

PROJECT: NIHON UNIVERSITY NEWCASTLE CAMPUS

Monthly Progress Control Group Report

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Prepared By	Ben Moss (Built Pty Ltd)

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Document Control

Revision History

Version	Author	Issue Date	Changes
Draft A	Ben Moss	16.01.2020	Draft Report
Rev 1	Ben Moss	20.01.2020	Approved
PCG Report 01	Ben Moss	31.01.2020	January 2020
PCG Report 02	Ben Moss	28.02.2020	February 2020
PCG Report 03	Ben Moss	27.03.2020	March 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.

2. Project Details

Date of Site Report: 27th March 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, NSW 2300

Client: Nihon Daigaku Australia C/O Azusa Sekkei

Architect / Head Contract Administration: dwp Australia Pty Ltd

Superintendent's Address: 16 Telford Street, Newcastle East, NSW 2300

Contact: Ed Clode

Phone: 02 4926 5222

Email: Edward.c@dwp.com

3. Report

3.1 HSE Overview

During March 2020, there has been multiple high-risk construction work activities underway across all locations onsite with HSE performance excellent overall and no non-conformances issued. High risk areas include demolition works to Buildings A and C, excavation works onsite and working on/near roads and traffic during vehicle movements and hoarding erection on Church Street.

In response to the ongoing COVID-19 pandemic, Built has focussed strongly on implementing strong measures onsite. Built's measures include;

- communicating good hygiene practices and social distancing onsite with all personnel, and
- introduction of new site procedures in the event of confirmed positive case, and
- staggered break times, and
- increased cleaning of site amenities such as offices, breakrooms, bathrooms/changerooms (minimum twice daily), and
- additional hand soaps and sanitizer products onsite, and
- additional posters and signage onsite outlining COVID-19 site guidelines, correct handwashing, signs & symptoms, and
- daily monitoring of personnel for symptoms.

No environmental incidents have occurred onsite and environmental measures such as sediment control and dust suppression are implemented and regularly checked by Built personnel.

A summary of HSE issues for March 2020 is outlined below. A complete HSE Incident Register is attached in **Appendix A**.

DATE OF ISSUE	BRIEF SUMMARY OF ISSUE	CORRECTIVE ACTION COMPLETED
21/03/2020	MTI (Minor) – While installing a temporary prop to a column, the prop has moved contacting a worker. The subcontractor was wearing hard hat though received treatment for a minor cut to the side of their head.	- The prop was lifted and fixed in correct position. - This was the last prop to be installed. - Methodology of propping is to be reviewed with the subcontractor prior to removal.

3.2 Community Liaison Overview

In accordance with SSD-9787 Conditions of Consent and BUILT's Community Liaison Plan, BUILT has liaised with nearby residents, 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 B**) to ensure compliance with SSD conditions and reporting requirements.

A brief summary of community liaison issues received in March 2020 is outlined below.

DATE OF ISSUE	BRIEF SUMMARY OF ISSUE	RESPONSE / ACTIONS COMPLETED
02/03/2020	Community Notice (CN009) – A meeting was held with HNE to discuss heritage wall retention works and other construction activities potentially affecting HNE James Fletcher Hospital.	– Works were discussed and design plans issued to HNE for review and comment by 27/03/2020. HNE responded with no objections to the works. – Built will communicate with HNE prior to commencement of these works.
03/03/2020	Community Query (CQ003) – Member of Public (MoP) spoke with Built Foreman on Church Street regarding decommissioned pedestrian crossing and regular users not being aware of the change. MoP submitted email to City of Newcastle (CoN) stating concerns around signage and visibility, though provided positive feedback around Built providing traffic control personnel to direct pedestrians.	– Built responded to MoP by email acknowledging concerns and advised that Built is working with CoN to install additional signage. – Built installed additional signs, completely blacked out decommissioned crossing and decommissioned three parking bays as directed by CoN. – Built maintained traffic control personnel. – No further action required.
09/03/2020	Community Complaint (CC003) – A resident lodged a complaint regarding noise outside of approved construction hours (before 7:00am).	– Built contacted the resident and their neighbour to gain additional information. – Review of CCTV footage & discussions with the neighbour determined that the noise was not generated from works or personnel related to the Nihon project. – No further action required.
10/03/2020	Community Complaint (CC004) – A resident lodged a complaint related to a previous complaint (CC002) regarding demolition works causing existing cracks within their house to enlarge.	– Built requested photographs of cracks for review by Structural Engineer prior to inspection. – The resident responded via email stating that the cracks had now reduced. – Built conducted 7 days of vibration monitoring within the

		residence. Results showed that vibration levels were under the limits for both structural damage and human comfort. – Built issued report to the resident. – No further action required.
19/03/2020	Community Complaint (CC005) – James Fletcher Hospital employee lodged complaint with DPIE regarding noise from demolition works affecting call centre operations.	– Built contacted HNE Corporate Services Manager to discuss complaint. HNE contact advised they had not received any internal complaints. – Built conducted noise monitoring within the HNE call centre. Results showed compliance with construction noise levels. – Built issued report to HNE. – No further action required.

3.3 Audits & Monitoring

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.

Built has engaged a qualified and experienced Acoustic Consultant to conduct noise and vibration monitoring throughout the duration of the project. Built personnel also regularly conducts spot checks on noise levels caused by construction activities, plant and equipment.

A summary of these audit and monitoring activities is outlined in Sections 3.3.1 & 3.3.2 below.

3.3.1 Internal Audits & Monitoring

RAPT Consulting & Built completed noise and vibration monitoring activities throughout March 2020, with results showing compliance on each occasion.

Built also completed numerous HSE site inspections and monitoring activities. Inspections and monitoring activities are completed and stored electronically using Built.Safe software. At the time of compiling this report, copies of these forms were unable to be printed for inclusion.

Copies of the Audits are attached in **Appendix C**, and a brief summary is outlined below.

DATE OF ACTIVITY	BRIEF SUMMARY OF AUDIT	CORRECTIVE ACTIONS COMPLETED
02/03/2020	Site inspection of Building A during scaffolding activities.	Nil actions.
03/03/2020	Environmental inspection of Church Street Work Zone.	Sediment control bags identified to be damaged. Bags replaced and action closed.
03/03/2020	Monitoring of high risk works regarding working around mobile plant during structural demolition. Monitoring identified high potential hazards including contamination, structural demolition, and traffic management.	Identified high potential hazards communicated immediately with Demolition personnel present.
03/03/2020	RAPT Consulting conducted continuous vibration monitoring within Newcastle Police Station and James Fletcher Hospital between 11-27 th February at the commencement of structural demolition works to ascertain base level results. Results received on 03/03/2020 so were unable to be included in February 2020	Nil actions. Results showed compliance with vibration guidelines.

	PCG Report.	
04/03/2020	Built HSE Coordinator conducted noise monitoring on site boundary areas along Church Street between 9:00am and 9:55am.	Nil actions. Results showed compliance with construction noise limits.
17/03/2020	SWMS monitoring during onsite crushing of concrete demolition waste.	Nil actions. Identified high potential hazard of contamination due to concrete being mixed with other materials. All concrete waste was inspected prior to crushing.
20/03/2020	RAPT Consulting conducted internal noise monitoring within the Call Centre at James Fletcher Hospital in response to a complaint received regarding demolition works and noise.	Nil actions. Results showed compliance with construction noise limits. Report issued to HNE for their records.
23/03/2020	Site inspection of Church Street, Hoardings and load out areas for Buildings A & C.	Nil actions. Traffic control measures identified as being in place and in accordance with TMP. Hoardings in good condition and unaltered.
24/03/2020	Environmental inspection of Building C and site entry along Church Street	Sediment control to gutters on Church Street required replacing. Subcontractors instructed to use hearing protection. Actions closed immediately.
24/03/2020	RAPT Consulting conducted continuous vibration monitoring at 30 Church Street and the Heritage Courthouse between 13-20 th March in response to a complaint received from a resident regarding alleged damaged caused by demolition works and vibration.	Nil actions. Results showed compliance with vibration guidelines. Report issued to the resident for their records.
27/03/2020	Site inspection of Building A & C. Identified that all plant inductions and logbooks are up to date, lifting equipment compliant, exclusion zones and spotters were being implemented at work fronts, and that temporary fencing on Hospital boundary was installed correctly and unaltered.	Nil actions.

3.3.2 External Audits & Monitoring

GHD Newcastle completed the first Independent Environmental Audit on 26th February 2020 in accordance with SSD-9787 and the Independent Audit Post Approval Requirements 2018 (NSW Government).

GHD issued the final audit report on 25/03/2020 and identified within the report that at the time of the audit;

- the project demonstrated a high level of compliance with the requirements of Development Consent SSD-9787
- Built and dwp Australia has a good understanding of their obligations under the conditions of consent
- Built was implementing environmental management measures to minimise environmental impacts of demolition
- Built and dwp Australia had proactively identified non-compliances prior to the audit being undertaken and were both open and honest about these non-compliances

Compliance and improvement opportunities identified were related to administrative items including timing of submission of plans, notification for commencement and notification for publishing of information on the project website, and content of management plans satisfying conditions of consent.

Dwp Australia is due to submit the final audit report and a formal response to the Department of Planning (DPIE) by 27/03/2020. Once this response is received, Built will commence the closing out required actions to address non-compliances.

A summary of compliance is shown below.

COMPLIANCE	DETAILS	NUMBER OF COMPLIANT CONDITIONS
Compliant	The auditor has collected sufficient verifiable evidence to demonstrate that all elements of the requirement have been complied with within the scope of the audit.	46
Non-Compliant	The auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.	11
Not Triggered	A requirement has an activation or timing trigger that has not been met at the time when the audit is undertaken, therefore an assessment of compliance is not relevant.	41
Noted	Condition is noted.	1

3.4 Contract Programme Status

3.4.1 Construction Progress Update

Key Project Milestones Achieved:

- Work Zone Permit approved by City of Newcastle and Work Zone established
- B-Class Hoarding/Gantry erected on Church Street

Development Approval & Construction Certificates:

- Section 138 documents lodged for Public Domain Works
- Hunter Water approval received for Water Main Upgrade

Scaffold and Hoardings:

- Demolition Scaffold to Buildings A & C removed
- A & B Class Hoarding erected on Church Street

Demolition:

- Heavy Demolition to Building A structure complete
- Soft Strip Demolition to Building C complete

Civil Works:

- Site preparation works including filling for Piling Platform in Building A are 75% complete

3.4.2 Current Construction Activities

The following construction activities are currently underway on site and progressing well:

- Removal of ex-Administration Building deep foundations
- Civil Works to Building A – Accommodation Building
- Soft Strip Demolition to Building B - Heritage commenced
- Heavy Demolition to ex-Supreme Court Building structure commenced

3.4.3 Upcoming Construction Activities (April 2020)

The following construction activities are programmed to commence in April 2020:

- Additional Archaeological & Geotechnical Investigations to Building A & External Areas
- Construction of Piling Platform to Building A – Accommodation Building

- Mines grouting works (shallow Dudley Seam only) to Building A
- Ongoing soft-strip demolition within Building B – Heritage Courthouse
- Removal of Building B soft strip materials offsite for resource recovery
- Completion of heavy demolition to Building C Structure
- Construction of Piling Platform to Building C – Education Building
- CFA Piling to SW Wall adjacent to Building C – Education Building
- FRP Capping Beam in Building C – Education Building

3.4.4 Potential Issues

BUILT regularly reviews the construction programme to identify issues that have the potential to impact the time, cost and quality aspects of the project. The following issues have been flagged for attention:

- a) Delayed ASP3 design and approval by AusGrid
- b) Recent conditions imposed by SANSW regarding the Borehole Seam mine workings and structural adequacy of the Heritage Courthouse
- c) City of Newcastle approval process for Section 138 application of Public Domain Works
- d) The extent of termite and water damage within the Heritage Courthouse
- e) The issue of updated Demolition AFC scope of works and drawings for the Heritage Courthouse
- f) The extent of contaminated soil and remediation risk for Building C and External Works
- g) COVID-19 global pandemic potentially causing disruptions to progress and procurement
- h) Additional Archaeological investigations triggered by the discovery of the heritage brick culvert in Building A area
- i) DPIE and Heritage NSW approvals required to satisfy SSD-9787 Conditions A18, A19, C13, C17 & C18

3.4.5 Stated Contract Programme

The stated Contract Programme for March 2020 is attached in **Appendix D**.

3.4.6 Four Weekly Look Ahead

A Four Week Programme has been attached in **Appendix E**. This programme shows works still underway and commencing prior to the end of April 2020.

3.5 Progress Photos

The following progress photos were taken on 27/03/2020. Due to exclusion zones in place in Building C, this area was unable to be accessed at the time.



Photo 01: Time-lapse photo of the site taken on 02/03/2020



Photo 02: Time-lapse photo of the site taken on 27/03/2020



Photo 03: View of site from Church Street facing South-West showing B-Class Hoarding, Vehicle Gate & Work Zone



Photo 04: View from Corner of Church & Bolton Street showing Courthouse, Hoarding and Artwork by Newcastle Grammar School students



Photo 05: View of site from Church Street facing South-East



Photo 06: View from Church Street showing decommissioned Crossing and Artwork



Photo 07: View from corner of Church & Bolton Street looking South-West showing Building C, B-Class Hoarding & Vehicle Gate



Photo 08: View from Church Street of B-Class Hoarding & Building A area.



Photo 09: Building A Vehicle Gate & Hoarding/Gantry



Photo 10: View from Building C Vehicle Gate looking West showing structural demolition of Supreme Court Building



Photo 11: View from Building C Vehicle Gate looking South showing structural demolition of Supreme Court Building



Photo 12: Photo looking South-East showing Building B & C connection demolished



Photo 13: View of excavator with shears used for structural demolition in Supreme Court Building



Photo 14: View from Heritage Courthouse Entry showing protection of timber elements



Photo 15: View of Heritage Building Foyer showing protection of tiles and timber elements



Photo 16: View of Main Courtroom showing protection of timber elements



Photo 17: View of Corridor showing protection of doorways and timber elements. Doors have been removed and carefully stored for reinstatement



Photo 18: View from rear of Building A looking North-West showing extent of earthworks



Photo 19: View from front of Building A looking South-West showing imported compacted fill.



Photo 20: View from rear of Courthouse looking North-East showing tunnel and earthworks



Photo 21: View from front of compacted section of Building A looking East



Photo 22: Photo of heritage brick culvert discovered in Building A area. Note Archaeologists have carefully exposed for further investigations

3.6 Design Update

3.6.1 Architectural

- Construction Certificate #2 Architectural drawings were submitted on 26/03/20.
- The Architectural drawings have been updated to reflect revised Fire Engineering Report.
- CC#2 Finishes, Fixtures and Fittings and Sanitary Fixtures schedules have not been issued.
- The 3D Model is being updated on a weekly basis and is available for viewing on BIM360 platform. Northrop have uploaded Structural and Services design drawings into BIM for co-ordination.

3.6.2 Structural & Civil

- Structural drawings for the Education and Residential Buildings were submitted for CC#2 by Northrop on 17/03/20. The drawings are still being updated for the Mines Subsidence upgrade. These are expected by 01/04/20.
- Cardno to carry out peer review on Northrop Structural drawings on completion of mine subsidence re-design.
- Structural drawings for the Heritage Building were submitted for CC#2 by Cardno on 22/03/20 for approval.
- Cardno submitted Civil and Stormwater drawings for CC#2 on 25/03/20.
- Public domain works have been revised and the Section 138 application was submitted to City of Newcastle on 17/03/20.

3.6.3 Hydraulic Services

- CC#2 Hydraulics drawings are currently being updated following revised Fire Services drawings. Expected 27/03/20.
- Hydraulics specification has been issued to Marline for review on 28/02/20. No comments received at this time.

3.6.4 Electrical Services

- CC#2 Electrical drawings have been issued by Northrop for review on 12/03/20. The drawings were sent to Marline for review on 12/03/20. No comments currently.
- ASP3 design for kiosk upgrade from 800amps to 1000amps has been submitted to Ausgrid for approval. Approval was expected early March.
- Northrop to complete lighting design and luminaire schedule for final review by dwp / Azusa for CC#2 submission. Revised CC#2 documentation expected 27/03/20.

3.6.5 Mechanical Services

- CC#2 Mechanical drawings were submitted on 24/03/20. The drawings were sent to Marline, dwp and Azusa for review on 24/03/20.

3.6.6 Fire Services

- CC#2 Fire services drawings were issued on 23/03/20 and updated to reflect the revised Fire Engineering Report.
- Drawings were updated to reflect a separate Fire Hydrant and Sprinkler Booster and Pump system as per the original design. Further co-ordination is required to ensure that current spatial can accommodate the two pumps in the fire pump / hot water room.

3.6.7 Fire Engineering

- Final Fire Engineering Report was issued on 10/03/20 by Design Confidence.
- FER was submitted to FRNSW on 19/03/20 and they responded on 20/03/20 stating that an Initial Fire Safety Report will not be provided by FRNSW.

3.6.8 Green Star

- Final Green Star Energy Modelling and Section J reporting is expected to be received on 27/03/20.

- Potable Water Calculator can be confirmed once results of Energy Modelling are known.
- All consultants are updating their design to include required Green Star references.
- Green Star documentation still to be submitted is as follows:
 - Credit 11.1 & 27 - Letter of confirmation from Electrical Engineer stating that these requirements are met, if available the letter should include lighting calculations, luminaire schedule & datasheets
 - Credit 12.2 - Views mark-ups by dwp Australia
 - Credit 15 & 16 - Energy modelling report by Northrop
 - Credit 17 - Green Travel Plan & GBCA transport calculator by dwp Australia
 - Credit 18 - Potable Water Calculator by Northrop
 - Credit 19B.2 - Letter from Structural Engineer with calculations confirming reduced mass of steel
 - Credit 26.1 & 26.2 - Stormwater calculations showing pollution reduction targets by Cardno

3.7 Authorities & Approvals

3.7.1 NSW Dept. Planning & Environment.

- A statused version of the SSD-9787 Conditions Matrix has been attached in **Appendix F for March 2020**.
- All SSD Conditions have been met for CC#1 except for the following:
 - **A18 Site Contamination:** Detailed Site Investigation, Final Remediation Action Plan and Long-Term Site Management Plan were submitted to the Independent Site Auditor on 24/03/20 for approval. Once approved, these documents must be submitted to the Planning Secretary.
 - **C13 Aboriginal Cultural Heritage Management Plan:** Report was submitted to the Planning Secretary on 23/03/20. Endorsement from Planning Secretary not yet received
 - **C17 and C18 Archaeological Salvage- Historic Archaeology:** AMAC report was issued to Department of Planning and Heritage NSW on 18/03/20. dwp requested a response from Heritage NSW on 23/03/20 however none has been received at this time. Heritage NSW have until 14/04/20 to respond.
 - **A16 Structural Adequacy of Heritage Building:** Certification received from Cardno confirming that any alterations or additions to existing buildings and structures are structurally adequate. SANSW conditions have now stated that they must certify that the existing Heritage Building will remain safe in the event of a subsidence event. Cardno are assessing what is required to achieve this and will advise in due course the costs and timeframes as a result.
 - **A16 Structural Adequacy of New Buildings:** Northrop are currently re-designing the new structures to be "Safe" in the event of a subsidence event and will be providing a Mines Impact Statement to fulfil this requirement. The re-design is expected to be submitted on 1/04/20.

3.7.2 City of Newcastle

- Section 138 application was submitted to City of Newcastle on 17/03/20.

3.7.3 Ausgrid

- Revised ASP3 design was submitted to Ausgrid and approval is expected early March, however there has been no update yet.

3.7.4 Jemena

- Jemena application was submitted on 24/03/20.

3.7.5 Hunter Water

- Metiri Consultants issued For Construction documents for the Hunter Water Mains upgrade on 28/02/20 and the pre-construction requirements were issued on 19/03/20.

3.7.6 NBN

- NBN application has been approved and ready to submit the proposal for the development.

3.7.7 SANSW

- SANSW issued their approval for the Mine Subsidence methodology with a number of conditions to be met prior to CC#1 construction works commencing as follows:
 - 3b.** Completion of Grout Verification Out Put Report for Shallow Workings (Dudley Seam)
 - 4a.** Design of new structures to be in accordance with the subsidence parameters set out in the determination for Borehole Seam.
 - 4b.** Provide engineering certification of the existing Heritage structure to remain safe using the subsidence parameters outlined in 4a.
 - 5.** Submit a final design for all buildings for acceptance by SANSW including a Mines Impact Statement.
 - 6.** Submit WAE certification and plans on completion of construction.

3.8 Outstanding RFIs

(Generated from Aconex)

RFI Register



Project: Nihon University

Date: 27/03/2020

Mail number	Subject	Sent	From (Name)	From (Company)	To (Organization)	Date Resolved	Status	Comments	Discipline
CGR-RFI-000001	Existing stormwater invert level	20/12/2020	Scott Brisbin	Cardno	Built Pty Ltd		Outstanding	Closed out. Cardno to confirm	Civil
BUILT- RFI-000044	Re: Safety In Design Evaluation	03/02/2020	Olivia Ryan	Built	Activate Fire Australia Pty Ltd		Outstanding	ACTION: Please submit	Services
dwp AU-RFI-000018	Residential Building - Front façade concrete blade levels 2&3	05/02/2020	Christian Barkowski	dwp	Built		Outstanding	Refer to DWP AU-RFI-000058 for further discussion	Structural
BUILT-RFI-000047	Submission of Quality Plans	06/02/2020	Sita Vasanthakumar	Built	Northrop Engineers Pty Ltd		Outstanding	ACTION: Please submit before end of week	Structural
BUILT-RFI-000047	Submission of Quality Plans	06/02/2020	Sita Vasanthakumar	Built	dwp		Outstanding	ACTION: Please submit before end of week	Architectural
BUILT-RFI-000047	Submission of Quality Plans	06/02/2020	Sita Vasanthakumar	Built	McCallum Plumbing & Fire Consultants Australia		Outstanding	ACTION: Please submit before end of week	Services
NE-RFI-000004	External Pavement Levels	12/02/2020	Andrew Abbo	Northrop			Responded	Closed out on 02/03/20 (BUILT-TRANSMIT-000097). Northrop to close out	Structural
dwp AU-RFI000027	Newcastle Courthouse RFI Spot Levels on health side	12/02/2020	David Huntley	dwp	Built	13/02/2020	Responded	Closed out. Dwp to confirm	Architectural
NE-RFI-000005	Soil retained against existing courthouse	14/02/2020	Andrew Abbo	Northrop	Built	17/02/2020	Responded	Closed out. Northrop to confirm	Structural
NE-RFI-000010	Roof top upstand walls / parapets	20/02/2020	Andrew Abbo	Northrop	dwp	25/02/2020	Closed Out	Closed out. Northrop to confirm	Structural
BUILT-RFI-000065	Section through Heritage Building	20/02/2020	Sita Vasanthakumar	Built	dwp	20/02/2020	Responded	ACTION: Cardno and dwp to document new structure for terrace	Structural
NE-RFI-000013	Re: CC#1 (Early works- inground services, piling, level 1 slab) documentation	25/02/2020	Dave Singh	Northrop	Built		Outstanding	Closed out refer NE-TRANSMIT-000017. Northrop to confirm	Services
NE-RFI-000014	Re: SERVICES DESIGN MEETING MINUTES 008	25/02/2020	Dave Singh	Northrop	Built		Outstanding	Closed out. Northrop to confirm	Services
BUILT-RFI-000074	Gas provision for fireplaces	26/02/2020	Sita Vasanthakumar	Built	Jun / dwp		Responded	ACTION: dwp to provide direction on which fireplaces are to be gas	Services
NE-RFI-000017	Draft Escape route signage	26/02/2020	Dave Singh	Northrop	Built	26/02/2020	Responded	ACTION: dwp to review egress path	Services
BUILT-RFI-000086	Landscape drawings required and Consent Condition C19	28/02/2020	Olivia Ryan	Built	Moir	28/02/2020	Responded	ACTION: Moir to provide outstanding items- Endorsement from Heritage Council / proof of qualifications of Heritage Landscape Architect	Architectural
dwp AU-RFI-000043	Heritage Mech requirements to rear terrace	02/03/2020	Christian Barkowski	dwp	Northrop		Outstanding	ACTION: Northrop to review and provide sketch for location and size	Services
BUILT-RFI-000092	Alternative Sanitary Fixtures for Green Star	04/03/2020	Sita Vasanthakumar	Built	dwp	9/03/2020	Responded	Alternative fixtures proposed- but not achieving requirements for Greenstar points. Once energy modelling is confirmed, Built will advise whether 1 point for potable water can be sacrificed.	Services
BUILT-RFI-000101	GREENSTAR - Letter of Compliance Required for various Credits	06/03/2020	Olivia Ryan	Built	dwp		Outstanding	ACTION: dwp to provide documentation for CC2	Architectural

dwp AU-RFI-000047	Redundant Services Risers for review	06/03/2020	Christian Barkowski	dwp	All Consultants		Outstanding	ACTION: Northrop Mech to comment on redundant risers to residential building - URGENT	Services / Structural
BUILT-RFI-000105	CC2- GREENSTAR CREDIT COMPLIANCE DOCUMENTATION REQUIRED	09/03/2020	Olivia Ryan	Built	Northrop / McCallum	10/03/2020	Responded	Specifications updated for Electrical and Mechanical - Hydraulic & Fire yet to be updated. Letters and other documentation to be provided	Services
BUILT-RFI-000107	Heritage Courthouse - Demolition Scope of Works & Clarifications	10/03/2020	Benjamin Moss	Built	dwp		Outstanding	ACTION: Verification checklists to be signed off by dwp	Architectural
NE-RFI-000019	Re: CC2- GREENSTAR CREDIT COMPLIANCE DOCUMENTATION REQUIRED	10/03/2020	Dave Singh	Northrop	Built	10/03/2020	Responded	Closed out. Northrop to confirm	Services
dwp AU-RFI-000048	Garbage Waste rooms - services coordination	10/03/2020	Katherine Daunt	dwp	McCallum Plumbing / Northrop		Outstanding	Additional requirements for Waste Room- power for roller door / power for bin hopper - good lighting. Trade waste, hose taps, mechanical exhaust documented	Services
dwp AU-RFI-000049	Re: Hydraulic Mark-ups for review and comment	10/03/2020	Christian Barkowski	dwp	McCallum Plumbing		Outstanding	Action: McCallum to provide gutter profile depts and downpipe sizes to Northern roofs between Heritage and new buildings and drainage to lift and stair shaft lids	Services
NE-RFI-000020	FIRE DOOR LOCATION	11/03/2020	Robert Boland	Northrop	dwp	12/03/2020	Responded	Closed out. Northrop to confirm	Services
BUILT-RFI-000111	Fwd: Hydraulic Mark ups	11/03/2020	Olivia Ryan	Built	Marline		Outstanding	ACTION: Marline to respond to query regarding requirement for TMV's	Services
Cardno-RFI-000001	Investigation of Courthouse Heritage Timber Stairs at Level 1	11/03/2020	Trent Halvorsen	Cardno			Responded	Closed out. Cardno to confirm	Structural
NE-RFI-000021	Residential Plant Area	11/03/2020	Robert Boland	Northrop	dwp	11/03/2020	Responded	Closed out. Northrop to confirm	Services
dwp AU-RFI-000050	Newcastle Courthouse - Structural Markup	12/03/2020	Ben Wee	dwp	Northrop	12/03/2020	Responded	Closed out. Dwp to confirm.	Structural
NE-RFI-000022	Shallow Footing Foundations	12/03/2020	Andrew Abbo	Northrop	Built		Outstanding	ACTION: Built to provide geotech advice.	Structural
BUILT-RFI-000114	LEVEL 1 - RESIDENTIAL BUILDING - SERVICES MISSING TO STAFF / KITCHEN ROOM	13/03/2020	Olivia Ryan	Built	McCallum Plumbing		Outstanding	ACTION: McCallum to detail hot and cold water	Services
BUILT-RFI-000117	Clouding to Changes in Drawings	13/03/2020	Sita Vasanthakumar	Built	All Consultants		Outstanding	Ongoing	Services/Structural
dwp AU-RFI-000051	Re: KITCHEN DESIGN	16/03/2020	Christian Barkowski	dwp	Built	16/03/2020	Responded	Closed out. Dwp to confirm	Services/Structural
dwp AU-RFI-000052	Hunter water major works - Pre-construction requirements	17/03/2020	Katherine Daunt	dwp	Metiri	19/03/2020	Responded	Closed Out details provided	Services
NE-RFI-000023	Temporary Propping of Existing Retaining Wall	17/03/2020	Sita Vasanthakumar	Built	Northrop	18/03/2020	Responded	Waiting on report from geotech	Structural
BUILT-RFI-000125	Plaxis Model	18/03/2020	Siafco Gavriloski	Built	Douglas	18/03/2020	Responded	ACTION: Built to issue piling design to DP for review	Structural
dwp AU-RFI-000056	Re: Spandrels - Education Building courtyard/terraces	18/03/2020	Christian Barkowski	dwp	Built	18/03/2020	Outstanding	ACTION: Built and Azusa to respond on preferred option	Structural
BUILT-RFI-000127	REVISED Fire Sprinklers & Hydrants	18/03/2020	Olivia Ryan	Built	Marline / Activate / McCallum	23/03/2020	Responded	ACTION: McCallum yet to update drawings in line with Marline comments	Services
NE-RFI-000024	Blade Wall Construction	18/03/2020	Andrew Abbo	Northrop	Built	19/03/2020	Responded	Refer DWP AU-RFI-000018 for further information	Structural

BUILT-RFI-000129	SSD condition D4 & D5 - construction hours	18/03/2020	Robert McLaughlin	Built	dwp		Outstanding		Architectural
Cardno-RFI-000002	Termite Damaged Heritage Stairs (L3-L4)	18/03/2020	Trent Halvorsen	Cardno	Built	23/03/2020	Responded	Still awaiting further investigations	Structural
METIRI-RFI-000003	Fwd: Hunter water major works - Pre-construction requirem	19/03/2020	Jamie Russell	Metiri	Built	19/03/2020	Responded	Closed Out	Services
dwp AU-RFI-000058	Re: RESIDENTIAL BUILDING_FRONT FACADE CONCRETE BLADE LEVELS 2 AND 3	19/03/2020	Christian Barkowski	dwp	Built		Outstanding	ACTION: Built to respond regarding design screen framing as well as tapering of concrete column	Structural
BUILT-RFI-000134	Finish for Service Driveway	19/03/2020	Sita Vasanthakumar	Built	dwp	19/03/2020	Responded	ACTION: Finish and pavement type to be detailed	Architectural
NE-RFI-000025	Teachers Rooms Kitchenette	19/03/2020	Robert Boland	Northrop	dwp		Responded	Closed out. Refer DWP AU-RRQFI 000038	Services / Structural
NE-RFI-000026	Re: Teachers Rooms Kitchenette	19/03/2020	Robert Boland	Northrop			Outstanding	Rangehood over cooktop in pantry	Services / Structural
dwp-AU-RFI-000060	Fwd: Planter Bed/Retaining Wall Details	23/03/2020	Katherine Daunt	dwp	Built	23/03/2020	Responded	Sewer main to be documented on Structural drawings	Structural
BUILT-RFI-000140	Kitchen_Equipment Services Schedule for Approval	23/03/2020	Sita Vasanthakumar	Built	dwp / Azusa	24/03/2020	Responded	ACTION: Jun to review equipment and signed off.	Services / Structural
BUILT-RFI-000143	Detailed Site Investigation Report	24/03/2020	Sita Vasanthakumar	Built	GHD		Responded	ACTION: Ian Gregson to review	Structural
BUILT-RFI-000144	New/Exising sewer connection	24/03/2020	Olivia Ryan	Built	Marline / Northrop / dwp	24/03/2020	Responded	Approval required to remove existing sewer & clashes with footings / piles to determined	Services / Structural
BUILT-RFI-000145	SANSW Approval	24/03/2020	Sita Vasanthakumar	Built	Northrop / Douglas / Cardno		Outstanding	Documentation required for SANSW required prior to CC1. Conditions 3b to 5 to be addressed	Structural
BUILT-RFI-000146	Heritage Courthouse - Demolition Scope of Works & Clarifica	24/03/2020	Ben Moss	Built	dwp		Outstanding		Architectural
dwp-RFI-000061	Final Updated Fire Drawings - For Tender	24/03/2020	Jock Barry	dwp	Activate Fire		Responded	CLOSED OUT - Set outs for proposed pump - to determine spatial - room size will work	Services
dwp-RFI-000062	Kitchen Equipment Services Schedule for Approval	24/03/2020	Christian Barkowski	dwp	Built		Outstanding	ACTION: Frost to revise drawing with changes noted by dwp, once Azusa has reviewed.	Services / Structural
NE-RFI-000027	Construction of Stair	24/03/2020	Andrew Abbo	Northrop	dwp		Outstanding		Structural
dwp-RFI-000064	External RL's required	24/03/2020	Christian Barkowski	dwp	Cardno	24/03/2020	Responded	Revised drawings issued	Services / Structural
BUILT-RFI-000147	Remediation Action Plan	24/03/2020	Sita Vasanthakumar	Built	GHD		Responded	Ian Gregson reviewing	Structural / Services
dwp-RFI-000065	Newcastle Courthouse - RFI Easement Conc Slab	24/03/2020	Ben Wee	dwp	Northrop	24/03/2020	Responded	Northrop to update drawings to document sliding dowel joint as per Council requirement. Joints previously documented as sawn joint	Structural
BUILT-RFI-000148	Confirmation of Crane Foundation Design	24/03/2020	Olivia Ryan	Built	Northrop	24/03/2020	Responded	Piling loading to be confirmed	Structural
dwp-RFI-000066	Final Updated Fire Drawings - For Tender	24/03/2020	Jock Barry	dwp	Activate	24/03/2020	Responded	CLOSED OUT - Set outs for proposed pump - to determine spatial - room size will work	Services
BUILT-RFI-000149	C-415 Locations of 600 SQ pits	24/03/2020	Olivia Ryan	Built	Cardno	24/03/2020	Responded	Layout changed and pits moved into path area not garden beds. One pit behind Residential Building needs to be relocated still	Civil
NE-RFI-000028	Slabs Shown on Architecturals but not detailed on Structural Drawings	24/03/2020	Andrew Abbo	Northrop	dwp		Outstanding	Details for platform over easements - proposals of steel decking, chequer plate or webforge grating	Structural
BUILT-RFI-000151	Fire drawings marked up with comments	24/03/2020	Olivia Ryan	Built			Outstanding		Services

dwp AU -RFI-000067	Re: Newcastle Courthouse - RFI Easement Conc Slab	24/03/2020	Ben Wee	dwp	Northrop		Responded	Closed out. As per FRI-000065 - structural sets to be coordinated with architectural setout 3600mm intervals	Structural
BUILT-RFI-000152	Survey of existing storm water and tunnel	25/03/2020	Sita Vasanthakumar	Built	Northrop		Outstanding	Survey of tunnel - Northrop to overlay on structural drawings	Structural
BUILT-RFI-000153	Laundry Tubs	25/03/2020	Sita Vasanthakumar	Built	dwp / McCallum		Outstanding	No laundry tubs specified	Services
BUILT-RFI-000154	Mechanical - M00.20 / 21 blank drawings	25/03/2020	Slafco Gavriloski	Built	Built		Outstanding	Waiting on mechanical drawings	Services
dwp AU -RFI-000068	Re: Newcastle Courthouse Sprinkler Omission - West Wing (including carpark)	25/03/2020	Christian Barkowski	dwp	Design Confidence / Northrop		Outstanding	To be resolved	Services / Structural
dwp AU -RFI-000069	Final Updated Fire Drawings - For Tender	25/03/2020	Christian Barkowski	dwp			Responded	Closed Out - spatial for room has been coordinated by Northrop	Services
dwp AU -RFI-000071	Re: Newcastle Courthouse Sprinkler Omission - West Wing (including carpark)	25/03/2020	Christian Barkowski	dwp	Design Confidence		Outstanding	Clarification of opening to disability lift	Services / Structural
BUILT-RFI-000157	Atrium changes in relation to fire protection	25/03/2020	Sita Vasanthakumar	Built	dwp	26/03/2020	Responded	Item 2 not yet resolved	Services / Structural
BUILT-RFI-000159	Energy Metering and Loads for MSSB's	25/03/2020	Sita Vasanthakumar	Built	Northrop	26/03/2020	Responded	Will be included on next issue of documentation	Services
dwp AU -RFI-000073	Mark ups			dwp	Activate		Outstanding	Markups on fire services drawings	Services
BUILT-RFI-000160	Rainwater Tanks	25/03/2020		Built	All Consultants		Outstanding	Proposal for rainwater tanks ACTION: Needs to be documented by all consultants	Services/ Civil / Structural
NE-RFI-000029	Re: GREEN STAR CREDIT - 11.3 Localised Lighting Control - Design not meeting Green star Credit	26/03/2020	Dave Singh	Northrop	Built		Responded	Requirements for greenstar resolved. To be included into next issue	Services / Structural
BUILT-RFI-000161	REVIEW / APPROVAL OF DRAWINGS	26/03/2020	Olivia Ryan	Built	Azusa		Outstanding	Approval of project drawings	
dwp AU -RFI-000074	Re: Updated Construction Noise and Vibration Management Sub-Plan	26/03/2020	Katherine Daunt	dwp	Built		Responded	Updated Construction Noise & Vibration Management Plan issued - further items to be incorporated	Services / Structural
NE-RFI-000030	Court house EDB's Levels 1 and 2	26/03/2020	Dave Singh	Northrop	dwp	26/03/2020	Responded	Closed Out design resolved.	Services
BUILT-RFI-000162	DRAFT Long Term Site Management Plan	26/03/2020	Sita Vasanthakumar	Built	GHD		Responded	Ian Gregson reviewing	Services
dwp AU -RFI-000075	Atrium changes in relation to fire protection	26/03/2020	Christian Barkowski	dwp	Activate		Responded	Northrop to comment on FIP panel size increase	Services / Structural

3.10 Recycling Records

Built has engaged Central Waste Station to handle all the construction waste from demolition through to project completion. Central Waste has a resource recovery centre in Kurri Kurri where they sort, and recycle materials on-site, or send on to speciality recyclers, with a minimum amount of waste that is unable to be recycled then disposed of in licenced landfill sites. Central Waste Station is targeting a 90% materials recovery rate of all waste collected.

Each month, Central Waste will issue Resource Recovery Reports to Built specifically for this project which will be included in the monthly PCG Report (**attached in Appendix G**)

For the month of March 2020, the Total Waste Recovery Percentage was **96.90%**

4. Appendices

Appendix A – Monthly HSE Incident Register

Appendix B – Community Liaison Register

Appendix C – Internal Audit & Monitoring Records

Appendix D – Statused Contract Programme

Appendix E – Four Week Programme

Appendix F – Statused SSD-9787 Conditions Matrix

Appendix G – March 2020 Waste Recovery Reports

Appendix A – Monthly HSE Incident Register

Monthly HSE Incident Register						Built.	
Project: Nihon University						Mar-20	
Month	Labour Hours	First Aid Incident	Medical Treatment Incident	Lost Time Incident	Near Miss Incident	Notifiable Dangerous Incident	Environmental Incident *Includes complaints
Jan-20	2180	0	0	0	0	0	0
Feb-20	6500	0	0	0	1	0	1
Mar-20	5930	0	1	0	0	0	3
TOTALS:	14610	0	1	0	1	0	4

Appendix B – Community Liaison Register

Community Liaison Register					Built.		
Project: Nihon University				Complaints Register		Last Updated: 27/03/20	
REF ID	DATE RECEIVED / TIME	RECEIVED FROM	DESCRIPTION	DATE RESPONDED / TIME	RESPONSE BY	DESCRIPTION	CLOSED (Y / N)
2001-CC001	21/01/2020 1:20pm	Tanya Way	Concerned about removal of trees at Southern Boundary & wildlife. Works at James Fletcher Hospital.	22/01/2020 9:00am	BM	Phoned Tanya to discuss her concerns and assure precautions were taken and removal is in accordance with SSD-9787. Followed up with email containing project information and NSW Planning Portal	Y
2002-CC002	27/02/2020 4:20pm	Tony Lawler	Notified Built via email of cracks appearing within his property at 30 Church Street that were previously not noted. Believes demolition works occurring the past couple of days and vibration are the cause.	27/02/2020 5:06pm	BM	Phoned Tony to further discuss the issue raised. An inspection of the property has been arranged for 3:00pm 28/02/2020 with Tony, Built Project Manager and Structural Engineer who completed initial Pre-Construction Dilapidation Report. Follow up email sent to Tony at 5:26pm confirming details of phone complaint and inspection. Inspection Report submitted to Tony on 02/03/20 showing cracks identified and not worsened. Vibration monitor results received on 03/03/20 show compliance with structural levels.	Y
2003-CC003	9/03/2020 1:50pm	Jennifer Leslie	Noise complaint received via phone call to Construction Manager Rob McLaughlin regarding noise prior to approved construction hours.	09/03/2020 1:58pm	BM	Built contacted Jennifer on her mobile number to discuss the issue. Jennifer stated that there was noisy vehicles and concerns of "loading of bricks and things in the morning" approximately between 4:30am to 6:30am. Upon review of CCTV footage, a large skip bin garbage truck and other heavy vehicle was seen on Bolton Street between 5-6:00am and not related to the Nihon Project. Built also spoke with Jennifer's neighbour Mark Hill, who confirmed the workers were related to a project on Bolton Street as he had confronted them that morning.	Y
2003-CC004	10/03/2020 4:06pm	Tony Lawler	Tony lodged an additional complaint via email related to demolition works causing existing cracks to "enlarge" within his residence.	10/03/2020 4:23pm	BM	Built responded via email advising that vibration monitoring to date has shown compliant levels. It was requested that Tony submits photos of enlarged cracks for review by Structural Engineer prior to another inspection as it was found that all cracks were existing after his initial complaint. Built conducted 7 days of monitoring at Tony's residence between 13/03/2020 & 20/03/2020. Built issued Vibration Monitoring Report to Tony on 26/03/2020 showing that vibration results were well under the limits for both structural damage and human comfort.	Y

[illegible]

[illegible]

Community Liaison Register

Built.

[illegible]

Appendix C – Internal Audit & Monitoring Records



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Vibration Monitoring, 9 Church Street Newcastle
NSW - February 2020

Relationships Attention Professional Trust

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2.	Vibration Guidelines	5
2.1	Human Exposure	5
2.2	Building Damage	5
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3.1	Measured Vibration Levels	8
4.	Conclusion	9

1. Introduction

Background

RAPT Consulting has been engaged to undertake vibration monitoring for Built as part of their project at Nihon University. Based on the information provided it is understood there is a requirement for noise and vibration monitoring to be undertaken during construction works of the Nihon University project located at 9 Church Street Newcastle. The site and surrounding area is provided in Figure 1.



Figure 1 Site and Surrounding Area

A photograph of site activities is provided in figure 2.



Figure 2 Site Demolition Operations

The purpose of the vibration monitoring was to ascertain compliance with adopted vibration goals.

1.1 Limitations

The purpose of this report is to provide an independent vibration compliance assessment for the works currently taking place at 9 Church Street Newcastle.

It is not the intention of the assessment to cover every element of the ambient vibration environment, but rather to conduct the assessment with consideration to the prescribed work scope.

The findings of the vibration assessment represent the findings apparent at the date and time of the assessment undertaken. It is the nature of environmental assessments that all variations in environmental conditions cannot be assessed and all uncertainty concerning the conditions of the ambient environment cannot be eliminated. Professional judgement must be exercised in the investigation and interpretation of observations.

In conducting this assessment and preparing the report, current guidelines for vibration were referred to. This work has been conducted in good faith with RAPT Consulting's understanding of the client's brief and the generally accepted consulting practice.

No other warranty, expressed or implied, is made as to the information and professional advice included in this report. It is not intended for other parties or other uses.

2. Vibration Guidelines

2.1 Human Exposure

Vibration goals were sourced from the DECCW's Assessing Vibration: a technical guideline, which is based on guidelines contained in British Standard (BS) 6472–1992, Evaluation of human exposure to vibration in buildings (1–80 Hz).

Intermittent vibration is assessed using the vibration dose value (VDV), fully described in BS 6472 – 1992. Acceptable values of vibration dose are presented in Table 1.

Location	Daytime ¹		Nighttime ¹	
	Preferred value	Maximum value	Preferred value	Maximum value
Critical areas ²	0.10	0.20	0.10	0.20
Residences	0.20	0.40	0.13	0.26
Offices, schools, educational institutions and places of worship	0.40	0.80	0.40	0.80
Workshops	0.80	1.60	0.80	1.60

Table 1 Acceptable Vibration Dose Values for Intermittent Vibration ($m/s^{1.75}$)

- 1 Daytime is 7:00 to 22:00 and nighttime is 22:00 to 7:00; and
- 2 Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring. These criteria are only indicative, and there may be need to assess intermittent values against the continuous or impulsive criteria for critical areas.

2.2 Building Damage

Currently, there is no Australian Standard that sets the criteria for the assessment of building damage caused by vibration. Guidance of limiting vibration values is attained from reference to the following International Standards and Guidelines:

- British Standard BS7385.2 - 1993 *Evaluation and Measurement for Vibration in Buildings*, Part 2 - Guide to damage levels from ground borne vibration; and
- German Standard DIN 4150-3: 1999-02 Structural Vibration – Part 3: *Effects of vibration on structures*.

BS7385.2 – 1993 is utilised in this case in the assessment of potential building damage resulting from ground borne vibration produced by the proposed activity.

The recommended Peak Particle Velocity (PPV) guidelines for the possibility of vibration induced building damage are derived from the minimum vibration levels above which any damage has previously been encountered and are presented in Table 2.

Building Type	Peak component particle velocity in frequency range of predominant pulse	
	4 Hz to 15 Hz	15 Hz and above
Reinforced or framed structures. Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	
Unreinforced or light framed structures. Residential or light commercial type buildings.	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

Table 2 Transient Vibration Guideline Values for Potential Building - Cosmetic Damage

3. Measurement Methodology

The assessment was conducted from 11 February to 27 February 2020 at the concrete ground floor of the Newcastle Police Station and the Ground Floor of the James Fletcher Hospital, Newcastle.

Measurements were conducted using Profound Vibra ground vibration monitors (Serial Numbers VIB1720 at the hospital and VIB1711 at the Police Station). The geophones were coupled securely to the floors for the experiment.

The instruments were set up to gather PPV levels at 1-second intervals in all three directions.

The setups are shown in Figure 3 and 4 below.



Figure 3 Equipment Location James Fletcher Hospital and Setup



Figure 4 Equipment Location Newcastle Police Station and Setup

3.1 Measured Vibration Levels

The vibration monitors recorded the peak particle velocity (PPV) in each of the three orthogonal axes. To simplify the analysis the maximum component (i.e. the greatest magnitude PPV on any of the three axes) was calculated and is reported. This is considered to be representative of the maximum resultant PPV.

Measured vibration levels over the monitoring period were below 1.5 mm/s at the police station and 0.9 mm/s at the James Fletcher Hospital. indicating that they were well within structural damage criteria.

Calculated vibration dose values were $0.027 \text{ m/s}^{1.75}$ the police station and $0.016 \text{ m/s}^{1.75}$ at the James Fletcher Hospital which also complies with human comfort levels.

4. Conclusion

RAPT Consulting has undertaken vibration monitoring on behalf of Built as part of their project at Nihon University. The purpose of the monitoring was to ascertain if current construction operations at 9 Church Street Newcastle comply with current vibration guidelines. Based on the results of the monitoring assessment, it can be concluded that vibration levels are within goal levels for assessing potential building damage and protecting human comfort at nearest receivers.

Should you have any questions regarding this report please do not hesitate to contact Greg Collins on 0488512224 or greg@raptconsulting.com.au.

Thank you,



Greg Collins

Director – RAPT Consulting

Noise Assessment Report

Date: 04 / 03 / 2020

Assessor name and position: Michael Louis/HSE Coordinator

People Present: Michael Louis

Equipment used: Protech QM1598

Calibration date: 04/03/2020

Area/location and time/duration of noise monitoring:

Site boundary areas along Church Street 9am – 10am

Sources of noise (including background noise):

Excavators working on Building A and C, bin changeovers Building C, passing vehicles and traffic

Systems of work (including work activity, durations, process, plant, operating conditions):

As above observed over an hour period

Results:

DB Level	Durations	Location
Max spike at 86.5 dba, consistent range between 68 and 78 dba	9am – 9.20am	Church Street Boundary gate to building A, next to police station. Demo works on Building A generating majority of the noise.
Max spike at 76.8 dba, consistent range between 59 and 74 dba	9.20am – 9.40am	Recorded from in front of 26 Church St residence. High vehicle traffic.
Max spike at 86.3 dba, consistent range between 51 and 68 dba.	9.40am – 9.55am	Recorded from boundary line Church Street West, next to hydrant booster. Max spike caused by passing bus. Other noise generated from bin change over in Building C



Ben Moss
Built
benmoss@built.com.au

James Fletcher Hospital Room Acoustics

Introduction

RAPT Consulting has been engaged to undertake an acoustic survey of the call centre at the James Fletcher Hospital for Built as part of the Nihon University project at 9 Church Street, Newcastle.

The purpose of the review was to assess noise levels inside the call centre while construction / demolition was taking place at 9 Church Street as there have been noise complaints resulting from the construction / demolition activities.

Acoustic Criteria - Australian Standard 2107:2016

Australian Standard (AS) AS2107 – Acoustics – Recommended design sound levels and reverberation times for building interiors provides recommended design sound levels for health buildings which are presented in Table 1. .

Table 1 Recommended Design Sound Levels and Reverberation Times for Health Buildings

Type of Occupancy	Recommended design sound levels, L_{Aeq} , dB(A)	
	Satisfactory	Maximum
Corridors	40	50
Office Areas	40	45

Room Acoustics

Noise measurements inside the hospital within the corridor adjacent to the call centre area and within the call centre area in two work locations situated adjacent to active construction / demolition activities taking place. The noise measurements were undertaken using a Protech QM1598 sound level meter. Calibration was checked prior to and after the measurements with no drift. Measurements were undertaken by Gregory Collins of RAPT Consulting from

approximately 9:30am to 9:45am on 20 March, 2020. Photos of the work stations measured are provided in Figures 1 and 2.



Figure 1 Work Station 1

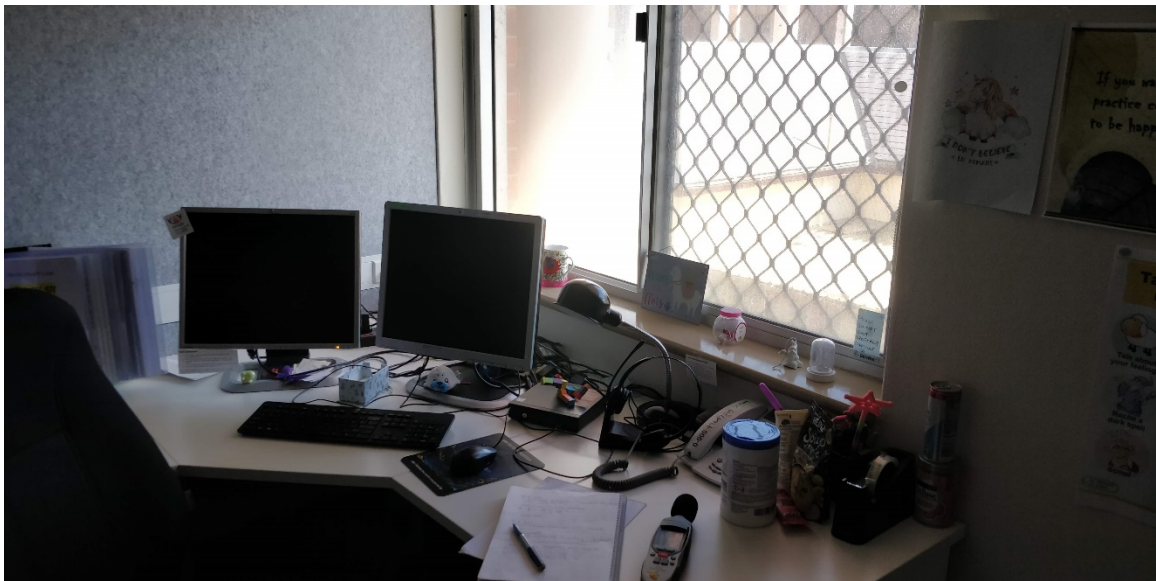


Figure 2 Work Station 2

The results of the noise measurements are provided in Table 2.

Table 2 Noise Measurement Results

Type of Occupancy	Recommended design sound levels, L_{Aeq} , dB(A)		Noise Measurement Results	Observations
	Satisfactory	Maximum		
Corridors	40	50	41 – 44	Human voices underlying HVAC hum, construction / demolition imperceptible
Work Station 1	40	45	41 - 43	Construction / demolition perceptible
Work Station 2	40	45	41 - 45	Construction / demolition perceptible

The results of the survey indicate internal noise levels are within AS 2107 recommendations, however construction / demolition noise was perceptible from the noise measurements undertaken at the work stations. It should also be noted that hammering activities were not taking place as that stage of work had been completed.

Conclusion

Should you have any further questions regarding this report, please do not hesitate to contact Greg Collins on 0488512224 or greg@raptconsulting.com.au.

Thank you,



Greg Collins

Director – RAPT Consulting

Limitations

This survey and report has been prepared for Built. The purpose of the report is to provide an independent survey of noise levels within spaces outlined above.

It is not the intention of the review to cover every element of the acoustical environment, but rather to conduct the assessment with consideration to the prescribed scope of work.

The findings of the review represent the findings apparent at the date and time of the survey. It is the nature of construction / demolition process that not all variations in the process can be accessed and all uncertainty concerning construction / demolition cannot be eliminated. Professional judgement must be exercised in the investigation and interpretation of observations.

In conducting this assessment and preparing the report, current guidelines for acoustics were referred to. This work has been conducted in good faith with RAPT Consulting's understanding of the client's brief and the generally accepted consulting practice.

No other warranty, expressed or implied, is made as to the information and professional advice included in this report. It is not intended for other parties or other uses.



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Vibration Monitoring, 9 Church Street Newcastle
NSW - February 2020

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1. Introduction

Background

RAPT Consulting has been engaged to undertake vibration monitoring for Built as part of their project at Nihon University. Based on the information provided it is understood there is a requirement for noise and vibration monitoring to be undertaken during construction works of the Nihon University project located at 9 Church Street Newcastle. The site and surrounding area is provided in Figure 1.



Figure 1 Site and Surrounding Area

A photograph of site activities is provided in figure 2.



Figure 2 Site Demolition Operations

The purpose of the vibration monitoring was to ascertain compliance with adopted vibration goals.

1.1 Limitations

The purpose of this report is to provide an independent vibration compliance assessment for the works currently taking place at 9 Church Street Newcastle.

It is not the intention of the assessment to cover every element of the ambient vibration environment, but rather to conduct the assessment with consideration to the prescribed work scope.

The findings of the vibration assessment represent the findings apparent at the date and time of the assessment undertaken. It is the nature of environmental assessments that all variations in environmental conditions cannot be assessed and all uncertainty concerning the conditions of the ambient environment cannot be eliminated. Professional judgement must be exercised in the investigation and interpretation of observations.

In conducting this assessment and preparing the report, current guidelines for vibration were referred to. This work has been conducted in good faith with RAPT Consulting's understanding of the client's brief and the generally accepted consulting practice.

No other warranty, expressed or implied, is made as to the information and professional advice included in this report. It is not intended for other parties or other uses.

2. Vibration Guidelines

2.1 Human Exposure

Vibration goals were sourced from the DECCW's Assessing Vibration: a technical guideline, which is based on guidelines contained in British Standard (BS) 6472–1992, Evaluation of human exposure to vibration in buildings (1–80 Hz).

Intermittent vibration is assessed using the vibration dose value (VDV), fully described in BS 6472 – 1992. Acceptable values of vibration dose are presented in Table 1.

Location	Daytime ¹		Nighttime ¹	
	Preferred value	Maximum value	Preferred value	Maximum value
Critical areas ²	0.10	0.20	0.10	0.20
Residences	0.20	0.40	0.13	0.26
Offices, schools, educational institutions and places of worship	0.40	0.80	0.40	0.80
Workshops	0.80	1.60	0.80	1.60

Table 1 Acceptable Vibration Dose Values for Intermittent Vibration ($m/s^{1.75}$)

- 1 Daytime is 7:00 to 22:00 and nighttime is 22:00 to 7:00; and
- 2 Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring. These criteria are only indicative, and there may be need to assess intermittent values against the continuous or impulsive criteria for critical areas.

2.2 Building Damage

Currently, there is no Australian Standard that sets the criteria for the assessment of building damage caused by vibration. Guidance of limiting vibration values is attained from reference to the following International Standards and Guidelines:

- British Standard BS7385.2 - 1993 *Evaluation and Measurement for Vibration in Buildings*, Part 2 - Guide to damage levels from ground borne vibration; and
- German Standard DIN 4150-3: 1999-02 Structural Vibration – Part 3: *Effects of vibration on structures*.

The German Standard Where heritage structures may be impacted, DIN 4150-3 specifies a method of measuring and evaluating the effects of vibration on structures and these vibration criteria will be applied. The criteria applicable to heritage buildings are identified in table 5-7. Based on DIN 4150-3, a measured value exceeding those listed in Table 5-7 will not necessarily lead to damage if it is significantly exceeded, however, further investigations may be necessary, and monitoring implemented during the project.

DIN 4150-3: 1999-02 is utilised in this case in the assessment of potential building damage resulting from ground borne vibration produced by the proposed activity.

The recommended Peak Particle Velocity (PPV) guidelines for the possibility of vibration induced building damage are derived from the minimum vibration levels above which any damage has previously been encountered and are presented in Table 2.

Table 2 Guideline values for vibration velocity to be used when evaluating the effects of short-term vibration on structures

Type of Structure	Peak Component Particle Velocity, mm/s			
	Vibration at the foundation at a frequency of			Vibration of horizontal plane of highest floor at all frequencies
	1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz*	
Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20-40	40-50	40
Dwellings and buildings of similar design and/or occupancy	5	5-15	15-20	15
Structures that, because of their sensitivity to vibration, do not correspond to those listed in lines 1 and 2 of table 5-7 and are of great intrinsic value (e.g. buildings that are under a preservation order)	3	3 to 8	8 to 10	8

**At Frequencies above 100Hz, the values given in this column may be used as minimum values*

3. Measurement Methodology

The assessment was conducted from 13 March to 20 March 2020 in the basement floor of the residence located at 30 Church Street and the basement floor of the courthouse at 9 Church Street, Newcastle.

Measurements were conducted using Profound Vibra ground vibration monitors (Serial Numbers VIB1711 at 30 Church Street and VIB1724 at the Courthouse. The geophones were coupled securely to the floors for the experiment.

The instruments were set up to gather PPV levels at 1-second intervals in all three directions.

The setups are shown in Figure 3 and 4 below.



Figure 3 Equipment Location 30 Church Street and Setup

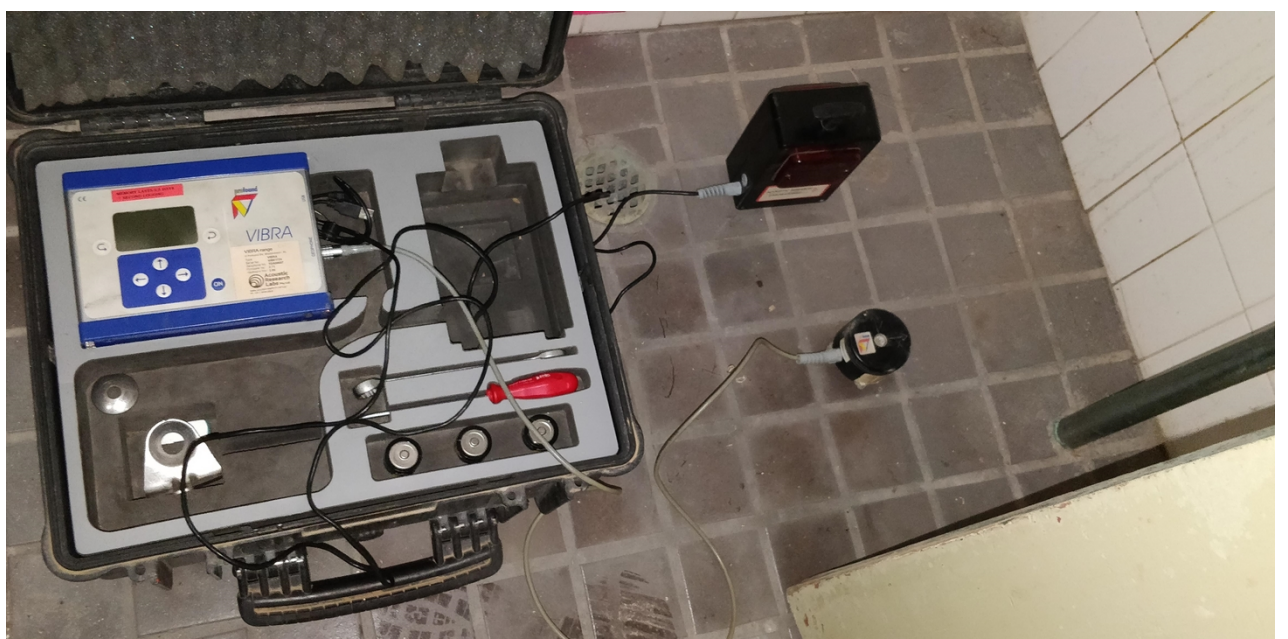


Figure 4 Equipment Location Courthouse and Setup

3.1 Measured Vibration Levels

The vibration monitors recorded the peak particle velocity (PPV) in each of the three orthogonal axes. To simplify the analysis the maximum component (i.e. the greatest magnitude PPV on any of the three axes) was calculated and is reported. This is considered to be representative of the maximum resultant PPV.

Measured vibration levels over the monitoring period were below 0.9 mm/s at the 30 Church Street and 3.0 mm/s at the Court House indicating that they were well within structural damage criteria.

Calculated vibration dose values were $0.07 \text{ m/s}^{1.75}$ at the 30 Church Street and $0.6 \text{ m/s}^{1.75}$ at the Court House which also complies with human comfort levels.

4. Conclusion

RAPT Consulting has undertaken vibration monitoring on behalf of Built as part of their project at Nihon University. The purpose of the monitoring was to ascertain if current construction operations at 9 Church Street Newcastle comply with current vibration guidelines. Based on the results of the monitoring assessment vibration levels are within goal levels for assessing potential building damage and protecting human comfort at the monitoring locations.

Should you have any questions regarding this report please do not hesitate to contact Greg Collins on 0488512224 or greg@raptconsulting.com.au.

Thank you,

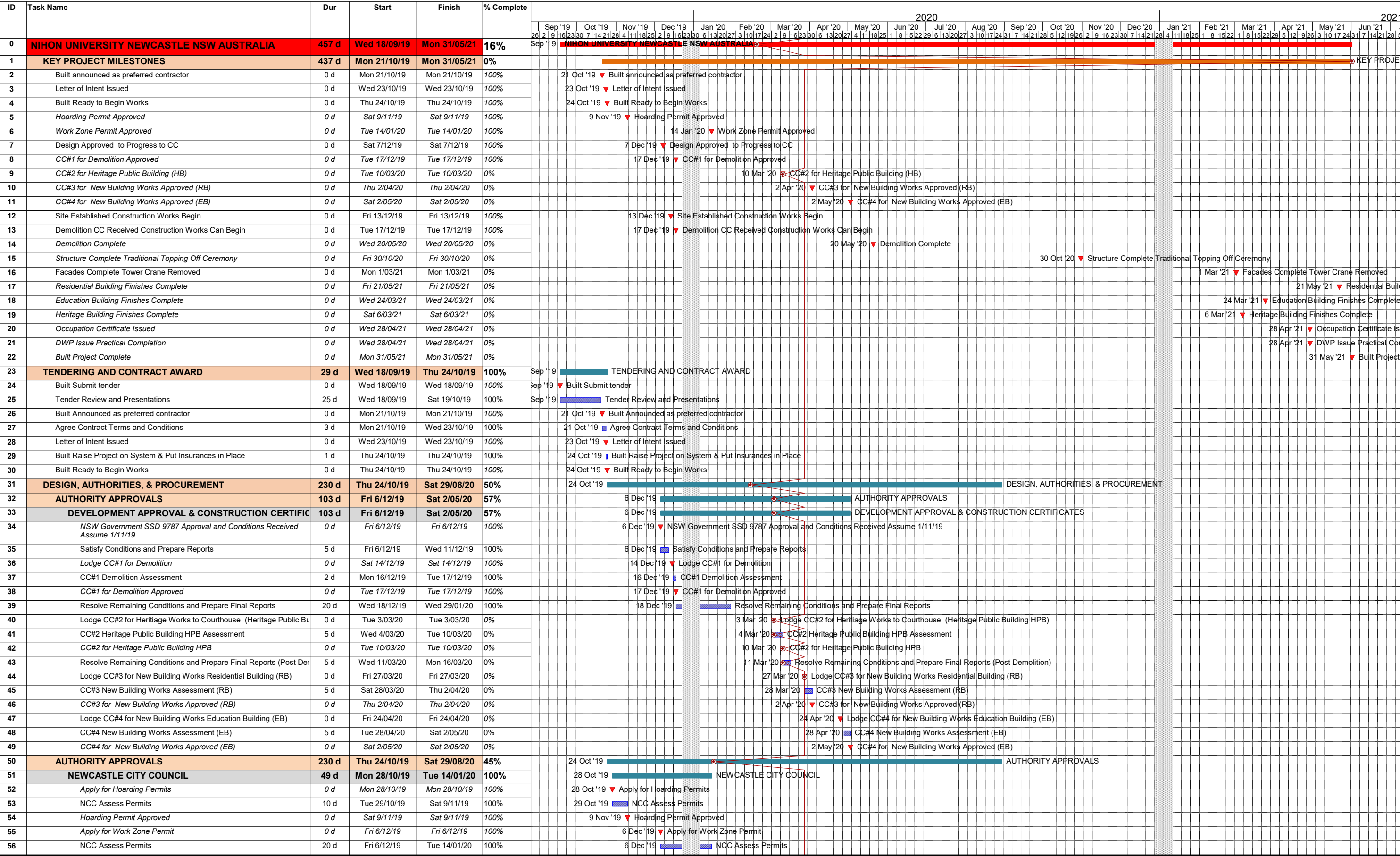


Greg Collins

Director – RAPT Consulting

Appendix D – Statused Contract Programme

Built NIHON UNIVERSITY
9 CHURCH STREET NEWCASTLE 2300
Contract Programme

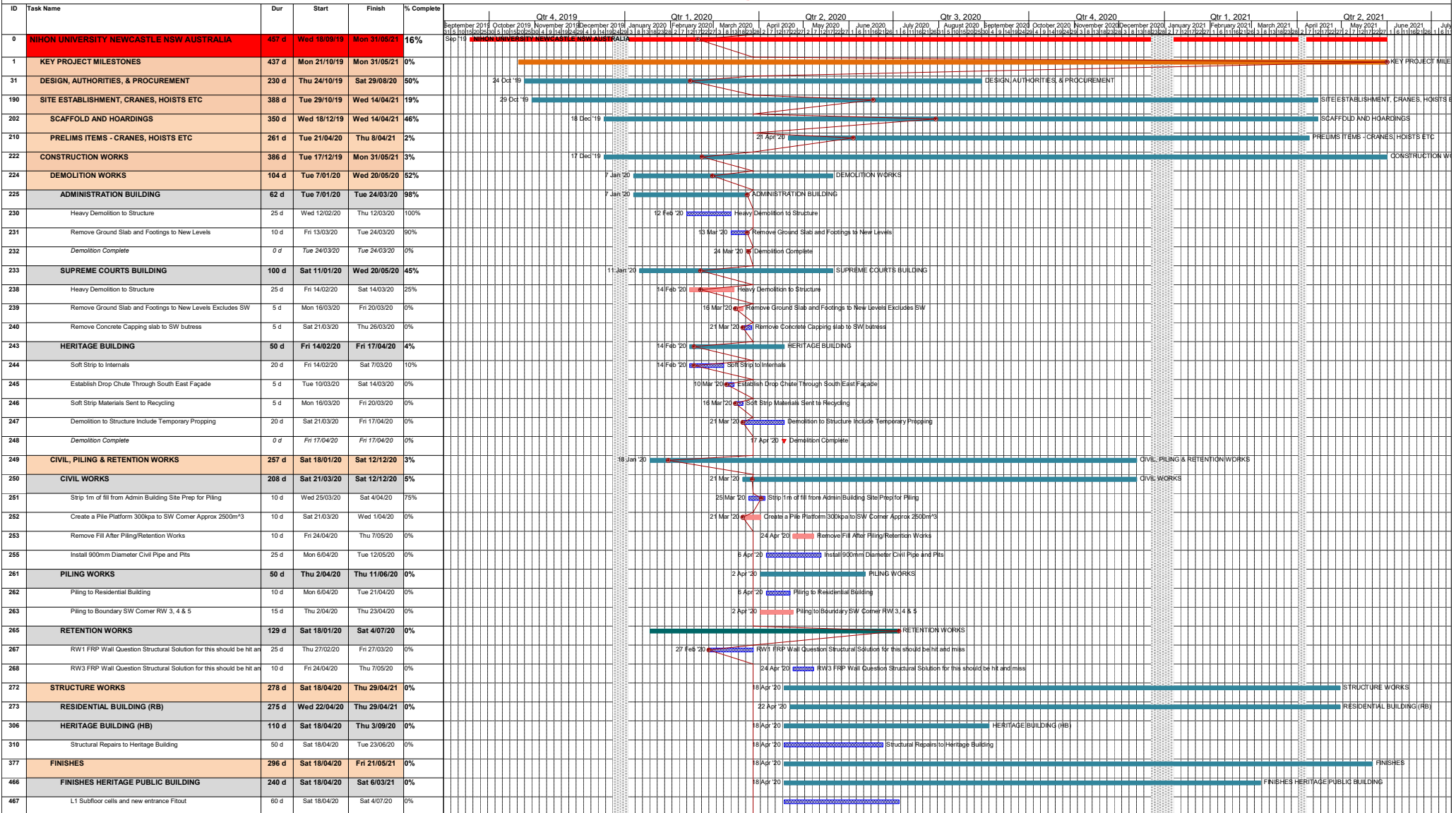


	Critical Split		Non-critical		Project Summary		Critical	
	Critical Task		Milestone		Summary			

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

Appendix E – Four Week Programme

Built NIHON UNIVERSITY
9 CHURCH STREET NEWCASTLE 2300
Contract Programme



Appendix F – Statused SSD-9787 Conditions Matrix

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX															
					Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status	
					Owner	Contractor									
PART A - ADMINISTRATIVE CONDITIONS															
Obligation to Minimise Harm to the Environment															
A1	In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and, if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development.					Note	Note		21-Jan-20						Noted
Terms of Consent															
A2	The development may only be carried out: (a) in compliance with the conditions of this consent; (b) in accordance with all written directions of the Planning Secretary; (c) generally in accordance with the EIS and Response to Submissions; (d) in accordance with the approved plans in the table below:					Note	Note		23-Jan-20						Noted
A3	Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to: (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; (b) any reports, reviews or audits commissioned by the Planning Secretary regarding compliance with this approval; and (c) the implementation of any actions or measures contained in any such document referred to in (a) above.					Note	Note								Noted
A4	The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in condition A2(c). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition A2(c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.					Note	Note								Noted
Limits of Consent															
A5	This consent lapses five years after the date of consent unless work is physically commenced.					Note	Note		21-Jan-20						Noted
Prescribed Conditions															
A6	The Applicant must comply with all relevant prescribed conditions of development consent under Part 6, Division 8A of the EP&A Regulation.					Note	Note		21-Jan-20						Noted
Planning Secretary as Moderator															
A7	In the event of a dispute between the Applicant and a public authority, in relation to an applicable requirement in this approval or relevant matter relating to the Development, either party may refer the matter to the Planning Secretary for resolution. The Planning Secretary’s resolution of the matter must be binding on the parties.					Note	Note								Noted
Evidence of Consultation															
A8	Where conditions of this consent require consultation with an identified party, the Applicant must: (a) consult with the relevant party prior to submitting the subject document for information or approval; and (b) provide details of the consultation undertaken including: (i) the outcome of that consultation, matters resolved and unresolved; and (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.					Note	Note		21-Jan-20			✓			Noted - will form part of relevant CC submissions
Staging															
A9	The project may be constructed and operated in stages. Where staged construction or operation is proposed, a Staging Report (for either or both construction and operation as the case may be) must be prepared and submitted for the information of the Planning Secretary. The Staging Report must be submitted to the Planning Secretary no later than one month before the commencement of construction of the first of the proposed stages of construction (or if only staged operation is proposed, one month before the commencement of operation of the first of the proposed stages of operation).					Note	Note		23-Jan-20			✓			Submitted to Planning Secretary with acknowledgment of receipt from DoP 18/02/20 noting no further comment at this time
A10	A Staging Report prepared in accordance with condition A9 must: (a) if staged construction is proposed, set out how the construction of the whole of the project will be staged, including details of work and other activities to be carried out in each stage and the general timing of when construction of each stage will commence and finish; (b) if staged operation is proposed, set out how the operation of the whole of the project will be staged, including details of work and other activities to be carried out in each stage and the general timing of when operation of each stage will commence and finish (if relevant); (c) specify how compliance with conditions will be achieved across and between each of the stages of the project; and (d) set out mechanisms for managing any cumulative impacts arising from the proposed staging.														Submitted to Planning Secretary - awaiting endorsement
	[i] The Built construction staging triggers this condition - Planning Secretary to be advised						Note	dwp	31-Jan-20						
	[ii] Nihon is not planning a staged operation - no action required - no staging documentation to be forwarded to the Planning Secretary					Note		dwp	31-Jan-20						
A11	Where staging is proposed, the project must be staged in accordance with the Staging Report, as submitted to the Planning Secretary.					Note	Note								Noted
A12	Where staging is proposed, the terms of this approval that apply or are relevant to the works or activities to be carried out in a specific stage must be complied with at the relevant time for that stage.					Note	Note								Noted
Staging, Combining and Updating Strategies, Plans or Programs															
A13	With the approval of the Planning Secretary, the Applicant may: (a) prepare and submit any strategy, plan (including management plan, architectural or design plan) or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan (including management plan, architectural or design plan) or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan (including management plan, architectural or design plan) or program); (b) combine any strategy, plan (including management plan, architectural or design plan), or program required by this consent (if a clear relationship is demonstrated between the strategies, plans (including management plan, architectural or design plan) or programs that are proposed to be combined); and (c) update any strategy, plan (including management plan, architectural or design plan), or program required by this consent (to ensure the strategies, plans (including management plan, architectural or design plan), or programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).					Note	Note					✓			Submitted to Planning Secretary - awaiting endorsement
A14	If the Planning Secretary agrees, a strategy, plan (including management plan, architectural or design plan), or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.					Note	Note								Noted
A15	If approved by the Planning Secretary, updated strategies, plans (including management plan, architectural or design plan), or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan, program or drawing.					Note	Note								Noted
Structural Adequacy															

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX				Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status
				Owner	Contractor								
A16	All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, must be constructed in accordance with the relevant requirements of the BCA and any additional requirements of the Subsidence Advisory NSW where the building or structure is located on land within a declared Mine Subsidence District. Notes: • Part 8 of the EP&A Regulation sets out the requirements for the certification of the development. • Under section 21 of the Coal Mine Subsidence Compensation Act 2017, the Applicant is required to obtain the Chief Executive of Subsidence Advisory NSW's approval before carrying out certain development in a Mine Subsidence District.									✓			Closed for CC#1 by Cardno (xtg) and Northrop (new)
	(i) Structural adequacy of new buildings engineering certification required to the Certifier		Built		Northrop								
	(ii) Structural adequacy of existing courthouse - certification required for earthquake strengthening + termite repairs - passed to the Certifier	Nihon			Cardno dwp								
External Walls and Cladding													
A17	The external walls of all buildings including additions to existing buildings must comply with the relevant requirements of the BCA.												Will form part of CC#2 design documentation and OC certifications
	(i) Design certification of external walls including insulation		Built		dwp Northrop								
Site Contamination													
A18	Following the completion of demolition works and prior to the commencement of all other construction, additional site investigations of previously untested or inaccessible areas of the site must be undertaken in accordance with: (a) interim advice dated 12 November 2019 and prepared by NSW EPA Accredited Site Auditor Ian Gregson, Principal Environmental Consultant, GHD; (b) the recommendations provided in the Phase 1 Environmental Site Assessment – Technical Note dated 29 April 2019 and prepared by Cardno; (c) NSW EPA Sampling Design Guidelines; (d) Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017 https://www.epa.nsw.gov.au/publications/contaminatedland/17p0260-guidelines-for-the-nsw-site-auditor-scheme-third-edition ; (e) Guidelines for Consultants Reporting on Contaminated Sites, 2011 www.epa.nsw.gov.au/resources/csm/20110650consultantselines.pdf ; (f) The National Environment Protection (assessment of contamination) Measures 2013 as amended; and (g) testing must include assessment of both the soil and groundwater profile.									✓			Noted - Douglas have completed testing for the new residential building (March '20) and are expected to complete testing for the new education building following demolition
	(i) Additional site testing and reporting to be undertaken once demolition completed		Built		Douglas Partners								
	(ii) Reviewing and advice on test methods	Nihon			GHD dwp								
A19	The additional site investigations report must be reviewed by a NSW EPA Accredited Site Auditor and the Conceptual Remediation Action Plan dated 28 May 2019, prepared by Cardno must be updated to reflect the findings of the additional site investigations required by condition A18. The updated remediation action plan must be approved by a NSW EPA Accredited Site Auditor and submitted to the Planning Secretary prior to the commencement of remediation works.									✓			Noted - amended and finalised RAP by Douglas Partners has been issued to the auditor (GHD) for review and endorsement.
	(i) Remedial Action Plan required to be updated and to be submitted to site auditor		Built		Douglas Partners								
	(ii) Updated report to be reviewed and approved and forwarded to EPA + planning secretary	Nihon			GHD dwp								
A20	Remediation works approved as part of this development consent must be carried out in accordance with the remediation action plan approved by a NSW EPA Accredited Site Auditor pursuant to condition A19.												Noted
	(i) Remedial works to be carried out in accordance with the approved RAP - certification required		Built		Douglas Partners								
	(ii) Review of completed remedial works documentation	Nihon			GHD dwp								
Applicability of Guidelines													
A21	References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.	Note	Note										Noted
A22	Consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.	Note	Note										Noted
Monitoring and Environmental Audits													
A23	Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, noncompliance notification, Site audit report and independent auditing. Note: For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.	Note	Note				21-Jan-20						Noted
Access to Information													
A24	At least 48 hours before the commencement of construction until the completion of all works under this consent, or such other time as agreed by the Planning Secretary, the Applicant must: (a) make the following information and documents (as they are obtained or approved) publicly available on its website: (i) the documents referred to in condition A2 of this consent; (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) regular reporting on the environmental performance of the development in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent; (v) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; (vi) a summary of the current stage and progress of the development; (vii) contact details to enquire about the development or to make a complaint; (viii) a complaints register, updated monthly; (ix) audit reports prepared as part of any independent audit of the development and the Applicant's response to the recommendations in any audit report; (x) any other matter required by the Planning Secretary; and (b) keep such information up to date, to the satisfaction of the Planning Secretary.						23-Jan-20			✓			Closed out
	(i) Information required from contractor to be supplied throughout the construction phase - information website to be displayed on site		Built										
	(ii) Web site to be established and maintained with current documents - updated with construction inputs - before the commencement of construction	Nihon			Azusa dwp								
Compliance													
A25	The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.	Note	Note				21-Jan-20						Noted - to be provided to all consultants and subcontractors
Incident Notification, Reporting and Response													

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX				Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status	
				Owner	Contractor									
A26	The Planning Secretary must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one), and set out the location and nature of the incident.			Note	Note								Noted	
A27	Subsequent notification must be given and reports submitted in accordance with the requirements set out in Appendix 2 .			Note	Note									
Non-Compliance Notification														
A28	The Planning Secretary must be notified in writing to compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of any non-compliance. The Certifying Authority must also notify the Planning Secretary in writing to compliance@planning.nsw.gov.au within seven days after they identify any non-compliance.			Note	Note								Noted - dwp \ Built to communicate and co-ordinate any non compliances	
A29	The notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.			Note	Note									
A30	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.			Note	Note									
Revision Strategies, Plans and Programs														
A31	Within three months of: (a) the submission of a compliance report under condition C22; (b) the submission of an incident report under condition A27; (c) the submission of an Independent Audit under condition C32; (d) the approval of any modification of the conditions of this consent; or (e) the issue of a direction of the Planning Secretary under condition A2 which requires a review, the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary and the Certifier must be notified in writing that a review is being carried out. If necessary to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans, programs or drawings required under this consent must be revised, to the satisfaction of the Planning Secretary and/or Certifier (where relevant). Where revisions are required, the revised document must be submitted to the Planning Secretary and/or Certifier for approval and/or information (where relevant) within six weeks of the review. Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.												Noted	
[i] Review and report strategy to be put in place				Built										
[ii] Review and report strategy to be put in place			Nihon		Azusa dwp									
PART B - PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE														
Certified Drawings														
B1	Prior to the issue of the relevant Construction Certificate, the Applicant must submit to the satisfaction of the Certifier structural drawings prepared and signed by a suitably qualified practising Structural Engineer that demonstrates compliance with this development consent.									✓	✓	✓	Closed out for CC#1	
[i] Structural certification of compliance of new buildings - issued to the Certifier				Built	Northrop									
[ii] Structural certification of compliance of existing courthouse building - issued to the Certifier			Nihon		Cardno									
Development Contributions														
B2	Prior to the issue of any Construction Certificate (not including demolition or site remediation works), a Section 7.12 levy totalling \$288,992 , is to be paid to Council in accordance with Section 7.12 of the EP&A Act and City of Newcastle Section 7.12 Newcastle Local Infrastructure Contributions Plan 2019. Prior to payment Council can provide the value of the indexed levy.												Required for CC#1	
[i] Developer contribution to be paid prior to commencement of construction			Nihon		Azusa dwp									
External Walls and Cladding														
B3	Prior to the issue of any Construction Certificate, the Applicant must provide the Certifier with documented evidence that the products and systems proposed for use or used in the construction of external walls, including finishes and claddings such as synthetic or aluminium composite panels, comply with the requirements of the BCA. The Applicant must provide a copy of the documentation given to the Certifier to the Planning Secretary within seven days after the Certifier accepts it.												Required for CC#1 - dwp have requested non compliance approval from DoP, approval pending	
[i] Documented evidence to the Certifier and a copy to the Planning Secretary required			Nihon		dwp Azusa									
Protection of Public Infrastructure														
B4	Prior to the issue of the relevant Construction Certificate, the Applicant must: (a) consult with the relevant owner and provider of services that are likely to be affected by the development to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure; (b) prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the site (including roads, gutters and footpaths); and (c) submit a copy of the dilapidation report to the Planning Secretary, Certifier and Council.						23-Jan-20			✓	✓	✓	Closed-out	
[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														
B5	Prior to the issue of the relevant Construction Certificate, the Applicant must submit a pre- commencement dilapidation report to Council, NSW Heritage Division and the Certifier. The report must provide an accurate record of the existing condition of adjoining private properties, heritage items and Council assets that are likely to be impacted by the proposed works.						23-Jan-20			✓	✓	✓	Closed out	
[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														
B6	Prior to the issue of any Construction Certificate, unless otherwise agreed by the Planning Secretary, the Applicant must demonstrate that ESD is being achieved by either: (a) registering for a minimum 4 star Green Star rating with the Green Building Council Australia and submit evidence of registration to the Certifier; or (b) seeking approval from the Planning Secretary for an alternative certification process.						23-Jan-20			✓			Planning Secretary endorsement received 10/02/20	
[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														
B7	Prior to the issue of the relevant Construction Certificate, the Applicant must obtain agreement from Council for the design of the operational waste storage area (where waste removal will be undertaken by Council). Where waste removal will be undertaken by a third party, the design of the operational waste storage area must be in accordance with Council’s standards. Evidence of the design and Council endorsement (where relevant) must be provided to the Certifier.										✓		Will form part of CC#2 documentation	
[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														

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX				Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status
				Owner	Contractor								
B8	Prior to the issue of the relevant Construction Certificate, the Applicant must ensure that a rainwater reuse/harvesting system for the development is developed for the site. A rainwater re- use plan must be prepared and certified by an experienced hydraulic engineer.										✓		Will form part of CC#2 documentation
	[i] Rainwater reuse has been designed installation to be finalised + provided to the Certifier		Built		Cardno Northrop								
Operational Car Parking and Service Vehicle Layout													
B9	Prior to the issue of the relevant Construction Certificate, compliance with the following requirements must be submitted to the satisfaction of the Certifier: (a) all vehicles must enter and leave the Site in a forward direction; (b) a minimum of 20 on-site car parking spaces for use during operation of the development and designed in accordance with the latest versions of AS 2890.1 and AS 2890.6; (c) the swept path of the longest construction vehicle entering and exiting the Site in association with the new work, as well as manoeuvrability through the Site, must be in accordance with the latest version of AS 2890.2; (d) the safety of vehicles and pedestrians accessing adjoining properties, where shared vehicle and pedestrian access occurs, is to be addressed; and (e) traffic management devices in the form of 'Stop' and 'Give Way to Pedestrian' signs and line marking must be installed at the entry of proposed driveways within the site and constructed in accordance with AS 2890.1:2004: Parking facilities 0 Off-street car parking.										✓		Will form part of CC#2 documentation
	[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													
B10	Prior to the issue of the relevant Construction Certificate, compliance with the following requirements for secure bicycle parking and end-of-trip facilities must be submitted to the satisfaction of the Certifier: (a) the provision of a minimum 22 bicycle parking spaces; (b) the layout, design and security of bicycle facilities must comply with the minimum requirements of the latest version of AS 2890.3:2015 Parking facilities - Bicycle parking, and be located in easy to access, well-lit areas that incorporate passive surveillance; (c) the provision of end-of-trip facilities for staff; (d) appropriate pedestrian and cyclist advisory signs are to be provided; and (e) all works/regulatory signposting associated with the proposed developments shall be at no cost to the relevant roads authority										✓		Will form part of CC#2 documentation
	[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													
C1	The Applicant must notify the Planning Secretary in writing of the dates of commencement of physical work and operation at least 48 hours before those dates.	Note	Note			22-Jan-20				✓	✓	✓	Closed out for CC#1
	[i] Notification of commencement required to the Planning Secretary		Built		dwp	22-Jan-20							
C2	If the construction or operation of the development is to be staged, the Planning Secretary must be notified in writing at least 48 hours before the commencement of each stage, of the date of commencement and the development to be carried out in that stage.	Note	Note							✓	✓	✓	Noted - to be provided for each CC
	[i] Notification of commencement of each construction stage required to the Planning Secretary		Built		dwp								
Construction Certificate													
C3	Work must not commence until a Construction Certificate in respect of the work has been issued.									✓	✓	✓	Noted - staged CC's to meet programme
	[i] Construction certification process to be managed		Built		dwp								
Outdoor Lighting													
C4	Prior to commencement of lighting installation, evidence must be submitted to the satisfaction of the Certifier that all outdoor lighting within the site has been designed to comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS 4282-2019 Control of the obtrusive effects of outdoor lighting.											✓	To be resolved in S138 design and approval process, targetting CC#2, may be CC#3
	[i] Finalise in outdoor lighting design process and submit to the Certifier		Built		dwp Northrop								
Demolition													
C5	Prior to the commencement of construction, demolition work plans required by AS 2601-2001 The demolition of structures (Standards Australia, 2001) must be accompanied by a written statement from a suitably qualified person that the proposals contained in the work plan comply with the safety requirements of the Standard. The work plans and the statement of compliance must be submitted to the Certifier and Planning Secretary.					21-Jan-20				✓			Closed out
	[i] Demolition work plans and statement submitted to the certifier		Built		Northrop	21-Jan-20							
	[ii] Copy of works plans and statement forwarded to Planning Secretary	Nihon			dwp	21-Jan-20							
C6	Prior to the commencement of internal demolition works within the State heritage listed former Newcastle Courthouse, evidence must be submitted to the satisfaction of the Certifier confirming works planned are required to make the existing building compliant with the fire and Life Safety Upgrade Strategy, prepared by Design Confidence, dated 12 June 2019, and that impacts to areas of high significant fabric have been limited.										✓		Revised and updated FER required - Built to close out with Design Confidence
	[i] Fire and life safety strategy to be confirmed through fire engineering and forwarded to the Certifier		Built		dwp Northrop								
Environment Management Plan Requirements													
C7	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (a) detailed baseline data; (b) details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; (d) a program to monitor and report on the: (i) impacts and environmental performance of the development; (ii) effectiveness of the management measures set out pursuant to paragraph (c) above; (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (f) a program to investigate and implement ways to improve the environmental performance of the development over time; (g) a protocol for managing and reporting any: (i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); (ii) complaint; (iii) failure to comply with statutory requirements; and (h) a protocol for periodic review / update of the plan and any updates in response to incidents or matters of non-compliance. Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans					23-Jan-20				✓			Closed out
	[i] Plan requirements incorporated in construction works		Built										

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX								Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status	
								Owner	Contractor									
	[ii] Assessment of plan requirements following on from occupation								Nihon		Azusa dwp							
Construction Environmental Management Plan																		
C8	Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifier and provide a copy to the Planning Secretary. The CEMP must include, but not be limited to, the following: (a) Details of: (i) hours of work; (ii) 24-hour contact details of site manager; (iii) management of dust and odour to protect the amenity of the neighbourhood; (iv) stormwater control and discharge; (v) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site; (vi) groundwater management plan including measures to prevent groundwater contamination; (vii) external lighting in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting; (viii) community consultation and complaints handling; (b) Construction Traffic and Pedestrian Management Sub-Plan (see condition C10); (c) Construction Noise and Vibration Management Sub-Plan (see condition C11); (d) Construction Waste Management Sub-Plan (see condition C11(g)); (e) an unexpected finds protocol for contamination and associated communications procedure; (f) an unexpected finds protocol for non-Aboriginal heritage and associated communications procedure; (g) waste classification (for materials to be removed) and validation (for materials to remain) be undertaken to confirm the contamination status in these areas of the site; and											23-Jan-20			✓			Closed out
	[i] CEMP developed by contractor + submission to the Certifier									Built		22-Jan-20						
	[ii] Copy of Camp forwarded to Planning Secretary								Nihon		dwp	22-Jan-20						
C9	The Applicant must not commence construction of the development until the CEMP is submitted to the Certifier and a copy submitted to the Planning Secretary.								Note	Note		23-Jan-20			✓			Closed out
C10	The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced person(s); (b) be prepared in consultation with Council; (c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; (d) detail heavy vehicle routes, access and parking arrangements; (e) include a Driver Code of Conduct to: (i) minimise the impacts of earthworks and construction on the local and regional road network; (ii) minimise conflicts with other road users; (iii) minimise road traffic noise; and (iv) ensure truck drivers use specified routes; (f) include a program to monitor the effectiveness of these measures; and (g) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.											23-Jan-20			✓			Closed out - CoN confirmation of consultation provided 12/02/20
	[i] CTPMSP developed by contractor + submission to Certifier									Built								
	[ii] Submission to the Planning Secretary required								Nihon		dwp							
C11	The Construction Noise and Vibration Management Sub-Plan must address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced noise expert; (b) describe procedures for achieving the noise management levels in EPA’s Interim Construction Noise Guideline (DECC, 2009); (c) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers; (d) include strategies that have been developed with the community for managing high noise generating works; (e) describe the community consultation undertaken to develop the strategies in condition C11(d); (f) include a complaints management system that would be implemented for the duration of the construction; and (g) include a program to monitor and report on the impacts and environmental performance of the development and the effectiveness of the management measures in accordance with condition C7(d). The program should be developed in accordance with the report titled Noise and Vibration Assessment – Operational and Construction report dated May 2019 and prepared by EMM Consulting, and included, but not limited: (i) alert triggers where project trigger noise levels are exceeded; and (ii) procedures for respite periods when sensitive receivers become ‘highly noise affected’ (i.e. noise levels exceed 75 dB(A).											23-Jan-20			✓			Closed out
	[i] CNVMS-P developed by contractor + submission to PCA									Built	EMM	22-Jan-20						
C12	The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the following: (a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations; and (b) removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility in accordance with the requirements of the relevant legislation, codes, standards and guidelines, prior to the commencement of any building works.											23-Jan-20			✓			Closed out
	[i] CWPMS-P developed by contractor + submission to PCA									Built								
Aboriginal Cultural Heritage Management Plan																		
C13	Prior to the commencement of construction (excluding demolition works), an Aboriginal Cultural Heritage Management Plan (ACHMP) must be prepared and address, but not be limited to, the following: (a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties; (b) be endorsed by the Planning Secretary prior to construction (excluding demolition works) of any part of the development; (c) describe the measures to protect any Aboriginal cultural deposits or relics uncovered during sub surface archaeological testing in accordance with the relevant legislation.														✓			Closed, site works closed out and report issued to PCA
	[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																		
C14	Prior to the commencement of construction, the Applicant must submit a Construction Worker Transportation Strategy to the satisfaction of the Certifier. The Strategy must detail the provision of sufficient parking facilities or other travel arrangements for construction workers in order to minimise demand for parking in nearby public and residential streets or public parking facilities.											23-Jan-20			✓			Closed out
	[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																		

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX		Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status
		Owner	Contractor								
C15	Prior to the commencement of construction, the Applicant must design an operational stormwater management system for the development and submit it to the satisfaction of the Certifier. The system must: (a) be designed by a suitably qualified and experienced person(s); (b) be design in consultation with and to the satisfaction of Council; (c) be generally in accordance with the conceptual design in the EIS as amended by the RtS; (d) be in accordance with applicable Australian Standards; (e) ensure that the system capacity has been designed in accordance with Australian Rainfall and Runoff (Engineers Australia, 2019) and Managing Urban Stormwater: Council Handbook (EPA, 1997) guidelines; (f) divert existing clean surface water around operational areas of the site; (g) direct all sediment laden water in overland flow away from the leachate management system; (h) prevent cross-contamination of clean and sediment or leachate laden water; (i) include details of all on-site retention/detention and water quality treatment systems are to be individually signposted in accordance with Council's Stormwater and Water Efficiency for Development Technical Manual.							✓			Closed in CC#1 submission
	[i] Stormwater management system developed + submission to the Certifier		Built	Cardno Northrop							
Operational Noise – Design of Mechanical Plant and Equipment											
C16	Prior to installation of mechanical plant and equipment, the Applicant must incorporate the noise mitigation recommendations in the Noise and Vibration Assessment – Operational and Construction report dated May 2019 and prepared by EMM Consulting, into the detailed design drawings. The Certifier must verify that all noise mitigation measures have been incorporated into the design to ensure the development will not exceed the recommended operational noise levels identified in the Noise and Vibration Assessment – Operational and Construction report dated May 2019 and prepared by EMM Consulting.								✓		In progress - to be incorporated in Northrop mechanical CC#2 design documentation
	[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											
C17	Following the completion of demolition works and prior to the commencement of construction works, all affected historical archaeological deposits are to be subject to professional archaeological excavation and recording. An Archaeological Research Design and Excavation methodology must be prepared to guide the archaeological program. This must be prepared in accordance with Heritage Council of NSW Guidelines and in consultation with Heritage NSW, Department of Premier and Cabinet.							✓			AMAC reports issued to DP\Heritage. However recent discovery of the 2 x sections of brick culvert have meant AMAC have stopped work in the western part of the Residential building during site earthworks stage (20/03/20)
	[i] Methodology developed for compliance - consultation required with Heritage NSW + Premiers Department		Built	AMAC							
C18	The Archaeological program must be directed by a suitably qualified and experienced Archaeologist (Excavation Director). The nominated Excavation Director must be able to demonstrate their ability to undertake this work through a response to the Heritage Council's Excavation Director Criteria (July 2011) for salvage excavation for a site of local heritage significance.		-					✓			Closed - issued to PCA via Aconex 14/02/20
	[i] AMAC credentials identified for compliance		Built	AMAC							
Landscaping											
C19	Prior to the commencement of construction, the Applicant must prepare a revised Landscape Plan that provides a streetscape treatment that does not impede on the understanding of the former Newcastle Courthouse and its relationship to its environment and setting, and submit a copy to the Planning Secretary. The plan must (a) be prepared by a qualified heritage landscape consultant and submitted to the NSW Heritage Council, or its delegate, for endorsement; (b) provide an analysis of the existing site frontage hardstand, fences and gates, colours and finishes and landscape elements within the precinct; (c) demonstrate the retention of the existing heritage cast iron fence along the site frontage, including the iron palisade fence, sandstone plinth and sandstone piers, unless removal of sections is demonstrated to be essential for the functional requirements of the proposal (e.g. clearance required to establish the approved additional driveway crossover); (d) provide for the planting of eight trees that are sympathetic to the heritage values of the item and ensure no planting grow higher than 1.5 m in directly in front of the former Newcastle Courthouse; (e) detail the location, species, maturity and height at maturity of plants to be planted on-site; (f) include species (trees, shrubs and groundcovers) indigenous to the local area; (g) include the planting of trees with a pot container of 100 litres or greater; (h) include the provision of street tree planting. Species and spacing of trees are to be sympathetic to the heritage values of the item and are to be determined in consultation with Council.								✓		In progress
	[i] Landscape requirements to be worked through for resolution with Council + Heritage NSW	Nihon		dwp Moir							
Public Domain Works											
C20	Prior to the commencement of any footpath or public domain works, the Applicant must engage a suitably qualified practicing engineer to design the following public domain works within the Church Street frontage of the site at no cost to Council and in accordance with the Newcastle City Centre Public Domain Manual guideline, design specifications and relevant Australian Standards: (a) new full width footpath and streetscape works and driveway; (b) reconstruct kerb and gutter, including associated road shoulder pavement and any associated drainage works; (c) new street trees and tree planting vaults in accordance with Council's requirement and adjust service pit levels to match new footpath levels; (d) kerb blisters and raised pedestrian crossings at the intersection of Bolton Street and Church Street; (e) upgrade street lighting across the frontage of the site to provide P3 Pedestrian Lighting Category in accordance with Australian Standard 1158.1; (f) upgrade of pedestrian crossing lighting to comply with Australian Standard 1158.4; (g) any necessary adjustments to regulatory signage.										In progress
	[i] Public domain works to be worked through for final resolution	Nihon		dwp Moir Cardno							
C21	Prior to the commencement of any footpath or public domain works, the Applicant must consult with Council and demonstrate to the Certifier that the public domain design and treatment, as required by condition C20, meets the Council's requirements, including addressing pedestrian management. The Applicant must submit documentation of approval for each stage from Council to the Certifier.										Consultation commenced with Jan 20 mtg - ongoing until S138 approved
	[i] Public domain works to be worked through for final resolution - approval from Council submitted to the Certifier	Nihon		dwp Moir cardno							
Compliance Reporting											
C22	No later than two weeks before the date notified for the commencement of construction, a Compliance Monitoring and Reporting Program prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2018) must be submitted to the Planning Secretary and the Certifier.				23-Jan-20						Closed out
	[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						
C23	Compliance Reports of the project must be carried out in accordance with the Compliance Reporting Post Approval Requirements (Department 2018).	Noted	Noted								Noted

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX														
		Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status			
		Owner	Contractor											
C24	The Applicant must make each Compliance Report publicly available 60 days after submitting it to the Planning Secretary and notify the Planning Secretary and the Certifying Authority in writing at least seven days before this is done.											Noted		
	[i] Compliance report made available publically and advise Planning Secretary + Certifier				Nihon		Azusa dwp							
C25	Notwithstanding the requirements of the Compliance Reporting Post Approval Requirements (Department 2018), the Planning Secretary may approve a request for ongoing annual operational compliance reports to be ceased, where it has been demonstrated to the Planning Secretary’s satisfaction that an operational compliance report has demonstrated operational compliance.				Note	Note						Noted		
PART D - DURING CONSTRUCTION														
Site Notice														
D1	A site notice(s): (a) must be prominently displayed at the boundaries of the site during construction for the purposes of informing the public of project details including, but not limited to the details of the Builder, Certifier and Structural Engineer is to satisfy the following requirements; (b) minimum dimensions of the notice must measure 841 mm x 594 mm (A1) with any text on the notice to be a minimum of 30-point type size; (c) the notice is to be durable and weatherproof and is to be displayed throughout the works period; (d) the approved hours of work, the name of the site/ project manager, the responsible managing company (if any), its address and 24-hour contact phone number for any inquiries, including construction/ noise complaint must be displayed on the site notice; and (e) the notice(s) is to be mounted at eye level on the perimeter hoardings/fencing and is to state that unauthorised entry to the site is not permitted.										Closed out			
	[i] Site notices developed by contractor + submission to the Certifier					Built								
Operation of Plant and Equipment														
D2	All construction plant and equipment used on site must be maintained in a proper and efficient condition and operated in a proper and efficient manner.											Noted		
	[i] Site plant maintained and equipment maintenance by contractor					Built								
Demolition														
D3	Demolition work must comply with the demolition work plans required by Australian Standard AS 2601-2001 The demolition of structures (Standards Australia, 2001) and endorsed by a suitably qualified person as required by Condition C5.						21-Jan-20					Closed out		
	[i] Demolition processes developed by contractor					Built								
Construction Hours														
D4	Construction, including the delivery of materials to and from the site, may only be carried out between the following hours: (a) between 7 am and 6 pm, Mondays to Fridays inclusive; and (b) between 8 am and 1 pm, Saturdays. No work may be carried out on Sundays or public holidays.											Noted		
	[i] Construction hours factored into construction program					Built								
D5	Construction activities may be undertaken outside of the hours in condition D4 if required: (a) by the Police or a public authority for the delivery of vehicles, plant or materials; or (b) in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or (c) where the works are inaudible at the nearest sensitive receivers; or (d) where a variation is approved in advance in writing by the Planning Secretary or his nominee if appropriate justification is provided for the works.				Note	Note						Noted		
D6	Notification of such construction activities as referenced in condition D5 must be given to affected residents before undertaking the activities or as soon as is practical afterwards.													
	[i] Notification to affected residents required					Built								
D7	Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours: (a) 9am to 12pm, Monday to Friday; (b) 2pm to 5pm Monday to Friday; and (c) 9am to 12pm, Saturday.											Noted		
	[i] Check advice with the Certifier - demolition processes not considered as rock breaking or rock hammering - to be monitored					Built								
Implementation of Management Plans														
D8	The Applicant must carry out the construction of the development in accordance with the most recent version of the approved CEMP (including Sub-Plans) and ACHMP.											Noted		
	[i] Monitoring of compliance with management plans					Built								
Construction Traffic														
D9	All construction vehicles (excluding site personnel vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site before stopping.					Built						Noted		
Hoarding Requirements														
D10	The following hoarding requirements must be complied with: (a) no third-party advertising is permitted to be displayed on the subject hoarding/ fencing; and (b) the construction site manager must be responsible for the removal of all graffiti from any construction hoardings or the like within the construction area within 48 hours of its application.					Built						Noted		
No Obstruction of Public Way														
D11	The public way (outside of any approved construction works zone) must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances.					Built						Noted		
Construction Noise Limits														
D12	The development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (DECC, 2009). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures identified in the approved Construction Noise and Vibration Management Plan.					Built	EMM \ RAPT					Noted		
D13	The Applicant must ensure construction vehicles (including concrete agitator trucks) do not arrive at the site or surrounding residential precincts outside of the construction hours of work outlined under condition D4.					Built						Noted		
D14	The Applicant must implement, where practicable and without compromising the safety of construction staff or members of the public, the use of ‘quackers’ to ensure noise impacts on surrounding noise sensitive receivers are minimised.					Built						Noted		
Vibration Criteria														
D15	Vibration caused by construction at any residence or structure outside the site must be limited to: (a) for structural damage, the latest version of DIN 4150-3 (1992-02) Structural vibration - Effects of vibration on structures (German Institute for Standardisation, 1999); and (b) for human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: a technical guideline (DEC, 2006) (as may be updated or replaced from time to time).					Built	EMM \ RAPT					Noted		
D16	Vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in condition D15.					Built						Noted		

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX													
		Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status		
		Owner	Contractor										
D17	The limits in conditions D15 and D16 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition C11 of this consent.				Built	EMM						Noted	
Tree Protection													
D18	For the duration of the construction works: (a) street trees, with the exception of the one nominated street tree approved for removal to accommodate the new driveway crossover, must not be trimmed or removed unless it forms a part of this development consent or prior written approval from Council is obtained or is required in an emergency to avoid the loss of life or damage to property; (b) all street trees to be retained must be protected at all times during construction. Any tree on the footpath, which is damaged or removed during construction due to an emergency, must be replaced, to the satisfaction of Council; (c) all trees on the site that are not approved for removal must be suitably protected during construction as per recommendations of the Aboricultural Impact Assessment Report dated 17 November 2019 and prepared by Joseph Pidutti Consulting Arborist; and (d) if access to the area within any protective barrier is required during the works, it must be carried out under the supervision of a qualified arborist. Alternative tree protection measures must be installed, as required. The removal of tree protection measures, following completion of the works, must be carried out under the supervision of a qualified arborist and must avoid both direct mechanical injury to the structure of the tree and soil compaction within the canopy or the limit of the former protective fencing, whichever is the greater.				Built							Closed	
Air Quality													
D19	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.				Built							Noted	
D20	During construction, the Applicant must ensure that: (a) exposed surfaces and stockpiles are suppressed by regular watering; (b) all trucks entering or leaving the site with loads have their loads covered; (c) trucks associated with the development do not track dirt onto the public road network; (d) public roads used by these trucks are kept clean; and (e) land stabilisation works are carried out progressively on site to minimise exposed surfaces.				Built							Noted	
Erosion and Sediment Control													
D21	All erosion and sediment control measures must be effectively implemented and maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works have been stabilised and rehabilitated so that it no longer acts as a source of sediment. Erosion and sediment control techniques, as a minimum, are to be in accordance with the publication Managing Urban Stormwater: Soils & Construction (4th edition, Landcom, 2004) commonly referred to as the ‘Blue Book’.				Built							Noted	
Imported Soil													
D22	The Applicant must: (a) ensure that only VENM, ENM, or other material approved in writing by EPA is brought onto the site; (b) keep accurate records of the volume and type of fill to be used; and (c) make these records available to the Certifier upon request.				Built							Noted	
Disposal of Seepage and Stormwater													
D23	Adequate provisions must be made to collect and discharge stormwater drainage during construction of the building to the satisfaction of the principal Certifier. The prior written approval of Council must be obtained to connect or discharge site stormwater to Council’s stormwater drainage system or street gutter.				Built	Northrop Cardno						Closed in CC#1 submission	
Unexpected Finds Protocol - Aboriginal Heritage													
D24	In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by EES Group and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and EES Group to develop and implement management strategies for all objects/sites. Works shall only recommence with the written approval of EES Group.				Built	AMAC						Noted	
Unexpected Finds Protocol - Historic Heritage													
D25	If any unexpected archaeological relics are uncovered during the work, then all works must cease immediately in that area and the NSW Heritage Division contacted. Depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area. Works may only recommence with the written approval of the NSW Heritage Division.				Built	AMAC						Noted	
Waste Storage and Processing													
D26	All waste generated during construction must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties.				Built							Noted	
D27	All waste generated during construction must be assess, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).				Built							Noted	
D28	The Applicant must ensure that concrete waste and rinse water are not disposed of on the site and are prevented from entering any natural or artificial watercourse.				Built							Noted	
Independent Environmental Audit													
D29	Proposed independent auditors must be agreed to in writing by the Planning Secretary prior to the preparation of an Independent Audit Program or commencement of an Independent Audit.											Closed - GHD appointed & endorsed	
	[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							
D30	Prior to the commencement of construction, an Independent Audit Program prepared in accordance with the Independent Audit Post Approval Requirements (Department 2018) must be submitted to the Planning Secretary and the Certifier.											Closed - dwp issued	
	[i] Independent audit program prepared and submitted to Planning Secretary and the Certifier			Nihon	Built	Azusa dwp							
D31	Table 1 of the Independent Audit Post Approval Requirements (Department 2018) is amended so that the frequency of audits required in the construction phase is: (a) an initial construction Independent Audit must be undertaken within eight weeks of the notified commencement date of construction; (b) a subsequent Independent Audit of construction must be undertaken no later than six months from the date of the initial construction Independent Audit; and In all other respects Table 1 remains the same. The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified above, upon giving at least 4 weeks notice to the applicant of the date upon which the audit must be commenced.											Noted	
	[i] Audit program linked to construction dates			Nihon	Built	Azusa dwp							
D32	Independent Audits of the development must be submitted to the Planning Secretary and must be carried out in accordance with: (a) the Independent Audit Program submitted to the Planning Secretary and the Certifier under condition D30 of this consent; and (b) the requirements for an Independent Audit Methodology and Independent Audit Report in the Independent Audit Post Approval Requirements (Department 2018).											Noted	
	[i] Independent audits must be submitted to the Planning Secretary and the Certifier			Nihon	Built	Azusa dwp							

SSD 9787 - FINAL CONDITIONS SCHEDULE 2 MATRIX		Responsibility		Relevant Consultant/s	Date Addressed	Cost Implication	Time Implication	CC # 1	CC # 2	CC # 3	Status
		Owner	Contractor								
D33	Requirements (Department 2018), the Applicant must: (a) review and respond to each Independent Audit Report prepared under condition D30 of this consent; (b) submit the response to the Planning Secretary and the Certifier; and (c) make each Independent Audit Report and response to it publicly available 60 days after submission to the Planning Secretary and notify the Planning Secretary and the Certifier in writing at least seven days before this is done.										Noted
	[i] Response required to each independent audit - Planning Secretary and the Certifier notified	Nihon	Built	Azusa dwp							
D34	Notwithstanding the requirements of the Independent Audit Post Approval Requirements (Department 2018), the Planning Secretary may approve a request for ongoing annual operational audits to be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that an audit has demonstrated operational compliance.	Note	Note								Noted

NB Rows for post PC hidden above

- Urgently required - holding up CC\OC
- Closed out & complete
- In progress or required for future CC stage
- Note with no further actions required

Appendix G - March 2020 Waste Recovery Reports

DRUMDERG SERVICES

NIHON UNIVERSITY

RESOURCE RECOVERY REPORT

MARCH 2020

Towards a Sustainable Future

1800 180 180
centralwaste.com.au
info@centralwaste.com.au
8 Styles Street
Kurri Kurri NSW 2327

BN: 44 604 989 433 | Environmental Protection Licence Number: 13013



AS/NZS 4801 - OHS MANAGEMENT
ISO 9001 - QUALITY MANAGEMENT
ISO 14001 - ENVIRONMENTAL MANAGEMENT

1. OVERVIEW

High recovery rates for March 2020 have been achieved, particularly given the high amounts of heavy materials such as concrete/bricks from Building A's main structure and steel from reinforcement systems to the structure. C&D materials for this month which were placed into bins typically included a mixture of mainly wood/timber, glass, gyprock, etc. processed at our Resource Recovery Facility, offering a very high level of recoverability.

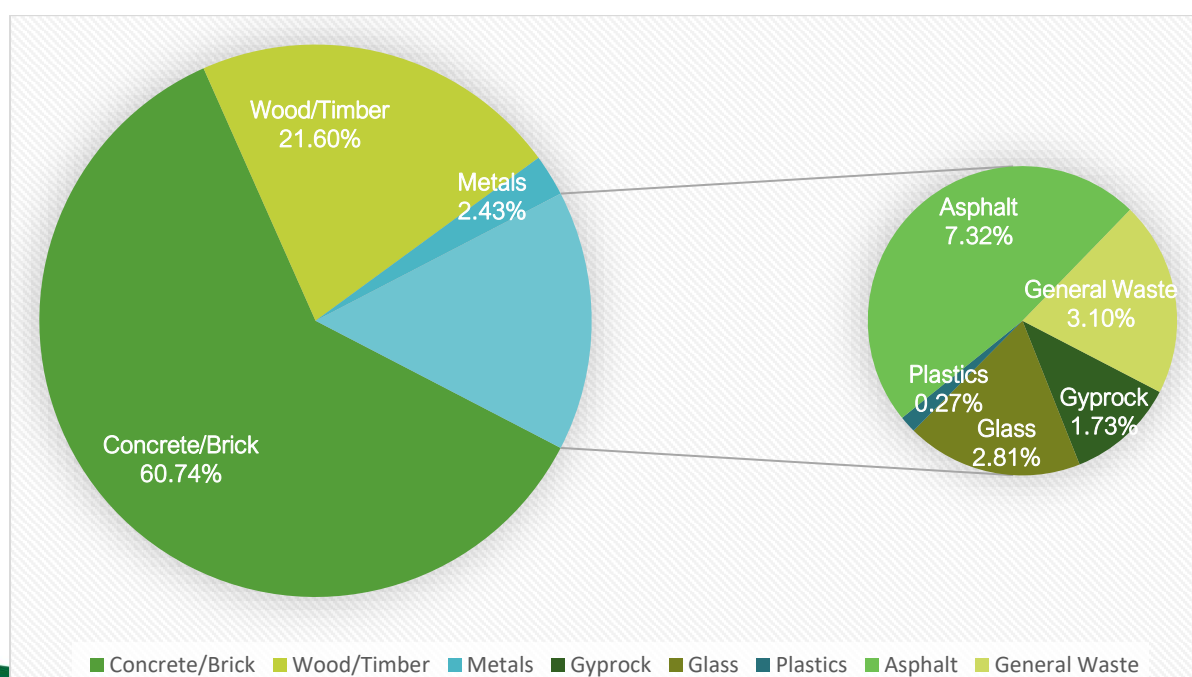
Materials were free of contamination by food or other organic matter which assists in recovery rates, however, non-recoverable/difficult material such as carpets, some plastics, etc. were found and disposed of as per local regulations.

2. CWS - RECOVERABLE MATERIALS MONTHLY BREAKDOWN

Breakdown of resources recovered, transported and processed at Central Waste Station's Resource Recovery Facility.

MONTHLY BREAKDOWN	
Total Amount Received (Tonnes)	390.92
Total Recovered (Tonnes)	378.81
Total Recovery Percentage	96.90%

RESOURCE TYPE	TONNES RECOVERED	PERCENTAGE
CONCRETE/BRICK	237.44	60.74%
WOOD/TIMBER	84.45	21.60%
METALS	9.50	2.43%
GYPROCK	6.78	1.73%
GLASS	10.97	2.81%
PLASTICS	1.05	0.27%
ASPHALT	28.62	7.32%
GENERAL WASTE (NON RECYCLABLE)	12.11	3.10%



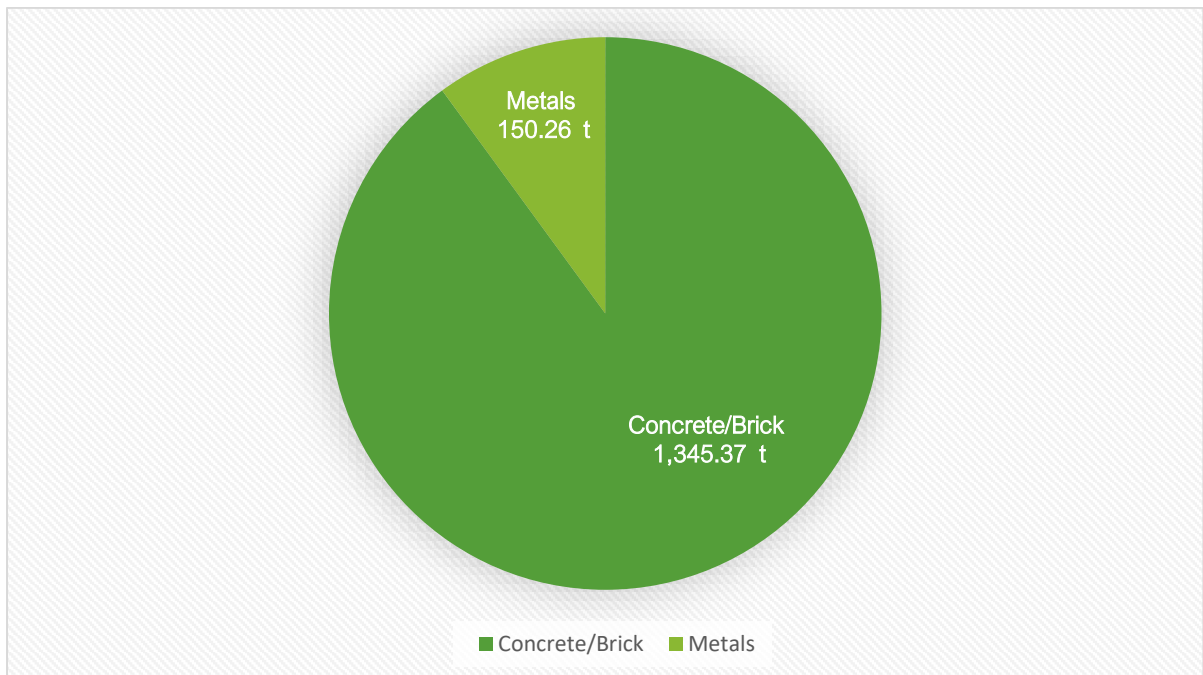
3. OTHER FACILITIES - RECOVERABLE MATERIALS MONTHLY BREAKDOWN

Breakdown of resources recovered, transported and processed at local material specific recycling facilities to achieve full recyclability. These include:

- Concrete/Brick – Boral Recycling
- Metals – Sell & Parker

MONTHLY BREAKDOWN	
Total Amount Received (Tonnes)	1495.63
Total Recovered (Tonnes)	1495.63
Total Recovery Percentage	100%

RESOURCE TYPE	TONNES RECOVERED
CONCRETE/BRICK	1345.37
METALS	150.26



4. TOTAL EXPORTED MATERIALS MONTHLY BREAKDOWN (INCLUDING NON-RECYCLABLES)

A summary of all materials exported from site by Drumderg throughout the month of March, including special/difficult waste such as asbestos, has been including in the following table and graphic.

Disposal dockets and respective EPA consignments have been attached to this document.

RESOURCE TYPE	TONNES
C&D RECOVERED MATERIALS	1874.44
C&D NON RECOVERABLE	12.11
ASBESTOS WASTE	1.70
ASBESTOS SOILS	2587.18

