



ACE Civil Pty Ltd | PO Box 63, Auburn NSW 2143
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9th of February 2021

Philipp Chun
Suite 404, 44 Hampden Road
Artarmon NSW 2064

Attention: Frank De Pasquale – Associate

**RE: Monte Scientia Project - 128 Miller St North Sydney NSW 2060
SSD 10393 – Condition C11**

Dear Frank:

In relation to the SSD condition C11 described as following:

C11 Demolition

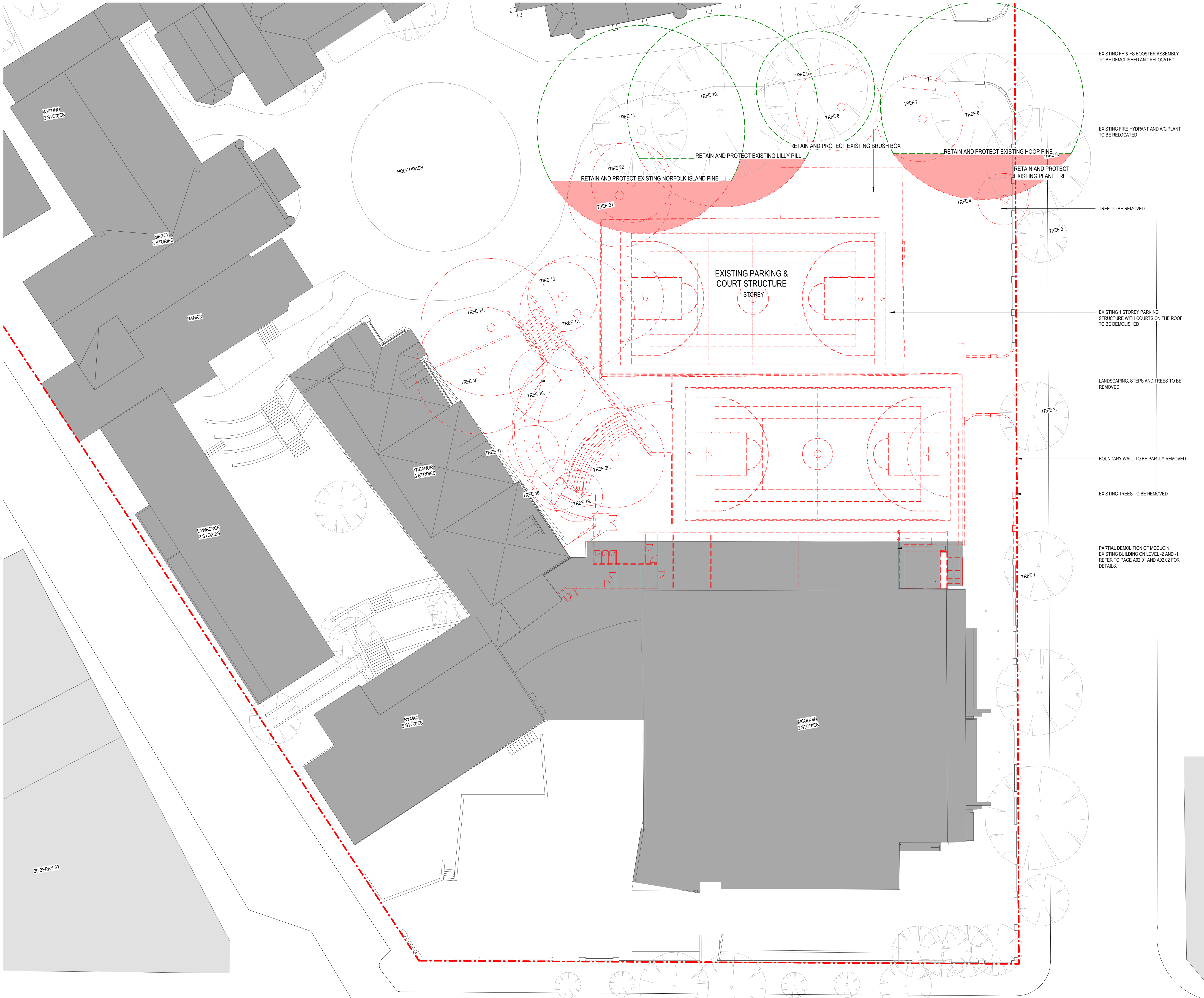
Prior to the commencement of the demolition works, all relevant plans as required by AS 2601-2001 The demolition of structures (Standards Australia, 2001) must be accompanied by a written statement from a suitably qualified person that the proposals contained in the work plan comply with the safety requirements of the Standard. The work plans and the statement of compliance must be submitted to the Certifier and Planning Secretary

ACE CIVIL PTY LTD can confirm that the proposal contained on the Demolition Work Plan dated 7th of January 2021 Revision 2 by Jayden Lin comply with the safety requirements of the Standard **AS 2601-2001**.

Yours faithfully

Jayden Lin
M.Eng B.Eng
Project Engineer

DEMOLITION • EXCAVATION • SHORING • CIVIL WORK • ASBESTOS REMOVAL

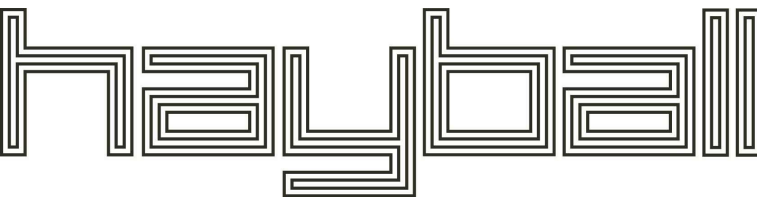


LEGEND

- DEMOLITION
- TREE PROTECTION ZONE WITH 20% ENCROACHMENT
- INDICATIVE MAXIMUM 20% ENCROACHMENT ZONE OF SIGNIFICANT TREES FOR NEW WORKS
- EXISTING MONTE SCHOOL BUILDINGS (WITHIN SITE)
- EXCAVATION ZONE

- NOTES:
- CONTRACTOR TO VERIFY AND CREATE ALL UTILITIES WITHIN AND SURROUNDING THE DEMOLITION LIMITS.
 - REFER TO SERVICES DOCUMENTATION FOR DISCONNECTION AND CAPPING OF SERVICES GENERALLY.
 - REMOVE AND DISPOSE OF ALL ELEMENTS INDICATED, OR AS DIRECTED.
 - PROTECT TREES TO BE RETAINED AS RECOMMENDED IN ARBORIST REPORT.
 - REMOVE ALL TREES INDICATED AND ALL SHRUBS WITHIN THE DEMOLITION ZONE, AS REQUIRED FOR NEW WORK.
 - RETAIN AND PROTECT EXISTING BUILDINGS AS INDICATED.
 - REFER TO STRUCTURAL DOCUMENTATION FOR MCQUOIN STRUCTURAL SUPPORT REQUIREMENT PRIOR TO COMMENCE OF DEMOLITION.
 - RETAIN EXISTING BRICKS FROM DEMOLISHED SECTION OF MILLER ST WALL FOR REUSE.
 - REFER TO ARCHITECTURAL SPECIFICATION FOR A SCHEDULE OF ITEMS TO BE RETAINED.

B	DEMOLITION ISSUED FOR CC1	18/02/2021
A	70% TENDER ISSUE	19/10/2020
Rev	Description	Date



Melbourne	Sydney	Brisbane
4/135 Sturt Street Southbank, VIC 3008 T +61 3 9699 3644	Ground Floor 11-17 Buckingham Street Surry Hills NSW 2010 T +61 2 9660 9329	Level 12, 324 Queen Street, Brisbane Qld 4000 T +61 7 3211 9821

ABN: 84006394261 NSW Nominated Architects:Tom Jordan 7521,
Richard Leonard 7522, David Tordoff 8028

Project Title
Monte Sant Angelo Mercy College -
Scientia Project

Project Address
128 Miller St, North Sydney

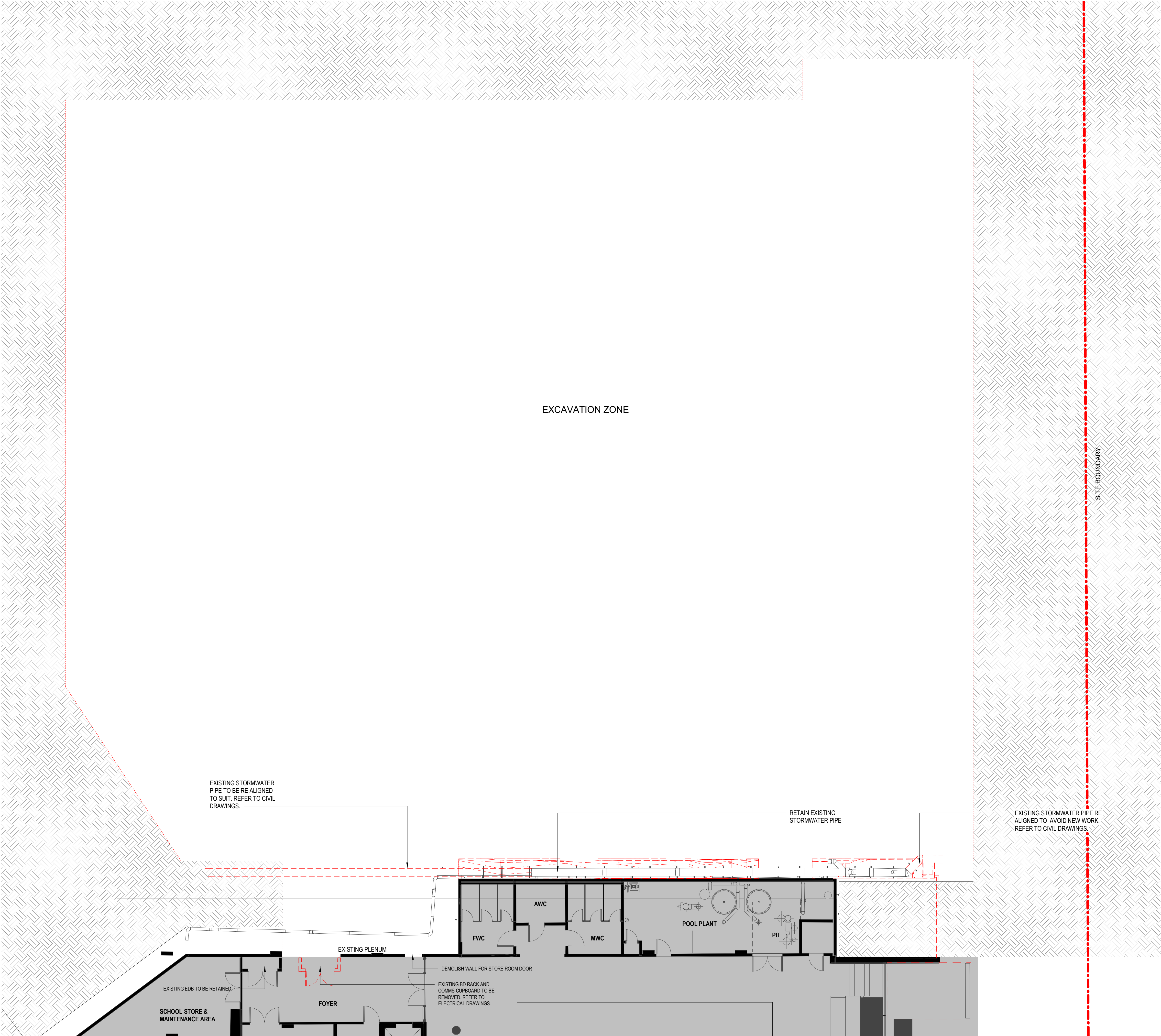
Drawing Title
SITE DEMOLITION PLAN
(DEVELOPMENT AREA)

Status
CONSTRUCTION CERTIFICATE

Drawn By	Checked By	Date Printed	Scale
WX	NB	17/02/2021 3:51:12 PM	1 : 200 @A1

Project No	Drawing No	Revision
2336	A01.10	B

Builders/Contractors shall verify job dimensions before any job commences. Figured dimensions shall take precedence over scaled work. Work shall also conform to the specification, other drawings and job dimensions. All shop drawings shall be submitted to the Architect/Consultant and manufacture shall not commence prior to the return of inspected shop drawings signed by the Architect/Consultant. © Copyright 2008 All rights reserved

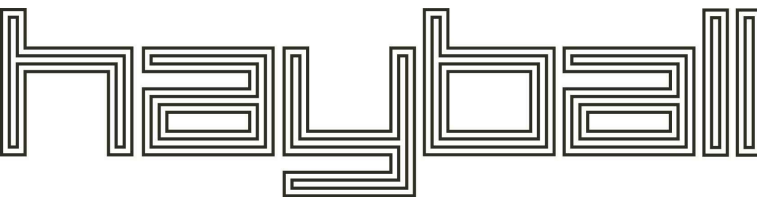


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Project Title

Monte Sant Angelo Mercy College - Scientia Project

Project Address

128 Miller St, North Sydney

Drawing Title

LEVEL 1 DEMOLITION FLOOR PLAN

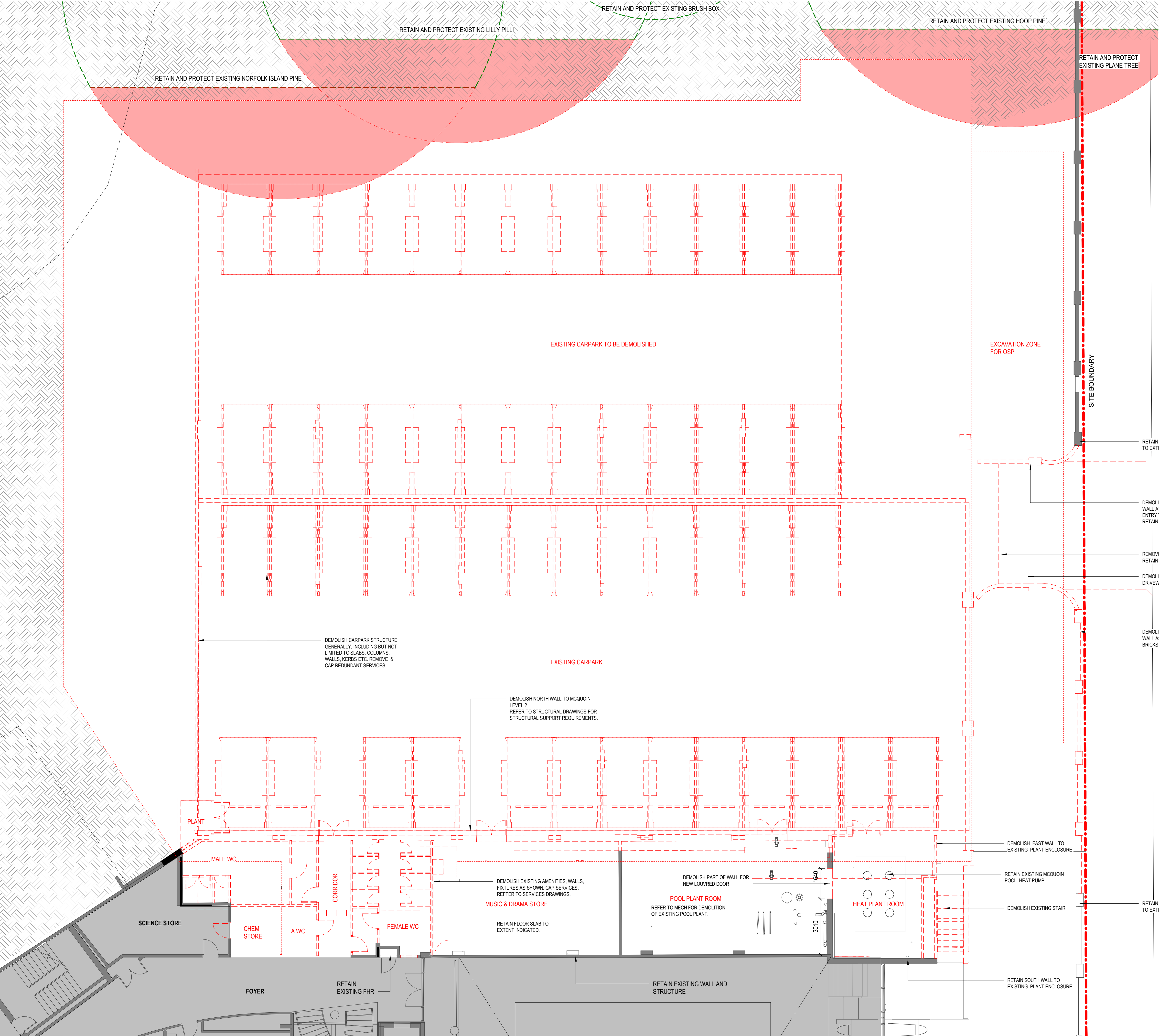
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Project No	Drawing No	Revision
2336	A01.11	B

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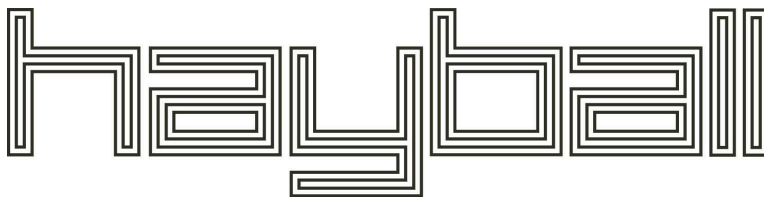


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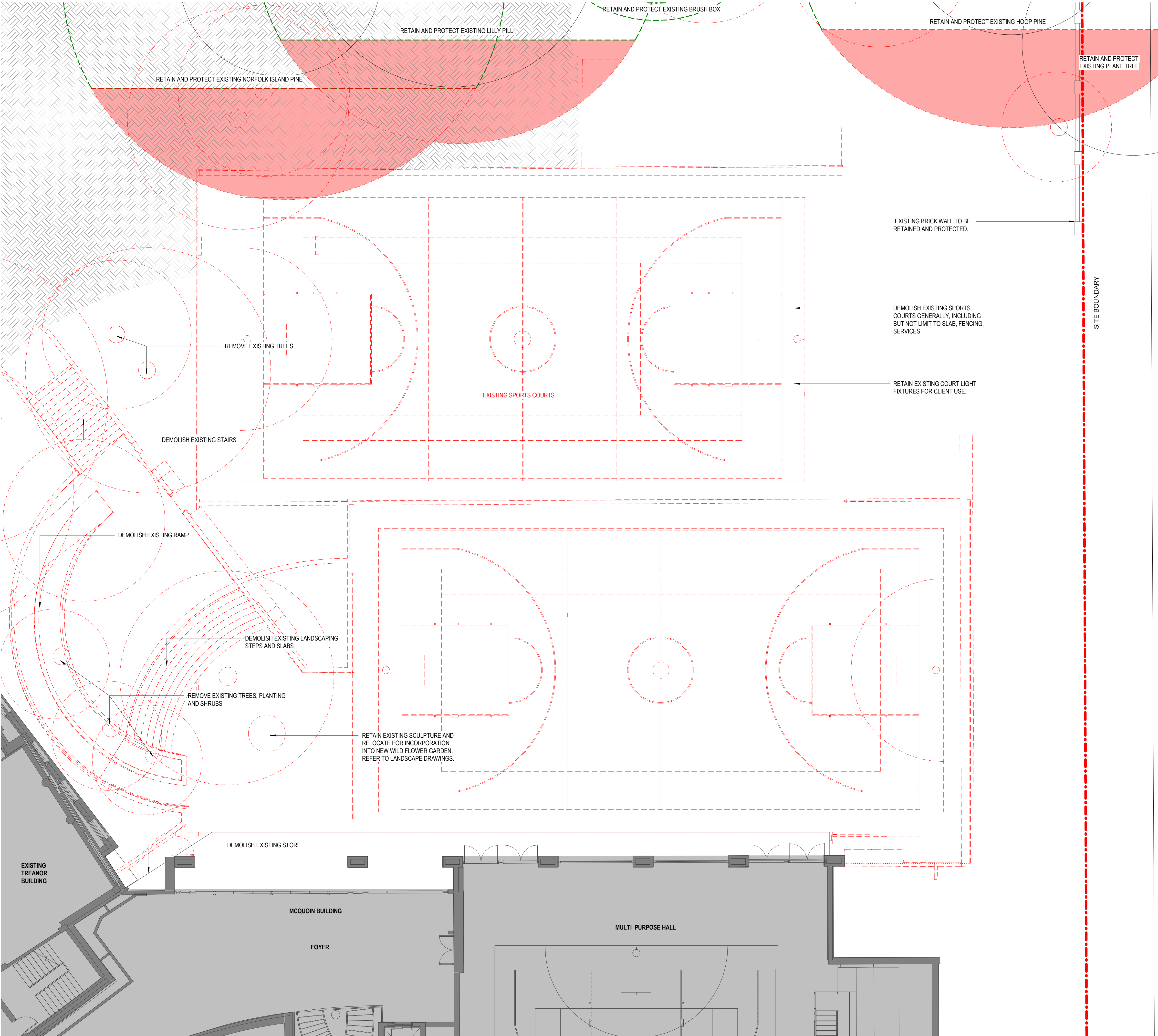
Drawing Title
LEVEL 2 DEMOLITION FLOOR PLAN

Status
CONSTRUCTION CERTIFICATE

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2336	A01.12	B

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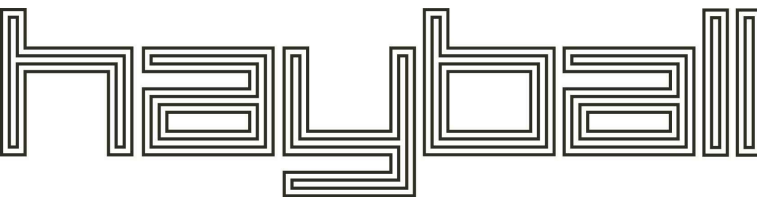


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ABN: 84006394261 NSW Nominated Architects:Tom Jordan 7521, Richard Leonard 7522, David Tordoff 8028		

Project Title
Monte Sant Angelo Mercy College -
Scientia Project

Project Address
128 Miller St, North Sydney

Drawing Title
LEVEL 3 DEMOLITION FLOOR PLAN

Status
CONSTRUCTION CERTIFICATE

Drawn By	Checked By	Date Printed	Scale
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Project No	Drawing No	Revision
2336	A01.13	B

Builders/Contractors shall verify job dimensions before any job commences. Figured dimensions shall take precedence over scaled measurements. Work shall also conform to the specification, other drawings and job dimensions. All shop drawings shall be submitted to the Architect/Consultant and manufacture shall not commence prior to the return of inspected shop drawings signed by the Architect/Consultant. © Copyright 2008 All rights reserved

DEMOLITION WORK PLAN

7/01/2021

Richard Crookes Constructions Pty Ltd

*Monte Scientia
128 Miller St North Sydney*

Jayden Lin
ACE CIVIL PTY LTD

Revision History

Revision number	Amended page(s)	Date
1	All	04/01/2021
2	4,6,7,22,23,24,25	07/01/2021

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Company	User	Date
ACE Civil Pty Ltd	Jayden Lin	04/01/2021

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1 APPLICATION

Given the specialist nature of demolition work, this document prepared to collate the key information relevant to the demolition work into a single document, including some information relevant to work health and safety. This demolition plan does not duplicate a WHS management plan or SWMS but may reference them.

The Demolition work code of practice September 2019 outlines the requirement of the demolition in appendix B to include:

- *the location of the site on which the structure to be demolished stands*
- *the overall height of the structure above ground level and the least distance from the structure to each site boundary*
- *the type of building (occupancy class), its structural support system and the principal materials of its construction*
- *the proposed methods of demolition including the number and types of major items of plant*
- *the proposed methods for handling and disposing of demolished materials and, in particular, of hazardous materials*
- *the proposed methods of controlling and maintaining access and egress to workplace*
- *the proposed sequence of carrying out the demolition works and an estimate of the time (in days) it is likely to take to complete all of each of the stages of the work*
- *the proposed hoardings, scaffolding and fencing and of any overhead sidewalk protection*
- *any other plans, illustrations, written documents, or specialist reports as may be necessary to support the proposed methods of work or protective structures*
- *traffic management arrangements, which includes managing vehicles and mobile plant hazards in relation to operation at the workplace and interaction with the public.*
- *the location and condition of the following:*
 - *underground essential services including:*
 - *electricity*
 - *drainage and sewerage*
 - *gas*
 - *water*
 - *communications cables (for example, telephone, radio and television relay lines)*
 - *hydraulic pressure mains*
 - *liquid fuel lines*
 - *lubrication systems*
 - *process lines (chemical, acid)*
 - *above ground essential services*
 - *hazardous materials, including asbestos*
 - *underground structures such as a basement, cellars, or storage tanks*
- *any confined spaces where work will be undertaken*
- *the general condition of structures on adjoining properties, particularly where these are close to or on the boundaries of the demolition workplace*
- *the effect demolition may have on people working in adjoining properties or seeking access to and egress from those properties, and*
- *the emergency arrangements, which should include equipment for the rescue of injured persons.*

2 HOURS OF WORKS

The works will be carried out between the hours:

Description	From	To	Week days
All building, demolition and associated site works	7.00am	6.00pm	Mondays to Fridays inclusive
All building, demolition and associated site works	8.00am	1.00pm	Saturdays

As per DA conditions, all building, demolition and associated site works will take place outside of above-mentioned hours, Sundays, public holidays. No work and no deliveries are to take place on Sundays and public holidays.

3 GUIDELINES AND LEGISLATION

The demolition, removal, storage, handling and disposal of product and materials containing asbestos will be carried out in accordance with the relevant requirements of SafeWork NSW and the NSW Department of Environment & Conservation including:

- Work Health and Safety Act 2011;
- SafeWork NSW Code of Practice for the Safe Removal of Asbestos;
- Australian Standard 2601 ;
- The Protection of the Environment Operation Act 1997 and Protection of the Environment Operations (Waste) Regulation 1996 and;
- Relevant Department of Environment & Conservation (DEC)/Environment Protection Authority (EPA) and WorkCover NSW Guidelines;
- Work Cover NSW - Guidelines and Codes of Practice
- **Sydney Metro Underground Corridor Protection Guidelines.**

4 THE LOCATION OF THE SITE ON WHICH THE STRUCTURE TO BE DEMOLISHED STANDS

Monte is located in the North Sydney Council local government area (LGA). It is directly to the north of the North Sydney CBD, which is the major commercial centre of North Sydney.

Monte is located approximately 3.5km north of the Sydney CBD, 500 metres north of North Sydney Railway Station. Victoria Cross Metro Station is currently under construction diagonally opposite the school at the south-eastern corner of Miller Street and Berry Street, as well as an entrance to the north-east on the corner of McLaren Street. Miller Street runs along the eastern boundary of the Site which provides a major bus corridor to the North Shore and Northern Beaches.

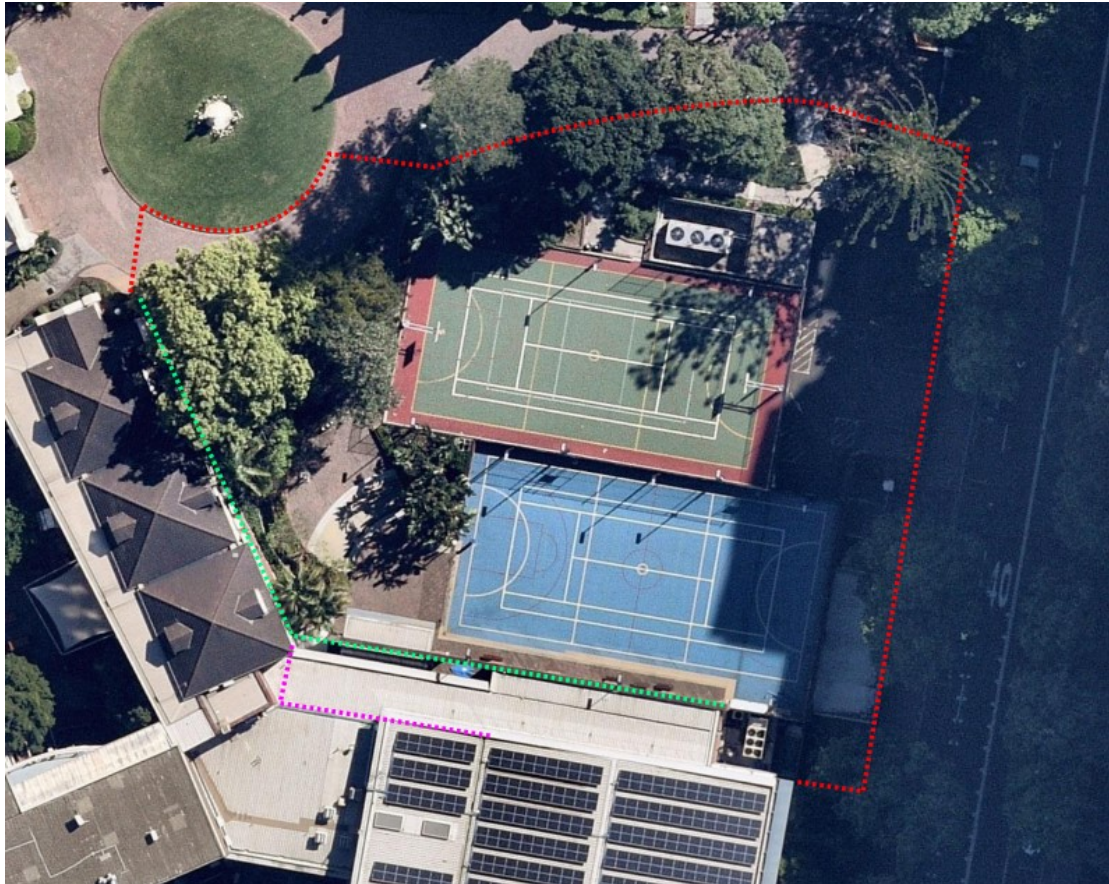
The key land use characteristics surrounding the School campus are:

- South: North Sydney CBD commercial core, primarily characterised by high-rise commercial buildings and support services including hotels, retail uses, and Shore Grammar School.
- North: mixed precinct including:
 - Low-density residential area within a heritage conservation area;
 - Community buildings including the North Sydney Council Chambers
 - Schools including St Mary's Primary, Wenona School, Marist College and North Sydney BoysHigh School.
 - St Leonards Park.
- East: The extension of the North Sydney CBD Commercial Core, generally characterised by high density residential and commercial buildings.
- West: Medium density residential and high-rise commercial buildings along the Pacific Highway. Further west is a low-density residential area which is identified as a heritage conservation area, and the Australian Catholic University.

Immediately surrounding the Monte campus is best described as:

- South (Berry Street): - Commercial buildings and the Victoria Cross Metro Station currently under construction.
- North (McLaren Street): McLaren Street is a heritage conservation area under the North Sydney LEP. Monte own most of the buildings on the southern side of McLaren Street which are generally single and two storey buildings originally built for residential purposes. The site at the southwestern corner of Miller Street and McLaren Street is an Italian restaurant and a four-storey commercial building with basement parking. The northern side of McLaren Street is primarily used for community facilities including a preschool, Council Chambers, community hall, and public plaza/park used for a weekend fresh produce market.
- East (Miller Street): Mix of commercial, residential and hotel towers, as well as the Rag and Famish Hotel at the corner of Miller and Berry Streets. A northern pedestrian portal to the Victoria Cross Metro Station is proposed on the north-eastern corner of Miller Street and McLaren Street intersection.
- West (Angelo Lane): mix of commercial and high-density residential buildings up to 16-storeys with basement parking.

Demolition of two existing sport courts and associated undercroft staff carpark forms part of the construction of new sports and science building.



Site Location

5 THE OVERALL HEIGHT OF THE STRUCTURE ABOVE GROUND LEVEL AND THE LEAST DISTANCE FROM THE STRUCTURE TO EACH SITE BOUNDARY

Building Reference	Height of Above Ground Level	The Least Distance from Structure To Each Site Boundary
Existing Parking and Court Structure	4.5m	East Boundary – 6.14m
		West/North Boundary – 9.85m
		South Boundary – 0m

Distance to East Boundary

Distance to North/West Boundary

6 THE TYPE OF BUILDING (OCCUPANCY CLASS), ITS STRUCTURAL SUPPORT SYSTEM AND THE PRINCIPAL MATERIALS OF ITS CONSTRUCTION

<i>Building Reference</i>	<i>Occupancy class</i>	<i>Structural support system</i>	<i>Principal materials of construction</i>
<i>Parking and Court Structure</i>	Education	Brick walls, concrete columns, slabs and etc	Bricks, concrete, steel and etc.

7 THE PROPOSED METHODS OF DEMOLITION INCLUDING THE NUMBER AND TYPES OF MAJOR ITEMS OF PLANT

<i>Building Reference</i>	<i>Method of demolition</i>	<i>Type of major items of plant</i>
<i>All Buildings</i>	Hazardous material to be removed – refer to hazardous material work plan - Asbestos Removal Control Plan - Hazardous Materials Survey (Ref#: 754-SYDEN271504 _Rev 1, Coffey, 14 Feb 2020) Hand demolition [soft demolition to internal parts of the building] Mechanical to the structures [walls, slabs, etc]	19-foot scissor lift Bobcat 5t – 10t excavator with bucket attachment 35t – 50t excavator with hydraulic hammer attachment 35t – 50t excavator with pulveriser attachment Bogie / T&D for waste transportation

8 THE PROPOSED METHODS FOR HANDLING AND DISPOSING OF DEMOLISHED MATERIALS AND, IN PARTICULAR, OF HAZARDOUS MATERIALS

<i>Building Reference</i>	<i>Demolished materials</i>	<i>Methods of handling and disposing</i>
<i>All Buildings</i>	Asbestos contaminated material Lead	Material to be handled in accordance with the hazardous material reports and plans mentioned in item number 7. The disposal of the hazardous material to an EPA licenced tipping facility accepting this type of material.
	Concrete and bricks	Material to be loaded using excavator into trucks and transported to licenced tipping facility – most of the bricks and concrete will be recycled by the tipping facilities
	General rubbish	The material will be collected and separated from the bricks, concrete and metals. The material will be loaded into trucks and transported to licenced tipping facilities – the tipping facilities will separate and
	Metal	The metal will be loaded into trucks and transported to licenced metal recycling yards

9 THE PROPOSED METHODS OF CONTROLLING AND MAINTAINING ACCESS AND EGRESS TO WORKPLACE

Building Reference

All buildings Refer to RCC's project site amenities and access plan.



Access



Egress

5

3

Trees To Be Removed and Protected

LEGEND

DEMOLITION



TREE PROTECTION ZONE WITH 20% ENCROACHMENT

Legend**3. Exclusion zone****1**

Establish the exclusion zone around the buildings to isolate the building to be demolished from other parties, ensure no personnel from other trades access to the demolition areas.

Note:

- Signage to be placed and maintained properly, “Asbestos Removal in Progress”, “Demolition in Progress”, “Danger, Exclusion Zone” and all required signs must be secured and maintained on the fences for the specific demolition activities on site as the warnings to the public, in accordance with AS 1319
- Spotters to be in place and to ensure no unauthorized personnel enter the exclusion zone without approval from ACE supervisors.

4. Loose Items Removal**4**

All the loose items to be removed prior to the asbestos removal.

5. Service disconnection**By
others**

- All the services to be disconnected prior to the demolition work commencement.
- RCC to provide the disconnection certificates of services otherwise works must not take place.

Stage 2. Asbestos Removal**14
days****1. Asbestos Register**

Area / Level	Room & Location	Feature	Item Description	Hazard Type	Sample No.	Sample Status	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Asbestos Management Activity	Risk Score	Action	Recommendations & Comments	Quantity	Reinspect Date	Photo No.
Exterior	Carpark, plant room doors	Infill panels	Fibre cement sheeting	Asbestos	A10280	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Interior	Pump room, booster pumps	Gasket	Rubbery gasket material	Asbestos	Visual Observation	None Suspected	-	-	-	-	-	-	-	-	-	-	-	Suspected negative due to age and appearance.	-	-	2
Exterior	Carpark	Air conditioning ductwork	Insulation material - internal	SMF	Visual Observation	Suspected SMF	-	-	-	Good	Sealed	Low	-	-	-	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC: 2006 (1990)).	100 m ²	-	-
Exterior	AC Plant room	Pipe work	Insulation material - external	SMF	Visual Observation	Suspected SMF	-	-	-	Good	Sealed	Low	-	-	-	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC: 2006 (1990)).	1 m	-	3
Interior	Pump room, booster pump	Pipe work	Woven material	SMF	Visual Observation	Suspected SMF	-	-	-	Good	Sealed	Low	-	-	-	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC: 2006 (1990)).	15 m	-	4
Interior	Plant room	Air conditioning ductwork	Insulation material - internal	SMF	Visual Observation	Suspected SMF	-	-	-	Good	Sealed	Low	-	-	-	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC: 2006 (1990)).	60 m ²	-	5
Interior	Plant room	Pipe work	Insulation material - external	SMF	Visual Observation	Suspected SMF	-	-	-	Good	Sealed	Low	-	-	-	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC: 2006 (1990)).	60 m	-	6
Interior	Store room	Air conditioning ductwork	Insulation material - external	SMF	Visual Observation	Suspected SMF	-	-	-	Good	Sealed	Low	-	-	-	Low	-	Maintain in current condition if to remain in-situ. Remove under controlled SMF conditions as per the Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC: 2006 (1990)).	15 m ²	-	7

Asbestos Register**2. Establishment****1****Barricades**

- Barricades to be in place around the working areas where the asbestos are identified as per hazmat report.
- Appropriate signage to be secured on the fence and displayed – e.g. “Danger: Asbestos Removal in Progress”

Decontamination Units

- Set up decontamination area (with running water) adjacent or as close to working area as possible with water basin to wash down when decontaminating non-disposable equipment/PPE.

Skip Bins

- Skip bin/truck is to be fully lined with double layer of 200um plastic and all joints sealed with duct tape.

3. Air Monitors and Testing**On
going**

Install the air monitors around the site prior to the asbestos removal commencement.

- Installation locations and numbers depend on the locations where the asbestos removal work is undertaken and will be revised by hygienist progressively during the whole asbestos removal process
- Test results of air monitors to be submitted weekly

4. Removal of Asbestos**6**

- If any, remove bonded asbestos walls, ceiling and cleaning of debris on floors using general hand tools etc.
- Remove screws using either end cut, bolt cutter, electric drill with screw bits or the appropriate hand tools.

- Sheets removed will be stacked neatly, ready to be disposed of in a truck/bin fully wrap with 200um black plastic bag.
- Water will be used to wet down AC sheets to minimize dust when required.
- Any debris found are to be wet down with water before emu picked and placed in asbestos bag.

Note:

- ✓ All the plant documentation, service records, risk assessment to be provided
- ✓ Full PPE to be worn at all time during asbestos removal process (including coverall, P2 masks, gloves, goggle, harness and all other required protection equipment)

5. Clearance Certificate

1

Clearance Certificate of each floor to be obtained from the hygienist after the asbestos removal being finished on that level.

Sequence

Estimate
time
[days]**Stage 3. Soft Strip****3****1. Loading/Drop Zone**

Drop zones to be erected. Size to be revised and extended when required. Proposed drop zone locations for the structure to be nominated,

2. Methodologies

ACE to strip out all the non-structural elements, including the fix joinery, partition walls and the like.

All the extracted materials to be removed progressively from the building and dropped down into the drop zone at designated drop zones in a control manner.

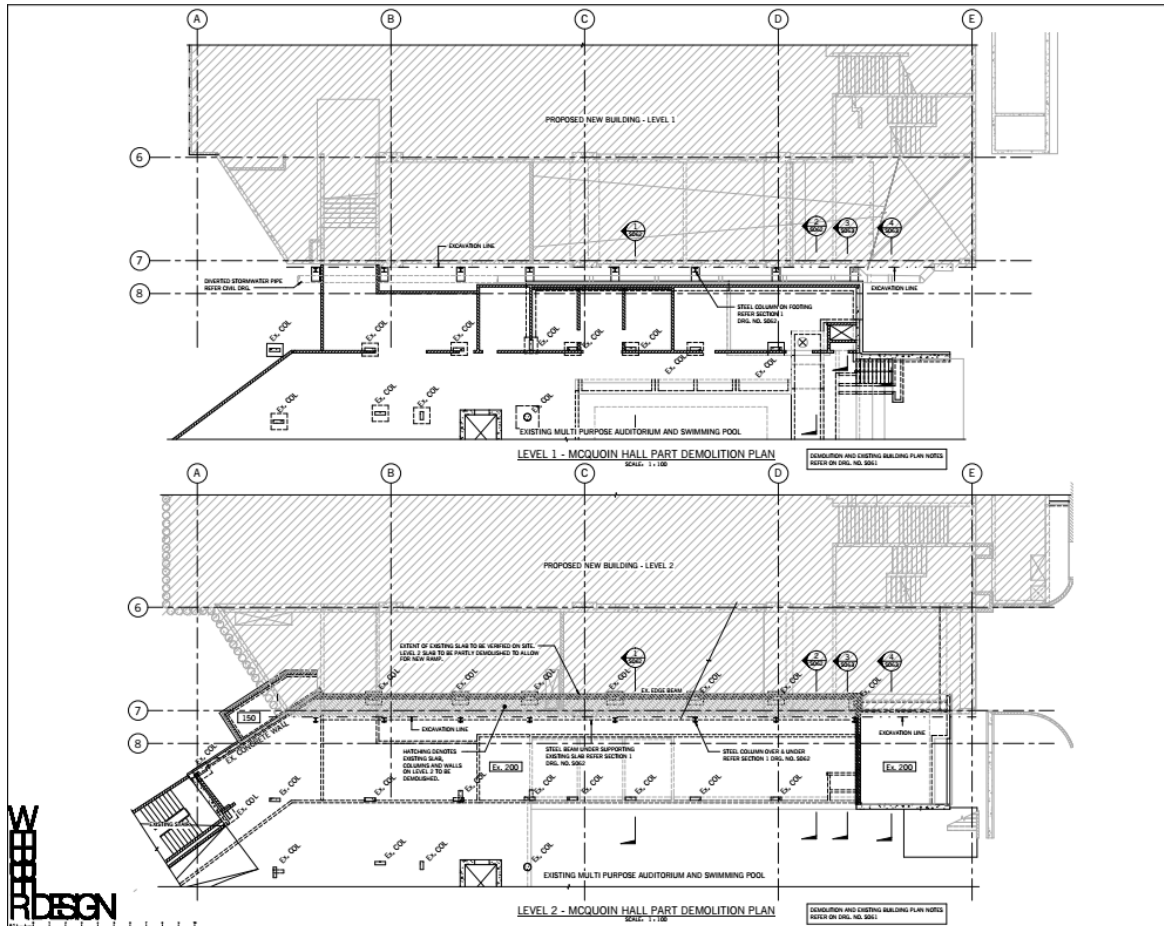
Note:

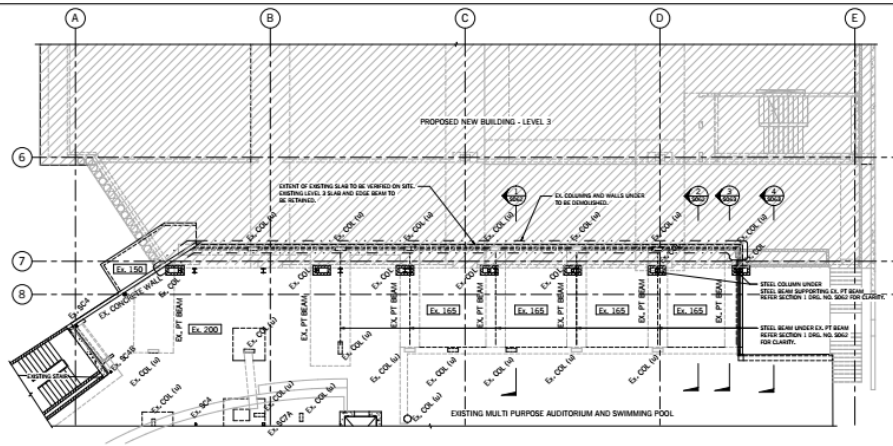
- ✓ Mobile scaffold to be utilized when demolishing the high section.
- ✓ A spotter in place at all time and establish radio communication
- ✓ Spotter to sign in and sign out daily
- ✓ Proper signage to be secured on the drop zone fences
- ✓ Dust control at all time during the soft strip work

Stage 4. Main Structure Demolition

1. Detailed Demolition Works

Ace to undertake detailed demolition works including the building separation and hand demolition around McQuoin Hall as per Structural Plan S060, S061, S062 & S063.





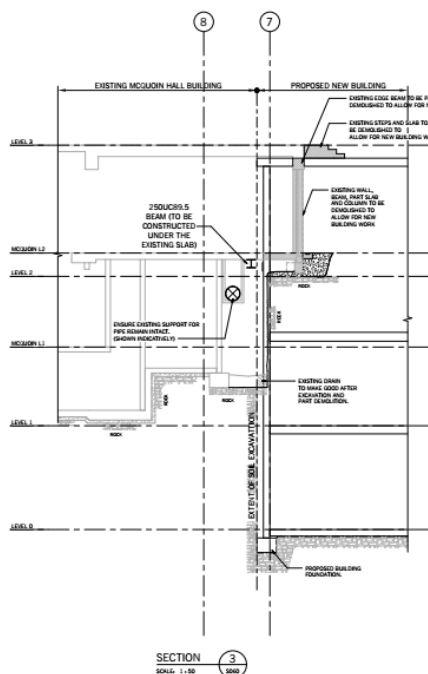
LEVEL 3 - MCQUOIN HALL PART DEMOLITION PLAN
SCALE: 1:100

DEMOLITION PLAN NOTES

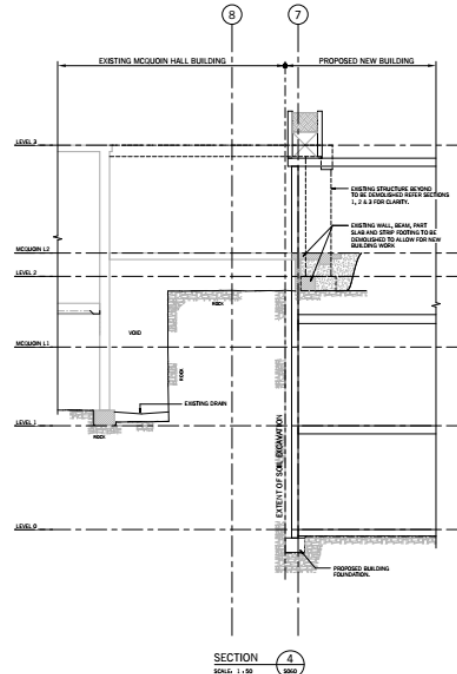
1. THE EXISTING STRUCTURE DOCUMENTED HEREIN IS BASED ON EXISTING STRUCTURAL DRAWINGS, UNLESS SHOWN OTHERWISE. THE CONTRACTOR SHALL VERIFY THE EXISTING STRUCTURE AND SHALL ADVISE THE ARCHITECT PRIOR TO COMMENCING DEMOLITION WORK.
2. REFER TO ARCHITECTURAL DEMOLITION PLANS FOR ADDITIONAL DEMOLITION EXTENTS AS REQUIRED, NOT ALL DEMOLITION IS DOCUMENTED HEREIN.
3. PROVIDE TEMPORARY PROPPING TO SLABS, WALLS, BEAMS, COLUMNS ETC. AS REQUIRED. DESIGN OF ALL TEMPORARY PROPPING IS BY CIVIL ENGINEER.
4. DESIGN OF ALL TEMPORARY PROPPING TO ENSURE STABILITY OF THE STRUCTURE DURING DEMOLITION IS BY CIVIL ENGINEER.
5. PRIOR TO REMOVAL, THE EXISTING STRUCTURE IS TO BE DISMANTLED AS A RESULT OF DEMOLITION WORK. ENSURE ADEQUATE CARE IS TAKEN DURING THE DEMOLITION PROCESS TO ENSURE PORTIONS OF THE EXISTING STRUCTURE THAT ARE TO REMAIN ARE NOT DAMAGED.
6. ONCE DEMOLITION IS COMPLETE MAKE GOOD ALL CONCRETE SURFACES AS REQUIRED. TREAT ANY DAMAGED REINFORCEMENT WITH APPROVED EPOXY.

CONSTRUCTION PLAN NOTES

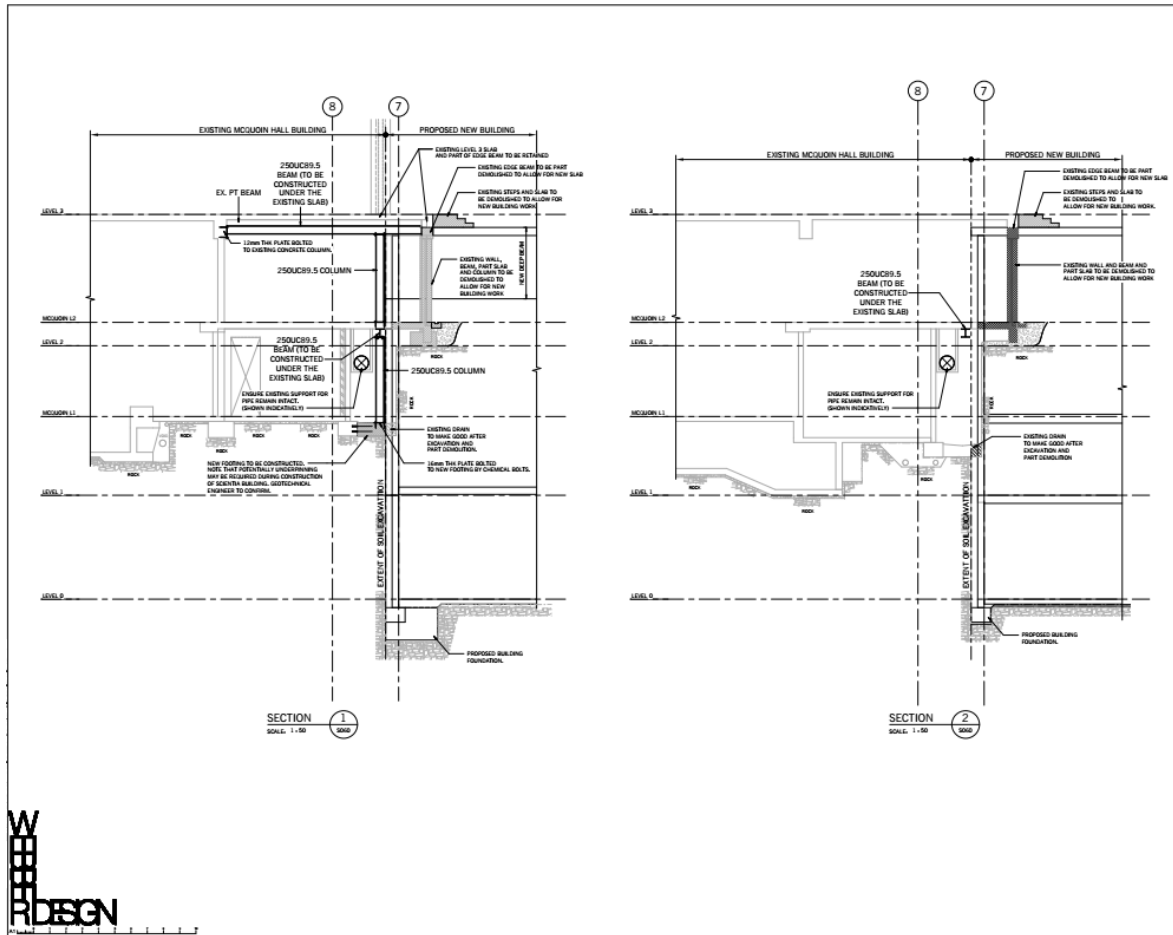
1. CONTRACTOR TO VERIFY AND CONFIRM ALL EXISTING DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORK.
2. THE EXISTING STRUCTURE DOCUMENTED HEREIN IS BASED ON EXISTING STRUCTURAL DRAWINGS, UNLESS SHOWN OTHERWISE. THE CONTRACTOR SHALL VERIFY THE EXISTING STRUCTURE AND SHALL ADVISE THE ARCHITECT PRIOR TO COMMENCING DEMOLITION WORK.
3. USE SITE ALL NEW STEEL COLUMNS, BEAMS AND CONNECTIONS TO THE SPECIFIC REQUIREMENTS OF THE CIVIL ENGINEER, BUILDING SUPERVISOR AND THE BCA.
4. ALL NEW BEAMS/FUNCTIONS ARE CURRENTLY BEING COORDINATED WITH THE FINAL LOCATIONS TO BE CONFIRMED. CONTRACTOR TO ALLOW FOR SCANNING OF EXISTING SLAB TO LOCATE EXISTING REINFORCEMENT PRIOR TO CONCRETE POUR. BEAMS/FUNCTIONS TO BE RELOCATED TO ALLOW FOR FULL REINFORCEMENT PENETRATION IN EXISTING CONCRETE SLAB WITH NEW CONCRETE SLAB. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.
5. THE MAXIMUM CAPACITY OF THE EXISTING SLAB IS 30kN. PROVIDE TEMPORARY PROPPING AS REQUIRED FOR ANY AREA BEYOND EXISTING CONSTRUCTION LOADS AND MAKE THE NECESSARY USE LOAD CAPACITY. TEMPORARY PROPPING DESIGN BY TEMPORARY WORKS ENGINEER.



SECTION 3
SCALE: 1:50



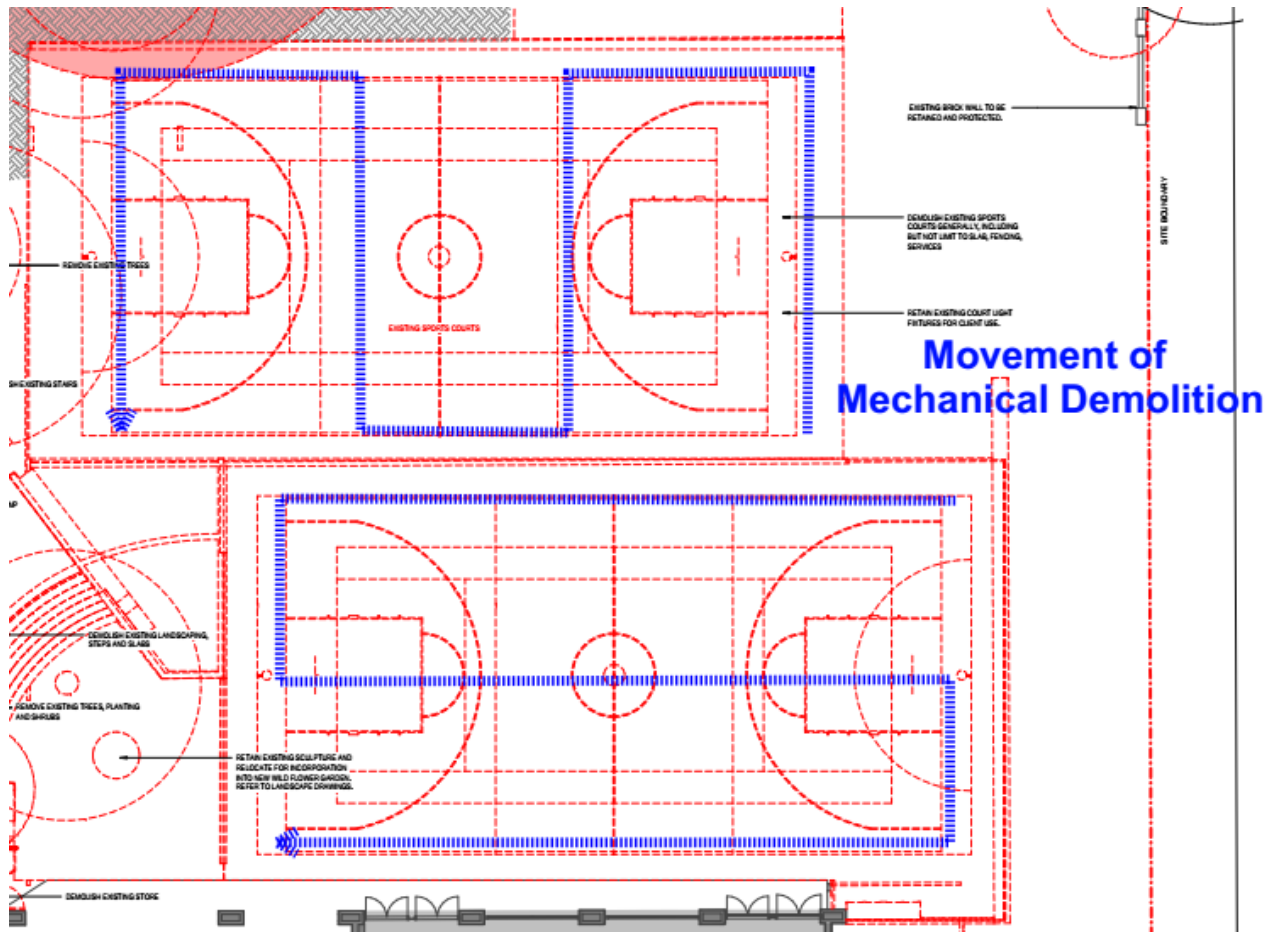
SECTION 4
SCALE: 1:50



2. Mechanical Demolition

Mechanical Demolition to be undertaken after the building being adequately separated. Sequence as follows,

- Establishment of 35t – 50t excavators with pulverizer and hydraulic hammer attachment next to the building.
- Then demolish the building munching the structure bay by bay from one side all the way back to the other side. Demolition of each section is from higher section to the lower section (Roof-> beam -> columns)
- No one will be working around that area when the demolition work is undertaken.
- Ace to demolish the whole last section mechanically to prevent any unexpected collapse of the structure
- No cantilever span will be left hanging when the work is completed at the end the day



Movement of Mechanical Demolition

Movement of Mechanical Demolition

Stage 5. Waste Removal

1. Removal of materials

- Segregate all the materials and load the materials to the tips by trucks.
- Disposal of material must be in accordance with the EPA requirements.
- Tipping records to be updated to RCC once available
- Truck entering and leaving the jobsite refer to stage planning in line with CTMP

Traffic controllers to coordinate traffic in and out the work area.

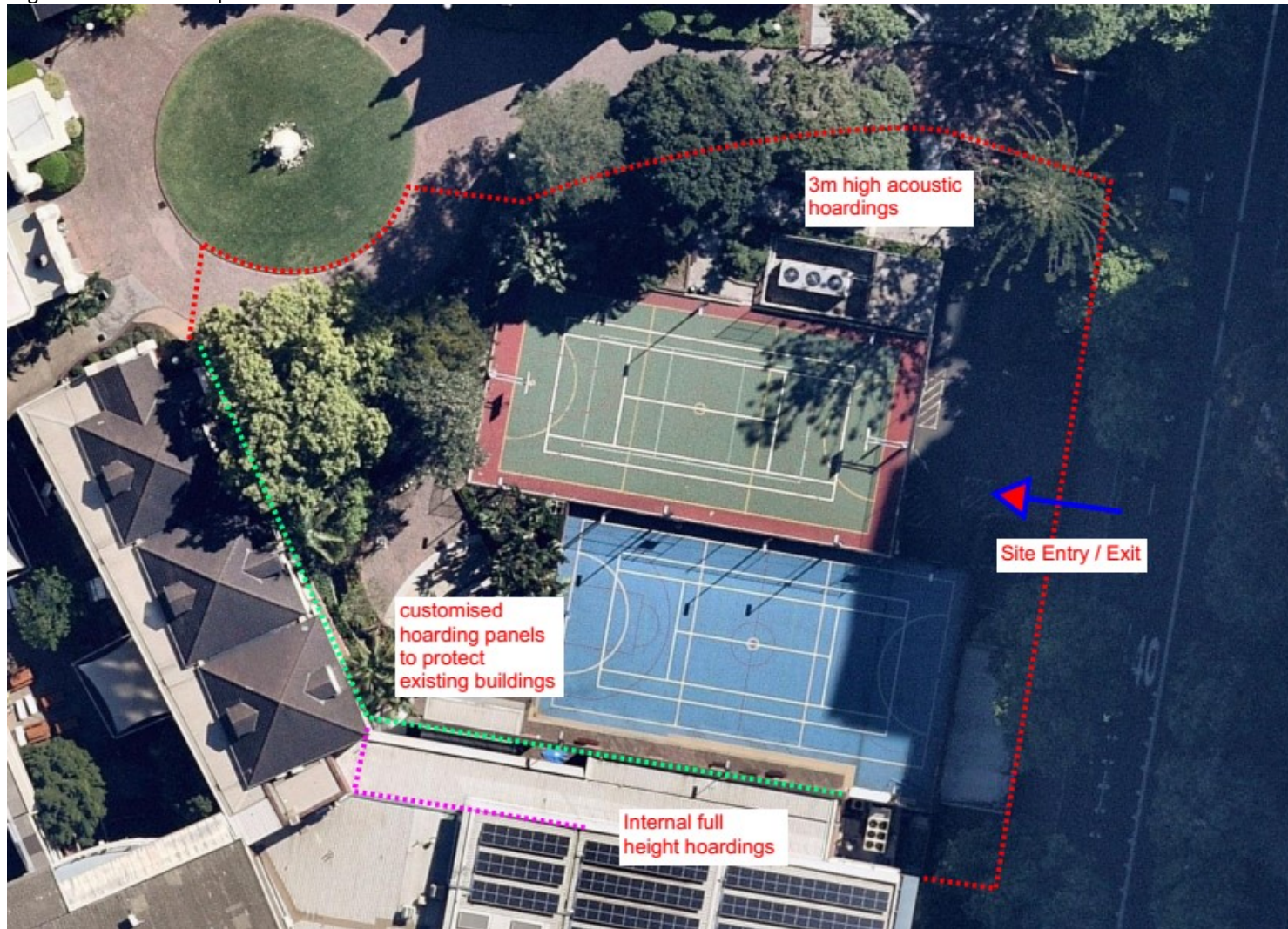
2. Sediment Control

- Sediment control to be in place as per project specification and drawings provided.
- Sweeper (bobcat) to clean the driveway frequently.
- Dust Control: dust suppression from different locations to ensure the maximum dust catchment during the demolition process.

11 THE PROPOSED HOARDINGS, SCAFFOLDING AND FENCING AND OF ANY OVERHEAD SIDEWALK PROTECTION

Building Reference proposed hoardings, scaffolding and fencing and of any overhead sidewalk protection

All the hoardings and fencing refer to RCC's site plan



Site Plan (Hoarding and Etc)

12 ANY OTHER PLANS, ILLUSTRATIONS, WRITTEN DOCUMENTS, OR SPECIALIST REPORTS AS MAY BE NECESSARY TO SUPPORT THE PROPOSED METHODS OF WORK OR PROTECTIVE STRUCTURES

Building Reference

All Buildings

Acoustic Addendum Report – Sydney Metro Acoustic Conditions B7, B8 and B9
Construction & Operational Noise Report 19363 Rev.E
Tree Report
Dilapidation Report

13 TRAFFIC MANAGEMENT ARRANGEMENTS, WHICH INCLUDES MANAGING VEHICLES AND MOBILE PLANT HAZARDS IN RELATION TO OPERATION AT THE WORKPLACE AND INTERACTION WITH THE PUBLIC.

Building Reference

All Buildings

Refer to RCC's staging plan and CTMP

14 THE LOCATION AND CONDITION OF THE FOLLOWING:

14.1 UNDERGROUND ESSENTIAL SERVICES INCLUDING:

REFER TO APPENDIX 2

14.2 ABOVE GROUND ESSENTIAL SERVICES

Reference location and condition

All Buildings N/A

14.3 HAZARDOUS MATERIALS, INCLUDING ASBESTOS

Reference location and condition

Refer to project hazardous material register
Any additional hazardous material that is not sought by the hazmat report to be treated as unexpected findings

14.4 UNDERGROUND STRUCTURES SUCH AS A BASEMENT, CELLARS, OR STORAGE TANKS

New Sports and Science Building at Monte is next to the Sydney Metro Tunnel. The proposed building intrudes into the 2nd Reserve of the Metro tunnel reserve

It should be noted that the distance from the track to the closest point of the school is approximately 34 metres and the distance from the tunnel to the closest point of the school construction is approximately 21 metres.



Site and Sydney Metro Tunnel Location

Note, as required by the SSD10393 consent, Wilkinson Murray Pty Limited has conducted an addendum report addressing the items in Sydney Metro Acoustic conditions B7, B8 and B9.

The report has found that the Sydney Metro criterion of 15mm/s will not be exceeded at the tunnel from all plant including the largest hydraulic hammers during the demolition works.

15 ANY CONFINED SPACES WHERE WORK WILL BE UNDERTAKEN

Reference	location and condition
All Buildings	N/A

16 THE GENERAL CONDITION OF STRUCTURES ON ADJOINING PROPERTIES, PARTICULARLY WHERE THESE ARE CLOSE TO OR ON THE BOUNDARIES OF THE DEMOLITION WORKPLACE

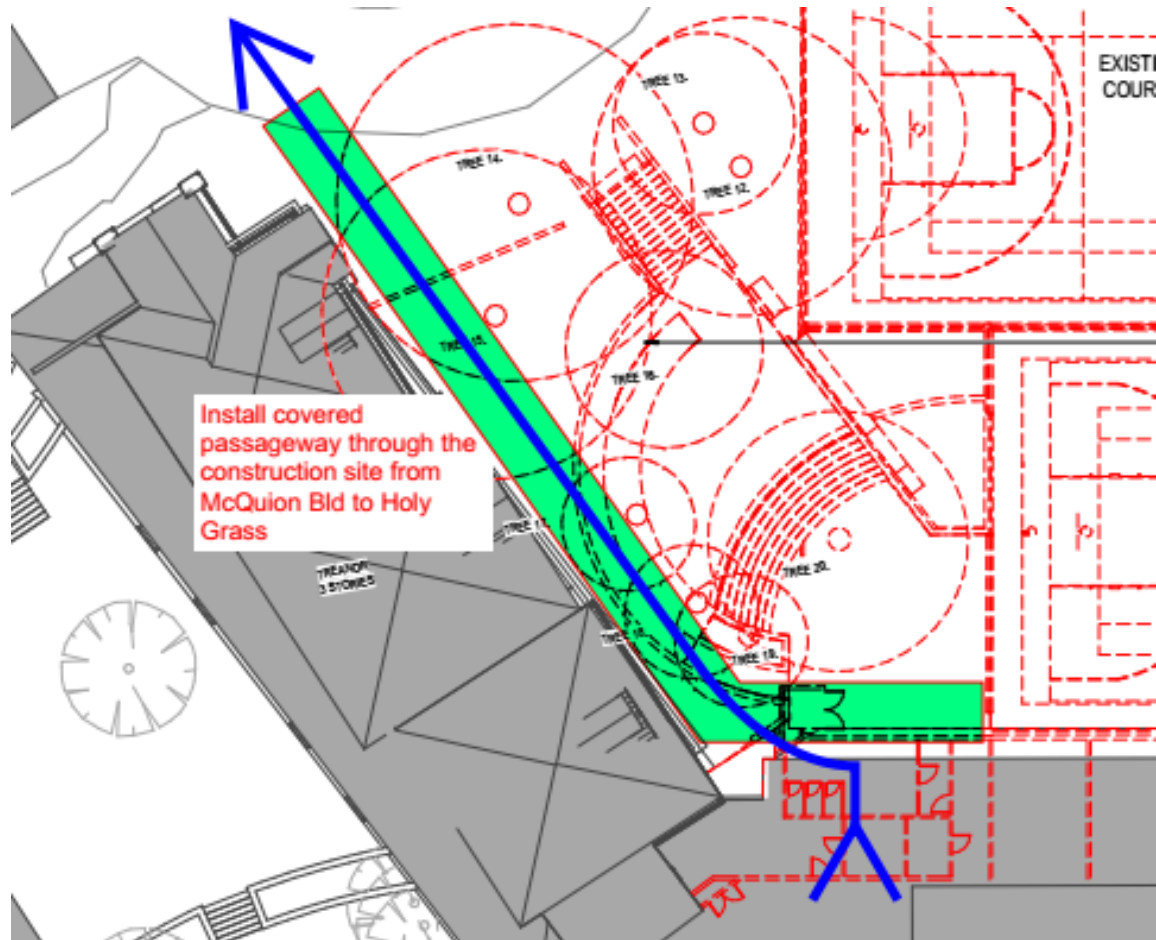
Reference	location and condition
All Buildings	N/A

17 THE EFFECT DEMOLITION MAY HAVE ON PEOPLE WORKING IN ADJOINING PROPERTIES OR SEEKING ACCESS TO AND EGRESS FROM THOSE PROPERTIES

Reference	location and condition
All Buildings	Installation of covered passageway through the construction site from McQuion BLD to Holy Grass



Corridor for Students and Staff



Plan View

18 THE EMERGENCY ARRANGEMENTS, WHICH SHOULD INCLUDE EQUIPMENT FOR THE RESCUE OF INJURED PERSONS.

Reference	location and condition
All Buildings	Refer to project emergency and rescue procedures ACE Safety Management Plan section 6 Emergency Management and associated RCC's Emergency Management Plan

19 UNEXPECTED FINDS

Due to the nature of this project it is possible that Asbestos or other Hazardous Materials may be encountered at unexpected locations during the project. As a precautionary measure to ensure the protection of site workers and contractors and the site workers and occupants of nearby land, should an unexpected find be encountered (or any other unexpected potentially hazardous substance), the unexpected finds procedure is to be followed.

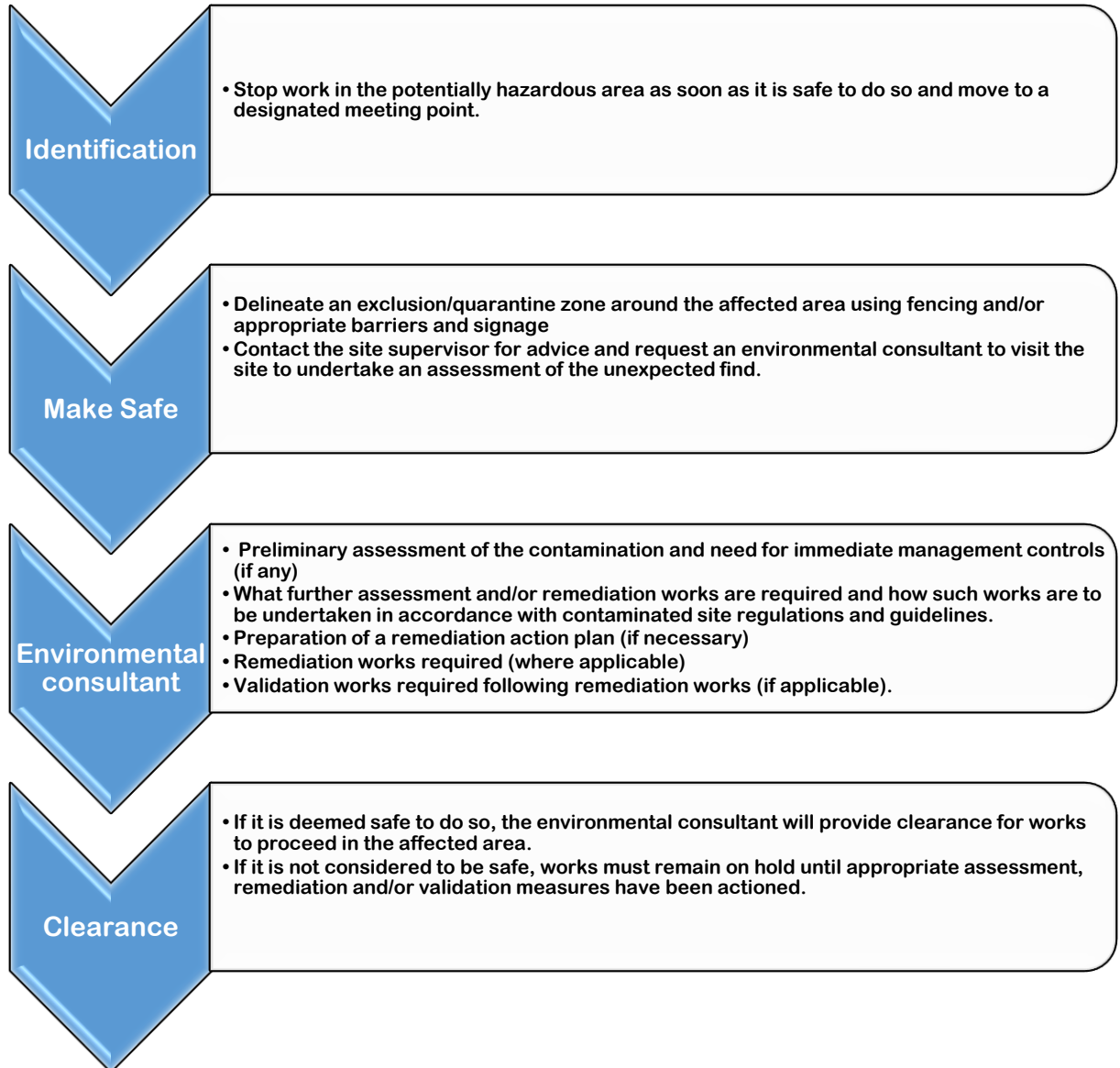
Unexpected finds of potential contamination on site may be identified by visual (appearance) and/or olfactory (odour/stain) evidence during earthworks and construction activities.

The following are examples of typical unexpected finds

- Buried or surface asbestos containing materials and/or buried asbestos pipes
 - This may include cement-bound asbestos (e.g. fibro cement in the form of small fragments, flat sheets, corrugated roofing, or pipe) or other bonded forms of asbestos (e.g. bitumen, textured coatings and floor tiles may also contain asbestos). Friable forms of asbestos including lagging and insulation may be seen as fibrous material which flakes and powders easily.
- Buried waste materials
 - This may include a variety of waste materials, inclusive of wood, plastic, metal fragments, building rubble (e.g. concrete, brick, asphalt, asbestos containing materials) and other general household/farm waste (e.g. tins and containers of farm chemicals and fuels).
- Hydrocarbon impacts
 - May be identified by a hydrocarbon odour which may vary in strength from possible (just detectable) to very strong (easily detectable at a distance from the source).
- Septic tanks (biological waste)
 - May be identified by a decaying odour (landfill/sewer/putrefied) which may vary in strength from possible (just detectable) to very strong (easily detectable at a distance from the source).
- Underground Storage Tanks (USTs)
 - These may be identified by encountering a buried cylindrical steel underground tank, deeper sand fill or relatively small concrete footings or steel pipelines, sometimes with observed hydrocarbon odours or staining.
- Other unexpected finds [Other indications of contamination include various chemical odours (solvent, acetone, alcohol odour, sulphur (rotten egg), acidic (acetic/formic/citric), ammonia, or caustic) or staining and discolouration of soils.]

It is not practical to cover all types of possible unexpected finds based on their very nature. It is possible that indications of contamination not specifically covered by the plan may be encountered. In such cases it is assumed that “if in doubt” about a potential find, the precautionary principal will be employed, and the unexpected finds procedure will be activated.

19.1 PROCEDURE IN THE EVENT OF AN UNEXPECTED FIND



20 APPENDIX 1
NOTIFICATIONS

Notice of Intent to Remove Non-friable Asbestos
ACE Demolition and Excavation Pty Ltd

Notice of Intent to Commence Demolition Works
ACE Demolition and Excavation Pty Ltd

21 APPENDIX 2

UNDERGROUND SERVICE LOCATION DIAL BEFORE YOU DIG AND PROJECT SURVEYORS UNDERGROUND SERVICES DRAWING

		SWMS No.: 1	Revision No.: 1
		SWMS Name: Demolition	Revision Date: 07-Jan-2021
PCBU	ACE Civil Pty Ltd 362 Park Road Regents Park NSW 2143 ABN: 66 626 484 928 Tel: (02) 9644 5596 Fax: (02) 9644 5595	Principal Contractor (PC)	Richard Crookes Constructions Pty Ltd Level 3, 4 Broadcast Way Artarmon NSW 2064 Tel: (02) 9902 4809 Fax: (02) 9439 1114
Designated Officer / Direct Works Supervisor	Hamzeh Allam Tel: 0414297117	Date SWMS Provided to PC	07-Jan-2021
Work Activity / Scope Of Works	Demolition Works	Workplace Location	Scientia – 128 Miller Street North Sydney
High Risk Construction Work <i>As defined in WHS Regulation 2017, Part 6, Clause 291</i>	☒ Involves a risk of a person falling more than two metres	☒ Is carried out on or near energised electrical installations or services	☐ Is carried out in an area in which there are artificial extremes of temperature
	☒ Involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure	☐ Is carried out on or near pressurised gas distribution mains or piping	☐ Is carried out in or near water or other liquid that involves a risk of drowning
	☒ Involves, or is likely to involve, the disturbance of asbestos	☐ Is carried out in an area that may have a contaminated or flammable atmosphere	☐ Involves diving work
	☐ Involves structural alterations or repairs that require temporary support to prevent collapse	☐ Involves tilt-up or precast concrete	☐ Is carried out on or near chemical, fuel or refrigerant lines
	☐ Is carried out in or near a confined space	☐ Work on a telecommunication tower	☐ Involves the use of explosives
	☐ Is carried out in or near a shaft or trench with an excavated depth greater than 1.5 metres or is carried out in or near a tunnel	☒ Is carried out in an area at a workplace in which there is any movement of powered mobile plant	☐ Is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians
Workers Consulted	Abdullah Jamal	Leading Hand	Mohammad Dib Construction Worker (CW)
Person/s responsible for ensuring implementation, monitoring & compliance with SWMS:	Hamzeh Allam	Date Received:	To be signed on site:
Person/s responsible for reviewing SWMS control measures:	Nicole Anthony	07-Jan-2021	
Approved By Senior Management:	Sami Allam	Date Received:	
SWMS control measures will be implemented / controlled by:	07-Jan-2021		
	☒ Task Observations	☒ Audits	☐ Other (provide details)

WORK METHOD Safe Work Method Statement (Part 1C) - Demolition of Structure

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
1	Internal Stripping by Hand to all Interior Areas - Internal stripping by hand / hand tools (use platform ladder if required to access work areas) - Strip and remove internal fittings, fixtures, coverings, furnishings, doors and windows - Debris to be extracted to loading point / stockpile	Fall >2m	Fall from Platform Ladder accessing work face	- Use of Platform Ladders only - Erect Platform Ladder on firm stable surface - Never move the ladder while anyone is on it - Keep clear of open floor edges and penetrations - Working platform to be kept clear of debris and access obstructions - Personnel to hold 'Safe Work At Heights' as a minimum competency when working at any height - Emergency Fall Procedures to be available on site whilst working at heights - No storing of tools on platform ladder or steps of ladder - All tools to be kept secured at all times	ACE Supervisor Hamzeh Allam ACE Labourers
		- Dropping debris into a Drop Zone – from Upper Floor(s) - Falling debris or tools	Workers Being Struck by debris	- Drop Zone must be of adequate size - Drop Zone must be barricaded or effectively isolated - Do not establish Drop Zone adjacent to other work area or in areas highly trafficked - Access thoroughfares must not adjoin or be in the vicinity of the Drop Zone - Ensure signage warning of danger is in place - Ensure no unauthorized person can walk into work area - Post a Spotter outside of the Drop Zone to prevent accidental / unauthorized access to the area - Do not randomly throw objects from the Upper Floors. All drops must be controlled and dropped within the Drop Zone barricades. - Stockpiled debris will only be cleared from the Drop Zone when the personnel working above have been instructed to cease using the Drop Zone.	ACE Supervisor Hamzeh Allam ACE Workers
			Being Struck by Falling debris or tools	- No dropping of tools or materials other than into the Drop Zone - No personnel are to work near the Drop Zone area - Access thoroughfares must not adjoin or be in the vicinity of the Drop Zone - Isolate work area - Ensure signage warning of danger is in place - Ensure no unauthorized person can walk into work area - Keep tools secured at all times when working at heights - PPE including Hard Hat, Safety Shoes, Gloves and Glasses	ACE Supervisor Hamzeh Allam ACE Workers

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
		Fall >2m	Workers falling from open penetrations / unprotected edges	- Penetrations, and unprotected edges are to be barricaded to prevent falls through open / exposed holes - Tool Box Talk with workers to notify of procedures concerning open penetrations and the safety precautions required - Work area to be restricted to necessary demolition workers only - Floor penetrations to be temporarily covered when not in use - All floor penetrations to be adequately propped from the underside to maintain structural adequacy of penetration / surrounding floor - Workers to hold safe work at heights competency - Emergency Fall Procedures to be available on site in the event of an incident the injured person can be satisfactorily treated - PPE including hard hat, safety boots, gloves, glasses, sleeved shirt and trousers	ACE Supervisor Hamzeh Allam ACE Labourer / _____
		Carried out on or near energised electrical installations or services	Electric Shock	- If any cable is located (tagged or not) and needs to be moved, relocated or removed it must be reported to the client's Supervisor immediately - No persons are to touch cables unless approved by the client's Supervision - Cables must be isolated and terminated prior to removing.	ACE Supervisor Hamzeh Allam ACE Labourers _____
2	REMOVE ROOF TILES / ROOF STRUCTURE Removal of the Roof tiles sequences: - Establish a barricaded Drop Zone around 10m away from boundaries; - Manual Demolition of Roof Sheeting/Roof Structure. - On completion, transfer stockpile to loading area and load out mechanically	Movement of Powered Mobile Plant	EWP Rollover and/or Overloading	- Ensure barriers are placed outside the EWPs planned working radius - EWP Operator to keep visual contact with Spotter and workers at all times - In the event of an emergency whilst a worker is suspended in a EWP, the Ground Worker / Spotter is to bring the worker to the ground position using the ground controls. - EWP to be established on stable, even ground away from underground services - Apply relevant brake systems / Chock wheels - Avoid setting up outriggers / stabilizers on backfilled trenches or excavations - Do not exceed SWL of EWP	ACE Supervisor Hamzeh Allam ACE Labourers _____
		Is carried out on, in or adjacent to a	Injury to Pedestrians and Public (adjoining	- Isolate work area and prevent unauthorised access. - No dropping of debris from elevated work areas	ACE Supervisor

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
		road	street frontages)	- Items that have been removed are to be transferred to the ground using the EWP - No accumulation of debris in public areas - Prior to completion of work day the work face / area is to be left in a safe, contained manner.	Hamzeh Allam ACE Labourers
		- Fall >2m	Fall from Roof / EWP accessing work face	- Personnel to have minimum competency 'Safe Work at Heights' - In the event of an emergency whilst a worker is suspended in a EWP, the Ground Worker / Spotter is to bring the worker to the ground position using the ground controls. - Personnel to wear Safety Harness - Safety Harness to be attached to EWP Basket - Keep within EWP Basket until EWP is in place - Maintain stable and secure footing at all times - Do not stand on any damaged or unstable roof sections - Do not stand on roof sections that have been destabilized by the demolition process - Provide competent Supervision of works and workers at all times - Emergency Procedures in place - PPE including Hard Hat, Safety Shoes, Gloves and Glasses	ACE Supervisor Hamzeh Allam ACE Labourers
		Electrical Installations	Electric Shock – Contact with Live Overhead Power Lines	- Establish EWP in safe area and ensure EWP cannot come in contact with power lines if accidentally elevated - Designated Spotter to supervise works in any area near to overhead power lines	ACE Supervisor Hamzeh Allam ACE Labourers

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
		▪	▪ Electric Shock – Contact with Live Building Services	▪ If any cable is located (tagged or not) and needs to be moved, relocated or removed it must be reported to the client's Supervisor immediately ▪ No persons are to touch cables unless approved by the client's Supervision ▪ Cables must be isolated and terminated prior to removing.	ACE Supervisor Hamzeh Allam ACE Labourers _____

WORK METHOD Safe Work Method Statement - Mechanical Demolition

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
3	Plant Establishment for Mechanical Demolition Work Unloading / Loading of plant on site using Tilt Tray / Low Loader Trucks	▪ Involves a risk of a person falling >2m	▪ Drivers Falling from Cabins / Loading Trays	▪ Be very aware of oil and liquid spills, dirt, gravel, other debris, chains, slings and tie-downs and other obstacles. ▪ Remove/clean up oil and liquid spills, dirt gravel and other debris as necessary. ▪ Where possible always try and maintain a firm hand hold on the railings/hand holds of the vehicle. ▪ When climbing into or out of cabs maintain 3-point contact. ▪ Caution should be taken by the driver when securing the chains to the plant and the lorry bed. The driver must place his foot position in an area which does not overlap the edge of the vehicle bed ▪ During icy/frosty conditions, it must be deemed by the driver whether access to the vehicle bed is safe; Sand (or salt) may be used where it is unavoidable to access the vehicle bed ▪ The tray will be kept clean at all times. A sweeping brush must be available to use at any time; ▪ Protective footwear should be worn which has a good grip where the sole is free from oil, grease and any other item which may pose a slip and trip hazard.	ACE Supervisor Hamzeh Allam ACE Float Drivers
		▪ Live Traffic – Loading / Unloading Adjacent to a Road	▪ Being Struck by Other Vehicles	▪ Eliminate the need for personnel to work in close proximity to live traffic wherever possible, eg. Load within site compound ▪ Ensure the drop off points are known in advance; ▪ If possible, try and park the low loader where the front of the vehicle is pointing in the direction of the on-coming traffic; ▪ Approach your vehicle from the front so that you are	ACE Supervisor Hamzeh Allam

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				facing oncoming traffic - Keep reversing movements down to a minimum. A Spotter or TC should be used to assist the driver in reversing movements - Hazard lights, flashing beacons and other supporting lights (to maximise visibility) must be switched on prior to exiting the vehicle; - Cones should be placed at the front of the vehicle to make on-coming traffic aware that the low loader is being loaded or unloaded; - High visibility clothing must be worn when working near live traffic.	ACE Operator _____
			Being Struck by Float Truck	- All construction vehicle movements per the CTMP - Truck egress routes clearly identified & drivers notified as part of SWMS induction -refer TMP - Trucks to adhere to traffic signage, speeds, routes and arrival and departure times - Trucks must not enter the site under any circumstance unless a ticketed Traffic Controller has provided access and direction - Trucks must not reverse under any circumstance unless a spotter is present to provide direction and assistance - All egress and exit in a forward manner - No Truck Driver to present to site unless all PPE items are being worn	ACE Supervisor Hamzeh Allam ACE Traffic Controllers _____ ACE Float Drivers
		Loading / Unloading Adjacent to a Footpath or in close proximity to Pedestrians	Injuring Pedestrians	- Maintain all physical barriers and minimum distances - Maintain all required signage - Personnel working near live traffic and / or controlling traffic to be qualified and competent (RTA TC Ticket as a minimum competency) - Traffic Controllers using Stop/Slow Bats to temporarily close the footpath to pedestrians in the event a Float Truck is loading / unloading on the street - All Construction Trucks, including Float Trucks will not attend the site during peak trafficable times - Float Trucks will attend site in designated, pre-approved times only - All personnel to adhere to Client's TMP	ACE Supervisor Hamzeh Allam ACE Float Drivers ACE Traffic Controllers _____
		Movement of powered mobile plant	Struck by plant	- Set Exclusion Zone around loading / unloading area - Spotter to spot loading / unloading - Plant Risk Assessment - Spotter to be in clear site of Operator at all times	ACE Supervisor Hamzeh Allam

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				- No person to approach plant when being driven on / off low-loader - Plant to be operated in a forward manner where ever possible - Reversing beepers and Flashing Lights are to be fitted to all plant and are to be in working order at all times - Plant Operators and workers in the vicinity of mobile plant are not permitted to use mobile phones	ACE Operator All ACE Workers
			Plant Rollover while Winching Plant On / Off Tilt Tray	- Establish on suitably firm ground to suit the vehicle and load - Operate winch from remote and ensure you are a safe distance from the tray. - Winch and associated equipment must be rated for the task – this means if you have an 8 tonne rated winch the slings must also be rated to 8 tonnes and the load mass does not exceed the winches working load limit. - Winch ropes need to be checked regularly - The winch cable must always be connected to the equipment when loading/unloading any skid mounted, trailed or self-propelled equipment on or off a tilting tray. (When the equipment has been winched onto the truck, you must fully lower the tray: - Before you manoeuvre or adjust the position of any item of plant or equipment on the tray. - Before you correctly secure the load using appropriate load restraints on the designated tie down points. Note that winching points may be “winching points only” i.e. not designed to be used as a “winch” and a “tie” down point. - Winch rope(s) and chains must only be connected to winching points (not tie down or lifting points). - Where possible the winch cable should be connected to the equipment by way of chains fitted with safety latches or rated d shackles.	ACE Float Drivers
		Electrical installations or services	Plant Contacting Overhead Wiring	- Look up - Keep clear of overhead power-lines. - The basic rule of thumb is never allow any part of equipment to get within 6.4 metres of live conductors on a power pole and if the power-line is on a transmission tower never get any part of the equipment within 10 metres. - Do not load / unload plant near or in the vicinity of	ACE Float Drivers

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				overhead wires ▪ Booms and jibs should be arranged to be as low as possible	
4	Mechanical Demolition of all remaining Structure via Load-Shifting Equipment Operating from Ground Level ▪ The building has been assessed as being structurally adequate to handle mechanical demolition methods. ▪ Loadshifting Operator is to demolish all remaining structure mechanically using Excavator. ▪ Works will be completed by a 20T – 30T Excavator operating outside of the building envelope from Ground Level. ▪ Demolish brick courses, concrete, partition / internal walls and slabs mechanically using Excavator. The structure is to be demolished sequentially, storey by storey, the walls are to be pushed / pulled into the building and onto the ground. ▪ Demolish all Hardstand areas	▪ Movement of Powered Mobile Plant	▪ Persons unlicensed / Incompetent	▪ Plant Operator to hold LE VOC ▪ Turn off plant and remove keys to avoid unauthorized / accidental starting ▪ All plant to be used in accordance to manufacturers operating instructions and load limits ▪ Provide adequate competent supervision ▪ Wear fitted restraints ▪ Never operate with people on or near plant ▪ Start from operator's seat only, never start engine standing on ground ▪ Never leave operator's seat until all implements are grounded, hydraulic pressure is relieved for all controls, lock levers are locked and ignition key has been removed ▪ Never attempt to raise chassis off ground with attachment	ACE Supervisor Hamzeh Allam ACE Operator
			▪ Plant not safe & suitable for work	▪ All plant will be subject to a pre-start risk assessment prior to its establishment on site and submit to client with current and previous months Service Records ▪ All plant must be fitted with the minimum safety controls as identified in the Manufacturer's Operations & Maintenance Manuals ▪ All plant & machinery to be regularly maintained as per manufacturers requirements to ensure safe operation ▪ Log books to be witnessed by site foreman / operator to complete a Daily Start-Up Checklist at the start of each work day, (this includes daily checks for oil leaks, etc.) ▪ Operations manual required to be located with all plant ▪ Any defects must be reported to the Site Supervisor immediately ▪ Where a defect is likely to pose an immediate risk to health and safety the plant should be made inoperable and secured to prevent use until defect is rectified	ACE Supervisor Hamzeh Allam ACE Operator
			▪ Being Struck by Plant	▪ Toolbox workers on the dangers of powered mobile plant ▪ Complete a plant risk assessment for all mobile plant ▪ Ensure effective plant / people separation using physical barricades or designated travel paths where ever possible ▪ No person shall work/walk in/around any operating mobile plant's operating radius or work area ▪ Personnel to be in clear site of Operator at all times ▪ Any person approaching mobile plant must establish positive contact with the Operator. After establishing	ACE Supervisor Hamzeh Allam ACE Operator

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				contact, the person must wait until the Operator grounds the boom and attachment and raises their hands in the air away from the controls - Plant to be operated in a forward manner where ever possible - Reversing beepers and Flashing Lights are to be fitted to all plant and are to be in working order at all times - Plant Operators and workers in the vicinity of mobile plant are not permitted to use mobile phones	_____
		Involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure	Structure collapse	❖ Demolition Scaffolding to be erected and maintained by ticketed / licenced scaffolder ❖ Demolition will take place outside the building envelope and no back-propping of the floor slabs is required ❖ Structure shall be demolished in the reverse order to that of their construction. The order of demolition for buildings shall be progressive, storey by storey, having proper regard to the type of construction, and retaining the stability of the structure ▪ Do not load floors / slabs by machinery, or by falling or accumulated rubble or debris, to the extent that there is excessive deflection, permanent deformation, or danger of collapse ▪ Walls shall not be laterally loaded by accumulated rubble or debris, to the extent that they are in danger of collapse ▪ Appropriate supports in place ▪ One access and egress route, connecting all undemolished floors to the nearest street and clearly marked, shall be provided as an emergency exit. The marked route shall be kept free of accumulations of demolished materials at all times ▪ Isolate work area from pedestrian traffic ▪ Ensure signage warning of danger is in place ▪ Ensure no unauthorized person can walk into work area ▪ Stay clear of remaining frame underside when work in progress ▪ No Live Loading on Upper Floor Slabs ▪ Mechanical demolition from ground only ▪ Mechanical Demolition Process: - ○ Demolish systematically ○ Left to right, top to bottom in parallel strips	ACE Supervisor Hamzeh Allam ACE Operator _____
			Workers Struck by Falling Debris	Prevent glass from falling onto persons in or outside the building	ACE Supervisor

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				- Demolished material shall not be allowed to fall freely outside the structure, unless it is confined within a chute or similar enclosure. - Demolished material shall not be allowed to fall freely within a structure, unless it is confined within a shaft, similar enclosure, or demolition zone / Drop Zone. - Drop Zones will be at least 10m and will be physically barricaded with barricades. Further signage and warning tape will also be installed. - Demolished material shall be removed progressively from the site and, at any time, shall not be allowed to accumulate to the extent that it presents a hazard to the public or to site personnel. - Large beams shall be cut into smaller sized portions before lowering. Whole or large portions of members shall be lowered in a controlled manner so that there is no likelihood of them falling freely.	Hamzeh Allam ACE Operator
			Lowering Beams / Columns & Poles using Excavator w/Lifting Slings / Chains	- All lifting equipment to be tested and tagged annually - All lifting equipment to be inspected and listed on the Plant and Equipment Register - Use chains appropriate to lifting weight and do not exceed the SWL - Ensure stability of load / centre of gravity - Ensure loads are secure when using lifting gear - Ensure that there is sufficient room to move the load and that the area is clear of persons, especially when lifting / moving long loads - Do not exceed the Rated Lift Capacity – refer to the rated capacity tables - Use of appropriately sized Excavator - SWL to be displayed on the Excavator at all times - The weight of slings and auxiliary lifting device must be deducted from the rated lift capacity to determine allowable net lifting load - Load point is the hook on the back of the bucket - Perform lifting operations on a firm supported surface - Spotter (and other personnel) to keep clear of boom cylinder while lifting. While lifting operation, boom, arm, bucket hoses might burst causing high-pressure oil to be ejected	ACE Supervisor Hamzeh Allam ACE Operator
			Excavator Operator Struck by Falling	- Excavator to have a compliant FOPS structure fitted - Mechanical Demolition Process: -	ACE Supervisor

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
			Debris	- Demolish systematically - Left to right, top to bottom in parallel strips - Remove debris regularly - Operator to wear minimum PPE at all times	Hamzeh Allam ACE Operator
5	LOAD TRUCKS & REMOVE MATERIAL	Moving Plant (Vehicles)	Being Struck by Truck	- Establish an exclusion zone around trucks being loaded - All personnel to maintain a safe working distance around slew and loading areas	ACE Drivers
			Damage to person, property / Vehicle accidents	- Trucks to adhere to traffic signage, speeds, routes and arrival and departure times - Trucks must not reverse under any circumstance unless a spotter is present to provide direction and assistance - All egress and exit in a forward manner - No Truck Driver to present to site unless all PPE items are being worn	ACE Supervisor Hamzeh Allam ACE Drivers
		Live Traffic – Loading Adjacent / On a Road	Being Struck by Other Vehicles	- Eliminate the need for personnel to work in close proximity to live traffic wherever possible - Approach your vehicle from the front so that you are facing oncoming traffic - Keep reversing movements down to a minimum. - Hazard lights, flashing beacons and other supporting lights (to maximise visibility) must be switched on prior to exiting the vehicle; - High visibility clothing must be worn when working near live traffic.	ACE Supervisor Hamzeh Allam ACE Drivers
			Struck by plant	- Set Exclusion Zone around loading area (Excavator established within site boundary at this stage) - Spotter to spot loading - Plant Risk Assessment - Spotter to be in clear site of Operator at all times - No person to approach plant whilst loading - Plant to be operated in a forward manner where ever possible - Reversing beepers and Flashing Lights are to be fitted to all plant and are to be in working order at all times - Plant Operators and workers in the vicinity of mobile plant are not permitted to use mobile phones	ACE Supervisor Hamzeh Allam ACE Operator All ACE Workers
		Movement of powered mobile plant	Persons unlicensed / Incompetent	- Plant Operator to hold RTO issued VOC - Turn off plant and remove keys to avoid unauthorized / accidental starting - All plant to be used in accordance to manufacturers	ACE Supervisor Hamzeh Allam

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				operating instructions and load limits ▪ Provide adequate competent supervision ▪ Wear fitted restraints ▪ Never operate with people on or near plant ▪ Start from operator's seat only, never start engine standing on ground ▪ Never leave operator's seat until all implements are grounded, hydraulic pressure is relieved for all controls, lock levers are locked and ignition key has been removed ▪ Never attempt to raise chassis off ground with attachment	ACE Operator

HEIRARCHY OF CONTROLS Site Specific Safe Work Method Statement

BEST ↓ WORST	- Eliminate the hazard completely - Substitution (e.g. adopt less hazardous process, plant or substance) - Isolation (e.g. provide physical barriers for person at risk) - Engineering Controls (e.g. redesign workplace) - Administration (e.g. provide training & instructions) - Personal Protective Equipment (e.g. use protective clothing). This control should be considered only when other control measures are not practicable.
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ENVIRONMENTAL MANAGEMENT AND STANDARDS Safe Work Method Statement

Codes of Practice Legislation / Standards applicable to the work [these documents can be reviewed at ACE Head Office or contact the OH&S Department to request copies]

NSW Acts & Regulations

WHS Act 2011

WHS Regulation 2017

Protection of the Environment Operations Act (POEO Act) 1997

Protection of the Environment Operations (General) Regulation 2009

Workers Compensation Act 1987

Workers Compensation Regulation 2003

Workers Compensation (General) Regulation 1995

Workplace Injury Management and Workers Compensation Act 1998

Workplace Injury Management and Workers Compensation Regulation 2002

WorkCover NSW WHS Codes Of Practice

How to Manage and Control Asbestos in the Workplace

How to Safety Remove Asbestos

Hazardous Manual Tasks

Managing the Risk of Falls at Workplaces

Managing Noise and Preventing Hearing Loss at Work

Managing the Work Environment and Facilities

Work Health and Safety Consultation, Coordination and cooperation

Excavation work

Moving plant on construction sites

Work near overhead power lines

Work in hot or cold environments

WorkCover NSW Reference Material (SWA Codes of Practice)

Excavation work

First aid in the workplace

Managing electrical risks at the workplace

Managing risks in construction work

Managing risks of hazardous chemicals

Managing risks of plant in the workplace

WorkCover NSW WHS Guides

Work Near Underground Assets

Erecting, altering and dismantling scaffolding ,Part 2: Aluminium tower-frame scaffolding

Guides

Preventing slips, trips and falls; Guide

Manual handling risk; Guide

Tools / Plant/ Equipment

- Fire Extinguisher for safety
- Laser, Staff, Tripod, String Line, etc., for Survey & Set Out
- Marking Paint – Survey and Set Out
- Sedimentation supplies
- Stop/Go Bats, Signage & TC Supplies
- Lifting Chains
- Hoses
- Shade Cloth
- Demo / Concrete Saw
- Jack Hammer / Air Compressor
- Leads / Lead Stands
- Demolition Hand Tools (Pinch Bars, Sledge Hammer, etc., Drill)
- Oxy Set, Grinder
- EWP
- Safety Harnesses
- Bogie, T&D & Semi Trucks for Carting Material
- Excavators for Demolition operations
- ACE Fueling Truck for On – site Fueling and Servicing

Maintenance Checks

- Initially: All plant will be subject to a pre-start check prior to its establishment on site – complete Powered Mobile Plant Pre-Start Checklist and submit to client with current and previous months Service Records
- Daily: Inspect all plant prior to use to ensure safety devices operate & report faulty equipment to supervisor – complete Daily Start Up Checklist
- Monthly: All plant will be inspected by a Qualified Mechanic every month – complete Monthly Plant Service Record
- Monthly: All electrical equipment will be inspected and tagged by a qualified person before use on site – affix tag and complete Electrical Equipment Register Monthly
- Yearly: Lifting Equipment will be tested and tagged by a qualified person every year
- Prior to Use: Lifting Equipment will be visually inspected by a competent person
- Half Yearly: Lasers will be tested & calibrated by a competent person every six months
- Half Yearly: Fire Extinguishers will be tested, charged and tagged by a qualified person

Emergency Procedures or Rescue Plans Applicable to the Activity

- Unexpected Finds Protocol for additional ACM finds.
- Fall from Heights Rescue Procedure.

Standards AS 1336 Recommended practices for occupational eye protection AS 1800 and AS 1801 Safety Helmets AS 2210.1 and 2 Safety Footwear – Lace up AS 1270 Ear Muffs AS/NZS 4602 High Visibility Safety Garments AS/NZS 2161 Occupational Protective Gloves AS 3760 – In-service Safety Inspection and Testing of Electrical Equipment AS 1851.1 – Maintenance of fire Protection Equipment – Part 1 Portable Fire Extinguisher National National Code of Practice Manual Handling [NOHSC:2005(1990)] National Code of Practice for the Storage and Handling of Dangerous Goods		Training required to complete work under the contract - Safe Work Australia approved WHS construction induction training course - PC Induction - Working knowledge of Safe Work Method Statement / Task specific induction - Working knowledge of WHS regulations and site safety rules - Supervisor to hold Demolition Supervision Competency - Loadshifting Operators to hold RTO (or Internal) issued VOC - Labourers must hold minimum competency Safe Manual Handling - Traffic Controller to hold RMS Blue Card
		Subcontractors and Subcontractor Management Scaffold Company for Scaffold Erection
Environmental Nil	Contaminants of Concern Silica	Safety Data Sheets (attached) - Diesel, Grease, Hydraulic Oil - Oxygen / Acetylene
Consultation / Compliance - ACE personnel consulted via an internal workshop for the initial development of this SWMS. Ongoing review of this SWMS will be conducted on site by the Site Supervisor using Task Reviews, Audits or SWMS Checklist Reviews at a practical frequency (relevant to the project length, SOW, volume of workforce). Initial the review table below. - ACE Site Supervisor will consult with site personnel via Pre-Starts and Weekly Tool Box Meetings to ensure they are informed, and also have the opportunity to provide feedback on site conditions and changes, safety issues and safety documentation including the SWMS.		Authority requirements (instruction), inspections, permits, drawings - Company Restricted Demolition Licence – Licence No. 204185 - SafeWork NSW Permit – Demolition (as noted) - Clearance Certificate confirming ACM Removal complete - Service Disconnection Certificate confirming no live services to buildings - Pre-Start / Tool Box Talk - Hazards communicated on site via instruction to PC during daily pre-start (or as found).
Minimum PPE Requirements ☒  EYE PROTECTION MUST BE WORN ☒  SAFETY VEST MUST BE WORN ☐  PROTECTIVE CLOTHING MUST BE WORN ☒  FOOT PROTECTION MUST BE WORN ☒  HEAD PROTECTION MUST BE WORN ☐  FACE SHIELD MUST BE WORN ☐  DUST MASK MUST BE WORN ☐  HEARING AND EYE PROTECTION MUST BE WORN ☒  HAND PROTECTION MUST BE WORN		

Disclaimer: I have been consulted during the development of this SWMS and confirm that I understand the above Safe Work Method Statement (SWMS). I have been given the opportunity to ask questions which were answered by my direct employer's representation. I agree to comply with the pursuit of a hazard free and safe working environment

NAME AND SIGNATURE OF PERSON(S) CARRYING OUT THE TRAINING:

[illegible][illegible]

EXCAVATION MANAGEMENT PLAN

7/01/2021

Richard Crookes Constructions Pty Ltd

*Monte Scientia
128 Miller St North Sydney*

Jayden Lin
ACE CIVIL PTY LTD

Revision History

Revision number	Amended page(s)	Date
1	All	04/01/2021
2	7,8,11,13	07/01/2021

Distribution Control

Controlled copies will be distributed to, and retained by key personnel.

Company	User	Date
ACE Civil Pty Ltd	Jayden Lin	04/01/2021

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1 INTRODUCTION

This document outlines the methodology of excavation that will be adopted by ACE Civil Pty Ltd (ACE) for the construction of one underground basement shoring system at the Richard Crookes Constructions Pty Ltd (RCC) educational development at 128 Miller St, North Sydney, NSW (Site)

2 GUIDELINES AND LEGISLATION

The excavation, removal, storage, handling and disposal of product and materials containing asbestos will be carried out in accordance with the relevant requirements of SafeWork NSW and the NSW Department of Environment & Conservation including:

- Work Health and Safety Act 2011;
- SafeWork NSW Code of Practice for the Safe Removal of Asbestos;
- Australian Standard 2601 ;
- The Protection of the Environment Operation Act 1997 and Protection of the Environment Operations (Waste) Regulation 1996 and;
- Relevant Department of Environment & Conservation (DEC)/Environment Protection Authority (EPA) and WorkCover NSW Guidelines;
- Work Cover NSW - Guidelines and Codes of Practice;
- **Sydney Metro Underground Corridor Protection Guidelines.**

3 SITE LOCATION

Monte is located in the North Sydney Council local government area (LGA). It is directly to the north of the North Sydney CBD, which is the major commercial centre of North Sydney.

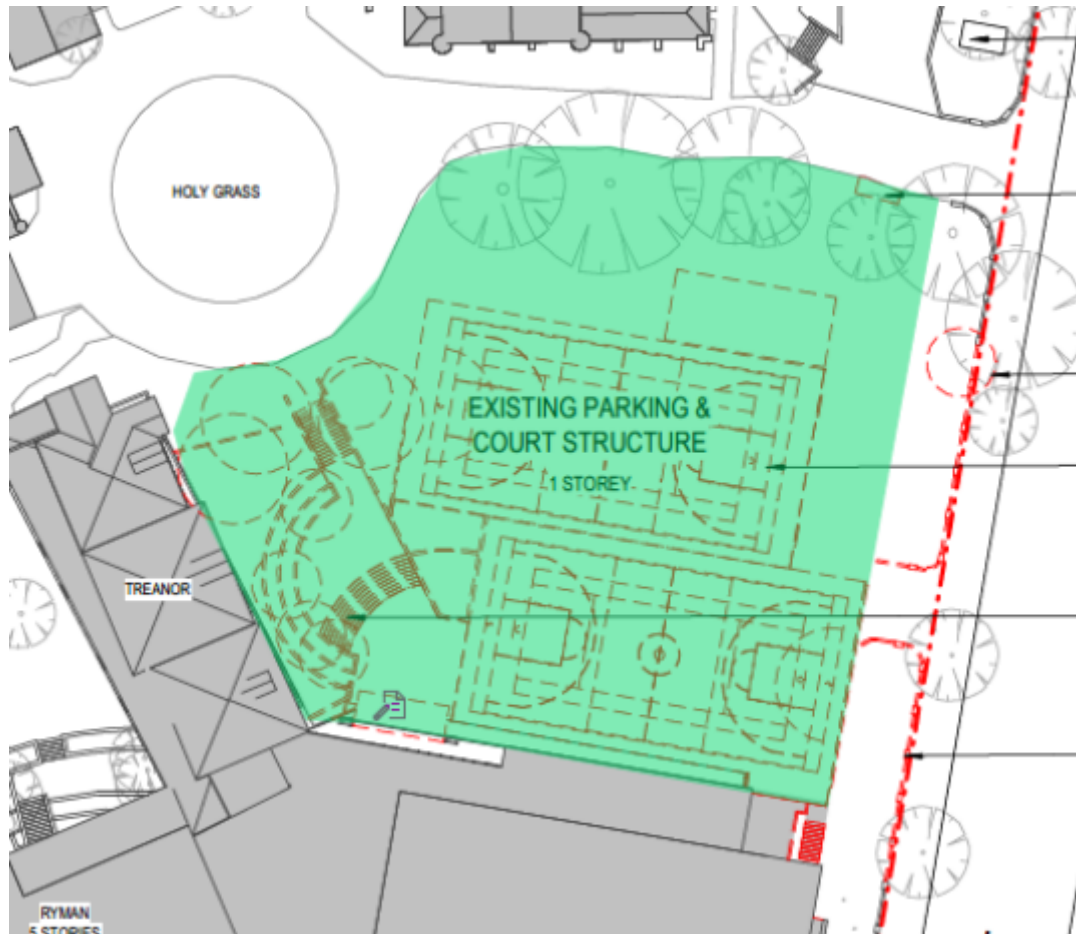
Monte is located approximately 3.5km north of the Sydney CBD, 500 metres north of North Sydney Railway Station. Victoria Cross Metro Station is currently under construction diagonally opposite the school at the south-eastern corner of Miller Street and Berry Street, as well as an entrance to the north-east on the corner of McLaren Street. Miller Street runs along the eastern boundary of the Site which provides a major bus corridor to the North Shore and Northern Beaches.

The key land use characteristics surrounding the School campus are:

- South: North Sydney CBD commercial core, primarily characterised by high-rise commercial buildings and support services including hotels, retail uses, and Shore Grammar School.
- North: mixed precinct including:
 - Low-density residential area within a heritage conservation area;
 - Community buildings including the North Sydney Council Chambers
 - Schools including St Mary's Primary, Wenona School, Marist College and North Sydney BoysHigh School.
 - St Leonards Park.
- East: The extension of the North Sydney CBD Commercial Core, generally characterised by high density residential and commercial buildings.
- West: Medium density residential and high-rise commercial buildings along the Pacific Highway. Further west is a low-density residential area which is identified as a heritage conservation area, and the Australian Catholic University.

Immediately surrounding the Monte campus is best described as:

- South (Berry Street): - Commercial buildings and the Victoria Cross Metro Station currently under construction.
- North (McLaren Street): McLaren Street is a heritage conservation area under the North Sydney LEP. Monte own most of the buildings on the southern side of McLaren Street which are generally single and two storey buildings originally built for residential purposes. The site at the southwestern corner of Miller Street and McLaren Street is an Italian restaurant and a four-storey commercial building with basement parking. The northern side of McLaren Street is primarily used for community facilities including a preschool, Council Chambers, community hall, and public plaza/park used for a weekend fresh produce market.
- East (Miller Street): Mix of commercial, residential and hotel towers, as well as the Rag and Famish Hotel at the corner of Miller and Berry Streets. A northern pedestrian portal to the Victoria Cross Metro Station is proposed on the north-eastern corner of Miller Street and McLaren Street intersection.
- West (Angelo Lane): mix of commercial and high-density residential buildings up to 16-storeys with basement parking.



Site Location

4 INVESTIGATION

4.1 DESCRIPTION OF MATERIALS

The Excavation is predominately sandstone with Fill material.
Type and estimated quantity of materials are as follows:

Sandstone - 140,000 Ton
Fill - 3500 Ton

4.2 EXCAVATION

The excavators will dig using hydraulic hammer during the bulk and detail excavation.
The following excavators will be utilised:

Bulk Excavation:
30 ton – 45 ton Excavator for load out and Excavation
35 ton Excavator on rock saw cutting

Shoring and Retention:
Piling Rig
Anchor Rig
5 ton Excavator

Detail Excavation and Drainage Excavation:
14 ton Excavator
12 ton Excavator
5 ton Excavator

4.3 CONTAMINATED MATERIALS

A waste classification report which classifies the contaminated material will be provided prior to excavation, and the materials are to be removed prior to Excavation.

If the materials are tested positive for asbestos, hygienist is to be engaged and removal procedures must be as per the relevant WHS legislation.

The hazardous materials removal will be undertaken by ACE (licensed asbestos removal contractor) who will take possession of various areas throughout site for the remediation setup, such as exclusion zone, decontamination units and other controls (where required).

Areas will be demarcated, for persons requiring access contact the ACE Site Supervisor who will liaise with the Asbestos Removal Site Supervisor to organise appropriate measures. Do not under any circumstances enter an asbestos exclusion zone, tamper with warning signage or tamper with their equipment. Air monitoring will be undertaken daily throughout the structure, in site sheds and to the perimeter of the site. The results of monitoring will be posted daily in site sheds. The location of temporary and localised asbestos removal zones will be tool boxed talked daily.

A clearance certificate will be obtained by a qualified Occupational Hygienist prior to Excavation.

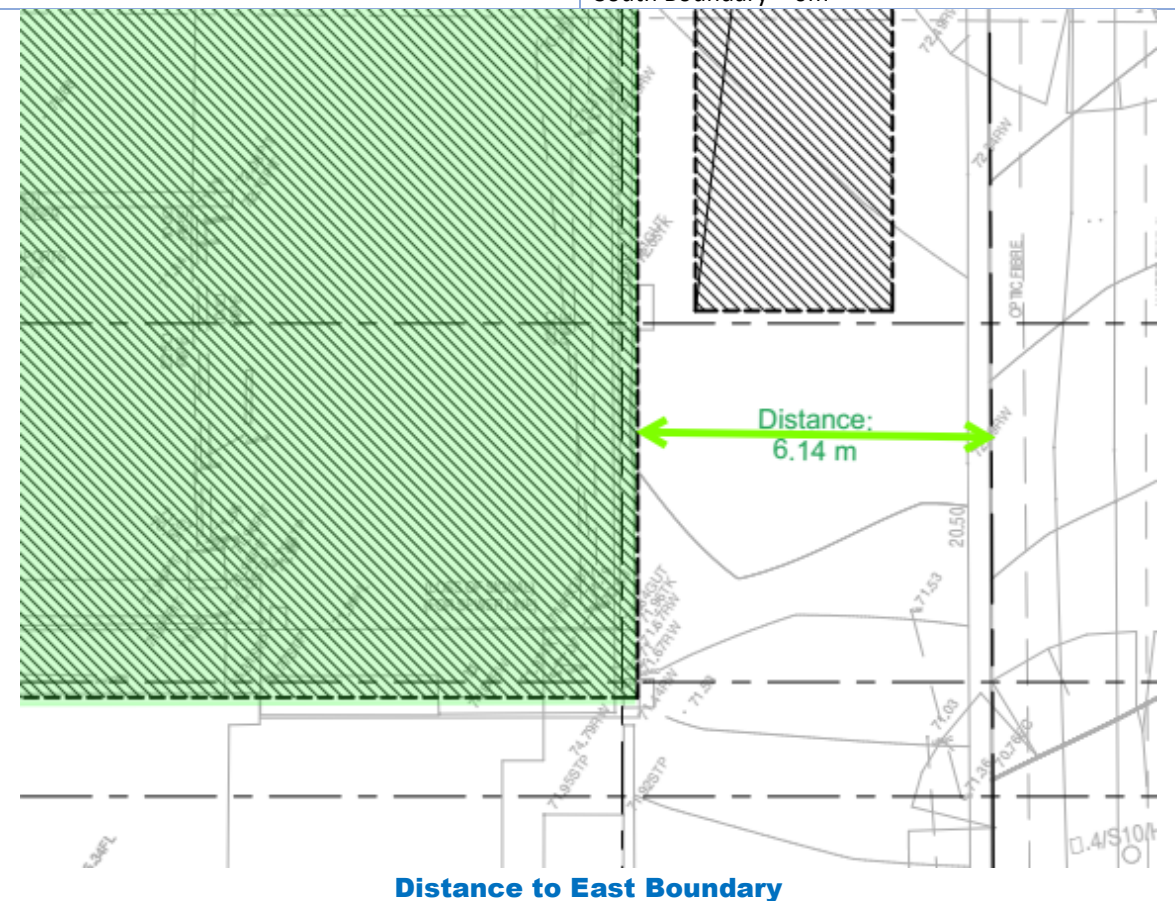
In the case of encountering unidentified asbestos, work will stop in that area and ACE will seal the area and make safe. Hygienist will be notified, and their advice sought, sampling and identification of the suspect material may be undertaken. ACE will otherwise remove the asbestos in accordance with the Asbestos Removal Control Plan which will be amended, if necessary, to cover the unexpected find. This unexpected find will then be included in the clearance certificate document issued by Hygienist and provide a clearance certificate for the same.

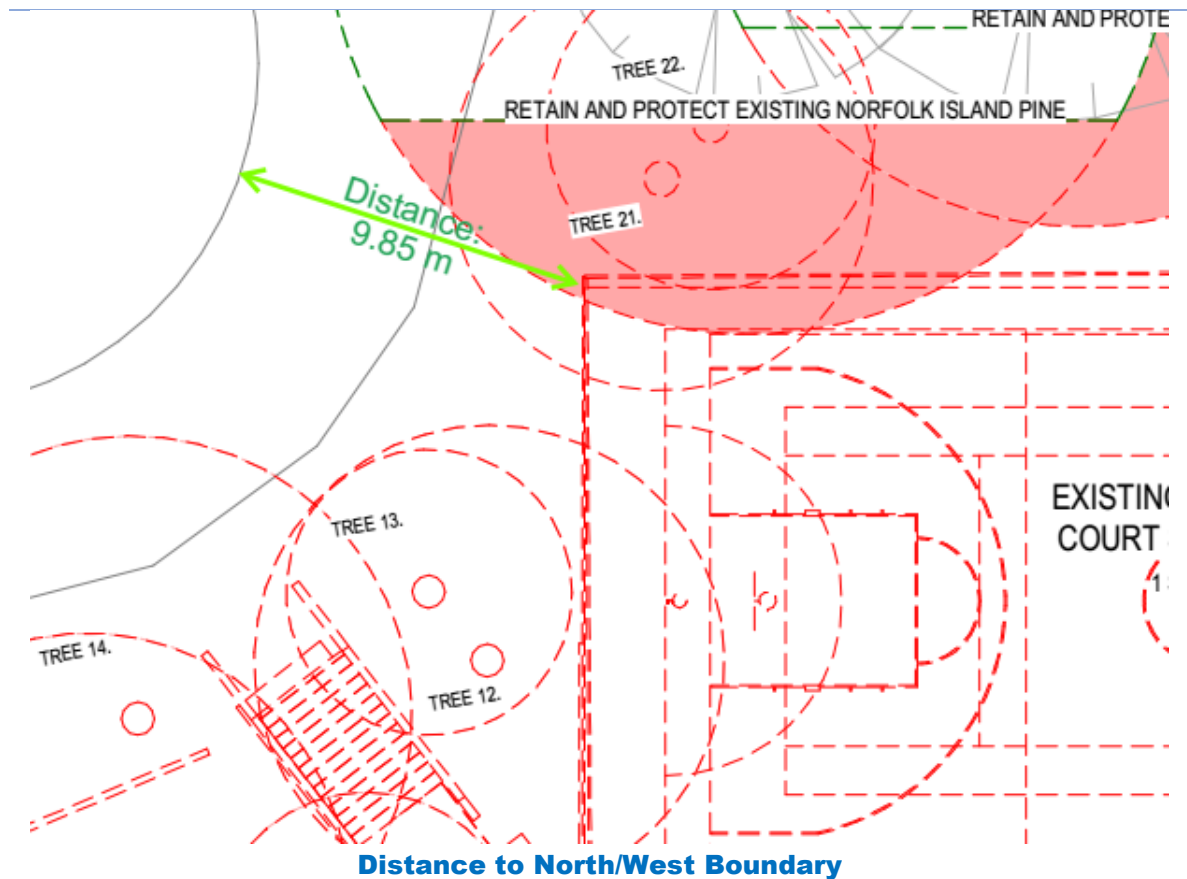
4.4 DISTANCE TO BOUNDARIES

Building Reference

The Least Distance from Structure To Each Site Boundary

<i>Existing Parking and Court Structure</i>	East Boundary – 6.14m
	West/North Boundary – 9.85m
	South Boundary – 0m





4.5 SERVICES

DBYD and GPR scanning are to be carried out prior to excavation works. All the underground services must be disconnected and diverted by the qualified trades.

Excavation works cannot be undertaken until the service disconnection is completed and signed off.

5 EXCAVATION

5.1 SEQUENCES

Excavation works will be carried out as per below sequences,

1. Service Disconnection Certification
2. Establishment of exclusion zone
3. Installation of sediment control
4. Classification of inground materials
5. Removal of fill materials as per classification reports
6. Installation of Piling Platform
7. Installation of Shoring System
8. Installation of Capping Beam
9. Excavation of First Drop
10. Installation of Shorcrete Panels
11. Installation of Anchor/Rock Bolts
12. Handover to client

5.2 TYPICAL METHODOLOGIES

5.2.1 TYPICAL PILING METHODOLOGY

- Confirming levels and excavation to underside of Capping Beam
- Installation of piling platform which is to be certified by Geotechnical Engineer
- Setting out of piers by Surveyor
- Installation of vibration monitoring as per Geotechnical monitoring program
- Set up drilling rig
- Installation of pile sleeves (if required)
- The length of the casing will be determined from the actual soil condition encountered on site.
- With the Auger inside the Pier Sleeve commence drilling
- (Where required only) The Pier Sleeve will be gradually inserted into the pier hole as the Auger progressively drills and removes the material
- The drilling process will be continued to the designed founding depth or to the commencement of rock head level by using augers and drilling buckets.
- Pile lengths shall be as per the current construction drawings.
- At the point of encountering the rock (as defined in the contract specification) head level, for example, where the soil drilling tools are unable to penetrate the strata any further, boring shall cease in order that the engineer may verify the occurrence and confirm the rock socketing criteria.
- For drilling through rock, rock drilling tools shall be applied. This shall include rock auger, core barrels, (round shank, roller bit) cross cutters and where necessary, chisels.
- Remove all pier spoil
- Spoil from piles will be cleared from the boring locations by means of an excavator as boring proceeds. Depending on the volume of spoil excavated, it will be removed to stockpile area or spoil pit, for drying before loading and removed off-site.
- Upon completion of boring, the bottom of the bored hole is thoroughly cleaned with the cleaning bucket
- Dewatering of piers as required via electrical pump
- Place reinforced cages
- The reinforcement cage will be prefabricated off site.
- The length, type and size of the steel cage will be according to contract drawings and engineer specifications.
- The cages will be provided with stiffening rings and other accessories to enable handling, lifting and installation without permanent deformations.
- Links on cages will be welded according to engineers specifications.
- Cages will be installed into the bored hole using either the Drilling Rig and/or an Excavator of the required lifting capacity
- Concrete spacers wired to the cage shall provide lateral support and ensure adequate concrete cover.
- Pile shall then be concreted by using the 'tremmie' method.
- The concrete mix will be discharged through a tremmie pipe, which is lowered centrally to the bottom of the bored hole prior to filling it with concrete.

Alternative method is concrete pump lowered to the base of the pile and pulled out as concrete being pumped.

- All testing and sampling of the concrete shall be carried out as instructed by the Engineer specifications and Australian Standards. A complete record of all cylinders taken shall be maintained in a proper form and slump test results shall be recorded on the 'Delivery Order' and the 'Pile Bore Log'. All compressive concrete tests will be carried out at the supplier's laboratory and independent lab. The client will be notified of the dates of the test by regular issuance in order for the tests to be witnessed.
- Trim piles as required.

5.2.2 TYPICAL ANCHORING AND EXCAVATION METHODOLOGY

Excavated in approximately 1.5m-2.5m lifts. The first lift will be excavated below the top row of anchors.

- Walls will be trimmed as the excavation is undertaken
- Confirm RL and inclination
- Core-holing/drilling through piers to the required length
- Extract materials and clean out
- Installation of anchor as per engineer design
- Survey Capping Beam prior to stressing anchors, movement < 10mm
- Installation of anchor plates, ensure compliance with proof loaded to 1.3 times the design working load in a minimum of four equal increments
- Load and extension of anchors recorded
- Grout tested
- Reinforcing mesh will be installed on the full 2.2m lift and the bottom 200mm will be backfilled to provide a lap for later connection.
- Continue excavation.

5.2.3 TYPICAL SHOTCRETE METHODOLOGY

Shotcrete will be applied to wall and batter faces in a single layer, with thickness as noted on the drawings. Applied shotcrete will be installed on flat surfaces, mesh reinforced and unreinforced and may include a steel fiber additive or without. Shotcrete application will be undertaken in the following stages:

- Preparation/trimming of work area and rock face
- Setout of shotcrete depth to ensure adequate cover and alignment
- Installation of bolts, nails, vertical strip drains and reinforcing mesh
- Engineer inspection to shotcrete wall reinforcement
- Setup of shotcrete pump and hoses
- Application of shotcrete
- Curing for 4 days minimum
- Clean-up

5.3 MONITORING PROGRAM

5.3.1 NOISE MONITORING

A construction and operational noise and vibration assessment of the has been conducted by Wilkinson Murray (Report No. 19363 Rev.E). Site specific noise criteria that are applicable to this project are presented.

Exceedances of construction noise management levels are expected at surrounding receivers to the east of construction site on Miller Street and, to a lesser degree, residences to the west backing onto Angelo Lane. Management of noise from construction activities should be included in the Site Construction Environmental Management Plan.

Site-specific operational noise criteria have been determined for the project based on ambient noise monitoring. A review of likely major plant indicates that noise levels can comply with established noise criteria during proposed operation with the inclusion of acoustic treatment. A review of all plant with respect to site-specific noise criteria is required at detailed design stage.

Noise emissions from the proposed new building need be designed to achieve the site-specific assessment criteria under operation.

5.3.2 VIBRATION MONITORING

As the adjacent structure will be retained and remain operational during the demolition and excavation works, vibration must be minimized to ensure the structural integrity of existing building and works are not undermining the any structure elements.

The following measures will ensure that disruptive vibration will not travel beyond site:

- Separation works to be done via saw cutting to ensure no further connection between structure to stay and structure to be demolished.
- Breakup of slabs, beams and columns into smaller pieces of rubble to reduce vibrations being felt from Drop Zone operation.
- Structural steel and large heavy objects will be craned off site.
- Installation of vibration monitor if required.

Note, as required by the SSD10393 consent, Wilkinson Murray Pty Limited has conducted an addendum report to the previous reports addressing the items in conditions B7, B8 and B9.

The report has found that the Sydney Metro criterion of 15mm/s will not be exceeded at the tunnel from all plant including the largest hydraulic hammers.

5.3.3 DUST CONTROL

Dust suppression measures must be implemented by ACE to ensure the dust is kept below a level that adversely affects the surrounding buildings and site:

- Installing a minimum of 3 water points around site perimeter to ensure full coverage of water suppression.
- Each machine used in the demolition process will be accompanied by a laborer with a water hose to ensure water is available on each separate Excavation face and provide adequate dust suppression. Water runoff will be minimized
- Material will be saturated prior to being removed
- During load out of material, material will be wet down to minimize dust being generated
- Installation of Dust Monitor if required.

6 THE PROPOSED METHODS OF CONTROLLING AND MAINTAINING ACCESS AND EGRESS TO WORKPLACE

Building Reference

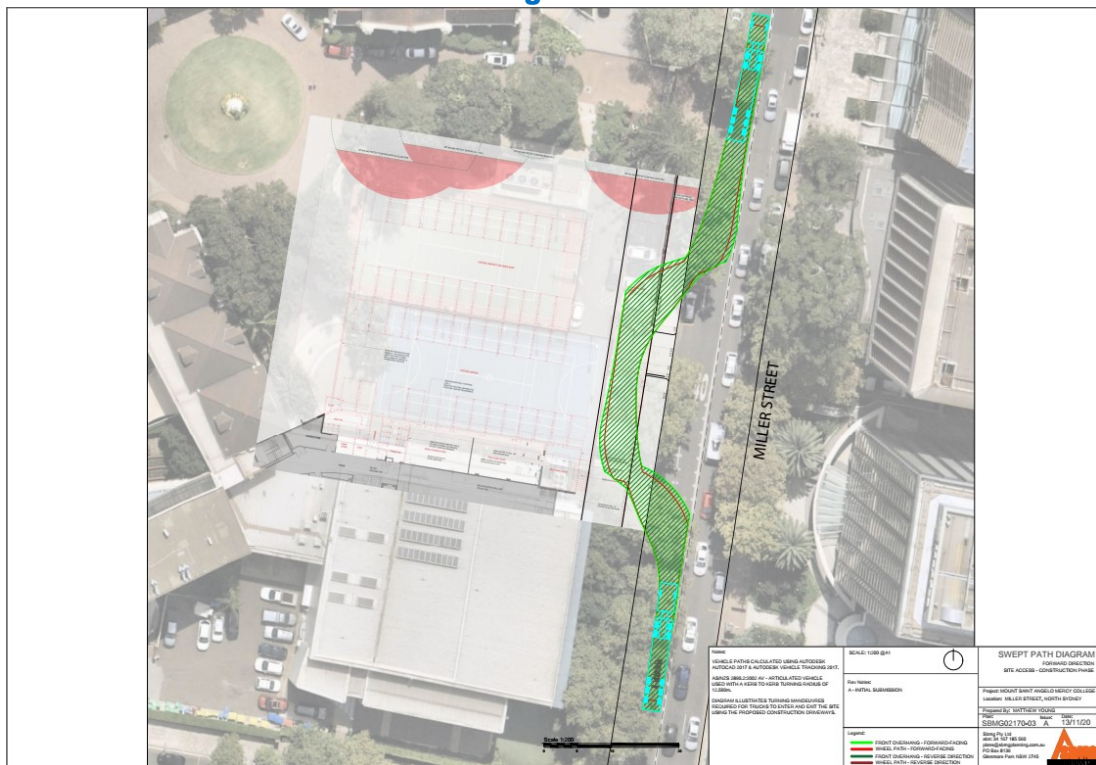
All buildings Refer to RCC's project site amenities and access plan.



Access



Egress



Truck Access and Egress After Ramp Removal

7 UNEXPECTED FINDS

Due to the nature of this project it is possible that Asbestos or other Hazardous Materials may be encountered at unexpected locations during the project. As a precautionary measure to ensure the protection of site workers and contractors and the site workers and occupants of nearby land, should an unexpected find be encountered (or any other unexpected potentially hazardous substance), the unexpected finds procedure is to be followed.

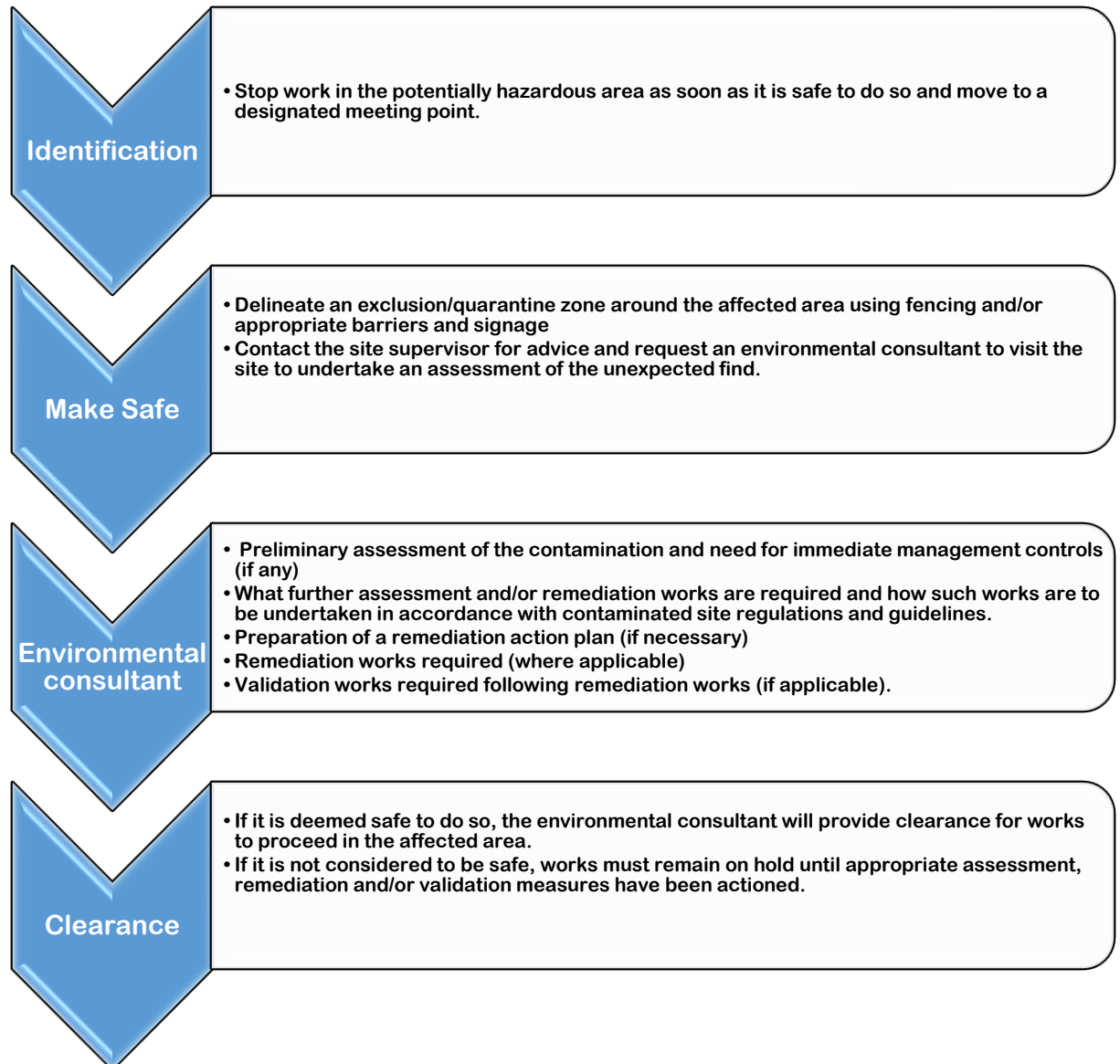
Unexpected finds of potential contamination on site may be identified by visual (appearance) and/or olfactory (odour/stain) evidence during earthworks and construction activities.

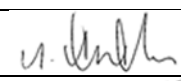
The following are examples of typical unexpected finds

- Buried or surface asbestos containing materials and/or buried asbestos pipes
 - This may include cement-bound asbestos (e.g. fibro cement in the form of small fragments, flat sheets, corrugated roofing, or pipe) or other bonded forms of asbestos (e.g. bitumen, textured coatings and floor tiles may also contain asbestos). Friable forms of asbestos including lagging and insulation may be seen as fibrous material which flakes and powders easily.
- Buried waste materials
 - This may include a variety of waste materials, inclusive of wood, plastic, metal fragments, building rubble (e.g. concrete, brick, asphalt, asbestos containing materials) and other general household/farm waste (e.g. tins and containers of farm chemicals and fuels).
- Hydrocarbon impacts
 - May be identified by a hydrocarbon odour which may vary in strength from possible (just detectable) to very strong (easily detectable at a distance from the source).
- Septic tanks (biological waste)
 - May be identified by a decaying odour (landfill/sewer/putrefied) which may vary in strength from possible (just detectable) to very strong (easily detectable at a distance from the source).
- Underground Storage Tanks (USTs)
 - These may be identified by encountering a buried cylindrical steel underground tank, deeper sand fill or relatively small concrete footings or steel pipelines, sometimes with observed hydrocarbon odours or staining.
- Other unexpected finds [Other indications of contamination include various chemical odours (solvent, acetone, alcohol odour, sulphur (rotten egg), acidic (acetic/formic/citric), ammonia, or caustic) or staining and discolouration of soils.]

It is not practical to cover all types of possible unexpected finds based on their very nature. It is possible that indications of contamination not specifically covered by the plan may be encountered. In such cases it is assumed that “if in doubt” about a potential find, the precautionary principal will be employed, and the unexpected finds procedure will be activated.

7.1 PROCEDURE IN THE EVENT OF AN UNEXPECTED FIND



		SWMS No.:	2	Revision No.:	1
		SWMS Name:	Excavation	Revision Date:	07-Jan-2021
PCBU	ACE Civil Pty Ltd 362 Park Road Regents Park NSW 2143 ABN: 66 626 484 928 Tel: (02) 9644 5596 Fax: (02) 9644 5595		Principal Contractor (PC)		Richard Crookes Constructions Pty Ltd Level 3, 4 Broadcast Way Artarmon NSW 2064 Tel: (02) 9902 4809 Fax: (02) 9439 1114
Designated Officer / Direct Works Supervisor	Mohammed Jebara (TBC) Tel: 0416 082 130		Date SWMS Provided to PC		07-Jan-2021
Work Activity / Scope Of Works	Earthworks Establishment, Bulk & Detail Excavation		Workplace Location		Scientia – 128 Miller Street North Sydney
High Risk Construction Work <i>As defined in WHS Regulation 2017, Part 6, Clause 291</i>	☒ Involves a risk of a person falling more than two metres	☒ Is carried out on or near energised electrical installations or services	☐ Is carried out in an area in which there are artificial extremes of temperature		
	☐ Involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure	☒ Is carried out on or near pressurised gas distribution mains or piping	☐ Is carried out in or near water or other liquid that involves a risk of drowning		
	☐ Involves, or is likely to involve, the disturbance of asbestos	☐ Is carried out in an area that may have a contaminated or flammable atmosphere	☐ Involves diving work		
	☐ Involves structural alterations or repairs that require temporary support to prevent collapse	☐ Involves tilt-up or precast concrete	☐ Is carried out on or near chemical, fuel or refrigerant lines		
	☐ Is carried out in or near a confined space	☐ Work on a telecommunication tower	☐ Involves the use of explosives		
	☒ Is carried out in or near a shaft or trench with an excavated depth greater than 1.5 metres or is carried out in or near a tunnel	☒ Is carried out in an area at a workplace in which there is any movement of powered mobile plant	☒ Is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians		
Workers Consulted	Zakeria El Mokhaiber	Construction Worker (CW)	Farouk Zeidan	Construction Worker (CW)	
Person/s responsible for ensuring implementation, monitoring & compliance with SWMS:	Mohammed Jebara (TBC)		Date Received: 07-Jan-2021	To be signed on site:	
Person/s responsible for reviewing SWMS control measures:	Nicole Anthony		Date Received: 07-Jan-2021		
Approved By Senior Management:	Sami Allam		Date Received: 07-Jan-2021		
SWMS control measures will be implemented / controlled by:	☒ Task Observations		☒ Audits	☐ Other (provide details)	

WORK METHOD Safe Work Method Statement - Establishment & Earthworks

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
1	Establishment of Machinery Onsite	Involves a risk of a person falling >2m	Drivers Falling from Cabins / Loading Trays	- Be very aware of oil and liquid spills, dirt, gravel, other debris, chains, slings and tie-downs and other obstacles. - Remove/clean up oil and liquid spills, dirt gravel and other debris as necessary. - Where possible always try and maintain a firm hand hold on the railings/hand holds of the vehicle. - When climbing into or out of cabs maintain 3-point contact. - Caution should be taken by the driver when securing the chains to the plant and the lorry bed. The driver must place his foot position in an area which does not overlap the edge of the vehicle bed - During icy/frosty conditions, it must be deemed by the driver whether access to the vehicle bed is safe; Sand (or salt) may be used where it is unavoidable to access the vehicle bed - The tray will be kept clean at all times. A sweeping brush must be available to use at any time; - Protective footwear should be worn which has a good grip where the sole is free from oil, grease and any other item which may pose a slip and trip hazard.	ACE Supervisor Mohammed Jebara (TBC) ACE Float Drivers
		Live Traffic – Loading / Unloading Adjacent to a Road	Being Struck by Other Vehicles	- Eliminate the need for personnel to work in close proximity to live traffic wherever possible, eg. Load within site compound - Ensure the drop off points are known in advance; - If possible, try and park the low loader where the front of the vehicle is pointing in the direction of the on-coming traffic; - Approach your vehicle from the front so that you are facing oncoming traffic - Keep reversing movements down to a minimum. A Spotter or TC should be used to assist the driver in reversing movements - Hazard lights, flashing beacons and other supporting lights (to maximise visibility) must be switched on prior to exiting the vehicle; - Cones should be placed at the front of the vehicle to make on-coming traffic aware that the low loader is being loaded or unloaded; - High visibility clothing must be worn when working near live traffic.	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
			Being Struck by Float Truck	- All construction vehicle movements per the CTMP - Truck egress routes clearly identified & drivers notified as part of SWMS induction -refer TMP - Trucks to adhere to traffic signage, speeds, routes and arrival and departure times - Trucks must not enter the site under any circumstance unless a ticketed Traffic Controller has provided access and direction	ACE Supervisor Mohammed Jebara (TBC)

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				- Trucks must not reverse under any circumstance unless a spotter is present to provide direction and assistance - All egress and exit in a forward manner - No Truck Driver to present to site unless all PPE items are being worn	ACE Float Drivers
		Loading / Unloading Adjacent to a Footpath or in close proximity to Pedestrians	Injuring Pedestrians	- Maintain all physical barriers and minimum distances - Maintain all required signage - Personnel working near live traffic and / or controlling traffic to be qualified and competent (RTA TC Ticket as a minimum competency) - Traffic Controllers using Stop/Slow Bats to temporarily close the footpath to pedestrians in the event a Float Truck is loading / unloading on the street - Per the CTMP all Construction Trucks, including Float Trucks will not attend the site during peak trafficable times - Float Trucks will attend site in designated, pre-approved times only - All personnel to adhere to Client's TMP	ACE Supervisor Mohammed Jebara (TBC) ACE Float Drivers ACE Traffic Controllers
		Movement of powered mobile plant	Struck by plant	- Set Exclusion Zone around loading / unloading area - Spotter to spot loading / unloading - All items of plant to be inducted when delivered (prior to use). Refer client's Mobile Plant Pre-Start / Induction Form. - Plant Risk Assessment - Spotter to be in clear site of Operator at all times - No person to approach plant when being driven on / off low-loader - Plant to be operated in a forward manner where ever possible - Reversing beepers and Flashing Lights are to be fitted to all plant and are to be in working order at all times - Plant Operators and workers in the vicinity of mobile plant are not permitted to use mobile phones	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
			Plant Rollover while Winching Plant On / Off Tilt Tray	- Establish on suitably firm ground to suit the vehicle and load - Operate winch from remote and ensure you are a safe distance from the tray. - Winch and associated equipment must be rated for the task – this means if you have an 8 tonne rated winch the slings must also be rated to 8 tonnes and the load mass does not exceed the winches working load limit. - Winch ropes need to be checked regularly	ACE Float Drivers

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				▪ The winch cable must always be connected to the equipment when loading/unloading any skid mounted, trailed or self-propelled equipment on or off a tilting tray. ▪ When the equipment has been winched onto the truck, you must fully lower the tray: ○ Before you maneuver or adjust the position of any item of plant or equipment on the tray. ○ Before you correctly secure the load using appropriate load restraints on the designated tie down points. Note that winching points may be “winching points only” i.e. not designed to be used as a “winch” and a “tie” down point. ▪ Winch rope(s) and chains must only be connected to winching points (not tie down or lifting points). ▪ Where possible the winch cable should be connected to the equipment by way of chains fitted with safety latches or rated d shackles.	
		▪ Electrical installations or services	▪ Plant Contacting Overhead Wiring	▪ Look up ▪ Keep clear of overhead power-lines. ▪ The basic rule of thumb is never allow any part of equipment to get within 6.4 metres of live conductors on a power pole and if the power-line is on a transmission tower never get any part of the equipment within 10 metres. ▪ Do not load / unload plant near or in the vicinity of overhead wires ▪ Booms and jibs should be arranged to be as low as possible	ACE Float Drivers
2	Excavation ▪ Supply and place Shaker Grid ▪ Bulk Excavation	▪ Electrical installations or services	▪ Contact with Underground Services causing Electric Shock	▪ Locate and identify all underground services. ▪ No mechanical excavation in the vicinity of the live services ▪ Where required, excavate by hand (pot hole) to locate and expose the services ▪ Location of live underground services to be clearly marked and identified ▪ Daily Pre-Start and/or Tool Box Talk with relevant persons ▪ Current Dial B4 You Dig Plans to be made available to site for inspection and reference (plans valid for 30 days only) ▪ Adequate arrangements for Emergency and Rescue Procedures should be in place in the event of an emergency occurring	ACE Supervisor Mohammed Jebara (TBC)
			▪ Contact with Overhead Services causing Electric Shock	▪ Observe and adhere to Safe Approach Distances at all times – 3m minimum distance to be maintained ▪ Care is to be taken to accurately assess the extent and dimensions of the Excavator’s extended Boom Arm – Keep Boom retracted	ACE Operator ACE Personnel ACE Supervisor Mohammed Jebara (TBC)

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				- ToolBox all Plant Operators prior to commencing works and identify the location and voltages of the Overhead Services. Ensure that Operators have a thorough knowledge and understanding of Safe Approach Distances. - Refer Working around Electrical Equipment - Emergency Protocol – Contact with Overhead Wires	ACE Operator ACE Personnel
		Carried out on or near pressurized gas distribution mains or piping	Contact with Underground Gas Services	- Refer to clients Excavation Procedure and obtain Penetration and Excavation Permit prior to any ground penetration - Locate and identify all underground services. - No mechanical excavation in the vicinity of the live services - Where required, excavate by hand (pot hole) to locate and expose the services - Location of live underground services to be clearly marked and identified - Daily Pre-Start and/or Tool Box Talk with relevant persons - Current Dial B4 You Dig Plans to be made available to site for inspection and reference (plans valid for 30 days only) - In the event a Gas Service is struck causing a gas leak: - - Contact Jemena Gas Emergency on 131 909 - Extinguish all flames and sources of ignition, cease all hot works - If inside the site boundary a Plumber can isolate the line - Divert traffic and pedestrians - Clear area of all non-essential personnel	ACE Supervisor Mohammed Jebara (TBC) ACE Operator ACE Personnel
		Shaft or trench with an excavated depth greater than 1.5 metres	Injury to persons falling into the excavation	- Only necessary personnel to be within area - Ensure all necessary barricades are in place - All excavation boundaries are to be clearly identified with bunting for depths to 2m, or physical fencing for depths exceeding 2m - Appropriate emergency access to be provided into / out of all excavated areas at all times - Supervisor to ensure all site personnel receive adequate instruction and training in Emergency Rescue Procedures – Excavations	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
			Collapse or failure of open excavations	- Assess excavations daily - Adequate shoring system: - Benching, battering or a combination of both to the sides of the excavation - When battering ensure the batter commences at the bottom of the excavation - Benching to be at 1.5m - No stockpiles or material placed within the zone of influence (ie. Spoil pile near edge of excavation)	ACE Supervisor Mohammed Jebara (TBC) ACE Operator

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				- Monitor and manage all static and dynamic loads near to the excavation - Monitor the operation of machinery near the edge of the excavation – machinery operating within the zone of influence of excavations can cause weight and vibration - Minimise ground vibration - Monitor the excavation for any sign of cracks appearing near the edges - Review all safety controls in the event of adverse weather conditions including heavy or continuous periods of rain causing saturated soil conditions - Competent Supervision on site at all times - Supervisor to ensure all site personnel receive adequate instruction and training in Emergency Rescue – Excavation (cave-in)	
		Using Excavator to Lift Loads (Shaker Grid)	- Faulty Lifting Equipment - Slinging Loads	- Inspect lifting points and ensure they are safe and adequate for use - All lifts to be slung by a competent person - All lifting equipment to be inspected for damage and wear prior to each use by a competent person - All lifting equipment to be tested and tagged annually - All lifting equipment to be inspected and listed on the <u>Plant and Equipment Register</u> - Use chains appropriate to lifting weight and do not exceed the SWL - Ensure stability of load / centre of gravity - Ensure loads are secure when using lifting gear - Ensure that there is sufficient room to move the load and that the area is clear of persons, especially when lifting / moving long loads	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
			Persons working under and/or near load, being injured by dislodged load	- All movements to be controlled and slow, no fast jerking motions that will cause the load to move erratically - When a load is in the air the Operator must remain alert at all times - Lift squarely over the end or over the side of the machine - Avoid side loads that may be caused by uneven slings, traveling with the load or swinging too quickly - The load can become unbalanced if the hook line is twisted and starts to rotate. - Ensure work area is barricaded, set an exclusion zone around slew area of excavator - Ensure that there is sufficient room to move the load and that the area is clear of persons, especially when lifting / moving long loads - Spotter to be used with Excavator for all lifts - Do not perform lifting operations in high winds as wind gusts can create side loads	ACE Supervisor Mohammed Jebara (TBC) ACE Operator

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
		Movement of Powered Mobile Plant	Exceed SWL / Uncontrolled Loads	- Do not exceed the Rated Lift Capacity – refer to the rated capacity tables - Use of appropriately sized Excavator - SWL to be displayed on the Excavator at all times - The weight of slings and auxiliary lifting device must be deducted from the rated lift capacity to determine allowable net lifting load - Load point is the hook on the back of the bucket - Perform lifting operations on a firm supported surface - Spotter (and other personnel) to keep clear of boom cylinder while lifting. While lifting operation, boom, arm, bucket hoses might burst causing high-pressure oil to be ejected - Avoid unnecessary travelling with a suspended load. - Before swinging (or if required, traveling), bring the load into an arm position (radius and height) that has a safer weight capacity rating and adequate movement clearance	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
			Struck by plant	- Ensure effective plant / people separation using physical barricades or designated travel paths where ever possible - No person shall work or walk in or around any operating mobile plant's operating radius or work area - All personnel to be in clear site of Operator at all times - Any person approaching mobile plant must establish positive contact with the Operator. After establishing contact, the person must wait until the Operator grounds the boom and attachment and raises their hands in the air away from the controls - Plant to be operated in a forward manner where ever possible - Reversing beepers to be in working order at all times - Plant Operators and workers in the vicinity of mobile plant are not permitted to use mobile phones	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
			Plant Roll-Over Forming / Working on Batters	- Take care with Plant Traversing on Batters - Operators are required to wear fitted restraints - Use spotters where tipping or driving close to edges or on soft/unstable surfaces - Do not exceed plants maximum gradient - Restrict plant operating within minimum distances from edges - Do not overload plant, adhere to the Safe Work Load (SWL) at all times - Ensure even load distribution - Plant to have compliant ROPS and FOPS fitted	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
			Diesel Leaks	- Turn plant off whilst re-fuelling or carrying out repairs - Do not overfill diesel tanks - Close tanks immediately	ACE Supervisor

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				- Fill machines on hardstand areas where available and away from drains - Fill in open well ventilated areas and avoid inhalation - Contain spill with sand bags - Do not drive Plant over debris or any item that could puncture the fuel tank - Scrub contaminated area with detergent and water using a stiff broom (hardstands) - If large quantities enter the waterways contact the EPA on 131 555. - Spill Kit available on site at all times; Tool Box workers in the correct use of Spill Kit	Mohammed Jebara (TBC) ACE Operator All ACE Workers
3	DETAIL EXCAVATION - Footings (Basement Footings) - Lift Pit / Stair Bases - Crane Base - Trimming to shotcrete walls	Electrical installations or services	Contact with Overhead Services causing Electric Shock	- Observe and adhere to Safe Approach Distances at all times – 3m minimum distance to be maintained - Care is to be taken to accurately assess the extent and dimensions of the Excavator's extended Boom Arm – Keep Boom retracted - ToolBox all Plant Operators prior to commencing works and identify the location and voltages of the Overhead Services. Ensure that Operators have a thorough knowledge and understanding of Safe Approach Distances. - Refer Working around Electrical Equipment - Emergency Protocol – Contact with Overhead Wires	ACE Supervisor Mohammed Jebara (TBC) ACE Operator ACE Personnel
		Shaft or trench with an excavated depth greater than 1.5 metres	Injury to persons falling into Deep Excavations (eg Lift Pit, Tanks)	- Only necessary personnel to be within area - Ensure all necessary barricades are in place - All excavation boundaries are to be clearly identified with bunting for depths to 2m, or physical fencing for depths exceeding 2m - Appropriate emergency access to be provided into / out of all excavated areas at all times - Supervisor to ensure all site personnel receive adequate instruction and training in Emergency Rescue Procedures – Excavations	ACE Supervisor Mohammed Jebara (TBC) ACE Operator
		Movement of Powered Mobile Plant	Struck by plant	- Ensure effective plant / people separation using physical barricades or designated travel paths where ever possible - No person shall work or walk in or around any operating mobile plant's operating radius or work area - All personnel to be in clear site of Operator at all times - Any person approaching mobile plant must establish positive contact with the Operator. After establishing contact, the person must wait until the Operator grounds the boom and attachment and raises their hands in the air away from the controls - Plant to be operated in a forward manner where ever possible	ACE Supervisor Mohammed Jebara (TBC) ACE Operator

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
				- Reversing beepers to be in working order at all times - Plant Operators and workers in the vicinity of mobile plant are not permitted to use mobile phones	
			Plant Roll-Over	- Take care with Plant Traversing on Batters - Operators are required to wear fitted restraints - Use spotters where tipping or driving close to edges or on soft/unstable surfaces - Do not exceed plants maximum gradient - Restrict plant operating within minimum distances from edges - Do not overload plant, adhere to the Safe Work Load (SWL) at all times - Ensure even load distribution	ACE Supervisor Mohammed Jebara (TBC) ACE Operator _____
4	Load Trucks and remove material	Moving Plant (Vehicles)	Being Struck by Truck	- Establish an exclusion zone around trucks being loaded - All personnel to maintain a safe working distance around slew and loading areas	ACE Drivers
			Damage to person, property / Vehicle accidents	- Trucks to adhere to traffic signage, speeds, routes and arrival and departure times - Trucks must not reverse under any circumstance unless a spotter is present to provide direction and assistance - All egress and exit in a forward manner - No Truck Driver to present to site unless all PPE items are being worn	ACE Supervisor Mohammed Jebara (TBC) ACE Drivers
		Live Traffic – Loading Adjacent / On a Road	Being Struck by Other Vehicles	- Eliminate the need for personnel to work in close proximity to live traffic wherever possible - Approach your vehicle from the front so that you are facing oncoming traffic - Keep reversing movements down to a minimum. - Hazard lights, flashing beacons and other supporting lights (to maximise visibility) must be switched on prior to exiting the vehicle; - High visibility clothing must be worn when working near live traffic.	ACE Supervisor Mohammed Jebara (TBC) ACE Drivers
		Movement of powered mobile plant	Struck by plant	- Set Exclusion Zone around loading area (Excavator established within site boundary at this stage) - Spotter to spot loading - Plant Risk Assessment - Spotter to be in clear site of Operator at all times - No person to approach plant whilst loading - Plant to be operated in a forward manner where ever possible - Reversing beepers and Flashing Lights are to be fitted to all plant and are to be in working order at all times - Plant Operators and workers in the vicinity of mobile plant are not permitted to use mobile phones	ACE Supervisor Mohammed Jebara (TBC) ACE Operator _____ All ACE Workers

ITEM	ACTIVITY	HRCW INVOLVED IN TASK	HAZARDS & RISKS	SAFETY CONTROLS	PERSON RESPONSIBLE
			Persons unlicensed / Incompetent	- Plant Operator to hold RTO issued VOC - Turn off plant and remove keys to avoid unauthorized / accidental starting - All plant to be used in accordance to manufacturers operating instructions and load limits - Provide adequate competent supervision - Wear fitted restraints - Never operate with people on or near plant - Start from operator's seat only, never start engine standing on ground - Never leave operator's seat until all implements are grounded, hydraulic pressure is relieved for all controls, lock levers are locked and ignition key has been removed - Never attempt to raise chassis off ground with attachment	ACE Supervisor Mohammed Jebara (TBC) ACE Operator

HEIRARCHY OF CONTROLS Site Specific Safe Work Method Statement

BEST ↓ WORST	- Eliminate the hazard completely - Substitution (e.g. adopt less hazardous process, plant or substance) - Isolation (e.g. provide physical barriers for person at risk) - Engineering Controls (e.g. redesign workplace) - Administration (e.g. provide training & instructions) - Personal Protective Equipment (e.g. use protective clothing). This control should be considered only when other control measures are not practicable.
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ENVIRONMENTAL MANAGEMENT AND STANDARDS Safe Work Method Statement

Codes of Practice Legislation / Standards applicable to the work [these documents can be reviewed at ACE Head Office or contact the OH&S Department to request copies]

NSW Acts & Regulations

WHS Act 2011

WHS Regulation 2017

Protection of the Environment Operations Act (POEO Act) 1997

Protection of the Environment Operations (General) Regulation 2009

Workers Compensation Act 1987

Workers Compensation Regulation 2003

Workers Compensation (General) Regulation 1995

Workplace Injury Management and Workers Compensation Act 1998

Workplace Injury Management and Workers Compensation Regulation 2002

WorkCover NSW WHS Codes Of Practice

How to Manage and Control Asbestos in the Workplace

How to Safely Remove Asbestos

Hazardous Manual Tasks

Managing the Risk of Falls at Workplaces

Managing Noise and Preventing Hearing Loss at Work

Managing the Work Environment and Facilities

Work Health and Safety Consultation, Coordination and cooperation

Excavation work

Moving plant on construction sites

Work near overhead power lines

Work in hot or cold environments

WorkCover NSW Reference Material (SWA Codes of Practice)

Excavation work

First aid in the workplace

Managing electrical risks at the workplace

Managing risks in construction work

Managing risks of hazardous chemicals

Managing risks of plant in the workplace

WorkCover NSW WHS Guides

Work Near Underground Assets

Erecting, altering and dismantling scaffolding ,Part 2: Aluminum tower-frame scaffolding

Guides

Preventing slips, trips and falls; Guide

Tools / Plant/ Equipment

- Sedimentation Supplies
- Fire Extinguisher for safety
- Laser Level, Tripod and Staff for survey and set out
- Hose for Dust control / suppression
- Marking Paint – Survey and Set Out
- Stop/Go Bats, Signage & TC Supplies
- 5T – 35T Excavators for Earthworks operations
- Lifting Chains / Slings
- ACE Fuelling Truck for On – site Fuelling and Servicing
- Bogie, T&D & Semi Trucks for Carting / Importing Material

Maintenance Checks

- Initially: All plant will be subject to a pre-start check prior to its establishment on site – complete Powered Mobile Plant Pre-Start Checklist and submit to client with current and previous months Service Records
- Daily: Inspect all plant prior to use to ensure safety devices operate & report faulty equipment to supervisor – complete Daily Start Up Checklist
- Monthly: All plant will be inspected by a Qualified Mechanic every month – complete Monthly Plant Service Record
- Monthly: All electrical equipment will be inspected and tagged by a qualified person before use on site – affix tag and complete Electrical Equipment Register Monthly
- Yearly: Lifting Equipment will be tested and tagged by a qualified person every year
- Prior to Use: Lifting Equipment will be visually inspected by a competent person
- Half Yearly: Lasers will be tested & calibrated by a competent person every six months
- Half Yearly: Fire Extinguishers will be tested, charged and tagged by a qualified person

Emergency Procedures or Rescue Plans Applicable to the Activity

- Unexpected Finds Protocol for ACM finds.
- Emergency Evacuation / Cave in.
- First Aid Officer for assessment and treatment of minor injuries

Manual handling risk; Guide Standards AS 1336 Recommended practices for occupational eye protection AS 1800 and AS 1801 Safety Helmets AS 2210.1 and 2 Safety Footwear – Lace up AS 1270 Ear Muffs AS/NZS 4602 High Visibility Safety Garments AS/NZS 2161 Occupational Protective Gloves AS 3760 – In-service Safety Inspection and Testing of Electrical Equipment AS 1851.1 – Maintenance of fire Protection Equipment – Part 1 Portable Fire Extinguisher National National Code of Practice Manual Handling [NOHSC:2005(1990)] National Code of Practice for the Storage and Handling of Dangerous Goods		Training required to complete work under the contract - WorkCover approved WHS construction induction training course - Induction into this Safe Work Method Statement / Task specific induction - Working knowledge of WHS regulations and site safety rules - All employees to attend site specific induction training (by Principal Contractor) - Load shifting Operators to hold RTO issued VOC - Traffic Controllers to hold RTA Traffic Controller Ticket - Labourers must hold minimum competency Safe Manual Handling - Transport workers to hold RTA Licence - SOP – Laser
Environmental - Dust - Erosion / Sedimentation - Dewatering	Contaminants of Concern Nil	Safety Data Sheets (attached) - Diesel - Hydraulic Oil - Grease - Marking Paint
Consultation - ACE Site Supervisor will consult with site personnel via Pre-Starts and Tool Box Meetings to ensure they are informed, and also have the opportunity to provide feedback on site conditions and changes, safety issues and safety documentation including the SWMS. - ACE Site Supervisor will review the SWMS to ensure compliance.		Authority requirements (instruction), inspections, permits, drawings - Dial B4 You Dig Plans for Underground Service Location - Client's Plant Requirements - Pre-Start / Tool Box Talk
Minimum PPE Requirements ☒  EYE PROTECTION MUST BE WORN ☒  SAFETY VEST MUST BE WORN ☐  PROTECTIVE CLOTHING MUST BE WORN ☒  FOOT PROTECTION MUST BE WORN ☒  HEAD PROTECTION MUST BE WORN ☐  FACE SHIELD MUST BE WORN ☐  DUST MASK MUST BE WORN ☐  HEARING AND EYE PROTECTION MUST BE WORN ☒  HAND PROTECTION MUST BE WORN		

AGREEMENT TO COMPLY WITH SAFE WORK METHOD STATEMENT (Part 5)

Disclaimer: I have been consulted during the development of this SWMS and confirm that I understand the above Safe Work Method Statement (SWMS). I have been given the opportunity to ask questions which were answered by my direct employer's representation. I agree to comply with the pursuit of a hazard free and safe working environment

No.	Name	Position	Years Experience	WHS Induction Card No.	Signature	Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

NAME AND SIGNATURE OF PERSON(S) CARRYING OUT THE TRAINING:

NAME	SIGNATURE
Mohammed Jebara (TBC)	

[illegible]