

## Construction Compliance - SSDA

**DATE** 24/11/2022

TO Richard Crookes Constructions Pty Ltd

**PROJECT** Upgrade to Chatswood Public School – Building P1/P2

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
PS-STR-P-DW-0000	TITLE SHEET	2
PS-STR-P-DW-0010	BUILDING P LOADING PLANS SHEET 1	2
PS-STR-P-DW-0011	BUILDING P LOADING PLANS SHEET 2	2





DRAWING #	TITLE	REVISION
PS-STR-P-DW-0012	BUILDING P LOADING PLANS SHEET 3	2
PS-STR-P-DW-0301	BUILDING P1 FOOTING PLAN	6
PS-STR-P-DW-0302	BUILDING P2 FOOTING PLAN	6
PS-STR-P-DW-0305	FOOTING DETAILS SHEET 1	5
PS-STR-P-DW-0306	FOOTING DETAILS SHEET 2	4
PS-STR-P-DW-0307	FOOTING DETAILS SHEET 3	6
PS-STR-P-DW-0308	FOOTING DETAILS SHEET 4	4
PS-STR-P-DW-0309	FOOTING DETAILS SHEET 5	4
PS-STR-P-DW-0310	FOOTING DETAILS SHEET 6	4
PS-STR-P-DW-0311	FOOTING DETAILS SHEET 7	6
PS-STR-P-DW-0312	BUILDING P FOOTING DETAILS SHEET 8	4
PS-STR-P-DW-0313	FOOTING DETAILS SHEET 9	3
PS-STR-P-DW-0401	COLUMN SCHEDULE LOWER GROUND 2 & 1	5
PS-STR-P-DW-0402	COLUMN SCHEDULE GROUND FLOOR	5
PS-STR-P-DW-0403	COLUMN SCHEDULE LEVEL 1	3
PS-STR-P-DW-0404	COLUMN SCHEDULE LEVEL 2	3
PS-STR-P-DW-0405	COLUMN SCHEDULE LEVEL 3	3
PS-STR-P-DW-0406	COLUMN SCHEDULE LEVEL 4	3
PS-STR-P-DW-0501	P1 WALL SCHEDULE & ELEVATIONS SHEET 1	2
PS-STR-P-DW-0502	P1 WALL SCHEDULE & ELEVATIONS SHEET 2	2
PS-STR-P-DW-0510	P2 WALL SCHEDULE & ELEVATIONS SHEET 1	2
PS-STR-P-DW-0511	P2 WALL SCHEDULE & ELEVATIONS SHEET 2	2
PS-STR-P-DW-0801	BUILDING P1 - STAIR SCHEDULES & ELEVATIONS	2
PS-STR-P-DW-0802	BUILDING P2 - STAIR SCHEDULES & ELEVATIONS SHEET 1	2
PS-STR-P-DW-0803	BUILDING P2 - STAIR SCHEDULES & ELEVATIONS SHEET 2	
PS-STR-P-DW-0850	TYPICAL R.C. STAIR DETAILS - FLIGHT TYPES	2
PS-STR-P-DW-0851	TYPICAL R.C. STAIR DETAILS - LANDING TYPES	2
PS-STR-P-DW-0901	BUILDING P1 - LOWER GROUND FLOOR 2 GENERAL ARRANGEMENT PLAN	
PS-STR-P-DW-0902	BUILDING P1 - LOWER GROUND FLOOR 2 REINFORCEMENT PART PLAN	2
PS-STR-P-DW-0905	SLAB ON GROUND DETAILS SHEET 1	2
PS-STR-P-DW-0906	SLAB ON GROUND DETAILS SHEET 2	2



DRAWING #	TITLE	REVISION
PS-STR-P-DW-0910	BUILDING P1 - LOWER GROUND FLOOR 1 GENERAL ARRANGEMENT PLAN	5
PS-STR-P-DW-0920	GROUND FLOOR GENERAL ARRANGEMENT PLAN - BUILDING P1	3
PS-STR-P-DW-0921	GROUND FLOOR GENERAL ARRANGEMENT PLAN - BUILDING P2	6
PS-STR-P-DW-0922	BUILDING P - BUILDING P2 GROUND FLOOR REINFORCEMENT PART PLAN	2
PS-STR-P-DW-0930	SUSPENDED FLOOR DETAILS SHEET 1	2
PS-STR-P-DW-0931	SUSPENDED FLOOR DETAILS SHEET 2	3
PS-STR-P-DW-0932	SUSPENDED FLOOR DETAILS SHEET 3	4
PS-STR-P-DW-0933	SUSPENDED FLOOR DETAILS SHEET 4	5
PS-STR-P-DW-0934	SUSPENDED FLOOR DETAILS SHEET 5	5
PS-STR-P-DW-0940	LEVEL 1 GENERAL ARRANGEMENT PLAN - BUILDING P1	3
PS-STR-P-DW-0941	LEVEL 1 GENERAL ARRANGEMENT PLAN - BUILDING P2	5
PS-STR-P-DW-0950	LEVEL 2 GENERAL ARRANGEMENT PLAN - BUILDING PI	4
PS-STR-P-DW-0951	LEVEL 2 GENERAL ARRANGEMENT PLAN - BUILDING P2	5
PS-STR-P-DW-0960	LEVEL 3 GENERAL ARRANGEMENT PLAN - BUILDING P1	4
PS-STR-P-DW-0961	LEVEL 3 GENERAL ARRANGEMENT PLAN - BUILDING P2	5
PS-STR-P-DW-0970	LEVEL 4 GENERAL ARRANGEMENT PLAN - BUILDING P1	4
PS-STR-P-DW-0971	LEVEL 4 GENERAL ARRANGEMENT PLAN - BUILDING P2	5
PS-STR-P-DW-0980	ROOF LEVEL GENERAL ARRANGEMENT PLAN - BUILDING PI	4
PS-STR-P-DW-0981	ROOF LEVEL GENERAL ARRANGEMENT PLAN - BUILDING P2	2
PS-STR-P-DW-0985	ROOF LEVEL REINFORCEMENT PLANS	2
PS-STR-P-DW-1002	ROOF FRAMING PLAN - BUILDING P2	4
PS-STR-P-DW-1050	STEEL DETAILS SHEET 1	2
PS-STR-P-DW-1051	STEEL DETAILS SHEET 2	3
PS-STR-P-DW-1052	STEEL DETAILS SHEET 3	4
PS-STR-P-DW-1055	PLATE CONNECTION DETAILS	2



DRAWING #	TITLE	REVISION
PS-STR-P-DW-1060	MISCELLANEOUS STEELWORK - SHEET 1	2
PS-STR-P-DW-1061	MISCELLANEOUS STEELWORK - SHEET 2	2
X-STR-W-DW-0001	GENERAL NOTES SHEET 1	3
X-STR-W-DW-0002	GENERAL NOTES SHEET 2	2
X-STR-W-DW-0450	COLUMN DETAILS SHEET 1	2
X-STR-W-DW-0451	COLUMN DETAILS SHEET 2	2
X-STR-W-DW-0550	TYPICAL WALL DETAILS SHEET 1	2
X-STR-W-DW-0551	TYPICAL WALL DETAILS SHEET 2	2
X-STR-W-DW-0552	TYPICAL WALL DETAILS SHEET 3	2
X-STR-W-DW-0555	DINCEL WALL DETAILS	2
X-STR-W-DW-0701	MASONRY WALL DETAILS SHEET 1	3
X-STR-W-DW-0702	MASONRY WALL DETAILS SHEET 2	2



- In providing this Certificate, I have relied upon the following documentation supplied to me 7 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.
- This Certificate excludes the following elements which have been designed and, 8 constructed and certified by others:
  - Post tensioned floor slabs by Australian Post-Tensioning Pty Ltd. Refer to attached
  - Piled foundation by ACECivil Pty Ltd. Refer to attached certificate.
  - Roof Structure over Pl and Link Bridge by AUSTRUSS. Refer to attached certificate.
  - Structural Steel by GK BLUE Pty Ltd. Refer to attached certificate.
- 9 This certificate does not relieve any other party of its responsibilities, liabilities or contractual obligations.

Yours faithfully SCP Consulting Pty Ltd

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

Director



## **INSTALLATION CERTIFICATE**

Ref.	:	IC-FP-7471-11
Date	:	26-10-2022
Project	:	Chatswood Educational Precinct - Public School - Building P1
Type of Building Work	:	Foundation Piles
Pursuant to the provisions Code of Australia:	of the En	vironment Planning and Assessment Regulations 2000 and Clause A2.2 of the Building
I Mohammed Zeidar	1	of ACE Civil Pty Ltd
confirm that the works have requirements. This include		completed in accordance with the design documentation, regulatory and other statutor limited to:
1. ACE Civil Design	Structural	Drawings:
a) PS-STR-P1-A	CE-DW-FI	O301, Revision C, 22 July 2021 by ACE Civil Pty Ltd
b) PS-STR-P1-A	CE-DW-FI	P 0301, Revision C, 22 July 2021 by ACE Civil Pty Ltd

- 2. Architectural Drawings by Architectus Drawings:
  - a) PS-AR-P-DW-1000, Revision 7, dated 11 March 2022
  - b) PS-AR-P-DW-1001, Revision 12, dated 5 August 2022
  - c) PS-AR-P-DW-1002, Revision 5, dated 3 December 2021
  - d)
- 3. 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
- 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.

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Mohammed Zeidan BEng(Civil) | MIEAust 3779021



## **INSTALLATION CERTIFICATE**

Ref.		:	IC-FP-7471-10	
Date		:	26-10-2022	
Project		:	Chatswood Educational Precinct - Pu	blic School - Building P2
Type of I	Building Work	:	Foundation Piles	
Pursuant Code of A		of the Er	nvironment Planning and Assessment Regulat	tions 2000 and Clause A2.2 of theBuilding
I <u> </u>	ohammed Zeidar	1	of ACE Civil Pty L	td
	hat the works hat the works had ents. This include		•	documentation, regulatory and other statutor
1.	ACE Civil Design	Structura	l Drawings:	
	a) PS-STR-P2-A	CE-DW-F	P 0301, Revision C, 22 July 2021 by ACE Civil F	Pty Ltd
	b) PS-STR-P2-A	CE-DW-F	P 0302, Revision C, 22 July 2021 by ACE Civil F	Pty Ltd
2.	Architectural Dra	iwings by	Architectus Drawings:	
			evision 12, dated 30 September 2022	

- 3. Geotechnical engineering including piling, pile caps and shotcrete walls has been installed in accordancewith
- 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
- 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.

b) PS-AR-P-DW-4003, Revision 13, dated 30 March 2022

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.

Mohammed Zeidan

BEng(Civil) | MIEAust 3779021



Our Reference: N21005 - Cert 010

21/10/2022

Dear Sir/Madam.

# RE: Structural Certificate – Chatswood PS & HS – Pacific Highway Site Structural Certification of Engineering Design – SSDA -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 P1 Lower Ground 1
- Building P1 Ground Floor
- Building P1 Level 1
- Building P1 Level 2
- Building P1 Level 3
- Building P1 Level 4
- Building P2 Level 1
- Building P2– Level 2Building P2 Level 3
- Building P2 Level 4

We hereby confirm that inline 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.

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Yours sincerely

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

# **Building P**Quantum Drawing List

Quantum Drawing List					
Building #		DESCRIPTION	LEVEL	POUR#	REV#
P1	N848-S005	CONCRETE PROFILE	LG1	P1	01
P1	N848-S006 BOTTOM REINFORCEMENT		LG1	P1	01
P1	N848-S007	8-S007 TOP REINFORCEMENT		P1	01
P1	N848-S008	POST TENSIONING	LG1	P1	01
P1	N848-S010	CONCRETE PROFILE	GF	P1	01
P1	N848-S011	BOTTOM REINFORCEMENT	GF	P1	01
P1	N848-S012	TOP REINFORCEMENT	GF	P1	01
P1	N848-S013	POST TENSIONING	GF	P1	01
P1	N848-S015	CONCRETE PROFILE	L1	P1	01
P1	N848-S016	BOTTOM REINFORCEMENT	L1	P1	01
P1	N848-S017	TOP REINFORCEMENT	L1	P1	01
P1	N848-S018	POST TENSIONING	L1	P1	01
P1	N848-S020	CONCRETE PROFILE	L2	P1	02
P1	N848-S021	BOTTOM REINFORCEMENT	L2	P1	02
P1	N848-S022	TOP REINFORCEMENT	L2	P1	02
P1	N848-S023	POST TENSIONING	L2	P1	02
P1	N848-S025	CONCRETE PROFILE	L3	P1	02
P1	N848-S026	BOTTOM REINFORCEMENT	L3	P1	02
P1	N848-S027	TOP REINFORCEMENT	L3	P1	02
P1	N848-S028	POST TENSIONING	L3	P1	02
P1	N848-S030	CONCRETE PROFILE	L4	P1	02
P1	N848-S031	BOTTOM REINFORCEMENT	L4	P1	02
P1	N848-S032	TOP REINFORCEMENT	L4	P1	02
P1	N848-S033	POST TENSIONING	L4	P1	02
P2	N848-S035	CONCRETE PROFILE	L1	P2	01
P2	N848-S036	BOTTOM REINFORCEMENT	L1	P2	02
P2	N848-S037	TOP REINFORCEMENT	L1	P2	01
P2	N848-S038	POST TENSIONING	L1	P2	01
P2	N848-S040	CONCRETE PROFILE	L2	P2	01
P2	N848-S041	BOTTOM REINFORCEMENT	L2	P2	01
P2	N848-S042	TOP REINFORCEMENT	L2	P2	01
P2	N848-S043	POST TENSIONING	L2	P2	01
P2	N848-S045	6045 CONCRETE PROFILE		P2	02
P2	N848-S046	BOTTOM REINFORCEMENT	L3	P2	02
P2	N848-S047	TOP REINFORCEMENT	L3	P2	02
P2	N848-S048	POST TENSIONING	L3	P2	02
P2	N848-S050	CONCRETE PROFILE	L4	P2	01
P2	N848-S051	BOTTOM REINFORCEMENT	L4	P2	01
P2	N848-S052	TOP REINFORCEMENT	L4	P2	01
P2	N848-S053	POST TENSIONING	L4	P2	01









### BUILDINGS P1 & P2 - POST TENSIONING INSTALLATION CERTIFICATE

Date: 03/11/2022

PROJECT: Chatswood Building P1 & P2

**COMPANY: Richard Crookes Construction** 

ATT: Lily Beckhurst

AusPT Confirms that all post tensioning on Building P1 Levels LG to L4 & Building P2 Levels 1 to 4 of the Chatswood School project were installed as per "QCE's" specification and approved post tensioning shop drawings listed below.

N848-S005-01	N848-S015-01	N848-S025-02	N848-S035-01	N848-S045-02
N848-S006-01	N848-S016-01	N848-S026-02	N848-S036-02	N848-S046-02
N848-S007-01	N848-S017-01	N848-S027-02	N848-S037-01	N848-S047-02
N848-S008-01	N848-S018-01	N848-S028-02	N848-S038-01	N848-S048-02
N848-S010-01	N848-S020-02	N848-S030-02	N848-S040-01	N848-S050-01
N848-S011-01	N848-S021-02	N848-S031-02	N848-S041-01	N848-S051-01
N848-S012-01	N848-S022-02	N848-S032-02	N848-S042-01	N848-S052-01
N848-S013-01	N848-S023-02	N848-S033-02	N848-S043-01	N848-S053-01

Should you have any further enquires please do not hesitate to call our office.

Regards

Matt Grima

Administrator/Estimator



21 October 2022

Harry Power Richard Crooke Constructions Pty Ltd Level 3, 4 Broadcast Way Artarmon NSW 2064

Re: Completion Certificate for Public & High Schools Upgrade - Chatswood

**Project: Light Weight Steel Framing and Roof Trusses** 

Our Job Reference: # 20397 / Subcontract Number: # 1213B\_AUSTRUS

As we have now reached completion of the above project we confirm that all frames and trusses have been manufactured and installed in compliance with engineered documents, Australian Standards AS4100-1998 and AS4600-2005 and are deemed fit for purpose.

Please find attached documents for your Manuals:

- 1. Compliance Certificate
- Structural Design Certification verifying that the steel structure and cold-formed steel
  structure have been installed in accordance with AS4100-1998 and AS4600-2005
  respectively and conform with the requirements of all specifications listed on the drawings
  provided to Austruss.

We sincerely hope you are satisfied with our product and service, if we can be of assistance in the future please call.

Yours sincerely

Andrew Fowler Managing Director

PHONE 02 4860 1400

7 Braemar Ave Braemar NSW 2575

POSTAL PO Box 1132 Mittagong NSW 2575 ABN 78 169 585 415

austruss.com.au



- Unit 1/1 Rankin Street Bathurst NSW 2795
- 1300 BARNSON (1300 227 676)
- e generalenquiry@barnson.com.au
- w www.barnson.com.au
- abn 43 088 342 625 acn 088 342 625

date 20.06.2022

reference 37994-SL05\_A- Building P1-I

receiver
Aus-Truss
Attn: Brad Tuckwell
7 Braemar Avenue
Braemar NSW 2575

Dear Sir,

Re: #20397 Chatswood Public School at 5 Centennial Avenue, Chatswood NSW 2067 Building P1 - Steel Roof and Wall Frames Structural Certification

Ha Nguyen, an Engineer for Barnson inspected the erected steel roof and wall frames of the above building on the 25<sup>th</sup> May 2022. The defects noted on the Austruss defect list on "Procore" 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

Richard Noonan

BE(Hons) ME FIEAust CPEng NER

Director





### 9. REPORTS & CERTIFICATIONS

Certificates from relevant authorities, copies of manufacturers' warranties and product certificate

#### **INSTALLATION CERTIFICATE**

Trade	Structural Steel		
Contractor	GK BLUE PTY LTD		
CLIENT	RICHARD CROOKES CONSTRUCTIONS		
Project Name	1213B		
Revision	A		

**Project** <u>Chatswood Education Precinct Stage 3 Main Works – Building P1 and P2</u>

- Building P2 Level 4 Roof Assembly
- Building P1 & P2 Brick Pier Supports
- **Building P2 Door Headers**

Was installed as per the approved shop documentation and drawings.

We hereby certify that the scope of works contracted at project 1213B, have been installed in accordance with the design, specification and nominated standards.

AS/NZS 1554.1:2000 Structural Steel Welding

AS/NZS 5131:2016 Structural Steelwork - Fabrication and Erection

AS/NZS 1554.1.2014 – Structural Steel welding of Steel Structures

AS/NZS 1170.1:2002 – Structural design actions

Structural Bolts Manufactured to AS/NZS 1252:1983 dimensions

Structural Bolts Manufactured to AS/NZS 1252:1996 mechanical properties

Prepared By

Signed

Kieran Zube

Dated 14/08/2022

Director - GK Blue Pty Ltd