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DEMOLITION WORK PLAN (DWP)
Greenwich Hospital Development

HINDMARSH

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Contents

Details	Title	Name	Signature	Date
Prepared by	Project Engineer	Matthew Tamer		18/09/2024
Reviewed by	Project Manager	Ryan Bonakey		23/09/2024
Approved by	General Manager	Greg Banks		23/09/2024

DWP - Revision Control

DWP issue number	Date Issued	Amended Page(s)	Action / Amendment Description	Approved By

DWP – Review

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

DWP Controlled Document Distribution

Issued to	Name and Organisation	Date	Issued By

1. Introduction

1.1 General

This Demolition Work Plan (DWP) has been developed by Central Civil (NSW) Pty Ltd and sets out the method of demolition to be adopted for Greenwich Hospital Redevelopment River Road, Greenwich during the course of contractual works and meet Client/Contractual/legal and other requirements.

1.2 Document Design

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

- Work Health and Safety Regulation 2017 (NSW) Part 4.5, 6.3 and 8.6
- Code of Practice: Demolition Work 2019 (SafeWork, NSW)
- AS 2601:2001 Demolition of structures
- Central Civil (NSW) Integrated Management System (IMS) requirements

This Project DWP has been prepared to satisfy SSD Condition C10 for Greenwich Hospital Redevelopment River Road, Greenwich which requires the demolition work must comply with the provisions of Australian Standard AS 2601 - 'The Demolition of Structures'. The work plans required by Australian Standard AS 2601 - 'The Demolition of Structures' 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 and be to the satisfaction of the Principal Certifier prior to the commencement of works.'

1.3 Supporting Documents

This DWP is to be read in conjunction with the Construction Management Plan (CMP), 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:

- Demolition HRSWMS
- Quality Management Plan (QMP)
- Traffic Management Plan (TMP)
- Traffic Control Plan (TCP)
- Emergency Response Plan

1.4 Client Requirements

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

- e.g. Hot Works Permit, Fire Impairment Foam etc., noting modification where required of Central Civil (NSW) IMS procedures, this Plan content or forms.
- Where no client specifications are required, record – "No Client Specifications detailed for this project".

2. Project Information

2.1 Details

Client Details	Is the client the Principal Contractor ☒ YES ☐ NO
Company Name	Hindmarsh Constructions
ABN	15 126 578 176
Address	Suite 2, Level 27, 100 Miller Street, North Sydney NSW 2060
Phone	(02) 9274 1100
Email	mengdi.cui@hindmarsh.com.au
Client Contact Name	Mengdi Cui
Client Contact Phone Number	0436 861 792
Demolition Contractor Details	Is the contractor the Principal Contractor ☐ YES ☒ NO
Company Name	Central Civil (NSW) Pty Ltd
ABN	61 167 710 545
Address	Unit 3B, Building 4, 256B New Line Road, Dural NSW 2158
Phone	0476 910 130
Email	greg@centralcivilnsw.com.au
Project Specifics	
Project Name	Greenwich Hospital Redevelopment
Project Address	99-115 River Rd, Greenwich NSW
Start Date	TBC
Peak number of personnel on site	14
Project Contacts	
Project Manager	
Name	Ryan Bonakey
Phone	0426 454 096
Email	ryan@centralcivilnsw.com.au
Competent Person on Site	TBA
Supervisor	
Name	TBA
Phone	
Project Engineer/WHS Person	
Name	Matthew Tamer
Phone	0413 397 163
Email	matthew@centralcivilnsw.com.au

2.2 Project Scope of Works

All works will be completed in accordance with Code of Practice Demolition Work 2019 (SafeWork, NSW) and AS2601-2001 The demolition of structures, shall meet legislative requirements contained in the Work Health and Safety Act 2011 (NSW) and Work Health and Safety Regulation 2017 (NSW).

The proposed demolition site has an area of approximately 22,521 sqm and is bounded by River Road to the North, St Vincents Road to the East and Standish Street to the West. The Site is located within the Lane Cove Local Government Area (LGA), approximately 8.6 km North-West of Sydney CBD, within the suburb of Greenwich.

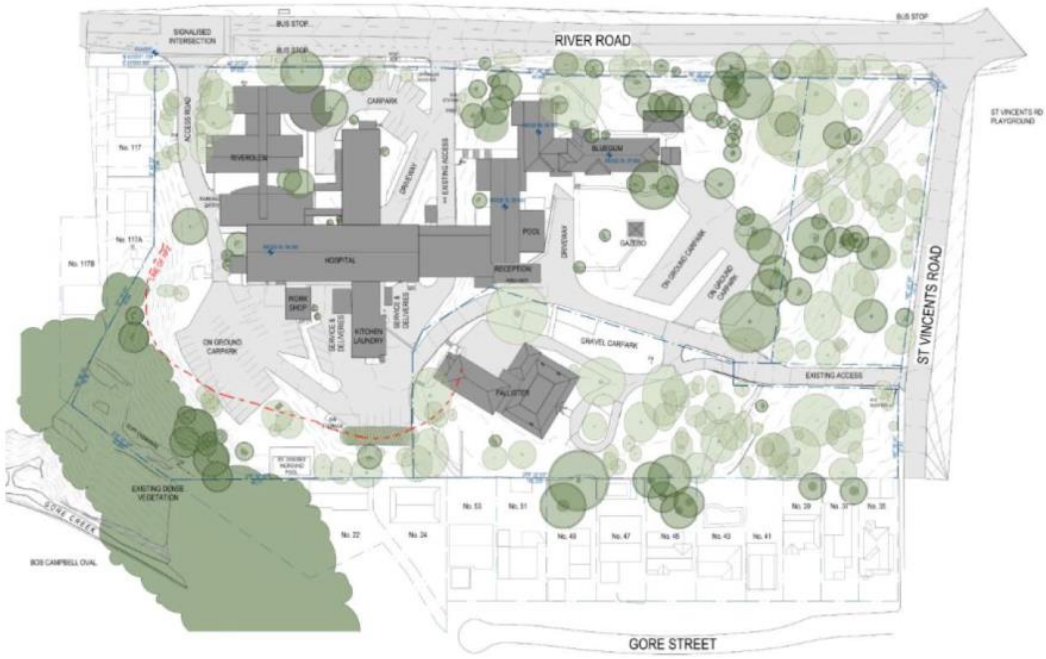

Figure 1

The key elements within and surrounding the Site include:

- The Site is located within the residential area of Greenwich and associated car parking areas.
- Vehicle access comprises, a traffic signal controlled entry/exit connection to River Road at the western site boundary, a combined entry/exit driveway on St Vincents Road and another access driveway on River Road towards the centre of the frontage.
- The Site contains vegetation which is fragmented by buildings and areas of hardstand surfaces. Vegetation is limited to a range of trees mostly on the Eastern Side of the site.

The Works will primarily be comprised of demolition and remediation works to achieve Practical Completion under the Contract.

The demolition works under the Contract will include the following:

- Site establishment
- Hazmat removal and soft strip out of buildings
- Demolition of free-standing buildings
- Excavation, removal, and off-site disposal of existing underground services and Underground Storage Tank (UST)
- Removal of Incinerator
- Demolition and removal of asphalt pavement

Hazmat removal of asbestos containing material in the buildings is to be scheduled concurrently with soft demolition of buildings on site in order to optimise the programme, gain access to hidden hazmat

material behind building fabric and ensure that demolition of these buildings can commence immediately following issue of clearance certificate by the environmental consultant.

Sequencing of the pavement demolition and all asphalt pavement is to be removed and taken off-site for recycling, with all concrete hardstand areas used as a temporarily remediation zone during the on-site remediation of hydrocarbon contaminated soil material.

The underground fuel tanks are to be inspected and removed in accordance with the guidance provided by the on-site environmental consultant and in accordance with relevant codes of practice and legislation. Following completion of the remediation scope, the excavation is to be backfilled and compacted using validated imported VENM under Level 1 geotechnical supervision.

The Demolition of Blue Gum Lodge, Eastern Wing of the existing hospital and associated carpark are to be demolished/stripped out and removed in accordance with relevant codes of practice and legislation.

Removal of concrete hardstand areas will begin following the successful completion of soil remediation.

Overall Demolition Plan

Figure 2 - Demolition for Stage 2

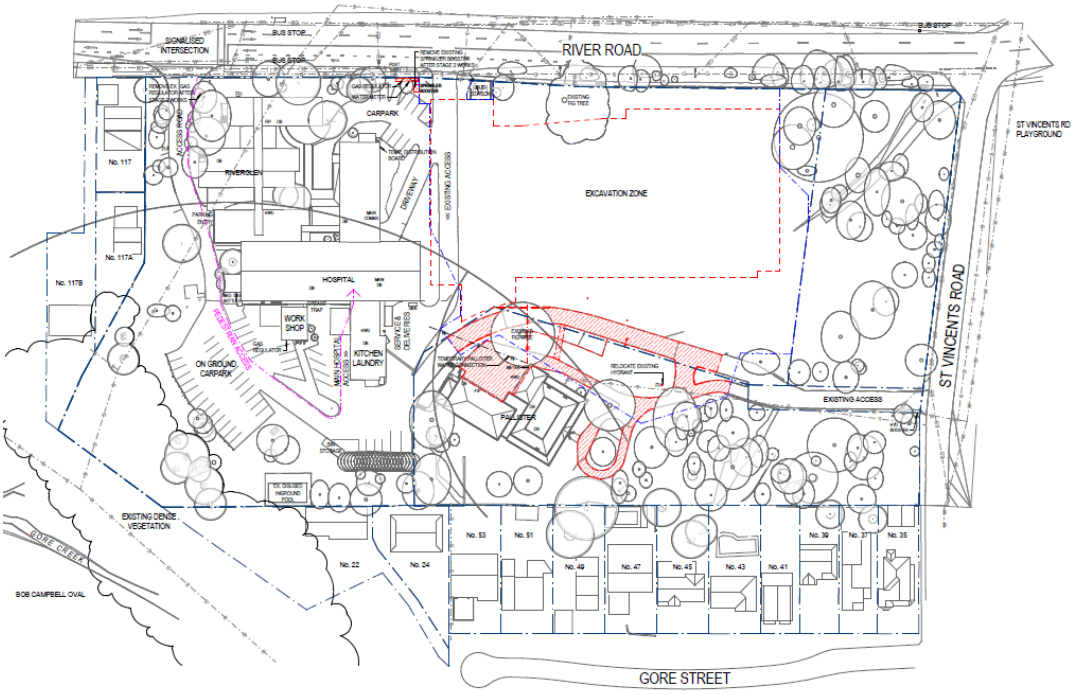

Figure 3 - Demolition for Stage 2.1

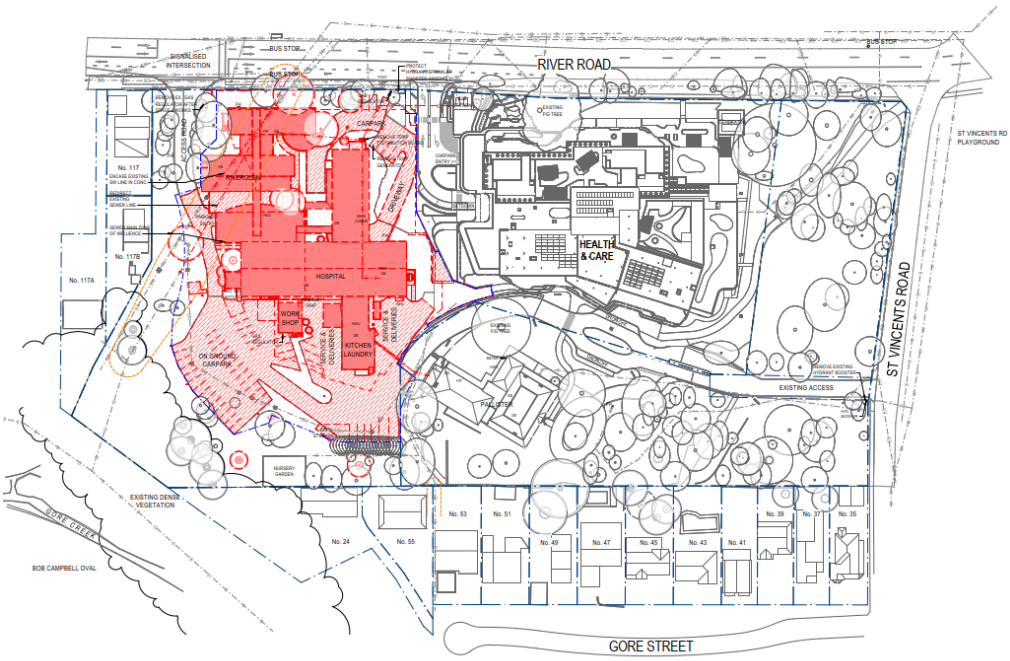

Figure 4 - Demolition for Stage 3

2.3 Project Site Aerial Photograph

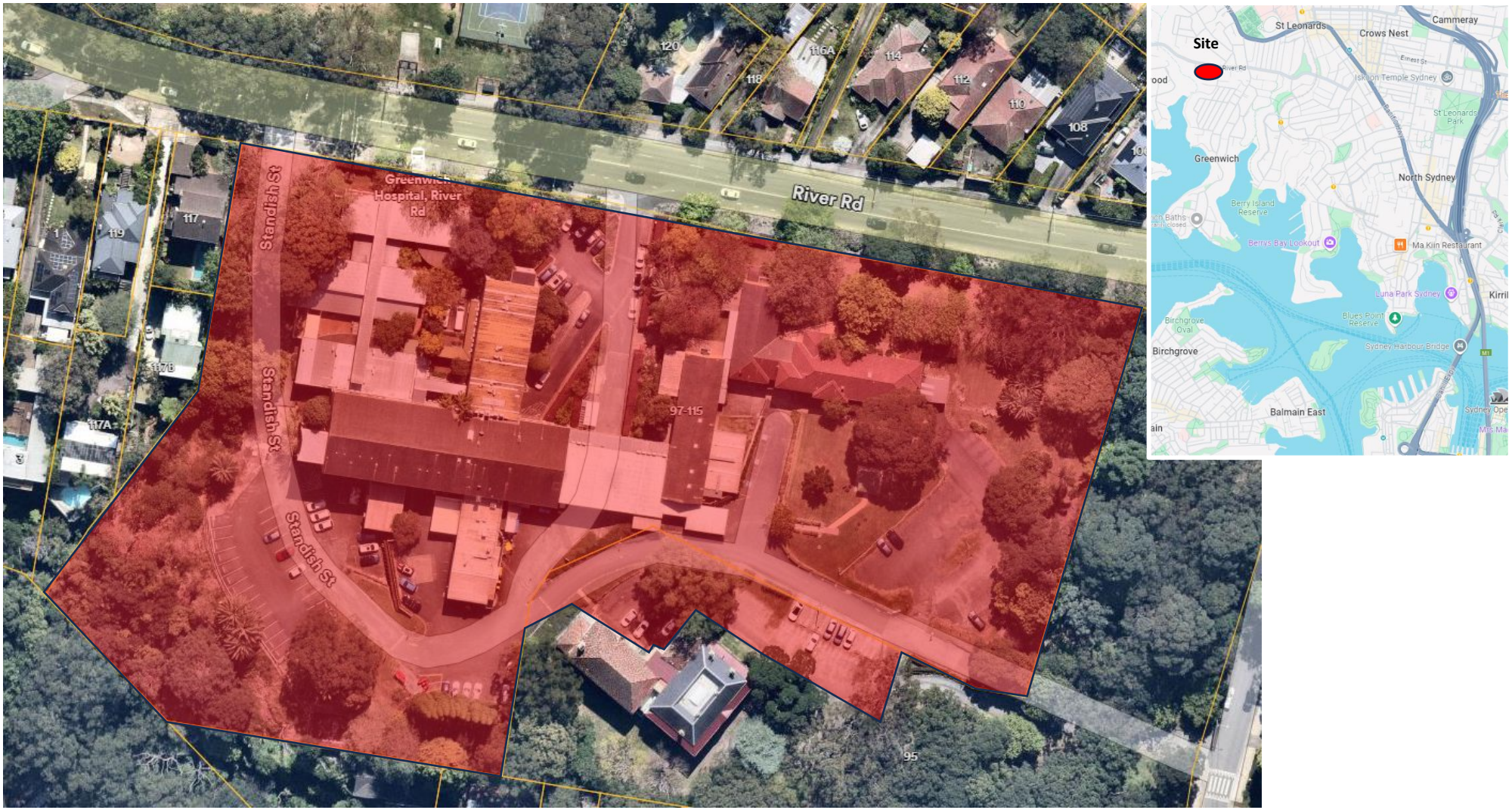

Figure 5

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 2019 (SafeWork, NSW) and AS2601-2001 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 towards the northern end of the site consists of a hospital building, a lodge, pool and a carpark with pavements.

3.1.2 Structural System

The administration structure consists of a brick façade with internal framing, as well as internal concrete columns and first floor slab. The floors are covered in a variety of different finishes, including carpet, tiling and timber. The roof is clad with concrete roof tiles.

3.1.3 Hazardous Materials

Hazardous materials have been identified in the Pre-Demolition Hazardous Building Materials Survey report by JK Environments (dated 5 May 2022). Both bonded (non-friable) and friable asbestos-containing materials (ACM) were identified in the existing buildings/structures on site. Refer to Figure 6.

Deteriorated paint films containing elevated lead levels were identified on the external and internal doors and frames, metal air-conditioning plant and ductwork and walls and handrails within the central and western fire stairwells during the assessment. All identified lead containing paint films must be removed / treated in accordance with the regulations and codes outlined in Section 3 of the JK Environments report and by an experienced hazardous materials removal contractor.

Where dust containing lead particles is present, this will be safely removed using the relevant general safety precautions e.g., dust suppression and respiratory protection.

Light fittings potentially housing a PCB containing metal capacitor were identified generally within movement areas throughout the site. PCBs are a scheduled waste with strict guidelines regarding transport and handling. PCB work is to be conducted in accordance with the Environmental Protection & Heritage Council's Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.

Hazmat removal areas will be demarcated. For personnel requiring access, they will contact the Central Civil (NSW) Site Supervisor who will liaise with the Hazmat Site Supervisor to organise appropriate measures. Under no circumstance will entry be permitted into a Hazmat removal work zone which is demarcated as an exclusion zone. Tampering with warning signage or tampering with lead equipment is strictly prohibited.

In the case of encountering unexpected asbestos, work will stop in that area, the unexpected finds protocol will be sanctioned and the licensed contractor will seal the area and make safe. The environmental consultant will be notified, and their advice sought, after which sampling, and identification of the suspect material may be undertaken. The contractor 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 a clearance certificate document issued by the environmental consultant.

Figure 6

3.1.4 Height of Structures and Distance to Boundaries

The site is closed on all four boundaries, with all specific parts of the Buildings to be demolished a substantial distance away from any pedestrian and general traffic. Central Civil will only work within approved hours, with noise levels being mitigated through specialised excavator attachments.

All buildings are estimated to be over 6m in height.

3.2 Investigation of Site

3.2.1 Description of Site

The Site is located within the City of Lane Cove Local Government Area (LGA), 8.6 km North-West of Sydney CBD, within the suburb of Greenwich, surrounded by Residential Homes. Site location is illustrated in Figure 5. No heritage listed structures have been identified on site.

3.2.2 Underground Storage Tanks (UST)

Previous investigations by JKE have identified TRH impacts to fill in the south-west of the site, and TRH impacts to residual soil/bedrock in the vicinity of BH103. Refer to Figure 7. The source of the TRH impacts to fill is considered likely associated with impacted fill historically imported to the site, though may also be attributable to localised surficial leaks/spills. The source of TRH impacts to the residual soil/bedrock in the vicinity of BH103 is considered likely associated with the UST and associated infrastructure. The previous investigations also identified at least one UST and associated infrastructure on-site. The investigations concluded the potential for extensive impacts from hydrocarbons associated with the UST/s and infrastructure was low. However, localised impacts may be encountered in the vicinity of the UST/s and associated infrastructure. The UST/s and infrastructure will be removed during the remediation process, and the residual risks assessed by the validation process.

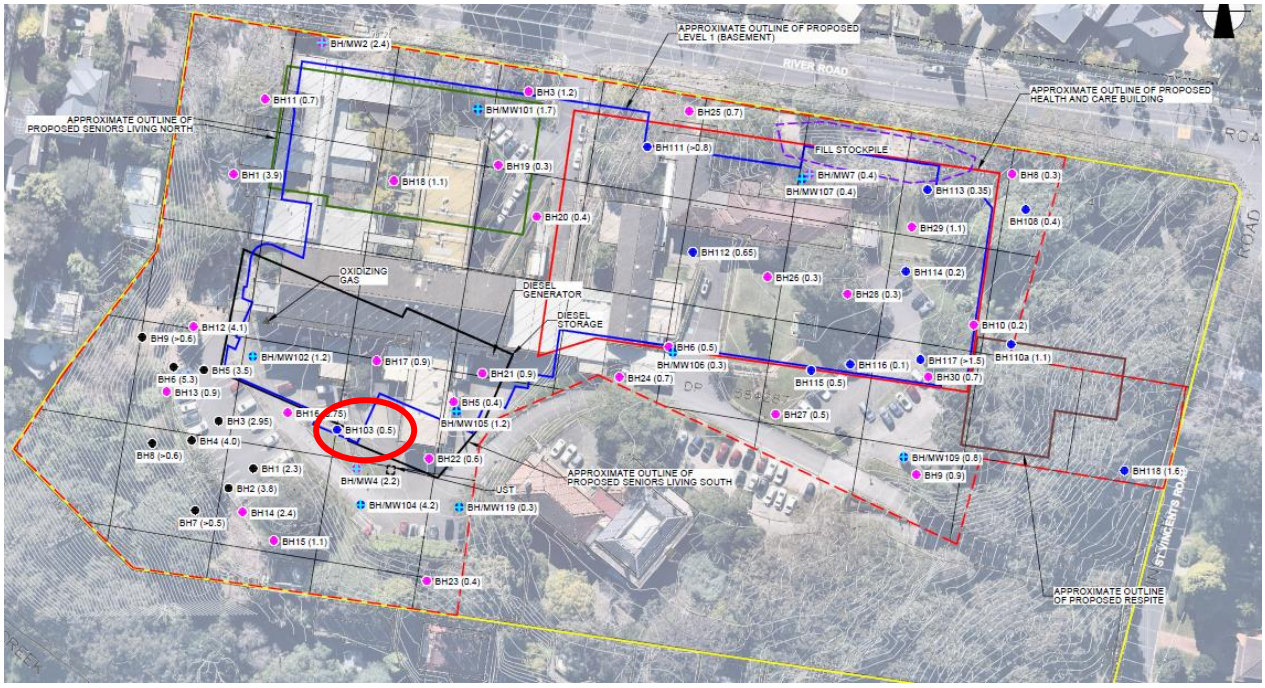

Figure 7

3.2.3 Retaining Structures

Raised garden beds and retaining walls will be demolished as part of the demolition process.

3.2.4 Hazardous Chemicals / Dangerous Goods Storage or Dumps

The site has been used as a hospital from the 1960's and an incinerator was located on-site. Waste generated from the incinerator could have been disposed on-site during the earlier years of operation.

In the event of encountering 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 Client
5. Central Civil (NSW) 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 to recommence work

Relict containers of used oil and firefighting foam cylinders will be collected and disposed of at approved disposal facilities.

3.2.5 General Condition of Land and Structures on Adjoining Sites

The buildings, paths, roadways and other items surrounding the demolition site are in sound structural condition. Central Civil (NSW) do not anticipate any physical impacts on the surrounding structures. Care will be taken to minimise impacts on adjoining sites and structures. A full Dilapidation Survey is to be undertaken by the Principal Contractor prior to demolition starting. Central Civil (NSW) do not anticipate any physical impacts on the surrounding structures. Various methods will be employed to minimise the disruption to the surrounding buildings or adjoining 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 signoff on services will be received by Central Civil (NSW) prior to the commencement of any demolition works.

For early works prior to full disconnection of power, areas will be isolated and a sign off on the power in those areas received. For some minor demolition 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.

For complex structures that involve many operational 'live' Client critical services (pressurised piping systems, other water/chemical/steam/air systems, electrical, communication, gas, etc.) requiring identification, relocation and decommissioning or isolation by the Client.

3.3.2 Services to be maintained

Water and temporary power will be used during the course of demolition works. Power may also be used for temporary site accommodation. 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.

Water will be used for dust suppression.

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 and electricity
- Hazardous noise from plant
- The proximity of the building or structure being demolished to other buildings or structures

Each of the above risks have been investigated and control measures outlined in the Hazard and Risk analysis and corresponding High Risk Safe Work Method Statement (HRSWMS) developed for demolition and associated works.

3.5 No-Go Areas for Machine's and Scope Execution

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
4. All levels of the structures to be demolished with the exception of the basement 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.
5. Prior to installation of back propping a SWMS will be developed for the installation of the props. Refer to Central Civil (NSW) SWMS – Installation of Back Propping.

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.

Tree Protection Zones

All tree protection works shall be carried out before excavation, grading and site works commence. Tree protection works shall be inspected and approved by a Consulting Arborist meeting AQF Level 5 prior to construction works commencing.

Fencing is to be erected around existing trees to be retained. In addition to this protective fencing within the site, Protective Fencing is to be installed to the full extent of the TPZs within the site. This fencing is to be erected prior to any materials being brought on site or before any site, civil works or construction works commence. The fence shall enclose a sufficient area so as to prevent damage to the TPZ. Fence to comprise 1800mm high chain wire mesh fixed to 50mm diameter Galvanised steel posts. Panels will be securely fixed top and bottom to avoid separation. No storage of building materials, tools, paint, fuel or contaminants and the like shall occur within the fenced area.

For all excavation and construction within the TPZ the following is required:

1. All excavation and construction within the TPZ is required to be carried out under the supervision and direction of the project Arborist.
2. All excavation within the TPZ is required to be carried out using non-destructive excavation such as manual excavation.
3. No roots greater than 20mm are to be damaged within the TPZ.

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 site must to be inducted into the site HSEQ system. In addition, all personnel not inducted on site 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 Central Civil (NSW) 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 areas inside the site will be demarcated with visual barriers and signs - 'Warning Drop Zone, Do Not Enter' and other engineering barricades will also be used in the Drop Zones. The locations of these Drop Zones will be marked up on an Exclusion Zone Plan. The location of smaller temporary localised Drop Zones will be included in the daily pre-start and detailed in the demolition high risk SWMS.

All Exclusion 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

Work will follow the sequence below. Amended to this sequence may occur to suit.

1. Receive Handover of Site and sign off services
2. Site induction
3. Demarcate site and define Exclusion Zones
4. Install Environmental Controls
5. Remove hazmat material
6. Soft strip structure
7. Create Demolition Drop Zones
8. Mechanical Demolition
9. Remove waste material from site
10. Handover
11. Demobilisation

More details on the sequence and flow of the work including durations will be discussed during client/Central Civil (NSW) progress site meetings.

Note: Where temporary works are necessary (propping, scaffold 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. Installation
4. Inspection and Certification (engaged specialist Engineer)
5. Use

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 sites Work Health and Safety Management Plan/system
- Induction into the sites Environmental Management Plan/system (where required)

5.2.3 Demarcate Site and Define Exclusion Zones

The existing site entry gate off River Road and the existing site fencing to the perimeter of the demolition site will be utilised to prevent unauthorised entry. The access gate will be closed during demolition works and manned during load out. Other areas of site may be demarcated as hazard removal areas, exclusion or Drop Zones.

The following site notices will be displayed in a prominent position:

- Unauthorised entry prohibited
- Warning Demolition in Progress
- Mandatory PPE information signage
- Principal Contractors Site Supervisor in charge of works
- 24 hour site emergency contact details

5.2.4 Install Environmental Controls

Central Civil (NSW) is a responsible demolition contractor and will endeavour to ensure the unimpeded operation of the surrounding areas throughout the works. Particular importance will be placed on sensitive receivers in close proximity to adjacent buildings. Central Civil (NSW) 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.

- It is expected that initially there will be not much need for a mechanical sweeper however towards the peak load out period of the project the sweeper may be required. The need for the sweeper will be assessed on a daily basis.
- 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

By nature, demolition is a noisy process, however many measures can be taken to minimise this noise. Central Civil (NSW) 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 will be left in place until the very last stage of each area of 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 reduced in size prior to drops off the structure.
- The base of drop zones may be covered with a layer of rubble prior to their use if required.

Dust Control

Demolition of brick and concrete can generate excessive amounts of dust however through the following dust suppression measures Central Civil (NSW) anticipate the dust leaving the confines of the building being demolished will be kept below a level that adversely affects the surrounding buildings and site:

- Installing a water line with water point connections to service a water canon/gurney to achieve sufficient water mist pressure.
- Machines used in the demolition process will be accompanied by a labourer/spotter directing water to ensure water is available on each separate demolition face and provide adequate dust suppression. Water runoff will be minimised.
- During load out of material, material will be wet down to minimise dust being generated.

During concrete crushing operations, Central Civil will take utmost care to ensure the amount of dust being generated is kept to an absolute minimum. Central Civil will set up air monitoring one day per week during the crushing operations to assess dust volumes and ensure that levels are not excessive. In the event the excessive dust is being generated from crushing operations, Central Civil will adopt the follow protocol:

1. Crushing works to stop immediately
2. Watercart to saturate pile of concrete before it is fed into the crusher
3. Water to be continually applied as the concrete is being crushed.
4. In the event of high-speed winds, it may be required to temporarily suspend crushing works until wind conditions reduce in severity.

Vibration Management

Vibration on this site will emanate from the excavator mounted hydraulic hammers used in the process of breaking down concrete structures into rubble and also from items reaching the base of the Drop Zone. The following measures will ensure that disruptive vibration will be kept to a minimum beyond the 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 excavators using appropriate attachments.
- Breakup of slabs, beams and columns into smaller pieces of rubble to reduce vibrations being felt.
- Structural steel and large heavy objects will be reduced in size.
- Covering of the base of Drop Zone with a layer of rubble prior to use.

Truck Movements

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

The Environmental Management Plan (EMP) will provide more details once prepared.

5.2.5 Practical Removal of Hazardous Materials

Hazardous materials removal work will be conducted in accordance with the Work Health and Safety Regulations 2011 (NSW) and the Code of Practices. Refer to Section 3.1.3 for further details.

The hazardous materials removal will be undertaken by a qualified personnel in all areas of site prior to demolition in those particular areas.

5.2.6 Soft Strip Structures

The structures will be stripped-out by hand and appropriate hand tolls where required, prior to mechanical stripping in appropriate areas. No heavy machines will be placed on suspended slabs that have not been approved by the structural engineer.

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.

5.2.7 Temporary Works and Protection

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. Installation
4. Inspection and Certification (engaged specialist Engineer)
5. Use of temporary works structure/item.

5.2.8 Work at Heights-Manual Demolition of Roof Tiles

Not used.

5.2.9 Mechanical Demolition

Mechanical demolition will be by hydraulic excavators being 13, 24 and 35 tonne in capacity with grapple, pulveriser, hammer and bucket attachments. Some of these machines may be located on suspended slabs and transported from one level to the next via ramps. An engineer's approval will be sought regarding the size of machine that can be put on any particular slab. The engineer's directions in regard to loads on each slab, back propping to the slabs and sequence of demolition will be followed.

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 removed via the Drop Zone. Only material of a suitable size will be placed into the Drop Zone to avoid blockages.

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, areas will be closed off with warnings signs, barrier mesh and utilising existing wall structures. No plant or personnel will be allowed in these areas.

Building perimeter walls of the building will be demolished in the following sequence:

1. Excavator will punch a vertical line in the wall.
2. The excavator will then make a horizontal line penetration at the top of the wall, to permit the internal intrusion of the excavator attachment and systematically demolish the wall by pushing the brickwork away from the machine.
3. The machine will then fold the wall inside the building.

The pulling in of roof trusses will be done in the following sequence:

1. An excavator will a grapple attachment will separate the roof trusses from its anchor points.
2. Once anchor points have been removed, the truss will be lowered to ground where possible. Trusses that break under the pressure of the excavator attachment will fall onto some rubble or steel to cushion the impact on the slab.
3. The truss can then be safely dragged by the excavator.

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

1. An excavator will hammer both ends of the beam leaving steel reinforcing intact.
2. Chains will be attached to the beam at one end.
3. All steel reinforcement will be oxy cut at the chained end and the only top reinforcement will be cut on the other end.
4. The chained end will be towed in and placed on the slab.
5. The remaining bottom steel will be oxy cut.
6. The remaining end will fall onto some rubble or steel to cushion the impact on the slab.
7. The beam can then be safely dragged in by the excavator.

Mechanical demolition of building structures below 10m in height, will be by hydraulic excavators being 13, 24 and 35 tonne in capacity with grapple, and shear attachments. None of the machines will be placed on suspended slabs. All buildings and structures will be reached from the ground.

UNEXPECTED FINDS PROTOCOL (Asbestos Contamination)

In the event that asbestos (or suspected asbestos) is encountered during the demolition process, the works must immediately cease, the client is to be notified, temporary fencing and signage is to be installed around the area of the unexpected find, and an occupational hygienist is to be engaged to provide appropriate recommendations for management and/or removal.

5.2.10 Remove Rubbish and Rubble from Site

Both strip out material and load out from floors being demolished, will be removed using either a Skid steer loader and/or a 14 tonne excavator.

Demolition rubble will be removed progressively from the floor areas prior to being demolished. The Skid steer operator will stay in constant communication with external work load out crews working in close proximity to the load out zones.

An excavator operating at ground level will remove the rubble from the load out areas and load the waste into trucks. The area this machine is working in will be clearly demarcated and posted as an Exclusion 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 other operators and other demolition crews via 2 way radio.

Demolished material will be separated into like materials and stock piled ready for load out. A combination of hydraulic excavator with grapple or bucket 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/school children when entering and leaving site. The 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.

A Central Civil (NSW) traffic controller will assist trucks for site access and egress when required.

5.2.11 Handover Site to Client Representative

Where areas are to be progressively handed back to the Client 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 Central Civil (NSW) will occur. Central Civil (NSW) will hand over the site following the completion of all activities on the scope of works.

5.2.12 Demobilise from Site

The site demobilisation will take place following the site handover to the Clients representative. Truck floats will transport plant off site, the mobile storage units (where used) will be towed off site and the site fencing dismantled (where installed by Central Civil (NSW)) 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
- 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 Supervisor.
- Competent Person with considerable expertise in the demolition of similar structures.
- All plant will be operated by SafeWork NSW ticketed and experienced personnel.
- Central Civil (NSW) 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.
- Traffic controller/s will assist trucks accessing and egressing the site.
- The structure is to be demolished in a controlled manner.
- Central Civil (NSW) will maintain a competent SafeWork NSW recognised person on site at all times.
- Each day a daily pre-start and checklist will be conducted by the site foreman and is to be read in conjunction with this DWP and the task specific SWMS's.
- Personnel will sign off daily pre-start prior to proceeding to the work face.
- On a weekly basis, a toolbox meeting prior to proceeding to the work face.
- All Central Civil (NSW) 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 Client for Service ID, Decommission & Approval to Remove
- Project Area Handover Form

Appendix

Appendix A - Hazardous Materials Survey / Register

Refer to **JK Environments Hazardous Building Materials Survey dated 5 May 2022 reference E23507BLrpt-HAZ (Rev 2)**

REPORT TO
HAMMONDCARE

ON
HAZARDOUS BUILDING MATERIALS SURVEY

FOR
PROPOSED DEMOLITION WORKS

AT
GREENWICH HOSPITAL, 97-115 RIVER ROAD, GREENWICH, NSW

Date: 5 May 2022
Ref: E32507BLrpt-HAZRev2

JKEnvironments
www.jkenvironments.com.au

T: +61 2 9888 5000
JK Environments Pty Ltd
ABN 90 633 911 403

Appendix B - Service Disconnection Signoffs

Water, Gas, Communication and Electrical Disconnection notices to be attached upon receipt:

CENTRAL CIVIL	**Isolation Certificate**	Unit 3B, Building 4, 256B New Line Road, Dural NSW 2158 **ABN:** 61 167 710 545 **W:** www.centralcivilnsw.com.au

Isolation Request

Type of Isolation:
Sewer ☐ Y / ☐ N; Gas ☐ Y / ☐ N; Water ☐ Y / ☐ N; Telecom ☐ Y / ☐ N; Electricity ☐ Y / ☐ N; Mechanical ☐ Y / ☐ N

Details of Central Civil (NSW) Person requesting Isolation

Name:		Phone:	
Position:		Company:	

Contractor Name:		Phone:		Company:	

Work Details

Location	
Details of isolation	
Details of proposed work:	
Equipment to be used (*e.g. tools and equipment*)	

Isolations, Controls and Precautions

Name: (Person Applying Isolation)		Licence Number	

Details of Isolations: *State exactly (use additional pages if required) a) Steam, water, air or gas valves shut and locked off. b) Electrical supplies locked off. c) Gas tests required. d) Any other requirements e) Testing schedule prepared (All systems that hold pressure must be purged).* ***Note: All other items of plant outside the boundary of this isolation are hazardous***

	Equipment Description	*Verified by (name):*
1.		
2.		
3		
4		

Attached pages	Multiple Isolation Record		Page 1 of		
Signature		Date / Time:			

Receipt: I declare that I have confirmed that only the equipment specified on this Isolation Form is proven safe and that I am responsible for informing and advising all workers under my control of the limits & requirements of this Isolation.

Name (Recipient)		Signature		Date / Time	

Clearance: I declare that all workers under my control have been withdrawn and warned that it is no longer safe to work on the plant or equipment detailed above. All work as detailed in this isolation form is complete & all associated tools, materials and equipment have been removed

Name (Recipient)		Signature		Date / Time	

Cancellation: I declare that the Isolation described has been removed. This Isolation is hereby cancelled.

Name:		Signature		Date / Time	

File Name: WF0017
Date: 19/12/2023

Page 1 of 1
Review Date: 30/6/2024
Version: 1.0

SafeWork NSW

NSW GOVERNMENT

Electrical Safety in Construction Inspection Checklist

This checklist is designed to be used by PCBU's, principal contractors or site supervisors to conduct a basic inspection to identify common electrical deficiencies and hazards.

PCBU's/Principal Contractors/site supervisors have a duty to provide and maintain a working environment that is safe and without risks to health and safety, so far as is reasonably practicable. This includes the provision of safe systems of work and plant that is adequately maintained. On-the-spot fines of up to $3,600 for businesses and $720 for individuals may be issued to those placing workers lives at risk by not adequately protecting them from electrical risks at the workplace.

The following guidance can help you prepare and plan for safe, effective and compliant electrical equipment and electrical installations on site.

Administration

Name:	Date:	Time:
Site address:		

Principal contractor / Site Supervisor / Electrician:

Safely manage electrical work onsite by ensuring:

- only licenced electricians are able to conduct or supervise energised electrical work. You can check a licence is valid by visiting verify.licence.nsw.gov.au
- site inductions and ongoing toolbox talks should clearly state that unlicenced electrical work is prohibited (with the exception of an apprentice or labourer under direct supervision of a licenced electrician)
- workers, including contractors, need to be consulted about site rules, including the safety around electricity including overhead and underground powerlines
- work is undertaken in accordance with a site specific Safe Work Method Statement (SWMS)
- the project is planned and sequenced to minimise risk to other trades working in the same area.

Inspecting Electrical Components

The Electrical Safety in Construction Inspection Checklist is designed to help identify potential issues or risks with electrical installations on site. It is NOT intended to be exhaustive, and reference should be made to appropriate legislation, standards, Codes and Guides.

Overhead/Underground powerlines

- ☐ Is any work activity, person, item of plant, or thing associated with the construction site at risk of coming within an unsafe distance of:
  - ☐ a. Nearby/adjacent overhead lines – (safe distance is greater than 3m, or greater than 4m for scaffold work or work on a scaffold) and checking the Look Up and Live website
  - ☐ b. Underground cables – as specified in the plans supplied by the asset owner in the Before You Dig Australia (BYDA) response
- ☐ Have you consulted with and implemented any specific control measures identified by the relevant electricity supply authority(s) acknowledging notification for the activities that may come near the powerlines?
- ☐ Has a SWMS been developed for the tasks that could involve working near live powerlines?
- ☐ Are insulating materials in place on powerlines where required?
- ☐ Are tiger tails in place on overhead powerlines where required?
- ☐ Has hoarding been installed in co-ordination with the supply authority(s) for any scaffold adjacent (inside 4 m's) to overhead powerlines?
- ☐ Have plant operators and spotters undertaken accredited training "Working safely near live electrical apparatus as a non-electrical worker" and been advised of the electrical hazards and site-specific controls?
- ☐ Are current and relevant Before You Dig Australia plans available prior to excavations, and provided to workers undertaking excavation?

Temporary site power

- ☐ Is incoming supply correctly installed and protected from damage?
- ☐ Is site cabling run in accordance with AS/NZS 3012?
- ☐ Are temporary supplies and distribution cabling adequately labelled?

Are all distribution board's constructed in accordance with AS/NZS 3012:

- ☐ a. in good order and constructed of robust material capable of withstanding damage?
- ☐ b. doors not removable (unless with a tool) and fitted with a locking facility to prevent electrical equipment being inadvertently energised while undertaking work on electrical installations?
- ☐ c. fitted with a means for retaining the door in the open position?

- [ ] d. have a bushed cut-out in the bottom plate to allow safe entry of electrical leads with door closed, with a label fixed to the switchboard stating 'KEEP CLOSED – RUN ALL LEADS THROUGH BOTTOM'?
- [ ] e. adequately and legibly labelled, including distribution board number (if more than one on site) point of origin of supply and signage warning of live equipment within switchboard?
- [ ] f. have energised (live) parts effectively protected at all times against contact by workers? E.g. pole fillers
- [ ] g. have insulated or covered tie bars for anchorage of flexible cords (extension leads) to prevent strain on the plugs and socket outlets?
- [ ] h. each have a marked isolating switch which will isolate supply to all sub-circuits and sub-mains originating from the switchboard, including socket outlets on the switchboard?
- [ ] i. located so that extension leads do not need to run between floors?
- [ ] j. mounted on a pole, post, wall, floor or other structure of stable and free-standing design that takes in to account any external forces that may be exerted on the switchboard?

- [ ] Are all final sub-circuits of construction wiring protected at the switchboard by an RCD with a maximum rated residual current of 30mA?
- [ ] Are all appliances, luminaires and other low voltage electrical equipment supplied from an RCD protected circuit at the switchboard or incorporated into a GPO or portable GPO assembly?
- [ ] Are all GPO's rated at 10A or greater, and individually controlled by a double-pole switch?

Temporary lighting

- [ ] Has sufficient lighting been provided in locations including stairways, passageways and next to switchboards to allow safe access and exit?
- [ ] If more than one lighting circuit is installed, have the lighting circuits been distributed between RCDs?
- [ ] Are lamps in luminaries protected against damage?
- [ ] Are portable lights (e.g. flood light tripods) protected from dust and moisture and have adequate stability?

Leads and power tools

Are all extension leads and power tools in use:

- [ ] a. in good order, with no visible damage to cables, plug and socket ends or casing of tool?
- [ ] b. in date test tags or test results available on site? as per AS/NZS 3760 In service safety inspection and testing of electrical equipment outlining inspection testing and tagging methods and AS/NZS 3012, outlines regular inspection and testing requirements.
- [ ] c. rated for commercial use (e.g. no domestic type power boards, piggyback or double adaptors) as per AS/NZS 3012?
- [ ] d. protected from damage (e.g. by the use of lead hooks and/or lead stands) where required?

Transportable buildings, lift shafts

- [ ] Are any transportable buildings (e.g. site/amenities sheds) supplied from a sub-main or final sub-circuit originating at a circuit breaker on a switchboard and installed as construction wiring?
- [ ] Are transportable buildings supplied by a flex cord less than 15m, plug with socket outlet, individually protected by a circuit breaker of rating equal or less than socket outlet and RCD protected?
- [ ] Are all socket outlets (inside/outside) RCD protected and only used for equipment and lighting within the transportable structure or immediately adjacent the exterior?
- [ ] If the building has a lift shaft, is construction wiring dedicated to the installation of lift shaft equipment fed from a separate final sub-circuit at the switchboard and protected by 30mA RCD?
- [ ] Are circuit breakers locked and tagged in the on position to prevent the inadvertent isolation of supply to the lift shaft by others onsite?

Inspection, testing, record keeping

- [ ] Is construction wiring, switchboards and transportable structures inspected and tested by a licensed electrician on installation and, periodically as specified in AS/NZS 3012?
- [ ] Is all other electrical equipment (i.e., power tools, extension leads, portable socket outlet assemblies, portable RCDs) tested and inspected by a competent person in a period not exceeding 3 months?
- [ ] Are records of any testing kept available until the equipment is next tested, permanently removed from site or disposed of?
- [ ] Does the Principal Contractor have the electrical contractor's details available?
- [ ] Are electrical workers aware of AS/NZS 3012, WHS Regulations and Act and Home Building Act requirements?

Resources

SafeWork: Electrical and power

NSW Legislation: WHS Regs Part 4.7

Code of practice: Managing electrical risks in the workplace.

WHS Act

Code of Practice - Work Near Overhead Powerlines

AS/NZS 3012 Electrical installation – construction and demolition sites NSW.

Legislation: Home Building Act 1989 No 147

Before You Dig Australia

Look Up and Live

Master Electrician Australia

National Electrical and Communications Association

Catalogue No. SWNSW_34321_22
SafeWork NSW, 92–100 Donison Street, Gosford, NSW 2250
Locked Bag 2906, Lisarow, NSW 2252
Customer Experience 13 10 50
Website www.safework.nsw.gov.au

Appendix C – AS2601 Demolition of Structures Engineers Certification

ENGINEERING CERTIFICATE OF COMPLIANCE TO AS2601

Site: 99-115 River Rd, Greenwich NSW
Demolition Work Plan

I have reviewed the methodologies structural integrity as depicted in the Demolition Work Plan reference TCC24-065-01-DWP-r0, attached to this document and submitted information. The demolition will need to be carefully and systematically carried out under close supervision. I can advise that the concept is satisfactory, and that Central Civil (NSW) must ensure that the engineers' conditions are adhered to. **The Demolition Work Plan reference TCC24-065-01-DWP-r0 is satisfactory and complies with AS2601.**

Australian Standards compliance is subject to the following conditions:

1. The safe working loads are strictly adhered to - All machinery & lifting equipment.
2. Central Civil (NSW) is to carry out a Risk Analysis and Method Statement on the demolition sequence to ensure workers and remaining building elements are protected.
3. Ensure that when craning components to/from the building that a trained and qualified person is in attendance.
4. Ensure the machinery is positioned on the stable section of the slab and steel beams at all times during the hammering process. Ensure the machinery is kept clear of the edges of the slab during demolition.
5. Ensure that dismantled components are transported to bins or trucks. No dismantled components are to be stacked on suspended floors.
6. Sequence of demolition, ensure not to demolish sections of building which may be hung and require support. These areas must be demolished last following load removal from hanging beams.
7. A Central Civil (NSW) licenced restricted demolition supervisor signs off the SWMS as being in accordance with the Demolition Code of Practice (2019) and Australian Standards AS2601. The restricted licenced holder must be present at all times to supervise demolition activities.
8. Ensure that any free edge with insufficient cantilever capacity is propped to capacity prior to demolition progressing.
9. Ensure that, when demolishing near occupied or pedestrian thoroughfare areas, sufficient investigation is carried out of connections and ties to components to be demolished, so that these components are released systematically prior to the main demolition being carried out.
10. Ensure when felling materials to other floors that you maintain control and particle size commensurable with the conditions of the building.
11. Ensure the stability of all sections of the structure remain stable at all times during the hammering or pulverizing of the individual building components.
12. Care must be taken when demolishing boundary walls to maintain the structural integrity of these wall.
13. Ensure when demolishing near the boundaries, that all sections of the building strategically fall inward inside the demolition area in a controlled manner
14. If you are using mechanical felling processes on suspended floors, ensure that only approved machinery is used to remove sections of the building.
15. Ensure to maintain the structural elements of the building's framing system in order to maintain the structural integrity of the rest of the structure.
16. Ensure that the propping is protected from moving plant and equipment and cannot be vandalized or inadvertently altered by workers.

If a planned demolition stage is incomplete at the end of a working shift, Central Civil (NSW) is to install adequate propping and bracing to ensure the remaining structure remains stable. This is important during large wind events.

Attention is also drawn to the Workplace Health and Safety Act 2011-part 2 Division 2, which states:

a) *Every person conducting a business or undertaking shall ensure the health, safety and welfare at work of all persons and all his employees*

This assessment does not relieve the supplier or contractor of the responsibility of ensuring equipment is in good & repair, meets the requirements of Australian standards and code of practice, and follows all precautions necessary in carrying out the works.

APPENDIX A: RELEVANT AUSTRALIAN STANDARDS AND SPECS

	Reference No.	Description
☒	AS 1170.0 - 2002	Structural Design Actions – Part 0: General Principles;
☒	AS 1170.1 – 2002	Structural Design Actions – Part 1: Permanent, Imposed and Other Actions;
☐	AS 1170.2 - 2011	Structural Design Actions - Part 2: Wind Actions
☐	AS 4100 - 1998	Steel Structures
☐	AS 3600 - 2018	Concrete Structures
☐	AS 1720.1 - 2010	Timber Structures: Part 1: Design Methods
☒	AS 1576.1 – 2019	Scaffolding – Part 1: General Requirements
☐	AS 1576.2 – 2009	Scaffolding – Part 2: Couplers and accessories
☐	AS 1576.3 – 1995	Scaffolding – Part 3: Fabricated Tube and coupler
☐	AS 1576.4 – 2009	Scaffolding – Part 4: Suspended scaffolding
☒	AS 1577 – 2018	Scaffolding – scaffolding Planks
☐	AS 3610 – 2018	Formwork of Concrete
☐	AS 4678 – 2002	Earth Retaining Structures
☐	AS 1657 – 1992	Fixed platforms, Walkways, Stairways and Ladders
☐	AS/NZS 4994.1 - 2009	Temporary Edge Protection – Part 1: General Requirements
☐	AS 5100.2 – 2017	Bridge Design: Design Loads
☐	AS 3845.1 – 2015	Road Safety Barrier Systems and Devices
☐	As 3850 – 2003	Tilt-up concrete construction
☒	AS 2601 – 2002	The Demolition of Structures
☐	AS 1418.1 – 2002	Cranes, Hoists, and Winches – General Requirements
☐	AS 4994.4 – 2018	Temporary Edge Protection: Perimeter Protection Screens
☐	AS5131- 2017	Structural Steel erection and fabrication code

Note: Checked box denotes the relevant standard for this certificate only

Signed	
Name	Greg Banks BE Civil; SafeWork approved Unrestricted Demolition Supervisor
On Behalf of	Central Civil (NSW) Pty Ltd
Date	23 September 2024

Schedule of Drawing of Certificate:

Document	Consultant	Document Number
Demolition Work Plan	Central Civil (NSW) Pty Ltd	TCC24-065-01-DWP-r0

Appendix D – Permits by Authorities

SafeWork Demolition Permit

Copy of demolition permit to be placed on noticeboard

SafeWork Asbestos Permit

Copy of asbestos permit to be placed on noticeboard

Appendix E – Licences

Demolition Licence

NSW GOVERNMENT

SafeWork

Conditional Restricted Demolition Licence

Issued under *Work Health and Safety Regulations 2017 (NSW).*

This licence is not transferable.

Licence:	AD212618
Licence period:	From: 10/03/2017 To: 09/03/2028
Licence holder name:	Central Civil (NSW) Pty Ltd
Licence Type:	Conditional Restricted Demolition Licence
Duration:	5 Years
ABN	61167710545

Description of the work that can be undertaken under this licence:

- Demolition above 15 metres in height
- Demolition of chemical installations
- Demolition using a tower crane on site
- Demolition of pre and post tensioned structures
- Demolition involving floor propping
- Demolition of using a mobile crane with a rated capacity greater than 100 tonnes

The licence holder CANNOT undertake the following demolition work:

- Demolition using explosives

Central Civil (NSW) Pty Ltd AD212618 Conditional Restricted Demolition Licence Page 2 of 3

Locked Bag 2906, Lisarow NSW 2252 | 13 10 50 | safework.nsw.gov.au | ABN 81 913 830 179

Class B Bonded Asbestos Removal Licence

NSW GOVERNMENT

SafeWork

Non-Friable Asbestos Removal Licence

Issued under *Work Health and Safety Regulations 2017 (NSW).*

This licence is not transferable.

Licence:	AD213213
Licence period:	From: 18/04/2019 To: 17/04/2029
Licence holder name:	Central Civil (NSW) Pty Ltd
Licence Type:	Non-Friable Asbestos Removal Licence
Duration:	5 Years
ABN	61167710545

Description of the work that can be undertaken under this licence:

Non-friable asbestos removal work

Licence Holder Obligations

A supervisor must be present at the site whenever licensed friable asbestos removal work is being carried out and readily available to attend the site when licensed non friable asbestos removal work is carried out.
This licence must be available for inspections at all times.
All licensed asbestos removal work is to be notified to SafeWork NSW at least five days prior to the work commencing.
The licence holder must notify SafeWork NSW in writing of any changes to the licence or supervisor details within 14 days.

Locked Bag 2906, Lisarow NSW 2252 | 13 10 50 | safework.nsw.gov.au | ABN 81 913 830 179