.com.au

date

5/07/2022 reference

37994-SL06 B

receiver

Aus-Truss

Attn: Rojer Samuel

7 Braemar Ave BRAEMAR NSW 2575 Dear Sir,

Re: 20397 Chatswood Public School at 5 Centennial Ave, Chatswood NSW 2067 Building S Steel Wall and Roof Frames Structural Design Certification

As requested, we certify that the structural design of the steel roof & wall frame for the above project, as detailed on production drawings by Aus-Truss referenced on the attached document transmittal form, is structurally adequate to the Building Code of Australia (BCA) 2019, Volume I, Amendment 1, Part B1 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) Roof:

Self-weight of Steel sheeted roof, purlins and ceilings & solar panels & mechanical equipment loading (maximum 0.5 kPa).

- (b) Live Load
 - (i) Roof: Maintenance load of 1.8/A + 0.12kPa (min 0.25kPa) as per AS1170.1-2002 or roof Point Loading: 1.1kN as per AS1170.1-2002.
 - (ii) Roof safety point loading as per drawing LGS S 120, revision B, prepared by Austruss.
- (c) Wind Load as per SCP consultants engineering drawings
 - (i) Region A, terrain category 2.5, Md = Mt = Ms = 1.0, Regional wind speed 46 m/s, importance level 3 to AS1170.2-2011.

bathurst | dubbo | mudgee | sydney | tamworth



- (d) Seismic
 - (i) Hazard factor 0.08, subsoil class Ce, importance level 3, earthquake design category II to AS1170.4-2007.

2. Steelwork

- (a) Cold Formed Sections: Grade 550 to AS4600-2018.
- (b) Hollow Sections: Grade 450 to AS4100-1998.
- (c) Durability: Atmospheric Corrosivity Category C3 to AS4312-2008:
 - (i) Covered steelwork: Class 2.5 blast plus 75 micron Epoxy Zinc coating to AS2312.1-2014 or ILG140 to AS4792-2006.
 - (ii) Exposed Steelwork: HDG320 to AS 4680-2006
 - (iii) Cold formed Steelwork: AZ150 or AM150 to AS1397-2011
 - (iv) Screws to be class 3 to AS3566.2, Bolts to be HDG to AS1214. Masonry bolts to have minimum 25 microns zinc coating.
- 3. Serviceability: Design complies with the below mentioned NASH 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/150.
 - (d) Stud walls under lateral loading (serviceability wind loads) Deflection < Height/200 or maximum 20mm.
- 4. **Fabrication/Erection/Tie down:** Complies with Aus-Truss steel frames standard specification. Purlin rafters provided with bridging at maximum 5m spacing.

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

Yours faithfully

BARNSON PTY LTD

Richard Noonan

BE(Hons) ME FIEAust CPEng NER

Director

Enclose: Transmittal form.

| Zone/Stage/Building: BUILDING S - WEST | | | | Job | No. | 20397 | • | | | DOCUMENT REGISTER AUST | | | | | ΤR | USS | | | |
|---|----------------------------|---|---------------------------|----------------------------|---------|---------|----------|----------|----------|------------------------|----------|--|-----------|-------|----|-----|--|---|--|
| Customer Details (Company name and clied | nt name) | | | Project/ Stage and Address | | | | | | | | | Rev H 08/ | 12/21 | | 10 | | | 000 |
| Richards Crookes Construction | | | | 5 Center | ood , 2 | 2067 | | | | | | Ph 02 4860 1400 Fax 02 4872 1707 | | | | | | | |
| Distributed to: | Company | | | | 1/12/21 | 9/12/21 | 28/03/22 | 26/04/22 | 29/04/22 | 1305/22 | 19/05/22 | 27/05/22 | 15/06/22 | | | | | | |
| Tom Price | Richard Crookes Constru | Richard Crookes Constructions Pty Limited | | | | | 2 | 3 | 4 | 5 | 6 | Α | | | | | | | |
| Hugo Lin | Richard Crookes Constru | Richard Crookes Constructions Pty Limited | | | | 1 | 2 | 3 | 4 | 5 | 6 | Α | | | | | | | |
| Adam Zivanovic | Richard Crookes Constru | ctions Ptv L | imited | evi; | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Α | | | | | | | |
| Adam zivanovic | | | | 8 | | • | _ | | • | | | | | | | | | | |
| Richard Noonan | Barnson | | | Doc. Reg Revision | | | | | | 5 | | | В | | | | | | |
| Thomas Nguyen | Barnson | | | ã | | | | | | 5 | | | В | | | | | | |
| Document Description | Document No. | File Type | Drawing Status | No. Sheets | | 1 | | 1 | ' | 1 | | F | Revision | " | ' | | • | | , |
| Layout - Column | LGS-S - 101 | PDF | Construction | 1 | | | | | 1 | 3 | 4 | Α | В | | | | | | |
| Layout - Wall | LGS-S - 110 | PDF | Construction | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Α | В | | | | | | |
| Layout - Truss | LGS-S - 120 | PDF | Construction | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Α | В | | | | | | |
| Layout - Truss with mech. | LGS-S - 121 | PDF | Construction | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Α | В | | | | | | |
| Setions and Details | LGS-S - 150 | PDF | Construction | 1 | 0 | 1 | 2 | 3 | 4 | 5 | 8 | Α | В | | | | | | |
| 90mm Walls - Bridge | LGS-S - 200 | PDF | Construction | 24 | _ | 1 | 2 | 3 | 4 | 5 | - | Α | В | | | | | | |
| 90mm Walls - East | LGS-S - 200 LGS-S - 201 | PDF | Construction Construction | 56 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | A | В | | | | | | |
| 90mm Walls - West | LGS-S - 201 | PDF | Construction | 73 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | A | В | | | | | | |
| 90mm Truss - East | LGS-S - 221 | PDF | Construction | 15 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | A | В | | | | | | |
| 90mm Truss - West | LGS-S - 222 | PDF | Construction | 19 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | A | В | | | | | | |
| Purlins - Bridge | LGS-S - 223 | PDF | Construction | 100 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Α | В | | | | | | |
| Purlins - East | LGS-S - 224 | PDF | Construction | 143 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | A | В | | | | | | |
| Purlins - West | LGS-S - 225 | PDF | Construction | 111 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Α | В | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Structural production Drawing | LGS-S - 300 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 301 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 302 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 303 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 304 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 305 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 306 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 307 | PDF | Construction | 1 | | | | | | | | | Α | | | | | | |
| Structural production Drawing | LGS-S - 308 | PDF | Construction | 1 | | | | | | | | | A | | | | | | |
| Structural production Drawing | LGS-S - 309 | PDF | Construction | 1 | | | | | | | | | A | | | | - | | |
| Structural production Drawing Structural production Drawing | LGS-S - 310 LGS-S - 311 | PDF PDF | Construction | 1 | | | | | | | | | A | | | | + | | |
| Structural production Drawing Structural production Drawing | LGS-S - 311 LGS-S - 312 | PDF | Construction Construction | 1 | | | | | | | - | | A | | | 1 | - | | |
| Structural production Drawing Structural production Drawing | LGS-S - 312 LGS-S - 313 | PDF | Construction | 1 | | | | | | | _ | | A | | | | + | | |
| Structural production Drawing Structural production Drawing | LGS-S - 314 | PDF | Construction | 1 | | | | <u> </u> | | | | | A | | | | + | + | |
| Structural production Drawing | LGS-S - 315 | PDF | Construction | 1 | | | | | | | | | Ā | | | 1 | + | | |
| Structural production Drawing | LGS-S - 316 | PDF | Construction | 1 | | | | | | | | | A | | | | | | |
| Structural production Drawing | LGS-S - 317 | PDF | Construction | 1 | | | | | | | | | A | | | | † | | |
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| Structural production Drawing | LGS-S - 318 | PDF | Construction | 1 | | | Α | | | | |
|-------------------------------|-------------|-----|--------------|---|--|--|---|--|--|--|--|
| Structural production Drawing | LGS-S - 319 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 320 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 321 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 322 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 323 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 324 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 325 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 326 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 327 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 328 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 329 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 330 | PDF | Construction | 1 | | | A | | | | |
| Structural production Drawing | LGS-S - 331 | PDF | Construction | 1 | | | A | | | | |
| | | | | | | | | | | | |

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Unit 1 / 1 Rankin Street Bathurst, NSW 2795

1300 BARNSON (1300 227 676)

generalenquiry@barnson.com.au

to. AUSTRUSS

Brad Tuckwell7 Braemar Avenue
Braemar NSW 2575

date.

31.08.2022

reference.

37994-SL07 A

Dear Sir,

Re: 20397 Chatswood Public School at 5 Centennial Avenue, Chatswood 2067 Building S - Steel Roof and Wall Frames Structural Certification

Ha Nguyen, a Structural Engineer representing Barnson, inspected the steel roof and wall frames of the above building on the 4^{th} and 17^{th} August 2022. The defects noted have been signed off by the installers as being rectified.

We therefore advise that the above building steel framing is structurally adequate for the design parameters detailed on our design certification letter.

If you have any further enquiries regarding this matter, please contact the undersigned.

Yours faithfully,

BARNSON PTY LTD ABN 43 088 342 625

Richard Noonan

BE(Hons) ME FIEAust CPEng NER

Director