Darlington Public School – SSDA Condition B10

Condition	Condition requirements	Document reference
10	Prior to the commencement of demolition, demolition work plans required by AS 2601-2001 The demolition of structures (Standards Australia, 2001) must be accompanied by a written statement from a suitably qualified person that the proposals contained in the work plan comply with the safety requirements of the Standard. The work plans and the statement of compliance must be submitted to the Certifier and Planning Secretary.	Refer Section 1.2 - Document Design for AS2601-2001 reference. (Document p.g 5 of 33) Refer Appendix F for the CV of the suitably qualified person that prepared the plan. (Document p.g 32 of 33)

Metropolitan
DEMOLITIONS GROUP

Demolition Work Plan (DWP)

Darlington Public School

For Stage 2

Project No: MD 2361

For

A W Edwards

Details	Title	Name	Signature	Date
Prepared By:	Project Engineer	**Marin Zuro**		16/03/2022
Reviewed By:	Site Supervisor	**TBA**		
Approved By:	Project Mgr.	**Marin Zuro**		16/03/2022

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DWP - Revision Control

This DWP issue number	Date Issued	Amended Page(s)	Action / Amendment Description	Approved By
00	14/12/20	NA	Draft	Project Manager
01	15/12/20	NA	Created	Project Manager
02	04/01/21	NA	Section 5.2.7	Project Manager
03	22/11/21	NA	For Stage 2 Works	Project Manager
04	16/03/22	NA	Updated for SSDA submission	Project Manager

DWP - Review

Date Reviewed	Reviewed By	Was Revision Required (Record Section Numbers where changes occurred)

DWP Controlled Document Distribution

Issued To	Name & Organisation	Date	Issued by
Site Supervisor	MDG	15/12/2020	Project Manager

1. Introduction

1.1 General

This Demolition Work Plan (DWP) has been developed by Metropolitan Demolitions Pty Ltd and sets out the method of demolition to be adopted for the Darlington Public School project during the course of contractual works and meet Client/Contractual/legal and other requirements. Metropolitan Demolitions Pty Ltd forms part of a group of companies known as Metropolitan Demolitions Group (MDG). For simplicity any reference to Metropolitan Demolitions Pty Ltd will be referred to as MDG in this document.

1.2 Document Design

This Project DWP has been developed to meet the requirements of:

- *Work Health and Safety Regulation 2017 (NSW) Part 4.6, 6.3 and 8.6*
- *Code of Practice: Demolition Work August 2019 (SafeWork, NSW)*
- *AS 2601:2001 Demolition of structures*
- MDGs Integrated QSE Management System requirements

1.3 Supporting Documents

This DWP is to be read in conjunction with the Safety Management Plan (SMP) and Environmental Management Plan (EMP) and / or other plans developed for the project. These developed plans are considered to be the overarching documents to manage and control foreseeable work health and safety risks, environmental risks and meet legislative requirements for the project. Other supporting documents that may be used during the project include:

- Quality Management Plan (QMP)
- Traffic Management Plan (TMP)
- Traffic Control Plan (TCP)
- Asbestos Management Plan
- Asbestos Control Plan
- Drop Zone Management Plan

1.3.1 Safe Work Method Statements

The following key SWMS will be developed prior to staged works;

1. Hand Strip Out and Enabling Works
2. Asbestos Removal
3. Operation of Excavator
4. Operation of Skid-Steer Loader
5. Operation of EWP
6. Traffic Control & Pedestrian Management
7. Working At Heights - on Live Edges
8. Oxy Cutting Reo Bar on Live Edge
9. Ramping Down Plant
10. Mechanical Strip Out
11. Demolish Members Using Oxy LPG Equip
12. Demo-Ground Level Structures

1.4 Client Requirements

This DWP takes into consideration the Client's requirements for implementation through such documents/processes as:

- Evidence of workers handling asbestos to of had the required health monitoring done prior to commencing works.
- Evidence of respirator fit testing having been completed for all workers required to wear a respirator prior to works commencing.

1.5 Licensing Requirements

The type of work involved in this project is classified as unrestricted demolition work by SafeWork NSW. As such the company undertaking this demolition (Metropolitan Demolitions) are required to carry an Unrestricted Demolition Licence and the Supervisor in charge of the works must carry an Unrestricted Demolitions Certificate.

2. Project Information

Client Details:	Is the client the Principal Contractor	x Yes ☐ No
Company Name:	A W Edwards Pty Ltd	
ABN:	76 000 045 849	
Address:	131 Sailors Bay Rd, Northbridge NSW 2063	
Phone:	(02) 9958 1474	
Fax:		
Email:	mwhitmore@awedwards.com.au	
Client Contact Name:	Mark Whitmore	
Client Contact Phone Number:	0413 735 456	
Demolition Contractor Details:	Is the contractor the Principal Contractor	☐ Yes x No
Company Name:	Metropolitan Demolitions Pty Ltd	
ABN:	67 099 769 052	
Address:	Level 1, 396 Princes Highway, St Peters, NSW 2044	
Postal Address:	Po Box 154, St Peters, NSW 2044	
Phone:	02 9519 3099	
Fax:	02 9516 2746	
Email:	info@metrodemo.com.au	
Project Specifics:		
Project Name:	Darlington Public School	
Project Address (Location):	Corner of Golden Grove & Abercrombie Streets, Darlington, New South Wales, 2008	
Start Date:	02/05/2022	Completion Date: 02/07/2021
Peak number of people on site:	20	
Project Contacts:		
Project Manager:		
Name:	Marin Zuro	
Phone Number:	Mobile: 0435 812 867	Office: 02 9519 3099
Email:	marin@metrodemo.com.au	
Competent Person On Site:		
Supervisor 1 – Name:	TBA	
Phone Number:	TBA	
Supervisor 2 – Name:		
Phone Number		
Site Engineer/WHS Person:		
Name:	Marin Zuro	
Phone Number:	0435 812 867	
Other		

2.1 Project Scope of Works

The scope of works consists of the demolition and removal of building located at:

- 417 Golden Grove Street, Darlington NSW 2008

The Projects scope of works includes:

- Demolition works to the 3 x existing school blocks/buildings and infrastructure down to ground slab level
  - Including concrete slab on ground
  - Including bitumen asphalt to rear games court
  - Including existing building footings
- Prepare Management Plans
- Soil and sediment control
- Scaffold protection as required
- Tree removal down to ground level
- Waste sorting and removal
- Asbestos removal
- Traffic management

Key stages of the project will be carried out as described later on in this document and in a detailed sequence as per the Demolition Programme prepared for the project. Work will generally follow the sequence as indicated below.

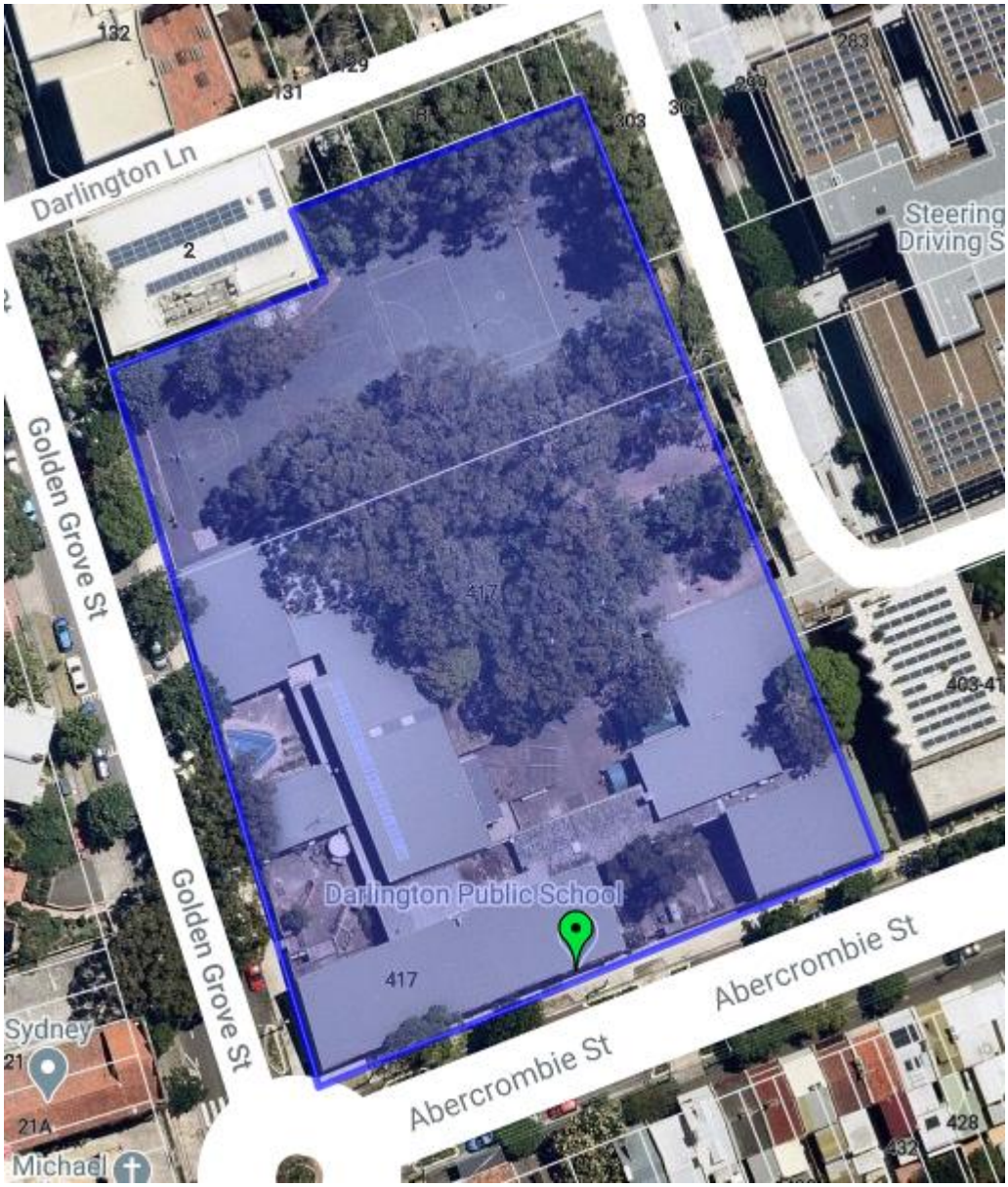
1. Receive Handover of Site and sign off services
2. Site induction
3. Demarcate site and define Exclusion Zones
4. Install Environmental Controls
5. Practical Removal of Hazardous Materials
6. Soft strip structure
7. Erect scaffold and protection
8. Mechanical Demolition
9. Remove rubble and rubbish from site
10. Handover
11. Demobilisation.

All works will be completed in accordance with *Code of Practice: Demolition Work (SafeWork, NSW) and AS2601: The demolition of structures* and shall meet legislative requirements contained in the *Work Health and Safety Act 2011 (NSW)* and *Work Health and Safety Regulation 2017 (NSW)*.

2.2 Project Working Hours

Working hours for **normal works** are:	• **7.00am** to 6**.00pm** Monday to Friday • **8.00am** to **1.00pm** Saturdays • No work on Sundays and Public holidays
Working hours for **high noise emitting works** are: (as per the SSDA)	• **9.00am** to **12.00pm** Monday to Friday • **2.00pm** to **5.00pm** Monday to Friday • **9.00am** to **12.00pm** Saturdays • No work on Sundays and Public holidays

2.3 Project Site Aerial Photograph



3. Investigation

An investigation of the structures to be demolished and surrounding environment has been undertaken in accordance with the *Code of Practice: Demolition Work (SafeWork, NSW) and AS2601: The demolition of structures*. The observations from this investigation is broken up into three (3) sections 'Investigation of Structures', 'Investigation of Site', and 'Investigation of Services' and is recorded below.

3.1 Investigation of Structures

3.1.1 Description of Structures

The structures to be demolished are 3 x existing school buildings and games court. The Early Works/Stage 1 involve 1 x existing building (Block C) and a games court. The Stage 2 works involve 2 x existing buildings (Blocks A & B) and surrounding hardstand areas.

3.1.2 Structural System

The structures to be demolished are comprised of 1 x single storey cavity brick construction with concrete ground slab and 2 x double storey cavity brick construction with suspended concrete slabs and concrete ground slabs. The Early Works/Stage 1 include the 1 x single storey cavity brick structure (Block C) and concrete/asphalt games court only. The Stage 2 works include the two double storey cavity brick buildings with suspended concrete slabs and concrete ground slabs.

3.1.3 Hazardous Materials

Hazardous materials have been identified in a previous report provided by the Client "Report on Hazardous Building Materials Assessment Darlington Public School Upgrade" By: Douglas Partners Date: 20 April 2018 Ref: 92277.00.R.003.Rev0 however were non-destructive in nature and should NOT be viewed as complete – Refer **Appendix A**.

A full destructive hazardous materials investigation is currently being undertaken and this DWP will be updated with the new report when it is made available.

No strip out, demolition or other work that has the possibility of disturbing any asbestos containing materials is to commence until a sign off in the affected area is received prior to commencing.

The hazardous materials removal will be undertaken by Australasian Technical Services NSW Pty Ltd. The licensed asbestos removal contractor will take possession of various areas throughout site setting up containment walls, sheeting, negative air equipment, decontamination units and other controls (where required). Areas will be demarcated, for persons requiring access contact the MDG 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 demolition.

In the case of encountering unidentified asbestos, work will stop in that area and Australasian Technical Services NSW Pty Ltd will seal the area and make safe. Airsafe OHC Pty Ltd will be notified and their advice sought, sampling and identification of the suspect material may be undertaken. Australasian Technical Services NSW Pty Ltd will otherwise remove the asbestos in accordance with the Australasian Technical Services NSW Pty Ltd 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 Airsafe OHC Pty Ltd and provide a clearance certificate for the same.

3.1.4 Height of Structures and Distance to Boundaries

Approximately 5m in height for Block C and approximately 10m in height for Blocks A & B. Block C is built up hard against the Western boundary and is approximately 25m from the Northern boundary and 40m away from the Eastern boundary. Blocks A & B are built up hard against the Western, Southern & Eastern boundaries and are approximately 65m away from the Northern boundary.

3.2 Investigation of Site

3.2.1 Description of Site

The site is roughly rectangular in shape and comprised of an operational primary school and childcare centre with a driveway at both the eastern and southern ends.

No heritage listed structures have been identified on site.

All neighbouring buildings are to remain operational throughout the demolition process. MDG works must not in any way hinder the operation of these surrounding buildings.

3.2.2 Underground Structures

No details of underground structures have been provided by the Client.

3.2.3 Retaining Structures

The external walls to part of the building at Block A have been identified as being retaining walls, however, further investigation is required once on site. There are also several retaining walls external to the building(s).

3.2.4 Hazardous Chemicals / Dangerous Goods Storage or Dumps

No major hazardous chemicals or dangerous goods (e.g. munitions, chemical storage systems, underground storage tanks, compressed gas cylinders, fire retardant cylinders, medical gases, dumps of noxious or toxic or hazardous substances, etc.) have been identified on site or have been communicated by the Client.

Work involving removal of hazardous chemicals / dangerous goods is not in MDGs scope of works and is the responsibility of the Principal Contractor to remove unexpected findings of hazardous chemicals / dangerous goods on site.

In the event of encountering any unexpected findings of hazardous chemicals / dangerous goods, the following is to apply before work commences in the immediate area:

1. Work in the immediate area will stop
2. The Site Supervisor will be notified of the find
3. The Site Supervisor will notify the Project Manager
4. The Project Manager will notify the Principal Contractor
5. The Principal Contractor will organise the safe removal of the substance (which may necessitate the engagement of specialist contractors), work will not recommence in the area until the Principal Contractor has given approval

3.2.5 General Condition of Land and Structures on Adjoining Sites

The buildings, paths, roadways and other items surrounding the site are in sound structural condition. A full Dilapidation Survey is to be undertaken by the Principal Contractor prior to demolition starting. MDG do not anticipate any physical impacts on the surrounding structures.

Care will be taken to minimise impacts on adjoining sites and structures. Various methods will be employed to minimise the disruption to the surrounding buildings or adjoin sites and structures.

3.3 Investigation of Services

3.3.1 Services to be disconnected

All services shall be disconnected / made safe prior to commencement of demolition work. A sign-off on services will be received by A W Edwards prior to the commencement of any demolition works.

For some minor demolition/early works in localised areas where it is clearly evident that there is no power services going to be disturbed (e.g. removal or demolition of ceiling grids, furniture and fixings that do not contain power) the demolition may occur without a signoff.

There is a small gas line which has been identified as a ‘live’ Client critical service.

Refer Service Disconnection Signoffs - **Appendix B**.

3.3.2 Services to be maintained

Water and temporary power will be used during the course of demolition works. Some emergency access lighting will be installed and temporary power boards will be used to provide task lighting in the darker areas of the structures. Power will also be used by the Asbestos Removal Contractor to run vacuums, decontamination units (where required), negative air units and lighting within their enclosures.

Water will be used for dust suppression and in the decontamination unit showers (where required).

3.4 Hazard Investigation / Identification

The following key hazards associated with demolition work have been identified:

- Unplanned structural collapse

- Falls from one level to another
- Falling objects
- The location above and underground essential services, including the supply of gas, water, sewerage, telecommunications, electricity, chemicals, fuel and refrigerant in pipes or lines
- Exposure to hazardous chemicals – these may be present in demolished material or in the ground where demolition work is to be carried out (contaminated sites)
- Hazardous noise from plant, equipment and the movement of demolished materials
- The proximity of the building or structure being demolished to other buildings or structures
- Unexpected finds of asbestos containing materials
- Hazardous materials exposure – Respirable Dust, Respirable Crystalline Silica (RCS)

Each of the above risks has been investigated and control measures outlined in the Safe Work Method Statement (SWMS) developed for demolition and associated works. Refer SMP and EMP for more details.

3.5 Suspended Slabs and No-Go Areas for Machine's

The following areas are no-go areas for machinery unless an engineer's approval is sought first:

1. All suspended slabs
2. The high side of any retaining walls from the edge of the wall, back a distance equal to the height of the wall
3. On top of any underground structures including fuel tanks and the like. Note: where the walls of underground structures are retaining walls, they should be treated in accordance with the above point

- All levels of the structures to be demolished with the exception of the basement/on-grade slabs are suspended. No machines are to be placed on these slabs without first getting engineers approval. Certification will be sought as to the heaviest Skidsteer, EWP, truck and excavator types that can be places on area of the building prior to bringing any machines on site. Prior to heavier machines being brought onto site, temporary propping will be designed by a structural engineer, installed and finally certified by the design engineer for the areas the machine will be working in. A third party engineer will also check all temporary works including back propping and bracing.
- Prior to installation of back propping a SWMS will be developed for the installation of the props (where required/advised by the engineer).

4. Demolition Exclusion Zone

The demolition Exclusion Zone will encompass the entire site with the exception of the site amenity areas (and access ways to and from), which will be deemed construction zones.

All personnel on the Principals contractor site have to be inducted into their system. In addition, all personnel not inducted by MDG will be required to visit the site office and not enter the demolition site until they have been inducted and signed on the Site Sign-In Register or brought on site with the permission of the MDG Site Supervisor under the supervision of an inducted person and have signed in the Site Visitors Register.

As well as the whole demolition site being a demolition zone, various area inside site will be demarcated with chain wire fencing and signs 'Warning Drop Zone, Do Not Enter', Jersey curbs, steel plates and other engineering barricades will also be used in the Drop Zones. The locations of these Drop Zones are also marked up on an Exclusion Zone Plan. The location of smaller temporary localised Drop Zones will be tool box talked daily and detailed in the demolition site sign on location.

All Exclusion Zones, Asbestos Removal Zones and Drop Zones will be properly demarcated.

No unauthorised persons shall be permitted into the demolition work area. All personnel and visitors will follow Site Personnel and Visitor Registration Procedure.

5. Details of Demolition

5.1 Sequence

Demolition

Work will follow the sequence below. Amended to this sequence may occur to suit. For more detail see separate Demolition Program.

1. Receive Handover of Site and sign off services
2. Site induction
3. Demarcate site and define Exclusion Zones
4. Install Environmental Controls
5. Practical Removal of Hazardous Materials
6. Create Drop Zones
7. Soft strip structure
8. Erect scaffold and protection
9. Mechanical Demolition
10. Remove rubble and rubbish from site
11. Progressive dismantle of scaffolding
12. Handover
13. Demobilisation

More details on the sequence and flow of the work including durations see the separate Demolition Program and updated monthly programs.

Temporary Works

Note: Where temporary works are necessary (propping, scaffolding needles and the like) the following sequence MUST be adhered to prior to the use of the temporary works item:

1. Design
2. Specialist Engineer Sign Off on Design
3. Client Sign off on Design
4. Installation
5. Inspection and Certification (engaged specialist Engineer)
6. Use of temporary works structure/item

5.2 Detailed Work Method

5.2.1 Receive Handover of Site and Sign-off on Services

Demolition will begin only when the site has been officially handed over and a sign off on services has been received by the appropriate service providers for appropriate areas.

5.2.2 Site Induction

A site induction is to be held before any work commences on site. The site induction includes the following:

- Induction into this DWP, other plans and SWMS
- Induction into the Principal Contractors Work Health and Safety Management Plan/system
- Induction into the Clients Work Health and Safety Management Plan/system (where required)
- Working With Children Check (WWCC)

5.2.3 Demarcate Site and Define Exclusion Zones

The entire site will be fenced with a combination of either 1.8m chain wire fencing or hoarding A-Class or B-Class (where required) by the Principal Contractor (A W Edwards). Timber hoardings will also demarcate between the site and the live school environment provided by the principal. Other areas of site may be demarcated as hazard removal areas, exclusion or Drop Zones. The access gate will be closed during demolition works and manned during load out.

Site notices to be displayed in a prominent position are:

- Unauthorised entry prohibited
- Warning Demolition in Progress
- Warning Asbestos Removal
- Mandatory PPE information signage
- MDG Site Supervisor in charge of works
- 24 hour site emergency contact number

5.2.4 Install Environmental Controls

MDG is a responsible demolition contractor and will endeavour to ensure the unimpeded operation of the surrounding sites throughout our works. Particular importance will be placed on sensitive

receivers and close proximity to adjacent buildings. MDG will endeavour to do everything reasonably practicable to make what is by nature a noisy and disruptive process as quiet and dust free as possible. A summary of the key environmental methods that will be used on site include:

- **Sediment Control**
  - Leaving all hardstands in place until the very end of the project. All truck movements will be on hardstand
  - Installing sediment settling and filtration system in the sumps of building to collect and filter sediment prior to it being released into the storm water system. Prior to releasing any water into the storm water a testing system will be put in place
  - A mechanical vacuum type street sweeper is to be employed wherever sediment or dust becomes an issue on the external roadways and on the internal hardstand on site. It is expected that initially there will be not much need for the sweeper however towards the peak load out period of the project the sweeper may need to return to site daily. The need for the sweeper will be assessed on a daily basis with input from interested parties and stakeholders.
  - All drains will be covered in a Geotech material, with Geotech lined hay bales placed up stream of the flow to these drains. All fencing to the perimeter of site will be lined with shade cloth
- **Noise Management**

Demolition is a noisy process, however many measures can be taken to minimise this noise. MDG believe that with the following noise reduction measures when implemented will minimise noise disruption to the surrounding buildings:

  - Demolition will be undertaken by as large as possible machines as they are far less obtrusive than the rapid crescendo of smaller machines.
  - External walls of each floor will be left in place until the very last stage of each floors demolition. The walls act as a sound barrier shielding the neighbourhood buildings from much of the noise generated by machines on that floor.
  - Drop Zones will be located to ensure minimum noise from their operation
  - Material that generates a lot of noise when removed via Drop Zone (large steel members, etc.) will be craned off the structure
  - The base of drop zones will be covered with 500mm of rubble prior to their use.
  - Where possible, drop zones may be enclosed with material such as concrete jersey curbs, steel columns and/or steel plates to contain noise.
  - A 3m high 'A Class' hoarding that will be erected to the perimeter of the demolition site will greatly reduce ground level noise from escaping the confines of site.
  - High noise emitting works will be undertaken in during in line with SSDA requirements.
- **Dust Control**

  Demolition of brick and concrete can generate excessive amounts of dust however through the following dust suppression measures MDG anticipate the dust leaving the confines of

the building being demolished will be kept below a level that adversely affects the surrounding billings and site:

- Installing a minimum of 2 water points (with 3 outlets on each point) or as needed on every level of the building with booster pumps used to achieve sufficient water pressure at the top levels of the building (as required).
- Each machine used in the demolition process will be accompanied by a labourer with a water hose to ensure water is available on each separate demolition face and provide adequate dust suppression. Water runoff will be minimised.
- On plant dust suppression to be used where required.
- All scaffolding will be lined with Metro Mesh which reduces the wind over the active demolition faces and the possibility of dust permeating through the scaffolding screen
- Material will be saturated prior to being removed via the Drop Zone
- During load out of material, material will be wet down to minimise dust being generated
- The 3m high 'A Class' hoarding will be erected reducing ground level dust from escaping the confines of the site

- **Vibration Management**

  Vibration on this site will emanate from the excavator mounted hydraulic hammers used in the process of breaking down the concrete and brick structure into rubble and also from items reaching the base of the Drop Zone. The following measures will ensure that disruptive vibration will not travel beyond or site:

  - Physical links from structure being demolished to adjoining buildings and structures will be demolished (e.g. overhead walkway etc.)
  - Physical separation will be done by saw cutting a slice of the slab
  - 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
  - Covering of the base of Drop Zone with 500mm of rubble prior to use.

- **Truck Movements**
  - Providing traffic controllers to control pedestrian and vehicular traffic
  - Ensure trucks are covered prior to leaving site
  - Providing drivers information on access, routes and site conditions and sensitive receivers
  - Space allocated for trucks within hoardings

Refer ***Environmental Management Plan*** (EMP) for full details.

5.2.5 Practical Removal of Hazardous Materials

The management of asbestos on site will be conducted in accordance with the Safety Management Plan (SMP) and Asbestos Management Plan (AMP) developed for the project.

Where hazardous materials removal is to be undertaken an Asbestos Removal Control Plan is to be developed by Australasian Technical Services NSW Pty Ltd including specific SWMS for the activity. The Asbestos Removal Control Plan is to incorporate the requirements of the Asbestos Management Plan (AMP).

Hazardous materials removal work will be conducted in accordance with the *Work Health and Safety Regulations 2017 (NSW)* and the *Code of Practice: How to safely remove asbestos.*

The hazardous materials removal will be undertaken by Australasian Technical Services NSW Pty Ltd in all areas of site prior to demolition in those particular areas. A clearance certificate will be obtained by a qualified Occupational Hygienist prior to demolition.

Refer ***Asbestos Management Plan*** and (ARC) Asbestos Removal Control Plan and SWMSs for further details on the asbestos removal and associated risks analysis.

5.2.6 Create Drop Zones

Openings/open areas in and around the buildings with clear access may utilised as or created into drop zones for transport of demolished materials from the levels being demolished to the load out area below.

Where material is being tipped into a drop zone, wheel stops will be installed as a means of preventing the Skidsteer from traveling over the edge. Signage will be posted on the drop zone fencing to notify all site personnel that the area is in use as a drop zone.

Prior to rubble being removed via the drop zone, it will be saturated with water to keep the rubble moist so the loading of the material into trucks does not generate dust.

A spotter may be required to police the fenced off area under any drop zone at all times whilst it is in use.

Drop Zones will be controlled in accordance with the Drop Zone Management Plan.

5.2.7 Soft Strip Structures

The structures will be stripped-out by hand and appropriate hand tools where required, prior to mechanical stripping in appropriate areas. No heavy machines will be placed in the areas highlighted in Section 4(1).

Bounded material such as non-loading bearing walls, partitions, and doors that may not be removed by machines will be removed by a combination of hand, picks, crow bars, and other associated tools, and stockpiled in the building or a secure area of site for load out by machines.

The mechanical stripping of structures will be stripped-out via a combination of a Skidsteer and small excavators, generally 1 to 5 tonne.

5.2.8 Erect Scaffold and Protection

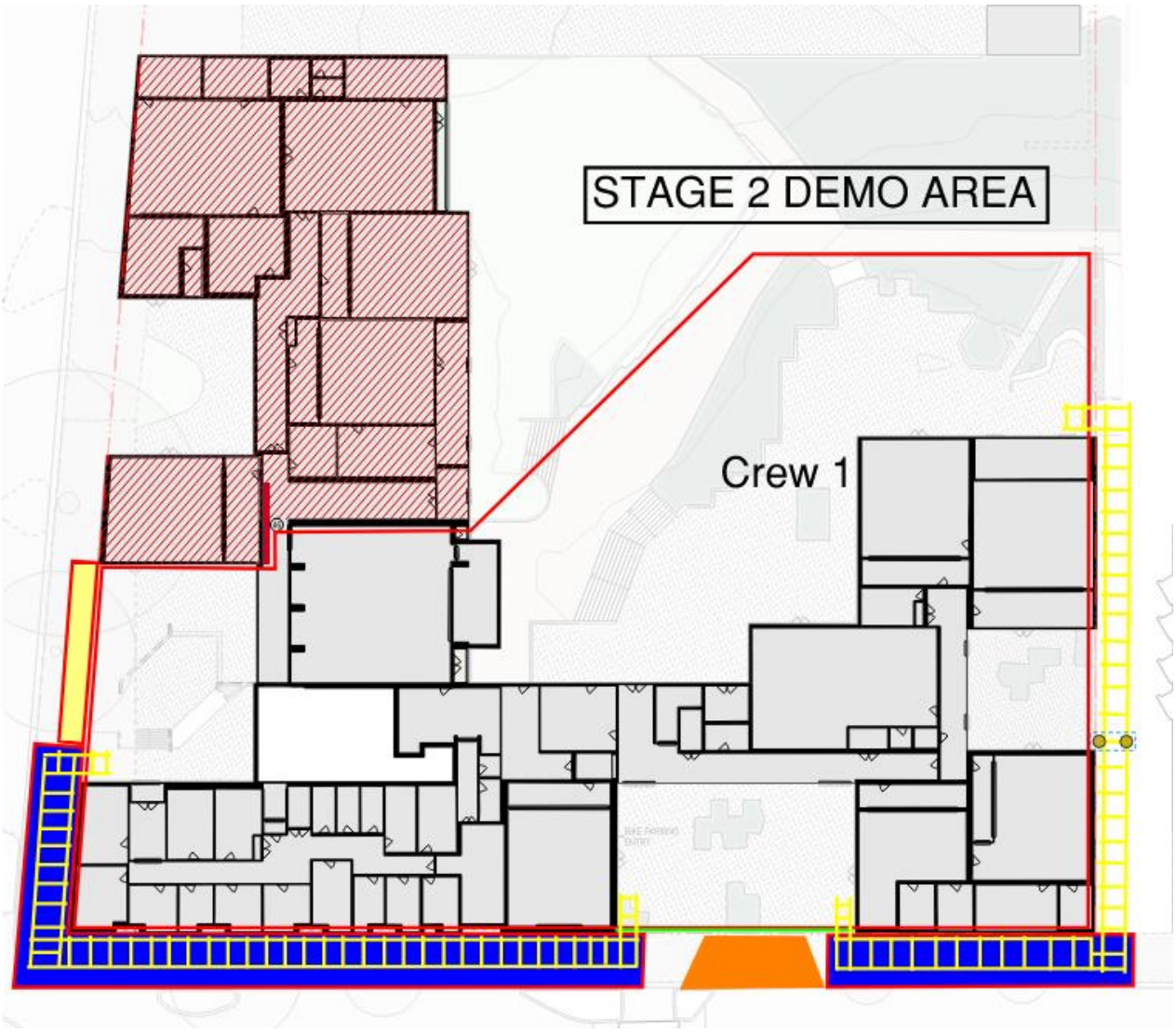
The structure will be scaffolded with heavy duty 5 board (or 3 board where access is restricted) demolition scaffolding covered with chain and shade). 3m high ‘A Class’ or ‘B-Class’ hoardings will be erected to the perimeter by the Principal Contractor.

See SWMS provided by scaffolders for further details on the scaffolding erection and associated risk analysis.

When undergoing demolition of a slab, 2 levels of scaffold below will be fitted with carpet and plywood to stop rubble falling through them. Alternatively an exclusion zone will be set up for all the below floors and scaffolds preventing personnel from gaining access to beneath the scaffolds.

During demolition the scaffolding is always to remain at least 2m higher than the top floor being demolished.

Refer below scaffold and protection markup of areas for clarity.

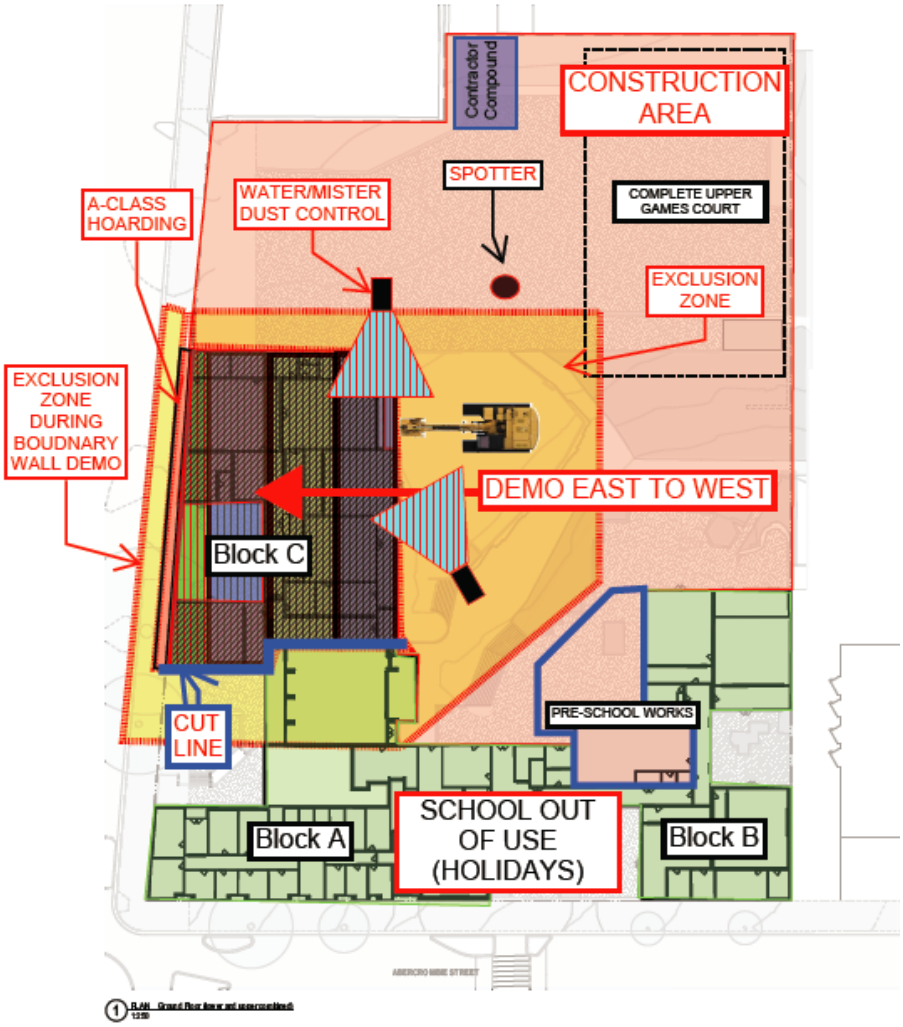


5.2.9 Mechanical Demolition

For the Early Works/Stage 1 works mechanical demolition will be by hydraulic excavator of 12 and 20 tonne with shear, pulveriser hammer and bucket attachments. These machines will be sat at slab on ground whilst demolishing the structure, demolishing one bay at a time, then the materials will be processed by another machine and slab cleared to allow the demolition to continue in the same manner. All buildings and structure can be reached from the ground.

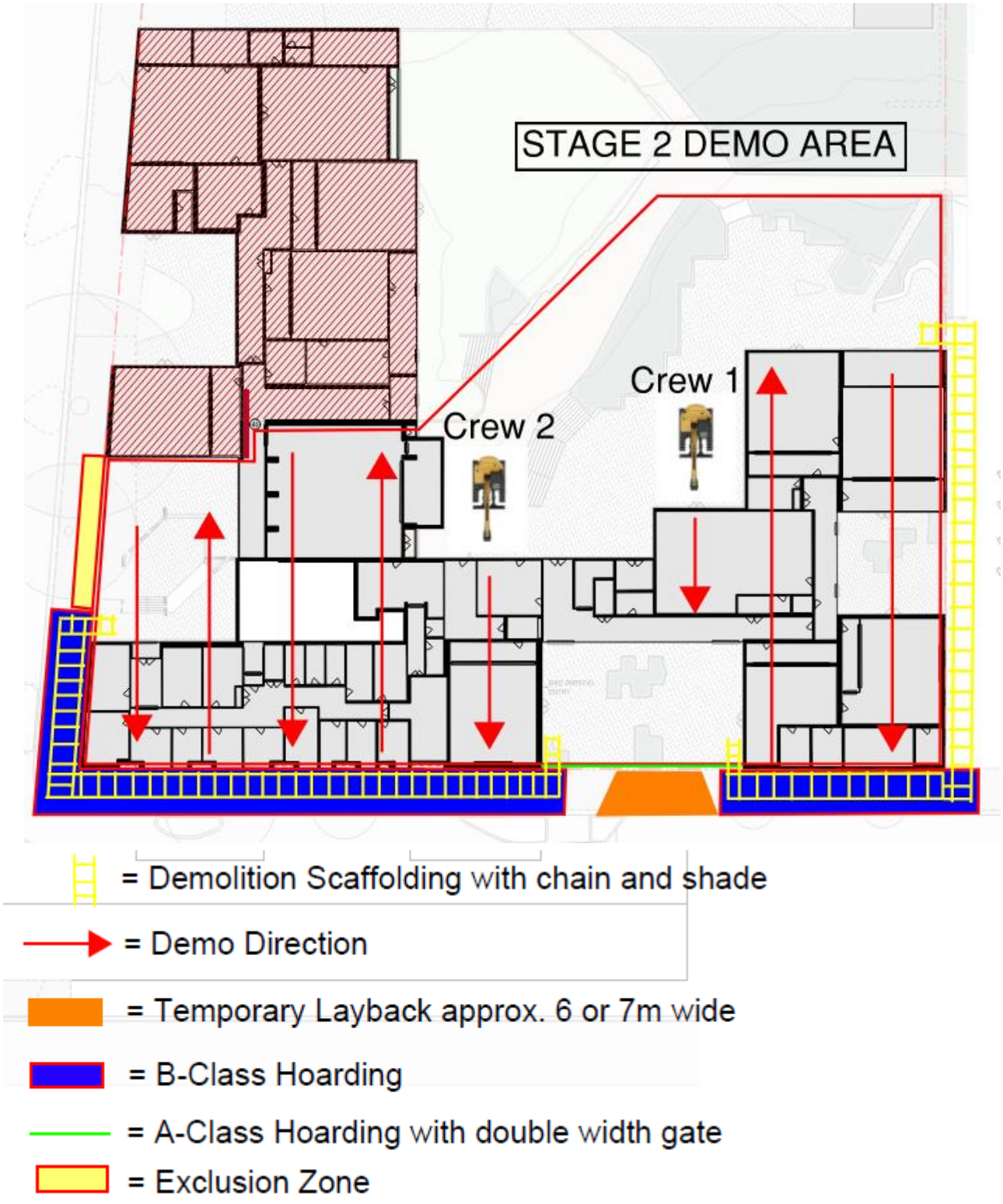
The demolition will generally occur in an east to west direction, one bay or section at a time as can be seen in the mark-up below with the boundary wall along Golden Grove Street left in place till

last. This boundary wall is to be demolished once an appropriate footpath closure in place with traffic controllers directing pedestrians across to the other side of the road.



For the Stage 2 works mechanical demolition will be by hydraulic excavator of larger 20 and 30 tonne with shear, pulveriser hammer and bucket attachments. These machines will be sat at slab on ground whilst demolishing the structure, demolishing one bay at a time, then the materials will be processed by another machine and slab cleared to allow the demolition to continue in the same manner. All buildings and structure can be reached from the ground. An engineer's approval and direction may be required in regard to allowable loads on each slab, back propping, sequence of demolition etc. If necessary, this advice will be followed and is included in this document as **Appendix C.**

The demolition will generally occur in an north-south/south-north direction, one bay or section at a time as can be seen in the mark-up below with the boundary wall along Golden Grove Street left in place till last. This boundary wall is to be demolished once an appropriate footpath closure in place with traffic controllers directing pedestrians across to the other side of the road.



Hydraulic excavators with shear attachments will cut down steel elements of structure in sections. Hydraulic excavators with hammer / pulveriser attachments will break up brick walls and concrete slabs of the structures in sections and stockpile ready for loading out.

A watcher will work with plant and equipment operators at all times.

Water will be maintained at the face of demolition for dust suppression where required.

During demolition the floor area under the excavators and the bay area's being demolished will be closed off with warnings signs, ATF fence panels and existing wall's. No plant or personnel will be allowed in these areas.

Shear wall that is on the perimeter of the building will be demolished in the following sequence:

1. Excavator will punch a vertical line in the wall, leaving steel reinforcement intact
2. The excavator will then make a horizontal line at the base of the wall keeping the steel reinforcement intact. Leaving 300mm concrete between the vertical cut and the start of the horizontal cut
3. A worker will then cut the back steel reinforcement in the horizontal line and all the steel reinforcement in the vertical line
4. The machine will then fold the wall inside the building

The pulling in of perimeter beams will be done in the following sequence:

1. An excavator will hammer both ends of the beam, exposing the steel and leaving the stanchion intact.
2. Steel flanges and web will be oxy cut on an angle allowing them to be hinged back into site by the demolition excavator
3. The remaining end will fall onto some rubble or steel to cushion the impact on the slab
4. The beam can then be safely dragged in by the excavator

Removal of double story walls will be carried out in the following sequence:

1. Excavator will punch a vertical line in the top of the wall, leaving steel reinforcement intact
2. The excavator will then make horizontal line mid height of the wall keeping the steel reinforcement intact. Leaving 300mm concrete between the vertical cut and the start of the horizontal cut
3. A worker will then cut back the steel reinforcement in the horizontal line and all the steel reinforcement in the vertical line
4. The machine will then hammer the folded in wall
5. The procedure for removing perimeter shear walls will then be followed for the lower segment of the wall

The proposed Block C Demolition Cutline delineating between Stages 1 & 2 has been reviewed by the project structural engineer and is shown in **Appendix E**. Further investigation confirming these findings will be required once full access to site has been granted. Localised demolition will occur in this area most-likely by hand and with appropriate hand tools to create the initial separation or isolation between the Blocks. Following this, a small Skidsteer/Excavator generally between 1 to 5 tonne, will be introduced to mechanically demolish the former structure whilst paying careful attention the structure to remain and with the assistance and guidance of a spotter on the ground (where required).

5.2.10 Remove Rubbish and Rubble from Site

Both strip out material and load out from floors being demolished, will be removed via Skidsteer. Demolition rubble will be removed from the floor below the one being demolished. The Skidsteer will transport the rubble to the Drop Zones and drop it over the edge. The Skidsteer operator will need to stay in constant communication with the excavator machines above to coordinate between demolition and load out crews. The Skidsteer operator will also need to stay in constant communication with the machine loading out from the Drop Zone at ground level to ensure when material is being dropped into the Drop Zone the base of the Drop Zone is evacuated.

The reinforced concrete up stand to the edge of the Drop Zone is to be left in place to ensure there is no possibility of the Skidsteer travelling over the edge of the building. The Skidsteer will lift the material over this up stand and tip through the opening. Only suitable material of a suitable size will be placed into the Drop Zone to avoid blockages.

An excavator operating at ground level (Drop Zone) will remove the rubble from the Drop Zone and load trucks. The area this machine is working in will be clearly demarcated and posted as a Drop Zone and is also out of bounds for all personnel unless under the express permission of the operator of the load out machine who will be in constant contact with the operators on the roof and other demolition crews using the Drop Zone via 2 way radio.

Concrete jersey curbs, steel columns and steel plates will be installed at the base of the Drop Zone to ensure material does not escape the confines of the demarcated area.

Demolished material will be separated and stock piled ready for load out.

A combination of hydraulic excavator with grapple attachments or bucket and/or Skidsteer with grapple attachments will load out demolished material into appropriate bins for transportation to an EPA approved tipping or recycling facility.

Water will be maintained on stockpiles at all times for dust suppression.

Care shall be taken to watch for pedestrians when entering and leaving site.

Approved Traffic Control Plan will be adhered to at all times. All trucks will follow the truck route and guidelines on entering and exiting the site.

5.2.11 Progressive Dismantle of Scaffolding

Scaffolding will be progressively dismantled as the structure is demolished. During demolition, the scaffolding is to always remain at lest 2m higher than the top floor being demolished. Scaffold deconstruction will be supervised by a ticketed scaffolder working in conjunction with the demolition supervisor.

5.2.12 Handover Site to Client Representative

Where areas are to be progressively handed back to the Client or Principal Contractor the ***Project Area Handover Form*** is to be used and a copy provided to the Client.

On practical completion of works, a site meeting with the Clients representative and MDG will occur. MDG will hand over the site following the completion of all activities on the scope of works.

5.2.13 Demobilise from Site

The site demobilisation will take place following the site handover to Clients representative. Truck floats will take plat off site, the mobile amenities (where used) will be towed off site and the site fencing dismantled (where installed by MDG) and carted off site.

6. Permits by Authorities

All relevant permits required by authorities will be sought and displayed on-site at all times. These permits include but are not limited to (refer **Appendix D**):

- SafeWork NSW Permit for demolition
- SafeWork NSW Permit for asbestos removal
- Council approval for temporary footpath closures (if necessary)
- Council approval for Hoardings and laybacks (if necessary)

7. Personnel Qualifications

All personnel onsite shall hold a General Construction Induction Card (White Card).

The Site Supervisor shall be a SafeWork NSW recognised Demolition Class A (unrestricted) Competent Person with considerable expertise in the demolition of similar structures.

All plant will be operated by SafeWork NSW ticketed and experienced personnel.

MDG is committed to ensuring ongoing Work Health and Safety compliance. All personnel will be site inducted prior to commencement of work on-site.

8. Notes:

- During mechanical demolition, a competent observer will work with the operator at all times
- An RTA ticketed traffic controller will assist trucks accessing and egressing the site
- The structure is to be demolished in a controlled manner
- MDG will maintain a competent SafeWork NSW recognised person on site at all times
- Each day a daily toolbox talk and checklist will be conducted by a site foreman and is to be read in conjunction with this DWP and the task specific SWMSs
- Personnel will sign off daily toolbox talks prior to proceeding to the work face
- All MDG personnel will hold a General Construction Induction Card (White Card) and will wear appropriate PPE
- Site specific SWMS and DWP can be altered in the Tool Box Talks, by altering the actual documents and by creating new SWMS on the blank forms provided. These changes will be outlines in a toolbox talk and orally if the competent person on site identifies additional risks. Further revisions of the documents will be issued as soon as practicable.

9. Forms

- Request to Client for Service ID, Decommission & Approval to Remove F-QSE-024.A
- Project Area Handover Form F-QSE-003.H

Appendix A – Hazardous Materials Survey / Register

Douglas Partners
Geotechnics / Environment / Groundwater

Integrated Practical Solutions

Report on
Hazardous Building Materials Assessment

Darlington Public School Upgrade
Darlington Public School, Darlington, NSW

Prepared for
Billard Leece Partnership Pty Ltd

Project 92277.00
April 2018

Appendix B – Service Disconnection Signoffs

Services disconnection signoffs by A W Edwards expected to be provided by 26/05/2022 prior to commencement of demolition works.

Appendix C – Engineer Certificates and Instructions

Engineer Certificates and Instructions by Metropolitan Demolitions expected to be attained by 26/05/2022 prior to placing machines on suspended slabs.

Appendix D – Permits by Authorities

Copy of demolition and asbestos removal permits to be placed on noticeboard

NSW GOVERNMENT SafeWork NSW

Work Health and Safety Act 2011 (WHS Act)
Work Health and Safety Regulation 2017 (WHS Regulation)

Notice of intent to commence demolition work

☒ Structure/ part structure that is at least six (6) metres in height

☒ Involving load shifting machinery on a suspended floor

☐ Involving explosives

Notification number: 941R-00343373-01 **Date of notice:** 28/04/2022 **Notification status:** Accepted

LICENCE DETAILS

Demolition licence number:200491 Expiry date:24/10/2022

Licence holder name: Metropolitan Demolitions Pty Ltd

Class(es): DE1/ DE2

Registered business name:Metropolitan Demolitions Pty Ltd

A.B.N:67099769052

Daytime contact number:0295193099

WORK/ SITE DETAILS

Proposed work start date: 16/05/2022 Proposed work finish date: 14/11/2022

Site name: Darlington Public School

Site address: 417 Golden Grove Street Darlington NSW 2008

Site owner: A W Edwards Pty Ltd Telephone:

Type of structure to be demolished: Demolition Of Existing Two Story (Double Brick With Reinforced Concrete Slabs) School Building Structures From Ground Level. Using Excavators, Bobcats And Small Plant.

Machinery to be used in the demolition: Combination Of 2 - 30 Tonne Excavators, 2 - 5 Tonne Skidsteers

Explosives to be used in the demolition: ☐ Yes ☒ No

Explosive licence number: Explosive licence expiry date

Explosive licence holder name:

Was a blast management plan provided: ☐ Yes ☒ No

SUPERVISOR/ WORKER DETAILS

Supervisor	DOB	Competency	Telephone
MR William Giannikouris	14/01/1985	DE2 ASB	0433 577 017
MR Errol Robert Conway	24/07/1960	DE1 ASB	0419 426 859

All work is to be carried out in accordance with the *Work Health and Safety Regulation 2017* and the associated codes of practice.
This notification of intent to commence demolition work is required by clause 142 of the *Work Health and Safety Regulation 2017*.
See Section 268 of the *Work Health and Safety Act 2011* for offences relating to the giving of false or misleading information under the Act or the Regulation.

SafeWork NSW, 92-100 Donnison Street, Gosford NSW 2250 | SafeWork Assistance Service 13 10 50 | Website safework.nsw.gov.au

NSW GOVERNMENT | SafeWork NSW

Work Health and Safety Act 2011 (WHS Act)
Work Health and Safety Regulation 2017 (WHS Regulation)

Notice of intent to remove non-friable asbestos

Notification number: 940R-00343261-01 **Date of notice:** 28/04/2022 **Notification status:** Accepted

LICENCE DETAILS

Asbestos removal licence number: 212177 Expiry date: 4/06/2025
Licence holder name: Australasian Technical Services NSW Pty Ltd
Class(es): Class A / ASA/ Class B / ASB
Registered business name: Australasian Technical Services NSW Pty Ltd
A.B.N: 87603981522
Daytime contact number: 0296054733

WORK/ SITE DETAILS

Proposed work start date: 3/05/2022 Proposed work finish date: 8/07/2022
Site name: Darlington Public School - Building A And B
Site address: Golden Grove Street Chippendale NSW 2008
Site owner: Metropolitan Demolitions Telephone:
Approximate quantity of asbestos: (square metres) 500
Detail location of asbestos on site: Asbestos Cement Sheeting, Vinyl Floor Tiles, Electrical Backing Boards Throughout
Details of removal including method used to enclose the removal area: Fencing, Barriers, Signage, Water, PVA, 200 µm plastic, Class H asbestos vacuum cleaners,

CLEARANCE CERTIFICATE PROVIDER

Competent person: Phi Tran Telephone: 0409 564 018
Licensed asbestos assessor: Number: Telephone:

SUPERVISOR/ WORKER DETAILS

Number of workers for this removal work: 4
Number of workers who have successfully completed relevant competency unit: 4

Supervisor	DOB	Competency	Telephone
MR Vong Chheang	05/06/1959	ASA	0432 722 773
MR Phanarith Thach	01/05/1980	ASA	0416 619 169
MR Piyakone Thammavongsa	17/11/1982	ASA	0424 048 828

All work is to be carried out in accordance with the *Work Health and Safety Regulation 2017* and the associated codes of practice.
This notification to remove asbestos is required by clause 466 of the *Work Health and Safety Regulation 2017*.
See Section 268 of the *Work Health and Safety Act 2011* for offences relating to the giving of false or misleading information under the Act or the Regulation.

Appendix E – Block C Demolition Cutline

Appendix F – CV

Metropolitan DEMOLITIONS PTY LTD

MARIN ZURO

PROJECT ENGINEER

PROFILE

Experienced in demolition and civil works.

CONTACT

PHONE:
9519-3099

WEBSITE:
www.metrodemo.com.au

EMAIL:
marin@metrodemo.com.au

EDUCATION

University of Sydney – Bachelor of Project Management (Built Environment)

Safework NSW – General Construction Induction (White Card)

WORK EXPERIENCE

Lend Lease, 60 Martin Place, Sydney
Completion 2017 - $23 M
Complete demolition of existing 34 level structure (former Westpac building) including 2 levels of basement, bordering Martin Place the Reserve Bank and NSW Parliament. The project also involved large scale friable asbestos removal, retention of the existing retaining walls and bulk/detailed excavation. Project was a 6-star green-star design with >95% recycle rate.

Richard Crookes Constructions, 229 Miller Street, North Sydney
Completion 2018 - $5 M
Complete demolition of a 6-storey residential apartment complex including one level of basement, hazardous materials removal, D&C of shoring walls (piles and capping beam) and bulk/detailed excavation (additional 4 basement floors).

Multiplex Constructions, UNSW Biosciences Stage 2
Completion 2018 -$7 M
Partial demolition of existing structure. Structural demolition of top 2 floors and complete strip-out of remaining 7 floors. Saw cutting/forming new penetrations in walls and suspended slabs, entire facade demolition, hazmat removal and excavation of existing lift pit to facilitate extension including temporary support.

Richard Crookes Constructions, 71 Macquarie Street, Sydney
Completion 2019 - $6 M
Demolition of footings, underground pits, tanks, services and D&C of shoring walls (piles and capping beam). Bordering with Cahill Expressway, Circular Quay railway line and Sydney Harbour foreshore. Retention of heritage structures, bulk/detailed excavation (additional 4 basement floors) and pressure grouting works.

Built Constructions, 55 Market Street, Sydney
Completion 2020 - $3 M
Partial demolition of existing structure. Structural demolition of mezzanine slab and internal strip-out to three levels of podium together with two levels of basement. Demolition and removal of building elements including former monorail station, strata box within building footprint, façade walls, stairwells and penetrations.

Appendix G – Unexpected Heritage Finds Protocol Extract