

PROJECT: NIHON UNIVERSITY NEWCASTLE CAMPUS

Monthly Progress Control Group Report

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Report No.	01
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Prepared By	Ben Moss (Built Pty Ltd)

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Document Control

Revision History

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Draft A	Ben Moss	16.01.2020	Draft Report
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PCG Report 01	Ben Moss	31.01.2020	January 2020

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1. Introduction

Built NSW Pty Ltd has been engaged by Nihon Daigaku Australia Newcastle Pty Ltd, c/o Azusa Sekkei & dwp Australia Pty Ltd to undertake the project and works associated with the redevelopment of the existing heritage listed Newcastle Courthouse site for the new Nihon University Newcastle Campus located at 9 Church Street, Newcastle NSW Australia.

Built NSW has been engaged under a Design & Construct (D&C) Contract for the Services and Structural (excluding Heritage Building) packages whilst all other packages are Construct Only.

The project consists of the complete demolition of 2 x existing 3 storey buildings, site remediation (including the management of any resultant contamination, mine workings or archaeological findings, the restoration and refurbishment of the retained and state heritage listed Newcastle Courthouse building and the construction of 2 x 4 storey buildings comprising student accommodation in the eastern building and teaching space/carpark in the western building.

The Built NSW team for the Nihon University Newcastle Campus project holds a wealth of experience and qualifications and look forward to completing this State Significant Development for the Client, Nihon Daigaku Australia Newcastle Pty Ltd.

Copies of both Built NSW and the Project Consultant Organisational Charts and Curriculum Flow Chart are attached in **Appendix A** and **Appendix B** respectively.

2. Project Details

Date of Site Report: 31st January 2020

Prepared by Company: Built Pty Ltd

Address: Level 1, 155-157 Lambton Rd, Broadmeadow, NSW 2290

Contact: Rob McLaughlin

Phone: 02 4077 5906

Email: robertmclaughlin@built.com.au

Project No: 201229

Project Name: Nihon University Newcastle Campus

Address: 9 Church Street, Newcastle East, NSW 2300

Client: Nihon Daigaku Australia C/O Azusa Sekkei

Architect / Head Contract Administration: dwp Australia Pty Ltd

Address: 6 X SHULQWHQ Street, Newcastle East, NSW 2300

Contact: Ed Clode

Phone: 02 4926 5222

Email: Edward.c@dwp.com

3. Report

3.1 HSE Overview

BUILT commenced site establishment & investigations onsite in November 2019 with zero incidents or issues occurring.

Demolition works commenced in January 2020 with zero incidents at this time and excellent HSE performance. Prior to demolition works commencing, BUILT met with SafeWork NSW and our demolition subcontractor onsite at Nihon University, Newcastle to provide information on the demolition scope of works, methodology and proposed HSE measures to be implemented during the works. BUILT believes that this proactive approach to HSE on our projects promotes clear communication between stakeholders, leading to a safer project.

A summary of HSE issues for December 2019 & January 2020 is outlined below.

DATE OF ISSUE	BRIEF SUMMARY OF ISSUE	CORRECTIVE ACTION COMPLETED
17/01/2020	BUILT invited SafeWork NSW Inspectors to site for a meeting with the demolition subcontractor. All parties discussed the proposed scope of works, methodology and HSE measures to be implemented on the project.	Nil.

3.2 Community Liaison Overview

In accordance with SSD- & R Q G L W L R Q V R I & R Q V H Q W D Q G % 8 , / 7 ¶ V & R P P X Q L W \ / L D businesses, and organisations. BUILT intends to work closely with our neighbours for the duration of the Nihon University project by regularly updating and consulting stakeholders on upcoming works and overall construction progress.

BUILT has also established a Community Liaison email account (nihon@built.com.au) that is monitored by the Community Liaison Officers daily and a 24-hour contact number is present on project signage located on Church Street access gates.

BUILT maintains a register of all community complaints, notices, and queries received (**attached in Appendix C**) to ensure compliance with SSD conditions and reporting requirements. A brief summary of community liaison issues received in December 2019 and January 2020 is outlined below.

DATE OF ISSUE	BRIEF SUMMARY OF ISSUE	CORRECTIVE ACTION COMPLETED
05/12/2019	Community Notice ±Letter issued to nearby stakeholders to request permission for Dilapidation Survey on their properties.	Dilapidation surveys completed and reports issued to stakeholders and NSW Dept. Planning & Environment in accordance with SSD-9787 Conditions.
13/12/2019	Community Meeting ±BUILT management met with Hunter New England Health (James Fletcher Hospital) representatives to discuss commencement of works, concerns, general scope, and boundary related issues.	Response received stating that HNE Health would like NSW Dept. Public Works to review the proposed scope of works. To be issued once design finalised.
19/12/2019	Community Notice ±Letter issued to nearby stakeholders providing notice of commencement of works in January 2020	Nil responses received. Nil action required.
21/01/2020	Community Notice ±Letter issued to nearby stakeholders providing notice of commencement of asbestos removal works.	Nil responses received. Nil action required.
21/01/2020	Community Complaint ±Member of Public (MoP) held concerns regarding removal of trees onsite as part of approved demolition works and wildlife welfare.	BUILT Community Liaison Officer contacted MoP and discussed their concerns and the project scope of works. MoP was satisfied with the response. Nil further action required.

3.3 Audits

Throughout the Nihon University Newcastle Campus project, Health, Safety, Environmental & Quality (HSEQ) Audits will be undertaken internally by BUILT and externally by an Independent Third-Party Auditor (GHD Group Pty Ltd Newcastle) in compliance with both BUILT Management Systems and SSD-9787 Conditions.

A summary of these audits is outlined in Sections 3.3.1 & 3.3.2 below.

3.3.1 Internal Audits

An internal Built Safe Mandatory Standard (BSMS) Audit was completed on the Demolition scope of works on 23rd January 2020. The Audit was completed in accordance with the BSMS requirements and the findings are detailed in **Appendix D**.

The Audit scored 98% compliance and identified the following Observations, which are now closed:

1. The Subcontractor SWMS is to include additional detail regarding controlling falling objects (crash decks on scaffolding, etc.).
2. The Subcontractor is to provide details for engineered control measures to BUILT prior to commencing structural demolition. These must be prepared by an Engineer.

3.3.2 External Audits

GHD Newcastle is yet to complete the initial Independent Audit.

In accordance with the Independent Audit Post Approval, the initial Independent Audit is to be completed within 20 weeks of the commencement of construction.

3.4 Contract Programme Status

3.4.1 Construction Progress Update

Key Project Milestones Achieved:

- x Built ready to commence works
- x Hoarding Permit approved
- x Design approved to progress to CC
- x Demolition approved
- x Site Establishment complete
- x Demolition works begin

Development Approval & Construction Certificates:

- x SSD-9787 Final Consent Conditions received
- x Conditions required to commence Demolition are satisfied
- x Approval to commence Demolition received

Site Establishment:

- x Preliminary Site Investigations completed ±Archaeology, Geotechnical, Heritage
- x Site Establishment complete including site fencing, protection of persons, property, and environment
- x Demolition Scaffold to Administration Building scheduled for 04/02/2020 due to change in Methodology

Demolition:

- x Tree & landscape removal complete

3.4.2 Current Construction Activities

The following construction activities are currently under way onsite and progressing well:

- x Asbestos removal in Administration Building - 50% complete
- x Asbestos removal in Heritage Courthouse ±10%
- x Soft strip demolition works in Administration Building ±50%
- x Soft strip demolition works in Supreme Court Building ±5%
- x Demolition of ramp / stair structure to Northern boundary of Supreme Court Building to allow erection of scaffold
- x Demolition of lightweight structure to Northern boundary of Administration Building to allow erection of scaffold
- x Segregating & stockpiling of soft strip materials for resource recovery

3.4.3 Upcoming Construction Activities (February 2020)

The following construction activities are what is programmed for February 2020:

- x Completion of remaining asbestos removal works within all Buildings
- x Completion of remaining soft strip demolition works within Administration & Supreme Court Buildings
- x Inspections of Building Connections to Heritage Building by Structural Engineer / dwp Australia
- x Erection of demolition scaffolding to Administration & Supreme Court Buildings
- x Commence heavy demolition to Administration Building
- x Commence heavy demolition to Supreme Court Building
- x Commence soft strip demolition to Heritage Courthouse Building
- x Removal of soft strip materials offsite for resource recovery

3.4.4 Potential Issues

BUILT regularly reviews the construction programme to identify issue that have the potential to affect the progress of construction activities onsite. The following issues have been flagged for attention:

- x Delayed detailed Power Upgrade design and approval by AusGrid may have time and cost implications.
- x Mine subsidence peer review by SANSW and potential requirement for additional geotechnical investigations and grouting of mine workings likely to have time and cost implications.
- x Delayed detailed Gas Supply design and approval by Jemena may have time and cost implications.
- x Delayed detailed NBN Connection design and approval by NBN may have time and cost implications.
- x Delayed Fire Engineered Report, FRNSW review and endorsement may have time and cost implications.
- x Delayed Green Star assessment may have time, cost, and quality (sustainability) implications.
- x Issues with Public Domain Works design and approval process has potential to delay the issue of Construction Certificate and cost implications.
- x Extent of termite damage to Heritage Courthouse Building unknown until detailed inspections during soft strip demolition

3.4.5 Stated Contract Programme

The stated Contract Programme for January 2020 is attached in **Appendix E**.

3.4.6 Four Weekly Look Ahead

Due to the limited nature regarding scope (demolition works only), please refer to Section 3.4.3 for a breakdown of construction activities over the next four weeks.

3.4.7 Delays and Extension of Time

Project Notice of Delay and Extension of Time Register

NOD#	CAUSE OF DELAY	DATE OF DELAY	DELAY DURATION	EOT #	EOT CLAIMED	EOT APPROVED	EOT COSTS
01	Mines Grouting	30/01/2019	TBC	-	-	-	-

3.5 Progress Photos

The following progress photos were taken on 30/01/2020. Some areas onsite were unable to be accessed due to demolition works taking place including asbestos removal. Photographs of the Supreme Court Building were not taken due to the lack of works completed in that area at this time.



Photo 01: View of site from Church Street facing South East.



Photo 02: View of site from Corner of Bolton and Church Streets facing South.



Photo 03: View of site from Church Street facing South West.



Photo 04: View (facing West) of lightweight structure attached to Administration Building. Demolition works underway to allow erection of scaffold.



Photo 05: View of Southern façade of Administration Building from rear of site.



Photo 06: View from rear of Heritage Courthouse facing East. Trees and landscaping removed and ready for disposal.







Photo 10: View of investigation works at South West Buttress being completed to for piling design

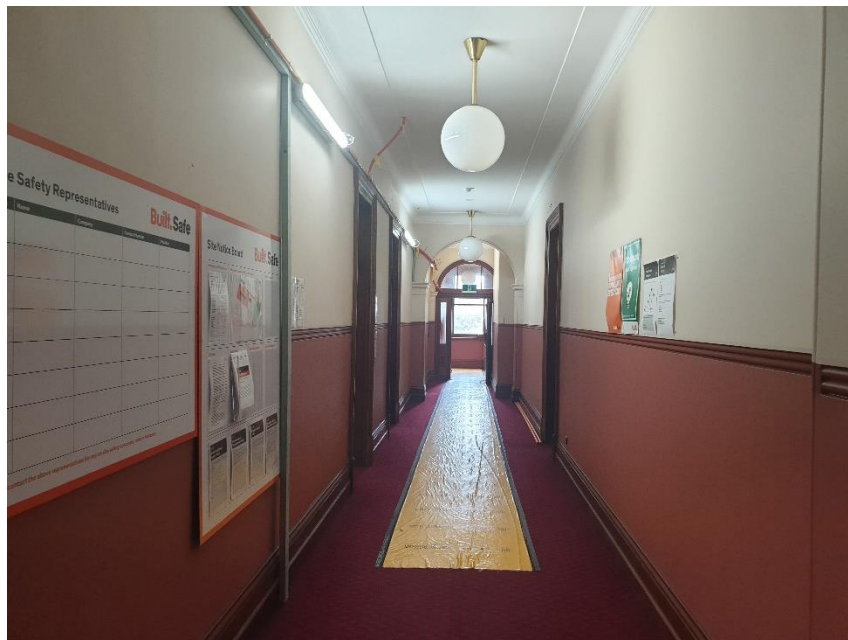


Photo 11: Personnel entry hallway in existing G13 of Heritage Building looking North toward Church Street. Note floor protection and site notice boards.



Photo 12: View of existing Jury Room 3 in Heritage Building. Floor coverings removed and replaced with vinyl to be used as Site Lunch Room.



Photo 13: View of existing Jury WC/Showers in Heritage Building. Asbestos removal works completed within Existing toilets



Photo 14: View of connection doorway to Administration Building from G07 in Heritage Building. Note temporary lighting and power installed for Site Offices.



Photo 15: View within Level 2 Connection Corridor of Administration Building looking East. Note soft strip demolition completed.



Photo 16: View looking North East on Level 2 of Administration Building. Note soft strip demolition complete on this level and waste materials segregated and stockpiled.



Photo 17: View looking South on Level 2 of Administration Building. Note soft strip demolition complete on this level and waste materials segregated and stockpiled.



Photo 18: View of Light Well & Ramp (looking North) on Level 2 of Administration Building.



Photo 19: View of Light Well & Ramp (looking South) on Level 2 of Administration Building.



Photo 20: View of Level 3 Administration Building. Soft strip demolition works have commenced.

3.6 Design Update

3.6.1 Architectural

- x \$UFKLWHFWXUDO SODQV HOHYDWLRQV Australia Review DQG 5&31V KDYH
- x Drawings still need to be co-ordinated with the new structural plans and updated civil and services drawings, once received from consultants.
- x 3D model is being updated on a weekly basis and is available for viewing on BIM360 platform. Northrop to upload services and structural drawings into model to flush out any clashes.

3.6.2 Structural & Civil

- x Preliminary structural drawings for Education and Residential buildings were received from Northrop on 31/01/20 and are under review. Submission includes foundation and slab plans.
- x Structural drawings for Heritage Building for CC are due from Cardno to 11/02/20.
- x Civil drawings are currently being updated by Cardno and are expected to be received by 31/01/20.
- x Public domain works are to be revised as a result of the SSD conditions for review prior to submission to Council. These will be included in the updated civil set.

3.6.3 Hydraulic Services

- x Preliminary Hydraulics drawings were issued on 02/12/19 and reviewed by Marline on 20/12/19.
- x Northrop are progressing the design and CC docs are due on 11/02/20.
- x All services drawings to be updated and co-ordinated with the latest architectural drawings.

3.6.4 Electrical Services

- x Preliminary Electrical drawings were issued on 06/12/19 and reviewed by Marline on 20/12/19. Northrop are progressing the design and CC docs are due on 11/02/20.
- x All services drawings to be updated and co-ordinated with the latest architectural drawings.
- x Electrical maximum demand calculations were submitted by Northrop and accepted by Marline. Client has instructed ASP3 designer to revise the kiosk design to 1000amp supply and submit to Ausgrid for approval.
- x Luminaire schedule was submitted on 19/11/19 and approved in principle by dwp and Marline. Schedule is still to be approved by Azusa.

3.6.5 Mechanical Services

- x Preliminary mechanical drawings were issued by Northrop on 09/12/19 and 20/12/19 and reviewed and approved in principle by Marline on 08/01/20.
- x Northrop are progressing the design and CC docs are due on 11/02/20.
- x All services drawings to be updated and co-ordinated with the latest architectural drawings.

3.6.6 Fire Services

- x Preliminary fire services drawings were issued by Northrop on 09/12/19 and reviewed by Marline on 10/12/19.
- x Northrop are progressing the design and CC docs are due on 11/02/20.
- x All services drawings to be updated and co-ordinated with the latest architectural drawings.

3.6.7 FireEngineering

- x Updated fire engineering report is expected to be received by early February.
- x Design Confidence have re-assessed the Education building and have advised that the sprinklers can be omitted to the whole building on the proviso that the building has a compliant dry fire system and the building is separated from the Heritage Building with an FRL of 120/120/120, and all openings are protected with drenchers.
- x They have also provided a Performance Solution option to remove sprinklers from the Education Building and remove drenchers from external openings on Education Building and western elevation of Heritage Building.
- x The proposed strategy will need to be assessed and accepted by the Certifier and Client.

3.7 Authorities & Approvals

3.7.1 NSW Dept. Planning & Environment

- x SSD Final Development Consent was issued on 11/12/20. A statused version has been attached in **Appendix F**.
- x Development Consent Matrix was updated and issued on 21/02/20 and submissions to Dept Planning are ongoing.
- x Correspondence was issued to the Planning Secretary on 30/01/20 regarding the staging of the Construction Certificate and the conditions that are required to be complied with for each CC. Awaiting response back from Planning Secretary.
- x Outstanding submissions required for CC#01- Substructure and Inground Services - are as shown in the Development Consent Matrix appended to this report. Compliance to all conditions is required apart from condition B03 and C19 which pertain to External Cladding and Streetscape works which do not form part of the Early Works CC.

3.7.2 City of Newcastle

- x Meeting was held with City of Newcastle on 22/01/20 to discuss the Public Domain works, Landscaping, Stormwater and the Section 138 application process. dwp, Cardno, Moir and Built were in attendance.
- x Cardno and Moir are updating the civil and landscape plans to bring in line with new conditions and outcomes of meeting. These are expected to be finalised 31/01/20 and submission made to CoN on XX/02/20.

3.7.3 Ausgrid

- x ASP3 design was submitted to Ausgrid and the only outstanding item for approval was the foundation details for the kiosk.
- x Northrop maximum demand calculations for the project have been calculated at 1000amps. Ausgrid design is being revised to upgrade the current 800amp supply to a 1000amp supply and will be re-submitted to Ausgrid for approval.

3.7.4 Jemena

- x A Request For Information has been issued to Marline for a status of the detailed Gas design and application. Built is currently waiting on a response.

3.7.5 Hunter Water

- x Hunter Water mains upgrade design and application has been submitted to Hunter Water for approval.
- x Hunter Water have requested a letter from City of Newcastle to provide consent for locating the water main within the road. Built have requested this from Council.

3.7.6 NBN

- x A new Development Application was made to NBN on 17/12/19. Northrop are finalising the design to NBN standard and will submit to NBN on as soon as practicable.

3.7.7 SANSW

- x Douglas Partners completed their report on Mine Subsidence Investigation on 20/01/20.
- x A meeting was held with SANSW on 22/01/20 with dwp, Northrop, Douglas Partners and Built in attendance. The report findings and recommendations were presented to SANSW with SANSW agreeing to the strategies in principle - drilling and grouting of Dudley Seam (shallow convict workings) and no requirement for grouting of the Borehole Seam (deep workings).

- x Dwp lodged a formal application to SANSW on 24/01/20 to which SANSW responded formally with a request to carry out a Peer Review on the Douglas Partners report, providing specific comment regarding the analysis of the Borehole Seam workings.
- x Proposals have been received and variation to be prepared to engage Geotech Engineer to carry out peer review.

4. Appendices

Appendix A ±Built Organisation D O & K D U W & 9 ¶ V

Appendix B ±3 U R M H F W & R Q V X O W D Q W & K D U W

Appendix C ±Community Liaison Register

Appendix D ±Internal BSMS Demolition Audit

Appendix E ±Statused Contract Programme

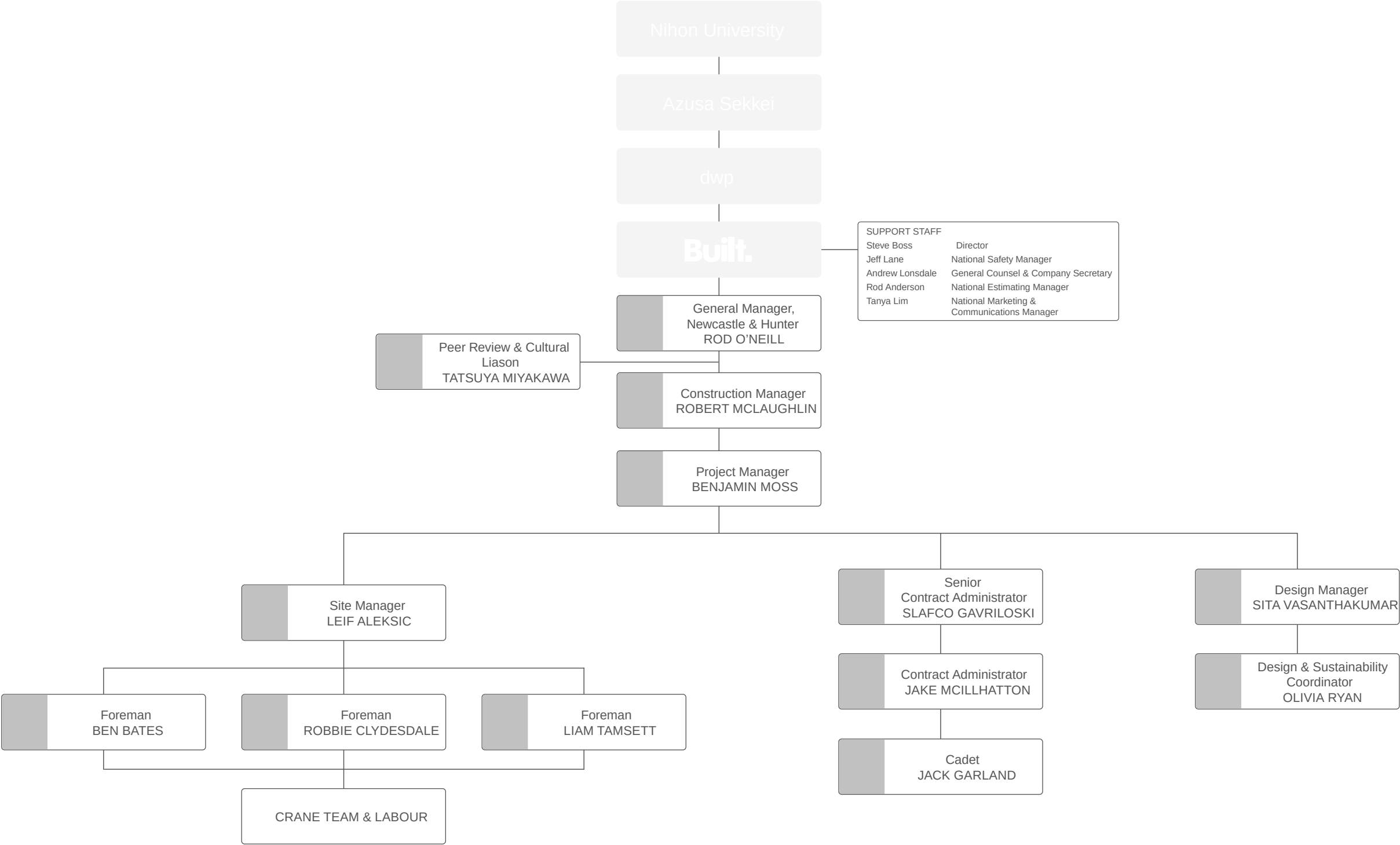
Appendix F ±Statused SSD-9787 Conditions Matrix

Appendix G ±January 2020 Waste Recovery Reports

Appendix A Built Organisational Chart & 9 ¶ V

Nihon University

Organisational Chart



Rod O'Neill

General Manager, Hunter & Newcastle

Rod has been in the construction industry for over 20 years and has a diverse portfolio of projects across construction, tout and refurbishment Australia-wide.

Rod was instrumental in the development of Built's Perth of ce for the last 8 years and oversaw the delivery of flagship projects such as the State Buildings. Rod is now heading-up our Newcastle of ce where he continues his impressive track-record of success.

Qualifications

- / Bachelor of Civil Engineering (Hons) University of Technology Sydney
- / Senior First Aid
- / Greenstar Introductory Course

Employment Summary

2011 – Present, Built

Charlestown Square North Piazza Refurbishment – \$5m
Redevelopment of the Northern Piazza into a dining and entertainment precinct.

Raine Square, Perth – \$56m
Refurbishment and heritage restoration of existing retail and hotels complex that will deliver 14,000m² of retail space, including base build for new retail tenancies and ne dining precinct.

Whitfords Cinemas, Perth – \$9m
Fitout of a new 2 Gold class Cinema, 2 new Vmax cinemas, 4 General Admission cinemas new amenities

QV1, Perth – \$17.5m
Forward works redevelopment within existing basement structure to accommodate future build of multi level tower, new and upgrade to existitng tenancy layouts, landscaping to external plaza incorporating a unique feature 650m2 glass Oculus.

QT Perth – \$75m
Part of a \$265m national rollout of QT hotels, including Sydney, Gold Coast, Canberra, Melbourne and Perth. Design and Construct delivery.

Latitude at Leighton, Perth – \$47m
Two apartment buildings containing 109 apartments on a common podium with basement level car park.

Intercontinental Hotel, Perth – \$57m
Complete Demolition to shell and core, re t into 5 star 240 room hotel, including new BOH, Kitchens, conference facilities.

Allendale Square, Perth – \$18m
Refurbishment of CBD retail facility, incorporating new retail tenancy mall within basement, new ground oor tenancies, end of trip facilities to service upper of ces.

Heirloom Apartments, Fremantle – \$68m
Refurbishment and heritage restoration to create 183 warehouse style apartments, mezzanine lofts and basement car parking.

State Buildings, Perth – \$90m
Conversion of heritage listed building into a 6 star hotel and retail development.

Virgin Australia, Perth Airport – \$21m
Fitout of new Tier 1, Club Lounge, back of house of ces and new Virgin Australia check-in facilities at Perth Airports T1 Terminal.

Norton Rose Fulbright, Perth – \$7m
High Quality Fitout over 3 oors, with curved interactive privacy glass and the integration of a staircase linking the three oors.

99 St Georges Terrace, Perth – \$8m
Full facade reclad refurbishment of the basement, lower and upper ground, ground oor lobby and Level 14 penthouse tout.

Alex Hotel, Northbridge – \$15m
6 storey boutique hotel and restaurant including mezzanine, roof terrace bar and 76 hotel rooms in total.

The Quadrant, Perth – \$12.2m
Strip and base building refurbishment of 6 levels, end-of-trip facilities on the basement level.

Four Points, Perth – \$20m
277 room upgrade whilst maintaining hotel operations. Installation of new re system, creation of DDA compliant rooms and full room refurbishment. Lobby and bar refurbishment included in the project scope.

Rio Tinto, Perth – \$10m
Live environment tout over 8 levels.

IAG National Rollout (Perth) – \$30m
Of ces and Executive Suites, Central Park Live environment refurbishment over 4 levels.

Fortescue Metals Group, Perth – \$13.5m
Fitout of FMG's head of ce.

Australian National Maritime Museum Eastern Improvement Works – \$6.5m

9 Castlereagh Street, Sydney – \$7.5m
Upgrade comprising a vibrant new atrium, extensive changes to lighting, ooring, façade and plantings, and a new licensed café to iconic Harry Seidler designed building.

Previous Employment History

2006 – 2010, Bovis Lend Lease
Senior Project Manager

2002 – 2006, Bovis Lend Lease
Senior Project Engineer

1998 – 2002, Bovis Lend Lease
(Civil & Civic), Site Engineer

Robert McLaughlin

Construction Manager

Robert has over 30 years experience within the construction industry working in a variety of roles and sectors. His strengths are managing accelerated program projects, along with a high attention to detail and quality workmanship.



Qualifications

- / Bachelor of Science – Quantity Surveying (Hons)
University of Westminster
- / Certificate of Higher Education – Quantity Surveying
Anglia Polytechnic University
- / HNC Bridge Course – Building
Willesden College of Technology
- / A-levels in Geography & Economics
Uxbridge Technical College
- / O-levels in English Language, English Literature, Mathematics, History, Geography, RE, Technical Drawing
Douay Martyrs RC School
- / Contract Law Course (CPLI)
- / Registered Building Practitioner
Western Australia (Registration # 14465)
- / Australian Institute of Building (MAIB)
- / NSW Supervisor Certificate

Employment Summary

2019 – Present, Built

Previous Employment History

- 2018 – 2019
Taylor Construction Group Pty Ltd
Regional Construction Manager
- 2016 – 2018
Richard Crookes Constructions Pty Ltd
Senior Project Manager
- 2013 – 2016
BADGE Constructions (WA) Pty Ltd
State Manager, WA
- 2010 – 2013
National Buildplan Group
State Manager, WA
- 2008 – 2010
National Buildplan Group
Senior Project Manager
- 2006 – 2008
St Hilliers Construction
Project Manager

- 2005 – 2006
APP Project Management
Senior Project Manager
- 2002 – 2005
Barclay Mowlem
Senior Contracts Administrator
- 2001 – 2002
Balfour Beatty
Senior Quantity Surveyor
- 1996 – 2001
Walter Construction / Concrete Construction
Senior Contract Administrator,
- 1995 – 1996
Try Construction
Project Quantity Surveyor
- 1990 – 1995
Bernard Sunley & Sons / Sunley Turriff / Fassnidge Son & Norris
(all part of the Lohro Group)
Trainee / Assistant Quantity Surveyor

Benjamin Moss

Project Manager

Benjamin has over 12 years' experience working in a variety of roles within the industry. He has worked on a wide variety of commercial projects giving him a thorough and detailed understanding of all aspects of a project.



Qualifications

- / Bachelor of Construction Management (Honours), University of Newcastle
- / Certificate IV in Project Management, TAFE NSW
- / Certificate III Electrotechnology (Trade Certificate) – Electrician, Hunter Valley Training Company
- / Certificate III in Fitness, TAFE NSW
- / NSW Unrestricted 'C' class drivers licence
- / NSW Electrical Supervisors Certificate
- / WorkCover OHS White Card
- / Senior First Aid Certificate
- / High Risk Work Licence – Dogging

Employment Summary

2019 – Present, Built

Charlestown Square North Piazza Refurbishment – \$5m
Redevelopment of the Northern Piazza into a dining and entertainment precinct.

Prince of Wales Hotel – \$2m
Live environment refurbishment of existing hotel including new kitchen and dining space, VIP lounge, sports bar and level 1 function and balcony space.

Previous Employment History

2017 – 2019, Archadia Construction
Estimator / Assistant Project Manager

Thornton Healthcare Centre,
Thornton, NSW – \$9m
Base Build & Internal Fitouts.

Salamander Bay Healthcare Centre,
Salamander Bay, NSW – \$7m
Base Build & Internal Fitouts.

Cooks Hill Commercial Centre,
Cooks Hill, NSW – \$6m
Stage 1 & Stage 2 Refurbishment.

Multiple Commercial Tenancy
Fitouts – \$1.5m
Archadia properties throughout
Newcastle region.

- / Warners Bay Auscoal Redevelopment –
Warners Bay, NSW – \$4m

2016 – 2017, MPA Construction Group
Project Coordinator

Event Cinemas Kotara,
Kotara NSW – \$10.6m
Internal fitout. (Close out of project and
additional works only)

Sydney Motorway Corporation Head Office,
Sydney CBD NSW – \$1.5m
Internal fitout.

Sydney Motorway Corporation
Satellite Office, Sydney NSW – \$750k
Internal fitout.

- / Westpac Office Refurbishment, Sydney
CBD NSW – \$1m
- / First State Super Branch Refurbishments,
Newcastle & Sydney NSW – \$1.5m

2015 – 2016, Ampcontrol Mining
Division, Switchgear (SWG)
Electrician (Casual during Uni Holidays)

2012 – 2014, Ampcontrol Mining
Division, Switchgear (SWG)
Electrician

2007 – 2011
N.J Ryan Electrical Contractors
Electrical Apprentice

- / Department of Defence, ELF Stages 1 & 2
Army Base & Range Upgrade, Lone Pine
Barracks, Singleton NSW – \$12.5m
- / Centro Lake Macquarie Fair Retail
Refurbishment, Mt Hutton NSW – \$4.6m
- / HQO Honeysuckle Base Building Design &
Construct; NIB Head Office & GHD Office
Fitouts, Newcastle NSW
- / Newcastle City Council, Newcastle
Regional Museum, Newcastle NSW
- / SCA Property Group, Cardiff Marketplace
Shopping Centre, Lake Macquarie NSW
- / Hunter New England Health, Maitland
Hospital Emergency Department
Development, Maitland NSW
- / Woolworths 2010 Refurbishments,
Multiple locations, NSW

Sita Vasanthakumar

Design Manager

Sita is a highly experienced Contract Administrator with over 20 years' in the industry across various sectors including major retail, residential, industrial, health and education projects.



Qualifications

- / Bachelor of Construction Management, Honours, University of Newcastle

Employment Summary

2018 – Present, Built

Charlestown Square North Piazza Refurbishment – \$5m
Redevelopment of the Northern Piazza into a dining and entertainment precinct.

Prince of Wales Hotel – \$2m
Live environment refurbishment of existing hotel including new kitchen and dining space, VIP lounge, sports bar and level 1 function and balcony space

Spicers Retreat – \$20m
Major upgrade of six existing buildings, a new kitchen building, new laundry and staff facilities, pool and extensive civil / landscaping works to create 5-star retreat in the Hunter Valley.

Previous Employment History

2015 – 2018, Kingston Building Contract Administrator

- / Noah's Ark Early Learning Centre, Nowra NSW – \$1.5m
- / Newcastle Museum Roof Upgrade – \$1.2m
- / Noel Ave Townhouses, Adamstown – \$3.5m
- / 45 Church St, The Hill – \$5m

2014, Tower Projects Project Manager / Contracts Administrator

- / BUPA Aged Care Facilities, Waratah – \$1.6m
- / Bateau Bay – \$1.25m

2010 – 2011, Brisland /Newcastle Senior Contracts Administrator

- / Anna Bay Public School – \$2.6m
- / EMX Laboratory, University of Newcastle – \$1.6m
- / Contract Dispute Resolution – \$1m

2003 – 2008, Kell & Rigby Builders Senior Contracts Administrator

Rockwell Gardens Defects Management, Darling St Rozelle – \$1m
Contract Finalisation and Dispute Resolution.

- / Sydney Town Hall POPE Upgrade – \$27m
- / Wallaringa Mansions Stage 2 to 6 – \$45m
- / Christian City Church Auditorium, Oxford Falls – \$4m
- / Dairy Farmers Small Works Projects – \$2m
- / Pre-Construction Planning, 280 Campbell St, Bondi

2002, Morrison Brown and Root JV, UK Procurement Officer

K3 Area East Project
Upgrade and Expansion of Waste Water Treatment Plants Across SE Region for Southern Water.

2001 – 2002

Medlock Communications, UK
Senior Quantity Surveyor

BT Cell, M25 – £10.8m and £5m
Net 3G upgrade project in M25 build only, and SE Region Design and Build.

1997 – 2000, Multiplex Constructions

P/L, Darwin Office NT. Australia

Project Manager /
Contracts Administrator

PGA Lodge, Katherine – \$400k
Defects management of Luma Luma Holiday Apartments. Assisted in preparation of numerous tender submissions for public and private sector construction projects.

- / NTU Learning Space, Northern Territory University – \$4.2m
- / Transit Shed, East Arm Port – \$1.5m
- / Bridge Auto's Service Centre, Bridge Auto's Toyota – \$2.4m
- / Aquaculture Centre – \$1m

1997, Bayview Homes

Darwin Office NT. Australia
Draftsperson

1994 – 1995, Westfield Design and Construction P/L. NSW Australia
Assistant Contracts Administrator

- / Westfield Shoppingtown, Tuggerah – \$240m

Olivia Ryan

Contract Administrator

With over 15 years experience in the construction industry, Olivia is a highly experienced Contract Administrator. Olivia has proven history of delivering fast track projects whilst building and maintaining relationships with all project stakeholders and achieving project targets.



Qualifications

- / Bachelor of Building – Managing, Western Sydney University
- / Owner Builder Course
- / Workplace Health & Safety Queensland - Construction Induction Course
- / White Card No 2215436
- / Certificate IV OHS, MBA
- / SafeWork NSW Mentor Program
- / In house Safety Training, Built NSW Pty Limited

Employment Summary

2014 – Present, Built

Managing small works project – including liaising with client, architect & client representative to complete additional works whilst client had occupied the building. This involved providing detailed schedules and scopes of works to client and advising them what would occur each evening – what keys / access was required, what areas needed to be cleared out of personal processions.

Prince of Wales Hotel – \$2m
Live environment refurbishment of existing hotel including new kitchen and dining space, VIP lounge, sports bar and level 1 function and balcony space.

Commonwealth Director of Public Prosecutor – \$600k
Works were undertaken in a live environment and included installation of 500m² of touts and interiors including furnishing, services, finishes and fixtures. The project was constructed to achieve Security Construction Equipment Committee (SCEC) Level 4 security requirements.

Primary Health Care Rollout – \$8.20m
Fitout to various facilities including the radiology department, day procedure areas and general medical consulting suites. As part of a national rollout for Primary Health Care.

Previous Employment History

2018 – 2019, Owner Builder

Project managing the renovation works for extension including addition of new kitchen, living, dining, main bedroom, ensuite, laundry, alfresco area and concrete inground pool.

2018 – 2017

The Junction Public School P&C
President

Responsible for the accounts, fundraising and ensure the P&C. Setting up lines of communication with school Principal. Chairing meetings, ensuring adherence to constitution.

2019 – 1998, Concrete One Pty Limited
Director

Responsible for the day to day operations of a family business with brother and father. With over 8 full time employees, we provided customers with a one-stop service from detailed excavation works thru to concrete finishing. We only recently closed operations due to sudden death of family member.

2009 – 2010, Built NSW Pty Limited
Contract Administrator

2004 – 2007, Built NSW Pty Limited
Contract Administrator /
Marketing Coordinator

- / Built Head Office – Chippendale
- / MBF Fitout
- / Wayne Cooper
- / Quiksilver
- / Spuds N Crepes
- / Hilltop Phoenix
- / Longreach
- / 88 Muston Street, Mosman
- / Deacon Lawyers – Level 2,5 & 8
- / State Electoral Offices
- / Luc Escape
- / Level 17 State Street
- / Pepsi – Make Good
- / Pepsi & Smiths Snack Foods
- / Surflection
- / Macarthur Gardens Estate
- / 40 Muston Street, Mosman

2001 – 2004, Barclay Mowlem
Building Cadet

Slafco Gavriloski

Senior Contract Administrator

Slafco has over ten years' project experience and has extensive knowledge and understanding of the Newcastle market in particular. Slafco is enthusiastic and thrives when taking on challenges, he is a strong team player that can offer lateral thinking and logical decision making.



Qualifications

- / Bachelor of Construction Management (Building), University of Newcastle
- / Diploma IT Systems Administration, TAFE NSW

Employment Summary

2019 – Present, Built

Charlestown Square North Piazza – \$10m
Redevelopment of the Northern Piazza into a dining and entertainment precinct.

Previous Employment History

2016 – 2019, Taylor

Contract Administrator

Holiday Inn Express, Newcastle West – \$30m
Design & construction of 170 bed hotel, including 2 levels of carparking, Ground Floor amenities & a retail tenancy

McDonald Jones Stadium Office – \$450k
Office fit out for Venues NSW including a new kitchen, reception, meeting room and open plan of offices

Haven Apartments – \$44m
New residential and retail development consisting of 80 apartments, 4 retail tenancies and 3 levels of underground parking. Involved in early procurement of structural trades.

2016, Stevens Construction, Erina
Contract Administrator

Aurum Aged Care Facility – \$15m
Design & construction of new 70 bed aged care facility including undercroft parking

2013 – 2016

McDonald Jones Homes, Thornton
Production Estimator

Various residential and multi-residential dwellings

Defense Housing Australia, Wirraway Estate
Stage 1, Thornton – \$8m

Design and construction of 25 individual dwellings to meet DHAs silver level requirements. The dwellings are used as housing for defense personnel from the nearby Williamstown RAAF Base

2011 – 2013, QCC Resources,
East Maitland (formerly Downer EDI
Engineering)

Contract Administrator

Ravensworth North,
CHPP Expansion – \$500m
Design, procurement, construction, commissioning and handover of a Coal Handling and Preparation Plant (CHPP) for Xtrata.

2009 – 2011, Babic, Sandgate
Contract Administrator/ Estimator

Building the Education Revolution (BER)
schools projects – \$12m
Construction of multiple school projects as part of the BER schools program.

Chapman Oval Amenities Upgrade – \$1m
Refurbishment and extension of existing amenities at Chapman Oval.

Jake McIlhatton

Contract Administrator

Jake is a diligent and passionate construction professional with a strong history of project success in the Newcastle and Hunter region. Jake's collegiality and team-mentality ensure that all commercial decisions are made in line with big-picture project requirements to deliver the best outcomes for our clients.



Qualifications

- / Bachelor of Construction Management (Honours), University of Newcastle
- / White Card (Construction Induction Card)
- / WHS Risk Management Training for Managers and Supervisors

Employment Summary

2019 – Present, Built

Charlestown Square – \$5m
Redevelopment of the Northern Piazza into a dining and entertainment precinct.

Previous Employment History

2017 – 2020, Taylor
Junior Contract Administrator/
Project Coordinator/ Building Cadet

Junior Contract Administrator on the HammondCare Cardiff dementia aged care facility and Coles Huntlee projects providing direct assistance to the Project Manager.

HammondCare Cardiff – \$30m
Accommodation is provided in 5 single level buildings, one multi-level building with separate buildings dedicated to administration, services, chapel and a shop. The design of the facility allows residents to move around independently in a place where they don't feel institutionalised with nursing staff available 24 hours a day.

Coles Huntlee – \$17m
The Coles Huntlee project comprises a new 3,311m² single level Coles supermarket, a Liquorland spanning across 192m², a specialty retail space of 1,087m² and 580m² mall along with on grade car parking accommodating 242 cars, a loading dock and staff parking. The works also include the provision of services, mulching and fencing to an adjacent lot for future development.

2016 – 2017, Avid Project Management
Project Assistant

Assisting Senior Project Managers in all roles associated with Superintendent duties.

Leif Aleksic

Site Manager

Leif has over 20 years experience within the construction industry. Starting his career as an Apprentice Carpenter, he is now an experienced manager having worked on major projects in the metropolitan and remote areas of Australia and overseas. Leif's ability to source and manage trades, as well as his strong leadership and organisational skills, has contributed to the successful completion of numerous projects to date.

Qualifications

- / Qualified Carpenter
- / Provide First Aid (Level 2)

Employment Summary

2015 Present, Built

Sydney Airport T2 Retail – \$25m
Expansion of the departure level and amalgamate the ex-Qantas lounge with existing retail tenancies. Includes a mezzanine and commercial space and all associated façade works.

Intercontinental Hotel, Perth
Demolition of the Old Rydges Hotel.

Virgin Australia Tier 1 & Club Lounges, Back of House & Check-In, Perth Airport
Fitout of new Tier 1, Club Lounge, back of house of ces and new Virgin Australia check-in facilities at Perth Airports T1 Terminal.

Previous Employment Summary

2012 2014, Lend Lease
General Foreman

Myers Building & Loading Dock, Lake Side Joondalup – \$300m
Construction of a new loading dock and Myers building at Lake Side Joondalup.

2005 2012, Resolute Constructions
Site Manager

BER Schools – \$15m
Various building structures and designs to 10 remote schools in the Western Australian Wheat Belt.

Lumina Apartments, Northbridge – \$13m
Construction of a mixed-use high rise private development consisting of 30 high specification apartments and commercial space.

Hammersmith Apartments, Joondalup – \$6m
Mixed-use apartment development consisting of 18 high specification apartments and commercial space.

Grand 56 Apartments, Joondalup – \$8m
Mixed-use apartment development consisting of 28 high specification apartments, pool, spa, sauna, gym and commercial space.

2003 2005

G Sharkeys Edinburgh, Scotland UK
Site Manager

/ Royal Bank of Scotland Head Office Redevelopment, Edinburgh – \$20m

2001 2003, BBS Constructions
Site Supervisor

Refurbishment of existing Bank Branches around NSW.

1999 2001, Rapid Constructions
Site Supervisor

/ Sydney's Central Railway Station Platform Renovation

/ Public Schools Alterations

/ Parliament House, Sydney Small Heritage Renovation

1995 1999, Portbit Carpentry
Apprentice Carpenter

Ben Bates

Foreman

With over 14 years' experience working on construction sites, Ben brings a wealth of experience to his role at Built. With a carpentry background, Scott utilises his exceptional eye for detail to ensure projects are delivered to the exacting standards our clients have come to expect.

Qualifications

- / Diploma in Building Studies, Sydney Institute of Technology Ultimo
- / New South Wales Department of Fair Trading - Qualified Building Supervisor
- / Cert IV WHS
- / Working at Heights Training
- / Leader of Teams Training Certificate 4
- / St John's Senior First Aid
- / EWP/Boom Lift and Telehandler Tickets

Employment Summary

2018 – Present, Built

Prince of Wales Hotel – \$2m
Live environment refurbishment of existing hotel including new kitchen and dining space, VIP lounge, sports bar and level 1 function and balcony space.

Previous Employment History

2014 – 2018, Qanstruct Pty Ltd
Site Manager

Bunnings – \$13m
Reece and Hally labels industrial warehouse development.

Goodman Warehouses – \$12m
Lot A Industrial warehouses.

Toll – \$21m
Greater Sydney Aeromedical Retrieval and Training Centre.

Lindt – \$38m
Lindt chocolate factory and offices.

2012 – 2014, Qanstruct Pty Ltd
Foreman

Bunnings distribution centre – \$32m
Bunnings distribution centre, Goodman.

Coles distribution centre – \$30m
Coles distribution centre, Goodman.

2010 – 2012, Lahey Constructions
Foreman

- / St George Hospital Mental Health Clinic and Services Centre – \$13m
- / State Library Refurbishment – \$3.4m
- / Wollongong bathers pavilion – \$9m

2008 – 2010, Farindon Constructions
Foreman

- / UNSW childcare facility – \$2.6m
- / Macquarie University Chiropractic Wing – \$5.2m
- / Clovelly Public School – \$2.2m
- / Burraneer Bay Public School – \$2.1m

Robbie Clydesdale

Foreman

Robbie has had a wealth of experience over the last 15 years, most recently his involvement on the 1 Denison St project in Sydney, demonstrating his ability to manage high-profile and complex projects.

Robbie brings a strong attention to detail given his trade background as a cabinetmaker, and ensures the highest quality standards.



Qualifications

- / Cert 3 Furniture making (Cabinetmaking) Tighes Hill TAFE
- / Occupational First Aid
- / Doggmans ticket, forklift license, man and material hoist

Employment Summary

2020 – Present, Built

Nihon University – \$40m
Heritage restoration and upgrade of former Newcastle Courthouse building and demolition of former Administration and Supreme Court buildings and construction of new student accommodation and education building.

Previous Employment History

2019 – 2020, Multiplex
Structure Foreman

1 Denison Street
D&C of new 37-level commercial office tower that will be the largest and tallest building within the North Sydney CBD, providing more than 60,000 square metres of premium office space with a two-level lifestyle precinct and basement parking for 225 cars.

2018 – 2019, Multiplex
Construction Worker

Duties:

- / Driving man and material hoist and internal lifts
- / Cleaning and maintaining a tidy site
- / General fork lift duties
- / Assisting foreman/ leading hand with monitoring site safety
- / Dogging tower cranes
- / Mentoring the apprentices

2016 – 2018, Hard Hat Contracting,
Central Coast NSW
Supervisor

Duties:

- / Site establishment
- / Managing site labor and subcontractors
- / Implementing and monitoring site safety
- / Scheduling sequences of works and programs
- / Ensuring job is completed on time

2014 – 2016, Lendlease
Construction Worker

Duties:

- / Driving man and material hoist and internal lifts
- / Cleaning and maintaining a tidy site
- / General fork lift duties
- / Assisting foreman/ leading hand with monitoring site safety

2012 – 2014, Built
Fitout Foreman/Construction Worker

Event Cinema, Innaloo – \$1.5m
Refurbishment of an existing office space on the ground floor, front entrance foyer into a new bar and cafe.

The Quadrant – \$11.5m
Strip out and base building refurbishment of The Quadrant building in Perth's CBD including tout of the end-of-trip facilities on basement level and ground floor lobby works.

Ferrier Hodgson, Perth – \$1m
New office construction in Bank West Tower.

2005– 2012
Rosedale kitchens, Long Jetty NSW
Cabinet maker

Duties:

- / Fabricating kitchens,
- / Installing kitchens,
- / Reading and interpreting plans,
- / Ordering materials

Liam Tamsett

Foreman

Liam is a qualified carpenter that brings his impeccable standards of quality to his role at Built. Liam displays strong leadership qualities and ensures sites are managed to the highest standards in terms of both quality and safety.



Qualifications

- / Carpentry Trade Certificate, TAFE NSW
- / NSW School Certificate
- / HRCW Forklift licence
- / Traffic controller
- / Contractor licence
- / Carpentry Trade Certificate III
- / NSW OH&S Construction induction card

Employment Summary

2019 – Present, Built

Nihon University – \$40m
Heritage restoration and upgrade of former Newcastle Courthouse building and demolition of former Administration and Supreme Court buildings and construction of new student accommodation and education building.

Charlestown Square – \$5m
Redevelopment of the Northern Piazza into a dining and entertainment precinct.

Previous Employment History

2019, CDF Construction
Leading hand Tradesman

2017 – 2019
Brian Bagnall Building
Leading hand Tradesman

2013 – 2017
Honeysuckle HandsBuilt Carpentry
Apprentice, Tradesman

Jack Garland

Cadet

Jack is part of our respected cadet program that identifies potential future leaders and provides them with work place experiences to enhance their formal learning journey. The program will see selected cadets rotate through different projects and areas of the business to ensure they have a holistic understanding of the industry



Employment Summary

2019 – Present, Built

Spicers Retreat – \$20m

Major upgrade of six existing buildings, a new kitchen building, new laundry and staff facilities, pool and extensive civil / landscaping works to create 5-star retreat in the Hunter Valley.

Prince of Wales Hotel – \$2m

Live environment refurbishment of existing hotel including new kitchen and dining space, VIP lounge, sports bar and level 1 function and balcony space.

Previous Employment History

2014 – 2019

Williams River Veterinary Clinic
Assistant

2017 – 2019, Bank Hotel East Maitland
Casual

2010 – 2017

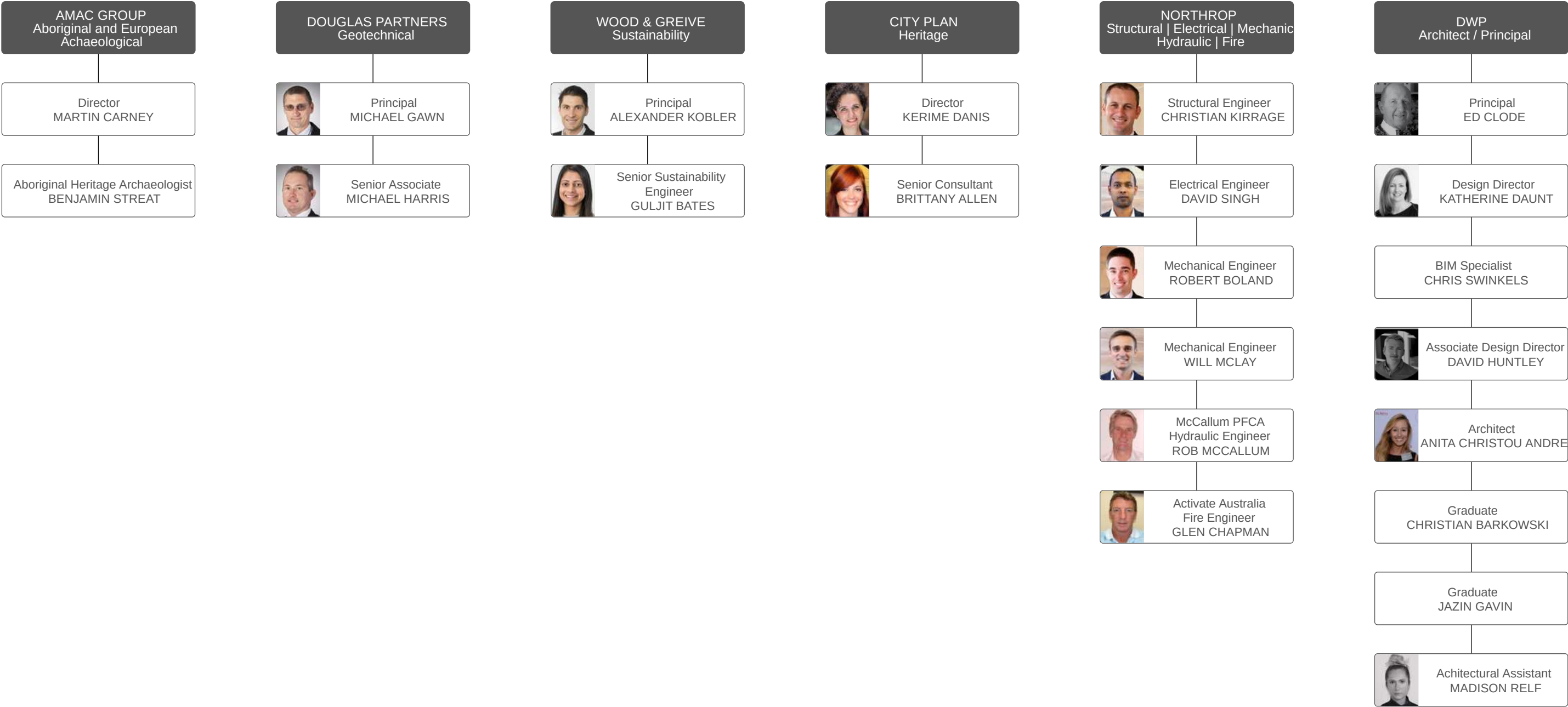
Williams River Farming Services
Farm hand

2014 – 2017, Clarries Green Farm
Farm hand

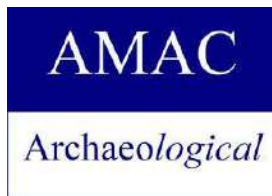
Appendix B ±Project Consultant Organisational Chart & 9 ¶ V

Nihon University

Consultant Organisational Chart



AMAC



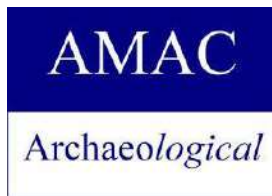
Martin Carney

Principal Director

The principal director, Martin Carney (ACC 1984, AACAI Assoc. 1991, Specialist Advisory Panel Latrobe University, 2001), has been researching Australian material culture since 1977. He is published in *Archaeology and History*, a specialist consultant to Latrobe University and an occasional lecturer and tutor at the University of Sydney. He has been a member of the Australasian Society for Historical Archaeology (ASHA) since 1989.

Martin is the author of more than 160 historical archaeological assessments and excavation reports. He has acted as Excavation Director for over 140 archaeological sites in Australia. He has participated in the survey and excavation of over 190 historical archaeological and Aboriginal sites in Australia.

Since 1979 Carney has contributed, authored and co-authored papers and publications on Australian history, industrial archaeology and historical archaeology. Most recently he co-authored 'Thirsty Work' with David Jones, a 1050 page volume on the history of soft drink manufacturers in Sydney. Martin is an acknowledged colonial and Australian ceramic and glassware artefact specialist and author of *A Cordial Factory at Parramatta* in the *Australian Journal of Historical Archaeology* (1998). Martin is a specialist on the beverage, pottery and glassmaking industries in Australia.



Benjamin Streat

Director of Aboriginal Archaeology

Benjamin Streat (B.A. Prehistory, Grad Dip Arc Her, Grad Dip App Sc) has been working in Australian Aboriginal archaeology since 1998. He has considerable experience managing and working on excavations and assessments within in Sydney Basin, Hunter Valley, Central NSW, The Illawarra, The Southern Tablelands, Victoria and Tasmania.

Recent indigenous archaeological projects specific to the Newcastle area include Scott (111) and Bolton (1-5) Street, 738 Hunter Street, 42 Honeysuckle Drive and Cottage Creek Precints, the NeW Space development (Hunter & Auckland Streets), Bathers Way and Walter Street, Belmont.

City Plan

Kerime Danis

Director - Heritage

OUR PEOPLE



Trained as an architect and heritage consultant with over 35 years experience in heritage conservation and architecture both here and in the Turkish Republic, Kerime leads our Heritage team, working with a range of public and private sector clients and is actively involved in the development of sound conservation philosophy, practice and guidelines nationally and internationally. Kerime has been an active and influential member of ICOMOS since 2003 where she contributes to increasing knowledge and sharing the principles of heritage best practice. She is also an expert member and current Secretary-General of ICOMOS ICIP (International Scientific Committee for Interpretation and Preservation of Cultural Heritage Sites).

Qualifications

- Master of Heritage Conservation with Honours, University of Sydney (2002)
- Bachelor of Architecture, Mimar Sinan University, Istanbul (1982)
- Certificate in Heritage Documentation Methods, University of Sydney (2007)
- Certificate IV in Architectural Technology, SIT, Sydney (1999)
- NMAS Mediator Training, Mediation Institute (currently enroled)

Professional Affiliations

- Past President, Australia ICOMOS
- Secretary General, ICOMOS International Scientific Committee on Interpretation & Presentation (ICIP)
- Member, NSW Heritage Council Approvals Committee
- Expert Member, ICOMOS International Scientific Committee on Shared Built Heritage
- Secretary, Executive Committee of Interpretation Australai
- Member, AIA Affiliate Level 1
- Member, Chamber of Architects, Turkey
- Past Member, AIA Heritage Committee

Special Competence

- Heritage advice from initial design through to completion of projects.
- Supervises conservation works as a conservation architect.
- Sound knowledge & expertise of The Burra Charter principles for the conservation of heritage places.
- Documentation of conservation works & expertise in preparation of:
 - Heritage Impact Statements
 - Conservation Management documents
 - Heritage Assessments
 - Interpretation Strategies / Plans
 - Supervision & preparation of Schedule of Conservation Works
 - Long term maintenance plans & archival recordings
 - Measured drawings of buildings
- Peer review & expert witness in the Land & Environment Court

Recent Projects

- Shepherds Hill Defence Site CMP
- Bays Market District Precinct
- Ingleburn Military Heritage Precinct CMP
- Royal South Sydney Hospital redevelopment
- City of Sydney Industrial & Warehouses Study
- Peer Review of Millers Point terraces Conservation Management Plans for Land & Housing Corporation
- Community Based Heritage Studies
 - Pittwater Local Government Area
 - Hurstville Local Government Area
- Burwood Potential Items Heritage Study
- Randwick Junction Heritage Conservation Area Review
- White Bay Passenger Terminal redevelopment
- Health related projects including: Royal Rehabilitation Centre, South Sydney Hospital, Royal North Shore Hospital.
- Sydney Metro project Stage 1 Bid
- BER 21 schools program NSW
- Centennial Parklands (various projects)
- Barangaroo Redevelopment.
- City of Sydney projects including: Glebe Foreshore project, Gateway projects for Broadway & Darlinghurst Road- Kings Cross, & Bellevue Cottage
- Consultancy services to Sydney Harbour Foreshore Authority, RailCorp, Centennial Parklands, RMS & Sydney Ports.

Awards

- Fenwick stone building: National Trust Heritage Awards (2019) - Adaptive Re-Use winner
- City of Sydney Industrial & Warehouse Buildings Study: National Trust Heritage Awards (2016)
- Victoria Park Gardener's Lodge: National Trust Heritage Awards (2013)
- Maitland Levee & Riverlink - multiple architecture & design awards (2019)
- South Sydney Hospital - Urban Design Award (2018)

Publications

- Publication working party member for:
 - Design In Context: Guidelines for Infill Development in the Historic Environment Heritage Office & RAIA NSW Chapter,
 - New Uses for Heritage Places Heritage Council & AIA NSW Chapter, 2008
- Unpublished Masters Thesis - 'The Corner Shop', University of Sydney (2002)



Brittany Allen

Senior Heritage Consultant

OUR PEOPLE

Brittany is a heritage professional with qualifications in Art History and Museums Studies. She has 10 years of experience working in collection management (including collection management systems), loan documentation, historic research, conservation management and exhibition development.

As a heritage consultant, Brittany has experience working in a variety of developments ranging from small scale residential and commercial, to major projects for government agencies and local councils. Her particular expertise is the preparation of heritage interpretation strategies, conservation management plans and heritage studies, and working with the cultural heritage of community groups.

Qualifications

- Master in Museum Studies, University of Sydney, 2010
- Bachelor of Arts, University of Sydney, 2008

Professional Affiliations

- Member, ICOMOS (2016-present)

Professional Experience

- Snr Heritage Consultant & Built Heritage Specialist, City Plan Heritage (2016-present)
- Heritage Consultant, City Plan Heritage
- Consultant Curator, Private Artist (2018-present)
- Consultant Museum Curator, Sydney University Dental Alumni Society Museum (2018-present)
- Museum Curator, Dr David Rosenwax AM, private collection (2015-present)
- Museum Curator, AM Rosenblum Jewish Museum, The Great Synagogue (2010-15)
- Museum Assistant, Macleay Museum, University of Sydney (2009-10)
- Museum Assistant, Collection Management Department, University of Sydney Museums (2009)
- Volunteer Curatorial Assistant, Macleay Museum, University of Sydney (2008-10)

Special Competence

- Preparation of heritage studies, CMPs, heritage interpretation strategies, assessment of significance, archival recordings, inventory listings & developing conservation strategies
- Providing best practice & heritage management advice
- Collection management & assessments
- Exhibition development
- Movable heritage assessments
- Writing interpretation plans & strategies
- DA assessments for local councils
- Strong research, analysis & writing skills
- Assessing significance of built heritage based on physical & historical analysis;

Publications

- Dr David Rosenwax AM Private Collection Catalogue, 2017
- Co-Editor of The Great Synagogue Journal (2011-15)
- The Era of Postcards and the Jewish Greeting Tradition, NSW Postcard Collectors Society Inc, Bulletin no. 130, Sept 2011, p.11-13
- The Era of Postcards The Great Synagogue Journal 133rd & Annual Report, Volume 66 no.1, Aug 2010
- Treasures of The Great Synagogue exhibition catalogue, The Great Synagogue, co-author, 2011
- The Beauty of Books: Masterpieces from the Falk Library exhibition catalogue, The Great Synagogue Sydney, co-author, Dec 2010
- The Turek Family Collection Sydney Jewish Museum Yearbook, 2010, p84-85

Exhibitions:

- A Stitch In Time, Jul 2014–Dec 2015
- Treasures of The Great Synagogue, Exhibition, Jul 2013–Jul 2014
- The Beauty of Books: Masterpieces from the Falk Library, Dec 2010–Jul 2011
- Victorian Tile Collection Display, Caroline Simpson Library & Research Collection, Sydney Living Museums, 2010
- Picturing New South Wales: Photographs by Kerry & Co, Macleay Museum, 2011 (assistant)

Recent Projects

- Conservation Management Plans:
 - Waverley Cemetery
 - Richmond Main Colliery
 - Closebourne Village Site, Morpeth
 - Newcastle East End (ongoing)
 - Shepherds Hill Defence Group Military Installations (ongoing)
 - Former Richmond Post Office Westmead Station (South) Heritage Study
- Intertrade Industrial Park Heritage Study, Newcastle (ongoing)
- Botany Rd Corridor Heritage Study (ongoing)
- Hunter Development Corporation Heritage Asset Management Strategy & S170 Register update (ongoing)

Douglas Partners



Michael Gawn

Principal

Newcastle
Geotechnical

Education

Bachelor of Engineering (Civil),
Newcastle, 1996

Memberships

Engineers Australia Member
CPEng

NER (National Engineer Register)

Biography

Michael is a Principal Geotechnical engineer and has over 19 years geotechnical engineering experience, both locally and throughout Australia. He has a Bachelor of Civil Engineering and is a Chartered Professional Engineer (CPEng). Michael is currently the Newcastle Geotechnical Manager. In his various roles with DP, Michael has been the Branch Manager for both our Townsville and Central Coast offices. Michael has also working in the Darwin DP office.

Experience

Bridge Investigations

Bruxner Highway and Summerland Way, near Tenterfield and Casino – Coordination and on site logging for three month drilling programme, including liaison with RTA and

Oxley Highway to Kundabung Pacific Highway upgrade – This programme included provision and coordination of up to five loggers for the drilling investigation programme (one year in duration), additional sampling and testing for acid sulfate, aggressivity and durability issues

Haul road bridge over Wollombi Brook, Lemington Mine – Project management, field work supervision and provision of geotechnical parameters for bridge foundations and approaches

Tamworth Regional Council – Five bridges in Tamworth Regional Council

Haydens Lane Bridge and Warrah Creek, near Murrurundi. – On site logging and testing followed by geotechnical design of bridge foundations

Seven bridges on the Bruxner Highway and Summerland Way, near Tenterfield and Casino – Coordination and on site logging for three month drilling programme, including liaison with RTA and Fisheries Department

Effluent Disposal

Quirindi Rural Subdivision – Investigation and land capability for the application of domestic effluent for a large rural residential subdivision in Quirindi. Site constraints included steep slopes, shallow rock and low nutrient uptake capacity of the soil. Alternative solutions were devised to allow the subdivision to be constructed.

Preliminary Effluent Disposal for Tourist Development Pokolbin – Carried out preliminary effluent disposal/land capability assessment for a large tract of land earmarked for tourist development within Pokolbin NSW. Advice was provided on





suitable treatment and disposal options for clusters of buildings with non-traditional waste streams. Potential for beneficial reuse of treated effluent was assessed.

Martinsville Subdivision – Investigation and design of effluent disposal system for heavily constrained residential subdivision. The available area, catering for appropriate buffer distances to water courses, gullies and boundaries required an alternative application area design and increased level of treatment for the domestic effluent.

Munmorah Power Station – Carried out subsurface investigation and design of appropriate effluent disposal treatment and disposal system for an existing substation outside Munmorah Power Station. Non-typical loadings were generated by the existing facility owing to the sporadic usage. Several site constraints had to be negotiated during the design and construction of the system.

Groote Eyland Aboriginal Housing – Assessment of proposed effluent disposal for a proposed Aboriginal housing development on the northern coastline of Groote Eyland. Owing to the remoteness of the site, alternative investigation methods were required, including fabrication of equipment for testing of the density of the sand. The design of the effluent disposal systems required consideration of low





downslope damage being caused by the infiltration. Comments were provided on possible remedial measures to minimise the risk of future damage.

Munmorah Bowling Club – Settlement of areas of the ground floor of the bowling club were reported over a period of time. DP was requested to assess the possible causes of the observed movement and comment on suitable remedial measures. Following subsurface investigation, including inspection of the subfloor area, drilling of bores and groundwater monitoring over a month period, DP discovered that groundwater springs were present in the area and had affected the foundation soils. Comments and preliminary design of remedial measures were provided to the client.



Failed Dam Rehabilitation – DP was requested to carry out a site inspection for a failed farm dam with an embankment height of over 10 m. The work included a review of previous documents, historic photo review, site walk-over and preparation of an investigation and assessment programme. Issues addressed included contamination within the dam and the export to the downstream national park, geotechnical parameters for design of the re-shaped dam and re-use options for the embankment material.

Mining



450 ML significant hazard staged discharge dam, Dartbrook – Investigation included field investigation programme including large scale test pits, deep bores, extensive suite of laboratory testing followed by analysis and geometric design of dam, including provision of chimney and blanket drains. On site supervision during construction of dam embankment.

330 m vent shaft at Dartbrook mine – Supervision of drilling, logging, insitu testing including water pressure testing, field slaking tests

Zinc Extraction Plant at Mount Isa Mine, Mount Isa – Investigation included test bores into bedrock, followed by advice on foundation design for vertically and laterally loaded structures

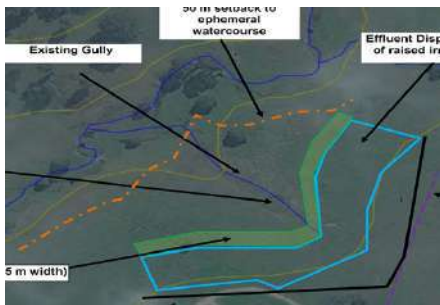


Shopping Centres

Kincumber Shopping Centre Upgrade – Carried out geotechnical and contamination assessment of the existing shopping centre at Kincumber, NSW for a proposed upgrade. The investigation included drilling of bores within existing commercial areas as well as car parking areas for internal and external expansions. Advice was provided on foundation design, presence of contamination, waste classification, pavements and site preparation measures. Also carried out dilapidation survey of existing buildings and carpark pavements as well as hazardous building material assessment of proposed areas of disturbance.

Gosford Town Centre – Investigation for proposed new lifts for the existing Gosford Town Centre shopping centre. Subsurface conditions included soft, watercharged alluvial soils and hence difficult conditions for the excavation and construction of proposed lift wells. DP provided advice on dewatering, foundation support, excavation support and site risk management.

Port Central, Port Macquarie – Carried out a geotechnical review of existing information, based on previous Douglas Partners investigations together with pile installation records and structural details for a planned expansion of Port Central shopping centre, Port Macquarie. The proposed development was to increase the number of floors for the existing development with the additional loads to be



carried by the existing Atlas piles. A geotechnical conceptual model of the site was developed based on the data review and pile settlement analysis undertaken for existing piles with the additional loading. Following the review, identified a number of data gaps and strategies to increase the confidence in the geotechnical model and allow detailed assessment of the additional loading scenarios.

Westfields Kotara – Westfields were expanding the Kotara shopping centre within areas of existing structural development and also car parking areas. Owing to limited access DP devised a number of non-typical investigation methodologies, including portable CPTs using the existing structure for resistance and limited access drilling equipment. Advice was provided on the capacity of existing piles to carry additional loads along with pile capacity for new pile types. Investigations included provision of advice for retaining structures, piles, construction methodologies, likely additional settlement of existing piles and excavation support. Michael also carried out geotechnical inspections during construction works along with geotechnical review of design drawings and contractor design reports.

Greenhills Shopping Centre Expansion – Continuous involvement in the development and expansion of Greenhills Shopping Centre, East Maitland. First involved in 1998 during the initial expansion phase, having coordinated field activities for the geotechnical investigations and was responsible for logging of subsurface conditions.

Nelson Bay Woolworths – Detailed investigation for a new Woolworths in Nelson Bay, NSW. The development included excavation of up to 11 m adjacent to an existing multi-storey residential unit development. Investigation included numerous bores and CPTs to investigate the predominantly sand subsurface conditions and allow sampling for geotechnical and contamination assessment. Advice was provided on retaining wall design, predicted movements of and pressures on the proposed wall, foundation conditions, contamination present at the site, site preparation measures, pavements and anchor design.

Also carried out hazardous material assessment on existing buildings on site, including previous cinema dating back to the early 1900s.

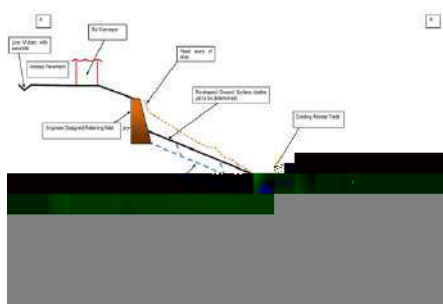
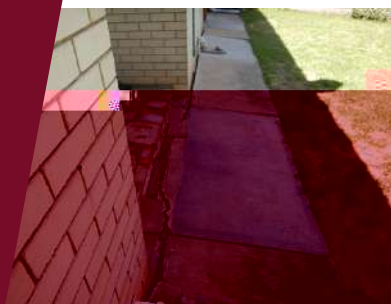
Underground Mine Working Investigations

– Various geotechnical investigations undertaken over four years as part of the Honeysuckle Redevelopment of the Newcastle Foreshore. Duties in these investigations included coordination of drilling operations, logging of core, particularly mining induced fractures, insitu testing, seam thickness determination in standing voids. As part of this ongoing project helped develop a downhole video camera system capable of illuminating and filming within standing voids with a 360° direction capability and 150m vertical capability. Responsible for filming within standing voids.

Investigation to delineate mine workings within previously pillar and boards workings where record tracings/survey is of inadequate quality.

Pavements

Newell Highway Upgrade – Geotechnical investigation for a 30 km section of the existing Newell Highway to allow detailed design of the proposed upgrade. The investigation included a programme of bores within the existing carriageway, 80 test pits along the existing shoulder of the highway, together with extensive



laboratory testing and installation of groundwater wells. Long term monitoring of groundwater levels within the installed wells to assess the risk of seasonal inundation of the subgrade. The laboratory programme included sensitivity testing in relation to additives for in-situ stabilisation trial as well as compaction and soaking duration for CBR testing. DP provided a geotechnical report for submission to RMS to assist with the detailed design phase of the project.

Grade Separated Interchange, Kings Hill – Investigation for a proposed grade separated interchange over the Pacific Highway, located at Kings Hill, north of Raymond Terrace. The interchange will require construction of a flyover of the highway and associated access ramps and is situated adjacent to the Grahamstown Dam water storage. Investigation included drilling of numerous bores and pits along the alignment of the pavements, together with investigation within the existing median strip of the highway. Preliminary pavement designs, material evaluation, subgrade treatments and earthworks procedures were provided.

New England Highway, East Maitland – Investigation within the existing New England Highway for the interchange upgrade in connection with the upgrade of the Greenhills Shopping Centre. The investigation included drilling of bores through the existing pavement, which included heavily bound slag together with concrete coring through existing median strips and footpaths.

Geoenvironmental

Morpeth Closebourne Residential Development – DP has provided a broad range of services to this development dating from 2004 to the present, which has given us an intimate knowledge of the site and allow us to assist Lend Lease in the controlled development of the site and protection of the heritage buildings located within the site.

DP has carried out numerous investigations and has provided advice on geotechnical and environmental aspects together with construction services for each stage of the development. In addition to these principal investigations, DP has also carried out:

- pavement conditions surveys of the historical main road of Morpeth;
- vibration monitoring of adjacent residential buildings during bulk earthworks;
- dust monitoring services;
- advice during construction on various geotechnical issues;
- earthworks inspections and testing during civil works;
- hazardous building material assessments of eighteen buildings on the site, including the existing heritage buildings.

Cessnock Correctional Centre Expansion – The Department of Corrective Services required investigation for a major expansion of the Cessnock Correctional Centre. DP provided an integrated investigation which covered both geotechnical and contamination assessment. The concurrent investigations allowed provision of more information in relation to potential site contaminating activities and the presence of, and assessment of, filling across the site. DP also provided advice on foundations, excavations, batter slopes, retaining walls, vibration issues, pavements and the re-use of excavated material.



Dam

450 ML significant hazard staged discharge dam, Dartbrook – Investigation included field investigation programme including large scale test pits, deep bores, extensive suite of laboratory testing followed by analysis and geometric design of dam, including provision of chimney and blanket drains. On site supervision during construction of dam embankment.

Slope Stability

General – Assessment of slope stability for numerous individual allotments in the Newcastle/Northern Queensland region in accordance with procedures outlined in Australian Geomechanics Society guidelines including lookout structures throughout Northern Queensland for Queensland National Parks and Wildlife Service, investigation included rope access cliff line inspections, stability analysis and reporting on construction procedures and foundation design and definition of active debris zones within Townsville City Council area.

Burwood Road, Wamberal – Investigation of damaged residence and identification of activate deep-seated landslide on coastal escarpment. Risk to life assessment and advice on partial evacuation of structure.

Wamberal Landslide – Investigation of an active landslide in a residential setting. Development and design of remedial measures including analysis of various options. Supervision of implementation of stabilization measures and monitoring

Lake Munmorah Salvation Army Site – Detailed risk assessment and investigation of existing historical retaining wall and cliff line. Design of stabilisation measures, including development of shotcrete and dowel specification. DP carried out full time supervision of installation of stabilisation measures as well as quality control on materials and installation.

Little Wobby – A number of slope stability assessments for new developments below 100 m escarpment with key considerations including joint block dislodgement, rock fall and instability of colluvial soils

Burrinjuck Dam Transmission Tower – Risk assessment of existing electrical transmission tower on mountain side and at the crest of 15 m high cliffline. The assessment was required to assess the stability of the tower under new loading conditions. Carried out detailed geological mapping and risk assessment, together with preliminary design of stabilisation measures and requirements for detailed investigation phase.

Wyee, Conveyor – During routine geotechnical investigation for haul road beside 4km long conveyor identified an existing landslide which had the potential to affect the conveyor. Carried out detailed investigation to determine extent and depth of slide, which extended from beneath conveyor to into adjacent creek. Designed remedial /stabilization option designs and provided advice on implementation.

Wollongong Escarpment – Stability assessment of existing public lookout over Illawarra escarpment. Single rope techniques used for geological mapping of cliff face. Assessment using AGS methods and ALARP philosophy.

Mount Louisa, Townsville – Investigation and design of protection measures for dwellings and road infrastructure in areas prone to landsliding and rock falls. Design of extensive deep drainage measures to control groundwater flow and risk to assets.





Norah Head – Detailed investigation and analysis of regressive active landslide in Cabbage Tree Bay. Existing landslide was located between the beach and the marine rescue base. carried out detailed investigation and analysis of landslide to determine geotechnical parameters and modelling of stabilization measures. Provision of detailed site preparation requirements to stabilize the landslide.

Reeds Road, Wamberal – Investigation of landslide in existing access road and identification of possible causes. Development of stabilisation options and supervision during implementation.

Five Lands Walk, Central Coast – Risk assessment of coastal cliff top walking trail extending 5km from Macmasters Beach to Copacabana. Input into route selection and stabilization measures.

Fairfax Road, Speers Point – Evaluation of proposed residential development on area of known deep-seated landslide. Provision of advice on necessary additional investigation and monitoring programme to quantify risk and allow development of remedial measures to allow development

Copacabana lookout – Risk assessment and investigation of existing coastal lookout overhanging sea cliff. Analysis of risk to life of users of lookout and risk mitigation measures for the design of new lookout platform.

Maitland Vale Landslide – Following large storms in April 2015, DP was engaged to inspection a 20 m high section of steep ground adjacent to existing road. Following inspection, detailed risk assessment was undertaken and consequently, owing to an unacceptable risk to road users, the road was temporarily closed. Development of risk mitigation measures to lower the risk to tolerable levels and allow Council to reopen the road to users.



Contact Details

Email: Michael.Gawn@douglaspartners.com.au
Ph: 0249609600



Michael Harris

Senior Associate

Newcastle
Geotechnical

Education

Bachelor of Engineering (Civil),
Newcastle, 2001

Memberships

Australian Geomechanics Society
Member

Engineers Australia Member

Biography

Michael is a Senior Associate Geotechnical Engineer with 17 years engineering experience in civil and mining projects including investigation, logging, and programming of laboratory testing, interpretation of soil and rock parameters, as well as analysis and design. Michael has undertaken various projects which include investigation and assessment of foundations, piles, slope stability, soft soils, embankments, dams, pavements, road, rail, retaining structures, mine subsidence, open cut mines, highwalls, shafts and earthworks material testing.

Experience

Rail

Alternative Rail Formation Design and Construction Support: Hexham Up and Down Coal (ARTC) – This project directly demonstrates practical designs tailored to allow construction to proceed within short shutdown periods and also tailored to site specific conditions within the Hexham swamp (ie soft soils and shallow groundwater). The implementation of alternative rail formation comprising rock and the latest rail specific geogrid was adopted. Construction monitoring and testing included acid sulfate soils and waste contamination.

Bylong East Rail Project – ARTC engaged DP to investigate new rail alignment over farmers land. Michael worked closely with local farmers to allow creation of access tracks and limited clearing, including on the sensitive cattle/horse station "Tawny Park" where Mr Stewart Andrews applied sequence farming techniques.

Mt Owen, Moolarben, Ravensworth Loops, Wambo Rail Loop – Activities included contractor co-ordination, geotechnical investigation, scheduling of laboratory testing as well as geotechnical designs for rail formation thickness. Also, after major rainfall events 2006 an emergency walkover and mapping of conditions of Wambo loop was undertaken to provide options for stabilisation.

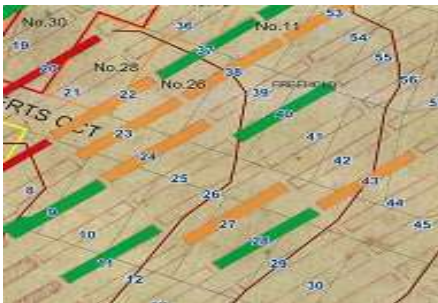
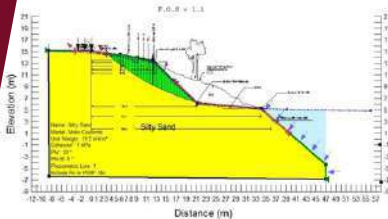
Slope Stability

Slope Stability and Risk Assessment – During longwall mining operations in a lower Hunter Valley Mine surface subsidence resulted in slope instability at the site surface with in state forest (steep terrain). Michael was responsible for site





Model 4 (section 3)
Flood Conditions



Depth (m)	Description of Soil	Angle of Repose	Friction Angle	Cohesion	Flowing
0.00 - 0.50	CLAYEY SILT - Medium strength, well sorted, grey, silty clay	25	15	10	
0.50 - 1.00	SUBSIDIARY FRACTURED ROCK - Medium strength, well sorted, grey, silty clay	25	15	10	
1.00 - 1.50	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	
1.50 - 2.00	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	
2.00 - 2.50	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	
2.50 - 3.00	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	
3.00 - 3.50	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	
3.50 - 4.00	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	
4.00 - 4.50	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	
4.50 - 5.00	CLAYEY SILT - Low strength, well sorted, grey, silty clay	25	15	10	

inspections including mapping of surface features including a Graben feature, cliff instability and falling boulder roll lengths. Slope/W computer modelling was used to estimate FoS of various rock failure modes related to subsidence impacts and the RocFall computer programme was used to estimate potential impacts of falling boulders on underlying walking tracks and roadways. Michael also was responsible for various semi-quantitative risk assessment (in accordance with AGS and ALARP) of slope stability to assess risk to persons that may enter affected areas, options for monitoring slopes, early warning systems for instability, as well as short term and long term safety risk treatment strategies. Michael was a key team member on this project.

River bank Instability – Nauiyu Nambiyu Community, Daly River, Northern Territory. during the 2015/2016 wet season flooding caused scour and erosion of the Daly River bank near existing homes. Michael was responsible for field investigation, stability modelling using Slope W to estimate River bank FoS and reporting on the slope stability risks in accordance with AGS risk to life and property, and also included options to mitigate potential risk levels including stabilisation measures, as well as monitoring. Due to the urgency and potential risk to life Michael was required to attend site and provide recommendations for short term risk mitigation measures, as well as attend stakeholder meetings to clarify potential risks.

Rock Face Stabilisation – Rock Face Stabilisation: Muswellbrook to Murrurundi Railway Line, Parkville. Michael was responsible for mapping rock face, assessing potential failure mechanisms, slope hazards and risk, and providing recommendations for slope stabilisation measures. Furthermore, a scope of works to inform construction was undertaken which included photographic panorama of the rock face with an overlay of bolt and stabilisation measures. A technical specification as well as a bill of quantities was also provided. During construction Michael was responsible for “trouble shooting”, ongoing design advice and also for inspecting and recording stabilisation works for quality assurance purposes.

West Wallsend - Proposed Residential Development – Ancient Landslide within Proposed Subdivision: West Wallsend, NSW. Michael was responsible for investigation of Landslide using test pit investigation methods. A slicken sided zone within a coal seam and tuffaceous claystone layer were identified as the slide plane, other pertinent information obtained during test pitting was identification of the landslide debris, head and toe scarps. Michael also provided support for geotechnical team with Slope/W modelling.

Moolarben Mine Stability – Michael was responsible for managing fieldwork operations, and supporting the team by reviewing data, formulation of geotechnical model, stability modelling using Slope/W design and reporting. The slope stability and stabilisation works required on the highwall batter above the UG1 portals included design for the installation of pre-support for the excavation of the portal inserts, rock fall analysis detailing maximum probable rock size, requirements for catch berms, and bunds or catch fences at the highwall toe. Batter slope configurations required on the lowwall batter around the box cut included slope grading, benching, drainage and placement of mine spoil and reject materials, along with location of a sump, sump construction and, drainage within the box cut.



Major Projects

Gas Pipeline, Gloucester to Tomago – This project required access to many private land holdings. Given the particularly sensitive nature of this project and the generally negative image of coal seam gas projects in the community, community liaison was a particularly important role. Michael, as project manager, took responsibility of the community liaison role, undertaking site visits and agreeing site access with the owners to ensure a harmonious approach. The work was undertaken in a manner to minimise any impacts to the owners.

Lambton Gardens - Geotechnical Investigation of Mine Subsidence – The MSB engaged DP to carry out drilling within and around residential homes for three months. With constant communication and negotiation with home owners and local residents DP successfully delivered an extensive drilling programme without any negative response from locals, in a very timely manner Michael was full time site community liaison officer and project manager for this project. Three drilling rigs were used in residential streets, yards and homes to investigate mine subsidence. Geotechnical extensometers were installed to allow ongoing monitoring of subsidence. This project was successfully completed over 3 months.

Dungog Dam Road Diversion – Hunter Water engaged DP to investigate 14 km of new road through difficult terrain over local farmer lands. Again Michael talked to local farmers and obtains access for numerous drill holes, as well as creation of access track.

Moolarben Mine Shaft (2018) – Michael was project manager for a factual geotechnical investigation for a 40 m deep shaft at Moolarben.

GPT development along the Newcastle Hunter Mall – The need to set up long term drilling site next to existing roadside businesses (including outdoor cafes) required very careful planning and community liaison. Michael was responsible for identification of potentially affected business, letter drops, face to face contact and agreement of measures to mitigate impacts on the businesses.

Mt Arthur Coal Mine Industrial Area Expansion and MACCRX1 (2009 and 2010) – Michael was responsible for geotechnical investigation and pavement thickness design for gravel and concrete hardstands for large dump trucks. Michael also project managed geotechnical investigations for workshop footings, bulk excavations, batter slope and shotcrete designs, and included an earth zoned Dam, which required gypsum stabilisation to reduce the risk of dispersion. Michael also undertook inspections of key components of earth zone dam construction including subgrade preparations, keyway / core trench foundations, as well as monitoring soil testing QA results.

Contact Details

Email: Michael.Harris@douglaspartners.com.au

Ph: 02 4960 9600

Northrop

Key Personnel



Christian Kirrage

Principal | Structural Engineering Manager

BEng(Civil) (Hons 1) MIEAust CPEng NER RPEQ

Christian has been with the team at Northrop Engineers since 2000. He has a good understanding of clients needs and has particular experience in the analysis and design of multi-storey structures subject to differential foundation settlements due to mine subsidence.

Christian has an excellent understanding of the demands associated with the design, documentation and delivery of a wide range of large scale projects, in particular multi-storey, commercial and residential developments.

Project Experience

Institutional

- Frederickton Public School
- Anna Bay Public School
- Wauchope Public School
- Henry Kendall High School
- Holroyd Special School – Stage 1
- Warners Bay Aged Care
- Harrington Public School
- Chifley Senior Campus – Mt Druitt
- Cherrybrook Technology High School
- Flinders Public School
- Rouse Hill Public School
- Wellington Ambulance Station
- Wellington Police Station
- Newcastle University Strong Floor
- Ryde Hospital Redevelopment
- Liverpool Hospital Redevelopment
- Hornsby Hospital Redevelopment
- Marrickville Community Health Centre
- Tobwabba Medical Project
- Warners Bay Aged Care
- Kurri Kurri Early Childhood Centre
- Newcastle University Thermo Buildings
- Erina Community Health Centre

Commercial

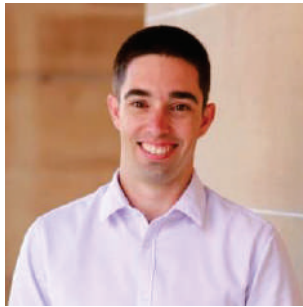
- Cardiff RSL Club – Cardiff
- Warners Bay Bulky Goods
- East Maitland Bowling Club
- Mount Pennang Development
- The Crown & Anchor Hotel – Newcastle
- Eastlakes Football Club

Multi-Story Developments

- 'Azura', Shortland Esplanade, Newcastle Australia
- 'Acculon', Hunter Street Newcastle, Australia
- 'Landmark', Charlestown
- Knightsbridge Tower, Hunter Street Newcastle Australia
- Sky Central Development – Pacific Highway Charlestown
- Centra Plaza, Phillip ACT
- The Burj Dubai Development – The Lofts Dubai U.A.E
- Dubai Festival City – Landmark Place Dubai U.A.E
- The Plaza Residential Development – Dubai U.A.E
- Emirates City, Emirates Road, Ajman U.A E
- Jumeriah Lake Towers Apartments & Offices : Z-Cluster Dubai U.A.E

Residential

- Hannell Street Units – Wickham
- Berkley Street – Stroud
- Silsoe Street - Hamilton
- Fennell Bay Estate Retaining Walls
- Dawson Street Units – Waratah
- Cliff Avenue – Avoca
- Brookes Residence – Mosman
- Joseph Residence – Belmont
- 'Lighthouse' Apartments, Avoca Beach



Robert Boland

Associate | Mechanical Engineer

BEng (Mech) (Hons) MIEAust CPEng NER

Robert has a bachelor of Engineering (Mechanical) degree and started work as a Mechanical Engineer for Northrop Building Services in Canberra, before moving to the Charlestown as part of Newcastle Mechanical section in 2010.

During this time Robert has been designing heating, ventilation and air conditioning systems for a range of multiuse commercial, education and residential jobs. He has gained significant experience in mechanical design elements including those not limited to natural ventilation, air conditioning, exhaust, ductwork, pipework, refrigeration, noise control, heating, fire protection and smoke control. He also has experience in building energy performance and thermal comfort modelling along with energy efficient design and commissioning.

Robert has managed and coordinated a number of multidiscipline jobs, incorporating mechanical, electrical, hydraulic and fire services for commercial, educational, residential and aged care projects. This includes overseeing the designs both internal and external design teams.

Robert was appointed an Associate in 2017.

Project Experience

Commercial

- 52 Phillip Street, Sydney – HVAC upgrade
- 16 Giffnock Avenue, Macquarie Park – BMCS upgrade
- Taree Courthouse
- Armidale Courthouse
- Port Macquarie Courthouse
- Allambi Youth Centre

Institutional

- Hunter Sports High School – Major Capital Works Upgrade
- UoN Clinical Skills Training Centre, John Hunter Hospital
- UoN Tamworth Education Centre
- UoN Science theatre HVAC upgrade
- UoN Pro Vice Chancellors Fitout
- UoN Conservatorium of Music
- Thomas Hassell Anglican College
- Scone Gramma School Trade Training Kitchen

Aged Care

- Anglican Care CA Brown
- Anglican Care Gloucester
- Bethshan Aged Care Wyee
- Calvary Aged Care Cessnock
- Hammond Care Cardiff

Health

- Tuggerah Lakes Private Hospital
- Wollongong Day Surgery
- The Hills Clinic Kellyville
- Gosford Private Hospital
- UoN Clinical Skills fitout, John Hunter Hospital

Residential and Mixed Use

- Eclipse Apartments, Cooks Hill
- Hotel Realm Precinct
- Garland 77, Zetland
- Stella – 8 Storey
- Ruby – 21 Storey
- Spire Apartments Newcastle
- Archer Street, Chatswood – 6 Storey
- Belconnen Markets Precinct

Commissioning Agent

- University of Newcastle Student Accommodation
- Maroba Aged Care
- 18 Honeysuckle Drive Newcastle

Energy Efficiency and Modelling

- Mayfield commercial
- Armidale Courthouse
- Bradken Multi-function Facility
- Giffnock Avenue Macquarie Park



Dave Singh

Electrical Engineer

BEng (Elec) CPEng IPENZ MIPENZ RPEQ

Dave graduated from the University of South Pacific with a degree in Electrical Engineering. Dave has over 11 years' experience in electrical system design and engineering, covering concept to detailed engineering of LV and ELV systems for healthcare, commercial buildings, educational buildings, infrastructure study/ design and solar PV systems integrated design.

Dave is experienced in the execution of projects as lead engineer/ job/ design manager and is able to provide technical leadership and guidance to the project team in relation to the preparation of deliverables, checking of quality, liaising with stakeholders, managing budgets and organising work activities to meet project schedule.

Project Experience

Airport

- Tauranga Airport Redevelopment, NZ
- RMIPA – Amata Kabua International Airport (AKIA), Majuro, Marshall Islands

Renewable Energy

- Bayfair Mall PV, NZ
- Comvita Warehouse, NZ
- Electric Power Corporation (EPC), Samoa

Commerical

- 2 Devonport road, Tauranga, NZ
- Farmers Retail Mixed Use Building, Tauranga, NZ
- Zespri International HQ, Tauranga, NZ
- Genesis Energy Office Waikato, NZ
- Trustpower Headquarters, Tauranga, NZ

Education

- University of Waikato, Hamilton, NZ
- University of Waikato, Tauranga, NZ
- Bay of Plenty Polytech, Tauranga, NZ
- University of Auckland – Sector 300, Auckland, NZ
- College of Micronesia, Federal States of Micronesia
- College of Marshall Islands, Marshall Islands
- Uliga Model Elementary School, Marshall Islands
- Otumoetai Primary School Heating Upgrade – Classroom 1 to 10, Tauranga, NZ

Critical Systems

- ANZ Datacentre, Mangere, Auckland, NZ

Health

- RMI Majuro Hospital – Surgical Ward, RMI-PMU, Marshall Islands
- Tauranga Hospital – Building 50 L2 fitout, Tauranga, NZ
- Whakatane Hospital, NZ
- Whakatane Hospital Redevelopment, Whakatane, NZ
- Southern Cross Hospital – Day Stay Extension, Tauranga, NZ
- Lakes District Health Board – Taupo Hospital Redevelopment, Taupo, NZ
- Tauranga Hospital – Level 4 Paeds Fitout, Tauranga, NZ
- CMDHB – Clinical Services Building Phase 2, Auckland, NZ
- Tauranga Hospital – Building 50, Tauranga, NZ
- Tauranga Hospital – MSB4: MSB2 Replacement, Tauranga
- Lakes District Health Board – Rotorua Hospital, Rotorua, NZ
- Tauranga Hospital Imaging Department, Tauranga, NZ

Government

- Ministry of Justice Tauranga Court Security Upgrade, Tauranga, NZ
- Ministry of Justice Tauranga Courts Stage 1, Tauranga, NZ



Robert McCallum

Director | Hydraulic Engineer

Associate Diploma of Engineering (Plumbing Services), Member of Australian Hydraulic Services Consultants Association, Graduate of Institution of Engineers

Robert McCallum has had involvement in hydraulic services spanning over thirty six years, with twenty eight of these in consultancy.

Robert is fully qualified in the hydraulics field, a full member of the Australian Hydraulic Services Consultants Association and a Chartered Graduate Engineering Officer of The Institution of Engineers. Therefore, we are kept fully informed of all developments within the profession.

Specialist Services

Relevant design experience incorporates a wide range of projects in the domestic, commercial and industrial fields with overall construction budgets ranging from the minimal to projects in excess of fifty million dollars.

Design management, multi discipline project coordination and hydraulic services detailed design of commercial, industrial, residential, institutional and recreational facilities.

Project Experience

- Hunter Sports High School Redevelopment
- Ballina High School Redevelopment – Current
- Catherine McAuley Catholic College, Medowie – Stage 1 – Current
- St Mary's Catholic College, Gateshead – Stage 2 – Current
- St Joseph's Primary School – Denman - Current
- St Joseph's Primary School – Gloucester – Current
- St Therese's Primary School – New Lambton - Current
- Lake Cathie Public School – Stage 1
- St Patrick's Primary School – Lochinvar
- St Philips Christian College – Cessnock - Senior School Building -Current
- Wentworth Point Public School – New School
- Gillieston Heights Public School – Hydraulic services upgrade
- Millfield Public School – Sewer connection
- Woodport Public School, Erina – Hydraulic services to new building
- Bateau Bay Public School – Hydraulic services upgrade
- Newington Public School
- Galston High School
- St Aloysius Primary School, Chisholm - Stage 2
- St Pius X High School – Staff Relocation
- Plattsburg Public School – Hydraulic services to new building
- Elmore Vale Public School – Hydraulic services to new building
- The Entrance Public School - Hydraulic services to new building
- Ourimbah Public School - Hydraulic services to new building
- Gosford Public School - Hydraulic services to new building
- Rutherford Technology High School – Hydraulic services upgrade
- Green Point Christian College – TAS Building
- Green Point Christian College – Science Building
- St Mary's Maitland – New Multipurpose Hall
- Chisholm Catholic Primary School, Thornton
- Scone Grammar School – Hydraulic services alterations and additions
- Hunter Valley Grammar School, Rowing centre – Hydraulic services alterations and additions
- St Paul's High School, Booragul – Alterations to existing hydraulic services
- Hunter Christian School – Hydraulic alterations and additions to existing library
- San Clemente High School, Mayfield – Additions
- Rowland Hassall School, Parramatta

Wood & Greive

Key Personnel



Alexander Kobler

Sustainability Section Manager,
Principal

About Alex

Alex has significant experience spanning the sustainability and building services consultancy industry. His capability covers the built environment, including sustainability strategy, building energy design and modelling, code compliance, ratings, multi-disciplinary design and master planning.

Project highlights

- 151 Clarence Street – Sydney, NSW- \$110M (20,000m² A Grade Office. 6 Star Green Star, WELL Platinum Rating, 5 Star NABERS energy 4 Star NABERS water)
- 105 Phillip Street – Sydney, NSW- \$120M (25,000m² A Grade Office. Certified 6 Star Green Star, 5 Star NABERS energy base build and tenancy, 4 Star NABERS water)
- 4 Parramatta Square - Parramatta, - NSW \$250m (70,000m² A Grade Office. 5 Star Green Star, 5 Star NABERS Energy, 4 Star NABERS Water)
- 50 Macquarie St - Parramatta, - NSW \$140m (32,000m² A Grade Office. 6 Star Green Star, 5 Star NABERS Energy Base Build and Tenancy, 4 Star NABERS Water)

Qualifications

- Chartered Professional Engineer, MIEAust CPEng NER RPEQ
- Green Star Accredited Professional, Green Building Council of Australia
- WELL Accredited Professional, WELL AP
- Bachelor of Engineering (Hons I), University of Sydney

Industry accreditations/bodies

- Engineers Australia, MIEAust CPEng. NER
- Member, Green Building Council of Australia
- Member, International Well Building Institute



Guljit Bates

Senior Sustainability Engineer

About Guljit

Guljit has been involved in delivering a number of significant projects in the education, office, multi residential and public building sectors, and has a background in Renewable Energy. She is an accredited Thermal Performance Assessor with the Building Designers Association of Victoria.

Project highlights

- Taronga Institute of Science and Learning – Sydney, NSW - \$6M (Certified 6 Star Green Star Design & As Built v1.1)
- 105 Phillip Street – Sydney, NSW- \$120M (25,000m² A Grade Office. Certified 6 Star Green Star, 5 Star NABERS energy base build and tenancy, 4 Star NABERS water)
- 4 Parramatta Square - Parramatta, - NSW \$250m (70,000m² A Grade Office. 5 Star Green Star, 5 Star NABERS Energy, 4 Star NABERS Water)
- Liverpool Civic Place – Sydney, NSW - \$150M (Targeting 5 Star Green Star Design & As Built v1.1)

Qualifications

- Bachelor of Engineering (Renewable Energy) (Hons I), University of New South Wales 2013
- Certificate IV in NatHERS Assessment, Education in Building 2015
- Green Star Accredited Professional, Green Building Council of Australia

Industry accreditations/bodies

- Building Designers Association of Victoria (BDV), Accredited Thermal Performance Assessor (NatHERS)
- Member, Green Building Council of Australia



Design with **community** in mind

Appendix C ±Community Liaison Register

Community Liaison Register

Built.

Project: Nihon University

Complaints Register

Last Updated: 22/01/20

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Community Liaison Register

Built.

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Appendix D Internal BSMS Demolition Audit

PROJECT NAME:	<u>Nihon University</u>
PROJECT ADDRESS:	<u>9 Church St Newcastle</u>
DATE OF REVIEW:	<u>23 Jan 2020</u>
REVIEWER:	<u>Amanda Nicolo</u>
REVIEWER CONTACT DETAILS:	<u>amandanicolo@built.com.au – 0409 360 507</u>

1. Purpose:

The BSMS sets out the mandatory health and safety standards to be applied on all Built project sites in order to control significant hazardous tasks, things or circumstances.

2. Mandatory Requirements:

General

- 2.1. Demolition includes the demolition or dismantling of a structure, including parts of a structure that are loadbearing, and the demolition or dismantling of components in a fitout project including, glass, joinery, partitions, walls, ceilings and workstations.

Notification

- 2.2. Where required under local legislative requirements, notification of demolition work is to be provided, within the specified timeframe and in the required manner, to the relevant authority prior to demolition (of the type where notification is required) commencing. By way of example, the New South Wales and Queensland WHS Regulations require persons intending to carry out demolition work to give the regulator 5 days' advance written notice of the works if the demolition:

- (a) Is of a structure (or part of a structure) that is loadbearing or otherwise related to the physical integrity of the structure and the structure is at least 6 metres in height,
- (b) Involves load shifting machinery on a suspended floor,
- (c) Involves explosives.:

Ref	Findings	Recommendations
1	Contracted demolition works include soft strip out and structural demolition. Current demolition works on site include soft strip out.	

- 2.3. Where the local requirements include the requirement to give notice of demolition work, Built shall maintain a copy of such notification as part of the project records:

Ref	Findings	Recommendations
2	Comply – a copy of the notice for demolition work sent to WorkSafe has been received and is on file	

Training and Experience

- 2.4. The Project Manager/Site Manager are to ensure any subcontractor's supervisors (for example, a leading hand or foreman) overseeing the demolition work must be competent in the type of demolition being carried out and must be available whilst the work is being performed:

Ref	Findings	Recommendations
3	Comply – Supervisor is listed on Demolition Licence. Details of Demolition certification and experience has been received for other supervisors.	

- 2.5. Where Built is directly supervising demolition works, the relevant supervisor overseeing the demolition work must be competent in the type of demolition being carried out:

Ref	Findings	Recommendations
	N/A	

Planning Prior to Demolition

A Demolition Work Plan shall be completed for all demolition works which require notification to the local regulatory authority or otherwise requested by Built and shall include:

- the location of the site on which the structure to be demolished stands
- the overall height of the structure above ground level and the least distance from the structure to each site boundary
- the type of building (occupancy class), its structural support system and the principal materials of its construction
- the proposed methods of demolition including the number and types of major items of plant
- the proposed methods for handling and disposing of demolished materials and, in particular, of hazardous materials
- the proposed methods of controlling and maintaining access and egress to workplace
- the proposed sequence of carrying out the demolition works and an estimate of the time (in days) it is likely to take to complete all of each of the stages of the work
- the proposed hoardings, scaffolding and fencing and of any overhead sidewalk protection

- any other plans, illustrations, written documents, or specialist reports as may be necessary to support the proposed methods of work or protective structures
- traffic management arrangements, which includes managing vehicles and mobile plant hazards in relation to operation at the workplace and interaction with the public.
- the location and condition of Underground and above ground services and installations including:
 - electricity
 - drainage and sewerage
 - gas
 - water
 - communications cables (for example, telephone, radio etc)
 - hydraulic pressure mains
 - liquid fuel lines
 - lubrication systems
 - process lines (chemical, acid)
 - hazardous materials, including asbestos, lead and PCBs
 - underground structures, such as a basement, cellars, or storage tanks
 - any confined spaces where work will be undertaken
 - the general condition of structures on adjoining properties, particularly where these are close to or on the boundaries of the demolition workplace
 - the effect demolition may have on people working in adjoining properties or seeking access to and egress from those properties, and
 - the emergency arrangements, which should include equipment for the rescue of injured persons:

Ref	Findings	Recommendations
4	A Demolition Methodology has been provided for the works	

Safe Work Method Statement

- 2.6. The requirements for a SWMS in respect of demolition works varies between those states that have adopted the model WHS Regulations and those continuing to operate under their existing OHS Regulations. Consequently, the following requirements apply:

Ref	Findings	Recommendations
5	Comply – Demolition SWMS only contain HRCW	

NSW, ACT, QLD, SA

A safe work method statement is to be prepared for work involving:

- demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure;
- involves, or is likely to involve, the disturbance of asbestos;
- involves structural alterations or repairs that require temporary support to prevent collapse;
- involves a risk of a person falling more than 2 metres;
- is carried out on a telecommunication tower;
- is carried out in or near a confined space
- is carried out in or near a shaft or trench with an excavated depth greater than 1.5 metres or a tunnel;
- involves the use of explosives;
- is carried out on or near pressurised gas distribution mains or piping;
- is carried out on or near chemical, fuel or refrigerant lines;
- is carried out on or near energised electrical installations or services;
- is carried out in an area that may have a contaminated or flammable atmosphere;
- involves tilt-up or precast concrete;
- is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians;
- is carried out in an area at a workplace in which there is any movement of powered mobile plant;
- is carried out in an area in which there are artificial extremes of temperature;
- is carried out in or near water or other liquid that involves a risk of drowning; or
- involves diving work.

Victoria

A safe work method statement is to be prepared for:

- Demolition works;
- Works involving the removal or likely disturbance of asbestos;
- Works involving structural alterations that require temporary support to prevent collapse.

Western Australia

A safe work method statement is to be prepared for the same processes described for NSW, ACT, QLD & SA as described above:

Ref	Findings	Recommendations

- 2.7.** The Safe Work Method Statement must be submitted to Built, along with a completed copy of **HSE 041 SWMS HRCW Checklist**, and must be reviewed by Built prior to commencement of any demolition work:

Ref	Findings	Recommendations
6	Comply – reviewed by contractor, Built FM & SM	

Demolition License

- 2.8. Where a licence is required under local regulatory requirements to undertake demolition work, including asbestos removal work and high-risk work, Built shall obtain a copy of the license from the demolition contractor (and other contractors, as applicable) and maintain a copy of such notification as part of the project records:

Ref	Findings	Recommendations
7	Comply – on file	

- 2.9. Contractor to provide Certificate for Prescribed Activity and include the person nominated within that company that are deemed competent:

Ref	Findings	Recommendations
8	Comply – on file	

Adjacent and adjoining buildings

- 2.10. Prior to any demolition taking place where there is the likelihood or potential to cause damage to any adjoining structure, building or building fabric (or part thereof) a dilapidation survey is to be carried out in order to record any pre-existing condition prior to demolition:

Ref	Findings	Recommendations
9	Comply – SM has report and has reviewed	

- 2.11. No part of the demolition process (including vibration) is to adversely affect the structural integrity of any other building or structure. Consideration is to be given to the use of shoring and underpinning and to the effects of changes in soil conditions as a result of the demolition work. (Seek advice from relevant engineer):

Ref	Findings	Recommendations
10	Vibration monitoring plan has been developed	

- 2.12. No part of the demolition process should cause flooding or water penetration to any adjoining building:

Ref	Findings	Recommendations
11	Comply – service isolations have been undertaken	

Ref	Findings	Recommendations

Essential Services

- 2.13.** The location and disconnection of all essential services, include the supply of, gas, water, sewerage, telecommunications, electricity, chemicals, fuel and refrigerant in pipes or lines is to be established before demolition work is commenced:

Ref	Findings	Recommendations
12	Comply – scanning, pot holing & DBD has been undertaken	

- 2.14.** All electric, gas, water, sewer, steam and other service lines not required in the demolition process should be shut off, capped, or otherwise controlled, at or outside the building line, before demolition work is commenced:

Ref	Findings	Recommendations
13	Comply	

- 2.15.** In each case, any utility agency involved should be notified in advance and its approval or services, if necessary, obtained. Any service retained for the demolition work should be adequately protected as required by the relevant authority (for example, the protection of overhead electric lines):

Ref	Findings	Recommendations
14	Comply	

- 2.16.** Prior to demolition work being carried out which is likely to affect or potentially effect existing in-ground services, the demolition contractor (where specified) or Built are to obtain existing services documentation showing the type of service and specific location or undertake existing services identification surveys. This shall contact **Dial before you dig before any work commences in order to** obtain existing services documentation from the relevant utility service provider:

Ref	Findings	Recommendations
15	Comply – scanning, pot holing & DBD has been undertaken	

- 2.17.** All obtained existing services drawings/documentation shall be issued to the demolition contractor and Built with copies to be held on site at all times whilst demolition work is in progress:

Ref	Findings	Recommendations
16	Comply	

Ref	Findings	Recommendations

- 2.18. HSE 092 Isolation/ Termination of Services** must be completed and provided to Built before any demolition is carried out where services are required to be terminated or otherwise decommissioned:

Ref	Findings	Recommendations
17	Comply – completed and communicated via toolbox talk	

- 2.19.** Services isolation and or decommissioning must only be carried out by a qualified person:

Ref	Findings	Recommendations
18	Comply	

- 2.20.** Only licensed electricians may work on energised equipment. A licensed electrician must be present where other persons are near any energised equipment:

Ref	Findings	Recommendations
19	Comply – licensed electrician completing HSE-092 has been inducted and licence is on Lucidity	

Hazardous Chemicals and Materials

- 2.21.** Demolition work may involve workplaces or structures that contain or have contained hazardous materials, including chemicals, hazardous materials such as lead, asbestos, polychlorinated biphenyls (PCBs), contaminated dust and combustible materials. The risks arising from potential exposure to hazardous materials are to be identified, assessed and control measures incorporated into the Demolition Plan (where required) or SWMS

Ref	Findings	Recommendations
20	A HAZMAT report has been undertaken. Asbestos has been identified and is included in the Demolition Methodology.	

Asbestos Register/ Audit

- 2.22.** Built is to ensure all asbestos or asbestos-containing material (ACM) present or assumed present at the project site is identified by a competent person and an asbestos register/ audit is completed:

Ref	Findings	Recommendations
21	Comply – register is available on site	

Ref	Findings	Recommendations

- 2.23.** An initial asbestos register/ audit may not be adequate for works and a further asbestos register/ audit maybe required to be organised by Built, e.g., unable to access areas, change of scope, only non-destructive investigation completed:

Ref	Findings	Recommendations
	N/A	

- 2.24.** Asbestos register/ audit is to be within 5 years of current date and must accurately identify all asbestos or asbestos-containing material present on site, including the date the substance was identified and the location, type and condition of the asbestos-containing material:

Ref	Findings	Recommendations
22	Comply	

- 2.25.** The asbestos register and audit must encompass all relevant work areas:

Ref	Findings	Recommendations
23	Comply	

- 2.26.** Areas where no test have been completed or unknown material still present are to be deemed positive to until further testing has been complete and finding presented:

Ref	Findings	Recommendations
	N/A	

- 2.27.** Site team are to be inducted to asbestos register/ audit and an asbestos briefing is to be delivered by competent person:

Ref	Findings	Recommendations
24	Comply – included in site induction	

- 2.28.** Notification to local statutory authority where required:

Ref	Findings	Recommendations
25	Comply	

- 2.29. Air monitoring for removal works to be completed for all friable asbestos and non-friable asbestos where in the vicinity of others (Consult with your relevant HSE Manager/ Coordinator):

Ref	Findings	Recommendations
26	Contractor to arrange air monitoring as documented in Demolition Methodology	

- 2.30. Asbestos clearance is to be provided to Built prior to others entering work area:

Ref	Findings	Recommendations
27	Asbestos removal works have not yet commenced	

- 2.31. All asbestos records and results are to be made available and kept on site in accordance with the applicable legislation:

Ref	Findings	Recommendations
28	Comply	

Lead

- 2.32. Lead is found in paint, old water pipes and other plumbing fittings, sheet lead, solders, lead flashing, lead light windows, glass and linoleum floor tiles. The age of a structure may be directly related to the amount of lead that can be present. If it is suspected that the structure contains lead-based paint, a test for the presence of lead should be conducted:

Ref	Findings	Recommendations
29	No lead has been identified at this stage. Air monitoring will include lead.	

- 2.33. Lead exposure must be confined to lead process areas.

Ref	Findings	Recommendations
	N/A	

2.34. All lead process areas must be kept clean at all times.

Ref	Findings	Recommendations
	N/A	

2.35. No lead process area can be cleaned in a manner that creates a risk to the health and safety of any person in the vicinity of the lead process area and no cleaning methods that have the potential to spread lead contamination may be used at any time.

Ref	Findings	Recommendations
	N/A	

2.36. No person is permitted to eat, drink, chew gum, smoke or carry any materials used for smoking in a lead process area at any time.

Ref	Findings	Recommendations
	N/A	

2.37. All persons must remove clothing and equipment that could be contaminated with lead and must wash their hands and faces before entering any drinking or eating area at a Built workplace.

Ref	Findings	Recommendations
	N/A	

2.38. All PPCE that could be contaminated with lead dust must be:

- (a) Sealed in a container before being removed from the relevant lead process area,
- (b) Disposed of at the completion of lead process work at a site equipped to accept lead-contaminated equipment.

Ref	Findings	Recommendations
	N/A	

2.39. Containers in which lead contaminated PPCE are contained must be decontaminated before being removed from a lead process area.

Ref	Findings	Recommendations
	N/A	

Ref	Findings	Recommendations

Polychlorinated biphenyls (PCBs)

- 2.40.** Workers can be exposed to PCBs when dismantling electrical capacitors and transformers or when cleaning up spills and leaks. Appropriate control measures should be implemented when handling damaged capacitors to ensure that any spillage does not contact workers and is appropriately cleaned up and disposed of:

Ref	Findings	Recommendations
	N/A	

- 2.41.** Any equipment or parts containing PCBs should be placed in a polyethylene bag and then placed into a marked sealable metal container:

Ref	Findings	Recommendations
	N/A	

- 2.42.** If PCBs cannot be transported immediately for disposal, all containers should be stored in a protected area which prevents any discharge of PCBs to the environment:

Ref	Findings	Recommendations
	N/A	

Synthetic Mineral Fibres

- 2.43.** Synthetic mineral fibres are used extensively for insulation in building walls and ceilings as well as on items such as air-conditioning duct work.
- 2.44.** Personal protective equipment shall be provided to workers and worn when insulation is being removed during the demolition process:

Ref	Findings	Recommendations
30	All workers have min P2 masks	

Chemicals & Liquids

2.45. During the demolition of tanks and pipelines, the following precautions should be taken:

- make sure that no flammable or toxic substances or combustible liquid is allowed to enter any drainage system or watercourse
- if excavating underground tanks and/or pipelines, check the soil surrounding the tank/pipe to establish that it is not contaminated, either by leakage from the tank/pipe or by spillage
- hot work (for example, welding; oxy-acetylene cutting) should not be undertaken where there is a chance that flammable material may be present as a result of leakage/spillage or after cleaning out the tank/pipe:

Ref	Findings	Recommendations
	N/A	

Security of Worksite Public access and protection

2.46. To protect workers undertaking demolition activities, exclusion zones shall be implemented and controlled to prevent unauthorised personnel entering work areas:

Ref	Findings	Recommendations
31	Comply	

2.47. A system to prevent falling objects impacting on workers and the public is to be implemented to protect the safety of people who are working on or in the vicinity of the demolition work. In particular, any area where a falling object might reasonably be expected to land is to be designated an exclusion zone. The enclosed and/or protected area should extend horizontally to a safe distance beyond the overhead work area:

Ref	Findings	Recommendations
32	A crash deck will be installed during the hard demolition work.	Details included in Demolition Methodology. Contractor to include more details in SWMS written in Methodology to control falling objects (crash deck)

2.48. Adequate public safety is to be maintained in public places and areas adjoining the workplace as the work progresses (e.g., roads and walkways). Where demolition work is adjacent to a public place and there is a risk of falling debris or hazardous noise, a method of protection should be selected and:

- erected before the commencement of demolition work
- kept in position at all times during the progress of the work, and

- regularly inspected and maintained:

Ref	Findings	Recommendations
33	Comply – Scaffolding and Additional Hoarding to be set up as stated in Demolition Plan as works continue.	

- 2.49.** Control measures to isolate the work from the public may include installing hoarding such as security fencing, containment sheets and mesh, an overhead protective structure, road closures and specified exclusion zones:

Ref	Findings	Recommendations
34	Comply – see Ref# 33	

- 2.50.** The need for overhead protective structures for public walkways in conjunction with perimeter fencing is to be considered as appropriate. Where considered necessary, overhead protection using suitable material is to be designed by a qualified Engineer to withstand an appropriate load (may be constructed from scaffolding, fabricated steel or timber):

Ref	Findings	Recommendations
35	Comply – see Ref# 33	

Engineering Consideration

- 2.51.** Before structural demolition occurs, appropriate engineering advice is to be obtained:

Ref	Findings	Recommendations
36	Contractor to seek engineering advice for slab loadings to allow small earthmoving plant to work on suspended slab	Contractor to provide details from engineer to Built before works can commence in these areas.

Mobile Plant

- 2.52.** All powered mobile plant used for demolition work must be fitted with a suitable combination of operator protective devices and must be operated by a person holding the required competencies for the item of plant they are required to operate:

Ref	Findings	Recommendations
37	Comply	

2.53. All mobile plant is to be site inducted using **HSE 050 Plant Documentation Checklist:**

Ref	Findings	Recommendations
38	Comply – Recorded on Lucidity	

Operator protective structures should be designed to the appropriate standard that eliminates or minimises the risk, so far as is reasonably practicable, of operator injury due to:

- roll over and consequent cabin impact damage
- objects falling on or over the cabin
- objects penetrating the cabin:

Ref	Findings	Recommendations
39	Comply	

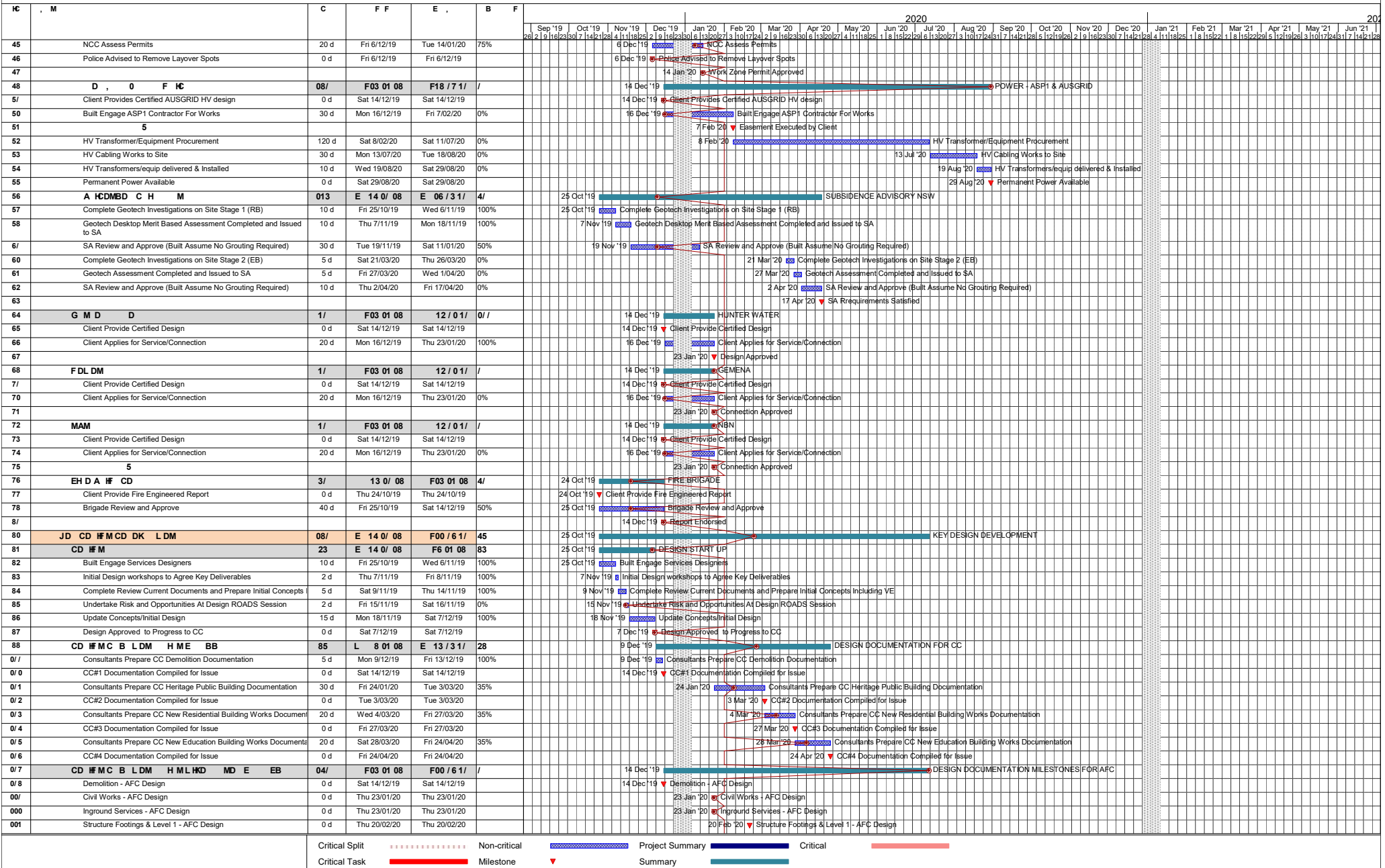
3. References

- Work Health and Safety Regulations (NSW, QLD, ACT, SA and NT)
- OHS Regulations (VIC)
- OSH Regulations (WA)
- Demolition Work Code of Practice
- AS 2601 – 2001 The Demolition of Structures
- HSE-121 High Risk Mandatory Standard – Scaffolding

Appendix E ~~±~~Statused Contract Programme

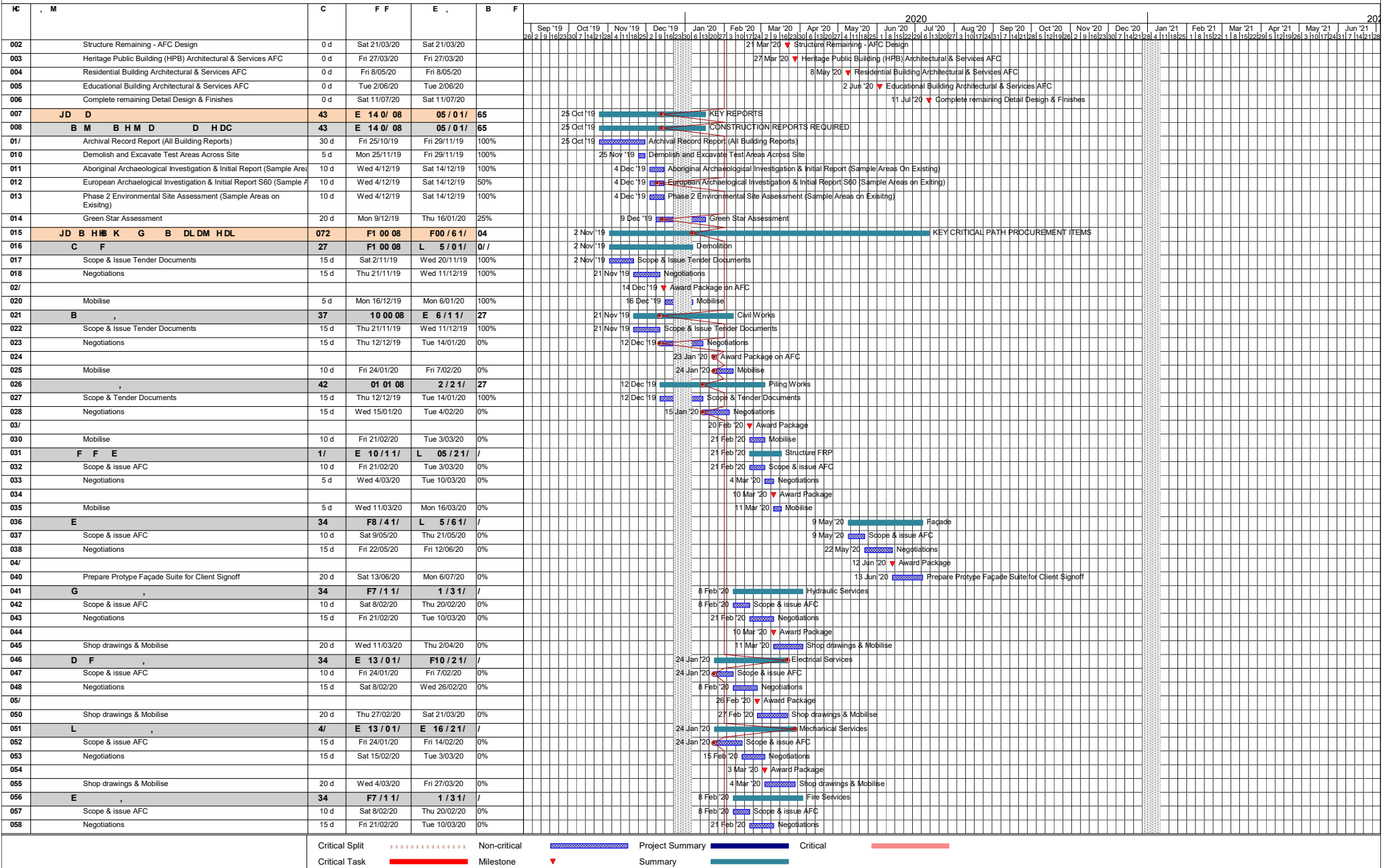
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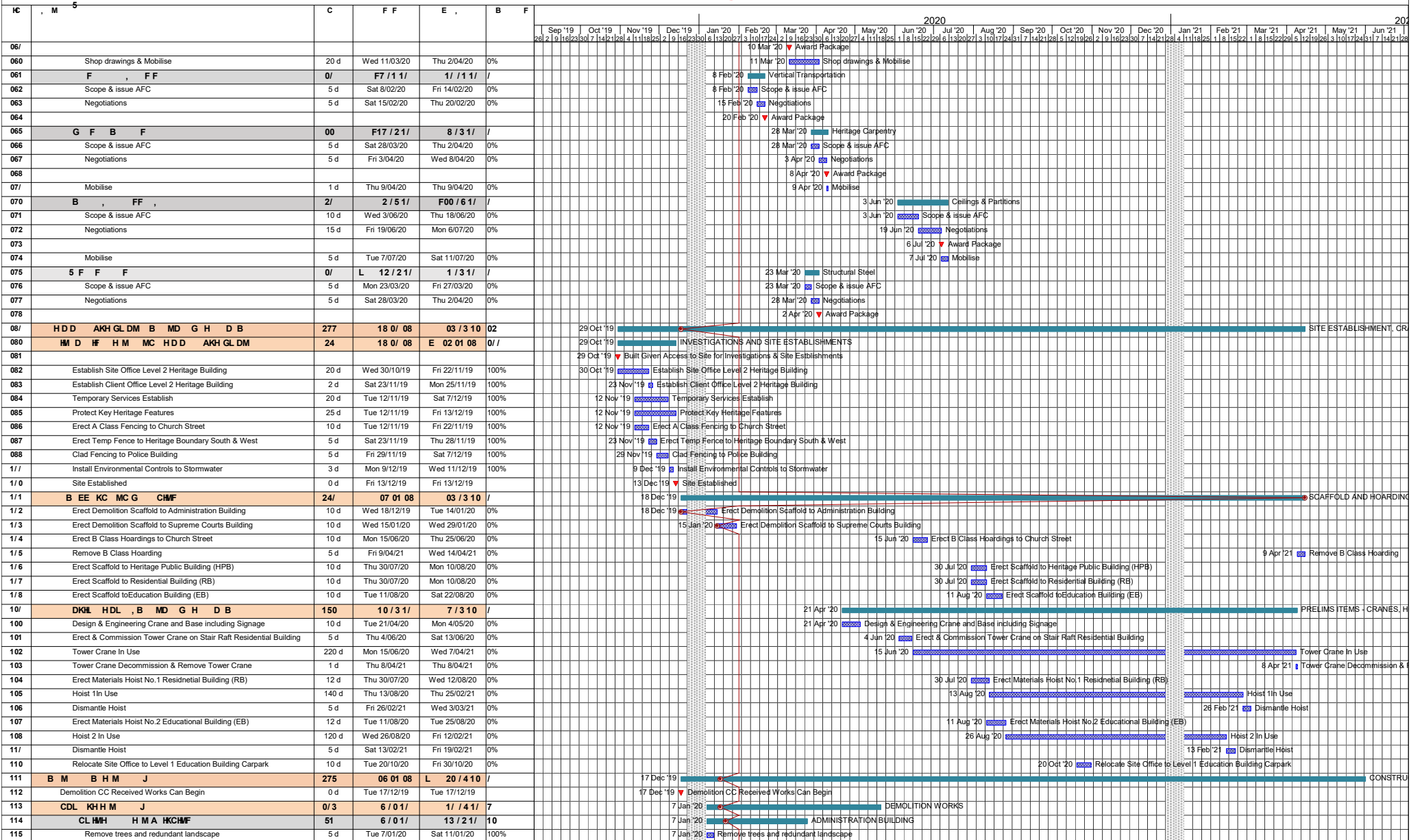
Built NIHON UNIVERSITY

9 CHURCH STREET NEWCASTLE 2300

Contract Programme



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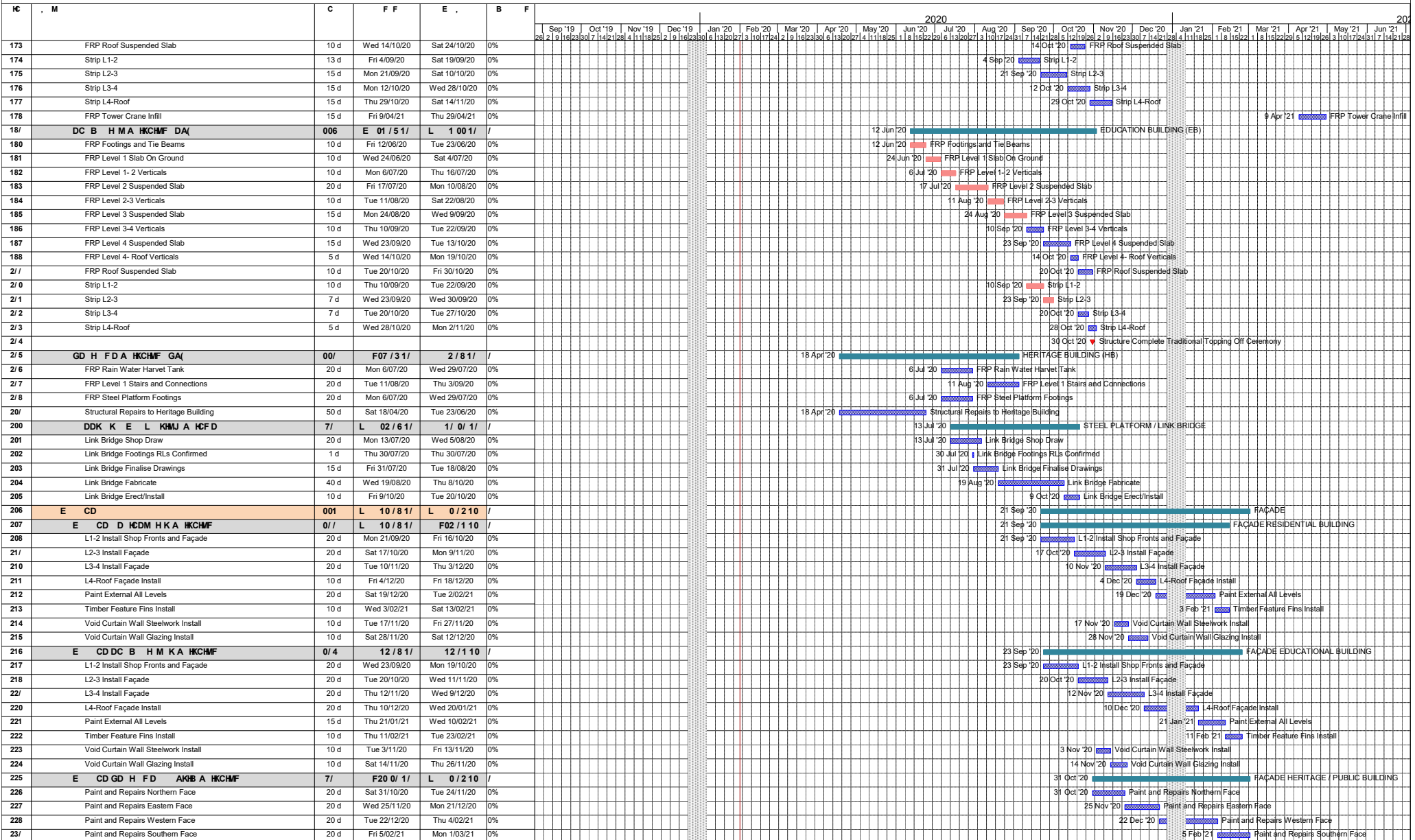
Contract Programme



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'29	Dec '29	Jan '30	Feb '30	Mar '30	Apr '30	May '30	Jun '30	Jul '30	Aug '30	Sep '30	Oct '30	Nov '30	Dec '30	Jan '31	Feb '31	Mar '31	Apr '31	May '31	Jun '31	Jul '31	Aug '31	Sep '31	Oct '31	Nov '31	Dec '31	Jan '32	Feb '32	Mar '32	Apr '32	May '32	Jun '32	Jul '32	Aug '32	Sep '32	Oct '32	Nov '32	Dec '32	Jan '33	Feb '33	Mar '33	Apr '33	May '33	Jun '33	Jul '33	Aug '33	Sep '33	Oct '33	Nov '33	Dec '33	Jan '34	Feb '34	Mar '34	Apr '34	May '34	Jun '34	Jul '34	Aug '34	Sep '34	Oct '34	Nov '34	Dec '34	Jan '35	Feb '35	Mar '35	Apr '35	May '35	Jun '35	Jul '35	Aug '35	Sep '35	Oct '35	Nov '35	Dec '35	Jan '36	Feb '36	Mar '36	Apr '36	May '36	Jun '36	Jul '36	Aug '36	Sep '36	Oct '36	Nov '36	Dec '36	Jan '37	Feb '37	Mar '37	Apr '37	May '37	Jun '37	Jul '37	Aug '37	Sep '37	Oct '37	Nov '37	Dec '37	Jan '38	Feb '38	Mar '38	Apr '38	May '38	Jun '38	Jul '38	Aug '38	Sep '38	Oct '38	Nov '38	Dec '38	Jan '39	Feb '39	Mar '39	Apr '39	May '39	Jun '39	Jul '39	Aug '39	Sep '39	Oct '39	Nov '39	Dec '39	Jan '40	Feb '40	Mar '40	Apr '40	May '40	Jun '40	Jul '40	Aug '40	Sep '40	Oct '40	Nov '40	Dec '40	Jan '41	Feb '41	Mar '41	Apr '41	May '41	Jun '41	Jul '41	Aug '41	Sep '41	Oct '41	Nov '41	Dec '41	Jan '42	Feb '42	Mar '42	Apr '42	May '42	Jun '42	Jul '42	Aug '42	Sep '42	Oct '42	Nov '42	Dec '42	Jan '43	Feb '43	Mar '43	Apr '43	May '43	Jun '43	Jul '43	Aug '43	Sep '43	Oct '43	Nov '43	Dec '43	Jan '44	Feb '44	Mar '44	Apr '44	May '44	Jun '44	Jul '44	Aug '44	Sep '44	Oct '44	Nov '44	Dec '44	Jan '45	Feb '45	Mar '45	Apr '45	May '45	Jun '45	Jul '45	Aug '45	Sep '45	Oct '45	Nov '45	Dec '45	Jan '46	Feb '46	Mar '46	Apr '46	May '46	Jun '46	Jul '46	Aug '46	Sep '46	Oct '46	Nov '46	Dec '46	Jan '47	Feb '47	Mar '47	Apr '47	May '47	Jun '47	Jul '47	Aug '47	Sep '47	Oct '47	Nov '47	Dec '47	Jan '48	Feb '48	Mar '48	Apr '48	May '48	Jun '48	Jul '48	Aug '48	Sep '48	Oct '48	Nov '48	Dec '48	Jan '49	Feb '49	Mar '49	Apr '49	May '49	Jun '49	Jul '49	Aug '49	Sep '49	Oct '49	Nov '49	Dec '49	Jan '50	Feb '50	Mar '50	Apr '50	May '50	Jun '50	Jul '50	Aug '50	Sep '50	Oct '50	Nov '50	Dec '50	Jan '51	Feb '51	Mar '51	Apr '51	May '51	Jun '51	Jul '51	Aug '51	Sep '51	Oct '51	Nov '51	Dec '51	Jan '52	Feb '52	Mar '52	Apr '52	May '52	Jun '52	Jul '52	Aug '52	Sep '52	Oct '52	Nov '52	Dec '52	Jan '53	Feb '53	Mar '53	Apr '53	May '53	Jun '53	Jul '53	Aug '53	Sep '53	Oct '53	Nov '53	Dec '53	Jan '54	Feb '54	Mar '54	Apr '54	May '54	Jun '54	Jul '54	Aug '54	Sep '54	Oct '54	Nov '54	Dec '54	Jan '55	Feb '55	Mar '55	Apr '55	May '55	Jun '55	Jul '55	Aug '55	Sep '55	Oct '55	Nov '55	Dec '55	Jan '56	Feb '56	Mar '56	Apr '56	May '56	Jun '56	Jul '56	Aug '56	Sep '56	Oct '56	Nov '56	Dec '56	Jan '57	Feb '57	Mar '57	Apr '57	May '57	Jun '57	Jul '57	Aug '57	Sep '57	Oct '57	Nov '57	Dec '57	Jan '58	Feb '58	Mar '58	Apr '58	May '58	Jun '58	Jul '58	Aug '58	Sep '58	Oct '58	Nov '58	Dec '58	Jan '59	Feb '59	Mar '59	Apr '59	May '59	Jun '59	Jul '59	Aug '59	Sep '59	Oct '59	Nov '59	Dec '59	Jan '60	Feb '60	Mar '60	Apr '60	May '60	Jun '60	Jul '60	Aug '60	Sep '60	Oct '60	Nov '60	Dec '60	Jan '61	Feb '61	Mar '61	Apr '61	May '61	Jun '61	Jul '61	Aug '61	Sep '61	Oct '61	Nov '61	Dec '61	Jan '62	Feb '62	Mar '62	Apr '62	May '62	Jun '62	Jul '62	Aug '62	Sep '62	Oct '62	Nov '62	Dec '62	Jan '63	Feb '63	Mar '63	Apr '63	May '63	Jun '63	Jul '63	Aug '63	Sep '63	Oct '63	Nov '63	Dec '63	Jan '64	Feb '64	Mar '64	Apr '64	May '64	Jun '64	Jul '64	Aug '64	Sep '64	Oct '64	Nov '64	Dec '64	Jan '65	Feb '65	Mar '65	Apr '65	May '65	Jun '65	Jul '65	Aug '65	Sep '65	Oct '65	Nov '65	Dec '65	Jan '66	Feb '66	Mar '66	Apr '66	May '66	Jun '66	Jul '66	Aug '66	Sep '66	Oct '66	Nov '66	Dec '66	Jan '67	Feb '67	Mar '67	Apr '67	May '67	Jun '67	Jul '67	Aug '67	Sep '67	Oct '67	Nov '67	Dec '67	Jan '68	Feb '68	Mar '68	Apr '68	May '68	Jun '68	Jul '68	Aug '68	Sep '68	Oct '68	Nov '68	Dec '68	Jan '69	Feb '69	Mar '69	Apr '69	May '69	Jun '69	Jul '69	Aug '69	Sep '69	Oct '69	Nov '69	Dec '69	Jan '70	Feb '70	Mar '70	Apr '70	May '70	Jun '70	Jul '70	Aug '70	Sep '70	Oct '70	Nov '70	Dec '70	Jan '71	Feb '71	Mar '71	Apr '71	May '71	Jun '71	Jul '71	Aug '71	Sep '71	Oct '71	Nov '71	Dec '71	Jan '72	Feb '72	Mar '72	Apr '72	May '72	Jun '72	Jul '72	Aug '72	Sep '72	Oct '72	Nov '72	Dec '72	Jan '73	Feb '73	Mar '73	Apr '73	May '73	Jun '73	Jul '73	Aug '73	Sep '73	Oct '73	Nov '73	Dec '73	Jan '74	Feb '74	Mar '74	Apr '74	May '74	Jun '74	Jul '74	Aug '74	Sep '74	Oct '74	Nov '74	Dec '74	Jan '75	Feb '75	Mar '75	Apr '75	May '75	Jun '75	Jul '75	Aug '75	Sep '75	Oct '75	Nov '75	Dec '75	Jan '76	Feb '76	Mar '76	Apr '76	May '76	Jun '76	Jul '76	Aug '76	Sep '76	Oct '76	Nov '76	Dec '76	Jan '77	Feb '77	Mar '77	Apr '77	May '77	Jun '77	Jul '77	Aug '77	Sep '77	Oct '77	Nov '77	Dec '77	Jan '78	Feb '78	Mar '78	Apr '78	May '78	Jun '78	Jul '78	Aug '78	Sep '78	Oct '78	Nov '78	Dec '78	Jan '79	Feb '79	Mar '79	Apr '79	May '79	Jun '79	Jul '79	Aug '79	Sep '79	Oct '79	Nov '79	Dec '79	Jan '80	Feb '80	Mar '80	Apr '80	May '80	Jun '80	Jul '80	Aug '80	Sep '80	Oct '80	Nov '80	Dec '80	Jan '81	Feb '81	Mar '81	Apr '81	May '81	Jun '81	Jul '81	Aug '81	Sep '81	Oct '81	Nov '81	Dec '81	Jan '82	Feb '82	Mar '82	Apr '82	May '82	Jun '82	Jul '82	Aug '82	Sep '82	Oct '82	Nov '82	Dec '82	Jan '83	Feb '83	Mar '83	Apr '83	May '83	Jun '83	Jul '83	Aug '83	Sep '83	Oct '83	Nov '83	Dec '83	Jan '84	Feb '84	Mar '84	Apr '84	May '84	Jun '84	Jul '84	Aug '84	Sep '84	Oct '84	Nov '84	Dec '84	Jan '85	Feb '85	Mar '85	Apr '85	May '85	Jun '85	Jul '85	Aug '85	Sep '85	Oct '85	Nov '85	Dec '85	Jan '86	Feb '86	Mar '86	Apr '86	May '86	Jun '86	Jul '86	Aug '86	Sep '86	Oct '86	Nov '86	Dec '86	Jan '87	Feb '87	Mar '87	Apr '87	May '87	Jun '87	Jul '87	Aug '87	Sep '87	Oct '87	Nov '87	Dec '87	Jan '88	Feb '88	Mar '88	Apr '88	May '88	Jun '88	Jul '88	Aug '88	Sep '88	Oct '88	Nov '88	Dec '88	Jan '89	Feb '89	Mar '89	Apr '89	May '89	Jun '89	Jul '89	Aug '89	Sep '89	Oct '89	Nov '89	Dec '89	Jan '90	Feb '90	Mar '90	Apr '90	May '90	Jun '90	Jul '90	Aug '90	Sep '90	Oct '90	Nov '90	Dec '90	Jan '91	Feb '91	Mar '91	Apr '91	May '91	Jun '91	Jul '91	Aug '91	Sep '91	Oct '91	Nov '91	Dec '91	Jan '92	Feb '92	Mar '92	Apr '92	May '92	Jun '92	Jul '92	Aug '92	Sep '92	Oct '92	Nov '92	Dec '92	Jan '93	Feb '93	Mar '93	Apr '93	May '93	Jun '93	Jul '93	Aug '93	Sep '93	Oct '93	Nov '93	Dec '93	Jan '94	Feb '94	Mar '94	Apr '94	May '94	Jun '94	Jul '94	Aug '94	Sep '94	Oct '94	Nov '94	Dec '94	Jan '95	Feb '95	Mar '95	Apr '95	May '95	Jun '95	Jul '95	Aug '95	Sep '95	Oct '95	Nov '95	Dec '95	Jan '96	Feb '96	Mar '96	Apr '96	May '96	Jun '96	Jul '96	Aug '96	Sep '96	Oct '96	Nov '96	Dec '96	Jan '97	Feb '97	Mar '97	Apr '97	May '97	Jun '97	Jul '97	Aug '97	Sep '97	Oct '97	Nov '97	Dec '97	Jan '98	Feb '98	Mar '98	Apr '98	May '98	Jun '98	Jul '98	Aug '98	Sep '98	Oct '98	Nov '98	Dec '98	Jan '99	Feb '99	Mar '99	Apr '99	May '99	Jun '99	Jul '99	Aug '99	Sep '99	Oct '99	Nov '99	Dec '99	Jan '00	Feb '00	Mar '00	Apr '00	May '00	Jun '00	Jul '00	Aug '00	Sep '00	Oct '00	Nov '00	Dec '00	Jan '01	Feb '01	Mar '01	Apr '01	May '01	Jun '01	Jul '01	Aug '01	Sep '01	Oct '01	Nov '01	Dec '01	Jan '02	Feb '02	Mar '02	Apr '02	May '02	Jun '02	Jul '02	Aug '02	Sep '02	Oct '02	Nov '02	Dec '02	Jan '03	Feb '03	Mar '03	Apr '03	May '03	Jun '03	Jul '03	Aug '03	Sep '03	Oct '03	Nov '03	Dec '03	Jan '04	Feb '04	Mar '04	Apr '04	May '04	Jun '04	Jul '04	Aug '04	Sep '04	Oct '04	Nov '04	Dec '04	Jan '05	Feb '05	Mar '05	Apr '05	May '05	Jun '05	Jul '05	Aug '05	Sep '05	Oct '05	Nov '05	Dec '05	Jan '06	Feb '06	Mar '06	Apr '06	May '06	Jun '06	Jul '06	Aug '06	Sep '06	Oct '06	Nov '06	Dec '06	Jan '07	Feb '07	Mar '07	Apr '07	May '07	Jun '07	Jul '07	Aug '07	Sep '07	Oct '07	Nov '07	Dec '07	Jan '08	Feb '08	Mar '08	Apr '08	May '08	Jun '08	Jul '08	Aug '08	Sep '08	Oct '08	Nov '08	Dec '08	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10	May '10	Jun '10	Jul '10	Aug '10	Sep '10	Oct '10	Nov '10	Dec '10	Jan '11	Feb '11	Mar '11	Apr '11	May '11	Jun '11	Jul '11	Aug '11	Sep '11	Oct '11	Nov '11	Dec '11	Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12	Jan '13	Feb '

	Critical Split	*****	Non-critical	*****	Project Summary	*****	Critical	*****
	Critical Task	*****	Milestone	▼	Summary	*****		

Built NIHON UNIVERSITY 9 CHURCH STREET NEWCASTLE 2300 Contract Programme

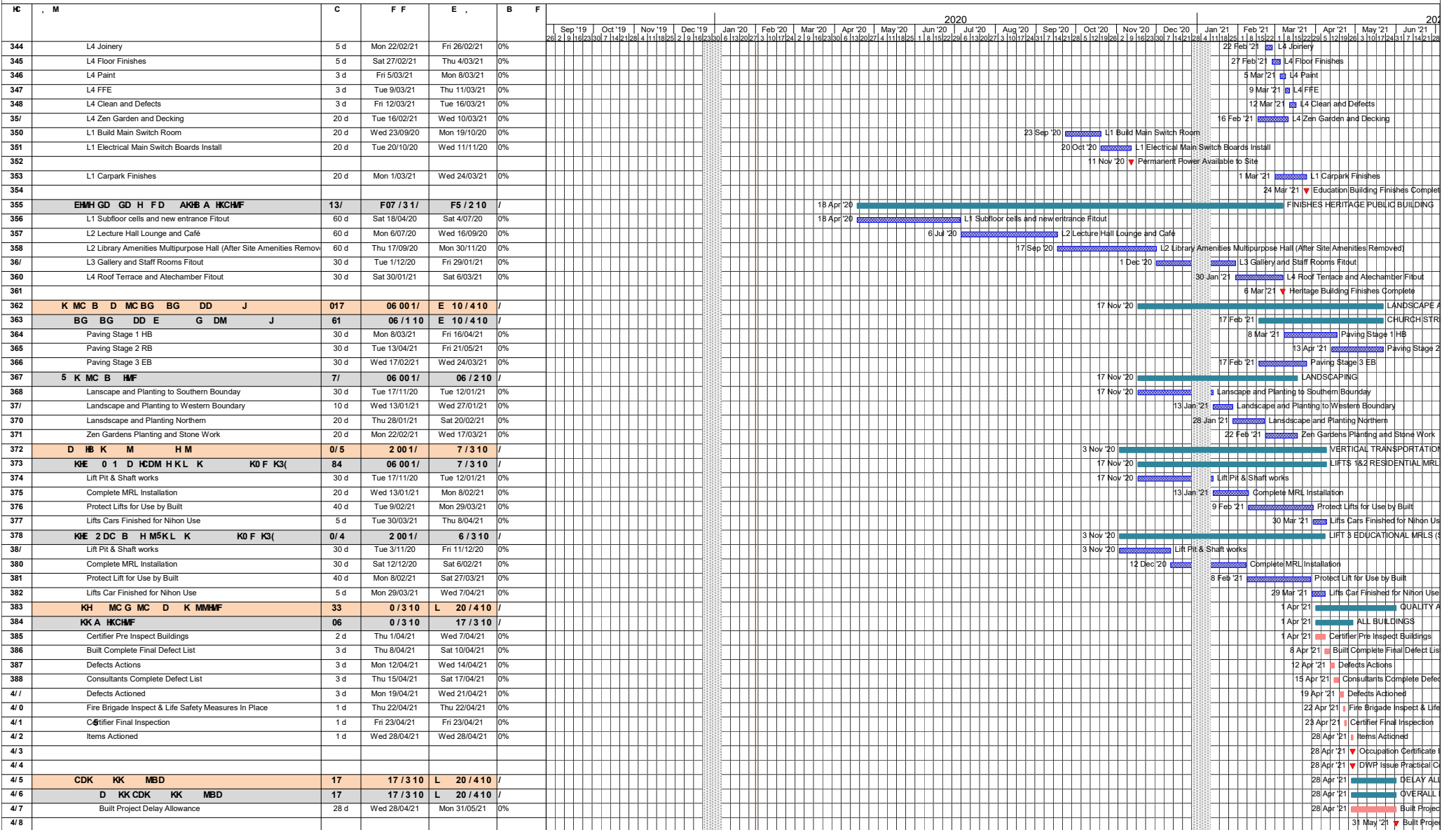


	Critical Split Critical Task	Non-critical Milestone	Project Summary Summary	Critical	
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Built NIHON UNIVERSITY

9 CHURCH STREET NEWCASTLE 2300

Contract Programme



Appendix F ~~±~~Statused SSD-9787 Conditions Matrix

SSD 9787 - FINAL CONDITIONS | SCHEDULE 2 MATRIX

PART A - ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

Terms of Consent

S

S

S

S

S

Limits of Consent

Prescribed Conditions

S

S

Planning Secretary as Moderator

S

S

Evidence of Consultation

Staging

S

S



SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX											
Protection of Public Infrastructure											
D	S										
	S										
	[i] Communications strategies and dilapidation survey to be undertaken - copy of dilapidation report to Certifier + Council					Built		21-Jan-20			
	[ii] Copy of dilapidation report forwarded to Planning Secretary				Nihon		dwp	21-Jan-20			
Pre-Construction Dilapidation Report											
D	S										
	S										
	[i] Dilapidation survey to be undertaken - copy of dilapidation report to Certifier + Council					Built		21-Jan-20			
	[ii] Copy of dilapidation report forwarded to Planning Secretary				Nihon		dwp	21-Jan-20			
Ecologically Sustainable Development											
D	S										S
	S										S
	[i] Management of the green star process - assistance with alternative certification process					Built	dwp Northrop				
	[ii] Resolution of alternative certification process - notification to Planning Secretary for approval				Nihon		Azusa dwp	17-Jan-20			
Operational Waste Storage and Processing											
D	S										
	S										
	[i] DA approved stormwater drawings to be forwarded to Certifier					Built	dwp Northrop				
	[ii] Evidence of design and Council endorsement of operational waste storage and processing to be submitted to Certifier				Nihon		Azusa dwp				
Rainwater Harvesting											
D	S										
	S										
	[i] Rainwater reuse has been designed installation to be finalised + provided to the Certifier					Built	Cardno Northrop				
Operational Car Parking and Service Vehicle Layout											
D	S										
	S										
	S										
	[i] Final car parking and service layouts to be design certified + provided to the Certifier					Built	dwp Northrop				
Bicycle Parking and End of Trip Facilities											
D	S										
	S										
	S										
	[i] Final bicycle parking and service facilities to be design certified + provided to the Certifier					Built	Cardno Northrop				
PART C - PRIOR TO COMMENCEMENT OF CONSTRUCTION											
Notice of Commencement											
	S										
	[i] Notification of commencement required to the Planning Secretary					Built	dwp	22-Jan-20			
	S										
	[i] Notification of commencement of each construction stage required to the Planning Secretary					Built	dwp				
Construction Certificate											
	[i] Construction certification process to be managed					Built	dwp				

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX											
	S O S SO S										
	[i] CTPMSP developed by contractor + submission to Certifier						Built				
	[ii] Submission to the Planning Secretary required					Nihon		dwp			
	O S										
	S										
	O OO										
	D										
	[i] CNVMS-P developed by contractor + submission to PCA						D	OO			
	O S OS										
	[i] CWPMS-P developed by contractor + submission to PCA						Built				
Aboriginal Cultural Heritage Management Plan											
	S OS										
	S										
	[i] ACHMSP developed by contractor + submission to PCA						Built	AMAC			
	[ii] Submission to and endorsement by the Planning Secretary required					Nihon		dwp			
Construction Worker Transportation Strategy											
	S										
	[i] Strategy developed by contractor + submission to the Certifier						Built		22-Jan-20		
	[ii] Submission to the Planning Secretary required					Nihon		dwp	22-Jan-20		
Stormwater Management System											
	S										
	S										
	O										
	[i] Stormwater management system developed + submission to the Certifier						Built	Cardno Northrop			
Operational Noise – Design of Mechanical Plant and Equipment											

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX															
S	O	OO	O	OO											
[i] Mechanical services design developed for compliance + submission to Certifier						Built	Northrop								
[ii] The Certifier to verify the submitted design					Nihon		Dix Gardner								
Archaeological Salvage - Historic Archaeology															
S				S											
[i] Methodology developed for compliance - consultation required with Heritage NSW + Premiers Department						Built	AMAC								
S															
[i] AMAC credentials identified for compliance						Built	AMAC								
Landscaping															
S	N	S		S											
[i] Landscape requirements to be worked through for resolution with Council + Heritage NSW					Nihon		dwp Moir								
Public Domain Works															
S				S	O										
[i] Public domain works to be worked through for final resolution					Nihon		dwp Moir Cardno								
S															
[i] Public domain works to be worked through for final resolution - approval from Council submitted to the Certifier					Nihon		dwp Moir cardno								
Compliance Reporting															
S	S	O	S												
[i] Compliance monitoring and reporting program prepared + provided to the Certifier						Built	dwp Northrop								
[ii] Submission of report to the Planning Secretary required					Nihon		dwp	16-Jan-20							
S				S	S										
[i] Compliance report made available publically and advise Planning Secretary + Certifier					Nihon		Azusa dwp								
S				S	S										
PART D - DURING CONSTRUCTION															
Site Notice															

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX											
	D										
	[i] Site notices developed by contractor + submission to the Certifier		Built								
Operation of Plant and Equipment											
	[i] Site plant maintained and equipment maintenance by contractor		Built								
Demolition											
	[i] Demolition processes developed by contractor		Built								
Construction Hours											
	O										
	[i] Construction hours factored into construction program		Built								
	S										
	S										
	[i] Notification to affected residents required		Built								
	O O										
	[i] Check advice with the Certifier - demolition processes not considered as rock breaking or rock hammering - to be monitored		Built								
Implementation of Management Plans											
	O S S O S										
	[i] Monitoring of compliance with management plans		Built								
Construction Traffic											
			Built								
Hoarding Requirements											
			Built								
No Obstruction of Public Way											
			D								
Construction Noise Limits											
	O S		Built	EMM							
			Built								
			Built								
Vibration Criteria											
	O		Built	EMM							
			Built								

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX											
		O	S	OS		Built	EMM				
Tree Protection											
						Built					
Air Quality											
						Built					
						Built					
Erosion and Sediment Control											
						Built					
Imported Soil											
						Built					
Disposal of Seepage and Stormwater											
						Built	Northrop Cardno				
Unexpected Finds Protocol - Aboriginal Heritage											
						Built	AMAC				
Unexpected Finds Protocol - Historic Heritage											
						Built	AMAC				
Waste Storage and Processing											
						Built					
						Built					
						D					
Independent Environmental Audit											
	S		S		S						
	[i] Notification of independent auditors to be given to the Planning Secretary and agreed to - relates to environmental aspects of construction					Nihon	Built	Azusa dwp			
	S		S		S						
	[i] Independent audit program prepared and submitted to Planning Secretary and the Certifier					Nihon	Built	Azusa dwp			
	[i] Audit program linked to construction dates					Nihon	Built	Azusa dwp			

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX											
	S	O	S	S							
[i] Independent audits must be submitted to the Planning Secretary and the Certifier					Nihon	Built	Azusa dwp				
	S			S							
[i] Response required to each independent audit - Planning Secretary and the Certifier notified					Nihon	Built	Azusa dwp				
	S	S		S							
PART E - PRIOR TO ISSUE OF AN OCCUPATION CERTIFICATE OR COMMENCEMENT OF OPERATION											
Notification of Occupation											
	S			S							
[i] Notice provided to Planning Secretary					Nihon		Azusa dwp				
External Walls and Cladding											
	S			D							
[i] Evidence of products used to be issued to the Certifier						Built	Azusa dwp				
			S								
[i] Copies of the documents sent to the Certifier to be forwarded to Planning Secretary					Nihon		dwp				
Post-construction Dilapidation Report											
	S										
[i] Dilapidation Report forwarded to PCA + Council						Built					
Public Domain Works											
	S										
[i] Documented public domain works completed and approved						Built					
Protection of Public Infrastructure											
				D							
[i] All damage repaired + infrastructure upgraded						Built	Azusa dwp				
Easements											
	S										
	N	S									
[i] Easements to be established					Nihon		Azusa dwp				
Utilities and Services											
	S										
[i] Certificate to be obtained and submitted to the Certifier						Built	Northrop				
Works as Executed Plans											
	S										
[i] As executed plans to be obtained and submitted to the Certifier						Built	Cardno Northrop				
Green Travel Plan											

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX											
	S		S	S		S					
		S									
[i] Green travel plan to be finalised and submitted to the Planning Secretary					Nihon		Azusa dwp				
Heritage Interpretation Plan											
	S				S		S				
[i] Heritage Interpretation Plan is required to be completed and submitted to the Planning Secretary - dependent of archaeological findings					Nihon		Azusa dwp				
Operational Management Plan											
	S				O		S				
[i] Operational management plan to be finalised					Nihon		Azusa dwp				
		O	S								
[ii] Operational management plan to be submitted to the Certifier					Nihon		Azusa dwp				
Operational Transport and Access Management Plan [OTAMP]											
	S										
		O S									
[i] Operational management plan to be finalised and submitted to the Planning Secretary					Nihon		Azusa dwp				
Mechanical Ventilation											
	S										
[i] Certification of mechanical installation required and submitted to the Certifier						Built	Northrop				
Operational Noise - Design of Mechanical Plant and Equipment											
	S										
			O			O O					
[i] Certification of mechanical installation required in relation to noise and vibration mitigation and submitted to the Certifier						Built	Northrop				
Road Damage											
	S					S					
[i] Damage to public infrastructure caused by construction to be rectified						Built					
Fire Safety Certification											
	S						O				
[i] Fire safety certificate for constructed facility to be submitted to relevant authority						Built	dwp Northrop				

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX									
Structural Inspection Certificate									
S									
[i] Structural certification of the works submitted to the Certifier					Built	Cardno Northrop			
Compliance with Food Code									
S									
[i] Certification of the kitchen works submitted to the Certifier					Built	dwp kitchen sc			
Stormwater Quality Management Plan									
S O S O O									
[i] OMP prepared and to be submitted to the Certifier					Built	Northrop Cardno			
Rainwater Harvesting									
S S S					Built	Northrop			
[i] Documentation of the rainwater reuse system to be submitted to the Certifier									
ii) Copy of the documents sent to the Certifier to be forwarded to Planning Secretary				Nihon		dwp			
Warm Water Systems and Cooling Systems									
S S S S N					Built	Northrop			
[i] Certification of the of the warm water and cooling systems to be submitted to the Certifier									
Outdoor Lighting									
S					Built	Northrop			
[i] Certification of the outdoor lighting systems to be submitted to the Certifier									
Archaeological Salvage - Historic Archaeology									
S					Built	AMAC dwp			
[i] Submission of archaeological report to Heritage Council and Council - timing to consider									
Signage									
S									
[i] Signage details to be finalised and installed									
S					Built	Azusa dwp			
[i] Signage details to be finalised and installed									
S					Built	Azusa dwp			
[i] Signage details to be finalised and installed									
Operational Waste Management Plan									
S O S O									
S D									
S S									
O O O									
[i] Operational waste management plan to be prepared and submitted to the Certifier				Nihon		Azusa dwp			

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX									
Site Contamination									
	S								
	N								
	S								
	S					Built	Douglas Partners		
[i] Remedial works to be carried out in accordance with updated RAP and report submitted to site auditor, the Certifier and the Planning Secretary									
Site Audit Statement									
	S								
	S								
	S								
	[i] Input into site audit statement					Built	Douglas Partners		
	[ii] Site audit statement to be submitted to the Planning Secretary and the Certifier				Nihon		GHD dwp		
Long Term Environmental Management Plan									
	N O S N OS								
	S								
	N								
	S								
	S								
	[i] Input into long term environmental management plan					Built	Douglas Partners		
	[ii] Long term management plan preparation and submission to the Planning Secretary				Nihon		GHD dwp		
	N OS								
	[i] Long term management plan preparation provided to Council - timing requirement				Nihon		GHD dwp		
	N OS								
	[i] Long term management of the site				Nihon		Facility Manager		
Landscaping									
	S								
	N O S								
	O O O								
	[i] Preparation of an operational landscape management plan				Nihon		Moir Azusa dwp		
	N O S								
	[i] Submission of an operational landscape management plan				Nihon		Azusa dwp		
PART F - POST OCCUPATION									
Operation of Plant and Equipment									
					Nihon		Facility Manager		
Warm Water Systems and Cooling Systems									
	S				Nihon		Facility Manager		
	S S S S								
	O S N								
Community Communication Strategy									
	S				Nihon		Facility Manager		
Heritage interpretation Plan									
	S				Nihon		Facility Manager		
	S				Nihon		Facility Manager		
Operational Transport and Access Management Plan (OTAMP)									

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX											
	O S				Nihon		Facility Manager				
Long Term Environmental Management Plan											
	S N O S				Nihon		Facility Manager				
Operational Noise Limits											
	O O O S S				Nihon		Facility Manager				
	O O O S S				Nihon		Facility Manager				
Unobstructed Driveways and Parking Areas											
					Nihon		Facility Manager				
Green Travel Plan											
	S S				Nihon		Facility Manager				
Ecologically Sustainable Development											
	S D S D										
[i] Resolution of alternative certification process - certification to Planning Secretary and to the Certifier					Nihon		Azusa dwp				
Outdoor Lighting											
					Nihon		Facility Manager				
Landscaping											
	N O S				Nihon		Facility Manager				
Dangerous Goods											
	S O				Nihon		Facility Manager				
					Nihon		Facility Manager				
Discharge Limits											
	S				Nihon		Facility Manager				
Services Zone											
	D O				Nihon		Facility Manager				
					Nihon		Facility Manager				

Appendix G ±January 2020 Waste Recovery Reports



DRUMDERG SERVICES

NIHON UNIVERSITY

RESOURCE RECOVERY REPORT

JANUARY 2020

Towards a Sustainable Future



OVERVIEW

Bins collected typically had a mixture of steel, engineered wood, plastic and cardboard which offers a very high level of recoverability. Waste was free of contamination by food or other organic matter which assists in recovery rates.

MONTHLY BREAKDOWN

MONTHLY BREAKDOWN

Total Amount Received (Tonnes)	22.18
Total Recovered (Tonnes)	20.70
Total Recovery Percentage	93.31%

RESOURCE TYPE	TONNES RECOVERED	PERCENTAGE
CONCRETE	3.72	16.75%
TIMBER	2.80	12.62%
GREEN WASTE	8.68	39.12%
SCRAP METAL	5.51	24.82%

