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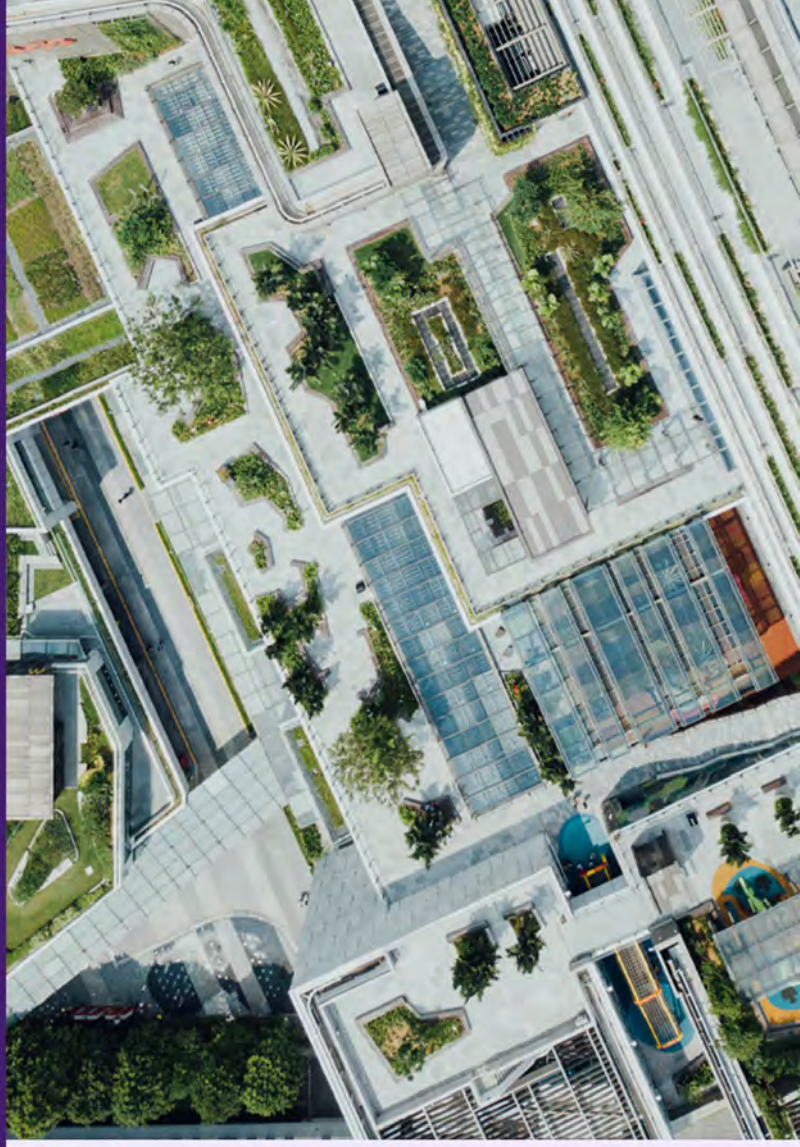

White Bay Power Station, Rozelle NSW 2039

Review of Environmental Factors (REF)

On behalf of Placemaking NSW

2 August 2024

The Planning Studio acknowledges the traditional custodians of the lands + waters of Australia, particularly the Gadigal People on whose traditional lands our office is located, and pay our respects to Elders past, present + emerging. We deeply respect the enduring Connection to Country + culture of Aboriginal and Torres Strait Islander peoples and are committed to walk alongside, listen + learn with community as we plan for equitable, sustainable, generous, and connected places. Always was, Always will be.

Declaration and Determination

This Review of Environmental Factors (REF) has been prepared by The Planning Studio NSW Pty Ltd on behalf of Placemaking NSW (PMNSW) to assess the potential environmental impacts that could arise from the ongoing temporary activation and works associated with the White Bay Power Station (WBPS) from 2024 until a decision is made about the long term use for the building. The REF considers the environmental impacts of the temporary use for a range of events, activations, and enabling building works, and outlines required mitigation measures to resolve the impacts.

This REF has been prepared in accordance with the Environmental Planning and Assessment Act 1979, the Environmental Planning and Assessment Regulation 2021, State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 and other applicable Commonwealth and State Legislation including Environmental Protection and Biodiversity Conservation Act 1999.

On the basis of the consideration of key environmental aspects and the information presented in this REF, it is concluded that by adopting the mitigation measures identified in this assessment it is unlikely that there would be any significant environmental impacts associated with the ongoing temporary activation of WBPS.

This REF provides a true and fair review of the Proposal in relation to its potential effects on the environment. It addresses to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the ongoing temporary activation of WBPS. The information contained in this REF in neither false nor misleading and on balance, the proposal is recommended to proceed given its stated need and justification.

The Planning Studio Consultants who prepared the REF

We confirm that we have prepared and reviewed this REF and are satisfied that it addresses to the fullest extent possible, all matters affecting or likely to affect the environment.

Name	Kate Bartlett	Adrian Melo	Harjeet Spence
Position	Director	Associate Director	Associate Director
Signature			
Date	6 August 2024		

Placemaking NSW Endorsement	
I have delegation to accept this REF on behalf of Placemaking NSW as the determining authority and determine that the ongoing temporary activation of WBPS can proceed subject to the mitigation measures identified being implemented.	
Name	Anita Mitchell
Position	Chief Executive Officer, Placemaking NSW
Signature	
Date	7 August 2024

Contact

The Planning Studio
Level 16, 175 Pitt Street
Sydney, NSW 2000
info@theplanningstudio.com.au

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1 Introduction

This Review of Environmental Factors (REF) has been prepared by The Planning Studio NSW Pty Ltd on behalf of Placemaking NSW (PMNSW) to assess the potential environmental impacts that could arise from the ongoing temporary activation and works associated with the White Bay Power Station (WBPS) from 2024 until a decision is made about the long term use for the building. The REF considers the environmental impacts of the temporary use for a range of events, activations, and enabling building works,-and outlines required mitigation measures to resolve the impacts.

The proposed development includes activation of the WBPS as an arts, cultural and entertainment venue for a range of diverse contemporary uses whilst preserving its industrial legacy as permitted within the Special Uses Zoning (SP1) of the site. The activity includes:

- Temporary activation of the White Bay Power Station and forecourt areas for a range of uses including:
    - Community facilities;
    - Entertainment Facilities;
    - Creative Industries;
    - Information and Education Facilities;
    - Commercial premises;
    - Ancillary food and drink premises and artisan food and drink premises; and
- Capital works less than $10,000,000 to support the activation of the WBPS as a community and events venue.

The REF considers the impact of the activity within the proposed range of uses and provides mitigation measures for an indicative range of temporary events and activations that may take place in the building and forecourt areas as outlined below:

- Arts, creative and cultural events (e.g. events such as Biennale);
- PMNSW produced state significant/'hallmark', community or local events (e.g. NYE, local markets, open days, rehearsal spaces);
- Creative maker spaces for activities where people can create, collaborate, experiment, and learn;
- Ticketed events that are of an entertainment, artistic, food, community or cultural nature;
- Commercial filming and photography;
- Community events such as educational or schools programs, markets, or other gatherings;
- Occasional private hire for events, workshops, tours, conferences, educational/schools programs or celebrations; and

- A range of other activities and supporting functions such as administration, transportation, toilets and amenities, food and beverage services and site security and management.

In addition, the REF considers and addresses the impacts of a suite of proposed works to the building (less than $10m) that will support and enable the building to be used for the full suite of event categories outlined above.

It is noted that the base building works already approved and installed as part of previous approval processes are sufficient for the upcoming events and activations. The works considered in this REF will further support additional events and activations in other parts of the WBPS e.g. the Entertainment Hall (see **Appendix 6: Schedule of Previous Part 5 Approvals for WBPS**).

For the purposes of the activity, PMNSW is the proponent and the determining authority under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The purpose of this REF is to describe the proposal, document the likely environmental impacts and to detail potential risks and mitigation measures.

The description of the proposed activity and the assessment of environmental impacts have been undertaken in the context of the Department of Planning, Housing and Infrastructure's (DPHI) Guidelines for Division 5.1 Assessments (the Guidelines), section 171(2) of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) and the Australian Government's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The REF fulfils the requirements of Section 5.5 of the EP&A Act, which requires PMNSW to examine and take into account, to the fullest extent possible, all matters affecting, or likely to affect, the environment by reason of the proposed activity.

PMNSW will seek additional community feedback throughout the first 12 months of operation as part of this Review of Environmental Factors. This REF may be updated at that time in accordance with any feedback obtained.

1.1 The Proponent and Planning Framework

Placemaking NSW (PMNSW) is the proponent of the activity. Placemaking NSW is the trading name of Place Management NSW, a Public Authority of the NSW Government. The functions of Place Management NSW are outlined in Section 12 of the Place Management Act 1998 as follows:

1. Place Management NSW has the following functions—
    a) to protect and enhance the natural and cultural heritage of the foreshore area,
    b) to promote, co-ordinate, manage, undertake and secure the orderly and economic development and use of the foreshore area, including the provision of infrastructure,
    c) to promote, co-ordinate, organise, manage, undertake, secure, provide and conduct cultural, educational, commercial, tourist, recreational, entertainment and transport activities and facilities.

The site's planning requirements are primarily governed under the State Environmental Planning Policy (Eastern Harbour City) 2021, Chapter 2 (State Significant Precincts), and Appendix 8 (Stage 1 Bays West Precinct). Refer to the Figure below.

Section 2.9 of the SEPP (Development that does not require consent under the Act, Part 4) states:

1. *Development specified in this section is development that does not require consent under the Act, Part 4.*

Note—

Development specified in this section will be subject to the environmental assessment and approval requirements of the Act, Part 5 if it is not a transitional Part 3A project or State significant infrastructure.

2. ***Port and related employment lands development by public authority*** *Development with an estimated development cost of not more than $10 million carried out by a public authority within the area identified as Glebe Island, White Bay and Rozelle Bay on the Sydney Harbour Port and Related Employment Lands Map.*

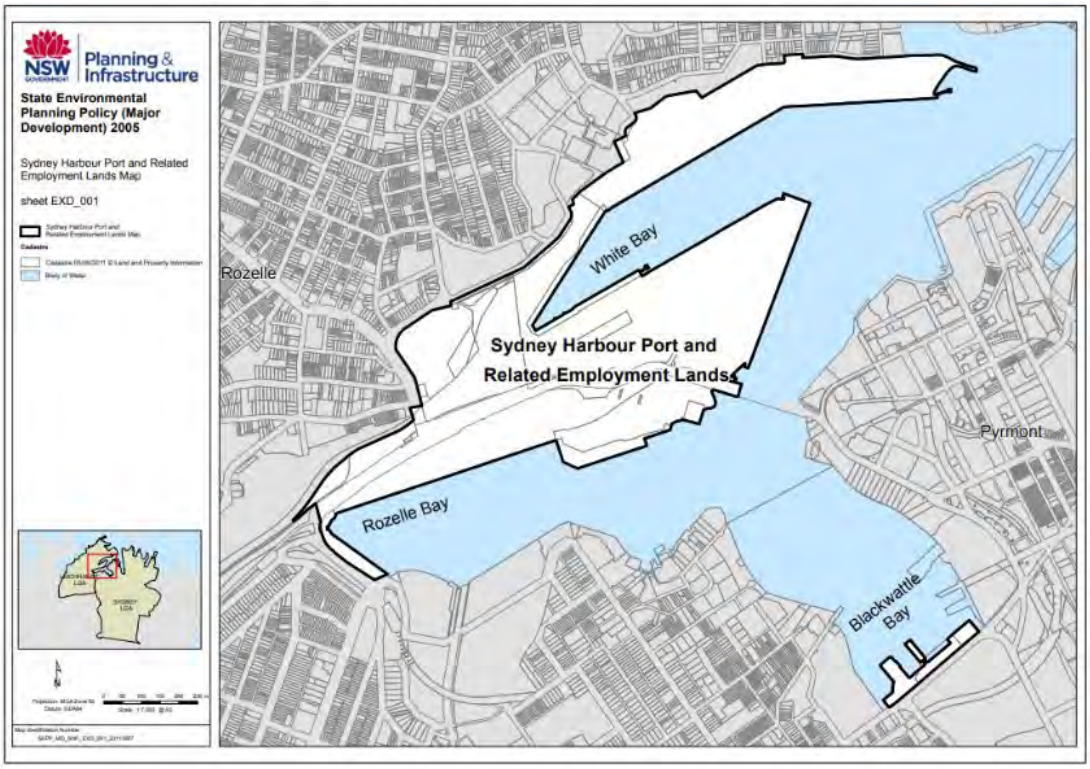


Figure 1*: Sydney Harbour Port and Related Employment Lands (Department of Planning, Housing and Infrastructure)*

Accordingly, the proposed uses and works have been assessed in this REF in accordance with the requirements under Part 5 of the Act.

1.2 Project Team

The following consultants were engaged by The Planning Studio on behalf of Placemaking NSW to provide expert advice on potential risks and mitigation measures.

Table 1 – Project Team

Specialty	Consultant
Town Planning + Project Manager	The Planning Studio
Acoustic / Vibration	Trinity Consultants Australia
BCA / Access	Steve Watson & Partners
Building Project + Management	CBRE
Community Consultation	JOC Consulting
Flooding	Mott MacDonald
Heritage	Design 5 – Architects Pty Ltd
Traffic / Transport	PDC Consultants

2 Site Overview

2.1 Site + Context

White Bay Power Station is located at Victoria Road and Robert Street, Rozelle NSW 2039, within the Inner West LGA. The site has an irregular shape with an approximate area of 38,000m^2. It is bounded by Robert Street to the North, Port Access Road to the East and Victoria Road to the South and West, with the Southern boundary adjacent and aligned to the Anzac Bridge approach. The site consists of 4 lots: Lot 380 DP1277236, Lot 381 DP1277236, Lot 382 DP1277236, and Lot 4 DP1063454. The majority of the buildings and structures are located on Lot 380 DP1277236.

WBPS is a former coal-fired power station that was ceased operations in the 1980s. The site and its curtilage includes the former coal handling plants, stacks/chimneys, boilers, generators and switching facilities. The site is also a state listed Heritage item and subject to a Conservation Management Plan.

The immediate area is predominantly industrial, particularly to the North of Robert Street which includes Bunnings, a used car dealership, film studio, gym, White Bay Brewery and a range of light industrial uses including car repair premises. To the South of the site is maritime and industrial uses such as the Sydney Boathouse and Sydney Superyacht Marina.

The wider surrounding area consists of low to medium density residential dwellings, with mainly single dwelling homes interspersed with residential apartment buildings. The closest villages are Balmain and Rozelle, which lie to the North along Darling Street and are characterised by boutique retail, restaurants, pubs and cafes.

***Figure 2**: Subject Site (SIX Maps)*

***Figure 3**: White Bay Power Station in 1950s (Urban Design Framework 2015)*

***Figure 4:** White Bay Power Station 2024 (Placemaking NSW)*

2.2 Site Description

Table 2 below provides the legal description and a brief summary of the site and surrounding context.

Table 2 – Site Description

Item	Description
Legal Description	Lot 380 DP1277236 Lot 381 DP1277236 Lot 382 DP1277236 Lot 4 DP1063454
Site Address	Victoria Road and Robert Street, Rozelle NSW 2039
Total Area	Approximately 38,000m^2
Street Frontage	The site has three street frontages with approximate lengths as follows: • Victoria Road – 129m; • Robert St – 305m • Approach to Anzac Bridge – 125m
Surrounding Development	**North**: Immediately North of the site, on the opposite side of Robert Street, lie several light industrial buildings, a multi-storey Bunnings, car repair premises, speciality retail outlets, as well as White Bay Brewery and a film studio. North of the industrial area there are residential dwellings associated within the suburbs of Rozelle and Balmain. **East**: Immediately East of the development is Port Access Road, a private road servicing the port workers and users for port use operations in White Bay, as well as providing access to the White Bay Cruise Terminal for passengers. Further East is the deep-water port of White Bay and associated industrial port facilities at Glebe Island. The Bays Metro Station is also under construction adjacent to the site and due for completion in 2032. **South**: Immediately South of the site is Victoria Road which turns South-East on to the Anzac Bridge. Further South is the Sydney Boat House and Rozelle Bay. **West**: Immediately West of the development is Victoria Road, beyond which lies mostly single or double storey residential dwellings within the residential suburb of Rozelle.
Public Transport	The site is in a highly accessible area, being less than 4km from the Sydney CBD. There are several bus routes that operate along Victoria Road and provide access to Sydney CBD, Central, Birchgrove, Balmain

Table 2 – Site Description	
Item	**Description**
	East Wharf, Chiswick, Macquarie University, and Parramatta. Rozelle Bay Light Rail Station is also less than 700m South-West of the site and provides connections to Central and Dulwich Hill. Access to the site will significantly improve once The Bays Metro site is operational in 2032.

2.3 Building Elements

The following figures provide plans of all aspects of the White Bay Power Station. These plans can also be found in **Appendix 1: Site Drawings.**

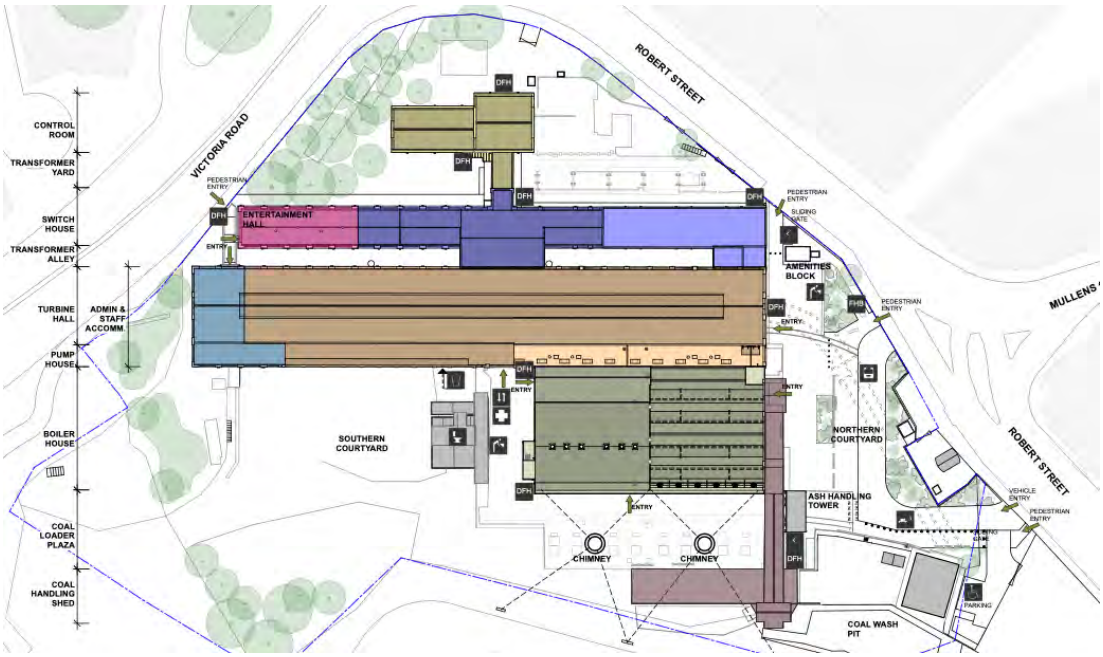


Figure 5: *White Bay Power Station – Site Plan (Design 5 Architects)*

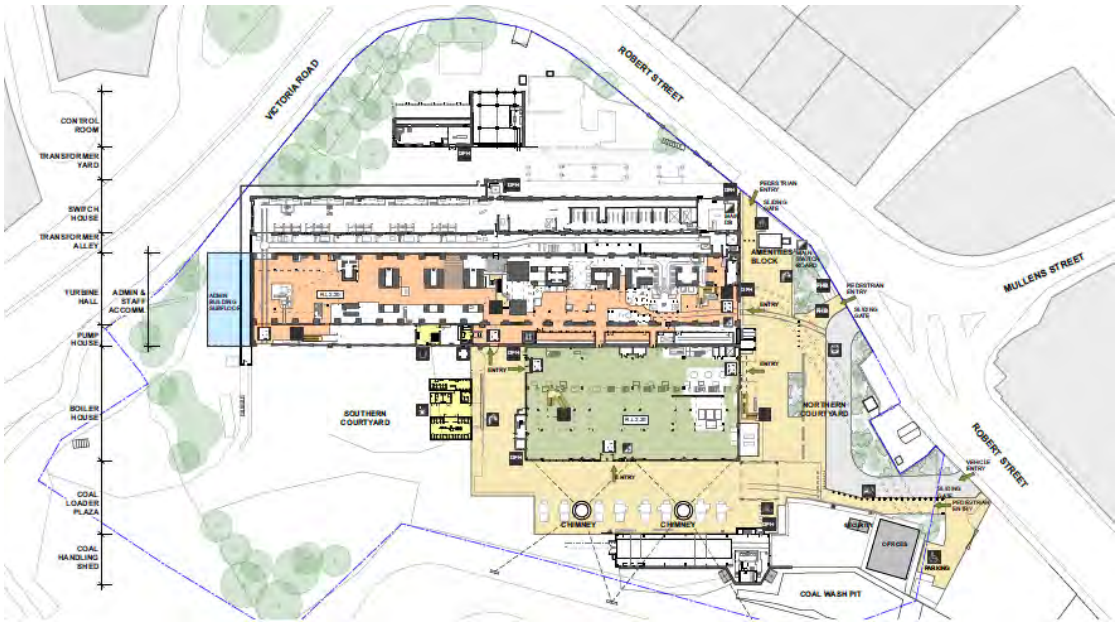


Figure 6: *White Bay Power Station – Ground Floor (Design 5 Architects)*

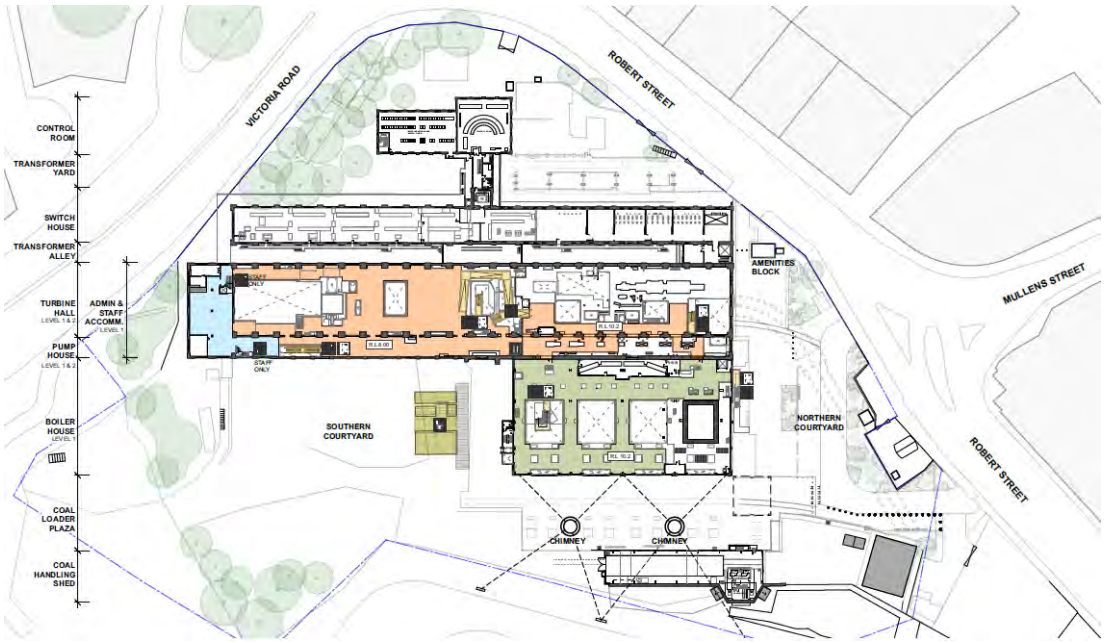


Figure 7: *White Bay Power Station – Level 1 (Boiler House and Turbine Hall) and Level 2 (Administration) (Design 5 Architects)*

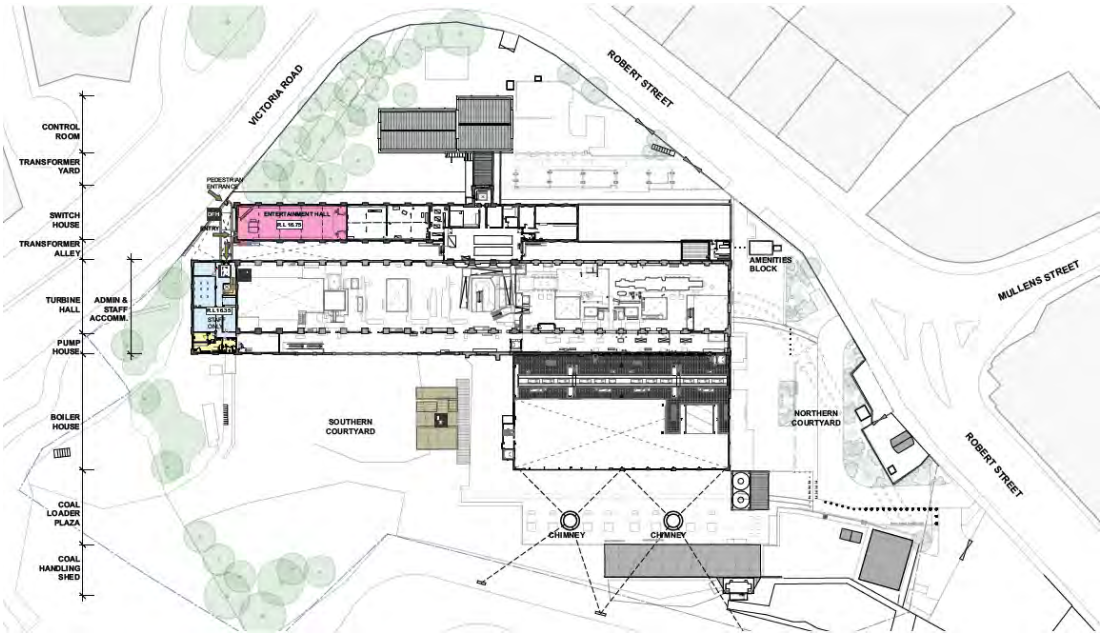


Figure 8: *White Bay Power Station – Level 3 (Administration Building and Entertainment Hall) (Design 5 Architects)*

2.4 Overview of works and uses of previously approved Part 5 assessments

A number of Part 5 approvals have been granted since 2021 for remediation and activation. Accordingly, these works are not considered as part of the subject REF and are documented in **Appendix 6: Schedule of Previous Part 5 Approvals for WBPS**.

3 Description of the Activity

The proposed development includes activation of the WBPS as an arts, cultural and entertainment venue for a range of diverse contemporary uses whilst preserving its industrial legacy. The activity includes:

- Temporary activation of the White Bay Power Station and forecourt areas for a range of uses including:
    - Community Facilities;
    - Entertainment Facilities;
    - Creative Industries;
    - Information and Education Facilities;
    - Commercial premises;
    - Ancillary food and drink premises and artisan food and drink premises; and
- Capital works up to $10,000,000 to support the activation of the WBPS as a community and event venue.

The REF considers the impact of the activity within the proposed range of uses and provides mitigation measures for an indicative range of temporary events and activations that may take place in the building and forecourt areas as outlined below:

- Arts, creative and cultural events (e.g. events such as Biennale);
- PMNSW produced state significant/hallmark, community or local events (e.g. NYE, local markets, open days, rehearsal spaces);
- Creative Maker Spaces for activities where people can create, collaborate, experiment, and learn.
- Ticketed events that are of an entertainment, artistic, food, community or cultural nature;
- Commercial filming and photography;
- Community events such as educational or schools programs, markets, or other gatherings;
- Occasional private hire for events, workshops, tours, conferences, educational/schools programs or celebrations; and
- A range of other activities and supporting functions such as administration, transportation, food and beverage services and site security and management.

In addition, the REF addresses the impacts of a suite of proposed works to the building (less than $10m) that will support and enable the building to be used for the full suite of event categories outlined above.

It is noted that the base building works already approved and installed as part of previous approval processes are sufficient for the upcoming events and activations. The works considered in this REF will further support additional events and activations in other parts of the WBPS e.g. the Entertainment Hall (see **Appendix 6: Schedule of Previous Part 5 Approvals for WBPS**).

3.1 Event Categories

3.1.1 Overview of Events and Activations

In order to comprehensively assess the proposal, a range of events and activations have been considered. The categories have been developed in parallel with PMNSW's 'Activation Principles' as outlined in **Figure 9** below.

Figure 9: *White Bay Power Station Activation Principles (PMNSW)*

A detailed description of each of the event categories is outlined in this chapter, as well as an overview of the key enabling building works.

Any event or activation that does not fit within the nominated categories may still be considered; however, it must be demonstrated that the event or activation will be able to be undertaken within the parameters of the relevant mitigation measures listed in **Section 7.**

Each of the event categories fits within one of the permissible uses identified within the SP1 zone applicable to the site:

- Community facilities;
- Entertainment Facilities;
- Creative Industries;
- Information and Education Facilities;
- Commercial premises; and
- Ancillary food and drink premises and artisan food and drink premises.

3.1.2 Arts, creative and cultural partnerships

These events will involve partnerships with emerging and established arts and cultural third parties to deliver key extended programs that can occur over a period of weeks or months. These will include events such as the 2024 Biennale at WBPS, as well as events delivered through inter-agency collaboration with other government bodies such as Create NSW, Destination NSW and Inner West Council.

This category of events can also enable single-day or short-run arts and cultural programs with arts organisations, and other performance, visual art awards and gallery events.

3.1.3 PMNSW produced state significant ('hallmark'), community, or local events

PMNSW will coordinate a range of events across multiple types from state significant or 'hallmark' events such as New Year's Eve, Australia Day, NAIDOC Week or the 'Power Up' festival, through to local, family or community events such as weekend markets, local art cultural activities and heritage tours.

3.1.4 Maker Spaces

Maker Spaces for creative, visual arts, and other cultural activities where people can create, collaborate, experiment, and learn. This could be a temporary activity within any part of the building or designated permanent spaces with 'fit for purpose' fit outs.

3.1.5 Ticketed events of an entertainment, artistic, food, community, or cultural nature

This category will enable the WBPS to be used for ticketed events (paid or free) that have an entertainment, community, food or cultural nature, including festivals and larger events that are held across a number of days, through to community events, smaller awards, performances, or exhibitions in spaces such as the Entertainment Hall or Pump House.

3.1.6 Commercial filming and photography

When not booked for other events or activations, the WBPS will be available for commercial filming and photography for advertising, television programs or movies.

3.1.7 Community and not-for-profit organisation activities and events

Community groups, schools, educational institutions and other not-for-profit organisations will be able to book the WBPS, or individual spaces (as appropriate), for events and activities such as markets, rehearsals or other community programs.

3.1.8 Occasional private hire for events, workshops, tours, conferences, educational/schools programs or celebrations

Private hirers, educational institutions, schools and other organisations will be able to book the WBPS, or individual spaces (as appropriate), for events and activities such as educational or school's events, meetings, rehearsals, trade shows, workshops, conferences or celebrations.

3.1.9 Temporary food and drink premises

Food and drink can be an important component in delivering events or community gatherings. Some events will require food and drink premises as part of their occupation, and food and drink premises that support ongoing use of the site more broadly, are both permitted uses within the SP1 zone (commercial premises and light industries). They can be delivered as part of individual activations subject to addressing the mitigation measures (Section 7) as part of the overall event.

3.1.10 Supporting infrastructure and services

The site will also enable, as part of its ongoing operations, a range of other activities and supporting functions such as administration, transportation, toilets and amenities, security and back of house site management. These functions will increase and decrease periodically depending on the individual uses and activations occurring at given times.

3.1.11 Other Events and Activations

A range of other events and activations that are not included in the above can be considered provided it can be demonstrated that the event or activity:

- can be held within an appropriate part of the WBPS building or site;
- undertaken within the parameters of this REF;
- ensure that the mitigation measures can be met;
- aligned with the Conservation Management Plan; and
- at the discretion of PMNSW.

3.2 Building works (less than $10m)

To enable the above uses and activations to take place, a number of further building works are required, which are outlined in Table 3 below. It is noted that the base building works already approved and installed as part of previous approval processes are sufficient for the upcoming events and activations (see **Appendix 6: Schedule of Previous Part 5 Approvals for WBPS**).

The works considered in this REF will further support additional events and activations in other parts of the WBPS e.g. the Entertainment Hall, to support the flexible and ongoing use of the building and forecourts over a sustained period of time.

All works are subject to Heritage Act approvals or exemptions and must be clearly documented prior to commencement as outlined in Mitigation Measure 16.

Table 3 – Building Works	
Item	**Description**
1.0 Entertainment Hall and Switch House	
1.1 Conservation of Heritage Murals	• Conservation of Heritage Murals on walls and back of stage
1.2 Compliant, second fire egress	• Retrofit fire door/s into northern wall for fire safety egress through the Switch House • Rectify floor towards central stairwell • Install emergency lighting and signage as necessary • Central stairwell BCA compliance
1.3 Installation of building services	• Electrical: general power allocation • Mechanical: install air conditioning system
1.4 Facility upgrades	• New bathrooms • Servery Restoration • Acoustic treatment to ceiling • Lighting upgrades
1.5 Window replacement	• Refurbishment or Replacement of windows
2.0 Administration Building	
2.1 Installation of air conditioning to Levels 3 and 4	• Install AC system to service Levels 3 and 4
2.2 Fit out of Level 2	• Rectify flooring • Building services • Amenities • Painting and encapsulation if necessary • Ceiling hazmat removal and replacement
2.3 Fit out of southwestern room on Level 1 for Green Room	• Rectify flooring • Building services (amenities / servery) • Painting and encapsulation • Ceiling hazmat removal and replacement
2.4 Lift access	• Internal lift shaft to be retrofit with new lift • Full fire rating and sprinkler coverage • External lift adjacent to Admin Building / Switch House
2.5 Remaining windows on Levels 1 and 2	• Replace or refurbishment of remaining windows on Level 1 • Replace or refurbishment of all external windows on Level 2

Table 3 – Building Works	
Item	**Description**
3.0 External Areas – Activation of additional space within the External Yards to enable compliant access, and back of house areas, and new signage	
3.1 Signage Infrastructure	• External signage for building identification or events in locations as shown on **Figure 10**.
3.2 Refurbishment of heritage former Amenities Block within Northern Yard	• Relocating heritage items from Ground Floor • Install new, secure door to southern façade (GF) • Paint and encapsulate previously painted items • Rectify floor and partitions • Install new window/s and counter to eastern façade • Replace or refurbish windows
3.3 Dry access to temporary Amenities Block in southern courtyard	Installation of new awning spanning from Boiler House door and Pump House door to new Amenities Block (toilet and cleaning facilities) in Southern Yard.
3.4 Additional Amenities	Additional toilets and amenities for increased patronage.
4.0 Miscellaneous	
External lighting	Lighting of Chimneys, northern Façade and other public spaces as required
4.2 Acoustic Curtains + Rigging Infrastructure	Within Turbine Hall, Boiler House, Pump House and Entertainment Hall – rigging and curtain walls as appropriate.
4.3 Power upgrade	Power upgrade throughout the site to cater for predicted ongoing electrical needs.
4.4 Maker Spaces	Minor works and fit-out to a nominated space/s, within the building for the creation of makers spaces subject to Heritage Approvals and BCA advice.
4.5 Boiler House	Additional set of doors to allow flexible uses of the boiler house and improve fire egress.
4.6 Fire Safety Measures	Upgrade of existing fire hydrants and pipework, other fire safety measures such as emergency evacuation warning systems and emergency exit signage upgrades.

3.2 Operational Hours

PMNSW see a strong opportunity for the WBPS to operate as an entertainment, arts and cultural precinct that will *"contribute to the local economy and make safe and exciting nightlife a feature of the community"* in alignment with the NSW cross government 'Vibrancy Reforms'.

In line with the Inner West Council vision for the WBPS to become part of a 'Special Entertainment Precinct' and in order to support the NSW Government 24 hour Economy vision "to build vibrant, diverse, inclusive and safe hospitality and entertainment precincts" the WBPS precinct will be operated in a way that supports a 24/7 venue.

However, the general operating hours of individual event and activations (except commercial filming) at the White Bay Power Station will be as follows:

- 7.00am until 11.00pm Sunday to Thursday or until midnight on Fridays, Saturdays or the night before a public holiday, except New Year's Eve (when the use may occur until 2.00am the following day);
- Indoor events or activations can apply for extended hours provided they meet the noise criteria set out in **Section 6.4.** and the mitigation measures in Section 7;
- Tier 1 Traffic generating events should avoid morning and afternoon peak hours Monday to Friday (see **Section 6.3**);
- Set-up time/bump in for the use must not start earlier than 6.00am, or end later than 11.00pm on any day; and
- Clean-up / bump out for the use must end no later than 2 hours after the use was to stop occurring; or 8.00am to 10.00pm if bump out is to occur the day following an event.

Bump-in and Bump-out includes activities required to set up and pack up events. These hours relate to activities within the building such as setting up or packing up internal stages, tables and seating, catering, cleaning etc and do not extend to works external to the building that generate excessive noise in which case should be undertaken between the hours 7.00am to 6.00pm on any day.

Events or activations seeking to operate or bump in/out outside of these hours must submit an event, noise and traffic management plan that demonstrates minimal impact on surrounding residents, businesses or other sensitive receivers. The plans will need to outline how they will notify the community and provide a contact number to respond to any issues arising.

3.3 Construction Works Hours

Construction work hours apply to any works listed in **Table 3**.

The undertaking of any construction work, including the entry and exiting of construction vehicles at the site, is restricted to the following standard work hours:

- Monday to Friday inclusive: 7.00am to 6.00pm;
- Saturdays: 8.00am to 1.00pm; and
- Sundays and Public Holidays: No construction work permitted without prior approval.

Construction work may be undertaken outside of the standard work hours, but only if it is strictly required:

- By the police or a public authority for the delivery of vehicles, plant or materials; or
- In an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
- On a case-by-case basis, subject to approval being obtained by PMNSW prior to the work occurring and the assessment of any impact of this extension determining that an extension of hours will not generate additional adverse traffic, noise and vibration impacts.

3.3.1 Commercial Filming

Commercial filming can operate up to 24 hours a day, subject to submission of a filming management plan submitted to PMNSW and approval from PMNSW at least 5 days before the commencement of filming at the location. The plan must include the following information:

a. the name, address and telephone number of the person carrying out the filming (such as a production company) and of the producer for the filming;

b. a brief description of the filming to be carried out (for example, whether it involves a television commercial, a television series, a feature film or a documentary);

c. the proposed location of the filming within the WBPS;

d. the proposed commencement and completion dates for the filming;

e. the proposed daily length of filming;

f. the number of persons to be involved in the filming;

g. details of any temporary structures (for example, tents or marquees) to be erected or used at the location for the purposes of the filming;

h. the type of filming equipment to be used in the filming (such as a hand-held or mounted camera) and whether drones will be used;

i. proposed arrangements for parking vehicles associated with the filming during the filming;

j. whether there will be any disruption to the location of the filming or the surrounding area and the amenity of the neighbourhood (for example, by the discharge of firearms or explosives, the production of offensive noise or vibrations, disruption to traffic flow or the release of smells, fumes, vapour, steam, soot, ash, dust, wastewater, grit or oil). Where disruption may occur, evidence of community notification and a contact number is to be provided;

k. whether the filming will involve the use of outdoor lighting or any other special effects equipment; and

l. a copy of the public liability insurance policy that covers the filming at the location.

Heritage approvals and exemptions may also be required. Advice should be sought from PMNSW prior to lodging a Filming Management Plan. Drone use will require a permit from PMNSW prior to filming.

3.4 Signage

External signage for building identification and events on the northern façade of the Boiler House, Turbine Hall and Heritage amenities building facing Robert Street is considered as part of this REF.

See **Figure 10** for potential locations. A design and heritage assessment will be required to be undertaken to select a final location based on these options. Appropriate mitigation measures are included to ensure any environmental impacts from the signage (such as heritage) are adequately addressed. Only two of the three signage locations will be used at any given point in time.

Wayfinding signage will be developed, installed and approved under existing heritage exemptions and delegations.

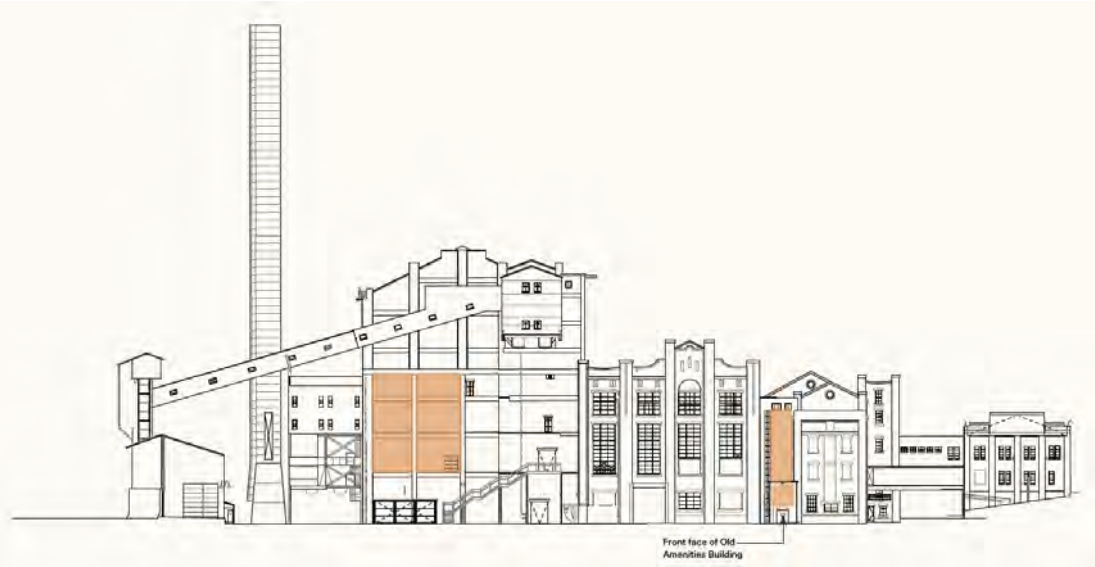


***Figure 10**: White Bay Power Station Northern Elevation (OA for PMNSW)*

3.5 Access and Parking

The subject site has excellent access from public transport, walking and cycling, as shown in **Figure 11.** It is anticipated that the majority of travel to and from the site over the course of the building's use as an arts and cultural precinct will be by public or active transport, including taxis and ride share.

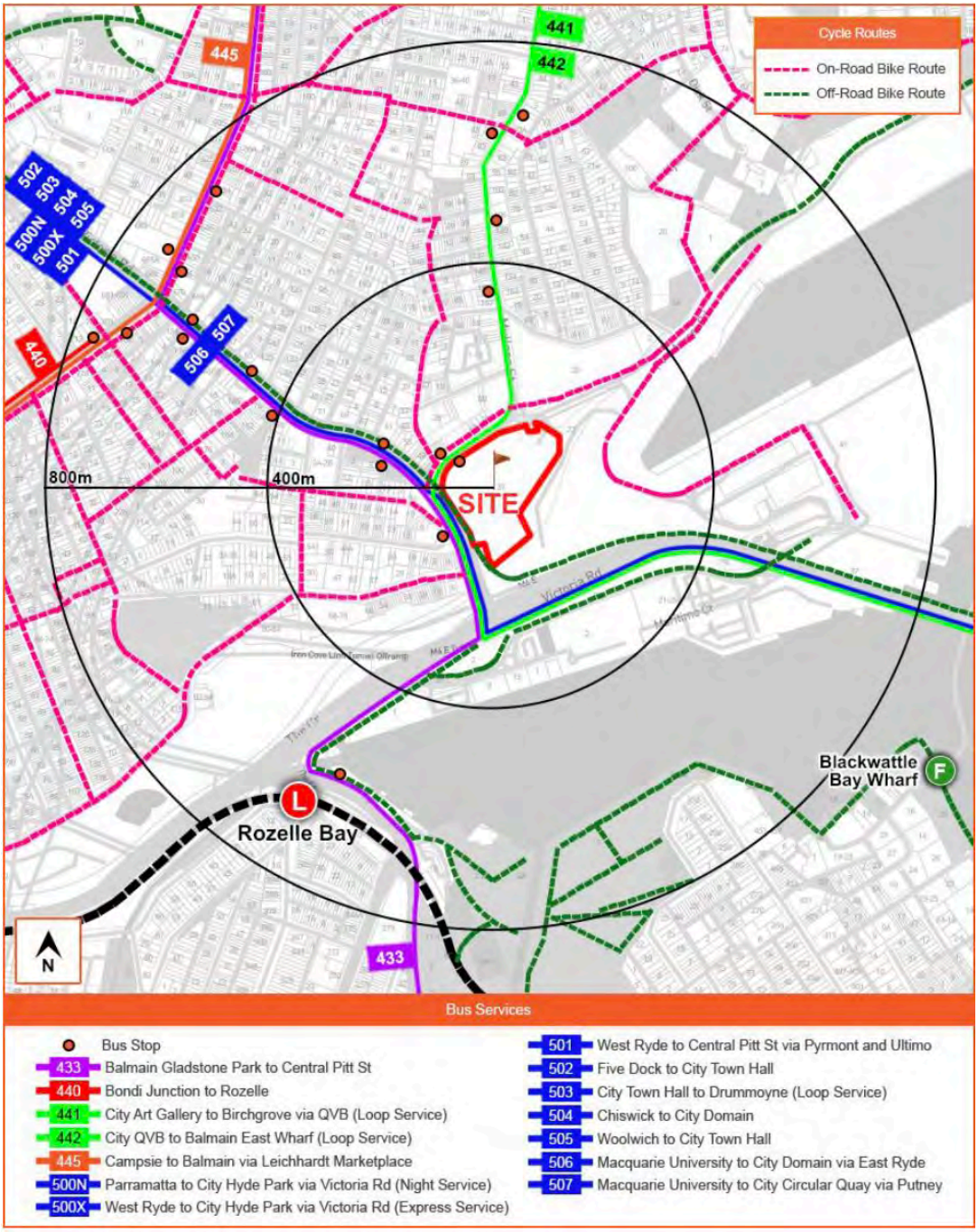


***Figure 11**: Public and Active Transport Connectivity to the site (PDC Consultants)*

3.6 Cleaning and Security

Cleaning and security facilities will need to be arranged in accordance with PMNSW's Event Operational Readiness Framework, Event Management Framework and Outdoor Events Policy. This will require approval by PMNSW prior to an event and must be consistent with the Mitigation Measures in this report and any other relevant legislation.

3.7 Food and Drink

Food and drink facilities will need to be arranged in accordance with PMNSW's Event Operational Readiness Framework, Event Management Framework and Outdoor Events Policy. This will require approval by PMNSW prior an event and must be consistent with the Mitigation Measures in this report and any other relevant legislation including compliance with any liquor licensing and food handling legislation and standards.

3.8 Amenities + Back of House

The temporary amenities block located in the Southern Courtyard provides the following facilities:

- 21 Female toilets (incl 4 ambulant) and 9 basins;
- 5 Male toilets (incl 1 ambulant), 9 urinals and 5 basins;
- 2 Uni-sex accessible toilets each with basin;
- 2 All Gender toilets (incl 1 ambulant) with 1 basin; and
- 4 baby change (one in Male, one in Female, one in each accessible toilet).

Noting the intended Class 9b use of the building, the current ground floor amenities block will accommodate up to 1,900 patrons at any one time.

The bathrooms located within the ancillary administration area will accommodate up to 90 staff at any one time.

Events with over 1,900 people will require a greater number of toilet facilities and will need to organise installation of temporary facilities in accordance with PMNSW's Event Operational Readiness Framework, Event Management Framework and Outdoor Events Policy. This will require approval by PMNSW prior to an event and must be consistent with the Mitigation Measures in this report and any other relevant legislation.

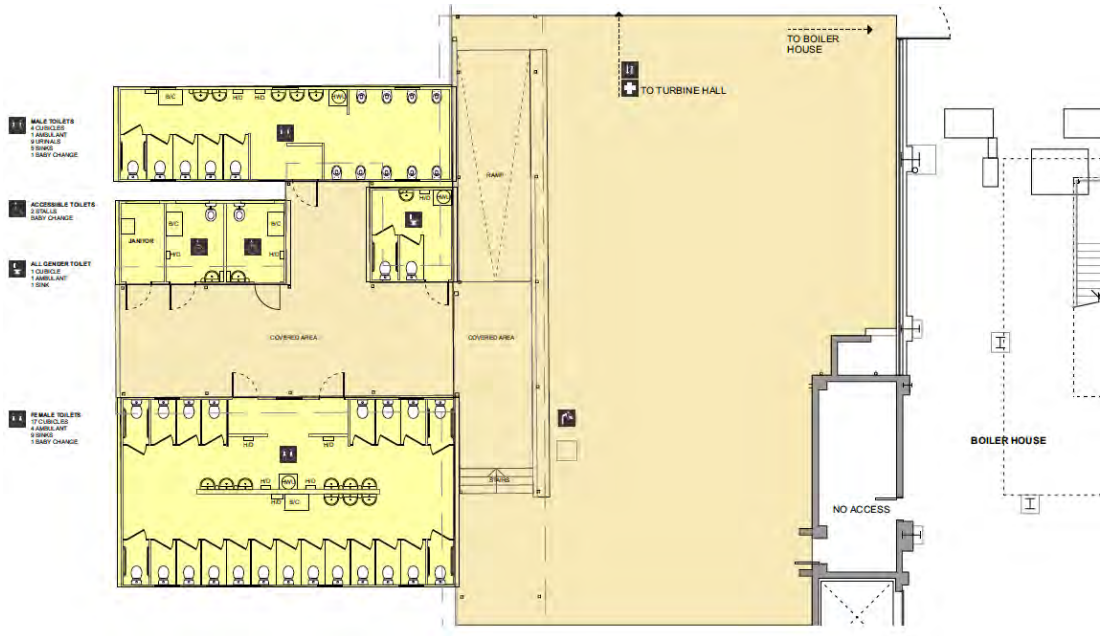


Figure 12: *Existing Temporary Amenities Layout (Scale Architecture and Design 5 Architects)*

4 Planning Context

The proposed events, activations and building works meet the requirements of 'Development permitted without Consent' under Section 2.9 of the State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 (Precincts SEPP). As a result, development consent under Part 4 of the EP&A Act is not necessary. An assessment under Part 5 (Environmental Assessment) of the EP&A Act is, however, required, and as such, this REF has been prepared.

This Section provides an overview of the key local and state planning controls applicable to the site and referenced in this REF.

4.1 Utilisation of 'Exempt' provisions in Exempt and Complying Development Codes SEPP 2008 (Codes SEPP)

4.1.1 State Heritage Significance

White Bay Power Station is recognised as a place of State Heritage Significance through its listing on the State Heritage Register under the *NSW Heritage Act 1977*.

The key guiding document to assist with maintaining the state heritage significance of WBPS is the White Bay Power Station Conservation Management Plan (CMP). The purpose and role of the CMP is defined as:

The Conservation Management Plan is a special study report that identifies and describes why a place is important (cultural significance) and then proposes an action plan, policy or strategy to keep that importance (conservation policy) and manage it into the future.

Originally prepared in 2004, the White Bay Power Station CMP was revised in March 2013 and endorsed by the NSW Heritage Council in September 2013. At the time of preparing this REF, the third edition of the CMP is under preparation, and is expected to be issued in mid-2024.

The CMP recognises that all parts of the White Bay Power Station are of exceptional significance to New South Wales and the Sydney region as a remarkably intact surviving urban power station from the 20th Century. Within that overarching level of exceptional significance are structures, spaces and machinery that have varying levels of significance. Parts of the Turbine Hall (space and machinery) are recognised as having exceptional heritage significance. The CMP policies recognise that areas of exceptional significance must be retained and conserved. In order to ensure the long-term maintenance and viability, adaptation for appropriate use or uses can occur. Those uses must respect the significant attributes of the place as well as focus on in situ preservation and interpretation.

Parts of the Turbine Hall (platform areas where turbine generators have been removed) and the Boiler House (spaces formerly occupied by Boilers 2, 3 and 4) are of high significance. The spaces retain a high degree of significant fabric and play an important role in strengthening and supporting the significance of the place. Future actions must respect the machinery and equipment in these spaces. The CMP allows for the adaptation of the spaces and fabric. **Figure 13** identifies the different grades of heritage significance across the building.

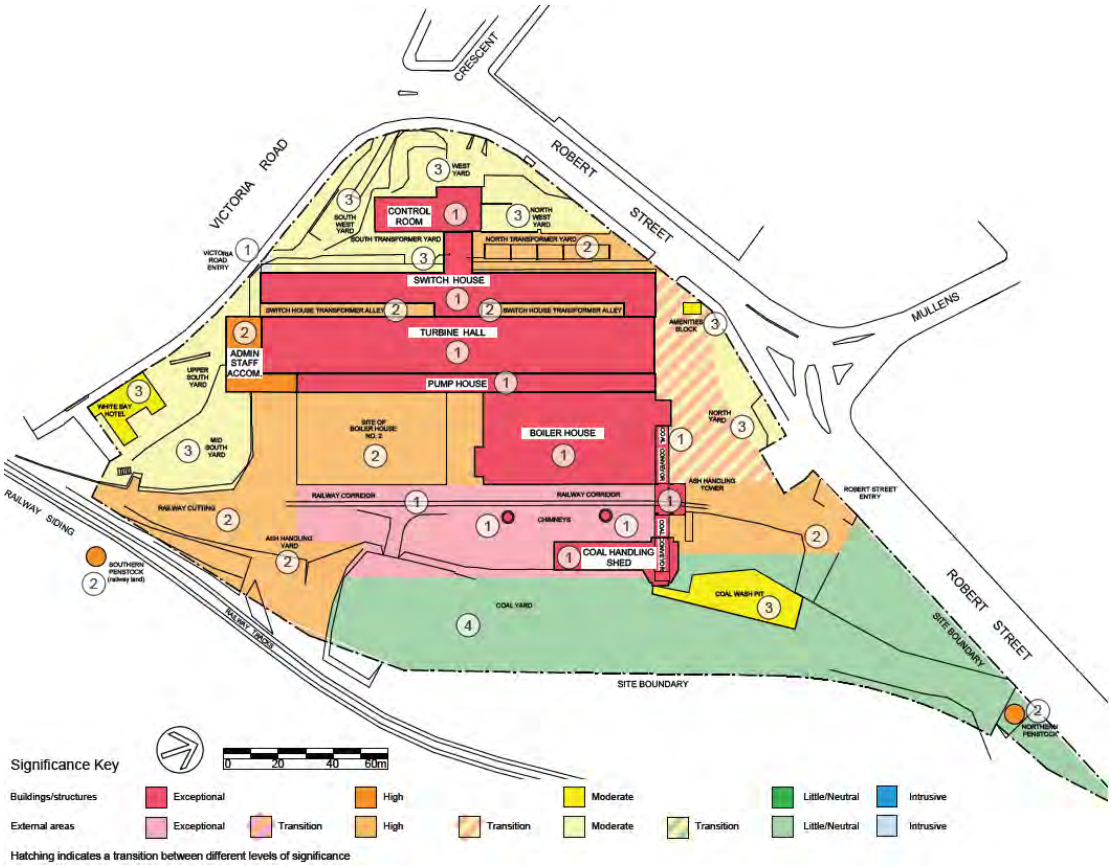


***Figure 13**: Internal layout of WBPS and heritage significance (CMP – Design 5 Architects)*

Any future works will need to consider the heritage significance of the building and fabric. Future works will need to prioritise the protection and preservation of the heritage values. Fit out works for events and activation must be temporary and reversible.

The CMP recommends a range of future uses for the WBPS. The proposed development enables members of the public to access the site for a timed event (several hours) and enjoy and interpret the heritage character and industrial history of the building at the same time. The CMP recognises that the activation of the building provides considerable opportunities to strengthen and support the engagement of the community with this significant item.

4.1.2 State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

Subject to consistency with the WBPS Conservation Management Plan and the SEPP Clause development standards, the following exempt development can also be delivered within the WBPS in addition to the activations and works in this REF. Refer to assessment and discussion in **Table 4**.

Table 4 – SEPP (Exempt and Complying Development Codes) 2008	
Clause	**Applicability**
1.16 General Requirements for exempt development (1) To be exempt development for the purposes of this Policy, the development…	
(b1) must not be carried out on land that is a declared area of outstanding biodiversity value under the Biodiversity Conservation Act 2016 or declared critical habitat under Part 7A of the Fisheries Management Act 1994, and	No part of the land adjoining the water at White Bay is declared critical habitat under Part 7A of the Fisheries Management Act 1994
(c) must not be carried out on land that is, or on which there is, an item that is listed on the State Heritage Register under the Heritage Act 1977, or that is subject to an interim heritage order under that Act, and	The Power Station and its curtilage are listed on the State Heritage Register under the Heritage Act 1977. Refer to further discussion below.
(1A) Despite subclause (1)(c), if development meets the requirements and standards specified by this Policy and that development— (a) has been granted an exemption under section 57(2) of the Heritage Act 1977, or (b) is subject to an exemption under section 57(1A) or (3) of that Act, the development is exempt development under this Policy.	PMNSW's self-assessment delegations mean it can obtain exemptions under Section 57(2) of the Heritage Act 1977 for certain development in the Power Station and its surrounds. In addition, the existing provision of 57(1D) enables PMNSW to undertake some development as exempt development if determined to be consistent with the Conservation Management Plan.
(1B) If an item listed on the State Heritage Register is not located on, or does not comprise, the whole of the relevant land, subclause (1)(c) applies only to the part of the land that is described and mapped on that register. (2) Development that relates to an existing building that is classified under the Building Code of Australia as class 1b or class 2–9 is exempt development for the purposes of this Policy only if— (a) the building has a current fire safety certificate or fire safety statement, or (b) no fire safety measures are currently implemented, required or proposed for the building.	To enable the exempt development provisions under the SEPP, PMNSW will ensure that it meets the fire safety requirements of this Clause consistent with the advice and mitigation measures in this REF.

Table 4 – SEPP (Exempt and Complying Development Codes) 2008	
Clause	**Applicability**
1.16A Exempt development on land within 18 kilometres of Siding Spring Observatory	The provisions of this Clause are not applicable to the land in Stage 1 Bays West, including the Power Station and its curtilage.

Accordingly, subject to meeting the above criteria, additional exempt uses and works may be delivered through the Codes SEPP if not covered in the REF, subject to:

- Obtaining an exemption under Section 57(2) of the Heritage Act 1977 in accordance with Clause 1.16(1A)(a) of the Codes SEPP; and
- Demonstrating its consistency with the existing Conservation Management Plan as is permitted under Clause 1.16(1D).

In particular, the exempt development provisions under Part 2 (Exempt Development Code), Division 3 (Temporary Uses and Structures Exempt Development Code) can be applied, subject to compliance with the relevant development standards contained within each subdivision:

- Temporary uses and structures (2.108);
- Filming and alterations or additions to buildings for filming purposes (2.113 and 2.114);
- Temporary structures and alterations or additions to buildings for filming purposes (2.115 and 2.116);
- Tents or marquees for filming and private functions (2.118 and 2.119); and
- Tents, marquees, stages or platforms for community and/or private events (2.119-2.124).

Applications for any Heritage exemption (Section 57(2)) as listed above, should be made to PMNSW at least two weeks prior to the event or any works occurring. It is recommended that early advice is sought from the heritage specialists at PMNSW to ensure individual proposals can be assessed and, where relevant, exempted in accordance with the CMP.

4.2 Commonwealth Environmental Protection and Biodiversity Conservation Act (EPBC) 1999

Under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), a referral is required to the Australian Government for proposed actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land.

The assessment of the proposal's impact, on matters of national environmental significance and the environment of Commonwealth land, found that there is unlikely to be a significant impact on relevant matters of national environmental significance or on Commonwealth land. A Protected Matters Report has previously been generated for the site, which

identifies that there are no World Heritage Properties, National Heritage Places, Wetlands or Marine Parks/Areas within 1km of the site.

Further, it is not development carried out by a Commonwealth agency, nor is the proposed development a matter considered to be of national environmental significance and there is unlikely to be any significant impact on any critical habitats or threatened species. Accordingly, the proposal has not been referred to the Australian Department of Sustainability, Environment, Water, Population and Communities under the EPBC Act. Refer to Table 5 below for an impact assessment against the relevant considerations.

Table 5 – Matters of National Environmental Significance Consideration

Factor	Impact Assessment
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No
Will the activity have, or likely to have, a significant impact on listed migratory species?	No
Will the activity involve any nuclear actions?	No
Will the activity have, or likely to have, a significant impact on Commonwealth marine areas?	No
Will the activity have any significant impact on Commonwealth land?	No
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No

4.3 Environmental Planning and Assessment Act 1979 (NSW)

This REF considers the requirements of Section 5.5 of the EP&A Act, as well as Section 171 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) (refer to **Section 6.1** of this REF).

To meet the objectives of the EP&A Act relating to the protection and enhancement of the environment, a determining authority shall examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity (refer to sub-section 1 of Section 5.5). Any other provisions of the Act or the

provisions of any other Act or of any instrument made under the EP&A Act or any other Act should also be taken into consideration.

This REF addresses the provisions of Section 5.5 of the EP&A Act. Table 6 below demonstrates the effect of the proposed activity on the matters listed for consideration in Sub-section 3 of Section 5.5.

Table 6 – Matters for consideration under Sub-Section 3 Section 5.5 of the EP&A Act

Matter	Impact of Activity
Sub-section 3: Without limiting subsection 1, a determining authority shall consider the effect of any activity on any wilderness area (within the meaning of the Wilderness Act 1987) in the locality in which the activity is intended to be carried on.	No effect, as the site is not located within or in the vicinity of a wilderness area as defined under the Wilderness Act 1987.

For the purposes of Section 5.7 of the EP&A Act, the Activity has been assessed as not likely to have a significant impact on the environment. As such an Environmental Impact Statement is not required to be prepared.

4.4 State Environmental Planning Policies (SEPPs)

The following SEPPs apply to the site and are relevant to the assessment of the activity as outlined below.

4.4.1 State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021

The site is subject to the planning controls contained within the State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 (Eastern Precincts SEPP). In accordance with Section 2.9 of the Eastern Precinct SEPP, development with a capital investment value (CIV) of no more than $10 million carried out by a public authority within the area of White Bay does not require development consent under Part 4 of the Act.

As the works contain a CIV less than $10 million and are located with the boundaries of White Bay as per the Sydney Harbour Port and Related Employment Lands Map, the development is permitted without consent under Part 5 of the Act.

Other general planning controls relating to the site are contained within Appendix 8 – Stage 1 Bays West Precinct and are considered in **Table 7** below.

Table 7 – Consideration of Eastern Precinct SEPP controls	
Section	**Comment**
3. Aims of Appendix	The proposed activations and building works will enable the delivery of the Aims, particularly: • (a)(ii) balances growth and change with the character, heritage and amenity of the site; • (b)(i) supports the adaptive re-use of the White Bay Power Station; • (c) to support the revitalisation of critical heritage assets; and • (e) to ensure future land uses in the White Bay Power Station can deliver a viable development outcome that enhances and celebrates the building's heritage, while supporting a vibrant night-time economy and innovative cultural and creative uses,
6. Zone objectives and land use table	The site is zoned SP1 Special Activities. Development permitted with consent include the following: Commercial premises; Community facilities; light industries; Educational establishments; Entertainment facilities; Hotel or motel accommodation, information and education facilities, recreation facilities (indoor) and recreation facilities (outdoor). The proposed activations and buildings works would be permitted with consent under the zoning if the capital investment value exceeded $10 million. The proposed activity is still consistent with this zoning however as they are under $10 million, the activity can be undertaken as 'development permitted without consent' (Section 4.4.1).
7. Height of buildings	The site is partly subject to a maximum height of RL40. The proposed development will not alter the existing height of the development.
8. Floor space ratio	The site is not subject to a maximum floor space ratio control.
14. Requirement for consent	In accordance with Section 14, development consent is required for altering the exterior of a heritage item, amongst other reasons. As per the above, the uses and building works do not otherwise require development consent under Part 4 of the Act. An assessment of heritage matters is provided in **Section 6.2** of this REF.
15. Heritage conservation	As per the above, the works do not require development consent under Part 4. Nevertheless, the conservation management plan and heritage protections are considered in **Section 6.2** of this REF.

Table 7 – Consideration of Eastern Precinct SEPP controls	
Section	**Comment**
18. Number of car and bicycle parking spaces for uses of land	Not applicable. The development is not of a commercial or residential nature.
23. Active frontage	Part of the site is identified as an active street frontage. The proposed activity will provide an active use in accordance with the requirements outlined in Section 23.
28. Development on land in Site C	Compliant. The uses proposed will be almost entirely related to community, creative, entertainment or food and drink uses.

4.4.2 Resilience and Hazards SEPP 2021

The proposed uses are temporary in nature and will not require any ground disturbance. Further, as part of a previous and ongoing program of structural repair, maintenance and site remedial works, the top 100mm has been removed and replaced with crushed gravel and road base materials in all areas where a loose surface is present.

The purpose of the scrape was to remove general debris and loose materials from the ground surfaces in external areas, as well also to ensure any Asbestos Containing Material (ACM) lying loose on the surface is safely removed.

When required, temporary floor coverings will be applied in front of external stages where there is unsealed existing ground conditions to further protect the ground surface and ensure that uses will not involve exposure of the underlying soil which is identified in the Mitigation Measures.

The site is identified to be in a coastal environmental area and coastal use area under the SEPP. Given the proposed uses are temporary in nature and are to be located within the existing Whites Bay Power Station and forecourt area, the development will avoid adverse impact on the coastal environment.

4.4.3 Biodiversity and Conservation SEPP 2021

The consent authority is required to consider the likely impact of the activity on the environment within a regulated catchment. These controls relate to water quality and quantity (Section 6.6), aquatic ecology (Section 6.7), flooding (Section 6.8), and recreation and public access (Section 6.9) and the Sydney Harbour Catchment (Section 6.28).

The uses and works are not intended to alter the catchment. Consideration will need to be given to ensuring that no construction works will expose underlying soils and no changes to the extent of hardstand. Mitigation measures will be required for the preparation of a waste management plan to prevent waste and other debris from accidentally entering Sydney Harbour during the construction and operational stages.

4.4.4 Transport and Infrastructure SEPP 2021

Under this SEPP, Part 2.2 contains a range of provisions which state that the public authority must consult with other agencies including Council if provisions in the Transport and Infrastructure SEPP allow works to be undertaken without consent. The proposed activity does not rely on the Transport and Infrastructure SEPP. Nevertheless, consultation with the Inner West Council Traffic and Transport team has been ongoing to ensure that appropriate traffic management measures are in place for the proposed activity.

4.4.5 Industry and Employment SEPP 2021

The proposed development includes a number of signage locations as identified in **Section 3.6** of this report. An assessment against the relevant provisions of this SEPP is provided in **Table 8** below.

Table 8 – SEPP (Industry and Employment) 2021, Chapter 3 - Advertising & Signage

Item	Description
Part 3.1 Preliminary	
3.1 Aims, objectives etc	(1) This Chapter aims— (a) to ensure that signage (including advertising)— (i) is compatible with the desired amenity and visual character of an area, and (ii) provides effective communication in suitable locations, and (iii) is of high quality design and finish, and (b) to regulate signage (but not content) under Part 4 of the Act, and (c) to provide time-limited consents for the display of certain advertisements, and (d) to regulate the display of advertisements in transport corridors, and (e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors. (2) This Chapter does not regulate the content of signage and does not require consent for a change in the content of signage.
3.6 Granting of consent to signage	A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied— (a) that the signage is consistent with the objectives of this Chapter as set out in section 3.1(1)(a), and (b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 5.
Part 3.3 Advertisements, Division 2 Control of advertisements	

Table 8 – SEPP (Industry and Employment) 2021, Chapter 3 - Advertising & Signage	
Item	**Description**
3.9 Requirement for consent	A person must not display an advertisement, except with the consent of the consent authority or except as otherwise provided by this Chapter.
3.10 Consent authority	For the purposes of this Chapter, the consent authority is— (a) the council of a local government area in the case of an advertisement displayed in the local government area ...
3.11 Matters of consideration	(1) A consent authority (other than in a case to which subsection (2) applies) must not grant consent to an application to display an advertisement to which this Chapter applies unless the advertisement or the advertising structure, as the case requires— (a) is consistent with the objectives of this Chapter as set out in section 3.1(1)(a), and (b) has been assessed by the consent authority in accordance with the assessment criteria in Schedule 5 and the consent authority is satisfied that the proposal is acceptable in terms of its impacts, and (c) satisfies any other relevant requirements of this Chapter.
3.12 Duration of consents	(1) A consent granted under this Part ceases to be in force— (a) on the expiration of 15 years after the date on which the consent becomes effective and operates in accordance with section 83 of the Act, or (b) if a lesser period is specified by the consent authority, on the expiration of the lesser period. (2) The consent authority may specify a period of less than 15 years only if— (a) before the commencement of this Part, the consent authority had adopted a policy of granting consents in relation to applications to display advertisements for a lesser period and the duration of the consent specified by the consent authority is consistent with that policy, or (b) the area in which the advertisement is to be displayed is undergoing change in accordance with an environmental planning instrument that aims to change the nature and character of development and, in the opinion of the consent authority, the proposed advertisement would be inconsistent with that change, or (c) the specification of a lesser period is required by another provision of this Chapter.

Table 8 – SEPP (Industry and Employment) 2021, Chapter 3 - Advertising & Signage	
Item	**Description**
Division 3 Particular advertisements	
3.15 Advertisements with display area greater than 20 square metres or higher than 8 metres above ground	(1) This section applies to an advertisement— (a) that has a display area greater than 20 square metres, or (b) that is higher than 8 metres above the ground. (2) The consent authority must not grant consent to an application to display an advertisement to which this section applies unless— (a) the applicant has provided the consent authority with an impact statement that addresses the assessment criteria in Schedule 5 and the consent authority is satisfied that the proposal is acceptable in terms of its impacts, and (b) the consent authority gave a copy of the application to TfNSW before the application is exhibited if the application is an application for the display of an advertisement to which section 3.16 applies.
3.17 Advertising display are greater than 45 square metres	The consent authority must not grant consent to the display of an advertisement with an advertising display area greater than 45 square metres unless— (a) a development control plan is in force that has been prepared on the basis of an advertising design analysis for the relevant area or precinct, or (b) in the case of the display of an advertisement on transport corridor land, the consent authority is satisfied that the advertisement is consistent with the Guidelines.
3.18 Location of certain names and logos	(1) The name or logo of the person who owns or leases an advertisement or advertising structure may appear only within the advertising display area. (2) If the advertising display area has no border or surrounds, any such name or logo is to be located— (a) within the advertisement, or (b) within a strip below the advertisement that extends for the full width of the advertisement. (3) The area of any such name or logo must not be greater than 0.25 square metres. (4) The area of any such strip is to be included in calculating the size of the advertising display area.

Table 8 – SEPP (Industry and Employment) 2021, Chapter 3 - Advertising & Signage	
Item	**Description**
Schedule 5 - Assessment Criteria	
1. Character of the area	External signage for building identification and events on the northern façade of the Boiler House, Turbine Hall and Heritage amenities building facing Robert Street is considered as part of this REF. Only two of the three signage locations will be used at any given point in time. Any signage will need to be consistent with the WBPS CMP, which provides an overview of the key character analysis of the building and its curtilage. Any signage will be related to events or activations occurring at the building, and therefore will be consistent with the themes for the building and its character.
2. Special areas	The signage will not detract from the amenity or visual quality of the WBPS and its heritage. A design and heritage assessment will be required to be undertaken to select a final location based on these options.
3. Views and Vistas	The proposed signage locations will not obscure or compromise important views of the WBPS. It has been specifically located so that key existing industrial equipment (e.g. coal loader and chimneys) continue to be visible and prominent. The signage will not dominate the skyline and does not affect the viewing rights of other advertisers.
4. Streetscape, setting or landscape	The scale and proportion and form of the proposed signage has been considered by PMNSW's heritage advisors who consider it appropriate for the streetscape and heritage setting and will contribute to the visual interest of the streetscape. The proposed signage will not protrude above the WBPS building and any other key structures.
5. Site and building	The scale and proportion and form of the proposed signage has been considered by PMNSW's heritage advisors who consider it appropriate for the significance of the site and building. The signage locations have been carefully chosen to respect important features of the WBPS and curtilage.
6. Associated devices and logos with advertisements and advertising structures	Required safety devices, platforms, lighting devices or logos will be assessed and approved by PMNSW heritage experts prior to any specific signage approval for particular events or activations.
7. Illumination	Any lighting or illumination of future signs will be assessed and approved by PMNSW heritage experts prior to any specific signage approval for particular events or activations.

Table 8 – SEPP (Industry and Employment) 2021, Chapter 3 - Advertising & Signage	
Item	**Description**
8. Safety	The signage will not reduce safety for any public road, pedestrians, cyclists and will not obscure sightlines from public areas.

4.4.6 Sustainable Buildings SEPP 2022

The proposed uses and work do not involve temporary fit out to an existing building with a CIV greater than $10 million. As such, in accordance with Section 3.1(1)(b), the proposal is not subject to the controls of the Sustainable Buildings SEPP.

4.5 Inner West Local Environmental Plan 2022

The Inner West Local Environmental Plan 2022 (LEP) regulates development in the Inner West LGA, including the site. The REF will need to consider the LEP as outline in **Table 9** below.

Table 9 – Inner West Local Environmental Plan 2022	
Clause	**Compliance**
Clause 2.3 Zone objectives and land use table Clause 2.4 Unzoned land	The site is on land not subject to a zoning under the LEP. In accordance with Clause 2.4, the consent authority must consider impacts on adjoining land and the suitability of the site. Impacts on adjoining lands including traffic and noise are further discussed throughout this REF, as is the suitability of the site.
Clause 4.3 Height of building	The site is not subject to a maximum height of building control.
Clause 4.4 Floor space ratio	The site is not subject to a maximum floor space ratio control.
Clause 5.10 Heritage	The site is not identified as an item of local significance. Nevertheless, heritage impacts for the state significant item are discussed further throughout this REF.
Clause 5.21 Flood Planning	The uses and works are largely contained within the White Bay Power Station Building itself. Any outdoor uses from time to time will be temporary, and not considered to impact the site's existing compatibility with the flood function of the land. Irrespective, the REF provides an assessment and mitigation measures to address key rain events in and around the building.

4.6 Leichhardt Development Control Plan 2013

In accordance with Part A1.3, the Leichhardt Development Control Plan (DCP) 2013 does not apply to the site. Accordingly, there are no other relevant DCPs which apply to the site.

4.7 Other Legislation

4.7.1 Rural Fires Act 1997

The proposed works will not trigger the requirement to obtain a Bushfire Safety Authority under s100B of the Rural Fires Act 1997 as the site is not identified as bushfire prone and works do not involve the subdivision of land or a special fire protection purpose.

4.7.2 Biodiversity Conservation Act 2016

The Biodiversity Conservation Act 2016 seeks to conserve biodiversity and establishes a framework to avoid, minimise and offset the impacts of proposed development and land use change on biodiversity. The proposed uses or works will not require the removal of native vegetation or impacts on any threatened species or threatened ecological communities. As such, an assessment or approval under the Biodiversity Conservation Act 2016 is not required.

4.7.3 Heritage Act 1977

The site is a State Heritage Item on the State Heritage Register, item number 01015, gazetted on 2 April 1999. The site is also identified as an item of State heritage significance on the Place Management Heritage and Conservation Register under Section 170 of the Heritage Act 1977 (the Heritage Act).

The Heritage Act permits two pathways for carrying out works to properties listed on the State Heritage Register and covered in the following sections of the Heritage Act:

- **Section 57(2) of the Heritage Act provides exemption** from approval for minor activities or works that have little to no impact on the heritage significance of a state heritage register listed item and support its management. This may include works that are required to maintain or conserve a building and its fabric, and those that enable adaptive reuse.

  Under Section 57(2) of the Heritage Act, the Minister responsible for heritage has gazetted agency specific exemptions for various activities and works to State heritage items owned by Place Management NSW, including White Bay Power Station. These exemptions are detailed in *Government Gazette Number 449 – Planning and Heritage*, dated Friday, 23 September 2022, and are in addition to the Standard Exemptions that apply to all SHR listed items. The agency a exemptions include nine (9) categories that cover maintenance and cleaning, repairs and reconstruction, painting, vegetation, signage, filming, recovery works, investigations and minor internal activities. The Standard Exemptions that apply to all State heritage listed items also apply to the site. The exemptions relevant to the proposed activity include Maintenance and Cleaning, and Repairs or Alterations to Non-Significant Fabric. Relevant exemptions for the WBPS are outlined below in Section 4.7.3.1.

https://www.environment.nsw.gov.au/topics/heritage/apply-for-heritage-approvals-and-permits/state-heritage-register-items/standard-exemptions

https://gazette.legislation.nsw.gov.au/so/download.w3p?id=Gazette_2022_2022-449.pdf

Activities that fall within agency-specific exemptions and Standard Exemptions do not require approval, but require endorsement and landowners consent from PMNSW.

- **Under Section 60 of the Heritage Act, approval is required** for activities and works to an item listed on the State Heritage Register where the works that do not fall within the Standard or Agency-Specific Exemption categories described above. Section 60 applications can be approved under Section 63 of the Act by Senior Manager Heritage, Senior Manager Archaeology, and Director Design and Place, at PMNSW under delegation from the Heritage Council of NSW (See *Government Gazette Number 449 – Planning and Heritage*, dated Friday, 23 September 2022). There are several limitations for PMNSW in determining an application under S63 which are detailed in Schedule A, Column 3 of the Gazette.

  For works that have the potential to materially affect the State heritage significance of the SHR item (in accordance with the *Material Threshold Policy 2020*, as amended from time to time), approval under Section 60 would be required from the Heritage NSW or the Heritage Council of NSW.

  https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/material-threshold-policy.pdf

Whilst the temporary activations and works outlined in this REF have achieved a planning approval, they will still require a separate exemption or approval (under Section 57(2) or Section 63 of the Heritage Act).

Whilst most of the works proposed as part of the activity may be appropriately categorised as standard exemptions under Section 57(2) of the Heritage Act, approval under Section 60 of the Heritage Act, either under delegation to PMNSW, to Heritage NSW, or to the Heritage Council of NSW, may be required depending on the potential level of impact associated with the works.

4.7.3.1 Existing PMNSW Exemptions relevant for WBPS

EXEMPTION 9: MINOR INTERNAL ACTIVITIES AND WORKS TO SIGNIFICANT FABRIC

Specified activities/works:

a) Minor internal activities/works with little or no adverse impact on heritage significance. Works include:

   i. fitout activities/works,

   ii. defit activities/works,

   iii. fixings into existing penetrations or secured into mortar joints, or

   iv. monitoring devices affixed to significant fabric.

b) Excludes works for:

   i. new services and upgrade works required for BCA fire, safety, egress and access alterations and upgrades, or

   ii. a change in use.

Relevant standards:

c) Activities and works must:

   i. be fully removable and reversible,

   ii. have little or no adverse heritage or visual impact on the significance of the heritage item and be discreetly located,

   iii. consider and minimise cumulative impacts on the heritage item, and

   iv. use existing service routes, cavities or voids or replace existing surface mounted services.

d) Reuse of existing fixing points in significant fabric is permitted.

e) Any new fabric must not:

   i. limit access to significant fabric for future maintenance, or

   ii. exacerbate the decay of existing fabric or risk the destruction of existing significant fabric due to chemical incompatibility, vibration, percussion or explosive flammability.

f) Replacement surface mounted services must be the same or less intrusive than the surface mounted services they replace.

g) Where appropriate existing service routes and/or conduits may be deleted if the installation can be streamlined into one existing service route, cavity or void.

h) Activities and works must not materially affect heritage significance in accordance with the Heritage NSW Materials Threshold Policy (as updated from time to time).

i) The specified activities/works must be undertaken in accordance to detailed works scopes, specifications and drawing documentation from a suitably qualified and experienced professional and a heritage impact statement that assesses that the activities/works will have little or no adverse heritage impact on the item's heritage significance. The scope and method for the proposed activities/works is to be considered by the Place Management NSW Heritage Expert. The Place Management NSW Heritage Expert must be satisfied and confirm that the proposed activities/works will not adversely impact the heritage significance of the item.

EXEMPTION 5: SIGNAGE

Specified activities/works:

1. The installation of decals or signs behind or on the glass surface of a commercial and/or retail tenancy, provided the amount of signage does not overwhelm the aesthetic significance of the item.

2. Removal, repair, replacement or updating of signage with like for like signage where previous Development Consent is in place for signage.

Relevant Standards:

3. Signs must minimise all new fixings and use existing fixing-points into the significant fabric of the item
4. Signs must not:
    i. be internally illuminated of flashing,
    ii. conceal or involve the removal of or damage to significant pre-existing signs, or
    iii. use glue products (such as liquid nails) in the affixing process.
5. Signage must comply with the current relevant signage policy for PMNSW, (as amended from time to time). Signage must be fully reversible and removable.

A separate signage plan will be required, and a separate assessment will need to be undertaken by PMNSW to determine if it is exempt or requires a permit under s60 of the Heritage Act prior to installation.

Lighting

Lighting may need to be fixed to various points outside, however, will need to be placed in areas of non-significant heritage areas and so will not impact the heritage fabric of the WBPS. The exact location of lighting will be subject to the final design, undertaken in consultation with the PMNSW heritage expert. The final design must be approved by PMNSW and Heritage approvals and/or exemptions sought separately if required.

Any permanent outdoor lighting will also need to be designed to be compliant with the Australian Standard AS 4282-1997 Control of the obtrusive effects of outdoor lighting.

4.7.4 National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 relates to the establishment, preservation and management of national parks, historic sites and certain other areas and the protection of certain fauna, native plants and Aboriginal objects.

There are no national parks, historic sites, Aboriginal objects or other such sites or objects as legislated for by the National Parks and Wildlife Act, that are located on, or in the vicinity of, the subject site. Further, no excavation works are proposed as part of the REF. As such the activity will not trigger the need for further assessment or approval under the National Parks and Wildlife Act 1974.

4.7.5 Roads Act 1993

The site of the proposed uses and works is not located within a road reserve. Access to the site will be provided by existing roads and driveways, including the existing driveway within the northern yard.

A number of temporary and permanent mitigation measures are proposed to manage the impacts of traffic and transport from the events, activations and works. These will require approval by a combination of Inner West Council's Local Traffic Committee and TfNSW, which are detailed in **Section 6.3.4 Longer term permanent traffic considerations**.

4.7.6 Water Management Act 2000

The Water Management Act 2000 establishes a framework for the protection of 'waterfront land', being land within 40 metres of a river, lake, estuary or coastal waters. The proposed works are not located on 'waterfront land'. Further, no excavation works, or groundwater extraction is proposed. As such, a Controlled Activity Approval (CAA) or aquifer interference approval is not required. Accordingly, no approval is required from the relevant Environment Department – Water prior to carrying out the activity.

4.7.7 Contaminated Land Management Act 1997

The Contaminated Land Management Act 1997 sets out a framework for the investigation and reporting of potentially significant contamination. The likely proposed activities will involve temporary activities on the land which do not require excavation to create footings or further exposure to soils. Further:

- There is no aboveground or underground storage of bulk liquid chemicals;
- Appropriate health, safety and environment plans are being implemented at the site for users and visiting maintenance workers;
- There is no obvious evidence of contamination (for example, no dead or stressed vegetation, no surface indicators of chemical spills, no unexplained patches of bare earth, no chemical odours from drains or other subsurface locations, no unexplained animal deaths, no unexplained health issues, no reasons to suspect groundwater is being affected by the activities).
- The White Bay Power Station Site was previously subject to notice number 202 pursuant to Section 35 of the Environmentally Hazardous Chemicals Act 1985 and dated 13 February 1991, which required asbestos monitoring in relation to the demolition of Power Station equipment. This notice was revoked by the EPA on 14 October 1998, and the site has not been subject to any further contaminating activities since that time.

As part of a previous and ongoing program of structural repair, maintenance and site remedial works, the top 100mm has been removed and replaced with crushed gravel and road base materials in all areas where a loose surface is present. The purpose of the scrape was to remove general debris and loose materials from the ground surfaces in external areas, as well also to ensure any Asbestos Containing Material (ACM) lying loose on the surface is safely removed. Following the excavation, a marker layer of orange geofabric was placed over the top of the impacted material, at which point the surface of the geofabric was inspected to confirm that the surface was free of visible asbestos materials. Following the satisfactory inspection, the geofabric was covered with gravel aggregate which was subsequently inspected to ensure there was adequate coverage and the surface was safe to use. Provided mitigation measures are implemented, no duty to report contamination under the Contamination Land Management Act 1997 will exist.

4.7.8 Waste Avoidance and Resource Recovery Act 2001

The Waste Avoidance and Resource Recovery Act 2001 (WARR Act) sets out the framework for reducing environmental waste in relation to resource consumption and management, resource recovery and disposal. Waste generated from uses will need to be managed in accordance with the objectives of the WARR Act, and a sustainability and waste

management strategy will need to be prepared by each event proponent prepared as outlined in Mitigation Measure 33 and pursuant to the WARR Act – including avoiding and reducing the generation of waste, reuse of materials and recycling where appropriate.

4.7.9 Fisheries Management Act 1994

No approvals will be required under the Fisheries Management Act 1994.

5 Consultation

Consultation has been undertaken with key stakeholders throughout the development of the proposed activities and preparation of this REF.

5.1 Community Engagement and Consultation

PMNSW has engaged JOC Consulting to undertake consultation with the community to capture insights and ideas to inform the short-term and long-term use of the White Bay Power Station (WBPS) as an arts, culture, creative industries and community hub.

The community consultation program is ongoing. This section is a snapshot of a point in time. Between April-June 2024 over **190,000 people were made aware** of the opportunity to have their say. Of this number, **1,135 were formally engaged** through face-to-face and online methods.

Engagement Objectives

- Gather insights on specific uses to inform the medium and long-term use of the White Bay Power Station as an arts, culture, creative industries and community hub;
- Ensure proactive, clear and meaningful delivery of communications and engagement activities to ensure all interested parties feel consulted and involved in the planning process;
- Engage with a broad cross-section of communities across greater Sydney as well as interstate and international visitors of Biennale to capture a diversity of perspectives and balance the needs of all user groups; and
- Seek any issues that need to be addressed to ensure impacts are ameliorated.

5.1.1 Summary of Consultation to Date

As of July 2024, a broad range of consultation methods have been utilised to gather a wide range of perspectives and ideas. A summary of consultation methods is provided in **Table 10** below.

Table 10 – Summary of Consultation Methods to date

Date	Location/ details	# of people	Demographic
Survey			
29 April – 11 June 2024	Online survey	737	Broad Community
19 April 2024	White Bay Power Station intercept surveys	17	Visitors to the Sydney Biennale
Focus groups			
9 May 2024	Online	10	People with different physical and sensory abilities
9 May 2024	Online	10	CALD

Table 10 – Summary of Consultation Methods to date			
Date	**Location/ details**	**# of people**	**Demographic**
14 May 2024	Online	10	Women, girls and gender diverse people
14 May 2024	Online	10	Families with children up to 17 years old
16 May 2024	Online	10	First Nations
16 May 2024	Online	10	Youth (16-24 years old)
23 May 2024	Online	10	Western Sydney (Outer Inner West, Western Sydney, The Hills)
23 May 2024	Online	10	North Sydney (North Shore, Northern Beaches)
28 May 2024	Online	9	South Sydney (Bayside, Sutherland Shire, St George)
20 June 2024	Online	9	Inner West LGA Residents
Community pop-ups			
8 May 2024	White Bay Power Station	44	Visitors to the Sydney Biennale
18 May 2024	White Bay Power Station	50	Visitors to the Sydney Biennale
25 May 2024	White Bay Power Station	75	Visitors to the Sydney Biennale
1 June 2024	White Bay Power Station	60	Visitors to the Sydney Biennale
5 June 2024	White Bay Power Station	57	Visitors to the Sydney Biennale
Online submissions			
29 April – 11 June 2024	Online	1	Broad Community
Biennale volunteer interviews			
5 June 2024	White Bay Power Station	5	Biennale volunteers
Communications outreach			
Social media			
1 May – 7 June 2-24	Facebook and Instagram	145,582	All
Website			
29 April – 11 June 2024	Online	4,803	All

Table 10 – Summary of Consultation Methods to date			
Date	**Location/ details**	**# of people**	**Demographic**
Stakeholder emails			
29 April 2024	Email	103	Inner West stakeholders
A5 postcards			
6 May 2024	Distributed to residents within a 2.5km radius of White Bay Power Station	38,000	Local residents
6 May 2024	White Bay Power Station	2000	Biennale visitors
Total participants informed = 190,488 **Total participants engaged = 1,135**			
Future Engagement			
Community engagement will be going until October 2024 and will include additional pop ups at community events and engagement kids and teens in the form of the Creative Communitues Competition. This REF will be placed on the White Bay Power Station website for community information until July 2025. Over this time, feedback received from community, events and activation attendees and local residents will be incorporated and addressed at the 12-month REF review.			

5.1.2 Summary of Findings

Through the consultation to date, an extensive range of ideas and broad possibilities for the future uses of WBPS has been uncovered, with a strong desire for flexibility in uses and diversity in programming and activation. Participants also highlighted barriers to attending cultural activities in general, and specific ideas for improving WBPS and elevating the visitor experience. Overall, the consultation across Greater Sydney identified a strong appetite for bold and interactive experiences that complement and emphasise the sites grand scale and unique heritage attributes.

The below insights synthesise findings from the online survey, targeted online focus groups, community pop-ups and interviews with Biennale of Sydney volunteers.

ONLINE SURVEY

The online survey (29 April to 11 June 2024) was the most far-reaching consultation method that gathered the largest data set with 737 responses. Some key insights regarding demographics and transport preferences are below. Further insights relating to barriers to participation in cultural activities, enhancement and future uses of the site are synthesised in the sections below.

- **Visitation to WBPS:** 72% of participants had visited WBPS;
- **Age:** Participants were largely split across three key age brackets - 45-55 (23%), followed by 55-64 year-olds (19%) and then 35-44 year-olds (22%);
- **Gender:** Participants identified as 50% female, 44% male and 1% non-binary with the remaining participants choosing to self-describe;

- **Proximity to WBPS:** The majority of participants lived relatively close to WBPS with 30% living less than 10 minutes away, 30% living 10-20 minutes away and 21% living 20-40 minutes away;
- **Current Mode of Transport WBPS:** The vast majority of participants used active transport (walking, bicycle, scooter) to get to WBPS (38%), followed by private car (29%) and then bus and train (27%); and

Preferred Mode of Transport to WBPS: When asked about preferred ways to get to WBPS, active transport was the top response (35%), followed by bus and train (25%) and private car (18%).

Barriers to participation in cultural activities

Throughout the consultation, participants highlighted a number of barriers to attending arts, cultural and community events generally, not specific to the site. The most common barriers included:

- **Transport:** Participants highlighted challenges with public transport as a key barrier to attending events, such as multi-mode journeys and long travel times. Lack of parking was also called out as a deterrent;
- **Facilities:** Inadequate seating, bathrooms, parents room facilities, wayfinding, and food services can negatively impact the overall experience at cultural events and deter participation, especially for those with caring responsibilities, the elderly or those with different physical and sensory abilities;
- **Accessibility:** Lack of accessible pathways, wheelchair-accessible facilities, lifts, crowd management and quiet spaces create significant barriers; and
- **High Costs:** The cost of getting to the event, entry fees, and extras such as food and drinks are a common barrier, especially in the current economic climate.

Ideas for enhancements to White Bay Power station

Overwhelmingly, visitors engaged with throughout the consultation were in awe of the grandeur, unique architecture and heritage features of WBPS. Many cited the building itself as the main reason for visiting the site. When thinking about ways to enhance the visitor experience and future uses of the space, common themes included:

- **Greater accessibility:** More wheelchair-accessible facilities, ramps, and sensory-friendly hours to accommodate diverse needs were cited as desired enhancements by some members of the community;
- **Enhanced comfort:** Providing ample, comfortable, shaded seating and break-out areas to eat and rest was an important consideration for many, especially for older visitors, families, and those with different physical and sensory abilities;
- **Community spaces for connection:** There was a strong desire for WBPS to facilitate community cohesion and social interactions by allowing people to host activities in the space. Suggestions varied from educational workshops, to dance classes, to rehearsal spaces for students and creative practitioners for people to come together in structured and spontaneous settings; and
- **Traffic management:** Enhanced traffic coordination and management of vehicle traffic and pedestrian movement was also suggested by some community members. The impact of increased visitation to the peninsula is front of mind for

the local community, with parking availability and public transport options highlighted as key considerations.

Looking to the future

Across all consultation methods, participants were asked future thinking questions regarding their desires and ideas for the future of White Bay Power Station as arts, culture, creative industries and community hub. There are several key themes that emerged:

- **Diverse and inclusive programming:** Participants want to see diverse arts and cultural representations and events programming that caters to different ages and backgrounds;
- **Live music and late-night vibrancy:** Participants expressed a desire for late-night programming including live music, night markets, and festivals. Live music and performances stood out as a top suggestion across the consultation, with ideas ranging from classical orchestras to dance party 'raves';
- **Education and historical elements:** People expressed interest in learning more about the history of WBPS and the stories of the those who worked there, with calls for the guided tours to be all-year round. Interpretive signage and enhanced interactive and educational features were popular suggestions to bring the site's story to life;
- **Curate events that utilise the unique architecture of the site:** For many, the scale and uniqueness of the building is the 'star of the show' and the draw card that they want to see celebrated and utilised so the audience can engage with the unique architecture and story of this incredible place. Many citied this was a key point of difference for WBPS compared to other arts, cultural and community venues in Sydney;
- **Large-scale events:** WBPS is viewed as a place that can host large-scale events and there is a desire for permanent installations to be balanced with a regular cadence of rotating events; and
- **Family-friendly activities:** Numerous participants expressed a desire for interactive, educational and accessible cultural events that were family-friendly.

FOCUS GROUPS

A central pillar to the WBPS consultation was engaging hard-to-reach groups to ensure a diversity of voices are considered when shaping the future of this arts, cultural, creative industries and community hub. Below is a high-level summary of the feedback and ideas shared by a diverse range of audience groups though targeted focus group sessions.

Audience group	Barriers to participation in cultural activities	Needs and ideas to enhance the site	Ideas and desired for future uses
People with different physical and sensory abilities	• Lack of accessible transport and parking • Limited facilities onsite for all abilities • Financial restraints	• Comfortable seating protected from the weather • Quiet spaces and sensory areas to escape the crowd • Wide walkways for wheelchairs	• Semi-permanent and rotating exhibitions • Markets with affordable food options • Workshops for culinary arts and food culture
CALD communities	• Lack of clear, globally recognised wayfinding • Inadequate storytelling in other languages, e.g. audio options in other languages • Cost to attend and travel time to the space	• A variety of comfortable seating options • Play areas for children and family-friendly spaces • Ramps for prams and wheelchairs	• Educational experiences to enjoy and learn about a variety of different cultures • Large-scale cultural festivals such as Ramadan Nights • Authentic cultural festivals and celebrations
First Nations	• Naming conventions of places can be off-putting • Cultural safety both online during the event promotion and physically at the event space • Accessibility issues such as cost and location	• Use natural materials where possible • Acknowledge the site's history pre-settlement • Permanent First Nations artwork to welcome people to the space	• Fuse education and culture through workshops • Host experiences that are culturally immersive and interactive • Create a space that's culturally safe and inclusive
Women, girls and gender-diverse people	• Lack of marketing and information prior to event • Accessibility of cost and transport • Overcrowding can be intimidating	• Designated quiet spaces with comfortable seating • Increased number of women's toilets • The ability to bring food from home	• Unconventional events that celebrate a diversity of cultures • Regular community-based events promoting connection and wellbeing • Regular markets, concerts and entertainment

Audience group	Barriers to participation in cultural activities	Needs and ideas to enhance the site	Ideas and desired for future uses
Families with children up to 17 years	• Nighttime events are less accessible with young children • A lack of safety features for children, such as protection from nearby roads and vehicles • Cost and accessibility	• Ample toilets and parent rooms • Perimeter fencing to improve children's safety • Activities and experiences that cater for children and teenagers	• Activities and experiences for children of all ages • Educational and interactive experiences about culture and art • Comedy shows that kids and adults can enjoy
Youth (16-24 years old)	• Intimidating security and staff, acting suspicious or not welcoming to groups of young people • Cost of entry, prefer free events • Travel time and access to public transport options	• Spaces that feel large and inviting without over crowding • A combination of natural light and creative lighting for vibrancy • Free and reliable transport to and from events	• A rolling monthly calendar of diverse programming • Markets by day and concerts by night • Immersive experiences celebrating different cultures
Suburban visitors from Western Sydney, North Sydney and South Sydney	• Long travel times and multi-mode journeys, especially for late-night travel • The cost of parking and extras such as food and drink • Day and time of events need to accommodate families	• Large, open and airy spaces that accommodate crowds • Comfortable and protected places to rest, relax and congregate with family and friends • Vibrancy through creative lighting and murals	• Regular classes and workshops • Diverse multi-use programming for a variety of ages, backgrounds and interests • A place that's welcoming and accessible to all for community to come together
Inner West LGA residents	• Cost of entry • Travel time and ease of accessing transport options • Lack of child-friendly events and facilities	• Spaces outside for children to play while the event is happening • Rest areas and quiet spaces • Walkability and good public transport links	• Regular events with multiple family-friendly activities • A mixed space with dynamic residency of events, markets and artistic hub • Music events and performances with a positive atmosphere

The Inner West focus group included an additional activity, asking participants to share any considerations to keep in mind for locals living around White Bay Power Station and how any likely impacts could be minimised. Overall, participants felt that events at White Bay Power Station would be a positive addition for the local area. However, they did highlight a few considerations.

Key considerations and suggestions:

- **Noise**: Concerns about noise levels and potential noise complaints during events. Recommend keeping event activities routine to manage expectations and reduce disturbances.

- **Parking**: Issues with parking in residential streets. Suggest providing designated parking areas and restricting event parking in these areas.
- **Traffic Congestion**: Issues with traffic flow, particularly on Victoria Road, and the need to manage congestion.
- **Crowd Control**: Ensure ticketing systems are utilised to minimise crowding and overpopulation, ensuring events do not overwhelm the area.

5.1.3 Ongoing community consultation

Further face-to-face community consultation will take place at the PMNSW hosted community event, Power Up Festival in September 2024. There will be opportunities for the community to provide feedback about the ongoing activities at WBPS through the new WBPS website due to launch in July 2024.

PMNSW will also seek additional community feedback after 12 months of the initial operation as part of this REF.

5.2 Inner West Council

PMNSW staff have been in regular consultation with Council about the post-Biennale uses intended for the WBPS. This has included discussion around matters such as planning approval, traffic and community engagement.

At the meeting of 25 June 2024, Council voted in favour of writing to the Minister of Planning, Housing and Infrastructure requesting that WBPS become a designated Special Entertainment Precinct. PMNSW supports this concept in principle and will continue to work with Inner West Council on this request.

5.3 Adaptive Reuse Committee

The White Bay Power Station Adaptive Reuse Committee was established under section 36 of the Place Management NSW Act 1998 in September 2022 with initial appointments made in February 2023 and subsequent appointments in December 2023.

The Committee provides the Place Management NSW Board, the Placemaking NSW Advisory Committee and the Minister for Planning and Public Spaces with options for the use of the Power Station, principally as a community / cultural / creative facility.

Current members of the White Bay Power Station Adaptive Reuse Committee come from organisations including PMNSW staff and Board members, Create NSW, Destination NSW, and the Government Architect.

The Committee is supportive of the interim activation of the White Bay Power Station while a longer term strategy is developed for the final use of the building, informed by the studies and engagement to date.

5.4 Heritage Agencies

A number of site visits have been held with members of:

- Heritage NSW
- Heritage Council
- State Heritage Register Committee

- State Heritage Approvals Committee
- National Trust officers
- Industrial Heritage Committee
- Conservation Policies Taskforce
- Built Heritage Committee

The site visits involved inspection of ongoing structural repair, maintenance and site remedial works within the WBPS and discussions around the proposed activation. There has been significant appreciation of the restoration of the power station and support for activation from these groups.

Section 60 approval was granted on 7 August 2023 by the Heritage Council for a number of works and public access and activation of the WBPS (see **Appendix 6: Schedule of Previous Part 5 Approvals for WBPS**).

This REF documents the relevant exemptions and approvals for future works and activations. A number of mitigation measures have also been included in Section 7 to ensure compliance with the Heritage Act 1977.

5.5 Other Stakeholders

In relation to traffic management, PMNSW has on-going consultation with the following NSW Government agencies and stakeholders:

- Transport for NSW;
- Sydney Metro West;
- Port Authority of NSW;
- Inner West Council;
- Adjacent Local Businesses on Robert Street; and
- Other surrounding residences and businesses.

Consultation is ongoing with these organisations and other locally affected groups. Traffic management plans will be developed in consultation with Council in particular to ensure minimal impacts to these stakeholders. Updates and event notifications, such as letter box drops, will be undertaken as required to ensure any changes to traffic arrangements are clearly communicated.

6 Environmental Impact Assessment

The following Section outlines the potential impacts of the event categories and works on the environment, and how these potential impacts will be managed.

PMNSW, as the manager of a number of major event sites and precincts, already has in place an event category risk framework that applies across all sites, broadly in the following four categories:

1. **Category 1**: State Significant / Hallmark Events (e.g. Vivid, NYE, Australia Day);
2. **Category 2**: Higher Impact Events (e.g. larger scale dance/music events and concerts);
3. **Category 3**: Medium Impact Events (e.g. Functions, smaller scale performances, galleries); and
4. **Category 4**: Low Impact Events (Film/ photo shoots, low traffic community and local events).

All events and works envisioned through this REF will have an individual assessment undertaken by PMNSW to categorise and manage the potential impacts of each event based on the environmental considerations in this section of the report. The same type of event (e.g. concerts) may be categorised differently dependent on a range of factors including maximum capacity, traffic intensity, proposed performance hours and whether amplification is used.

The impact assessment and mitigation measures have been designed to enable flexibility for a range of different event types and scales, whilst still ensuring impacts are managed, and consistent with the PMNSW broader Event Operational Readiness Framework, Event Management Framework and Outdoor Events Policy.

6.1 Environmental Planning and Assessment Regulations 2021

The table below provides a summary checklist of matters to be considered under Section 171 of the EP&A Regulations.

Table 11 – Summary Checklist of Matters to be Considered

Matter	Comment
(a) the environmental impact on the community	The proposed development includes the activation of the WBPS and forecourt areas for an arts, cultural, events, entertainment and community use venue. The proposal also include capital works to support the WBPS as a community and event venue. The proposed diverse nature of the events and activations are considered to have a positive social impact on the community. The proposed uses will be temporary in nature and as such the environmental impacts can be managed in accordance with the mitigation measures listed in Section 7 of this REF.

Table 11 – Summary Checklist of Matters to be Considered	
Matter	**Comment**
(b) the transformation of the locality,	The WBPS community and event venue will be used for temporary events and activations. Whilst capital works are proposed, these works are associated with upgrade and maintenance of the building necessary for the flexible and on-going use of the venue. As such, it is considered that the proposed development will not transform the locality of the area in an adverse manner. The development will enhance and highlight the significance of the heritage asset within the locality. The NSW Government announced on 4 July 2024 funding to support road and footpath upgrades surrounding the WBPS, including a new signalised intersection at Roberts and Mullens Streets, a new pedestrian crossing at Roberts Street and a widening of the pedestrian and cycle path along Victoria Road. While not the subject of this REF it is expected that these works will have a significant positive impact on the safety of traffic and pedestrians and cyclists in and around the WBPS precinct.
(c) the environmental impact on the ecosystems of the locality,	The WBPS community and event venue will be used for temporary events and activations. Depending on the type of event and activation, there potentially will be environmental impacts created by the use particularly associated with traffic and acoustics. The potential impacts are outlined in **Section 6 – Environmental Impacts Assessment** of this REF. In addition, the environmental impacts can be managed in accordance with the mitigation measures listed in **Section 7** of this REF.
(e) the effects on any locality, place or building that has— (i) aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or (ii) other special value for present or future generations,	WBPS will be used as an arts, entertainment, community and event venue for temporary events and activations. Whilst capital works are proposed, these works are associated with upgrade and maintenance of the building necessary for the flexible and on-going use of the venue. As such the proposed development will not have an adverse impact on the building. It is considered the development will enhance the heritage and social significance of the building and its surrounding locality. Any potential impacts that may arise can be managed through the mitigation measures listed in **Section 7** of this REF.

Table 11 – Summary Checklist of Matters to be Considered	
Matter	**Comment**
(f) the impact on the habitat of protected animals, within the meaning of the Biodiversity Conservation Act 2016,	There are no protected species or habitats within the precinct. The development will not have a significant impact on the habitat of any protected fauna.
(g) the endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air,	The development will not endanger any species of animal, plant or other living thing.
(h) long-term effects on the environment,	There will be no long-term effects on the environment.
(i) degradation of the quality of the environment,	There will be no permanent degradation to the quality of the environment. Construction impacts will be temporary.
(j) risk to the safety of the environment,	There will be no change to the safety of the environment.
(k) reduction in the range of beneficial uses of the environment,	There will be no reduction of beneficial uses of the environment.
(l) pollution of the environment,	Depending on the type of temporary event and activation to occupy WBPS, there potentially will be acoustic impacts generated. Mitigation measures are proposed to manage noise pollution to the environment.
(m) environmental problems associated with the disposal of waste,	No environmental problems are anticipated with the disposal of waste from the proposed activity. Appropriate measures will be undertaken to manage and dispose of waste in accordance with legislative requirements, a waste and sustainability management plan and WH&S documents.
(n) increased demands on natural or other resources that are, or are likely to become, in short supply,	The activity will have no significant impacts in terms of demand for scarce resources.
(o) the cumulative environmental effect with other existing or likely future activities,	The proposed works will not contribute to a cumulative environmental effect with existing or likely future activities. It is considered that any current or future application can be staged to ensure the activity is undertaken in an efficient manner.

Table 11 – Summary Checklist of Matters to be Considered	
Matter	**Comment**
(p) the impact on coastal processes and coastal hazards, including those under projected climate change conditions,	The proposed works will have no impact on coastal processes and coastal hazards, including those under projected climate change conditions.
(q) applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1,	The proposed activity directly aligns with the strategic planning context set out in the Eastern City District Plan. This includes Planning Priority E6 – Creating and renewing great places and local centres and respecting the District's heritage.
(r) other relevant environmental factors.	As identified in the sections below, there are no other environmental factors that will result in any unacceptable impact to the environment. Any potential environmental impacts can be managed through mitigation measures as outlined in Section 7 of this REF.

6.2 Heritage Impacts

The Conservation Management Plan (CMP) for White Bay Power Station was originally prepared in 2004, but it was revised in March 2013 and endorsed by the NSW Heritage Council in September 2013. The CMP documents the heritage values and establishes a conservation strategy and management policies for the site. It forms a key component of consideration for future uses and development of place.

Parts of the Turbine Hall (space and machinery) are recognised as having exceptional significance. They play a critical role in supporting the significance of the place and are required to be retained in their existing configuration. All original fabric must be retained, and any proposed use must focus on in-situ preservation and interpretation.

Parts of the Turbine Hall (platform areas where turbine generators have been removed) and the Boiler House, (spaces formerly occupied by Boilers 2, 3 and 4) are of high significance. These spaces retain a high degree of significant fabric and play an important role in strengthening and supporting the significance of the place. Future actions must respect the machinery and equipment in these spaces.

The CMP allows for adaptation of the spaces and fabric and recommends a range of future uses for the WBPS, including adaptive reuse and public access. The proposed activations and event categories are similar in nature in that members of the public can access the site for a timed event (several hours for a one off concert or show), or over a longer time period such as Biennale. To that effect, the proposed development is considered an appropriate use and consistent in form and function with the intent of the CMP.

To that respect, the proposed activities and events are temporary and will not impact or alter any significant fabric. The majority of installations for different events and activations will be temporary and the heritage values will be protected and preserved. Further, there is potential that the heritage values will be strengthened through opening the place to the community and enabling access and interpretation of its heritage values. Where permanent changes are proposed to the building, approval under the Heritage Act will be required.

As set out in **Section 4.7.3** above, approval under the Heritage Act 1977 is not required for most temporary activations and fit-out works, so long as they are not permanent and are reversible. However, the s57(2) exemption from approval must be endorsed by Place Management NSW prior to undertaking the works.

A record of each event or activation and any specific installation methods associated with individual activations or events must be provided to the PMNSW's Heritage expert with a Section 57 Record Keeping Form (see **Appendix 5: S57 Record Keeping Form**) completed, and endorsement must be obtained before the works can take place. Changes that are more extensive may require an application under Section 60, and approval under Section 63, of the Heritage Act 1977, and need to be agreed with PMNSW's Design and Place (Heritage) team.

Unless approved under the relevant heritage and planning framework, no permanent signage should be attached to the building, nor should signage break the existing skyline profile of the building. Whilst some temporary signage is proposed, final details of signage will be subject of review and approval by PMNSW prior to installation. A condition of approval requiring the preparation of a Signage Plan has been included in the Mitigation Measures at **Section 7**.

This REF is accompanied by **Appendix 2: Heritage Management Framework** which is an outline of a Heritage Management Framework, which will be finalised and provided to all potential future users of the building, and is identified as a Mitigation Measure in **Section 7** of this report.

6.3 Transport Impacts

The site is currently serviced by two vehicle driveways onto Robert Street near its intersection with Mullens Street; one being a 7.5 metre wide entry-only access to the east and the second being a 7.5-metre wide exit-only driveway to the west. Additionally, a temporary service vehicle access is provided onto Port Access Road to the southeast of the site through the Sydney Metro construction compound.

No car parking is provided on-site, with the exception of two accessible parking spaces provided to the site's northeast, accessible via the northern forecourt circulation roadway. The front entrance driveway provides four passenger vehicle pick-up and drop-off bays, and two bus bays capable of accommodating buses up to 14.5-metres in length along the site's northern forecourt, accessible via Robert Street. Bicycle parking is also provided in the form of bicycle racks at two separate locations.

On-street car parking is provided along Robert Street, with parallel parking along the northern side of Robert Street between Victoria Road and Mullens Street at all times except 3—7pm Monday to Friday. No Stopping restrictions apply along the southern side. East of Mullens Street, 90-degree angled parking is provided on both sides which is subject to 2P time restrictions near the site and is unrestricted further east.

A Transport Management and Accessibility Plan (TMAP) has been prepared by PDC Traffic Consultants and provided in **Appendix 4: Transport Management and Accessibility Plan**. The TMAP considers three key factors which are most relevant in influencing transport impacts across the broad scope of events, being:

1. Event patronage (number of people attending the site, including staff);
2. Travel intensity (the period over which arrival and departure trips generated by the site occur); and
3. Travel mode (which vehicle type or mode of travel visitors to the site night use).

The use of these three key factors allows for a categorisation system to be established for which the traffic impacts of event or activity categories can be more broadly considered, and mitigation proposed. The categorisation takes the form of a matrix and is presented as **Figure 14**.

		EVENT PATRONAGE (persons)		
		0—1,000	1,001—2,500	2,501 +
TRAVEL INTENSITY (time)	0:00—1:00	MEDIUM	HIGH	HIGH
	1:00—2:00	LOW	MEDIUM	HIGH
	2:00 +	LOW	LOW	MEDIUM

Figure 14: *Event categorisation (TMAP - PDC Consultants)*

The event patronage is categorised by the number of patrons attending the event, including staff. The travel intensity is categorised by the duration of time (minutes) over which arrival or departure trips generated by the site occur. With the travel intensity, it is recognised that often, not every single patron would travel within the categorised durations. The event or activity proponent should adopt the intensity which reflects visitation of at least 85% of patrons.

Each box in the matrix is then assigned a designation which describes the likely scale of transport impacts, ranging from low impacts (1) during which little to no mitigation would be recommended, through to high impacts (3), during which a high degree of mitigation would be recommended.

The matrix assists in identifying the likely anticipated transport impacts associated with future events, which have been separated into three different impact categories:

- Low impact (Tier 3)
- Medium impact (Tier 2)
- High impact (Tier 1)

It is acknowledged that not every future event or activity which may occur at the site can be entirely anticipated and may not sit neatly within one of these categories. They have been provided as a guide for any future specific event or activity proponent, to the potential likely impacts which may result from events of different scales and intensities as part of their individual event assessments.

Consideration of the likely transport impacts specific to any given activity or event will be made by PMNSW prior to any event or activity occurring to ensure that appropriate

mitigation measures are implemented as considered necessary. Mitigation measures for each of the transport impact categories are provided in **Section 7** of this REF.

6.3.1 Low Impact (Tier 3)

A Low Impact event is one which is likely to have a lower total visitation and / or has visitors arriving over a longer period of time. Smaller events would be unlikely to have any extensive dedicated travel services (such as the 443 shuttle bus service implemented for Biennale), however small private groups may use buses or coaches to travel to site (such as school groups). Most trips would likely be spread across a variety of travel modes including public transport, walking, cycling and private vehicles including taxi and ride share.

The types of events forecast for the site which may fall into this category would include local community uses (such as rehearsal or makers spaces), commercial filming, small private hire events, conferences, workshops, or educational programs.

The below forms a summary of the expected transport impacts which might arise from 'Low Impact' category events or activities:

- Private bus and passenger vehicles expected to enter the northern forecourt for patron pick-up and drop-off, with little impact expected to be caused by such behaviour occurring on nearby streets.
- Whilst variable given the range of different event types, total vehicle trip generation might range between 50-150 vehicle arrivals before a given event and then the same amount after the event, which would include both visitors arriving by private car and parking elsewhere, and those arriving by taxi and rideshare. This estimate assumes average car occupancy of two persons and adopts the observed Biennale mode shares for private car and taxi or rideshare.
- Pedestrian traffic would be low to moderate without significant surges or peaks.
- Likely increase in patronage of nearby public transport services (such as local bus and light rail services) but this is not expected to have a material impact on their spare capacity; no additional services required.
- Not expected to have a material impact on performance of local road network, though perhaps localised impacts during peak arrival or departure times.
- Events and activities with arrivals and / or departures occurring during weekday commuter AM and PM peak periods would have a larger impact on local road network performance.
- No additional public bus services (such as the 443) would be considered necessary.
- Low car parking demand possible, higher during events with patronage to the upper limits of the 'Low Impact' category. This is highly dependent upon the effectiveness of communication prior to the event and the type of event (such as whether alcohol consumption is likely, as alcohol consumption would likely reduce the use of private cars for travel to the site and thus car parking demand).
- Car parking demand might create stresses on local supply if the event or activity occurs concurrently with other parking generators in the area (such as during typical weekday working hours) but would have less of an impact when more supply

is available, such as during weekday evenings and weekends in local commercial areas and during the day on local residential areas.

- Footpath widths would be expected to have capacity to cater for pedestrian demands, but accessibility between the site and the northern side of Robert Street and / or Mullens Street would form an issue, with uncontrolled pedestrian crossings at this intersection considered likely.

6.3.2 Medium Impact (Tier 2)

A Medium Impact event is one which is likely to have a moderate to high total visitation and / or have visitors arriving over a relatively short period of time. These events may implement dedicated travel services (such as the 443 bus implemented for Biennale) through either public partnership or privately organised. A large proportion of trips would likely be spread across the variety of travel modes available to visitors, though there would be an increased demand for on-street or on-site pick-up and drop-off by passenger vehicles, such as taxis and rideshares.

The below forms a summary of the expected transport impacts which might arise from 'Medium Impact' category events or activities:

- Private bus and passenger vehicles expected to enter the northern forecourt for patron pick-up and drop-off.
- Whilst variable given the range of different event types, total vehicle trip generation might range between 150-400 vehicle arrivals before a given event and then the same amount after the event, which would include both visitors arriving by private car and parking elsewhere, and those arriving by taxi and rideshare. This estimate assumes average car occupancy of two persons and adopts the observed Biennale mode share for private car, though an increased taxi or rideshare mode share of 20% (for a total private vehicle mode share of 48%). A reduced use of private cars (for example, during events serving alcohol to which attendees would be less likely to drive) or higher car occupancy would reduce this number of trips further.
- Expected that a high volume of pick-up and drop-offs would also occur on-street, either informally along Robert Street and / or Mullens Street.
- Pedestrian traffic would be moderate with the potential for short-term peaks around the start or end of certain event types.
- Likely increase in patronage of nearby public transport services (such as local bus and light rail services) which impact on their spare capacity during peaks.
- Additional public bus services (such as the 443) might be considered necessary for larger profile events or events which occur over a longer period (several days or weeks).
- Events or activities with shorter travel intensity (arrivals and / or departures occurring over a shorter timeframe) may cause localised road network capacity impacts, including higher delays and queuing at nearby intersections, such as Victoria Road / Robert Street and Robert Street / Mullens Street. However, these impacts would only be experienced over a short duration.

- Events and activities with arrivals and / or departures occurring during weekday commuter AM and PM peak periods may have some impact on local road network performance.
- Moderate to high car parking demand possible, higher during events with patronage to the upper limits of the 'Medium Impact' category. This is highly dependent upon the effectiveness of communication prior to the event and the type of event (such as whether alcohol consumption is likely, as alcohol consumption would likely reduce the use of private cars for travel to the site and thus car parking demand).
- Car parking demand would create stresses on local supply if event or activity occurs concurrently with other parking generators in the area (such as during typical weekday working hours) and would also likely be high outside these peaks, with event demand alone likely using much of the local capacity.
- Pedestrian footpath use would be high and may result in localised footpath congestion, with mitigation likely required to prevent unsafe or unlawful entering of the adjacent roadways.
- Accessibility between the site and the northern side of Robert Street and / or Mullens Street would form an issue, with uncontrolled pedestrian crossings at this intersection considered likely. Temporary pedestrian crossing management would likely be considered necessary.

6.3.3 High Impact (Tier 1)

A High Impact event is one which is likely to have a high total visitation and / or have visitors arriving over a very short period of time. These events may implement dedicated travel services (such as the 443 shuttle bus implemented for Biennale) through either public partnership or privately organised. Limitations may be placed on vehicles entering the site's northern forecourt given the likely high volume of pedestrians and / or the short timeframe over which pedestrians are arriving at the site.

A large proportion of trips would likely be spread across the variety of travel modes available to visitors, though there would be distinct peaks in arrivals and departures which would have a significant localised impact on the road network, for example dozens of taxis and rideshares arriving within a short timeframe at the end of an event to pick up several hundreds or thousands of departing visitors. The likely demand for taxis and rideshares would be highest during a High Impact event.

The below forms a summary of the expected transport impacts which might arise from 'High Impact' category events or activities:

- Whilst variable given the range of different event types, total vehicle trip generation might range between 500-1,200 vehicle arrivals before a given event and then the same amount after the event, which would include both visitors arriving by private car and parking elsewhere, and those arriving by taxi and rideshare. This estimate assumes average car occupancy of two persons and adopts the observed Biennale mode share for private car, though an increased taxi or rideshare mode share of 30% (for a total private vehicle mode share of 58%).
- A reduced use of private cars (for example, during events serving alcohol to which attendees would be less likely to drive) or higher car occupancy would reduce this

number of trips further. Further, should dedicated shuttle bus services or the like be implemented by the event organiser, Transport for NSW, or Council, then this would reduce the number of private vehicle trips further. The higher end of this trip generation estimate would only occur should all patrons of the site arrive within a one-hour period, which is considered unlikely. This trip generation is also based on the maximum anticipated person capacity, which again might not always eventuate.

- Expected that a high volume of pick-up and drop-offs would also occur on-street, either informally along Robert Street and Mullens Street, or in a designated temporary on-street pick-up and drop-off zone should one be provided to support the event.
- Likely increase in patronage of nearby public transport services (such as local bus and light rail services) which impact on their spare capacity during peaks; additional services may be required.
- Likely significant localised traffic impacts to nearby road network, particularly Robert Street intersections with Victoria Road and Mullens Street. Potential broader traffic impacts elsewhere as a result of queuing, such as within Balmain or at the Rozelle Interchange.
- Events and activities with arrivals and / or departures occurring during weekday commuter AM and PM peak periods would have a larger impact on local road network performance.
- Moderate to high car parking demand possible, higher during events with patronage to the upper limits of the 'High Impact' category. This is highly dependent upon the effectiveness of communication prior to the event and the type of event (such as whether alcohol consumption is likely, as alcohol consumption would likely reduce the use of private cars for travel to the site and thus car parking demand).
- Car parking demand would create stresses on local supply of event or activity occurs concurrently with other parking generators in the area (such as during typical weekday working hours) and would also likely be high outside these peaks, with event demand alone likely using much of the local capacity.
- Pedestrian traffic would be high with the potential for significant peaks around the start or end of certain event types.
- Pedestrian footpath use would be high and may result in localised footpath congestion, with mitigation likely required to prevent unsafe or unlawful entering of the adjacent roadways.
- Accessibility between the site and the northern side of Robert Street and / or Mullens Street would form an issue, with uncontrolled pedestrian crossings at this intersection considered likely. Temporary pedestrian crossing management would likely be considered necessary.

6.3.4 Longer term permanent traffic considerations

The TMAP outlines a number of mitigation measures to address low, medium and high-impact events from a traffic perspective in the short and medium term, which can be found in **Appendix 4** of this report.

A number of local traffic and transport upgrades are also being undertaken by PMNSW and Transport for NSW, in consultation with Inner West Council. These works will require a separate approvals process, however, were considered in the context of understanding what other interim measures are required until these works are completed.

The upgrades announced by the NSW Government on 4 July 2024 include:

- Upgrade and signalisation of the Robert Street / Mullens Street intersection with signalised pedestrian crossings across all three intersection approaches;
- Widening of the footpath along the northeast side of Victoria Road for around 80 metres south of the Robert Street intersection;
- A new southern pedestrian and cycle connection between the site and the underpass to the Rozelle Parklands; and
- A new signalised pedestrian crossing across Victoria Road at Robert Street.

Separate additional longer-term works are under consideration as part of the broader Bays West Stage 1 urban renewal. The scope of this REF is to consider the time between current day until a decision is made for the longer term use of the WBPS and the opening of the Bays West Stage 1 at around 2032.

6.3.5 Interim traffic management

Regardless of the proposed permanent improvements to the surrounding roads and footpaths, each event operator must prepare an event specific Traffic Management Plan (TMP) to ensure minimal impact on local traffic and parking and the safety of pedestrians and cyclists.

Tier 1 (High Impact) and Tier 2 (Medium Impact) TMP's must be prepared in consultation with PMNSW, and when required, a Traffic Guidance Scheme (TGS) prepared and endorsed by the Inner West Council Local Traffic Committee.

The TMP and associated TGS endorsed by Council must be implemented during operational event days and traffic and pedestrian behaviour monitored to identify any issues so that the TMP can be amended to ensure the safety of people and minimise impacts on local traffic, including that of local residents, NSW Port Authority and Sydney Metro West.

6.4 Acoustic Amenity

An Events Impact Assessment and Noise Management Plan has been prepared by Trinity Consultants (Trinity) and provided in **Appendix 3: Noise Impact Assessment and Management Plan**. The report's identified 'existing and background noise sensitive receivers' include noise sensitive commercial operations and residential dwellings within close proximity to the site. In order to establish the existing background noise levels, noise monitoring and observations were undertaken as follows:

Logger placed for 7 days (5 – 12 December 2023):

- 40 Smith Street, Rozelle (closest residential location) – on the verandah facing road, at the top of the hill on the west side of the road;

Short Attended noise measurements 2 x 15-minutes at each location:

- 43 Smith Street – distant traffic, occasional dog barking, occasional neighbourhood conversation and local traffic (6 vehicles in 15 minutes);

- 10 Lilyfield Road – a noisy precinct situated only 70m from Victoria Road with constant traffic and line of sight to Rozelle intersection. 4 cars passing every minute being turning traffic from Victoria Road; and
- The laneway behind 7 Bayview Lane – a narrow lane with higher close surrounding buildings acting as a noise barrier. Distant traffic and distant road construction at the Johnson Road/Crescent Road intersection causing a high background (LA90) reading. No local traffic in the laneway.

Based on the data collected the following ambient/background data has been utilised in establishing noise criteria. Octave band values have been presented for reference against the additional criteria.

Area	Monitoring Location	LAeq	LA10	LA90	L90 (31.5Hz)	L90 (63Hz)	L90 (125Hz)
North	Smith Street (6pm)	50	52	42	52	52	40
North	Smith Street (10pm)	43	48	38	48	49	38
West	Lilyfield Road (10pm)	61	63	64	61	63	58
South/East	Bayview Lane (10pm)	47	48	43	55	55	49

Figure 15: *Background Data for Criteria (NMP - Trinity)*

6.4.1 Noise Modelling

The acoustic assessment, including 3D modelling of the site, main stages and patrons, has been completed using the ISO 9613 standard calculation methodology (in the Cadna/A noise modelling software), which accounts for typical worst-case downwind conditions.

The modelling is completed for a variety of reasons, including:

- To review if the proposed event layout is suitable to achieve desired internal volumes, while achieving compliance with the relevant noise criteria;
- To establish the likely maximum operating FOH volumes that will achieve compliance, to aid in the management of any event (allowable operating levels maybe specified at reference locations elsewhere on site or in the nearby surrounds); and
- To identify the most affected off-site sensitive receiver locations.

6.4.2 Scenarios

The three primary operating conditions have been modelled from loudest to quietest including:

1. Outdoor Concerts (High Impact);
2. Internal Amplification, high volume including bass (sub-woofers) (Medium Impact); and
3. Internal Amplification, no bass content or significantly equalised (Low Impact).

In review of the applicable criteria, four tiers of event criteria have been reviewed as follows

- Tier 1 – Occasional Major Concert: 65 dBA, 80 dBC
- Tier 2 – Semi-Frequent Large Event: 60 dBA, 75 dBC
- Tier 3 – Frequent, Daytime (7am-6pm): NSW EPA Criteria

- Tier 4 – Frequent, Nighttime (6pm-12am): NSW EPA Criteria
- Tier 5 – Overnight (12pm-7am): NSW EPA Criteria

Based on these operational conditions, and applicable tiers dictating the frequency and timing of activations; noise modelling has been completed to predict the acceptable operating volumes in each location, to maintain compliance with the applicable criteria. The following sections present the modelling methodology, and results of this analysis.

6.4.3 Scenario 1 Outdoor Concert (High Impact)

The loudest potential activation associated with the WBPS is likely to be the operation of temporary outdoor concert events with stage and speakers, as well as the patrons on-site. The anticipated possible stage locations are presented in **Figure 17** and include a mid-sized speaker system profile as described below:

- Main Array; 10 x Direction Speakers, either side of stage in a J-Curve hang;
- Subwoofers; 8 x 18" Subwoofer Speakers, across the front of stage at ground level;
- Infill; 2 x 12" Wedge Speaker; and
- Stage Monitors; 2 x 12" Wedge Speaker.

The three stage locations have been calibrated to achieve the threshold limit at the most affected sensitive receiver, and target to achieve a desirable volume of 95 dBA and 105 dBC $_{LAeq,15minutes}$ at a representative Front of House (FOH) location defined at 20-25 m from the outdoor stage.

Directivity patterns have been utilised in the computational modelling representative of the speakers defined above based on the following speakers (attainable from the suppliers):

- L'Acoustics 108P, L'Acoustics 112P;
- B22 Sub / D&B Subwoofers; and
- Typical 15-inch PA speakers (DJ monitors / cross stage wedge monitors).

The octave band frequency sound power level (SWL) data utilised in the calculations have been adopted based on average maximum operating levels from similar performance styles to that proposed from outdoor music festivals occurring in Australia, measured from real world monitoring of 10+ major concert performances of varying popular music styles.

Patron noise has been modelled as an LAeq parameter based on the full capacity of attendance on-site (4000 people) utilising the equations described in the conference paper entitled "Prediction of noise from small to medium sized crowds".

Further to the outdoor stage, it is assumed that all internal amplification occurs concurrently with this activity, as it's anticipated that concerts may operate as a feature to concurrent activations.

The table below presents a list of desirable operating volume ranges for music or amplified events forming the initial targeted modelling values. It is noted that depending on the venue, the level of bass will need to be controlled based on the following predictions:

Type of Activity	Typical Volume at FOH / Mixing Desk (25 – 30 m)	
	dBA	dBC
Dubstep/Bass DJ music	90-100	115
Punk / Heavy Rock bands (drum kits, and/or amplification)	90-100	110
Hip-hop, Reggae bands	90-95	105

Figure 16: *Example of Desired Operating Volumes (NMP - Trinity)*

Modelling of each scenario has initially been reviewed for a typical volume for the potential use, and then through iterative adjustments, FOH levels have been reduced to achieve compliance with the relevant criteria.

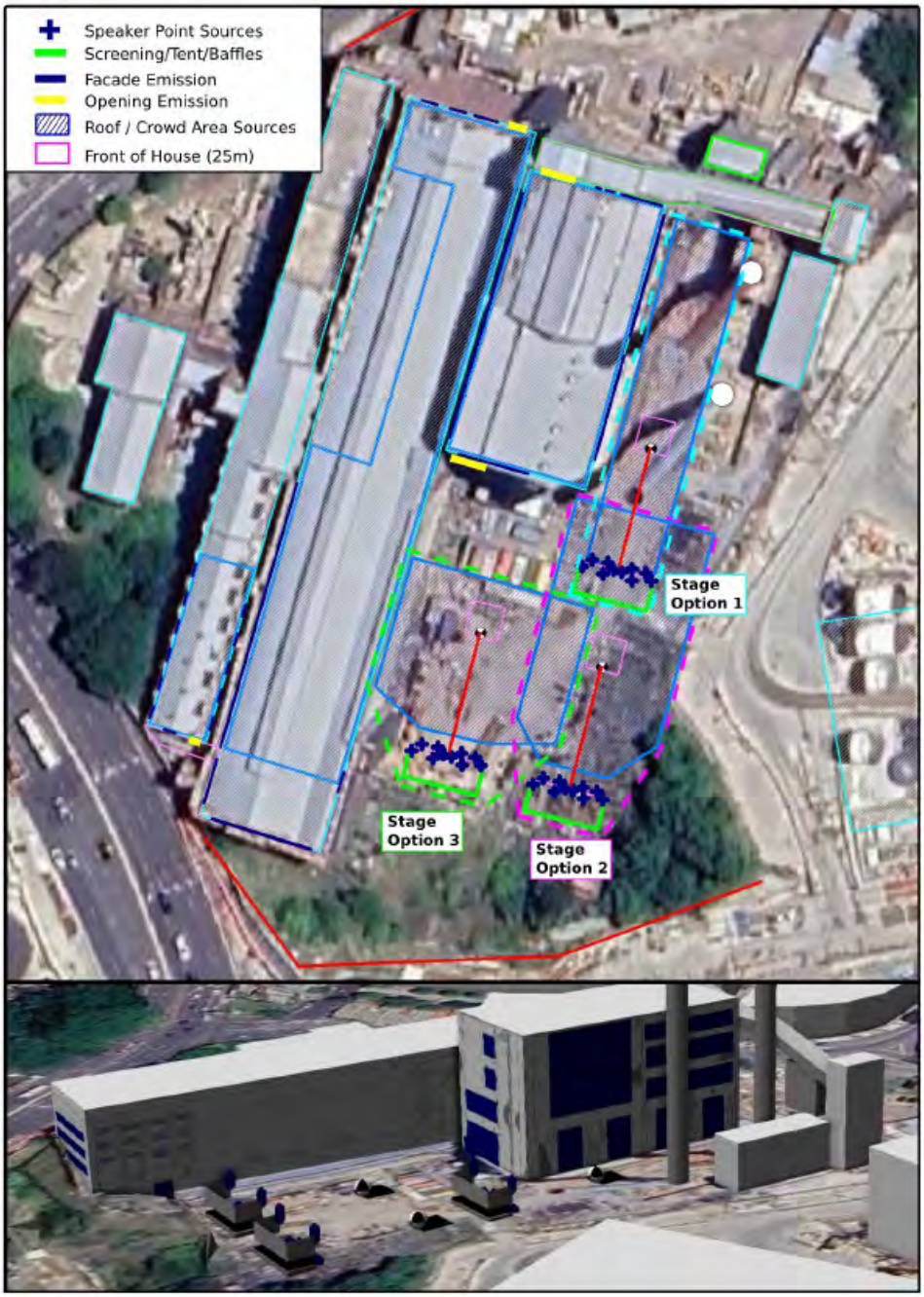


Figure 17: *Outdoor Concert Stage Option Models (NMP - Trinity)*

6.4.4 Scenario 2 Internal Amplified Music (Medium Impact)

The highest level of noise source considered from internal activations would be amplified music events with stage and speakers potentially installed to any area within the Boiler House, Turbine Hall, and Entertainment Hall area, as well as patrons internally.

Given the wealth of options for the internal spaces, modelling of a uniform reverberant field of noise within these spaces has been undertaken (i.e. highest level of volume for a specific area is predicted at the bounding façade) throughout.

Future review could consider detailed internal modelling to optimise the various spaces and preferred layouts, as well as review of in-situ test data during activations to provide a list of recommended or preferred installation arrangements for both internal sound quality, and mitigation of noise levels off-site. **Figure 18** presents the loudest modelled sources in each building area for Scenario 2.

The initial noise sources have been assumed as follows:

- **Boiler House** is assumed to be operating at a level of 90 dBA at the facades throughout (then calculated to emit from the walls/windows/doorways/roof).
    - Small reductions are afforded to the higher floors of windows and roof to account for music not being directed upward.
    - Patrons up to 1000 per floor distributed evenly throughout.
- **Turbine Hall** is assumed to be operating at a level of 90 dBA at the facades throughout (then calculated to emit from the walls/windows/doorways/roof).
    - Small reductions are afforded to the higher floors of windows and roof to account for music not being directed upward.
    - Patrons up to 1000 per floor distributed evenly throughout.
- **Administration Building** level 1 space provides for a potential PA system and amplification as well as patronage. Given the smaller area and close proximity to residents on Victoria Road, it is assumed to be operating at a level of 100 dBA at the facades throughout (then calculated to emit from the walls/windows/doorways).
    - Patrons up to 200 distributed evenly throughout.
- **Entertainment Hall** provides for a potential PA system and amplification as well as patronage. Given the smaller area and close proximity to residents, it is assumed to be operating at a level of 100 dBA at the facades throughout (then calculated to emit from the walls/windows/doorways/roof).
    - Patrons up to 200 distributed evenly throughout.
    - An additional model run for when the entry door is open has also been considered.

Additional assumptions necessary to the modelling of activities internally area are as follows:

- Internal absorption levels very low (0.1 absorption conservatively assumed throughout);

- The high volume of glass, erratic shape of internal objects and structures, and the noted sarking lined roof may provide slightly higher absorption in certain frequencies;

- Transmission loss of 20 dB through windows;
- Transmission loss of 30 dB (or more) through brickwork facades;
- Transmission loss of 5 dB via entry/exit open doors; and
- A reduction in internal reverberant noise level of 5-10 dB at roof (relative to lower walls/areas) has been applied, as amplification will not be pointed to the ceiling.

These sources were modelling against the various applicable criteria and calibrated to the limits providing the achievable operating levels internally. It was identified that low frequency content was generally defining the achievable volumes, therefore review of noise sources without significant low frequency content was considered in Scenario 3.

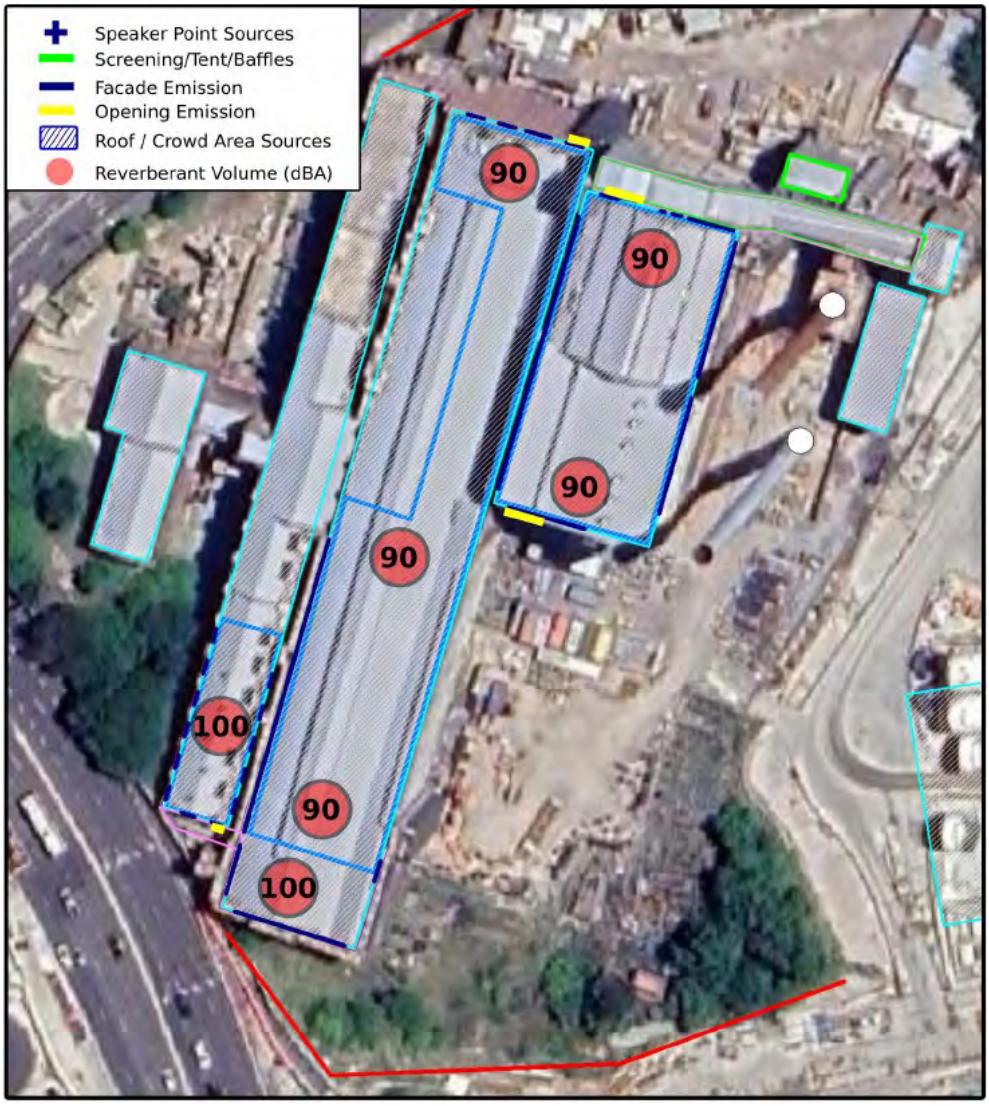


Figure 18: *Internal Amplified Sources (NMP - Trinity)*

6.4.5 Scenario 3 Internal Amplification, Less Bass (Low Impact)

Given the significant amount of glazing and light weight elements to the various buildings, it is found that predominately the low frequency content of internal noise (amplified bass) is defining the achievable volumes internal before noise criteria are breached externally.

As not all uses will desire 'booming' bass, consideration of amplification without amplified bass (125Hz and below), either through exclusion of sub-woofer speakers, or equalising the output to ensure low frequencies are minimised. This will allow activities like stage performances, spoken presentations, speeches, art installations, family friendly or background music, to be operated to high dBA volumes without breaching noise limits externally.

Modelling was initially operated as per Scenario 2 but with an equalised spectrum removing low frequency dominance, and thereby the dBC of the internal noise. Patron noise is unchanged, and consideration of the door open and closed configurations to the Entertainment Hall use has been considered.

6.4.6 Recommendations

Based on noise modelling of the various scenarios, a guideline to reasonable levels at both a Front of House (FOH, setback position in-front of a stage), as well as at easily accessible and repeatable reference locations, have been derived and presented in **Figure 19** below. These guideline noise levels will aid in management of the noise levels, without needing to investigate at the more distant off-site sensitive locations.

Figure 19 presents the predicted levels and achievable operating volumes for modelled scenarios. 5-minute averaging is adopted as a conservative limit, to identify programming volumes during a typical 'song' duration period. For simplicity, review of a comparable dBC off-set limit to minimise complaints has been established from the low-frequency limits discussed, and industry standard dBA vs dBC noise sources.

Operable noise limits have been defined in consideration of the scale and frequency of activity, as well as the time of day (detailed in Section 3.2.3) as follows:

- Tier 1 – Occasional Major Concert - e.g. New Years Eve, outdoor stage with amplified music and bass, plus other spaces being used concurrently;
- Tier 2 – Semi-Frequent Large Event - e.g. Lower noise and bass with concurrent use of Boiler House and Turbine Hall with or without an outdoor stage;
- Tier 3 – Frequent, Daytime (7.00am - 6.00pm) - e.g. Any event with noise within the limits in Table X e.g music, cultural, entertainment, conferences etc;
- Tier 4 – Frequent, Evening (6.00 pm - midnight) - Internal amplification, no bass content or significantly equalised e.g music, entertainment, conferences, celebrations; and
- Tier 5 – Overnight (midnight - 7.00am) - e.g. Internal amplification, no bass content or significantly equalised and within the lower range of noise limits such as small functions for limited patrons.

Based on the noise modelling the following operational noise level limits are recommended:

TIER 1 – Occasional Major Concert		
FOH Outdoor Stage (@ 25m) =	95 dBA LAeq,	110 dBC LCeq
Boiler House (@ 10m) =	100 dBA LAeq,	115 dBC LCeq
Turbine Hall (@ 10m) =	100 dBA LAeq,	110 dBC LCeq
TIER 2 – Semi-Frequent Large Events		
FOH Outdoor Stage (@ 25m) =	90 dBA LAeq,	105 dBC LCeq
Boiler House (@ 10m) =	100 dBA LAeq,	110 dBC LCeq
Turbine Hall (@ 10m) =	100 dBA LAeq,	110 dBC LCeq
TIER 3 – Frequent, Daytime (7am – 6pm)		
Boiler House (@ 10m) =	95 dBA LAeq,	105 dBC LCeq
Turbine Hall (@ 10m) =	95 dBA LAeq,	105 dBC LCeq
Entertainment Hall (@ 10m) =	95 dBA LAeq,	105 dBC LCeq
TIER 4 – Frequent, Evening (6pm - midnight)		
Boiler House (@ 10m) =	90 dBA LAeq,	105 dBC LCeq
Turbine Hall (@ 10m) =	95 dBA LAeq,	105 dBC LCeq
Entertainment Hall (@ 10m) =	95 dBA LAeq,	105 dBC LCeq
TIER 5 – Overnight (midnight – 7am)		
Boiler House (@ 10m) =	82 dBA LAeq,	100 dBC LCeq
Turbine Hall (@ 10m) =	85 dBA LAeq,	90 dBC LCeq
Entertainment Hall (@ 10m) =	90 dBA LAeq,	95 dBC LCeq

*Leq levels presented are conservative 5-minute averages

Figure 19: *Noise recommendations (NMP - Trinity)*

The predicted levels for the south and eastern areas are far below the adopted limits, and unless the performance stage is re-oriented to face directly south/east in the future, are not defining operational volumes.

Based on the predictions and worst-predicted locations, a list of recommended compliance positions are presented in **Figure 20** below.

For investigation of a complaint, measurement at the specific address (where safe), or nearest receiver in the direction of the complaint is preferred.

Figure 20: *Reference Noise Level Predictions (NMP - Trinity)*

The overarching results of the monitoring suggest the activation of the WBPS should be fully compliant, including use of an internal stage within the Boiler Room up to 90 dBA at 10m. Where operation at louder volumes is desired, it is recommended to complete a specific site evaluation including a system calibration for a given orientation and location within the facility, which include review of the façade performance via correlated internal and external noise monitoring exercise.

It's noted that compliance levels are calibrated to the upper floors of 3 Hornsey Street, therefore the ground floor levels may be slightly different.

The modelling further indicates that for any proposed concerts, there is a critical volume limit to achieving the adopted noise goals, which are recommended to accompany a community notification exercise, as amplified sound is expected to be audible at neighbouring residences for the duration. Strict control over the operational volumes (i.e. at the FOH mixing desk) is recommended to alleviate the potential for higher levels occurring into the surrounding area.

The FOH and boundary limits are unique to the stage design and a generic music style considered in the modelling and should not be utilised to assume external compliance is achieved for all music styles or variations to the event set up. It is a useful reference for the

viability of the site layout proposed to demonstrate that the desired operating event volumes will not result in non-compliant levels off-site.

It is further noted, that during calm or preferable weather conditions, levels 3 – 10 dB higher than the above are possible, however this would need to be validated at the most affected sensitive receiver.

The Noise Management Plan (**Appendix 3**) outlines some preliminary design considerations based on the scope of activities proposed, and mitigation and management measures considered, which are further detailed in **Section 7** of this REF:

- Focus noise internally and away from openings or weak points (windows), and potentially the ceiling/roof;
- Keep a register of lessons learned from each event/activity to assist in identifying optimal locations and orientations to minimise noise emissions for subsequent events;
- Preferably use distributed speaker systems rather than 1 system trying to cover a large area;
- Install absorbers to the spaces to reduce reverberation and improve quality of noise, which can reduce the desire of operators to increase the volume for audibility;
- Improve thin façade density, which may be especially relevant to the roof/ceiling;
- Consideration of air-lock entries to reduce noise escaping via entry doors (e.g. the Entertainment Hall);
- Noise volume 'Limiters' and shifting volume settings for time of day/night;
- Comprehensive notifications prior to major noise generating activities, or activities extending into the 'sleep hours'; and
- Patron and traffic behaviour departing the venue can also cause noise issues, which includes shouting, cheering, car horns and engine revving.

A mitigation measure has been included in **Section 7** which stipulates that prior to any event, an event specific Noise Management Plan must be prepared in consultation with PMNSW that clearly documents how the required noise limits will be maintained including:

- Noise Management Measures;
- Design Measures (indoor or outdoor spaces);
- Community notification
- Onsite and offsite noise monitoring and
- Complaints management.

6.5 Building Code and Fire Compliance

As WBPS is a heritage building, the deemed-to-satisfy provisions of the BCA cannot be met in most cases. Therefore, a range of performance and management solutions will be required for the different types and range of activations and events. Any new works will however need to be compliant with the BCA and require Crown Certification as outlined in Mitigation Measure 19.

6.5.1 Current Compliance and Mitigation Measures

Boiler House and Turbine Hall

The BCA report confirms the following aggregate exit widths:

- Ground floor: 27,268-mm
- First floor: 7,600-mm

In accordance with Clause D1.6, these aggregate exits accommodate the following occupant loads:

- Ground floor: 3,920 persons
- First floor: 860 persons

The maximum capacity for any event or activation must not exceed 4,780 inclusive of all people on site. This includes no more than 860 people upstairs in the Turbine Hall and Boiler House and 3,920 downstairs including the Turbine Hall and Boiler House and all external areas.

The optimum number of patrons within the Turbine Hall and Boiler House at any one time is no more than 4,600 for emergency egress.

Entertainment Hall

A single exit is currently provided from the Entertainment Hall, which limits the maximum allowable population to 50 occupants per BCA Cl. D2D3(4)(a)(vi). The proposed works to provide an additional fire egress and additional toilets and amenities will increase this capacity. Further BCA advice will be provided as the design develops to ensure compliance. Updated capacity numbers can be provided once this is complete.

Administration Building

The Administration Building currently provides amenities that would service 90 staff. A full BCA and fire audit will be undertaken to upgrade the space suitable for ongoing use as an administration and back of house events space.

Other Spaces

Many other spaces within WBPS are currently restricted areas until the works listed in **Table 3** are complete. In the interim, these spaces will not be used by the public unless guided by appropriately inducted staff and contractors. Any works to these spaces for public use as listed in Table 3 must have advice from an accredited BCA consultant to ensure compliance with the BCA prior to the works occurring and occupation of the space.

Fire Safety

A number of fire management measures and infrastructure improvements will be undertaken as part of the proposed works in this REF in consultation with registered Fire Safety Practitioners and in consultation with the NSW Fire Brigade.

Notwithstanding these works, any proposed temporary event or activation of the Boiler House and Turbine Hall must undertake a review of fire and life safety in the context of BCA parts C, D and E and prepare an emergency management and evacuation plan in accordance PMNSW Event Operational Readiness Framework.

Major events may require the engagement of a BCA consultant and a Fire Safety Engineer (both of whom are registered fire safety practitioners) to assess and provide advice on the event layout and management procedures as outlined in **Mitigation Measure 32.**

6.6 Stormwater (Weather Events) and Flood

6.6.1 Current Conditions

The WBPS is located in a flood-prone area, experiencing inundation in storm and weather events on a relatively frequent basis (events of a magnitude that occur approximately every 5 years cause inundation). Overland flow is known to enter the site at an access gate along Robert Street which has a threshold ground level of approximately 2.13 metres Australian Height Datum (AHD). Raised surface elevations toward White Bay (along the alignment of the existing access road) provide a barrier to overland flow and cause ponding around the existing power station building.

Local surrounding catchments contribute water to the WBPS via stormwater infrastructure, notably a catchment from south of Victoria Road that has runoff directed towards the site by stormwater infrastructure (recently upsized by adjacent works for the Rozelle Interchange). There are also localised rainfall events that affect the site, typically producing overland flows and nuisance ponding. These intense rainfall events may not trigger a catchment wide response but still pose issues for management of local ponding and ingress of water to the WBPS through rainfall collecting within the site.

The site now also receives flows from an existing headwall outlet from the Rozelle Interchange works as part of WestConnex. This flow combines with local runoff to present a risk of inundation at the southern forecourt.

Modelling basis

Previous modelling of the site as part of studies for the Sydney Metro Bays West development included development of a detailed TUFLOW linked 1D-2D model for local catchments discharging toward White Bay Power Station. The model topography was based on a combination of LiDAR data captured in 2019 and detailed survey of the site and surrounding area, that was captured in 2021. The local stormwater system is included in the model with the stormwater pipe information invert levels, pipe sizes and lengths, based on a combination of information from dial-before-you dig and detailed survey.

The updated TUFLOW model was used to undertake hydraulic simulations for the 5% Annual Exceedance Probability (AEP) climate change, 1% AEP climate change and the Probable Maximum Flood (PMF). Each scenario adopted an extreme tailwater level of 2.11 metres AHD, which included 1.45 metre extreme storm level within White Bay with the inclusion of 0.66 metres of sea level rise. The 1% AEP flooding conditions are shown on the

figure below, indicating the inundation through access routes in Robert Street and around the WBPS generally.

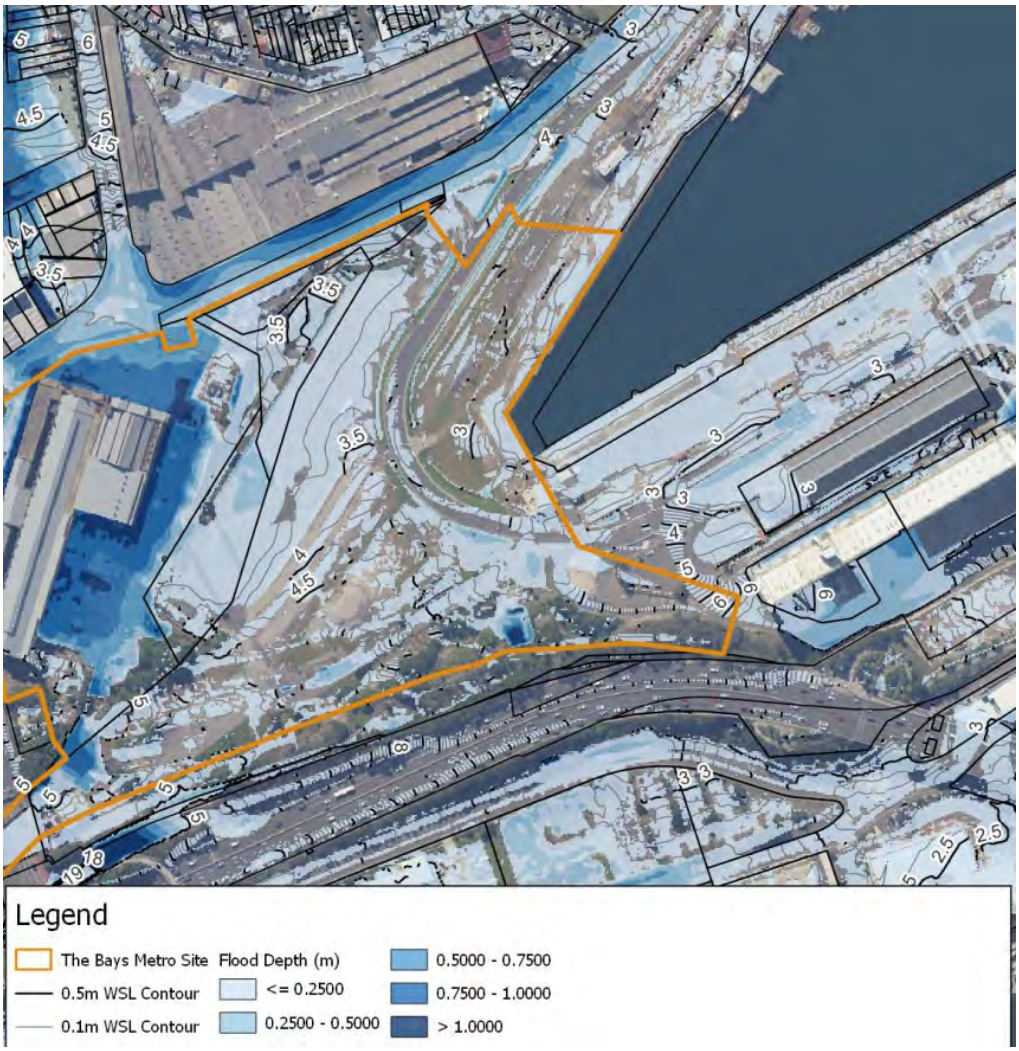


Figure 21: *Modelled existing scenario flooding conditions, 1% AEP Event (Mott MacDonald)*

6.6.2 Flood Impacts from Events

The proposed events and activations are temporary and for the most part will be contained within the White Bay Power Station Building itself. The only outdoor uses will be the occasional temporary stage and food trucks on event nights, and these are not considered to impact on the site's existing compatibility with the flood function of the land.

However, during the first activation at the WBPS, the Biennale of Sydney from March to June 2024, a number of weather / storm events were experienced and required management on site. **Figure 22** shows key observed inundation points during that time from the asset management team with CBRE. The general ponding and upwelling of water could indicate that the current stormwater network is undersized. As such, mitigation measures will be proposed to alleviate the risk of stormwater inundation to the event workers and patrons for future ongoing events and activations approved through this REF.

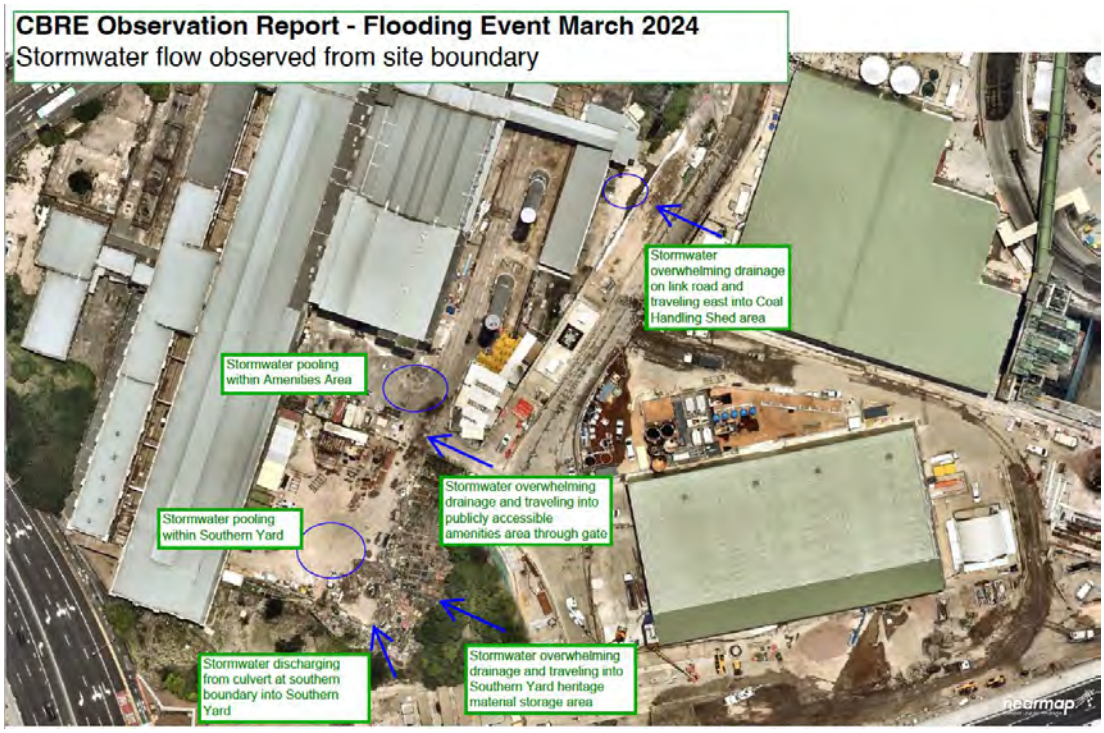


Figure 22: *Observed stormwater inundation points during weather events (Nearmap modified by CBRE)*

6.6.3 Short term weather management

There are no specific weather warnings issued by the Bureau of Meteorology (BOM) for the site or local catchment. The BOM does issue generalised warnings for severe weather events though the likely severity of the potential flooding that results from the warnings cannot be inferred. Locations of known susceptibility to ponding or the ingress of water during storm events include the following:

- Robert Street within the road reserve area north of the WBPS;
- Ground level building openings to the northern driveway;
- Outdoor areas at the southern hardstand pavement and forecourt; and
- Ground level building openings to the southern forecourt.

Where events propose the use of these areas, short-term flood measures are recommended for implementation as soon as it is feasible, targeting the alleviation of nuisance stormwater inundation. The proposed short-term measures are listed below:

- Puddle drains in the lift pit, silicone sealing the kickplates at the base of the lift pit and emergency procedures in place for sandbagging water entry points;
- Preparation of sandbags and water filled barriers that can be easily placed at building entry points to minimise water ingress in the event of severe weather events; and
- Use of marquees or other temporary coverings for outdoor areas used during events, these could be setup such that water is redirected to nearest building awnings and therefore have a downpipe connection.

6.6.4 Medium-term stormwater and flood measures

Medium term and permanent stormwater/flood measures are effective in longer storm events and provide a more permanent solution to flood prone areas of the site. A number of long-term solutions for flooding have been addressed as part of the Bays West Stage 1 Master Plan; however, these will not be realised for a number of years while the Sydney Metro West Bays Station construction is completed.

As such, a number of medium-term solutions are listed below for future consideration by PMNSW (note – these upgrades are not part of the subject REF):

- An upgrade to the strip drain is where water has been observed to be upwelling from the western portion of site. This is potentially related to under sizing as well as maintenance of the strip drain. This will likely reduce the overflow from the Robert St footpath entering the site;
- A flood gate is being installed at the location of the existing gate from WBPS to the Metro link road. The installation of this flood gate is expected to mitigate a portion of the stormwater flows; and
- Construction of a temporary grassed swale that detains water in both frequent and major storms in the Southern Yard. The swale can be temporarily connected to the existing drainage network via pipe below the temporary southern access until future Metro drainage is designed. See **Figure 23**.

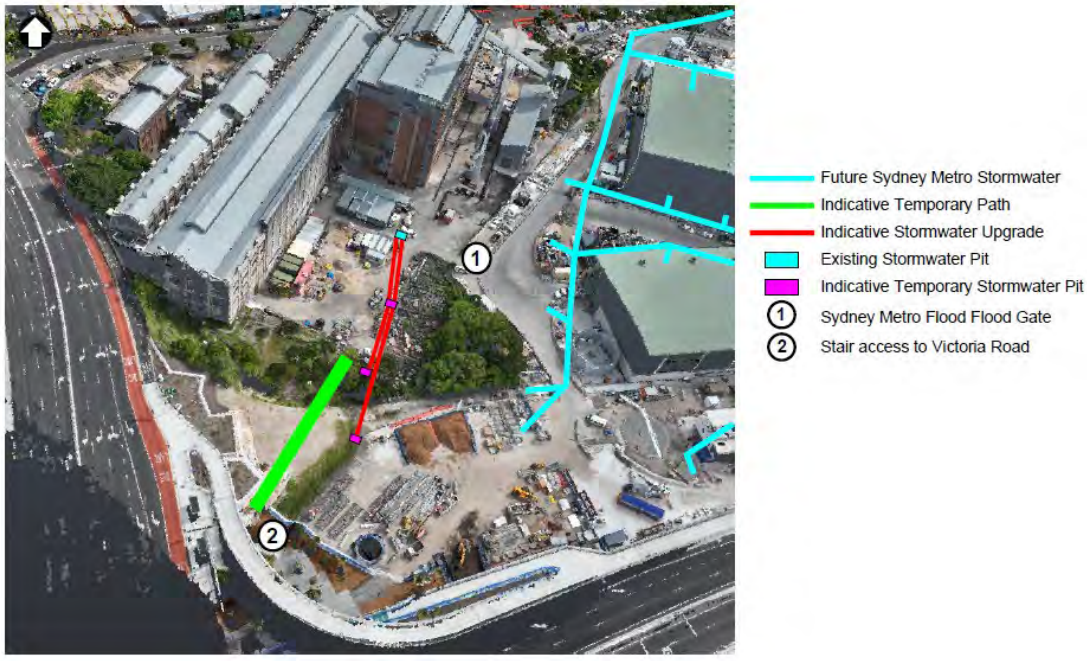


Figure 23: *Potential medium-term Flood Mitigation Works*

6.6.5 Operational Plan and Emergency Response for Flooding

As the site is flooded in relatively frequent storm events (events of a scale that occur approximately every 5 years), a Flood Emergency Response Plan (FERP) should be implemented such that a managed response is made prior to anticipated weather events, during and after severe storms causing flooding.

The FERP is a sub-plan of the WBPS Operational Plan, with roles and responsibilities of key personnel established specifically for each event with detailed content prepared by PMSNW with event operators commensurate with the scale and location of proposed event. This has been included as a Mitigation Measure in **Section 7**.

6.7 Hazardous Materials and Dangerous Goods

The proposed activities and events may include the temporary use of diesel and/or a hydrogen generator, which will require the temporary storage of compressed hydrogen gas on site. When in use, the hydrogen generator and associated storage unit will be located in the South Yard adjacent to the storage area. Compressed hydrogen is a Class 2.1 Flammable Gas. Under the Department of Planning and Environment's Hazardous and Offensive Development Application Guidelines pressurised flammable gasses are not considered to represent an off-site risk if they are stored in quantities less than 100kg. A mitigation measure has been added to ensure that the compressed hydrogen gas is stored and handled in accordance with the appropriate Materials Safety Data Sheet and the manufacturers requirements.

6.8 Air Quality

Due to the nature and minimal extent of the proposed works, there will be no impacts on local or regional air quality. Dust minimisation measures will be implemented during individual events, including:

- Site being closed for regular cleaning before, during and after individual event operations;
- Vacuums will be attached to power tools as necessary; and
- All waste will be contained within bins.

6.9 Bushfire

The site is not mapped as being bushfire prone. No mitigation measures are required or any further approval from the NSW Rural Fire Service. No specific mitigation measures are required.

6.10 Flora and Fauna

The proposed activity is located within an existing industrial site and relate to the temporary use of existing buildings and structures. The activity therefore will not displace any flora or fauna, create a barrier to their movement, or introduce noxious weeds, vermin or feral species. Additionally, no native vegetation will be impacted by the proposed activity. No specific mitigation measures are required.

6.11 Waste Management

Construction Waste

Waste Management will need to be considered on an event or works based circumstance. Generally, wheelie bins of various sizes (240L, 660L, and 1,100L) will be the primary methods of capturing general, recycling, soft plastic and cardboard waste streams. Construction works should implement a system for sorting construction waste on-site into categories such as metals, wood, plastics, concrete, and hazardous materials and undertake correct recycling or disposal.

Waste will be kept to a minimum and any work generating waste will be tidied and consolidated daily. Should the need arise a low-tonnage skip will be ordered for general waste.

Packaging waste will be returned with the delivery vehicles to the extent practical and feasible. Cleaning service contractors will be required for the removal of waste and debris associated with any works. No hazardous or chemical waste is expected to be generated. The reuse of materials will be prioritised whenever possible.

Operational Waste

Waste generation will vary depending on the event or activation. The main source of waste will be the food and beverage activations at the venue. Each event will be managed in accordance with a Sustainability, Waste and Amenities Plan that will outline how waste will be minimised, handled, stored and disposed of appropriately, demonstrating compliance with relevant guidelines. PMNSW is committed to reducing single use plastic, so no single use plastic serving ware will be offered and all utensils and food serving ware will be compostable.

Event operators will be required to use PMNSW approved contractors for both construction and operational waste to ensure management in accordance with PMNSW Sustainability, Waste and Amenities Plan and within the mitigation measures outlined in **Section 7.**

6.12 Natural Resource Use

The proposed activations and events will require minimal use of natural resources, and will not result in any impact on the availability of the following natural resources in the locality:

- Ground and surface water;
- Fuels;
- Timber;
- Extractive material;
- Minerals; or
- Prime agricultural land or areas important for fishing, agriculture, forestry or mining.

No mitigation measures are required or proposed.

6.13 Impacts on the Community

The proposed events and activations may sometimes have localised temporary impacts on the local community arising from potential noise amenity impacts and short-term traffic and parking impacts, when the venue is open to the public for larger or high-impact events and other activations. Local business are likely to be impacted by the occasional temporary parking removal.

Mitigation measures have been specified in relation to management of these possible temporary impacts on the local community, including:

- Implementation of a Transport Accessibility Management Plan to minimise local traffic and parking impacts in surrounding residential streets;
- Implementation of the noise mitigation measures described in Section 7 and outlined in **Section 7** and **Appendix 3: Noise Impact Assessment and Management Plan;** and
- A 12-month review of the REF and mitigation measures to determine any changes or additional mitigation measures required.

Further to these mitigation measures, event managers will be required to notify residents at least two weeks prior to the event bump-in through letterbox drops or other distribution methods approved by PMNSW such as digital media. This will include information on:

- Event Dates (including bump-in and bump-out dates);
- Opening and closing hours;
- Overview of the event program;
- A 24 hour contact number; and
- Any other relevant information about noise and traffic controls.

Note: this is not required to be undertaken for low-impact events.

As demonstrated by the feedback in **Section 5.1 Community Engagement and Consultation,** consultation to date has found that the community is generally very supportive of the ongoing use of the WBPS for arts, entertainment, cultural and creative uses, subject to appropriate mitigation measures.

6.14 Cumulative Environmental Impacts

The environmental impacts from the proposed development are considered to be acceptable and minimal subject to the implementation of appropriate mitigation measures as outlined in **Section 7** of this REF.

6.15 Public Interest

The proposal is considered to have positive impacts overall as it will enable ongoing public access to the White Bay Power Station for its intended adaptive reuse as an entertainment, cultural, creative and community hub. It will continue to showcase the heritage significance of the site's buildings and structures, while also providing a unique and interesting venue for significant ongoing events and activations.

As such, it is considered that the overall public benefits arising from the building's ongoing use and events, and from showcasing the heritage significance of the site, significantly outweigh any temporary impacts that might occur in relation to noise, traffic and other environmental considerations – which will be managed through implementation of the recommended mitigation measures.

6.16 Conclusion

With consideration of the mitigation measures specified in this assessment, the proposed activity has been assessed as:

- Not likely to have a significant impact on the environment. As such an Environmental Impact Statement is not required to be prepared under Part 5.1 of the EP&A Act;
- Not likely to significantly affect threatened species, populations, ecological communities or their habitats. As such, a Species Impact Statement or Biodiversity Development Assessment Report is not required;
- Not likely to significantly impact on Matters of National Environmental Significance (MNES) on Commonwealth land. As such, there is no need to make a referral to the Australian Government Department of Sustainability, Environment, Water, Population and Communities; and
- Likely to deliver improved environmental, heritage, and community outcomes through the ongoing use and activation of this important piece of Sydney's Industrial Heritage for cultural, creative, arts and other associated public uses.

7 Mitigation Measures

7.1 Mandatory Mitigation Measures – apply in all circumstances

1. REF 12 -month review

This REF must be reviewed within 12 months of its original approval date, to determine if the scope of activations, events, operating hours, or works require modification or further mitigation measures to be implemented. This review will include consultation with:

- Surrounding residents and businesses;
- Inner West Council and other relevant government agencies and; and
- Organisations and people who have held and attended events at the WBPS period over the 12-month period.

2. Obligation to Prevent Impacts to The Environment

In addition to meeting the mitigation measures in this determination, all reasonable and feasible measures should be implemented to prevent impacts to the environment that may result from the activations, events and works approved under the REF.

3. Development in Accordance with Plans and Documentation including PMNSW Management Frameworks

The works must be carried out in accordance with this REF (2 August 2024) the mitigation measures within and in accordance with the following plans and documentation (and subsequent versions), except where a mitigation measure expressly requires otherwise:

- PMNSW Event Operational Readiness Framework, including Flood Emergency Response Plan – draft - (FERP);
- PMNSW Event Management Framework;
- PMNSW Outdoor Events Policy;
- Events Noise Impact Management Plan (2024 Trinity Consultants);
- Transport Management and Accessibility Plan (2024 PDC Consultants);
- Heritage Management Framework (Outline) (2024 Design 5 Architects); and
- Place Management NSW record keeping forms for exemptions and approvals under the *NSW Heritage Act 1977*.

Where a document is noted as 'outline' or 'draft', confirmation is required from PMNSW that the mitigation measures located within the documentation are up to date, and have not been superseded, prior to the activation, event or work taking place.

4. Approvals

These mitigation measures and the approved plans and documentation do not remove any obligation to obtain all other licences, permits, approvals and landowner's consents from all relevant authorities and land owners as required under any other legislation. The terms and conditions of such licences, permits, approvals and permissions must be complied with at all times. A copy of all approvals is to be provided to the relevant Placemaking NSW Project Director and kept on-site.

For clarity, this includes approvals relating to the service of food and drink, including liquor licensing and any required Heritage Act approvals.

5. Operational and bump in/out hours

General operating hours of individual event and activations (except commercial filming) at the White Bay Power Station will be as follows:

- 7.00am until 11.00pm Sunday to Thursday or until midnight on Fridays, Saturdays or the night before a public holiday, except New Year's Eve (when the use may occur until 2.00am the following day);
- Indoor events or activations can apply for extended hours provided they meet the noise criteria set out in Mitigation Measure 35 and Mitigation Measure 38;
- Tier 1 Traffic generating events should avoid morning and afternoon peak hours Monday to Friday (see **Section 6.3**);
- Set-up time/bump in for the use must not start earlier than 6.00am, or end later than 11.00pm on any day; and
- Clean-up / bump out for the use must end no later than 2 hours after the use was to stop occurring; or 8.00am to 10.00 pm if bump out is to occur the day following an event.

Bump-in and Bump-out includes activities required to set up and pack up events. These hours relate to activities within the building such as setting up or packing up internal stages, tables and seating, catering, cleaning etc and do not extend to works external to the building that generate excessive noise in which case should be undertaken between the hours 7.00am to 6.00pm on any day.

Events or activations seeking to operate or bump in/out outside of these hours must submit detailed event, noise and traffic management plans that demonstrate minimal impact on surrounding residents, businesses or other sensitive receivers, including how they will notify the community and provide a contact number to respond to any issues arising.

6. Commercial Filming Operational Hours and Requirements

Commercial filming can operate up to 24 hours a day, subject to consultation with the PMNSW Heritage Team and submission of a filming management plan. The plan must submitted to PMNSW at least 5 days before the commencement of filming at the location. The plan must include the following information:

a. The name, address and telephone number of the person carrying out the filming (such as a production company) and of the producer for the filming;
b. A brief description of the filming to be carried out (for example, whether it involves a television commercial, a television series, a feature film or a documentary);
c. The proposed location of the filming within the WBPS;
d. The proposed commencement and completion dates for the filming;
e. The proposed daily length of filming;
f. The number of persons to be involved in the filming;

g. Details of any temporary structures (for example, tents or marquees) to be erected or used at the location for the purposes of the filming;

h. The type of filming equipment to be used in the filming (such as a hand-held or mounted camera), including whether drone use for filming is proposed;

i. Proposed arrangements for parking vehicles associated with the filming during the filming;

j. Whether there will be any disruption to the location of the filming or the surrounding area and the amenity of the neighbourhood (for example, by the discharge of firearms or explosives, the production of offensive noise or vibrations, disruption to traffic flow or the release of smells, fumes, vapour, steam, soot, ash, dust, waste water, grit or oil). Where disruption may occur, evidence of community notification and a contact number is to be provided;

k. Whether the filming will involve the use of outdoor lighting or any other special effects equipment; and

l. A copy of the public liability insurance policy that covers the filming at the location.

Separate approval and a permit is required from PMNSW prior to using a drone for filming on the site.

7. Owners Consent

Prior to the commencement of any off-site work or for any works on land not owned by Placemaking NSW, landowner's consent must be obtained from the relevant authority.

8. Works in the Road Reserve

No works in the road reserve are authorised under this approval. If road works are required, prior to the commencement of any work in the road reserve, approval under Section 138 of the Roads Act 1993 is to be obtained from the relevant Roads Authority.

9. Compliance with Mitigation Measures

All relevant personnel, including contractors (and their subcontractors) must be made aware of these mitigation measures and the requirement to undertake the works as per these mitigation measures.

10. Non-Compliance Notification

The relevant PMNSW Event Manager must be notified by the event operator when any non-compliance with a mitigation measure is identified. The notification should identify the relevant works, set out the mitigation measure that is non-compliant with, the way in which it does not comply, any known reasons for the non-compliance and what actions have been, or will be undertaken, to address the non-compliance.

11. Access for People with Disabilities

Where required, individual events and activations are to be designed to provide access and facilities for people with a disability where possible within the regulations of the Heritage Act 1977.

12. Trade Waste

No event, activation or works can dispose of trade waste into the sewer network without an agreement with Sydney Water.

13. Community Notification Framework

Event notification to adjoining owners, and tenants, Council and other surrounding government bodies of individual events must be in accordance with the PMNSW Event Notification Framework.

Event managers (either PMNSW or the proposed event operator) will be required to notify residents at least two weeks prior to bump-in of the event through letterbox drops. This will include information on:

- Event Dates (including bump-in and bump-out of the event);
- Opening and closing hours;
- Overview of the Event Program;
- A 24 hour contact number; and
- Any other relevant information about noise and traffic controls.

Note: this is not required to be undertaken for low-impact events as determined by PMNSW.

14. Complaints Management

A complaints hotline should be available to the public and staffed throughout the amplification periods, to allow operators to further identify potential off-site noise concerns and address their operating conditions where appropriate.

Prior to commencement of an individual event or activation, a Complaints Register is to be developed to record the details of all complaints received and the means of resolution of those complaints. The Complaints Register shall be made available on request to PMNSW or other regulators. Complaints received prior to and during the undertaking of works shall be recorded and attended to promptly. On receiving a complaint, it is to be reviewed to determine whether issues relating to the complaint can be avoided or minimised. Feedback shall be provided to the complainant explaining what remedial actions (if any) were taken. The Complaints Register is to be provided to the relevant PMNSW Event Manager.

15. Capacity Management

The maximum capacity for any event or activation must be agreed with PMNSW prior to an event or activation occurring and must not exceed 4,780 inclusive of all people on site. This includes no more than 860 people upstairs in the Turbine Hall and Boiler House and 3,920 downstairs including the Turbine Hall and Boiler House and all external areas.

The optimum number of patrons within the Turbine Hall and Boiler House at any one time is no more than 4,600 for emergency egress.

The Event Management Plan must detail how the capacity will be managed throughout the duration of the event, and that appropriate facilities and amenities are to be provided that meet legislative obligations under the Building Code of Australia and other relevant Acts.

16. Heritage Conservation

Details of heritage protection measures for any temporary or permanent works to the building and curtilage, are to be developed in association with the PMNSW's Design and Place (Heritage) team prior to carrying out the activity in accordance with the WBPS CMP and Heritage Management Framework. Where an Exemption is able to be granted, a record of each installation/construction method, in accordance with the requirements below, must be provided to the PMNSW's heritage team with a Section 57 Record Keeping Form completed.

To be exempt from approval under the Heritage Act, activities and works for fit out and installations must comply with PMNSW's State Agency Exemption 9, being:

- *Activities and works must:*
    - *be fully removable and reversible,*
    - *have no adverse heritage or visual impact on the significance of the heritage item and be discreetly located,*
    - *consider and minimise cumulative impacts on the heritage item, and*
    - *use existing service routes, cavities or voids or replace existing surface mounted services.*
- *Reuse of existing fixing points in significant fabric is permitted with prior approval.*
- *Any new fabric must not:*
    - *limit access to significant fabric for future maintenance, or*
    - *exacerbate the decay of existing fabric or risk the destruction of existing significant fabric due to chemical incompatibility, vibration, percussion or explosive flammability.*
- *Replacement surface mounted services must be the same or less intrusive than the surface mounted services they replace.*
- *Where appropriate existing service routes and/or conduits may be deleted if the installation can be streamlined into one existing service route, cavity or void.*
- *Activities and works must not materially affect heritage significance in accordance with the Heritage NSW Materials Threshold Policy (as updated from time to time).*

The specified activities/works must be undertaken in accordance to detailed works scopes, specifications and drawing documentation from a suitably qualified and experienced professional and a heritage impact statement that assesses that the activities/works will have little or no adverse heritage impact on the item's heritage significance. The scope and method for the proposed activities/works is to be considered by the Place Management NSW Heritage Expert.

A PMNSW officer that holds delegation under the Heritage Act 1977 (Senior Manager, Heritage, Senior Manager, Archaeology, or Director, Design and Place) must be satisfied and confirm that the proposed activities/works will not adversely impact the heritage significance of the item before endorsing an exemption. Applications for any Heritage exemption (Section 57(2)) as listed above, should be made to PMNSW at least two weeks prior to the event or any works occurring. It is recommended that early advice is sought

from the heritage team at PMNSW to ensure individual proposals can be exempted and are in accordance with the CMP.

Whilst most of the works proposed as part of the activity may be appropriately categorised as standard exemptions under Section 57(2) of the Heritage Act, approval under Section 60 of the Heritage Act, either under delegation to Place Management NSW, to Heritage NSW or to the Heritage Council of NSW, may be required depending on the potential level of impact associated with the works.

17. Signage, Lighting and Rigging

Temporary signage, lighting and rigging for the White Bay Power Station site will be subject to PMNSW's approval process under the NSW Heritage Act and PMNSW delegations and related exemptions, and in accordance with Placemaking NSW's signage policy and White Bay Power Station Conservation Management Plan. A separate signage plan and lighting plan must be submitted to PMNSW for approval under the Heritage Act delegations prior to any installation. The plan must include:

- Full details size of signs, material type, content, locations for installation of signs and attachment methods for each sign. Only two of the three potential signage locations can be utilised by a single event or activation at the same time;
- Full details of any lighting or sound or scenic elements proposed within the venue and, where appropriate, rigging points;
- Instructions to not attach any item, sign, banner or poster to trees, buildings or other structures and not use staples, nails, tacks or similar unless otherwise approved by PMNSW; and
- Instructions to not use any permanent or temporary paint to mark any surfaces unless otherwise approved by PMNSW.

Works are not to commence until all approvals or exemptions under the Heritage act have been obtained.

7.2 Prior to, and during construction works, and/or commencement of installations for public events

18. Condition Report

Prior to the bump in of any individual activation or event, the existing event area will be documented in a condition report prepared jointly between PMNSW and the operator, which shall be used to establish any changes to the condition of the event area upon the deinstallation of the event.

19. Crown Certification

A Crown Certificate under Section 6.28 of the *Environmental Planning and Assessment Act 1979* may be required for any new capital works. Advice from a Crown Certifier must be obtained prior to the commencement of any construction works. A copy of the advice and any certifications must be provided to PMNSW for record keeping.

20. Site Management

- All materials on site or being delivered to the site must be wholly contained within the site.
- The requirements of the Protection of the Environment Operations Act 1997 are to be complied with when placing and stockpiling loose material or when disposing of waste products or during any other activities likely to pollute drains or watercourses.
- All equipment and machinery should be secured against vandalism outside of working hours.
- A spill containment kit will be available at all times. All personnel will be made aware of the location of the kit and trained in its effective deployment.
- A copy of the approved plans, specifications and documentation shall be kept on site at all times and shall be available for perusal by any officer of PMNSW.
- No vehicle maintenance is permitted except in emergencies.
- No burning of materials is permitted.
- Excessive use of vehicles and powered construction equipment is to be avoided.
- Vehicles, machinery and equipment will be maintained in accordance with manufacturer's specifications in order to meet the requirements of the Protection of the Environment Operations Act 1997 and associated regulations.

21. No Obstruction of Public Way

Building materials, machinery, vehicles, refuse, skip bins or the like must not be stored or placed in the public way (outside of any approved construction works zone) under any circumstances or on a public road except with the approval or permit of the relevant Roads Authority.

22. Pedestrian Access

Safe pedestrian access in and around the site shall remain unimpeded at all times. Required informative signage and directional information must be provided in appropriate locations.

23. Construction Work Hours

The undertaking of any work, including the entry and exiting of construction and delivery vehicles at the site, is restricted to the following standard work hours:

- Monday to Friday inclusive: 7.00am to 6.00pm;
- Saturdays: 8.00am to 1.00pm; and
- Sundays and Public Holidays: No work permitted without prior approval.

Work may be undertaken outside of the standard work hours, but only if it is strictly required:

- By the police or a public authority for the delivery of vehicles, plant or materials; or
- In an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
- On a case by case basis, subject to approval being obtained by PMNSW prior to the work occurring and the assessment of any impact of this extension determining that an extension of hours will not generate additional adverse traffic, noise and vibration impacts.

Note: Construction work hours relate to building construction works approved as part of this REF and not to event bump in and bump out activities.

24. Services

If any services or utilities in the area of construction are to be disconnected and reconnected the contractor is required to consult with PMNSW and (if necessary) the various service authorities regarding their requirements for the disconnection and reconnection of services. Where services are found not to be adequate to support the activity, they shall be appropriately augmented, subject to obtaining any required approvals or permits.

25. Unexpected Site Contamination

No works are permitted to dig into the ground across the site. If any works or activities expose the protective geofabric layer, works must stop immediately and be reported to PMNSW. A rectification plan must be developed with PMNSW and where relevant a site auditor before works or installations can recommence.

During the undertaking of work, should any new information pertaining to contamination or actual contaminants be identified which have the potential to alter previous conclusions about site contamination, the relevant PMNSW Project Manager and Crown Certifier must be immediately notified and works must cease in the location of the contamination. Works must not recommence until a suitably qualified specialist has investigated and assessed the contamination and if required, prepared a Remediation Action Plan (RAP) which details the necessary remedial work or management required to render the site suitable for the development. Following completion of the remediation, a Site Remediation and Validation Report (SRVR) which documents the completeness of the remedial work is to be

undertaken and submitted to the relevant Placemaking NSW Project Director and the Crown Certifier. A notice of completion of remediation work must also be given in accordance with Section 4.14 and Section 4.15 of State Environmental Planning Policy (Resilience and Hazards) 2021.

26. Non-Aboriginal Heritage

All personnel working on the site must understand their responsibilities under the Heritage Act 1977 and all work must be carried out under the direction of the Design and Place (Heritage) team at PMNSW.

27. Aboriginal Heritage

If any Aboriginal objects, sites or places (or potential Aboriginal objects, site or places) are discovered during any work, all works in the vicinity must cease. PMNSW, registered Aboriginal representatives and Heritage NSW must be contacted to determine the significance of the objects and to determine the subsequent course of action, prior to the works recommencing. The site and management outcomes are to be registered in the Aboriginal Heritage Information Management System (AHIMS).

28. Human Remains

If human skeletal material less than 100 years old is discovered, the Coroners Act 2009 requires that all works should cease and the NSW Police and the NSW Coroner's Office be contacted. Traditional Aboriginal burials (older than 100 years) are protected under the National Parks and Wildlife Act 1974 and should not be disturbed. Interpreting the age and nature of skeletal remains is a specialist field and an appropriately skilled archaeologist or physical anthropologist should therefore be contacted to inspect the find and recommend an appropriate course of action. Should the skeletal material prove to be archaeological Aboriginal remains, Heritage NSW and the Local Aboriginal Land Council must be notified. Notification should also be made to the Commonwealth Minister for the Environment, under the provisions of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984.

29. Bump in/out Traffic Management

Traffic movements on the adjacent road network and vehicle movements to and from the site for the purpose of bump in/out are to be managed and controlled in accordance with the following:

- Trucks shall enter and exit the site in a forward direction.
- All workers and contractors shall be encouraged to use active travel options to access the site.
- Traffic capacity at intersections in the vicinity of the site shall be maintained.
- Construction vehicle activity shall be restricted to designated routes.
- Activities related to the works shall not impede traffic flow along local roads.
- Materials shall be delivered and removed during standard construction hours.

Any vehicles higher than 4.2m are required to access the site via James Craig Drive and the WBPS south-eastern gate. Co-ordination and scheduling of arrival and departure of these vehicles must be undertaken with the relevant landholders and leaseholders such as Sydney

Metro West to ensure there are no conflicts or impacts to traffic movements on these roads.

30. Delivery and Loading

All loading vehicles and other relevant vehicles must not conflict with the maximum allowable dimensions of the relevant doors leading to the Boiler House and Turbine Hall.

31. Dangerous Goods and Hazardous Materials

The use and storage of hazardous materials and dangerous goods, including petroleum, distillate and other chemicals, shall be in accordance with the relevant legislation including, but not limited to:

- Protection of the Environment Operations Act 1997;
- Work Health and Safety Regulation 2017;
- AS 1940:2017 The Storage and Handling of Flammable and Combustible Liquids; and
- Safe Work NSW Code of Practice – Managing Risks of Hazardous Chemicals in the Workplace.

Compressed Hydrogen Gas will be limited to less than 100kg on site at any one time, and will be stored and handled in accordance with the Materials Safety Data Sheet and the suppliers requirements.

A Hazardous Materials Register has been prepared by PMNSW. Works and event managers should consult with PMNSW to ensure that new works do not create the accidental removal or disruption of asbestos and lead containing materials.

7.3 Prior to commencement of public events

The following mitigation measures are to be complied with prior to commencement of public events on site:

32. Fire Safety

Any proposed temporary event or activation of the Boiler House and Turbine Hall must undertake a review of fire and life safety in the context of BCA parts C, D and E and prepare an emergency management and evacuation plan in accordance PMNSW Event Operational Readiness Framework.

Major events may require the engagement of a BCA consultant and a Fire Safety Engineer (both of whom are registered fire safety practitioners) to assess and provide advice on the event layout and management procedures. Advice from PMNSW should be sought once the review of fire and life safety has been prepared by the event operator.

Events will be assessed on a case-by-case basis and the applicant should be aware that requests for information may be bespoke to ensure event success and safety of occupants.

33. Sustainability, Waste and Amenities Plan

Prior to the commencement of operation, a Sustainability, Waste and Amenities Plan must be prepared and approved by PMNSW. The Sustainability, Waste and Amenities Plan must:

- detail how many additional toilets and other amenities will be provided if the event is to have more than 1,900 people on site including site layout and management;
- promote environmentally responsible event practices to visitors and event staff,
- comply with the NSW EPA Waste Wise Event Guide and ensure that all activities associated with the preparation, staging and dismantling of the Event follow the requirements of the following waste hierarchy, being:
    - waste avoidance;
    - waste reduction;
    - recycling of resources; and
    - disposal to landfill as a last option
- include policies and procedures that avoid the generation of non-recyclable and/or non-biodegradable waste (e.g. no polystyrene, no single use plastics allowed on site);
- not take any action which has the effect, whether direct or indirect, of causing any contamination or pollution of the Event Area or the White Bay Power Station Precinct;
- ensure suppliers, caterers, merchandisers and sponsors use biodegradable and environmentally friendly packaging that can commonly be recycled, such as:
    - plastics including PET, HDPE and vinyl plastic i.e. those labelled 1, 2 and 3 (but not plastics that are labelled 4 and above);
    - fibre based products (cornstarch cutlery);
    - aluminium cans;
    - cardboard and paper.
- collect all waste matter, fluid, oil, fat and ice or dry ice in suitable containers provided by you for disposal;
- not carry out any marketing or media activities that generate litter or pollution.

34. Traffic Management Plan

Each event operator must prepare an event specific Traffic Management Plan (TMP) to ensure minimal impact on local traffic and parking and the safety of pedestrians and cyclists.

Tier 1 (High Impact) and Tier 2 (Medium Impact) TMP's must be prepared in consultation with PMNSW, and when required, a Traffic Guidance Scheme (TGS) prepared and endorsed by the Inner West Council Local Traffic Committee.

35. Noise Management Plan and Maximum Noise Levels

Prior to any event, a Noise Management Plan (NMP) must be prepared in consultation with PMNSW that clearly documents how the required noise limits will be maintained including:

- Noise Management Measures;
- Design Measures (indoor or outdoor spaces);
- Community notification
- Onsite and offsite noise monitoring and
- Complaints management.

Generally the Noise Management Plan should include consideration of the following:

- Focus noise internally and away from openings or weak points (windows), and potentially the ceiling/roof.
- Preferably use distributed speaker systems rather than 1 system trying to cover a large area.
- Install absorbers to the spaces to reduce reverberation and improve quality of noise, which can reduce the desire of operators to increase the volume for audibility.
- Noise volume 'Limiters' and shifting volume settings for time of day/night.
- Comprehensive notifications prior to major noise generating activities, or activities extending into the 'sleep hours'.
- Management of patron and traffic behaviour departing the venue which can also cause noise issues, which includes shouting, cheering, car horns and engine revving.

The following operational noise levels are not to be exceeded.

- **TIER 1 – Occasional Major Concert**
  - FOH Outdoor Stage (@ 25m) = 95 dBA LAeq, 110 dBC LCeq
  - Boiler House (@ 10m) = 100 dBA LAeq, 115 dBC LCeq
  - Turbine Hall (@ 10m) = 100 dBA LAeq, 110 dBC LCeq
- **TIER 2 – Semi-Frequent Large Events**
  - FOH Outdoor Stage (@ 25m) = 90 dBA LAeq, 105 dBC LCeq
  - Boiler House (@ 10m) = 100 dBA LAeq, 110 dBC LCeq
  - Turbine Hall (@ 10m) = 100 dBA LAeq, 110 dBC LCeq
- **TIER 3 – Frequent, Daytime (7am – 6pm)**
  - Boiler House (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
  - Turbine Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
  - Entertainment Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
- **TIER 4 – Frequent, Evening (6pm - midnight)**
  - Boiler House (@ 10m) = 90 dBA LAeq, 105 dBC LCeq
  - Turbine Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
  - Entertainment Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
- **TIER 5 – Overnight (midnight – 7am)**
  - Boiler House (@ 10m) = 82 dBA LAeq, 100 dBC LCeq
  - Turbine Hall (@ 10m) = 85 dBA LAeq, 90 dBC LCeq
  - Entertainment Hall (@ 10m) = 90 dBA LAeq, 95 dBC LCeq

*Leq levels presented are conservative 5-minute averages

Figure 24: *Noise recommendations (NMP - Trinity)*

Note: A Noise Management Plan is not required for low-impact events.

7.4 During Occupation (i.e. holding public events)

The following mitigation measures are to be complied with during the operational period of the activity.

36. Heritage Conservation

Any changes to temporary or permanent building works during the course of individual events must be in consultation with PMNSW Design and Place (Heritage) team. All fit outs, temporary structures and installations are to be removed at the completion of the activity/event. No installation or fittings are to remain as permanent fixtures, unless explicitly approved by PMNSW.

37. Traffic Management

The approved TMP and any associated TGS endorsed by Council must be implemented during operational event days and traffic and pedestrian behaviour monitored to identify any issues so that the TMP can be amended to ensure the safety of people and minimise impacts on local traffic, including that of local residents, NSW Port Authority and Sydney Metro West.

38. Noise Management

The noise management plan must be adhered to at all times. Noise monitoring must be undertaken throughout the event for high impact events.

All noise compliance monitoring will be based on 5-minute averaged noise levels.

Noise complaints must be responded to immediately throughout the event. All results of the noise monitoring must be reported to PMNSW as part of the post event report.

39. Operation of Plant and Machinery

All plant and equipment used as part of the works including generators, must be maintained and operated in proper and efficient condition and comply with all Work, Health and Safety Legislation.

40. Pollution of Waters

The activity must remain compliant with Section 120 of the Protection of the Environment Operations Act 1997, which prohibits the pollution of waters.

41. External Lighting

All permanent outdoor lighting installed must be compliant with the Australian Standard AS 4282-1997 Control of the obtrusive effects of outdoor lighting.

41. Management of Weather Events and Stormwater Inundation

Where events propose the use of areas potentially impacted by short-term weather events and stormwater inundation, management must be consistent with PMNSW Flood Emergency Response Plan (sub-plan of the PMNSW Event Operational Readiness Framework). The following short-term flood measures are to be implemented as soon as feasible:

- Puddle drains in the lift pit, silicone sealing the kickplates at the base of the lift pit and emergency procedures in place for sandbagging water entry points;
- Preparation of sandbags and water filled barriers that can be easily placed at building entry points to minimise water ingress in the event of severe weather events; and
- Use of marquees or other temporary coverings for outdoor areas used during events, these could be setup such that water is redirected to nearest building awnings and therefore have a downpipe connection.

7.5 Post Event (i.e. after deinstallation)

42. Post Event Report

A Post Event Report must be prepared no later than 1 month after the last Bump Out Date(s) The Post Event Report must contain comprehensive details, including but not limited to:

- The number of registered and attending Invitees (supporting documentation is required);
- Any damage to any part of the Licensed Area, including any facilities or property and any steps that have been taken to rectify that damage;
- If required by PMNSW, a security and first aid report, which summarises any incidents that have occurred during the Event;
- An Event operational summary; and
- Any other matters that PMNSW instructs to be included in the report.

8 Appendices

Appendix 1: Site Drawings

Appendix 2: Heritage Management Framework

Appendix 3: Noise Impact Assessment and Management Plan

Appendix 4: Transport Management and Accessibility Plan

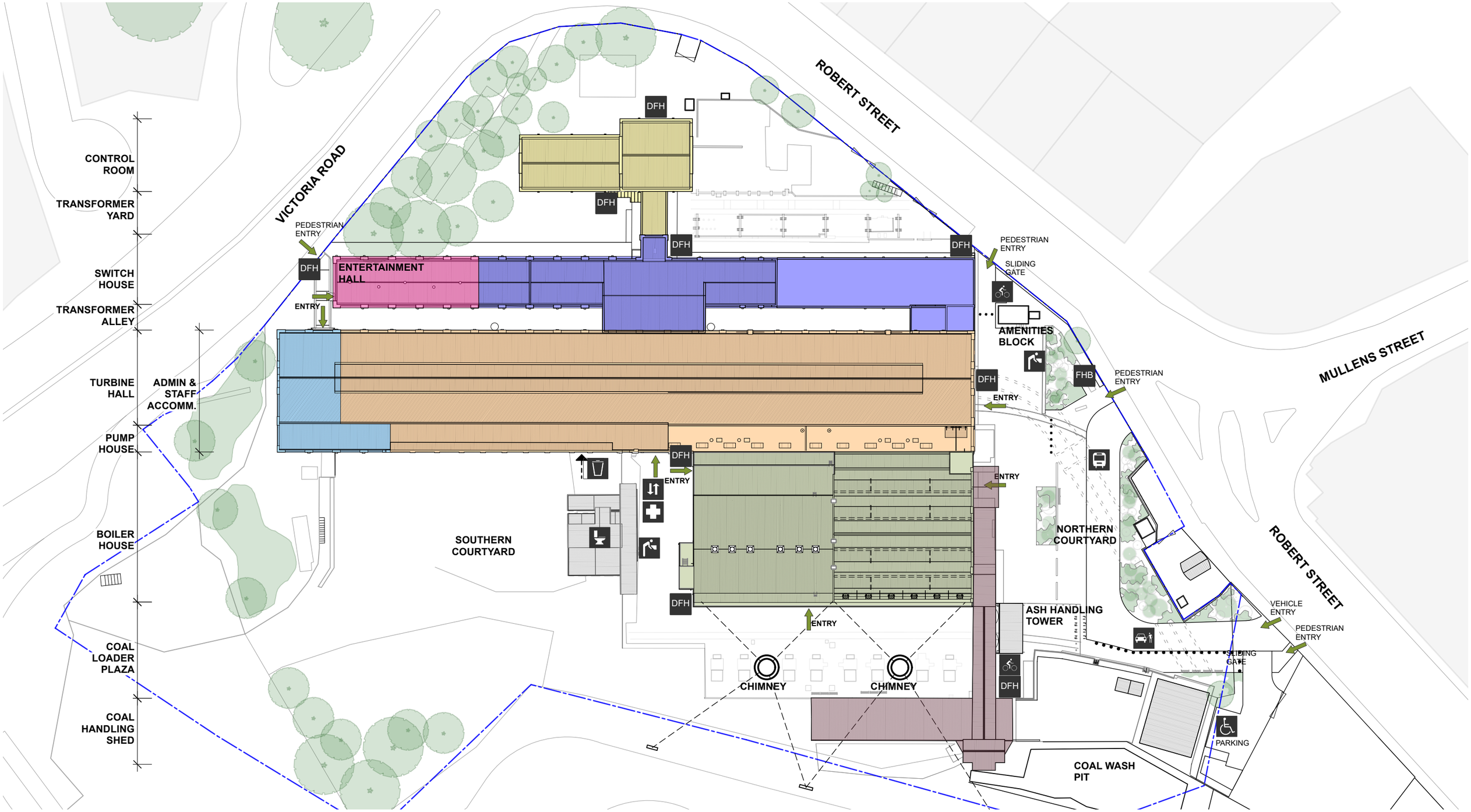
Appendix 5: S57 Record Keeping Form

Appendix 6: Schedule of Previous Part 5 Approvals for WBPS

The Planning Studio

APPENDIX A1

Site Drawings & Area Plan



KEY

- LIFT
- BICYCLE PARKING
- KISS AND RIDE
- ACCESSIBLE PARKING
- BIN ROOM
- FIRST AID ROOM
- TOILET
- WATER FOUNTAIN
- BUS STOP
- FHB — FIRE HYDRANT BOOSTER
- DFH — DUAL FIRE HYDRANT

GENERAL NOTES

- BASE DRAWINGS PREPARED BY OTHERS. DIMENSIONS AND LEVELS ARE APPROXIMATE AND SHOULD BE CONFIRMED ON SITE.
- LIFT CAR 2.1 x 2.6m, 3000KG
- AMENITIES AT SOUTHERN COURTYARD

WHITE BAY POWER STATION

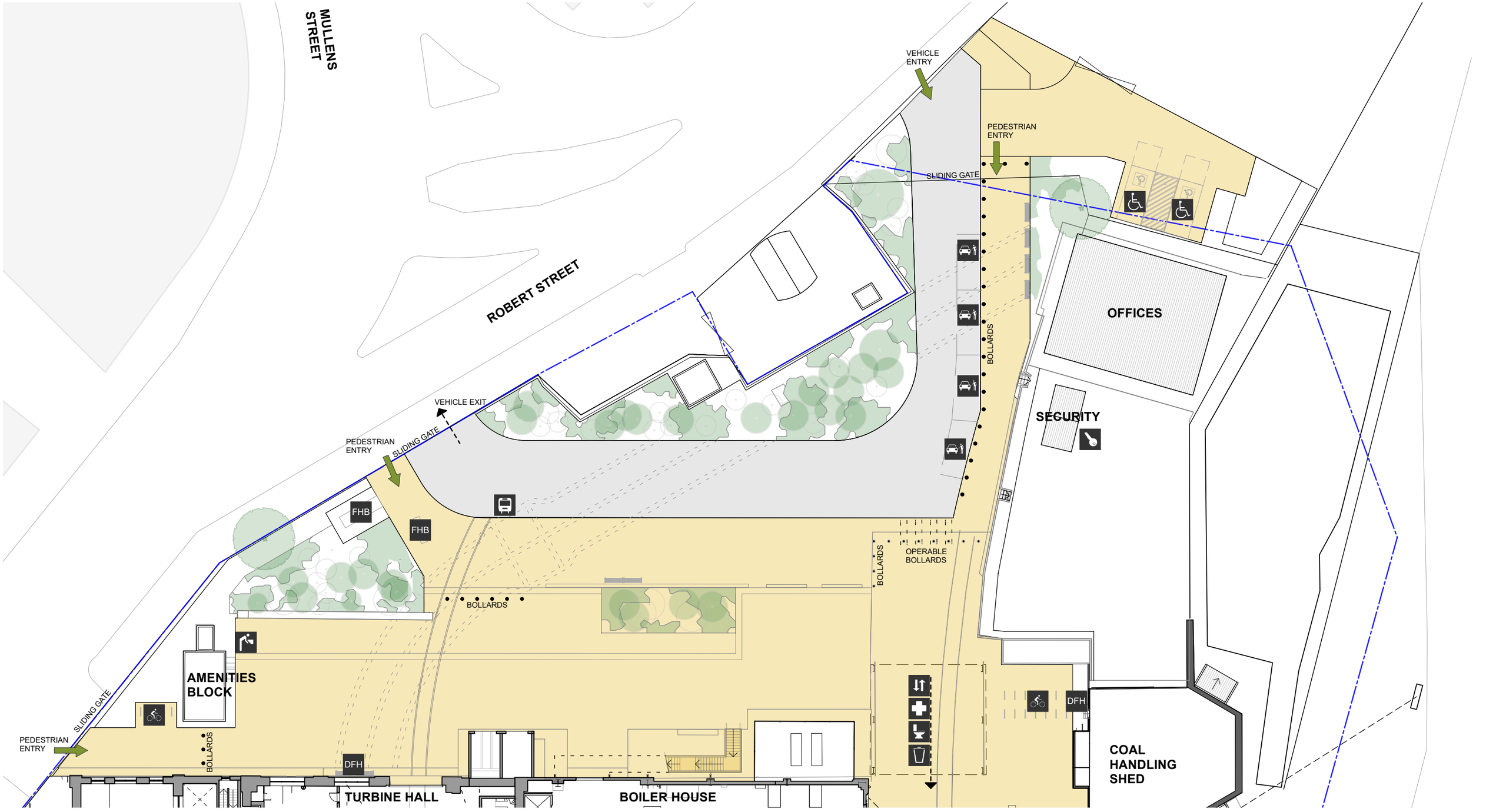
VENUE INFORMATION

DESIGN 5
ARCHITECTS

SITE

MAY 2024

0 2 5 10 15m



KEY

- BUS STOP
- BICYCLE PARKING
- KISS AND RIDE
- ACCESSIBLE PARKING
- FHB — FIRE HYDRANT BOOSTER
- DFH — DUAL FIRE HYDRANT
- LIFT
- FIRST AID ROOM
- TOILET
- WATER FOUNTAIN
- BIN ROOM
- ROLLER DOOR

GENERAL NOTES

- BASE DRAWINGS PREPARED BY OTHERS. DIMENSIONS AND LEVELS ARE APPROXIMATE AND SHOULD BE CONFIRMED ON SITE.
- LIFT CAR 2.1 x 2.6m, 3000KG
- AMENITIES AT SOUTHERN COURTYARD

WHITE BAY POWER STATION
VENUE INFORMATION

DESIGN 5
ARCHITECTS

SITE
NORTHERN COURTYARD

MAY 2024

0 1 5m

DFH
ENTRY
ENTRY
ENTRY
BOILER HOUSE
DFH
ENTRY
BIN TRUCK
FENCE
COAL LOADER PLAZA
TO NORTHERN COURTYARD
FENCE
NO PUBLIC ACCESS
SEAT
PLINTH
CHIMNEY
SEAT
PLINTH
SEAT
PLINTH
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SEAT
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PLINTH

KEY

- BUS STOP
- BICYCLE PARKING
- KISS AND RIDE
- ACCESSIBLE PARKING
- FHB FIRE HYDRANT BOOSTER
- DFH DUAL FIRE HYDRANT
- LIFT
- FIRST AID ROOM
- TOILET
- WATER FOUNTAIN
- BIN ROOM
- ROLLER DOOR
- SECURITY

GENERAL NOTES

- BASE DRAWINGS PREPARED BY OTHERS. DIMENSIONS AND LEVELS ARE APPROXIMATE AND SHOULD BE CONFIRMED ON SITE.
- LIFT CAR 2.1 x 2.6m, 3000KG
- AMENITIES AT SOUTHERN COURTYARD

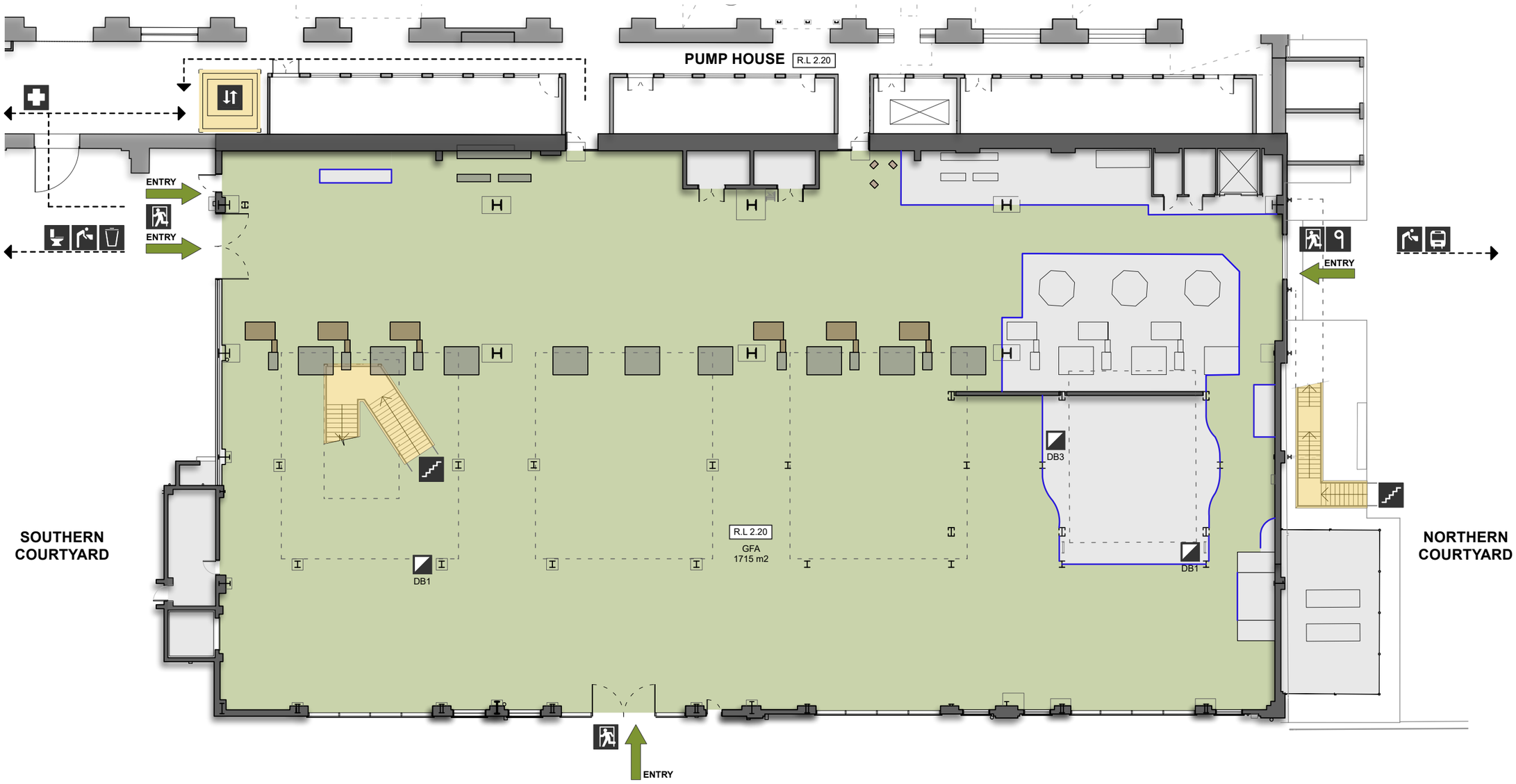
WHITE BAY POWER STATION
VENUE INFORMATION

DESIGN 5
ARCHITECTS

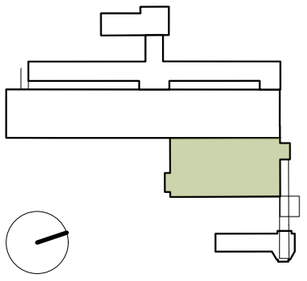
SITE
SOUTHERN COURTYARD

MAY 2024

0 1 5m



COAL HANDLING PLAZA



KEY

- BALUSTRADE / FENCING
- USABLE AREA
- NON-ACCESSIBLE AREA
- VERTICAL ACCESS
- BACK OF HOUSE AREA
- LIFT
- REQUIRED EXIT
- DISTRIBUTION BOARD
- PLINTH
- SEATS
- FIRST AID
- TOILET
- WATER FOUNTAIN
- BUS STOP
- ROLLER DOOR

ELECTRICAL

- DB1: 1 PHASE 6X10A GPO 1X15A GPO
- DB2: 1 PHASE 4X10A GPO
- DB3: 3 PHASE 6X10A GPO 1X15A GPO 1X32A 5 PIN

GENERAL NOTES

- NO PERMANENT FIXINGS OR MARKINGS
- ALL WORKS MUST BE REVERSIBLE
- ALL WORKS IN ACCORDANCE WITH CMP
- DO NOT COVER FIRE DETECTION AND EXIT SIGNS
- BASE DRAWINGS PREPARED BY OTHERS. DIMENSIONS AND LEVELS SHOULD BE CONFIRMED ON SITE.
- LIFT CAR 2.1 x 2.6m, 3000KG
- AMENITIES AT SOUTHERN COURTYARD

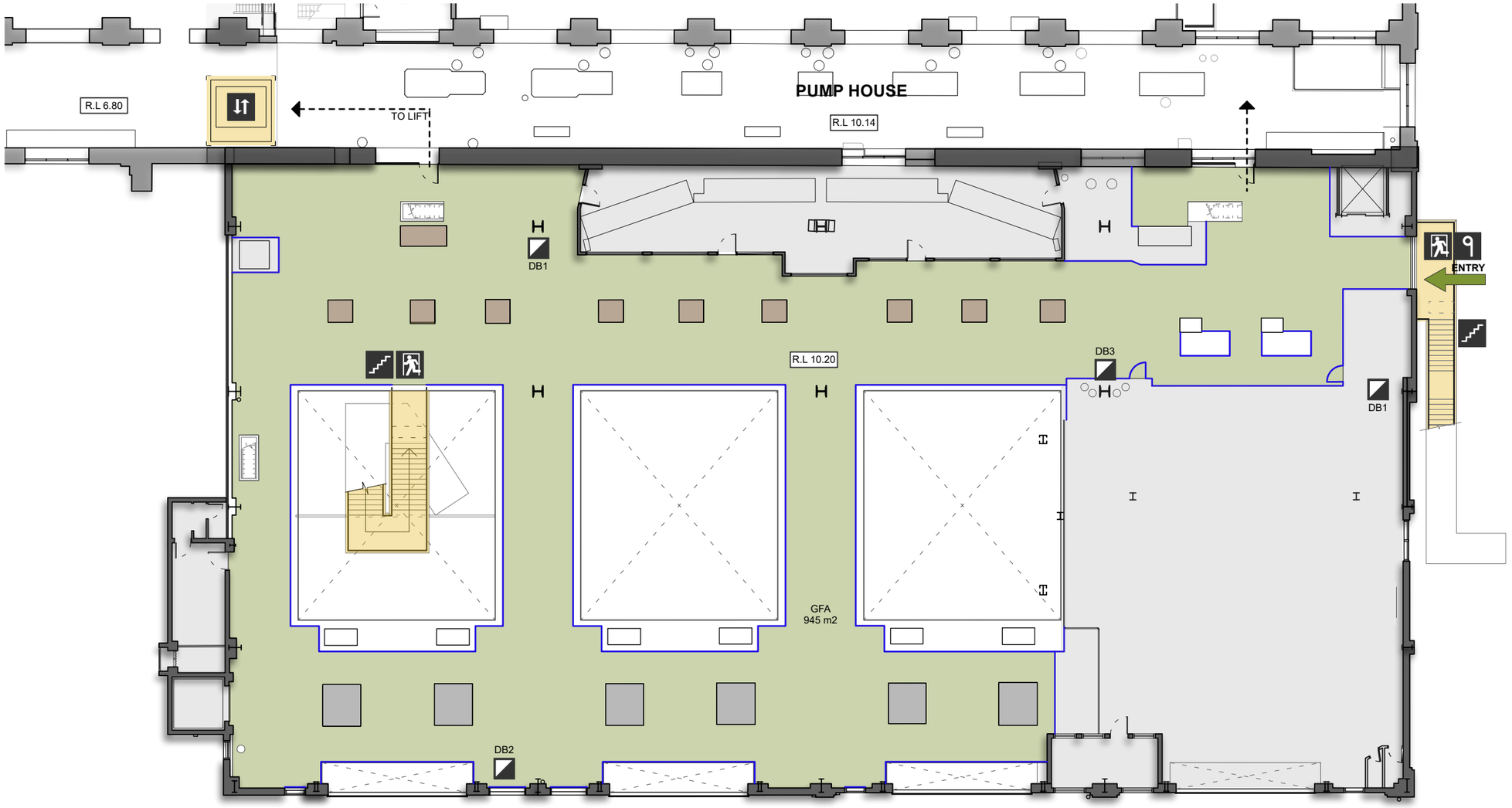
WHITE BAY POWER STATION
VENUE INFORMATION

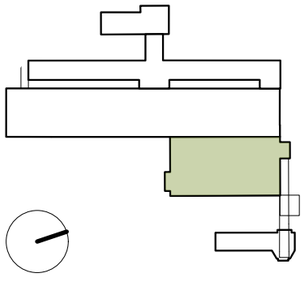
DESIGN 5
ARCHITECTS

BOILER HOUSE
GROUND FLOOR
AREA PLAN

MAY 2024

0 1 5m





KEY

- BALUSTRADE / FENCING
- USABLE AREA
- NON-ACCESSIBLE AREA
- VERTICAL ACCESS
- BACK OF HOUSE AREA
- LIFT
- REQUIRED EXIT
- DISTRIBUTION BOARD
- PLINTH
- SEATS
- FIRST AID
- TOILET
- WATER FOUNTAIN
- BUS STOP
- ROLLER DOOR

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WHITE BAY POWER STATION

VENUE INFORMATION

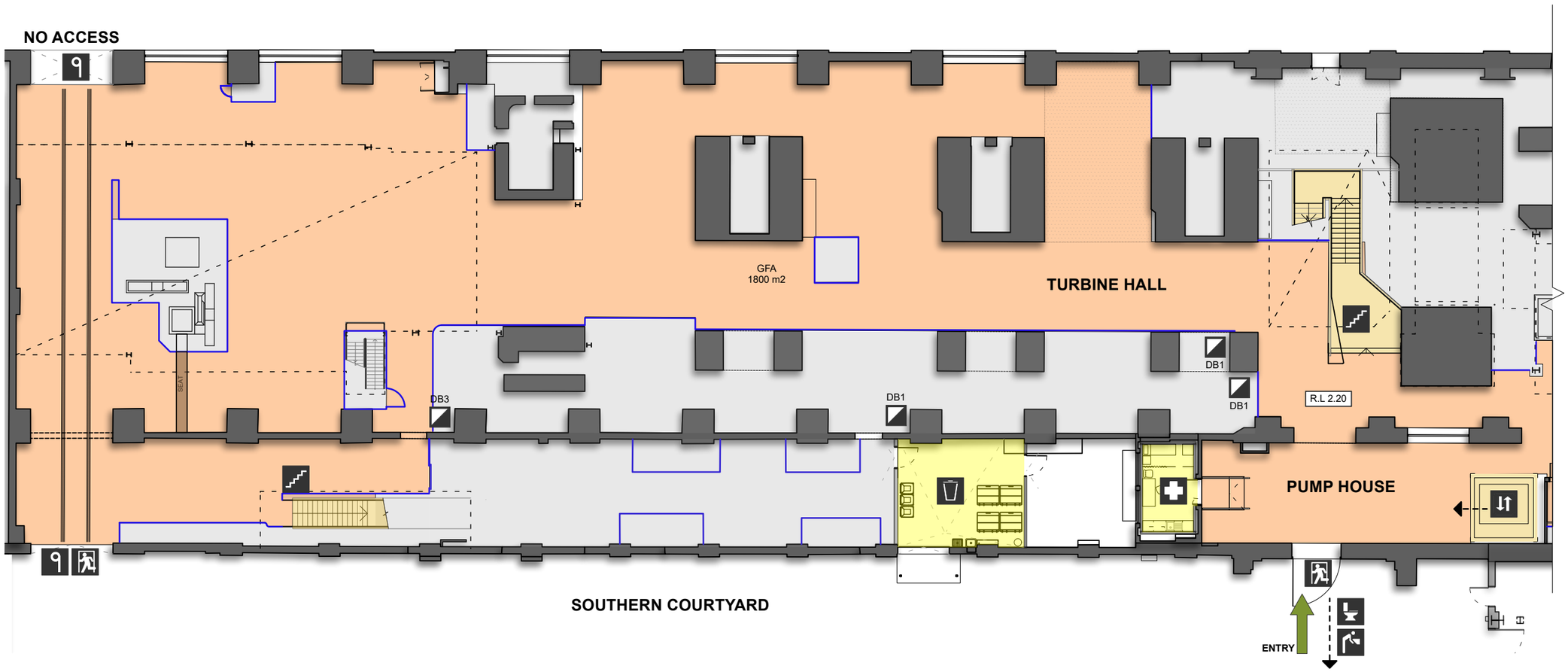
DESIGN 5
ARCHITECTS

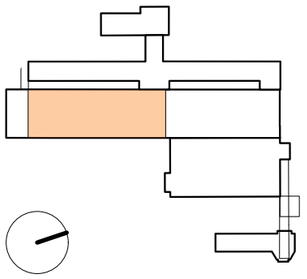
BOILER HOUSE

FIRST FLOOR
AREA PLAN

MAY 2024

0 1 5m





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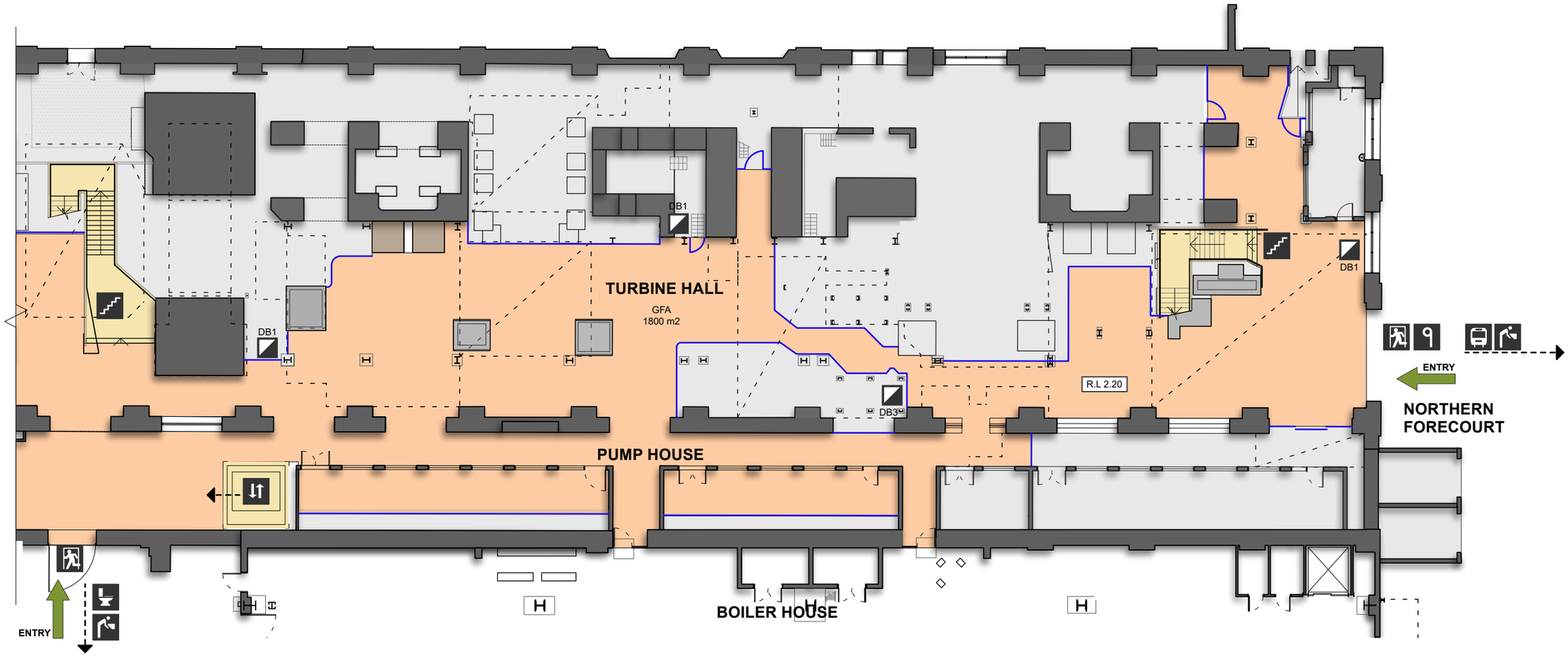
WHITE BAY POWER STATION
VENUE INFORMATION

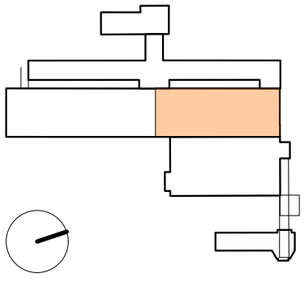
DESIGN 5
ARCHITECTS

TURBINE HALL / PUMP HOUSE
GROUND FLOOR - SOUTH
AREA PLAN

MAY 2024

0 1 5m





KEY

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- AMENITIES AT SOUTHERN COURTYARD

WHITE BAY POWER STATION

VENUE INFORMATION

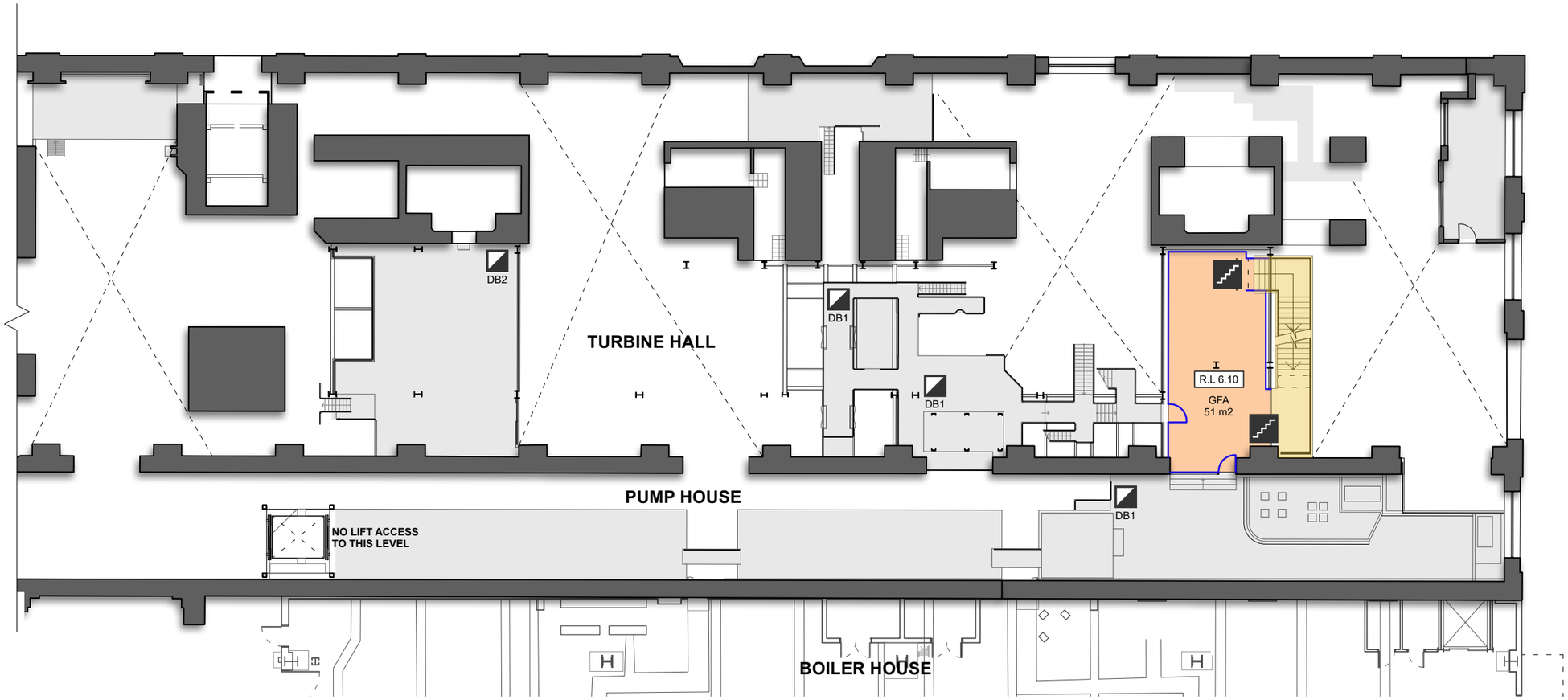
DESIGN 5
ARCHITECTS

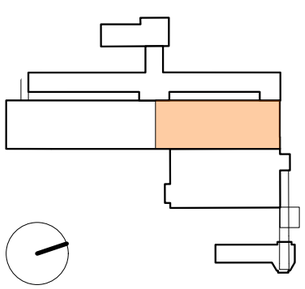
TURBINE HALL / PUMP HOUSE

GROUND FLOOR - NORTH
AREA PLAN

MAY 2024

0 1 5m





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- AMENITIES AT SOUTHERN COURTYARD

WHITE BAY POWER STATION
VENUE INFORMATION

DESIGN 5
ARCHITECTS

TURBINE HALL / PUMP HOUSE
MEZZANINE LEVEL
AREA PLAN

MAY 2024

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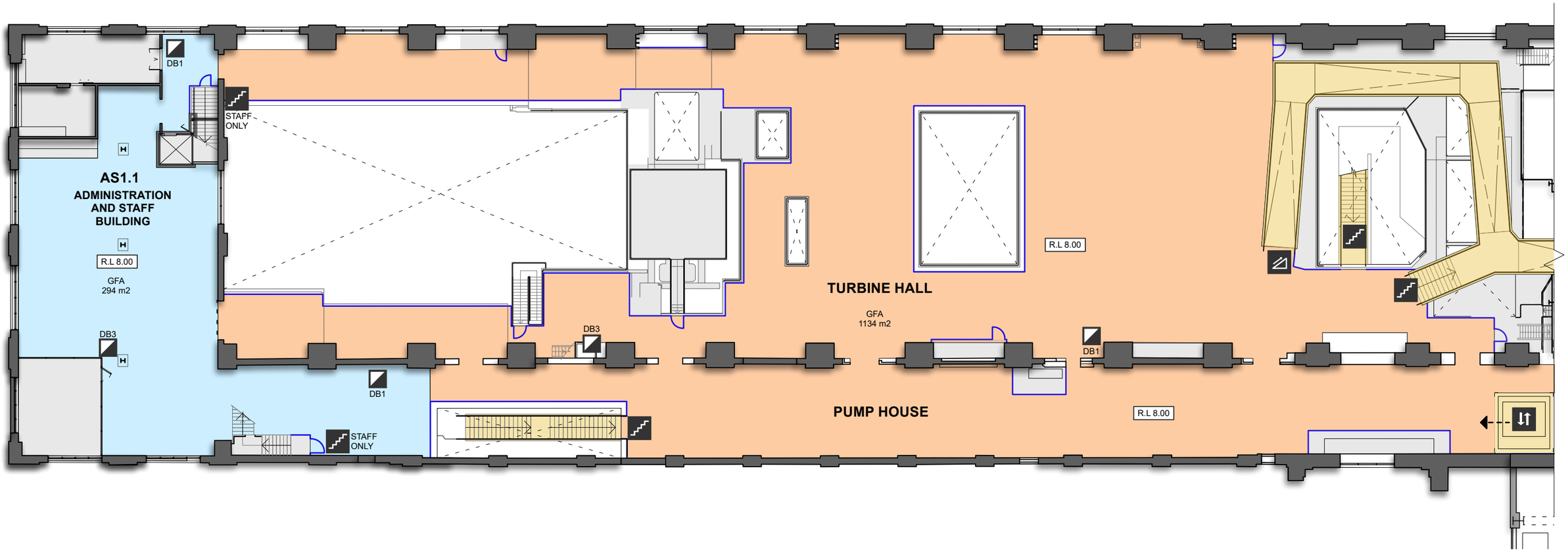

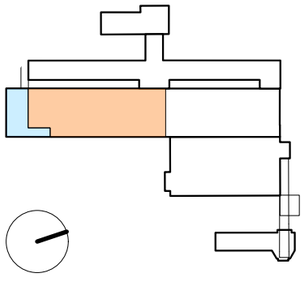

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- AMENITIES AT SOUTHERN COURTYARD

WHITE BAY POWER STATION

VENUE INFORMATION

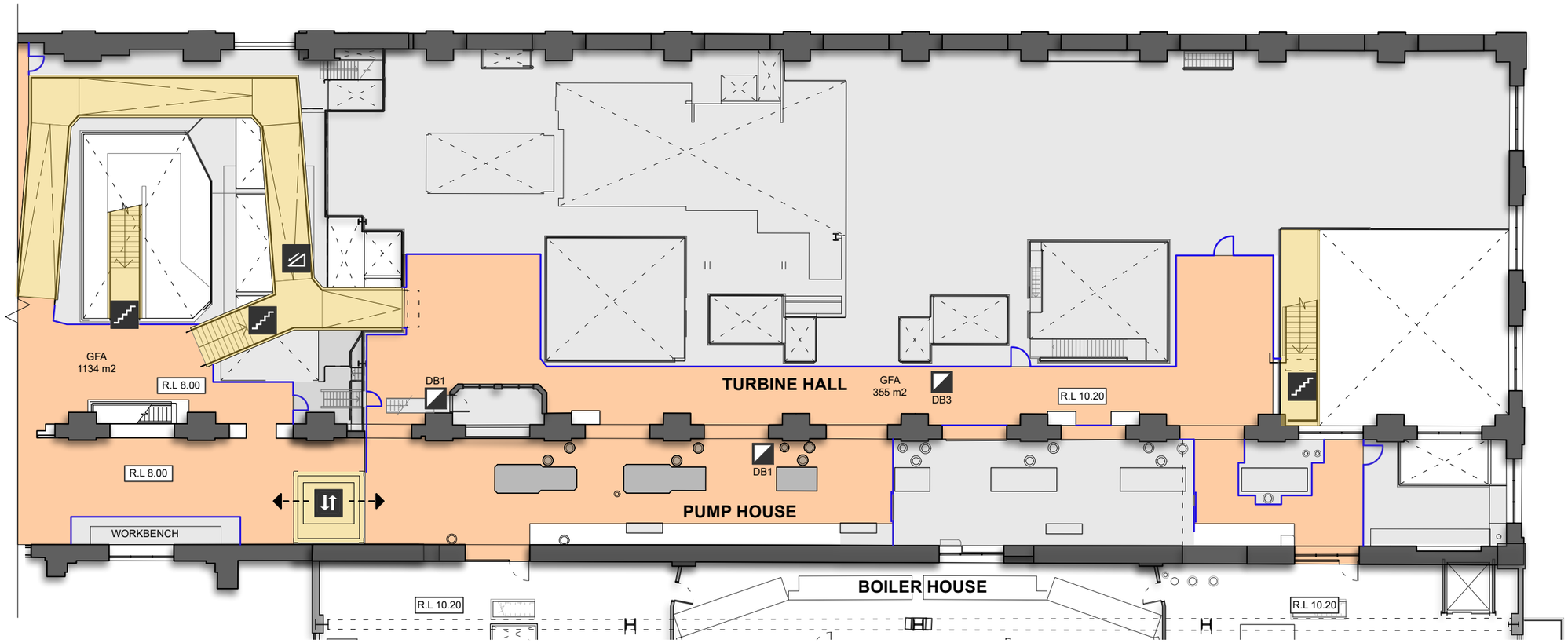
DESIGN 5
ARCHITECTS

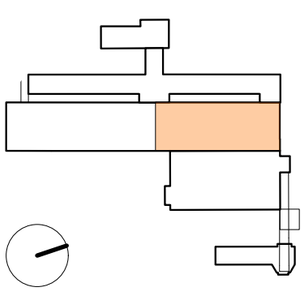
TURBINE HALL / PUMP HOUSE

LEVEL 1, ADMIN BUILDING LEVEL 1
AREA PLAN

MAY 2024

0 1 5m





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WHITE BAY POWER STATION
VENUE INFORMATION

DESIGN 5
ARCHITECTS

TURBINE HALL / PUMP HOUSE
LEVEL 1 & 2
AREA PLAN

MAY 2024

0 1 5m

The Planning Studio

APPENDIX A2

Heritage Management Framework

DESIGN 5

A R C H I T E C T S

WHITE BAY POWER STATION
OUTLINE HERITAGE MANAGEMENT FRAMEWORK

25 June 2024

A Heritage Management Framework is to be developed as a supplement to the Conservation Management Plan (CMP) and provide specific information for the temporary reuse of the White Bay Power Station. The following is an outline of the Heritage Management Framework, which may be subject to further refinement.

1. INTRODUCTION

1.1 Purpose

Purpose of the document and who should use it. (e.g. the document is set up to help users understand the significance of the place and how to conduct uses that will retain and protect that significance. It should also provide awareness of other heritage management documents, including the Conservation Management Plan, and detail obligations for heritage approval under the Heritage Act).

1.2 Objectives:

Objectives of the Heritage Management Framework:

- Provide guidelines that support the WBPS being used as a vibrant, world-class cultural facility that will accommodate a range of uses and events.
- Retain and protect the heritage significance of WBPS and ensure that it is interpreted appropriately.
- Promote the White Bay Power Station to the public. Ensure that it retains a high level of public accessibility and inclusivity.
- Guide on typical heritage issues that must be considered for any proposed use.

1.3 Why Conserve

The following definition is quoted from *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance,2013*:

> *Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.*
>
> *These places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity*

2. DESCRIPTION AND SIGNIFICANCE OF WHITE BAY POWER STATION

2.1 Brief Description of the place

Brief description of buildings, machinery, and spaces

2.2 The Conservation Management Plan.

Identify the Conservation Management and quote the Statement of Significance.

3. APPROVALS AND MANAGEMENT

3.1 Heritage Act 1977

Guidance for typical work that will require approval:

- Section 57(2) Site-specific exemptions
- Section 60 applications.

This section will need to guide the process for applying for exemption. Relevant information may include pre-lodgement advice, the appropriate form that will need to be completed, the type of information that will need to be attached, who to send the application to, and how much time PMNSW will need to assess or comment. Any application for exemption will need to allow sufficient time to address any questions, comments or requested changes from PMNSWs.

3.2 Landowners Consent

Requirement and process for Landowners' Consent for works (PMNSW to input).

Outline the process for reporting damage and safety issues. Examples of what might be considered a reportable issue include broken glass, hanging objects, damage to heritage fabric or any other safety issue.

4. HERITAGE CONSIDERATIONS

4.1 Proposed use and uses:

- Outline the key heritage principles that proposed uses should consider.
- Practical examples of do's and don'ts.
- Reference relevant CMP clauses, including Conservation Policy and Tolerance for Change.

4.2 Public access:

- Detail aims for public access and interpretation.

4.3 Temporary structures

- Outline examples of what temporary structures may include
- Detail principals for heritage structures with relation to fabric, e.g. must be reversible and not make permanent changes.
- Any considerations regarding spatial consideration and significance.
- Provide details on any practical considerations regarding structure, servicing, etc.
- Provide generic drawings and details showing how to attach to existing fabric.

4.4 Permanent Changes

- Under what circumstances may permanent changes be considered, and what processes will be needed to make permanent changes?
- Reference relevant CMP clauses, including Conservation Policy and Tolerance for Change.
- Detail other considerations that should be made and time needed to assess. Reference to the earlier Section 3.

4.5 Services

- Guide what services are available, how to search for information on services and who to contact for advice or information.
- Detail considerations if new services are proposed.

- Provide practical examples of do's and don'ts, such as reticulation, service routes, penetrations, and fixings.
- Reference to relevant CMP policy, for example, feature lighting,

4.6 Moveable heritage

- Define what moveable heritage is and where it is located.
- Define what controls are for moveable heritage and the procedure for relocating it.

4.7 Floors:

- Detail on the different types of floors at White Bay Power Station and the limitations of each.
- Outline key practical considerations for floors, fragility and care.
- Provide details on whether and where movement of vehicles may be permitted.

4.8 Signage and Advertising

- Detail different forms of signage (original signage, wayfinding, advertising, statutory, interpretive).
- What forms of signage will require approval?
- Reference to relevant policies in the CMP.
- Reference to any other standards or guideline documents established by PMSW for the White Bay Power Station. For example, this may include a signage strategy or graphics and image guidelines that detail acceptable graphic language, font, colours, images, etc.
- Are there any other considerations? For example, statutory considerations

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APPENDIX A3

Noise Impact Assessment and Management Plan

WHITE BAY POWER STATION

Review of Environmental Factors

Events - Noise Impact Assessment and Management Plan

Placemaking NSW

Date
15 July 2024

Report
247401.0040.R01V04.1

DOCUMENT CONTROL

Prepared by: Trinity Consultants Australia
ABN 62 630 202 201
A: Level 3, 43 Peel Street
South Brisbane, QLD 4101
T: +61 7 3255 3355
E: brisbane@trinityconsultants.com

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247401.0040.R01V04.1	15/07/2024	Minor edits	Beau Weyers Wan Mior	Samuel Wong

Document Approval	
Approver Signature	
Name	Beau Weyers
Title	Senior Acoustic Engineer

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1. INTRODUCTION

1.1 Overview

Trinity Consultants Australia (Trinity) has been contracted by Placemaking NSW (PMNSW) to provide a Noise Impact Assessment and Management Plan (NMP) for the operation of events within the White Bay Power Station (WBPS), Rozelle. Specifically, this NMP includes an assessment of noise impacts to the surrounding area and covers routine activities as well major concert events involving a greater level of amplification and site activity.

This document is to form part of the Review of Environmental Factors (REF). The REF has been prepared by The Planning Studio NSW Pty Ltd on behalf of Placemaking NSW (PMNSW) to assess the potential environmental impacts that could arise from a range of differing events and activations and supporting works associated with the White Bay Power Station between 2024 and a decision being made on the final use of the WBPS.

With regards to acoustics, the REF (as informed by this document), seeks to:

- Review potential noise and vibration impacts.
- Provide guidance on suitable operating conditions to fulfil the requirements of relevant guidelines and Acts.
- Evaluate the venue and opportunities in the context of minimising the potential impact on surrounding sensitive land uses, while remaining enjoyable for the participants.
- Provide a framework to maintain compliance with the regulatory requirements for routine and special event operations, including outdoor music concert performance/s.

1.2 White Bay Power Station

The heritage listed WBPS is a former coal-fired power station that was closed down in the 1980s. The site is a state listed Heritage item and subject to a Conservation Management Plan. The venue has recently undergone a significant restoration (remediation and conservation work) in preparation for its future use as an arts, cultural and community hub. In February 2024 'The Biennale of Sydney 2024' was the first significant event to be held at the venue, and this document provides guidance for future users of the venue, building on the experience gained.

The proposed activity includes temporary uses, events, and activations within the WBPS as a cultural and community space until the opening of the Bays West Metro site (likely 2032). This also includes building works to support the activities and uses taking place.

In summary, the key event categories that PMNSW will be undertaking in the WBPS are summarised below:

- Arts and Cultural partnerships with PMNSW that will run over a number of weeks;
- Ticketed events that are of an artistic or cultural nature;
- Commercial Filming;
- PMNSW, community or local events and activations (e.g. local markets, entertainment, open days, rehearsal spaces, maker spaces);
- Occasional private hire for events, workshops, conferences or educational programs;
- Ongoing use of parts of the administration building for PMNSW staff to use as a workspace and back of house for event management; and
- A broad range of other events and activations that allow public access and adaptive reuse of the WBPS.

A detailed description of each of the event categories is outlined in the REF. Further details of the WBPS site is provided in **Section 2**.

1.3 Purpose of Noise Management Plan

In order to minimise the potential for sound amplification and activities associated with the various proposed uses and activation, consideration of applicable regulatory guidelines pertaining to general commercial and entertainment activities have been considered, including guidance provided in the following documents:

- NSW Environmental Protection Authority
- Noise Guide for Local Government
- Inner West Council (including the 'Special Entertainment Precinct Management Plan')

This noise impact assessment and Noise Management Plan (NMP) has been prepared by a suitably qualified acoustic consultant in order to manage and minimise the potential nuisance effects of noise arising from the potential uses, considering the location, size, timing, and type of activities. In addition, review has been undertaken of the location and orientation of any temporary external sound system (outdoor concert, as a worst case scenario) and the frequency and timing of use.

The noise impact assessment and management plan have been prepared to provide a framework of review and management methodologies to achieve compliance with the intent of the above regulations.

Included in the assessment (which utilises computational noise modelling) is consideration of the building screening and material transmission loss characteristics (noting that some assumptions have been made on their likely performance). Testing during activations, or investigation of the various areas may yield greater accuracy for any future uses of the facility.

Further to noise emission considerations, it is noted there is potential for material renovation and fit for purpose fit-out to the various areas of the WBPS. To aid in the endeavour of improving the noise characteristics for patrons, neighbours, and overlapping operations, **Sections 7.4**, as well as **Appendix C** provide discussion of acoustic design items for consideration, and suggestions on methods to improve the acoustic performance of the internal spaces within the venue.

Other minor sources of noise such as mechanical plant, transport, generators[1], and minor operators (food vendors) have been excluded from detailed consideration as they are unlikely to be a major contributor off-site given the nature of the surrounding environment.

The overall purpose of the NMP is to minimise noise, having regard to the acceptable limits generally provided in the reference documentation for routine and temporary event permits, and thereby minimise disturbance of residents and other noise sensitive receivers from the sound amplification proposed at White Bay Power Station.

1.4 Overarching Management Implementation

This NMP presents a comprehensive framework for management of noise, and the evaluation of event feasibility. The following are the overarching management techniques which will be implemented during use of the venue.

- A noise propagation test is recommended at the outset of new noise generating installations e.g. during 'sound checks', especially for use of outdoor stage or for high volume internal activities (e.g. concert) to confirm/ascertain the maximum operable noise levels at the mixing position, whilst remaining compliant with the conditions at the nearest residential premises.
  - Event operators should employ a sound engineer to be responsible for the regular monitoring and control of noise levels during these styles of event.
- Records of monitoring and any action taken, to maintain or achieve compliance, will be maintained and made available during review of operations, and to the regulators for inspection during the event. Records

[1] The proposed generators for the outdoor stage activation and food trucks have been identified as far quieter than the crowd and amplification and unlikely to contribute to noise off-site if located as designated in the plans.

should be maintained for a period of 3-years, and be available, if requested, to the regulators following the event.

- It is generally advised for major amplification sources to be oriented to face away from sensitive landuses (including doors or windows facing these uses), and favouring orientations with maximum distance to sensitive landuses.
  - It is noted that for the outdoor stage activations, suitable location to allow operations, access, egress, and safety need to be considered in conjunction with this advice.
- Unique activations will require preparations of a Noise Impact Assessment to demonstrate their ability to comply with the overarching noise goals and intents of this Noise Management Plan.
- It is noted that the residents to the west across Victoria Road present the nearest sensitive recievers, however, during heavy traffic periods amplification from the venue will be unlikely to exceed the level of traffic noise (except for major concert volume activations). However, as traffic reduces in the evening, the noise from the venue, including nearest buildings (Turbine Hall and Entertainment Hall) may become a dominant noise, and operational volumes and management should factor in these nearest sensitive areas.
- The site should operate any installations / events with a publicly accessible event hotline (provide mobile phone contact details) and be contactable at all times during operation, including the bump in/bump out period. The event hotline number should be distributed to the neighbouring area, e.g. via a routine community notification letter, and dedicated website page of upcoming events. A log of all calls are to be kept and made available to the regulators on request.
- Event operators will be responsible for maintaining control of noise levels so that activities and events meets the recommendations of the NMP.
- It is recommended that the Noise Management Plan is reviewed annually to consider any reasonable updates, based on the learnings of the previous years activations.

Full details of the recommended noise management methodology are provided in **Section 5** and operational controls described in **Section 6**. A noise monitoring guide is provided in **Appendix B**.

2. WHITE BAY POWER STATION

2.1 Site Description

The WBPS includes a number of buildings and areas suitable for hosting events and activities, including the following areas depicted in **Figure 2.1** to **Figure 2.4**.

- External Concert Stage (Southern Courtyard and Coal Loader Plaza)
- Boiler House
- Turbine Hall
- Administration Building
- Switch House
- Entertainment Hall
- A variety of other spaces throughout the buildings that could be used for a range of activities such as tours, makers spaces and community uses

The areas with the most potential to host noise generating activities have been assessed in this report. Further details of these areas are discussed in **Section 2.2**.

Figure 2.1: White Bay Power Station Venue information – Site Plan (Design 5 Architects)

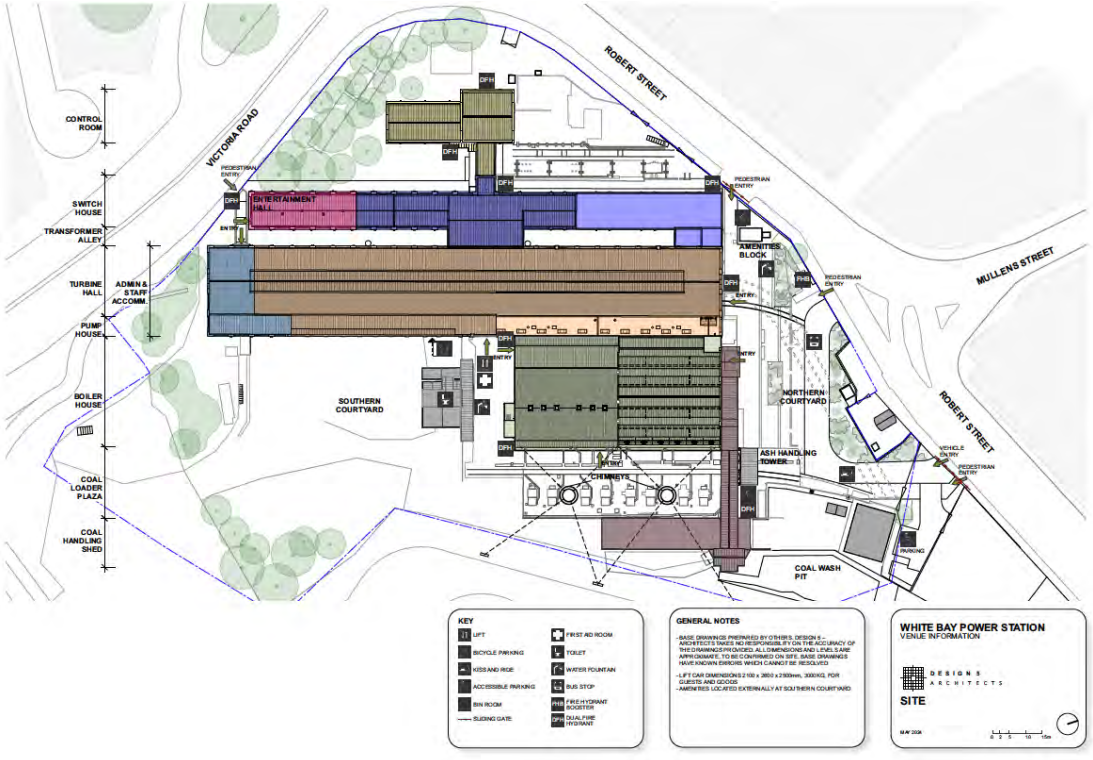


Figure 2.2: White Bay Power Station Venue information – Ground Floor (Design 5 Architects)

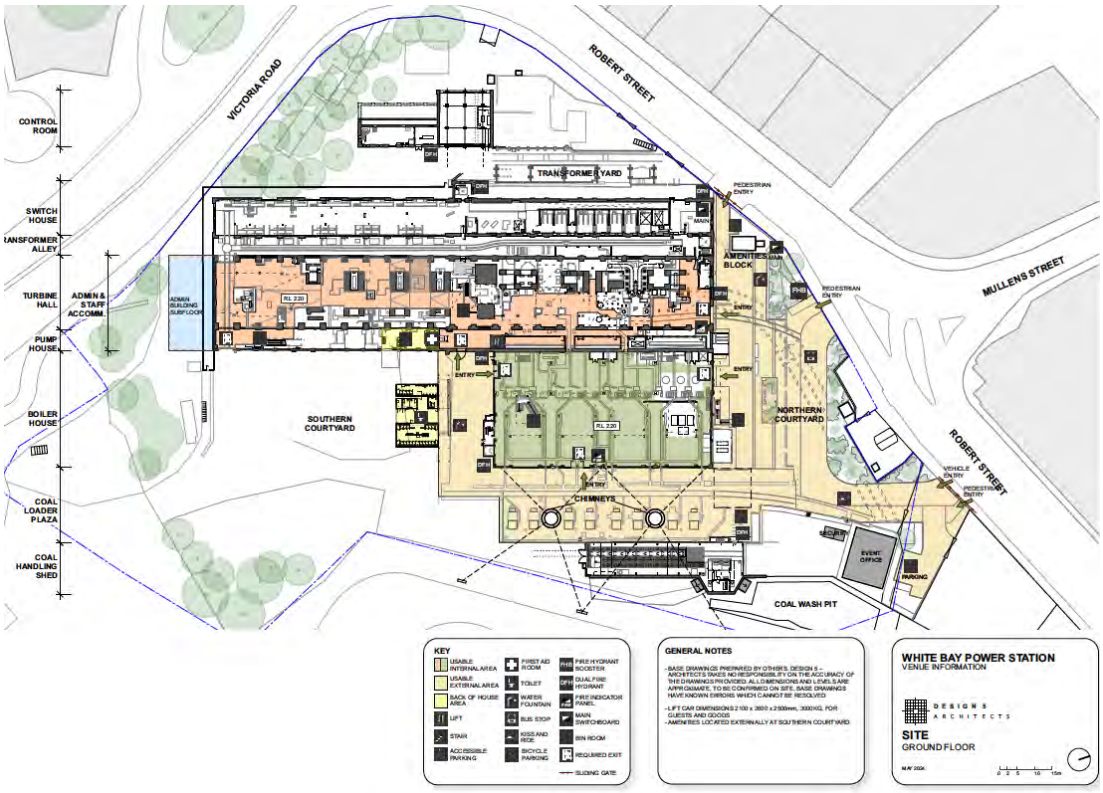


Figure 2.3: White Bay Power Station Venue information – Level 1 and 2 (Design 5 Architects)

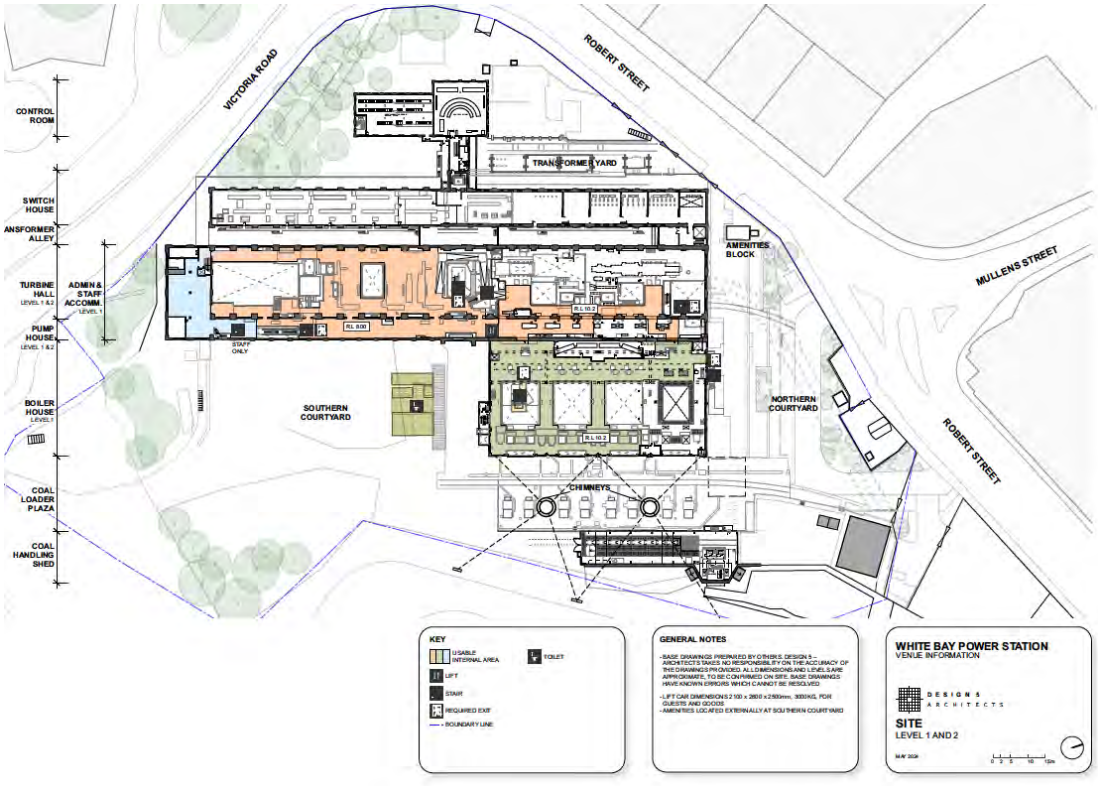
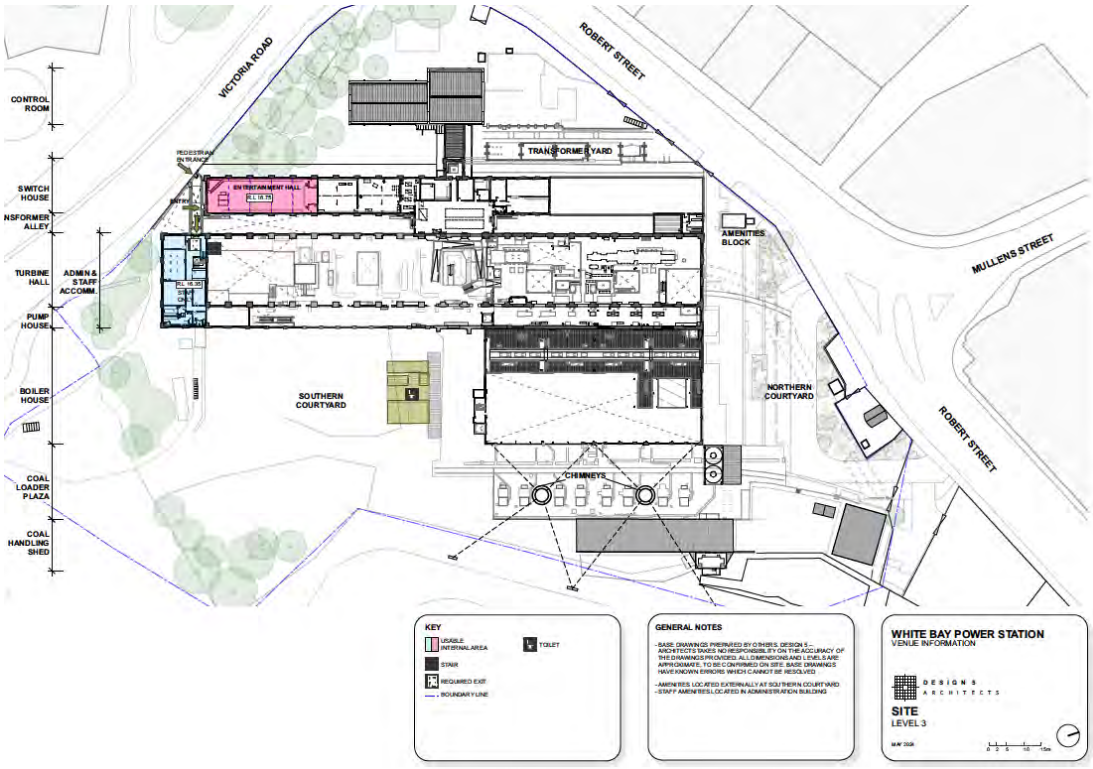


Figure 2.4: White Bay Power Station Venue information – Level 3 (Design 5 Architects)



2.2 Venue Activation Areas

Section 1.2.1 outlines the areas within the three main buildings which may be utilised for various activations. Further to these internal areas, events with an 'Outdoor Stage' may be undertaken from time to time.

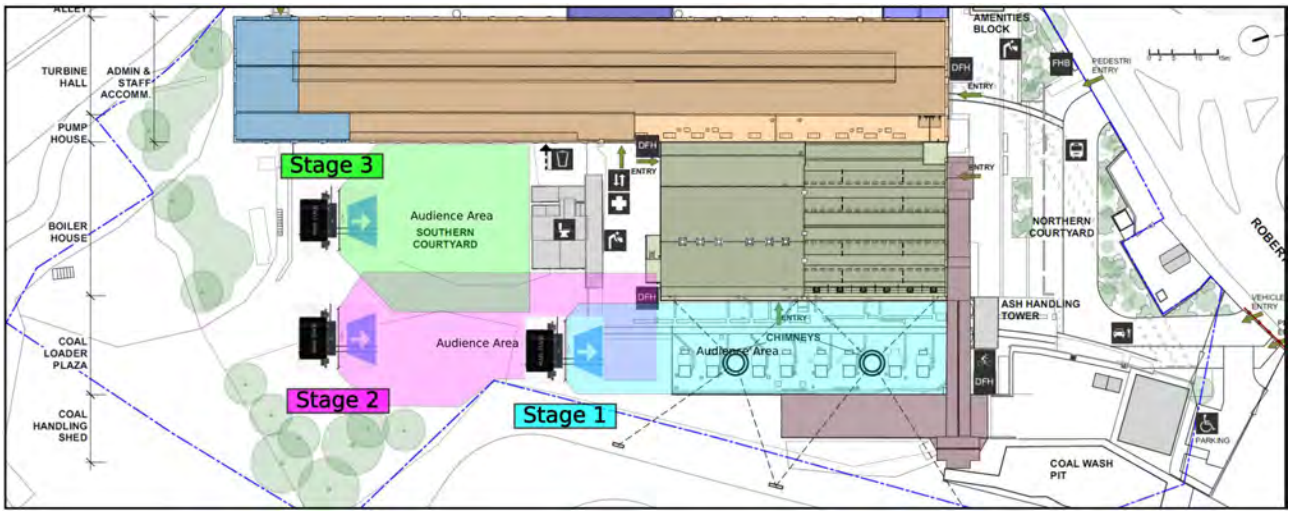
The main activation areas where sources of significant noise may occur (including patrons) include:

1. ***Turbine Hall*** - installations to Ground Floor
2. ***Turbine Hall*** - installations to First Floor (with cavity extending up to third floor)
3. ***Administration Building*** - installations to First floor
4. ***Boiler House*** - installations to Ground Floor
5. ***Boiler House*** - installations to First Floor (with cavity extending up to fourth floor)
6. ***Entertainment Hall*** - installations to the Third floor area.
7. ***Outdoor Stage*** with PA system generally proposed to be located in the Southern Courtyard Area, and oriented to the north or north-west (away from the nearest residents to the west, and screened by the Boiler House and Turbine Hall. Food trucks, power and refrigeration would all be located within this area (**Figure 1.1**).

Each of the defined areas are proposed to be useable in a variety of ways as described in **Section 2.2**.

Figure 2.5 presents the likely Outdoor Stage locations (not to be used concurrently), which have been reviewed as part of this NMP.

Figure 2.5: Potential Outdoor Stage Locations



Note: Stage Location 1 was utilised during the opening night event of Biennale 2024 'Lights On!' activation

Outdoor concert activations will involve the installation of an outdoor stage, PA system and potentially scaled-up food and beverage operations. The capacity of these key events will be up to 4,450 people at any one-time.

Timing for the amplification of these events vary by day of the week, and consideration on the size, scale and frequency of the events (discussed in **Section 2.4**).

The Biennale 2024, 'Lights On!' opening night event was located in this area on March 8, 2024, with full compliance with the adopted noise limits measured throughout the activation.

2.3 Proposed Uses and Considerations for Noise

Table 2.1 presents the overarching uses proposed for the various areas of the WBPS and identifies how the proposed uses may be affected by noise criteria. Standard operating limitations have been provided.

Further to this information, a preliminary overarching scope regarding potential mitigation and control methods is presented below, and elaborated further in **Sections 7.4**, as well as **Appendix C**. Some preliminary design considerations based on the scope of activities proposed, and mitigation and management measures considered include:

- Focus noise internally and away from openings or weak points (windows), and potentially the ceiling/roof.
  - Keeping a register of lessons learned from each event/installation will assist in identifying optimal locations and orientations to minimise noise emissions for subsequent events.
- Preferably use distributed speaker systems rather than 1 system trying to cover a large area.
- Install absorbers to the spaces to reduce reverberation and improve quality of noise, which can reduce the desire of operators to increase the volume for audibility.
- Improve thin façade density, which may be especially relevant to the roof/ceiling
- Consideration of air-lock entries to reduce noise escaping via entry doors (e.g. the Entertainment Hall).
- Noise volume 'Limiters' and shifting volume settings for time of day/night.
- Comprehensive notifications prior to major noise generating activities, or activities extending into the 'sleep hours'.
- Information or signage to patrons, as patron noise and traffic behaviour departing the venue can also cause noise issues, which includes shouting, cheering, car horns and engine revving.

Table 2.1: Proposed Uses and Noise Considerations

	Patrons	Operational Hours	Noise Criteria Considerations
Day-to-day community uses / school uses	Maximum permitted by space	Standard Operating Hours (**Section 2.4**)	Would operate under criteria comparable to operating 7 days. Not a unique or special event that generates unacceptable noise therefore no noise considerations required.
Arts/Cultural partnerships	Capacity of 3,200 patrons ground floor and 1,250 patrons on first floor	Any time of day (overnight night activations 11pm – 7am are recommended for internal operations only) Late night events for Thurs-Saturday potentially until midnight Otherwise Standard Operating Hours (**Section 2.4**)	Commercial and industrial noise legislation, and historic entertainment legislation operated on a 10pm – 7am 'night/sleep' period. Changes to entertainment laws in recent years have allowances for later conclusion of noisy activities Thursday/Friday/Saturday night (discussed in **Section 3.1**)
Filming	Maximum permitted by space	24 hours a day subject to agreement	It is desired for industry and commercial uses to be generally inaudible during sleeping hours. However, it is noted that the level of noise generated by these short duration and occasional activities are unlikely to be greater than those experienced due to the Bays West Metro Station construction activities, nor add to any cumulative impacts provided the filming is inside and a Film Management Plan prepared for approval by PMNSW.
Large-scale ticketed events	Capacity of 3,200 patrons ground floor and 1,250 patrons on first floor.	24 hours for a full one day event with bump-in and out set around performance finish, or the following day as approved by PMNSW Performances to finish at the latest 12 midnight Friday/Saturday and earlier other nights	Commercial and industrial noise legislation, and historic entertainment legislation operated on a 10pm – 7am 'night/sleep' period. Changes to entertainment laws in recent years have allowances for later conclusion of noisy activities Thursday/Friday/Saturday night (discussed in **Section 3.1**) Comprehensive notification to potentially affected residents may be required regarding recent trends toward post 10pm operational times Thursday - Sunday. Dance parties likely to involve high volume low frequency will need effective management plans including consideration of orientation, on site monitoring, limiters etc. Events to be programmed in a way that is sensitive to and does not have ongoing and concurrent significant impacts to neighbours. (Tier 1 and 2, as per **Section 3.2.3**). These shouldn't occur more than 2 consecutive nights in a week.
Private hire (day/evening events)	Maximum permitted by space	Events/dinners etc to finish latest 12 midnight Friday/Saturday (or wholly indoors activities after midnight), earlier other nights	A volume 'adjustment' may be required for events continuing into the night period (discussed in **Section 3.2.3**) Solutions to addressing transport/patron noise externally are discussed in **Section 8.3**.
Community events (open days/free public events/ markets/cinema)	Capacity of 3,200 patrons ground floor and 1,250 patrons on first floor.	Standard Operating Hours (**Section 2.4**)	Fixed volume limits for these activations are expected based on their location and orientation.

2.4 Operational Times

2.4.1 Overview

In line with the vision for the WBPS to become part of a 'Special Entertainment Precinct' and in order to support the NSW Government 24 hour Economy vision "to build vibrant, diverse, inclusive and safe hospitality and entertainment precincts" the WBPS precinct will be operated in a way that supports a 24/7 venue.

However, the general operating hours of individual activations (except commercial filming) at the White Bay Power Station will be as follows:

a. 7.00am until 11.00pm Sunday to Thursday or until midnight on Fridays, Saturdays or the night before a public holiday, except New Year's Eve (when the use may occur until 2.00am the following day).

b. Indoor events or activations can apply for extended hours provided they meet the noise criteria set out in **Section 3.2**.

c. Category 1 Traffic generating events must avoid arrival and departure times during the AM and PM peak hours Monday to Friday (see Section 6.3 of the REF).

d. Set-up time/bump in for the use must not start earlier than 6.00 am, or end after 11pm, on any day.

e. Clean up time / bump out for the use must end no later than 2 hours after the use was to stop occurring; or 8am to 10pm if bump out is to occur the day following an event.

Events or activations seeking to operate, or bump in or out, outside of these hours must submit an event, noise and traffic management plan/s that demonstrates minimal impact on surrounding residents, businesses or other sensitive receivers. The event plan must include how they will notify the community and provide a contact number to respond to any issues arising.

2.4.2 Noise Periods

Noise modelling has considered the relative impacts of potential activation of different scale (Categories) against the potential operating periods defined in the applicable legislation, generally exhibiting different noise goals for the following time periods:

- General industrial and commercial noise time periods:
  - 7am – 6pm (Daytime)
  - 6pm – 10pm (Evening)
  - 10pm – 7am (Night)
- Entertainment precinct additional noise periods;
  - 10pm – 11pm Thursday to Sunday
  - 11pm – midnight Friday and Saturday
  - Midnight – 7am.

Regulatory framework considered in **Section 3** discusses the rationale for the various time parameters considered and the applicable noise limits.

2.5 Site and Surrounds

The site with boundary shown in **Figure 2.6** has a total land area of approximately 38,000 m^2 with major road frontage to Victoria Road and Robert Street.

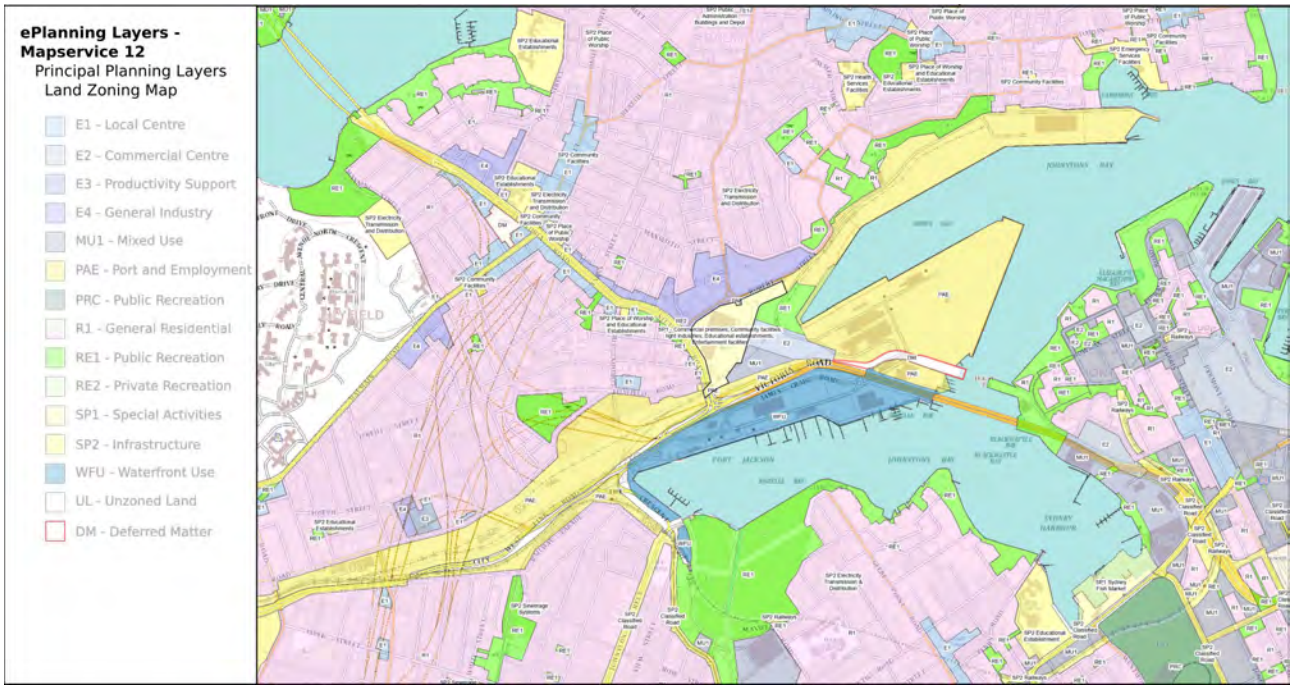
The buildings on the site are up to 40 m in height with a large variety of surrounding land uses, with zonings presented in **Figure 2.7**. A general summary of the bounding land uses are as follows:

- North: Immediately north of the site, on the other side of Robert Street, lies several light industrial buildings, a multi-storey Bunnings, car repairs premises, speciality retail outlets, as well as White Bay brewery and a film studio. North of the industrial area are residential dwellings associated with the suburbs of Rozelle and Balmain.
- East: Immediately east of the development is Port Access Road, a private road servicing the port workers (used by all port use operations in White Bay, as well as providing access to the White Bay Cruise Terminal for passengers). Further east is the deep water port of White Bay, and associated industrial port facilities at Glebe Island. The Bays Metro Station is also under construction adjacent to the Power Station site.
- South: Immediately south of the site is Victoria Road which leads south-east on to the Anzac Bridge. Further south is the Sydney Boat House and Rozelle Bay.
- West: Immediately west of the development is Victoria Road, beyond which lies mostly single or double storey residential buildings within the residential suburb of Rozelle.

These land uses are considered in the context of defining potential noise impacts from the operations at the site. Specifically, sensitive land uses including residential dwellings have been reviewed for potential noise impacts. **Figure 2.7** presents the land use zoning in the surrounds of the site. The bounding residential receivers are identified as the nearest sensitive areas (R1 – General Residential landuse, pink coloured).

Figure 2.6: WBPS Subject Site (SIX Maps)

Figure 2.7: Land Use Zoning Surrounding WBPS (NSW Planning Portal)



3. REGULATORY FRAMEWORK

3.1 Noise Regulations

In NSW, there are various regulations to manage noise from events. Regulatory agencies require noisy events to conclude by the time specified in their licence agreement and venues must have noise management plans to reduce noise directed at sensitive uses.

The regulating agency responsible for controlling noise varies between different types of events. Appropriate regulatory authorities can include:

- local councils
- NSW Environment Protection Authority (EPA) - for most scheduled activities

These regulatory agencies can issue Prevention Notices, Noise Control Notices and Compliance Cost Notices to event organisers that do not comply with noise standards.

3.1.1 Local Council

3.1.1.1 Noise Guide for Local Government

The Noise Guide for Local Government specifies that acoustic reporting should be undertaken by a 'competent person', as described below.

> ***7.1.1 Competent Person***
>
> *An acoustic report should be prepared by a competent person who must satisfy one or more of the following:*
>
> - *has qualifications and/or experience sufficient to fulfil the requirements of 'member' grade of the Australian Acoustic Society (AAS).*
> - *Undertakes the duties of an acoustic consultant on behalf of a consultancy firm that is a member of the Association of Australasian Acoustical Consultants (AAAC).*
> - *Has a recognised tertiary qualification in a discipline pertinent to acoustics.*
> - *Is able to show competence through professional experience and/or technical expertise to the satisfaction of council.*
>
> *More guidance can be found in the Approved Methods for the Measurement and Analysis of Environmental Noise in NSW (EPA 2022).*

The current guide does not provide threshold limits or criteria, however it does provide guidance when considering approvals for events such as outdoor concerts using sound amplification equipment. Review of historic uses in the area and more specifically the Inner West Sydney documentation discussed below, have all been considered in establishing suitable noise goals.

3.1.1.2 Inner West Council

The Inner West Council provides guidance as to their process of review/investigation should sound from a commercial activity result in complaints as described below. The culmination of this process is to implement a noise control notice. The intent of this document is to provide a noise control methodology from the outset to ensure there are no negative noise impacts on sensitive receivers in line with Council's intent.

Council investigation process

We take the following factors into consideration:

- *Noise level, nature, character or quality, or the time at which it is made, or any other circumstances*
- *Whether it's harmful (or is likely to be harmful) to a person who's outside the premises from which it's emitted*
- *Whether it interferes unreasonably (or is likely to interfere unreasonably) with the comfort or repose of a person who's outside the premises from which it's emitted*
- *If, following investigation, noise is considered offensive, actions we can take under the Protection of the Environment Operations Act, include issuing:*
- *a prevention notice*
- *a noise control notice*

Development consents for premises will typically have a condition restricting entertainment sound to a standard criterion. The background sound level +3db or +5db for sound coming from a specific premises are the conditions usually applied.

Further to the investigation process above, it is noted that the Inner West Sydney Council have a *Special Entertainment Precinct Management Plan*[2], which provides specific venue noise criteria at predefined residential areas. While these criteria are not directly relevant to the White Bay Power Station and surrounds, they have been considered in terms of their thresholds in the application of criteria.

The limits provided in the plan provide both an overarching dBA limit, as well as consideration of potential perceptible bass impacts at octave bands 31.5Hz – 125Hz, which are particularly useful in the review of the outdoor stage concert activation area.

As some of the most comprehensive noise criteria available in NSW, it is recommended to adopt the limits identified in the Special Entertainment Precinct Management Plan, outlined in the below excerpt, and identified for use in the assessment and NMP in **Section 2.2**.

Assessment of 'offensive noise' under the POEO Act shall remain in place, the assessment of which should be informed by the criteria in this plan.

1. Entertainment sound from venues within the special entertainment precinct must not exceed the Venue Sound Criteria, equivalent to the Sound Category Area Levels specified in Table 3 by reference to Figure 2.

a. The Sound Category Area levels apply at the identified frontages of the receiver at the lot boundary, 1.5 metres above the floor level of all floors up to the maximum LEP building height or existing if higher than LEP.

b. The Sound Category Areas will apply to all uses emitting entertainment sound, defined as music or patron noise emanating from activities associated with the entertainment and hospitality venues within the special entertainment precinct.

[2] https://www.innerwest.nsw.gov.au/ArticleDocuments/1751/Special%20Entertainment%20Precinct%20Management%20Plan.pdf.aspx

Table 3: Sound categories - venue external levels

Sound category Area (SCA)	Days of the week	Venue external assessment criteria, $dBL_{Aeq(15minute)}$											
		Day / Evening (7am to 10pm)				Early Night (10pm to midnight)				Late Night (midnight to 7am)			
		Overall	Octave bands - dB			Overall	Octave bands - dB			Overall	Octave bands - dB		
		dB(A)	31.5	63	125	dB(A)	31.5	63	125	dB(A)	31.5	63	125
SCA 1 Enmore Road	Sun 7am to Thurs 7am	60	64	63	61	60	64	63	61	55	59	58	56
	Thurs 7am to Sun 7am	65	69	68	66	65	69	68	66	60	64	63	61
SCA 2 Side streets and rear lanes	Sun 7am to Thurs 7am	55	59	58	56	55	59	58	56	50	54	53	51
	Thurs 7am to Sun 7am	60	64	63	61	60	64	63	61	50	54	53	51
SCA ET sites behind the Enmore Theatre	Sun 7am to Thurs 7am	65	69	68	66	60	64	63	61	50	54	53	51
	Thurs 7am to Sun 7am	65	69	68	66	65	69	68	66	50	54	53	51

3.1.2 NSW Environmental Protection Authority

Entertainment noise – music and patrons

Music and patron noise from restaurants, hotels, entertainment venues, large or late trading cafes and licensed premises can sometimes reach excessive levels. Conditions of consent are technical in nature and limit the overall level of noise, its frequency characteristics, and its effect on both residential and noise sensitive commercial operations.

NSW EPAs standard conditions of consent for controlling noise apply to most recently approved licensed premises within the Inner West local area. A non-technical summary of the entertainment noise limits typically used for a relevant premises as measured at neighbouring residential locations is provided below.

- Background noise is determined from ambient noise levels at the affected property in the absence of any entertainment noise.
- From 7 am to midnight, entertainment noise from a premises as measured at the edge of a residential property shouldn't exceed the background noise level by 5 decibels (dB).
- From midnight to 7 am, entertainment noise from a premises as measured at the edge of a residential property should not exceed the background noise level. Additionally, entertainment noise should not be audible within any habitable room of the residential premises.
- Entertainment noise from a premise as measured inside a separate commercial premises shouldn't exceed the background noise level by 3 dB within an occupiable room.
- Entertainment noise, particularly music can be tonal in nature, therefore applicable limits apply to the frequencies of noise from the premises in relation to those which characterise the background noise of an area.

3.2 Adopted Operational Noise Limits

3.2.1 Typical Operations

From the NSW Environmental Protection Authority discussion of Entertainment noise – music and patrons, the following limits are proposed for typical operations:

- From 7am to midnight, entertainment noise from a premises as measured at the edge of a residential property shouldn't exceed the background noise level by 5 decibels (dB).
- Based on the data in **Section 4.4** the following criteria apply from 7am – midnight
  - Northern sensitive residential areas: **43 dBA** (**47 dBA until 6pm**)
  - Western sensitive residential areas: **59 dBA**
  - Southern/Eastern sensitive residential areas: **48 dBA**
- To alleviate the likelihood of complaints regarding low frequency noise it is also recommended to include an additional dBC criteria as follows:
  - All sensitive areas: **70 dBC**
- From midnight to 7am, entertainment noise from a premises as measured at the edge of a residential property should not exceed the background noise level. Additionally, entertainment noise should not be audible within any habitable room of the residential premises.
- Based on the data in **Section 4.4** the following criteria apply from midnight - 7am.
  - Northern sensitive residential areas: **35 dBA**
  - Western sensitive residential areas: **55 dBA**
  - Southern/Eastern sensitive residential areas: **43 dBA**
  - In consideration of the Entertainment Hall, should it be used routinely, and especially if complaints arise related to low frequency noise (bass), it is recommended to review and calibrate the amplification system to achieve the lowest of the low frequency criteria of Inner West Council for activities **10pm-7am** (residents on a major road frontage):
    - **31.5Hz: 59 dB $L_{eq,15minute}$,**
    - **63 Hz: 58 dB $L_{eq,15minute}$,**
    - **125 Hz: 56 dB $L_{eq,15minute}$.**
    - All values, up to 5 dB higher for residents bounding Victoria Road

In order to simplify the implementation of the Inner West Council Special Entertainment Management Plan limits proposed for occasional major outdoor concert stage events, the low frequency limits have been simplified to a single 'dBC' parameter.

However, for routine activity, especially those in the buildings adjacent the nearest residents to the west (Entertainment Hall and Turbine Hall southern end) it is recommended to consider the low frequency criteria of the Inner West Council Special Entertainment Management Plan. It is noted that these limits are difficult to evaluate on a single operational volume basis, and should be reviewed for various installations should complaints arise. Enforcement of these limits may necessitate limiters and equalisers to amplified activities to limit bass content, and/or façade improvements (ceiling, windows, air lock door access).

3.2.2 Special Events

Major events, and special events may include the use of an outdoor concert stage, or even increase of internal operational levels beyond those of standard operations. There is allowance for this in much of the legislation allowing excursion above the standard criteria for infrequent uses drawing substantial tourism or having community significance.

Concert events typically have a relative dBA to dBC source level of 10 to 20 dB depending on the scale and character of music. For a mid-sized event such as this it is anticipated a desirable relative volume will be 10 dB at FOH, which over the distance involved to nearest neighbours may result in a dBC-dBA value of 15.

Therefore, the following limits are proposed for outdoor concert events:

- The Upper Limit or Lower Limit levels apply at the identified frontages of the receiver at the lot boundary, and 1.5 metres above each floor level.
- These limits apply for the following time periods: 7 am until 11 pm Sunday to Thursday or until midnight on Fridays, Saturdays or the night before a public holiday, except New Year's Eve (when the use may occur until 2 am the following day).
- Upper Limit – $L_{eq,15minute}$ of;
  - **65 dBA**
  - **80 dBC**
- Lower Limit –$L_{eq,15minute}$ of;
  - 60 dBA
  - 75 dBC
- The limits should be selected based on the commitment to level of notification provided to the surrounding land users as follows:
  - Upper limit applicable if a comprehensive notification program is implemented,
    - It is recommended to never host more than 2 nights in a row, and restrict the number of events of this type per year (events are to be programmed in a way that is sensitive to and does not have ongoing and concurrent significant impacts to neighbours), or
  - Lower limit applicable with minimal notification and higher activation frequency.

The above limits have been adopted for the noise assessment and recommendations of the Noise Management Plan. Activities operating outside these hours and limitations should be operated under typical operations noise limits as per **Section 3.2.1**.

It is also recommended that the venue be conditioned with additional caveats pertinent to the style of the temporary event proposed for the venue, and the uncontrollable nature of the weather:

> Noise levels measured when wind speed exceeds 5 m/s (at microphone height) should not be used to measure compliance with noise limits, as wind generated noise may limit measurement accuracy. During periods of wind greater than 5 m/s the event must continue to take all reasonable and feasible actions to minimise noise.

Meteorological effects are less likely to influence noise radiated from internal activities (**Section 3.2.1**).

3.2.3 Limits by Scale and Frequency of Activity

In terms of programming or scheduling against the various criteria it is suggested to review against a tier of event and timing proposed as follows:

- **Tier 1** – Occasional Major Concert: 65 dBA, 80 dBC
- **Tier 2** – Semi-Frequent Large Event: 60 dBA, 75 dBC
- **Tier 3** – Frequent, Daytime (7am-6pm): NSW EPA Limits (**Section 3.2.1**)
- **Tier 4** – Frequent, Evening (6pm-midnight): NSW EPA Limits (**Section 3.2.1**)
- **Tier 5** – Overnight (midnight-7am): NSW EPA Limits (**Section 3.2.1**)

Regarding event types and timing, it may be necessary that Sunday events finish earlier. This is due to the fact that there is a minor conflict in noise criteria where the most restrictive 'night' period commences at 10 pm, however, recent changes to Sydney legislation in favour of promotion of live performance art (music)

provides extensions until 11 pm and 12 am for certain uses (see **Section 3.1**). It is noted that the Inner West Council does provide for this, however discretion should be exercised in using this relaxation too frequently, as the 10 pm noise goal is well defined to provide the opportunity for peaceful/restful sleep to residential areas from commercial and industrial activities.

Many Tier 3 – 5 activities will be comparable and be likely to be operatable 24/7 (under Tier 5 limits) provided they are at a volume meeting the NSW EPA limits at the nearest sensitive receivers and predominately internal. The purpose of the 3 Tiers for general operation is to ensure the activations are aware of the noise limitations on the various operational periods.

Additional advice pertaining to patron egress noise is provided in **Section 8.3**.

3.3 Other Restrictions

3.3.1 Bump-in and out

For site establishment (bump-in and out), it is noted that the site can be very fluid, and often temporary installations will require to vacate immediately upon conclusion (i.e. after hours). Given the proximity to the ongoing Bays West Metro Station construction activities it is unlikely that short duration activities will significantly impact on the neighbouring areas occurring anytime within a 24 hour period.

- Whenever feasible during programming/scheduling, target bump-in/out to occur in accordance with the Interim Construction Noise Guideline which include:
  - Monday to Friday: 7am-6pm
  - Saturday: 8am to 1pm
  - Sunday and public holidays: no work without prior approval
- Bump-in and bump out hours may be extended outside the hours stated where it can be demonstrated that all reasonable and feasible action to minimise noise impacts to neighbouring sensitive areas can be utilised (louder activities planned and completed earlier, maintaining good management practices). The avoidance of risk to safety should take priority.
- However, some activities may require work outside of standard hours and may be approved in accordance with consideration of **Section 7.4**. Similar traffic and access arrangements will be established for deinstallation, with the benefit of lessons learnt during installation.

Guidance on minimising noise impacts to the neighbouring areas are provided in **Section 8.3**.

3.3.2 Mechanical Plant Noise

It is necessary to consider potential noise impacts from mechanical plant, for both temporary and permanent activities. Mechanical plant may include, temporary generators, light-towers, chillers, air conditioning. Guidance on the assessment procedure for industrial noise sources has two components:

- controlling **intrusive** noise impacts in the short term for residences
  - $L_{Aeq,\ 15\ minute} \leq$ rating background level plus 5.
- maintaining noise level **amenity** for particular land uses for residences and other land uses.
  - To limit continuing increases in noise levels, the maximum ambient noise level within an area from industrial noise sources should not normally exceed the acceptable noise levels specified in the document, aiming to protect against noise impacts such as speech interference, community annoyance and, to some extent, sleep disturbance.

The full assessment methodology is outlined in the NSW Noise Policy for Industry.

4. BACKGROUND MONITORING

4.1 Overview

Background noise monitoring was undertaken at four sites adjacent to White Bay Power Station facility. The noise monitoring was undertaken in general accordance with Australian Standard AS1055 Acoustics – Description and measurement of environmental noise and the Approved Methods for Measurement and Analysis of Environmental Noise in NSW (NSW EPA 2022).

The background monitoring data is utilised in defining aspects of the noise criteria.

4.2 Monitoring Locations

Noise logging was undertaken in the free field at the microphone height of 1.5m above ground level and fitted with a windshield throughout the measurements. The measured noise levels at bounding monitoring Locations are shown in **Figure 4.1**.

The monitoring data was additionally reviewed against meteorological data collected by the Bureau of Meteorology at the local stations. The collected data indicates that there were no measured periods of rainfall or elevated winds (above 5 m/s). Periods where rain, wind or extraneous localised sources which may influence the noise monitoring data, have been removed before calculating long term averages and deriving noise criteria.

4.3 Instrument Calibration Information

The instruments accuracies were checked before and after measurements using the field calibrator as follows.

Table 4.1: Noise Instrument Calibration Information

Location	Instrument	Serial No.	NATA Calibration Due	Pre-Calibration	Post Calibration
Logger – 40 Smith Street	ARL Ngara	87809C	22/11/2024	94.0	94.0
Attended	Norsonic 140	1405206	9/01/2025	94.0	94.0
Field Calibrator	Larson Davis CAL200	20031	17/05/2024	-	-

Monitoring positions were selected based on the identified noise characters for the area (frontages to main roads, suburban areas) as well as review of the desired locations for noise within the venue. Noise monitoring and observations were completed as follows;

Logger placed for 7 days (5th – 12th December 2023):

- 40 Smith St, Rozelle - on the verandah facing road, at the top of the hill on the west side of the road. Selected based on preliminary modelling identifying highest level of exposure to noise from the venue with a line of sight over the intervening industrial buildings. Western side of road screened partially from Victoria Road traffic influences to the area.

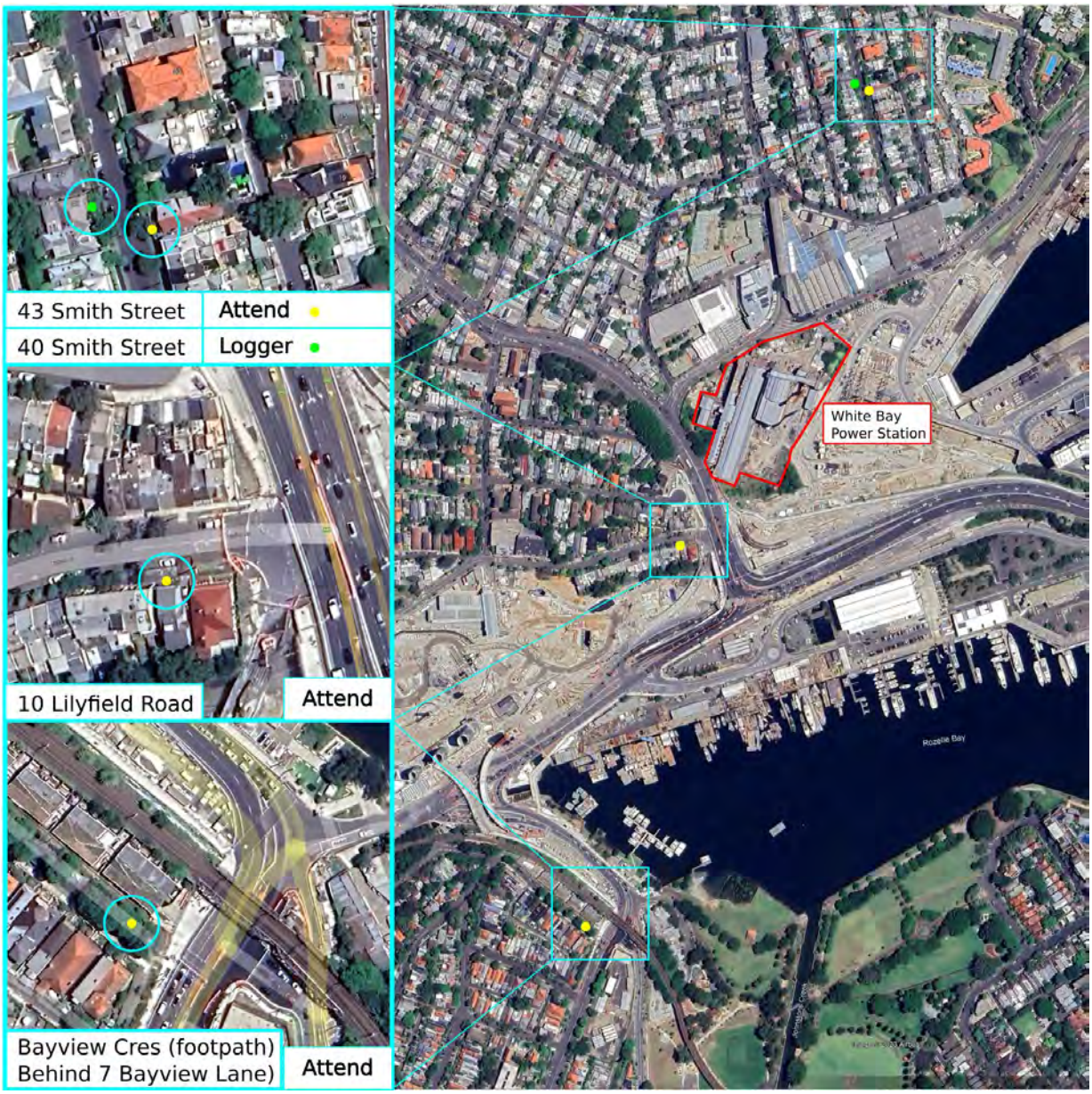
Short Attended noise measurements 2 x 15-minutes at each location:

- 43 Smith St - distant traffic, occasional dog barking, occasional neighbourhood conversation and local traffic (6 vehicles in 15 minutes). Selected based on preliminary modelling identifying highest level of exposure to noise from the venue with a line of sight over the intervening industrial buildings.
- 10 Lilyfield Rd – a noisy precinct situated only 70m from Victoria Road with constant traffic and line of sight to Rozelle intersection. 4 cars passing every minute being turning traffic from Victoria Road.

Selected for close proximity to southern end of venue and line of sight to building facades, and setback slightly from Victoria Road to reduce ambient contributions from vehicle traffic.

- The laneway behind 7 Bayview Lane - a narrow lane with higher close surrounding buildings acting as a noise barrier. Distant traffic and distant road construction at the Johnson Rd/Crescent Road intersection causing a high background (L_{A90}) reading. No local traffic in the laneway. Selected for residents in the area being slightly elevated and facing the southern facades of the venue, and the external areas likely to be utilised for outdoor concert stage performances.

Figure 4.1: Background Noise Monitoring Locations



4.4 Background Results

Based on the data collected the following ambient/background data has been utilised in establishing noise goals defined in **Section 3.2**. Octave band values have been presented for reference against the additional criteria.

Table 4.2: Background Data for Criteria

Area	Monitoring Location	LAeq	LA10	LA90	L90 (31.5Hz)	L90 (63Hz)	L90 (125Hz)
North	Smith Street (6pm)	50	52	42	52	52	40
North	Smith Street (10pm)	43	48	38	48	49	38
North	Smith Street (12am-7am)	36	40	35	45	46	34
West	Lilyfield Road (10pm)	61	63	64	61	63	58
South/East	Bayview Lane (10pm)	47	48	43	55	55	49

5. PREVIOUS EVENT MONITORING

5.1 Overview

Further to the background monitoring to define ambient conditions and applicable noise limits to the sensitive areas around the White Bay Power Station, monitoring was also completed during the first week of operation of the Biennale 2024, and opening night 'Lights On!' outdoor concert event.

Monitoring was completed at the northern boundary as well as at a logging position utilised for ambient conditions. This data is useful in forming a basis for demonstration of noise from the venue operating with compliant levels of noise at the resident.

A summary of the noise management and monitoring observations is provided below:

- Outdoor concert event was operated at a reasonable volume for patron entertainment, however not to the level of an international touring artist.
- Indoor activities and amplification resulted in minimal noise propagating to the north.
- During the loudest periods of the outdoor concert levels were just audible in the residential area to the north.
- Anecdotal feedback from the community in north and north-eastern residential areas identified the event was occasionally audible when outside.
- Compliance was measured at all times against the criteria established for the event, which are also the basis for the criteria in this NMP.
- There were no noise complaints made to PMNSW or Biennale during the 'Light On' event, nor for any of the Wednesday evening entertainment events throughout the duration of the Biennale.

6. NOISE IMPACT ASSESSMENT

6.1 Noise Modelling

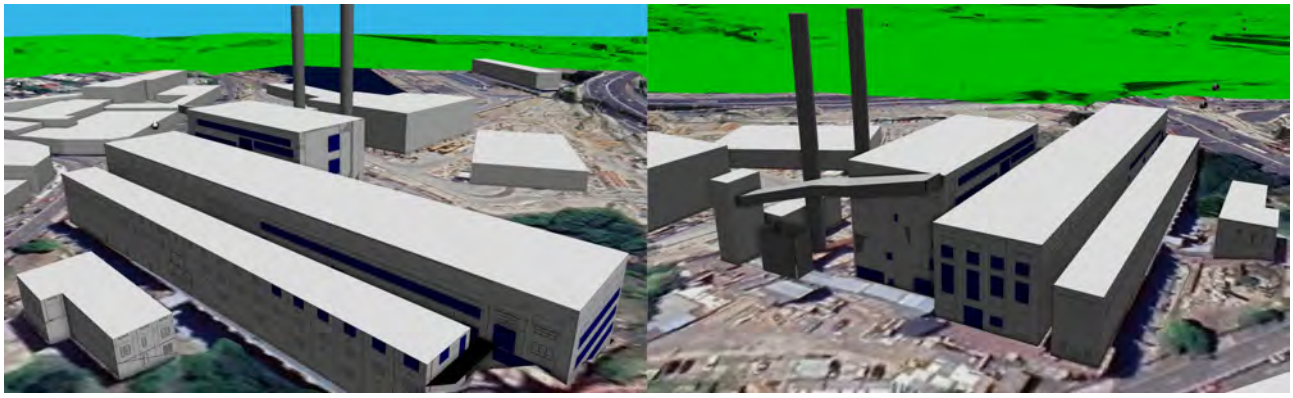
The acoustic assessment, including 3D modelling of the site, main stages and patrons, has been completed using the ISO 9613 standard calculation methodology (in the Cadna/A noise modelling software), which accounts for typical worst-case downwind conditions.

The modelling is completed for a variety of reasons, including:

- To review if the proposed event layout is suitable to achieve desired internal volumes, while achieving compliance with the relevant noise criteria;
- To establish the likely maximum operating FOH volumes that will achieve compliance, to aid in the management of the event (allowable operating levels maybe specified at reference locations elsewhere on site or in the nearby surrounds); and
- To identify the most affected off-site sensitive receiver locations.

Table 6.1 presents a 3D render of the WBPS buildings used in the Cadna/A noise modelling.

Table 6.1: Cadna/A Render of WBPS Buildings



6.2 Scenarios

The three primary operating conditions have been modelled from loudest to quietest including:

1. Outdoor Concerts
2. Internal Amplification, high volume including bass (sub-woofers)
3. Internal Amplification, no bass content or significantly equalised.

In review of the applicable criteria, four tiers of event criteria have been reviewed as follows:

- Tier 1 – Occasional Major Concert: 65 dBA, 80 dBC
- Tier 2 – Semi-Frequent Large Event: 60 dBA, 75 dBC
- Tier 3 – Frequent, Daytime (7am-6pm): NSW EPA Limits (**Section 3.2.1**)
- Tier 4 – Frequent, Evening (6pm-12am): NSW EPA Limits (**Section 3.2.1**)
- Tier 5 – Overnight (12pm-7am): NSW EPA Limits (**Section 3.2.1**)

Based on these operational conditions, and applicable tiers dictating the frequency and timing of activations; noise modelling has been completed to predict the acceptable operating volumes in each venue, to maintain compliance with the applicable criteria. The following sections present the modelling methodology, and results of this analysis.

6.3 Noise Sources

6.3.1 Scenario 1 Outdoor Concert

The loudest potential activation associated with the WBPS is likely to be the operation of temporary outdoor concert events with stage and speakers, as well as the patrons on-site. The anticipated possible stage locations are presented in **Figure 6.1** and include a mid-sized speaker system profile as described below:

- Main Array; 10 x Direction Speakers, either side of stage in a J-Curve hang
- Subwoofers; 8 x 18" Subwoofer Speakers, across the front of stage at ground level
- Infill; 2 x 12" Wedge Speaker
- Stage Monitors; 2 x 12" Wedge Speaker

The three stage locations have been calibrated to achieve the threshold limit (**Section 2.2**) at the most affected sensitive receiver, and target to achieve a desirable volume of 95 dBA and 105 dBC $L_{Aeq,15minutes}$ at a representative Front of House (FOH) location defined at 20-25 m from the outdoor stage.

Trinity have utilised directivity patterns in the computational modelling representative of the speakers defined above based on the following speakers (attainable from the suppliers):

- L'Acoustics 108P, L'Acoustics 112P
- B22 Sub / D&B Subwoofers
- Typical 15-inch PA speakers (DJ monitors / cross stage wedge monitors)

The octave band frequency sound power level (SWL) data utilised in the calculations have been adopted based on average maximum operating levels from similar performance styles to that proposed from outdoor music festivals occurring in Australia, measured from real world monitoring of 10+ major concert performances of varying popular music styles.

Patron noise has been modelled as an L_{Aeq} parameter based on the full capacity of attendance on-site (4000 people) utilising the equations described in the conference paper entitled "Prediction of noise from small to medium sized crowds"[3]. Only a percentage of patron noise at upper volumes will occur simultaneously.

Further to the outdoor stage, it is assumed that all internal amplification occurs concurrently with this activity, as it's anticipated that concerts may operate as a feature to concurrent activations. Details of the assumed internal noise sources are provided in **Section 6.3.2**.

Table 6.2 below presents a list of desirable operating volume ranges for commercial operating music events forming the initial targeted modelling values. It is noted that depending on the venue, the level of bass will need to be controlled based on the predictions in the following sections.

Table 6.2: Example of Desired Operating Volumes

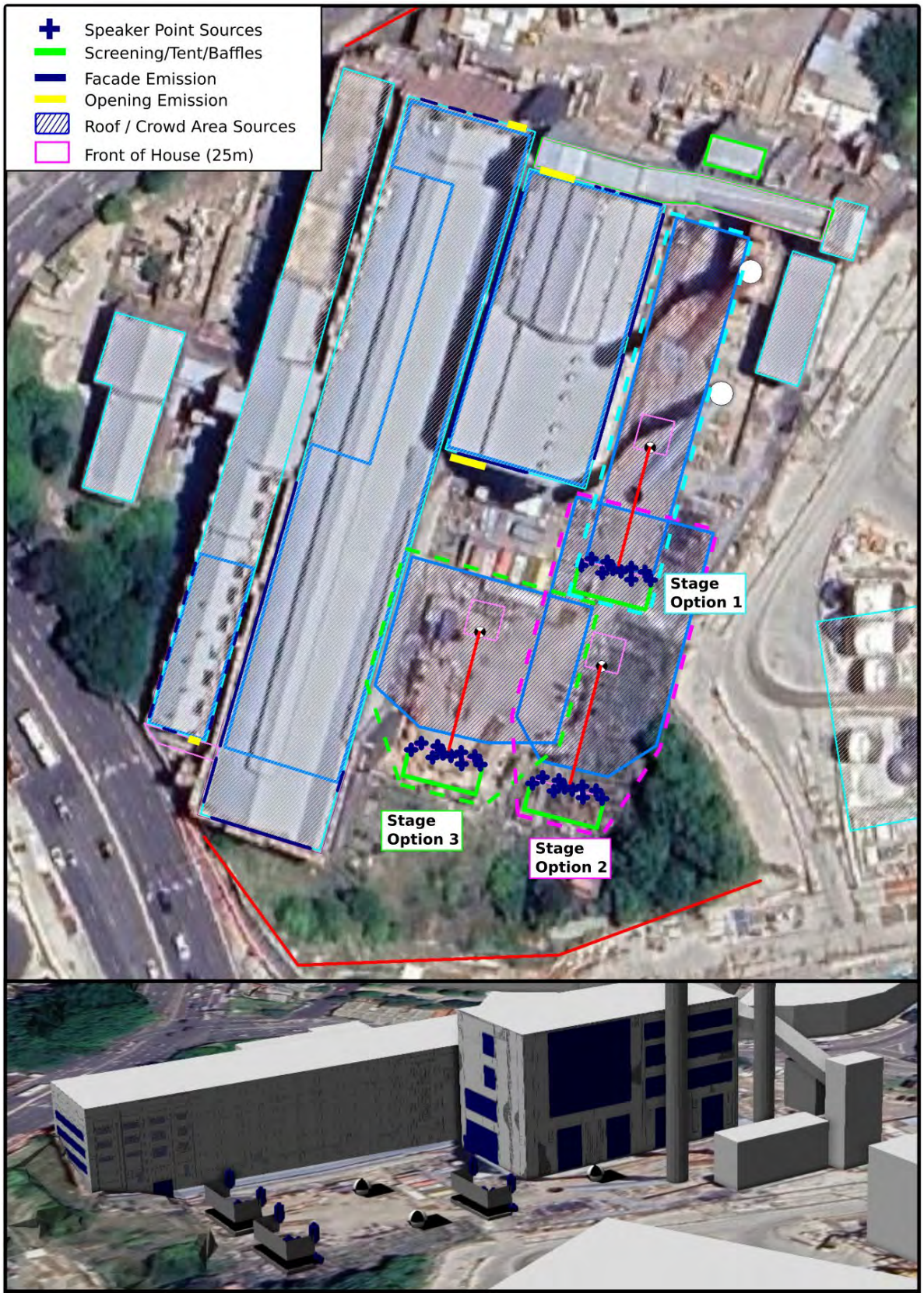
Type of Activity	Typical Volume at FOH / Mixing Desk (25 – 30 m)	
	dBA	dBC
Dubstep/Bass DJ music	90-100	115
Punk / Heavy Rock bands (drum kits, and/or amplification)	90-100	110
Hip-hop, Reggae bands	90-95	105

Modelling of each scenario has initially been reviewed for a typical volume for the potential use, and then through iterative adjustments, FOH levels have been reduced to achieve compliance with the relevant criteria.

[3] Hayne et al 2011, 'Prediction of noise from small to medium sized crowds', in Acoustics 2011: Breaking New Ground, Proceedings of the Annual Conference of the Australian Acoustical Society, AAS Queensland Division 2011, Gold Coast, paper number 133.

Section 6.5 presents the predicted achievable FOH volumes, while maintaining predicted compliance to the nearest off-site sensitive receiver.

Figure 6.1: Outdoor Concert Stage Option Models



6.3.2 Scenario 2 Internal Amplified Music

The highest level of noise source considered from internal activations would be amplified music events with stage and speakers potentially installed to any area within the Boiler House, Turbine Hall, and Entertainment Hall area, as well as patrons internally.

Given the wealth of options for the internal spaces, modelling of a uniform reverberant field of noise within these spaces has been undertaken (i.e. highest level of volume for a specific area is predicted at the bounding façade) throughout.

Future review could consider detailed internal modelling to optimise the various spaces and preferred layouts, as well as review of in-situ test data during activations to provide a list of recommended or preferred installation arrangements for both internal sound quality, and mitigation of noise levels off-site.

Figure 6.2 presents the loudest modelled sources in each building area for Scenario 2.

The initial noise sources have been assumed as follows, however final operable levels may be adjusted based on modelling predictions:

- **Boiler House** is assumed to be operating at a level of 90 dBA at the facades throughout (then calculated to emit from the walls/windows/doorways/roof).
  - Small reductions are afforded to the higher floors of windows and roof to account for music not being directed upward.
  - Patrons up to 1000 per floor distributed evenly throughout.
- **Turbine Hall** is assumed to be operating at a level of 90 dBA at the facades throughout (then calculated to emit from the walls/windows/doorways/roof).
  - Small reductions are afforded to the higher floors of windows and roof to account for music not being directed upward.
  - Patrons up to 1000 per floor distributed evenly throughout.
- **Administration Building** the level 1 space provides for PA system and amplification as well as patronage. Given the smaller area and close proximity, it is assumed to be operating at a level of 100 dBA at the facades throughout (then calculated to emit from the walls/windows/doorways).
  - Patrons up to 200 distributed evenly throughout.
- **Entertainment Hall** the level 3 space provides for a PA system and amplification as well as patronage. Given the smaller area and close proximity to residents, it is assumed to be operating at a level of 100 dBA with doors closed at the facades throughout (then calculated to emit from the walls /windows /doorways /roof).
  - Patrons up to 200 distributed evenly throughout.
  - An additional model run for when the entry door is open has also been considered.

Additional assumptions necessary to the modelling of activities internally area are as follows:

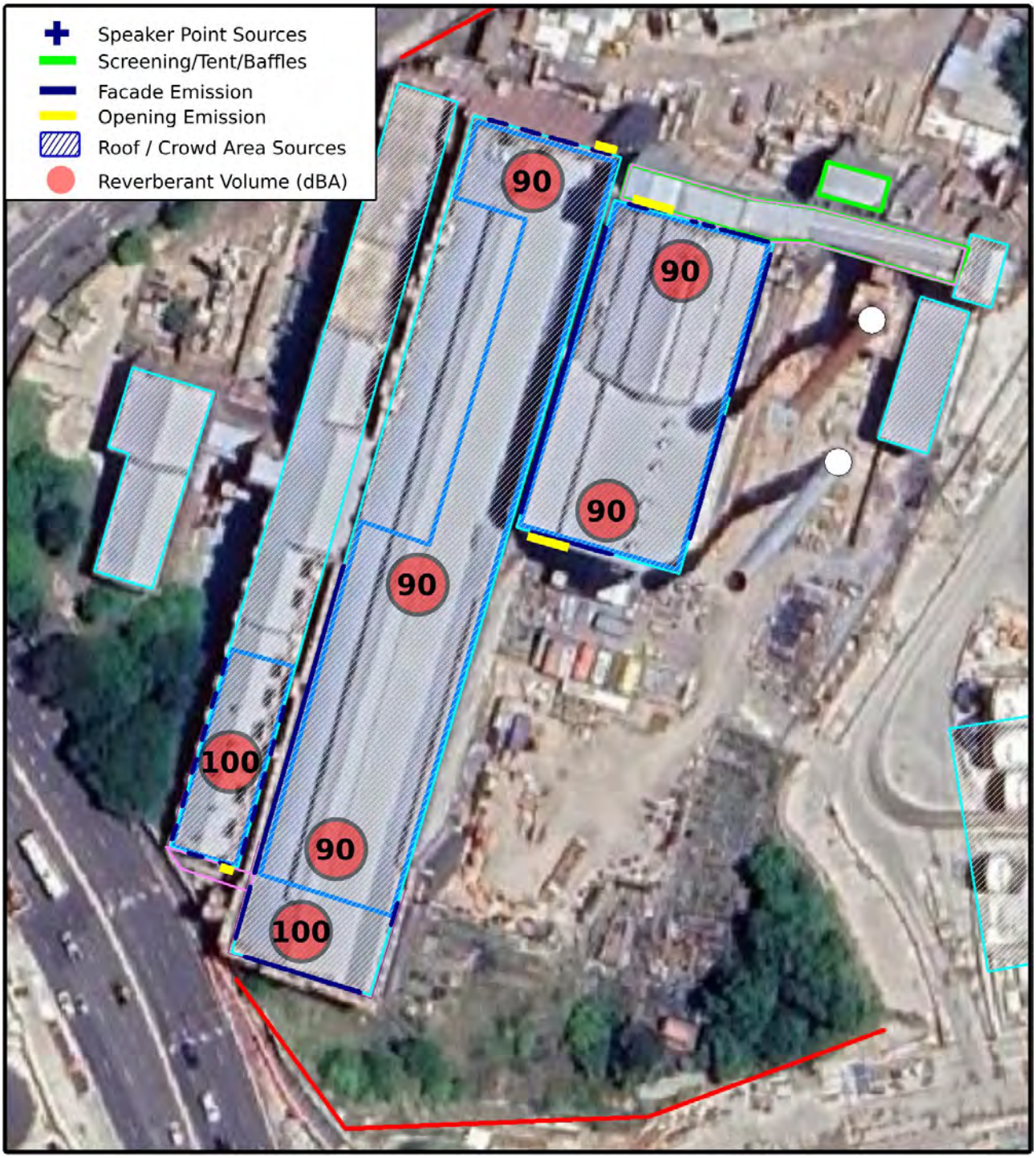
- Internal absorption levels very low (0.1 absorption conservatively assumed throughout)
  - The high volume of glass, erratic shape of internal objects and structures, and the noted sarking lined roof may provide slightly higher absorption in certain frequencies.
- Transmission loss of 20 dB through windows,
- Transmission loss of 30 dB (or more) through brickwork facades,
- Transmission loss of 5 dB via entry/exit open doors.
- A reduction in internal reverberant noise level of 5-10 dB at roof (relative to lower walls/areas) has been applied, as amplification will not be pointed to the ceiling.

These sources were modelled against the various applicable criteria and calibrated to the limits providing the achievable operating levels internally. It was identified that low frequency content was generally defining the

achievable volumes, therefore review of noise sources without significant low frequency content was considered in Scenario 3 (**Section 6.3.3**).

It is assumed that all internal area operate with the sound pressure level (SPL) averaged over 15-minutes.

Figure 6.2: Internal Amplified Sources



6.3.3 Scenario 3 Internal Amplification, Less Bass

Given the significant amount of glazing and light weight elements to the various buildings, it is found that predominately the low frequency content of internal noise (amplified bass) is defining the achievable volumes internal before noise criteria are breached externally.

As not all uses will desire 'booming' bass, consideration of amplification without amplified bass (125Hz and below), either through exclusion of sub-woofer speakers, or equalising the output to ensure low frequencies are minimised. This will allow activities like stage performances, spoken presentations, speeches, art installations, family friendly or background music, to be operated to high dBA volumes without breaching noise limits externally.

Modelling was initially operated as per Scenario 2 but with an equalised spectrum removing low frequency dominance, and thereby the dBC of the internal noise. Patron noise is unchanged, and consideration of the door open and closed configurations to the Entertainment Hall use has been considered.

6.4 Modelling Conditions

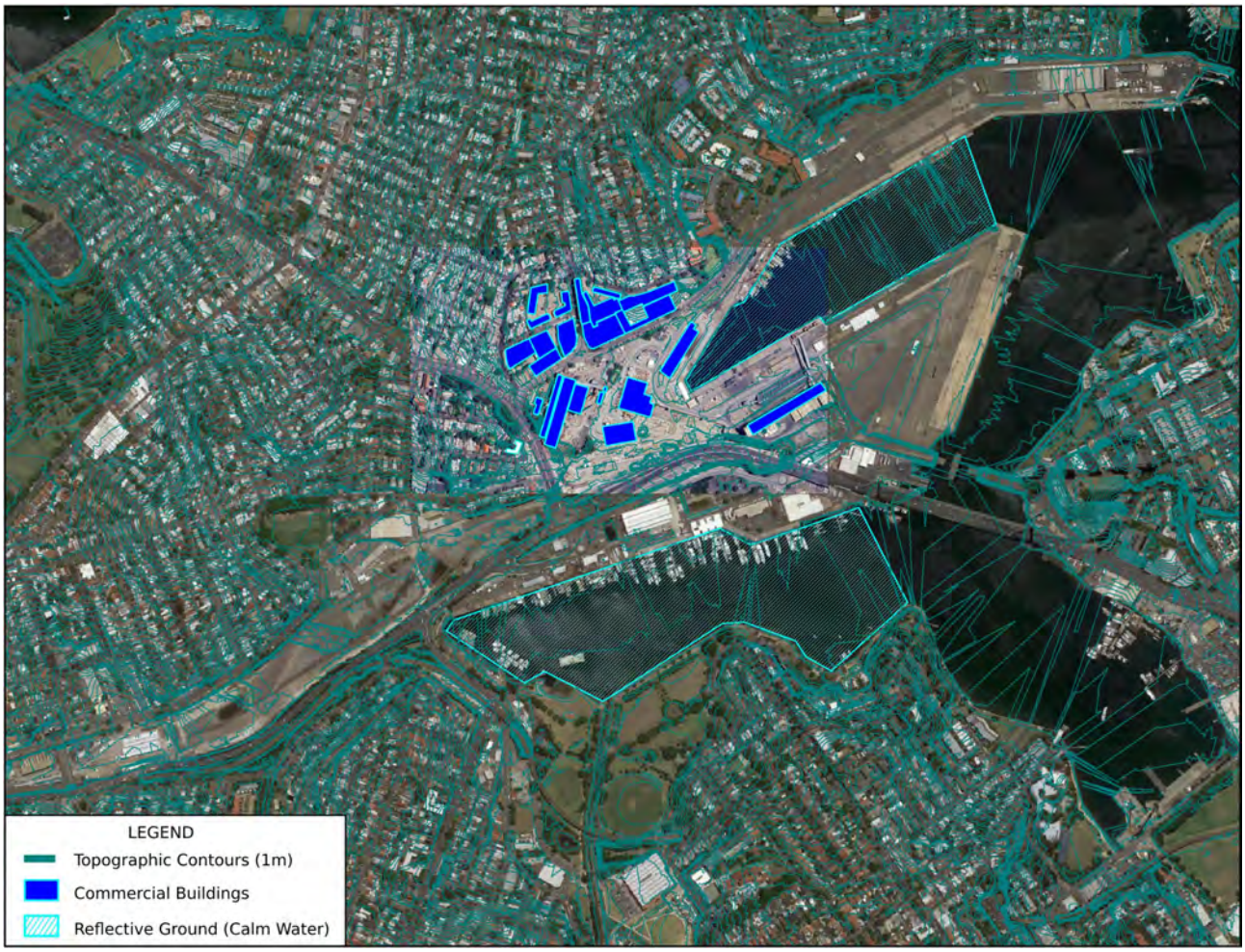
6.4.1 Meteorological Conditions

All predictions have been undertaken in accordance with ISO Standard 9613-2 (1996) Acoustics - Attenuation of sound during propagation outdoors. ISO 9613-2 predictions are relevant for light to moderate downwind conditions (1 to 3 m/s) or a well-developed moderate ground-based temperature inversion (e.g. clear, calm night).

6.4.2 Topography

Topography for the area surrounding the White Bay Power Station have been sourced from ELVIS Geo-sciences Australia (1 m satellite data). The noise model has taken into account the landform of the site and surrounding area, as well as major structures on-site and in the near surrounds as shown in **Figure 6.3**.

Figure 6.3: Modelled Area and Buildings



6.4.3 Receivers

It is noted that the immediately adjacent land areas include light industry commercial uses, major roads, and the construction site of the Sydney Metro West Bays Station.

Due to the large number of residential buildings in the surrounding area computational grid calculations have been completed. Based on the prevalent character of buildings in the area and density, modelling has considered a computational grid of 2.5m x 2.5m at a height of 4.5m above existing ground levels across the area defined in **Figure 6.3**.

Where the loudest point is identified in a particular direction it has been further interrogated for low frequencies as per the threshold limits in **Section 2.2**.

6.5 Noise Modelling Results

6.5.1 Scenario 1 Outdoor Concert

The modelled stage locations and orientations are shown in **Figure 4.8**. Graphical representations of the noise from a Tier 1 volume event at Location 1, propagating into the surrounding area are presented in Figure **6**.4 and Figure **6**.5. **Figure 6.6** presents the noise contours for the three modelled locations, providing a general idea that the location can influence the neighbouring areas impacted. Values at the reference boundary locations for undertaking review compliance monitoring are presented in **Table 6.3**.

It is noted that for the modelled operating volume, levels approaching 65 dBA are experienced to the nearest residential areas to the north, and slightly above for the nearest façade to the west (67 dBA at the eastern façade of 5 Lilyfield Road). However, it is noted that this façade overlooks Victoria Road and building occupants may be accustomed to far higher levels of noise. Adopted limits have been applied to the second most impacted receiver group.

Table 6.3: Predicted Operational Noise Levels - Outdoor Stage (SPL @ 25m, dB)

Scale of Event / Criteria	Outdoor Stage Location 1	Outdoor Stage Location 2	Outdoor Stage Location 3
Tier 1 Occasional Major Concert	93 A / 110 C (North)	92 A / 109 C (North)	**97 A / 112 C** (West / N&W)
Tier 2 Semi-Frequent Large Event	87 A / 104 C (North)	87 A / 104 C (North)	**92 A / 107 C** (West)
Tier 3 Frequent – Day (pre-6pm)	74 A / 99 C (North)	74 A / 99 C (North)	84 A / 102 C (North)
Tier 4 – Evening Frequent - Evening (6pm-midnight)	70 A / 99 C (North)	70 A / 99 C (North)	80 A / 102 C (North)
Tier 5 - Night Overnight (midnight-7am)	62 A / 91 C (North)	62 A / 91 C (North)	72 A / 94 C (North)

**Defining receptor group in brackets*

Review of the modelling generally indicates that, for Locations 1 and 2, the defining receivers are directly north, where Location 3 has some bleed of noise to the north-east. Location 2 also have greater side of stage (predominately the bass) noise travelling directly west.

The provided levels include a 3 dB buffer for cumulative noise from multiple areas operating simultaneously. Where only one area is in operation, up to 3 dB louder may be achievable (with the exception of the Entertainment Hall, which defines levels exclusively to western area, with minimal cumulative contribution from other areas).

It is found that for typically desirable operating levels (> 90 dBA) it is not feasible to operate the stage at the reviewed locations and achieve typical noise criteria.

Figure 6.4: Scenario 1 Outdoor Concert Location 1 - Noise Contour Plot dBA

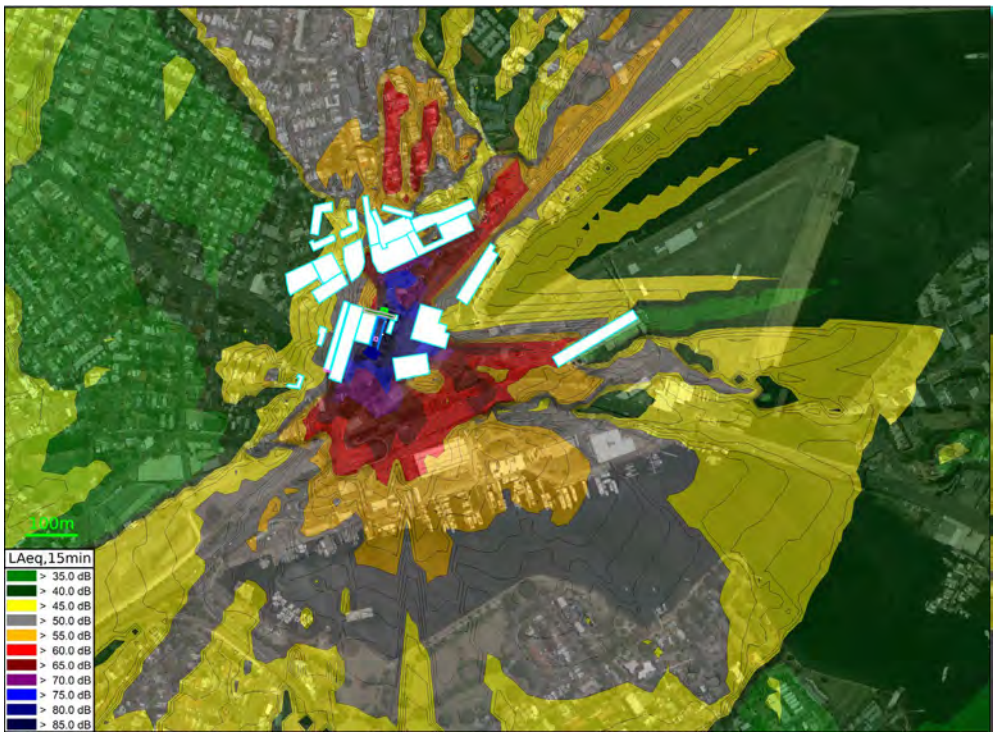


Figure 6.5: Scenario 1 Outdoor Concert Location 1 - Noise Contour Plot dBC

Figure 6.4 presents the A-weighted noise for Scenario 1, which shows levels are less than the Tier 1 threshold of 65 dBA (bright red) to select residential areas in the north (partially screened by industry). The southern end has some minor levels up to 65 dBA at nearest buildings on Victoria Road, however reduce moving into the suburban streets and residential areas much farther south.

Figure 6.5 presents the C-weighted noise (bass) for Scenario 1. Compliance with the Tier 1 threshold of 80 dBC (navy blue) is predicted at residential uses, however, these lower frequency levels attenuate less over distance (ie. travel farther than A-weighted levels).

Figure 6.6: Scenario 1 Outdoor Concert All Locations - Noise Contour Plots

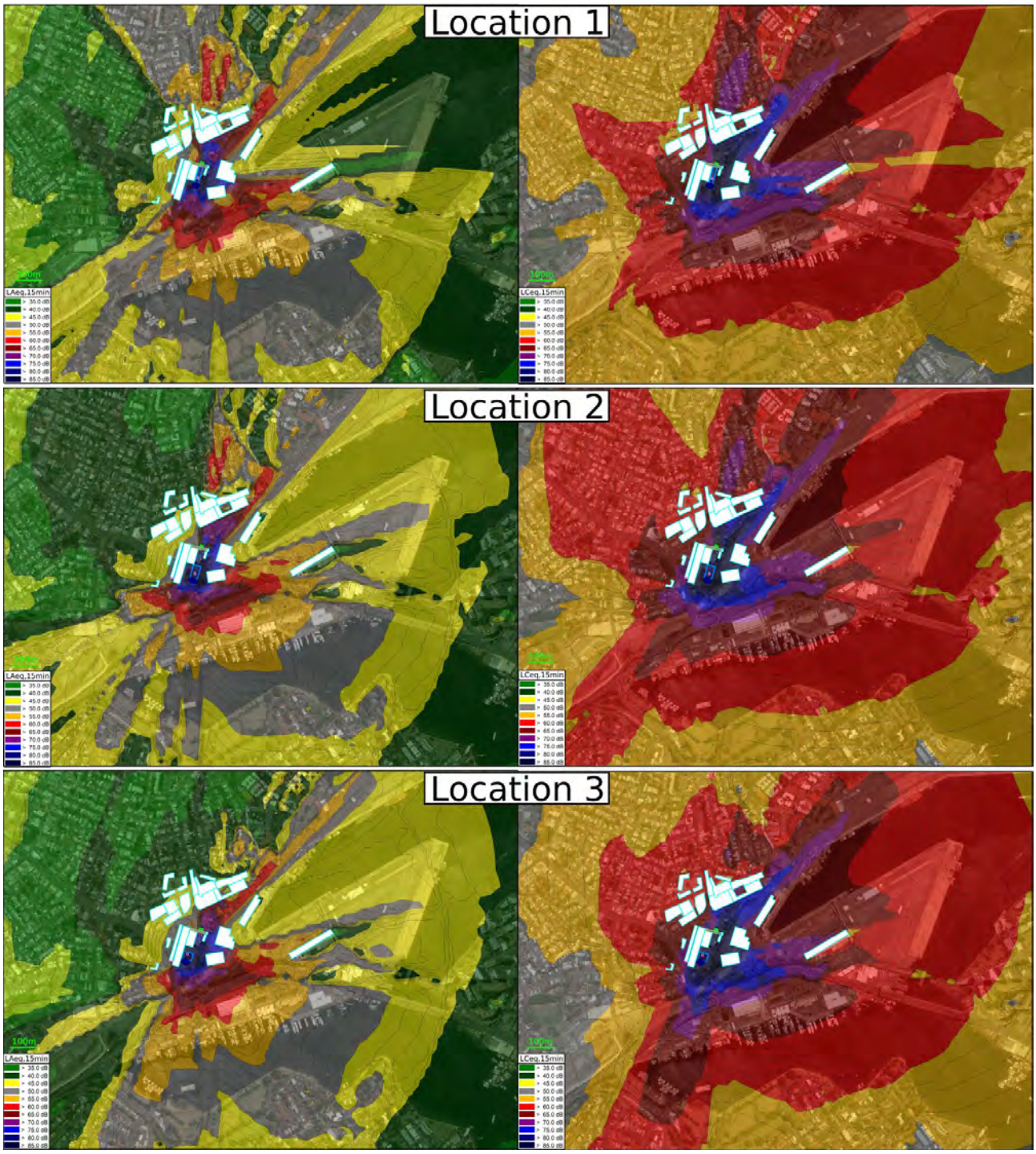


Figure 6.6 presents the variations in predicted noise into the surrounding area for the various stage locations, for both the A-weighted (left) and C-weighted (right) noise for Scenario 1.

As the stage location shifts south-east the dBA levels are less prominent to the north, with bright red areas being the Tier 2 threshold of compliance for dBA. This is due to more screening by buildings to the north.

As the sources shift further south, with greater separation to the adjacent buildings, the C-weighted (bass) levels are shown to increase slightly to the north-west for Location 2, and spread further south-west (directly behind the stage) for Location 3, which are less screened by local buildings and topography respectively, with Tier 2 thresholds (bright blue) extending to residents bounding Victoria Road. While the spread of noise to the south is observed, east and north-east are largely the same for all locations.

6.5.2 Scenario 2 Internal Amplified Music

The modelled noise contours for base operational volumes to internal venues, demonstrating the affected areas for a Tier 3 upper limit of volume in all venues are shown in **Figure 6.7** and **Figure 6.8**. Values at the reference boundary locations for undertaking review compliance monitoring are presented in **Table 6.4**. It should be noted that noise limits to the western receivers on Victoria Road are significantly higher than other areas.

The modelling identifies that for the modelled operating conditions, levels are below the adopted thresholds for compliance in the respective Tier criteria.

Table 6.4: Predicted Operational Noise Levels (internal SPL, dB)

Scale of Event	Boiler House	Turbine Hall	Admin.	Ent. Hall
Tier 1 Occasional Major Concert	>100 A / 118 C (West)	>100 A / 114 C (West)	>100 A / >120 C (West)	>100 A / 115 C (West)
Tier 2 Semi-Frequent Large Event	>100 A / 113 C (West)	99 A / 109 C (West)	>100 A / >120 C (West)	96 A / 110 C (West)
Tier 3 Frequent – Day (pre-6pm)	95 A / 108 C (North / West)	98 A / 104 C (N&W / West)	>100 A / >120 C (West)	95 A / 105 C (West)
Tier 4 Frequent – Evening (6pm-midnight)	91 A / 108 C (North / West)	94 A / 104 C (North / West)	100 A / 120 C (West)	95 A / 105 C (West)
Tier 5 Overnight (midnight – 7am)	83 A / 100 C (North)	86 A / 91 C (North)	90 A / 110 C (West)	90 A / 95 C (West)

**Defining receptor group in brackets*

The provided levels include a 3 dB buffer for cumulative noise from multiple areas operating simultaneously. Where only one area is in operation, up to 3 dB louder may be achievable (with the exception of the Entertainment Hall, which defines levels exclusively to western area, with minimal contribution from other areas).

Review of the modelling and results yield the following observations:

- **Boiler House** – this building is fairly isolated, and screened to the west by the Turbine Hall, however with significant openings and glazing, a mix of dBA limitation to the north (partially from entry doors) and dBC limitation to the west and south from southern façade and roof.
- **Turbine Hall** – very few facades facing north, therefore western receivers predominately defining the limiting volumes, as a result of noise emissions from the windows and roof. The lower noise limits for northern receivers drive the volumes for more frequent activations (Tier 3 and 4).
- **Administration Building** – this activation could be located on the lower floors, and with topography screening most of the exposed glazed facades, this room is fairly isolated. Some potential for reflected

noise off nearby facades could occur and cross talk between this use and other concurrent activations are more likely to limit the operating volumes.

- **Entertainment Hall** - where entry door or any windows are open the dB values jump significantly at the nearest residential façade. Further to this, even with everything closed the light-weight roof and glazing results in significant dBC.
  - Where the door to Entertainment Hall remains closed, levels up to 5 dB higher are predicted to be compliant.
  - The door is a double automatic door. It is recommended that this access point always be fitted with an automatic closer and not held in the open position during amplification periods. There is additional opportunity to install an air-lock entry. The door/s remaining closed will also aid to keep traffic noise out.

The predicted levels are generally considered fit for purpose, however if higher dBA values were desired more frequently to the Boiler House or Turbine Hall, these may be acceptable via reducing the low frequency content defining most of the results presented above. Scenario 3 in **Section 6.3.3** presents review of reducing the low frequency content of the amplification sources.

Figure 6.7: Scenario 2 Tier 3 Internal Music - Noise Contour Plot dBA

Figure 6.8: Scenario 2 Tier 3 Internal Music - Noise Contour Plot dBC

Figure 6.7 presents the A-weighted noise for Scenario 2, with predicted levels generally less than 55 dBA to nearest Victoria Road receivers, and less than 47 dBA for other residents. Meeting Tier 3 limits.

Figure 6.8 presents the C-weighted noise (bass) for Scenario 2, with only the nearest receivers overlooking Victoria Road and the WBPS buildings have predicted levels up to 70 dBC (Tier 3 limits) with all other areas predicted far lower.

6.5.3 Scenario 3 Internal Amplification, Less Bass

The modelled values for equalised or amplification without bass content, operational volumes to internal venues, values at the reference boundary locations for undertaking review compliance monitoring are presented in **Table 6.5**.

The modelling identifies that for the modelled operating conditions, levels are below the adopted thresholds for compliance in the respective Tier criteria.

Table 6.5: Predicted Operational Noise Levels – Less Bass (internal SPL, dB)

Scale of Event	Boiler House	Turbine Hall	Admin.	Ent. Hall
Tier 1 Occasional Major Concert	>100 A / 118 C (West)	>100 A / 114 C (West)	>100 A / >120 C (West)	>100 A / 114 C (West)
Tier 2 Semi-Frequent Large Event	>100 A / 113 C (West)	99 A / 109 C (West)	>100 A / >120 C (West)	>100 A / 109 C (West)
Tier 3 Frequent – Day (pre-6pm)	100 A / 108 C (West)	>100 A / 104 C (N&W / West)	>100 A / >120 C (West)	100 A / 104 C (West)
Tier 4 Frequent - Evening (6pm-midnight)	96 A / 108 C (North / West)	100 A / 104 C (North / West)	100 A / 120 C (West)	100 A / 104 C (West)
Tier 4 Overnight (midnight-7am)	88 A / 100 C (North)	90 A / 90 C (North)	92 A / 100 C (West)	95 A / 95 C (West)

**Defining receptor group in brackets*

The provided levels include a 3 dB buffer for cumulative noise from multiple areas operating simultaneously. Where only one area is in operation, up to 3 dB louder may be achievable (with the exception of the Entertainment Hall, which defines levels exclusively to western area, with minimal cumulative contribution from other areas).

Review of the modelling and results yield the following observations:

- **ALL** – it is noted in some instances, the reduction in dBC amplification to achieve higher dBA results in a predicted overall level of dBC, for the higher dBA to be feasible (when compared with Scenario 2 modelling).
- **Boiler House** – this building is fairly isolated, and screened to the west by the Turbine Hall, however with significant openings and glazing, there is a mix of dBA limitation to the north (partially from entry doors) and dBC limitation to the west and south from southern façade and roof.
- **Turbine Wall** – very few facades facing north, therefore western receivers predominately define the limiting volumes, as a result of the windows and roof. The lower noise limits for northern receivers drive the volumes for more frequent activations (Tier 3 and 4).
- **Administration Building** – located on the lower floors, and with topography screening most of the exposed glazed facades, this room is fairly isolated. Some potential for reflected noise off nearby facades

could occur and cross talk between this use and other concurrent activations are more likely to limit the operating volumes.

- **Entertainment Hall** - where entry door or any windows are open the dB values jump significantly at the nearest residential façade. Further to this, even with everything closed, the light-weight roof and glazing still results in significant dBC.
  - Where the door to Entertainment Hall remains closed, levels up to 5 dB higher are predicted to be compliant.
  - It is recommended that the door be fitted with an automatic closer, and opportunity to install an air-lock entry be considered. Which will also aid to keep traffic noise out.

The predicted levels for what would be considered general activities internally (not desiring high volumes of music and bass) are generally considered fit for purpose with few areas having significant restriction on potential use.

It is noted that the Boiler House and Turbine Hall are still on the threshold of compliance at the desirable dBA levels, which is largely due to the scale of these spaces. In reality for smaller activations not all facades will be emanating noise to the same volume (as considered in the modelling), and lower levels are likely to occur. It is suggested that good management of activation designs (e.g. orienting noise sources to face away from openings or windows toward the nearest sensitive land users) will further mitigate the potential for impacts.

Further to the above for off-site compliance, it is noted that good layout design can further aid to have concurrent activations between areas, without unnecessary elevation in volumes as a result of 'fighting' for clarity of signal in each area.

6.5.4 Modelling Operational Recommendations

Based on noise modelling of the various scenarios, a guideline to reasonable levels at both a Front of House (FOH, setback position in-front of a stage), as well as at easily accessible and repeatable reference locations, have been derived and presented in **Table 6.6**. These guideline noise levels will aid in management of the noise levels, without needing to investigate at the more distant off-site sensitive locations.

Based on the predictions and worst-predicted locations, a list of recommended compliance positions are presented in **Table 6.6** and **Figure 6.9**, which also aid to present numerical review of the noise modelling results.

For investigation of a complaint, measurement at the specific address (where safe), or nearest receiver in the direction of the complaint is preferred.

Table 6.6 presents the predicted levels and achievable operating volumes for modelled scenarios. 5-minute averaging is adopted as a conservative limit, to identify programming volumes during a typical 'song' duration period. For simplicity, review of a comparable dBC off-set limit to minimise complaints has been established from the low-frequency limits discussed in **Section 3.1.1.2**, and industry standard dBA vs dBC noise sources.

The predicted levels for the south and eastern areas are far below the adopted limits, and unless the performance stage is re-oriented to face directly south/east in the future, are not defining operational volumes.

Figure 6.9: Reference Noise Level Predictions

Table 6.6: Predicted Noise Levels

I.D.	Location	Predicted LAeq,5-min	Limit dBA	Predicted LCeq,5-min	Target Limit dBC	Compliant Y/N
Tier 1 – Outdoor Stage	**25 m to speakers**					
	Location 1	93	n/a	110	n/a	-
	Location 2	92		109		
	Location 3	97		112		
Tier 3 – Daytime Indoor	**10 m to speakers**					
	Boiler House	95	n/a	108	n/a	-
	Turbine Hall	98		104		
	Entertainment Hall	95		105		
Tier 4 – Evening Indoor	**10 m to speakers**					
	Boiler House	91	n/a	108	n/a	-
	Turbine Hall	94		104		
	Entertainment Hall	95		105		
Tier 1 - Occasional Major Concert						
North	5-11 Rosser Street	65	65	80	80	Y
West	5 Lilyfield Road*	64	65	74	80	Y
CP1	Northern Boundary	75	n/a	90	n/a	
CP2	Southern Boundary	75	n/a	85	n/a	
Tier 2 - Semi-Frequent Large Event						
North	5-11 Rosser Street	60	60	75	75	Y
West	5 Lilyfield Road*	59	60	69	75	Y
CP1	Northern Boundary	70	n/a	85	n/a	
CP2	Southern Boundary	70	n/a	80	n/a	
Tier 3 – Frequent, Daytime (7am - 6pm)						
North	5-11 Rosser Street	47	47	63	70	Y
West	3 Hornsey Street	55	59	70	70	Y
CP1	Northern Boundary	65	n/a	80	n/a	
CP2	Southern Boundary	60	n/a	75	n/a	
Tier 4 – Frequent, Evening (6pm-midnight)						
North	5-11 Rosser Street	43	43	63	70	Y
West	3 Hornsey Street	55	59	70	70	Y
CP1	Northern Boundary	60	n/a	80	n/a	
CP2	Southern Boundary	60	n/a	80	n/a	
Tier 5 - Overnight (midnight-7am)						
North	5-11 Rosser Street	35	35	63	65	Y
West	3 Hornsey Street	55	55	70	70	Y
CP1	Northern Boundary	52	n/a	80	n/a	
CP2	Southern Boundary	60	n/a	80	n/a	

** This façade fronts Victoria Rd, occupants and design/construction are likely accustomed to far higher noise. Note that the upper floors of 3 Hornsey Street are predicted to the limits, however at ground floor are up to 8 dBA and 7 dBC lower.*

The overarching results of the monitoring suggest the activation of the WBPS should be fully compliant, including use of an internal stage within the Boiler Room up to 90 dBA at 10m. Where operation at louder

volumes is desired, it is recommended to complete a specific site evaluation including a system calibration for a given orientation and location within the facility, which include review of the façade performance via correlated internal and external noise monitoring exercise.

It's noted that compliance levels are calibrated to the upper floors of 3 Hornsey Street, therefore the ground floor levels may be slightly different.

The modelling further indicates that for the proposed opening weekend concert, there is a critical volume limit to achieving the adopted noise goals, which are recommended to accompany a community notification exercise, as amplified sound is expected to be audible at neighbouring residences for the duration. Strict control over the operational volumes (i.e. at the FOH mixing desk) is recommended to alleviate the potential for higher levels occurring into the surrounding area.

The FOH and boundary limits are unique to the stage design and a generic music style considered in the modelling, and should not be utilised to assume external compliance is achieved for all music styles or variations to the event set up. It is a useful reference for the viability of the site layout proposed to demonstrate that the desired operating event volumes will not result in non-compliant levels off-site.

It is further noted, that during calm or preferable weather conditions, levels 3 – 10 dB higher than the above are possible, however this would need to be validated at the most affected sensitive receiver.

6.6 Summary of Recommendations

Operable noise limits have been defined in consideration of the scale and frequency of activity, as well as the time of day (detailed in **Section 3.2.3**) as follows:

- **Tier 1** – Occasional Major Concert: 65 dBA, 80 dBC
- **Tier 2** – Semi-Frequent Large Event: 60 dBA, 75 dBC
- **Tier 3** – Frequent, Daytime (7am-6pm): NSW EPA Limits (**Section 3.2.1**)
- **Tier 4** – Frequent, Evening (6pm-midnight): NSW EPA Limits (**Section 3.2.1**)
- **Tier 5** – Overnight (midnight-7am): NSW EPA Limits (**Section 3.2.1**)

Based on the noise modelling the following operational noise level limits are predicted:

- **TIER 1 – Occasional Major Concert**
  - FOH Outdoor Stage (@ 25m) = 95 dBA LAeq, 110 dBC LCeq
  - Boiler House (@ 10m) = 100 dBA LAeq, 115 dBC LCeq
  - Turbine Hall (@ 10m) = 100 dBA LAeq, 110 dBC LCeq
- **TIER 2 – Semi-Frequent Large Events**
  - FOH Outdoor Stage (@ 25m) = 90 dBA LAeq, 105 dBC LCeq
  - Boiler House (@ 10m) = 100 dBA LAeq, 110 dBC LCeq
  - Turbine Hall (@ 10m) = 100 dBA LAeq, 110 dBC LCeq
- **TIER 3 – Frequent, Daytime (7am – 6pm)**
  - Boiler House (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
  - Turbine Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
  - Entertainment Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
- **TIER 4 – Frequent, Evening (6pm - midnight)**
  - Boiler House (@ 10m) = 90 dBA LAeq, 105 dBC LCeq
  - Turbine Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
  - Entertainment Hall (@ 10m) = 95 dBA LAeq, 105 dBC LCeq
- **TIER 5 – Overnight (midnight – 7am)**
  - Boiler House (@ 10m) = 82 dBA LAeq, 100 dBC LCeq
  - Turbine Hall (@ 10m) = 85 dBA LAeq, 90 dBC LCeq
  - Entertainment Hall (@ 10m) = 90 dBA LAeq, 95 dBC LCeq

*Leq levels presented are conservative 5-minute averages

The provided levels include a 3 dB buffer for cumulative noise from multiple areas operating simultaneously. Where only one area is in operation, up to 3 dB louder levels may be achievable (with the exception of the Entertainment Hall, which defines levels exclusively to western area, with minimal cumulative contribution from other areas).

These volumes, inclusive of some rounding of values for ease of use, are deemed to be suitable and acceptable for the intended use, and are predicted to result in levels at the nearest sensitive receiver locations within the adopted criteria. For Tier 3 and 4 activations, outdoor levels are predicted to be lower than would be audible for patrons. However, small scale PA activations may be suitable for markets and other activities entertaining a smaller footprint.

Predictions for the Administration Building area demonstrated that higher levels are likely achievable (given the enclosed area), however it is recommended they follow the limitations of the Turbine Hall.

Where complaints occur, it is recommended to investigate, and evaluate the validity of the predictions and update the reference table where necessary.

7. NOISE MANAGEMENT MEASURES

7.1 Overview

The noise management measures and processes to be adopted for the minimisation of noise emissions from the site during amplification activities are presented in this section.

7.2 Noise Sources

For the operation of White Bay Power Station events, the main noise sources will be the performance stages outdoor and indoor (including small scale speaker arrays, stage monitors, and portable PA speakers), patrons and mechanical plant associated with site operations. The loudest amplified entertainment activations are the focus of this Noise Management Plan, with a consideration of the simultaneous patron noise.

Maintaining active awareness of the operating volumes and their relative contribution to off-site noise levels is the primary noise control implemented for the duration of the amplified periods, and is discussed further in **Section 6.1**.

Mechanical plant (e.g. generators, chillers, light towers) will be sufficiently remote from sensitive receivers, and unlikely to cause issue. However, mechanical plant should be powered down as soon as possible after conclusion of an event each night, so as not to disrupt the adjacent land uses (temporary accommodation).

7.3 Noise Management Overview

The overall purpose of the NMP is to minimise noise, having regard to the adopted limits provided in **Section 2.2**, and thereby minimise disturbance of residents and other noise sensitive receivers from the events sound amplification, primarily the outdoor stage (most likely to require management to maintain compliance) and indoor stage performances.

7.4 Design Measures

Specific design measures for management and minimisation of noise emissions from the White Bay Power Station which could be implemented, where reasonable and feasible, are discussed in the following sections.

Further to this discussion, opportunities to create greater containment and design of the various spaces to be fit for purpose, can improve the sound quality internally (which can benefit the useability, and reduce the desire to increase volumes, as well as the cross talk between concurrent activations/areas). An improved internal sound quality can subsequently reduce the emitted noise to the surrounding area, as higher internal noise levels are not required to achieve a useable space.

Acoustic treatment options for each space can be considered by PMNSW events staff when fit-outs of each area of the building occur, in review of the desired different uses. **Appendix C** presents some initial design advice for the various areas.

7.4.1 Outdoor Stage

Opportunities to design and operate outdoor stage installations to minimise noise impacts include:

- public address speakers, event stages and speakers shall generally be directed away from the nearest sensitive receivers (facing internally within the event spaces), and utilise the natural screening of the surrounding buildings for the outdoor stage location;
- arrange the event site, such that amplified activities are not competing with other sources of noise, to minimise required volumes above ambient noise;

- speaker directivity shall be considered during design and booking of events, and speaker locations and equipment selection chosen to minimise spillage of noise beyond the venue area toward the sensitive boundaries with known residential/sensitive land uses;
- minimise off-site propagation of low frequency amplified sound by adopting state of the art management approaches such as cardioid speakers, especially for any sub-woofers;
- where speakers are mounted on poles or otherwise elevated above ground, they are to be inclined downwards from the horizontal or otherwise designed to reduce noise spillage to the surrounding environment;
- event stages and speakers shall be positioned to utilise any potentially beneficial screening from structures associated with the event to the surrounding area (e.g. locating speakers in front of stages, containers or trucks where possible);
- use tent wall sheets around the rear and sides of temporary stages to further contain noise emissions;
- encourage the use of in-ear monitoring, rather than on-stage speaker monitors often oriented in the opposite direction to the main system, where necessary performer stage monitors should be located, oriented, and operated at volumes in consideration of surrounding sensitive land uses;
- consider the use of sound limiting devices and equalisation of low frequency content.

It should be noted that highly directional sound systems are more typically implemented for a larger size and scale of stage and event, where extensive crowd areas exist (> 50 m coverage, >2000 pax). For larger scale events, typically a higher quality sound system are utilised. PMNSW should work with major event promoters to encourage the systems to be used.

7.4.2 Indoor Music Activations

In addition to reducing noise emissions via better insulation, density, closing up gaps, etc. it is also worthwhile investigating ways in which to improve the noise quality within the space (internal acoustics).

A whole host of characteristics and factors play into the quality and performance of a space, with the following list provided a sample of aspects that can be considered in the internal acoustic performance:

- Improving speech intelligibility via reduction in the noise emission between space, echoes, distortions
- Reviewing the AS/NZS2107:2016 Recommended Internal Noise levels and Reverberation Time;
  - for patrons' amenity and comfort
  - to increase attractiveness for potential organisers via quality of the spaces
  - high reverberation times create strain on the listener, and if not treated create greater noise emissions

Aspects that contribute to these characteristics include:

- Rooms dimensions and shapes – volume, length, ceiling height - modes and nodes
  - Long highly reflective rooms can generate significant reflections and 'standing waves' or nodes.
- Poor sound systems design and locations, or booking conflicting activations
  - Greater emissions where sound is poor (tendency to compensate with more volume), where areas are competing, or where systems are directing noise externally rather than internally.
- Too many hard reflective surfaces, and no addition of dampening surfaces, which can be art installations.
- Inclusion of separating baffles or curtains between spaces, or at the boundaries, can go a long way to break up the problem noise characteristics described.
- HVAC noise.
- The use of 'air lock' entries can further reduce noise escaping to the surrounding areas, as well as noise break-in (e.g. the Entertainment Hall adjacent a major road).
- Event staff being made aware of necessary volume adjustments required into the night period.

7.5 Community Notification

The WBPS Operational Management Plan provides a list of key stakeholders and people involved in the organisation of events. Further to this, a Stakeholder and Community Impact Plan should be developed outlining the strategies and initiatives that the event organisers will undertake to minimise any impacts on the community, attendees, and various stakeholders.

The notification should identify the affected localities, the potential impacts produced by the proposed event, the management practices to avoid, mitigate and minimise predicted negative impacts, community engagement processes to further refine and adapt mitigation and management measures, and commitments to secure and enhance the positive impacts of events.

Prior knowledge of noisy periods allows land users to prepare, whether that include relocating themselves for the duration, or rescheduling their own planned activities at home. This approach potentially reduces the perceived impact or nuisance an event may have on the sensitive land users, and further aids in mitigating potential impacts.

Prior notification of the event details, including start and finish times, and a method of lodging complaints (e.g. via complaints hotline, and/or email), should as a minimum be provided to surrounding residents by one of the following methods:

- Physical letter drop to surrounding residents no later than 14 days prior to the event commencement;
- On the event website and/or community webpages.

The coverage of the notification area should extend to all historic notification areas, and any historic complaint locations (where feasible).

The event website and social media channels will provide attendees with information relating to transport, terms and conditions of entry and general safety advice prior to and during the event. The website will additionally provide a contact number for information and community complaints related to the event.

Additional methods of notification may include, but are not limited to:

- Targeted Social Media Marketing
- PMNSW Website
- Local Council Social Media

7.6 Complaint Management

A complaints hotline should be available to the public and staffed throughout the amplification periods, to allow operators to further identify potential off-site noise concerns and address their operating conditions where appropriate. This is discussed in greater detail in **Section 9**.

7.7 Annual Review

In order to provide opportunity to evaluate the efficacy of the Noise Management Plan and associated systems/methodology is recommended the compliance, complaints and Noise Management Plan should be reviewed annually and updated where deemed appropriate. This is discussed in greater detail in **Section 8**.

8. OPERATIONAL CONTROLS

8.1 Noise Compliance Monitoring

All attended noise monitoring will be undertaken in accordance with the procedures and protocols as described in Australian Standard AS1055:2018 Acoustics - Description of measurement of environmental noise, as well as any relevant EPA and Inner West Council guidelines.

Prior to commencement of the first amplified activities (or during sound check) and periodically throughout the event, it is recommended to undertake noise monitoring at the FOH and/or boundary locations. Specifically, the noise monitoring provides information about the sound propagation characteristics for the event design and layout under the prevailing meteorological conditions.

The following should be considered during sound checks:

- Operate the major (loud) PA systems at a level similar to that desired during the loudest activity;
- Test with a music genre or amplification source representative of the event style;
- Define a target noise goal (FOH or boundary level) which can be reviewed periodically.

For ongoing spot checks, these should be either completed routinely (e.g. for each new performer), or in response to either an increase in noise levels, or a complaint. The result of any increasing levels should be reported back to those in control of the event volumes.

Where the noise monitoring staff identify that noise levels are approaching, or exceeding target noise goals based on the observed instantaneous noise levels, the event operators are to be notified and, if considered necessary, the monitoring staff must request a specific reduction in noise levels.

Observations recorded shall include as a minimum:

- $L_{Aeq,5\text{-}minute}$ noise levels;
- $L_{Ceq,5\text{-}minute}$ noise levels (where the instrumentation allows);
- subjective observations of audible noise sources;
- review of live SPL (sound pressure level) data to gauge if L_{eq} averages are defined by sound amplification or other noise in the area;
- prevailing weather conditions (e.g. wind speed and direction, any gusts, cloud cover, and rain periods).
    - Detailed meteorological data are typically available from the Bureau of Meteorological (BOM) stations in the vicinity of Rozelle.

At any time, when the noise level exceeds the noise goals during monitoring, the monitoring staff is to request adequate noise reduction strategies to reduce the noise level to compliance. The allocated monitor is to conduct further noise testing at the subject site immediately after the proposed noise mitigation action occurs until the noise level is reduced to within noise limits.

A noise monitoring guideline is provided in **Appendix B** to aid staff in implementation of monitoring, and selection of suitable positions.

It is anticipated that provided the internal systems don't desire to operate to an excessive volume, and all systems are oriented internally, rather than toward the neighbouring areas, levels will remain compliant throughout.

8.2 Responding to Adverse Meteorology

Where weather is predicted to be variable, and/or performances are likely to be dynamic, it may be suitable to implement a lower threshold screening criterion (e.g. 3 dB lower than the limits) to trigger closer consideration of the operating volumes until such time as stable compliance conditions can be demonstrated.

It is noted that noise monitoring during elevated wind (> 5 m/s) or rain periods, is generally considered to be unreliable for assessing compliance. However, the venue managers and operators shall endeavour, within their ability, to maintain noise levels within the target noise goals.

The use of reference FOH levels, generally measured undercover and unaffected by wind/rain, can set the precedence for compliant levels during a period of acceptable meteorological conditions.

This reference volume can then be maintained or operated below during periods of adverse weather.

8.3 Crowd Noise

Crowd noise is not expected to be a problem during the event as the nearest residential premises are more than 200 m away from the northern entry, and 100m from the nearest point (across Victoria Road) and the amplification outdoor stage is programmed to conclude by 11 pm, or midnight on Fridays and Saturdays. It is further noted that crowd noise (including 1,000 – 4,450 concurrent attendees in an activation space) has been included in the noise modelling review.

For typical activities, the crowds will primarily be indoors with minimal contribution above the amplification when considered cumulatively. During egress, patrons should be encouraged to exhibit good neighbour behaviours, and intervention from venue managers implemented where necessary.

8.4 Designation of Responsibility

At all times PMNSW will maintain the right to enforce the noise management requirements defined in the NMP. This includes exercising a right to cease operations of a stage/entertainment area in the event where noise levels are not complying with the recommended noise goals due to the contributing stage/entertainment area and appropriate actions have not been enacted.

At all times throughout the event, an event stage manager shall be onsite and in direct contact with the venue representative in case the noise level is required to be reduced. Event stage managers shall be authorised to override volume settings if sound exceeds the noise limits (including removal of power if the music act's own sound engineer refuses to comply with direction from stage management).

The event stage manager if directed by, an authorised officer, the manager onsite, the acoustic consultant or a regulator (including Police), must have the authority to order the reduction of noise level, and shall comply with any such directions.

Controls implemented by event stage managers could include:

- reduction of overall stage noise levels;
- reduction of stage noise levels in specific frequencies (e.g. to limit the impacts of low frequency noise (dBC levels) on sensitive receptors); or
- changes to the amplification equipment to allow reduction of noise emissions from specific speakers or groups of speakers.

8.5 Emergency Response

The Event & Operations Manager has overall responsibility for managing emergency situations. If the Event & Operations Manager is unavailable and cannot be called then the head of security will assume their decision making responsibilities.

As part of planning to address noise-related emergencies or unforeseen circumstances, the event manager will maintain ultimate control of the stage amplification, with ability to cut all noise, or take control of the microphone for emergency situation or announcements. Information and emergency directions can be broadcast to the public using the PA systems available in each venue.

9. COMPLAINTS MANAGEMENT

9.1 Recording of Complaints

All complaints received by the event operator shall be recorded on a standard template document including complaints received via telephone, email or in writing. A centralised database of complaints received shall be maintained by the event in a Complaints Register and will include a record of each complaint received, including those where specific details (e.g. address) were not provided.

Information recorded for each complaint shall include as a minimum:

- date and time of the complaint;
- the method (e.g. phone, email or mail) by which the complaint was received;
- contact details for the complainant including phone number, postal and email address if provided;
- location of the complainant noting that where the complainant chooses not to give their exact address, a general indicative street location shall be recorded;
- nature of the complaint (e.g. noise, traffic etc.);
- the name of the person who received the query/complaint;
- any action undertaken in response to the complaint including any follow-up contact made;
- the reply/response given; and
- if no action was taken in relation to the complaint, the reason(s) why no action was taken.
- The register must be made available for inspection by the regulator upon request.

9.2 Responding to Noise Complaints

Where a complainant believes that noise from the event is adversely impacting their acoustic amenity, an allocated staff member will:

- attend the boundary of their property, or a representative location on public land, and undertake attended monitoring of noise levels.
- If the noise is found to be exceeding the noise limits, the monitoring staff member will contact the event stage manager(s) and request that noise levels be reduced. In instances where there are a number of complaints in the same street or general location logged, the allocated monitor will monitor the noise at a location deemed to be representative of those affected residents.
- Monitoring will continue at the complainant location until compliance with the event noise limits has been confirmed.
- Details of the measured noise levels and action taken will be provided to the staff member responsible for the complaint's hotline.
- Where requested by the complainant, an event staff member will contact them to confirm the actions taken in response to their complaint.

In reviewing complaints, especially where repeated complaints occur despite confirmation levels are compliant, it should be considered that noise complaints can be pre-meditated or vexatious, and utilised by community members in opposition to the event, rather than a direct issue with the noise being a nuisance.

10. POST EVENT EVALUATION

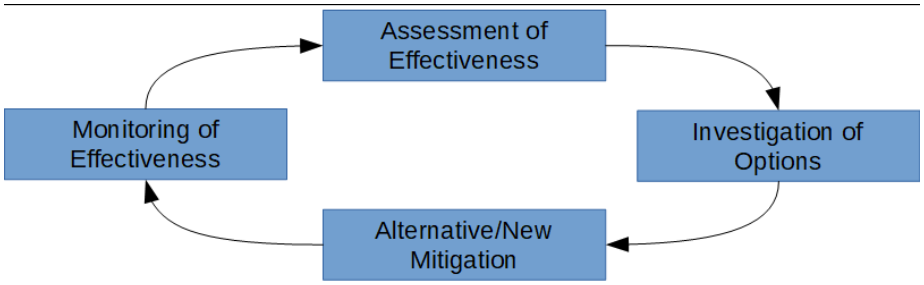
At the conclusion of the event and activities, and prior to a subsequent event at the same location, and of the same nature, it is recommended to review this noise management plan (and any other historic plans) and the efficacy of the implemented controls and actions to inform future noise management methodologies.

The post event review should include review of:

- overall status of compliance of the event,
- all documented noise complaints received, and their nature (e.g. volume, duration, bass content),
- effectiveness of responses to complaints and/or required FOH volume adjustments,
- implemented noise controls and their performance,
- potential noise controls that could be implemented to improve the noise,
- consultation with the community, and
- any other issues that occurred.

Reviews should incorporate a “corrective action loop” framework. This will ensure that the noise management strategies are reviewed and amended as required. The diagram below shows the corrective action loop.

Figure 10.1: Corrective Action Loop for NMP Review



APPENDIX A GLOSSARY

Parameter or Term	Description
dB	The decibel (dB) is the unit measure of sound. Most noises occur in a range of 20 dB (quiet rural area at night) to 120 dB (nightclub dance floor or concert).
dBA or dB(A)	Noise levels are most commonly expressed in terms of the 'A' weighted decibel scale, dBA. This scale closely approximates the response of the human ear, thus providing a measure of the subjective loudness of noise and enabling the intensity of noises with different frequency characteristics (e.g. pitch and tone) to be compared.
dBC or dB(C)	A measure of the overall noise level of sound across the audible spectrum with a frequency weighting (i.e. 'C' weighting) that places an increased focus on the low frequencies (bass).
Crowd	Number of patrons in a fixed area simultaneously.
Event	An outdoor event whose primary purpose is entertainment involving continuous amplified musical performance taking place within the approved hours of operation.
Event Noise	Noise from amplified entertainment noise
Day	The period between 7am and 6pm.
Evening	The period between 6pm and 10pm.
Night	The period between 10pm and 7am.
Façade Noise Level	Refers to a sound pressure level determined at a point close to an acoustically reflective surface (in addition to the ground). Typically a distance of 1 metre is used.
Free-field	The description of a noise receiver or source location which is away from any significantly reflective objects (e.g. buildings, walls).
L_1	The noise level exceeded for 1% of the measurement period.
L_{10}	The noise level exceeded for 10% of the measurement period. It is sometimes referred to as the average maximum noise level.
L_{90}	The noise level exceeded for 90% of the measurement period. This is commonly referred to as the background noise level.
L_{eq} Equivalent Continuous Sount Level	The equivalent continuous sound level, which is the constant sound level over a given time period, which is equivalent in total sound energy to the time-varying sound level, measured over the same time period.
$L_{eq,5\text{-}minute}$	As for Leq except the measurement intervals are defined as 5-minute duration representative of a typical musical song duration.
L_{max}	Maximum A-weighted sound pressure level typically in the fast time weighting.
Hertz (Hz)	A measure of the frequency of sound. It measures the number of pressure peaks per second passing a point when a pure tone is present.
Suitably Qualified Person or Accredited Acoustical Consultant	'Suitably Qualified Person' as defined under section 564 of the Environmental Protection Act, or an acoustical consultant who is a member of one or more of the following organisations: The Association of Australian Acoustical Consultants; the Australian Acoustical Society; or the Institution of Engineers Australia.
Sound Check	Sound check for a concert that is carried on outdoors where sound amplification equipment is used as part of the sound check.

APPENDIX B NOISE MONITORING GUIDE

Major Event – Noise Monitoring Guideline

For major concert events, at the outset of the event, periodically, or in response to a complaint, an allocated staff member should complete attended monitoring and observation at a designated boundary location periodically, as follows:

- **5-minute measurement** (average), to be completed ideally to capture data:
  - at the start of a new activity (sound check or first operation of stages),
  - if a notable increase in volume occurs,
  - if a complaint occurs (general operations).

The instrument should be programmed to record with the following acoustic and diagnostic parameters:

- L_{Aeq} dBA, 5-minute average,
- L_{Ceq} dBC, 5-minute average (not all equipment will have this option)
- Fast Response (F)

It is noted that high ambient noise or localised sources (e.g. birds, vehicles) may influence the resulting 5-minute averages, and the monitoring staff member should visually review the live Sound Pressure Level (SPL) data on-screen, to note the relative influence of music/patrons, comparative to other noise. A short burst of very high noise, e.g. a motorbike, can skew the resulting Leq average significantly. Additionally noted, is that music may temporarily breach the live SPL level, while still averaging below the target criteria. The monitoring staff member must be familiar with the Leq parameter and the procedures for reviewing live noise data prior to critical events.

Criteria and Location

Based on the predictions, it is recommended that the following operational noise levels, are not exceeded:

Area	**TIER 1** Major (Leq)	**TIER 2** Semi-Freq (Leq)	**TIER 3** Daytime (Leq)	**TIER 4** Evening (Leq)	**TIER 5** Overnight (Leq)
FOH Outdoor Stage (@25m)	95A 110C	90A 105C	-	-	-
Boiler House (@ 10m)	100A 115C	100A 110C	95A 105C	90A 105C	82A 100C
Turbine Hall (@ 10m)	100A 110C	100A 110C	95A 105C	95A 105C	85A 90C
Entertainment Hall (@ 10m)	95A 105C	95A 105C	95A 105C	95A 105C	90A 95C

Note that prevalent weather (wind or cloud) may influence the most affected boundary location.

Management

If a level of noise exceeding the applicable criteria is measured, notification should be immediately provided to the most likely defining source or stage operator, and a relative adjustment made to the output volume. Once an adjustment has been made, a follow-up measurement should be completed to identify the adjustment was successful in bringing the noise levels to within criteria, and a written record should be made of the active management and outcomes.

APPENDIX C POTENTIAL BUILDINGS WORKS FOR ACOUSTIC PERFORMANCE

It is noted that building works are being considered to improve the facility for intended use (up to $10 million). The following points provide preliminary comment on possible mitigation measures, which are specific to sound quality and noise emissions.

Acoustic Curtains:

- Curtains can aid to improve sound quality (reduce 'live' echoey, reverberant noise), however provide minimal benefit in reducing noise 'bleeding' out of areas.
- Large curtains with 'density' would be preferred. E.g. diving panels in a large space conference hall. Also consideration should be given to how noise can operate in the separate spaces, without directing the noise into/toward the divider (distributed systems, facing away, etc).
- Avoid gaps. A 10% gap can equate to a 90% throughput of noise.
- Necessary gaps to the ceiling may be acceptable if the ceiling is partially absorbent or amplification within spaces can be directed downward (and spaces aren't too echoey/live).

Staging, Lights and Audio:

- Ideally ensure audio systems have limiters and full control isolated by management. A high quality 'small PA' will be far more focussed to the area of interest, compared to a cheap one. Low frequency noise from speakers is often 80% as loud out the rear, as out the front.

Installation of Mechanical A/C (Entertainment Hall):

- Ensure the associated ductwork doesn't provide a conduit for noise breaking in (Victoria Road), or breaking out (residents to the west).
- Ensure noise from the systems isn't competing with proposed entertainment spaces, or letting external noise into the area via weaknesses in the ductwork or newly created pathways outside a closed room/area.
- Location of the compressor itself could generate a low hum to neighbouring residents if planned to be operated 24/7 on occasion.

Window Replacement (Entertainment Hall):

- Thicker, laminated glass, with good rubber seals will hold more noise in. Double glazing would be even better, but would require complicated frames and some of the heritage feel of the venue would be lost.

Installation of A/C to Service Level 3 and 4 (Administration Building):

- Ensure noise of the systems isn't competing with proposed entertainment spaces, or letting external noise into the area via weaknesses in the ductwork or newly created pathways outside a closed room/area.
- Location of the compressor itself could generate a low hum to neighbouring residents if planned to be operated 24/7 on occasion.

Fit Out of Areas on Level 2 (Administration Building):

- Materials (including floors) can influence the liveliness of a room, as well as noise generated walking through the space by patrons.

Remaining windows on Level 1 and 2 (Administration Building):

- Thicker, laminated glass, with good rubber seals will hold more noise in. Double glazing would be even better, but would require complicated frames and lose some of the heritage feel.

Trinity Consultants Australia

BRISBANE

A: Level 3, 43 Peel Street
South Brisbane, QLD 4101
T: +61 7 3255 3355
E: brisbane@trinityconsultants.com

GLADSTONE (Vision Environment)

A: Unit 3, 165 Auckland Street
PO Box 1267
Gladstone, QLD, 4680
T: +61 7 4972 7530
E: office@visionenvironment.com.au

SYDNEY

A: Level 6, 69 Reservoir Street
Surry Hills, NSW 2010
T: +61 2 8217 0706
E: sydney@trinityconsultants.com

Acoustics • Air Quality • Marine Ecology • Noise • Stack Testing • Water Quality

The Planning Studio

APPENDIX A4

Transport Management and Accessibility Plan

TRANSPORT MANAGEMENT AND ACCESSIBILITY PLAN

White Bay Power Station

PREPARED FOR:
Placemaking NSW

REFERENCE:
0740r02v04

DATE:
5/07/2024

TRANSPORT MANAGEMENT AND ACCESSIBILITY PLAN

White Bay Power Station

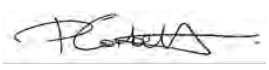
Prepared for: Placemaking NSW

ABN: 51 437 725 177

Reference: 0740r02v04

Date: 5/07/2024

Revision History

VERSION	DATE	PREPARED	REVIEWED	APPROVED	SIGNED
01	17/05/2024	Ben Midgley	Paul Corbett	Paul Corbett	Original signed
02	24/05/2024	Ben Midgley	Paul Corbett	Paul Corbett	Original signed
03	14/06/2024	Ben Midgley	Paul Corbett	Paul Corbett	Original signed
04	5/07/2024	Ben Midgley	Ben Midgley	Paul Corbett	

PDC Consultants

info@pdcconsultants.com.au | www.pdcconsultants.com.au

+61 2 7900 6514 | Level 14, 100 William Street, Woolloomooloo NSW 2011

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1. Introduction

1.1. Overview

PDC Consultants has been commissioned by Placemaking NSW to prepare a Transport Management and Accessibility Plan (TMAP) to assess the potential transport impacts that could arise from the proposed temporary uses of the White Bay Power Station (WBPS).

This TMAP forms part of a broader Review of Environmental Factors (REF) which considers both the environmental impacts of the proposed events and activities which may occur at the site, and any mitigation measures required to address identified impacts.

The REF has been prepared on behalf of Placemaking NSW (PMNSW), which is a public authority of the NSW Government. PMNSW forms the proponent and determining authority of the works and is required to consider, to the fullest extent possible, all matters affecting, or likely to affect, the environment by reason of the proposed activity. In this respect, this TMAP considers the transport matters associated with the proposed activity.

1.2. Methodology

A range of events and activities are anticipated for the site for consideration by the REF, such as:

- Arts and Cultural partnerships with PMNSW that will run over a number of weeks.
- Large scale commercial ticketed events that are of an entertainment, artistic or cultural nature.
- Commercial filming.
- PMNSW community or local events (e.g. local markets, open days, rehearsal spaces, maker spaces).
- Occasional commercial private hire for events, workshops, conferences, or educational programs.
- A broad range of other events and activations that allow public access and adaptive reuse of the WBPS.

Accordingly, it is not possible to predict the specific transport impacts each and every type of event and activity of the site might have over the next eight or so years. In response to this, consideration has been given to key factors which are thought most pertinent in influencing transport impacts, being:

1. Event patronage (number of people attending the site, including staff).
2. Travel intensity (the period over which arrival and departure trips generated by the site occur).
3. Travel mode (which vehicle type or mode of travel visitors to the site might use).

The use of these two key factors allows for a categorisation system to be established for which the traffic impacts of event or activity categories can be more broadly considered, and mitigation proposed.

1.3. Structure of this Report

This TMAP documents the transport impacts of use of the site and is structured as follows:

- Section 2: Summarises the existing conditions and transport context.
- Section 3: Presents surveys and data for the Biennale 2024 case study.
- Section 4: Outlines the proposed event and activity categorisation.
- Section 5: Considers the likely transport impacts of each category.
- Section 6: Identifies mitigation measures which might be adopted.
- Section 7: Presents the study conclusions.

1.4. References

In preparing this report, reference has been made to the following guidelines / standards:

- Environmental Planning and Assessment Act 1979 (EP&A Act).
- Integrated Public Transport Service Planning Guideline, Sydney Metropolitan Area 2013 (Integrated Public Transport Planning Guidelines 2013).
- NSW Government Guide to Traffic and Transport Management for Special Events 2018 (NSW Govt. Guide).
- Transport for NSW Traffic Control at Work Sites Technical Manual Issue 6.1, 2022 (TCAWS).
- Australian Standard AS 1742.3-2019, Part 3: Traffic Control for Works on Roads (AS 1742.3).
- Australian Standard AS 2890.2-2018, Part 2: Off-Street Commercial Vehicle Facilities (AS 2890.2).

2. Existing Conditions

2.1. Location and Site

The site consists as four lots, being Lot 380 DP1277236, Lot 381 DP1277236, Lot 382 DP1277236, and Lot 4 DP1063454, however most of the buildings and structures are located on Lot 380 DP1277236. It is located on the southern side of Robert Street, Rozelle, around 750 metres northeast of Rozelle Bay Light Rail station and 2.5 kilometres west of the Sydney CBD. It is irregular in configuration and has an overall site area of around 38,000 m^2. It is bound to the north by Robert Street over around 220 metres, Port Access Road and the Sydney Metro compound to the east, and Victoria Road to the south and west.

The site was activated for Biennale 2024 which opened to visitors in March 2024 and finished on 10 June 2024. Prior to that, it was a coal-fired power station which ceased operations in the 1980s. Following recent works to facilitate activation, it has two vehicle driveways onto Robert Street near its intersection with Mullens Street: one being a 7.5-metre-wide entry-only access to the east and the second being a 7.5-metre-wide exit-only driveway to the west. Additionally, a temporary service vehicle access is provided from the Port Access Road to the southeast of the site through the Sydney Metro construction compound.

Within the site's northern forecourt, accessible via Robert Street, there are four passenger vehicle pick-up and drop-off bays, and two bus bays capable of accommodating buses up to 14.5-metres in length. Two accessible parking spaces are provided to the site's northeast, accessible via the northern forecourt circulation roadway. No other car parking is provided. Bicycle parking is provided in the form of bicycle racks at two separate locations. The northern forecourt layout is illustrated by the aerial image (taken 7 April 2024) provided as **Figure 1**.

Figure 1: Northern Forecourt (7 April 2024)

2.2. Road Network

The road hierarchy in the vicinity of the site is shown by **Figure 3**, with the following roads considered noteworthy:

- **Victoria Road**: a classified state road (MR 165) that runs between Parramatta and the Anzac Bridge. Near the site, it is subject to 60 km/h speed restrictions and accommodates three lanes of traffic in each direction, flaring at intersections to provide turn bays. Clearway restrictions and bus lanes are provided near the site.

- **Robert Street**: an unclassified regional road (RR 7317) between Victoria Road and Mullens Street, and local street east of Mullens Street, which runs between Victoria Road and the White Bay Cruise Terminal. Near the site it is subject to 40 km/h high pedestrian activity area restrictions and carries two lanes of traffic in each direction west of Mullens Street, and one lane of traffic in each direction east of it.

  On-street parallel parking is provided along the northern side of Robert Street between Victoria Road and Mullens Street at all times except 3—7pm Monday to Friday. No Stopping restrictions apply along the southern side. East of Mullens Street, 90-degree angled parking is provided on both sides which is subject to 2P time restrictions near the site and is unrestricted further east.

  Given the angled alignment of on-street parking, the number of car spaces along Robert Street east of Mullens Street is very high for a typical local street, with around 180 car spaces provided (before Biennale temporary traffic management arrangements) available between Mullens Street and Buchanan Street (a distance of around 360 metres).

  Pedestrian infrastructure is poor along Robert Street east of Mullens Street, with only a narrow footpath along the northern side.

- **Mullens Street:** forms a continuation of the unclassified regional road (RR 7317) which runs in a north—south alignment between Beattie Street and Robert Street. Near the site it is subject to 40 km/h high pedestrian activity area restrictions and carries one lane of traffic in each direction. On-street parallel parking is generally permitted along its length, with some bays indented in the northbound direction and time restrictions applying in the southbound direction near Robert Street from 6:30—9:30am.

Figure 2: Site Plan

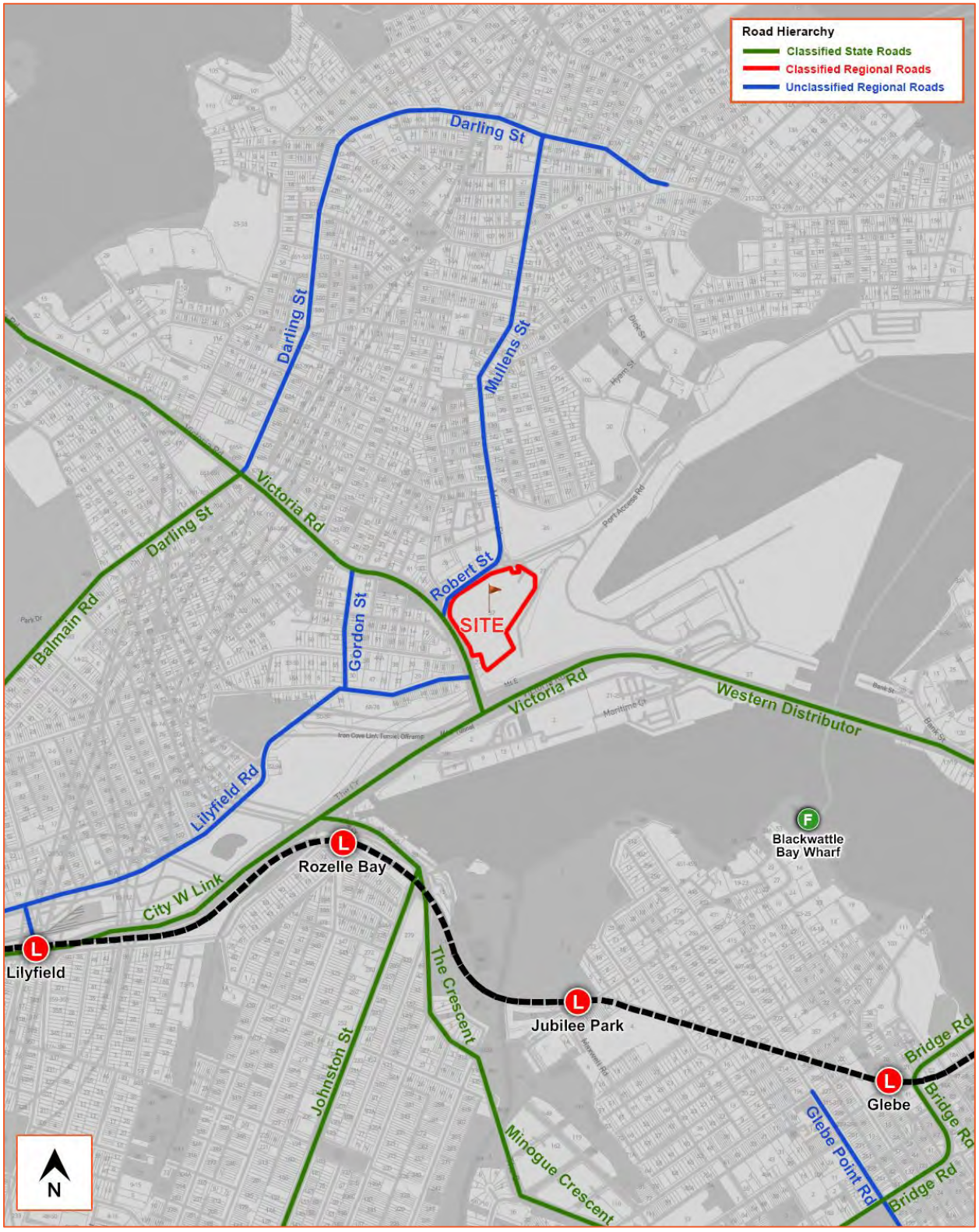


Figure 3: Road Hierarchy

2.3. Public & Active Transport

2.3.1. Public Bus Services

The Integrated Public Transport Planning Guidelines 2013 states that the walking catchment for metropolitan bus services includes all areas within a 400-metre radius of a bus stop. As can be seen from **Figure 5**, the site is situated within 400 metres of several bus stops located along Robert Street, Mullens Street, and Victoria Road. Accordingly, the site falls within the walking catchment, with visitors and employees expected to utilise these services for journeys to and from the site.

The two bus services which travel along Robert Street and Mullens Street are expected to be the two used most by visitors to the site, being routes 441 and 442; these are highlighted in **Table 1**, for emphasis.

Given the location of the inbound bus stop (ID 203933) on the northern side of Robert Street, visitors arriving from the Sydney CBD would be required to cross Robert Street to get to the site. Accordingly, these persons would be required to walk westwards to cross Robert Street at its signalised intersection with Victoria Road.

Table 1 shows the notable town centres that are accessible via the bus services which operate in the vicinity of the site and the average service headways during peak and off-peak periods.

Table 1: Bus Services

ROUTE NO.	TO / FROM	ROUTE DESCRIPTION	AVERAGE HEADWAY
433	Balmain Gladstone Park to Central Pitt St	Via Rozelle, Forest Lodge	Weekdays: 10 - 15 minutes Weekends: 15 – 20 minutes
440	Bondi Junction to Rozelle	Via Centennial Square, Paddington, Darlinghurst, Chippendale, Lilyfield	Weekdays: 10 - 15 minutes Weekends: 15 minutes
441	City Art Gallery to Birchgrove (Loop Service)	Via QVB, Rozelle	Weekdays: 10 - 15 minutes Weekends: 30 - 60 minutes
442	City QVB to Balmain East Wharf (Loop Service)	Via Pyrmont, Rozelle, Balmain	Weekdays: 10 minutes Weekends: 10 minutes
445	Campsie to Balmain	Via Canterbury, Lewisham, Leichhardt, Lilyfield, Rozelle	Weekdays: 15 minutes Weekends: 15 minutes
500N	Parramatta to City Hyde Park (Night Service)	Via Rydalmere, Ermington, West Ryde, Ryde, Gladesville, Huntleys Cove, Huntleys Point, Drummoyne, Rozelle, Pyrmont	Weekdays: 7 Services Only Weekends: 4 - 7 Services
500X	West Ryde to City Hyde Park (Express Service)	Via Ryde, Gladesville, Huntleys Cove, Huntleys Point, Drummoyne, Rozelle, Pyrmont	Weekdays: 10 minutes Weekends: 10 minutes
501	Parramatta to Central Pitt St	Via Rydalmere, Ermington, West Ryde, Ryde, Gladesville, Huntleys Cove, Huntleys Point, Drummoyne, Rozelle, Pyrmont	Weekdays: 15 - 20 minutes Weekends: 15 minutes
502	Cabarita Wharf to Drummoyne and City Town Hall	Via Cabarita, Concord, Canada Bay, Five Dock, Russell Lea, Rozelle, Pyrmont	Weekdays: 30 minutes Weekends: 30 minutes

ROUTE NO.	TO / FROM	ROUTE DESCRIPTION	AVERAGE HEADWAY
503	City Town Hall to Drummoyne (Loop Service)	Via Pyrmont, Rozelle	Weekdays: 30 - 60 minutes Weekends: No Services
504	Chiswick to City Domain	Via Abbotsford, Drummoyne, Rozelle, Pyrmont	Weekdays: 10 minutes Weekends: 10 - 15 minutes
505	Woolwich to City Town Hall	Via Hunters Hill, Huntleys Point, Drummoyne, Rozelle, Pyrmont	Weekdays: 5 Services Only Weekends: No Services
506	Macquarie University to City Domain	Via Macquarie Park, North Ryde, East Ryde, Hunters Hill, Drummoyne, Rozelle, Pyrmont	Weekdays: 5 - 10 minutes Weekends: 30 minutes
507	Meadowbank to Gladesville	Via Putney, Tennyson Point, Gladesville, Huntleys Cove, Huntleys Point, Drummoyne, Rozelle, Pyrmont	Weekdays: 15 - 30 minutes Weekends: 30 minutes

2.3.2. Ferry Services

The Integrated Public Transport Planning Guidelines 2013 states that the walking catchment for ferry wharves includes all areas within an 800-metre radius of a wharf. It can be seen from **Figure 5** that Blackwattle Bay Wharf is located around 900 metres from the site, and hence falls just outside the typical walking catchment area. Visitors and employees of the event could possibly use the ferry network as part of a multi-modal trip; however, the walking distance is moderate at around 30—40 minutes, given the geometry of Blackwattle Bay.

Balmain Wharf is around 1.5 kilometres from the site and so again falls outside the typical walking catchment area; however, there are better bus services between Balmain Wharf and site than there are between Blackwattle Bay Wharf, and as such this may form a more appealing means of using a ferry to travel to and from the site. The same is true of Balmain East Wharf, which again has regular bus connections to the site. The walking distance between Balmain and Balmain East Wharves and WBPS is around 25—35 minutes.

Table 2 shows the route of the F4 line (which serves Balmain East), F8 line (which serves Balmain) and F10 line (which serve Blackwattle Bay) and average service headways during peak and off-peak periods. The F3 line also serves Balmain and Balmain East Wharves, but only during weekday commuter peak hours at a very low frequency.

Table 2: Ferry Services

SERVICE	DESCRIPTION	AVERAGE HEADWAY
F4	Circular Quay to Pyrmont Bay	Weekday: 20 minutes (peak) / 30 minutes (off-peak) Weekend: 30 minutes
F8	Circular Quay to Cockatoo Island via Balmain	Weekday: 30 minutes (peak) / 60 minutes (off-peak) Weekend: 60 minutes
F10	Barangaroo Wharf to Blackwattle Bay Wharf	Weekday: 30 minutes Weekend: 30 minutes

2.3.3. Light Rail Services

The Integrated Public Transport Planning Guidelines 2013 states that the walking catchment for metropolitan rail includes all areas within an 800-metre radius of a station. It can be seen from **Figure 5** that Rozelle Bay Light Rail Station is located 650 metres from the site, and hence falls within the typical walking catchment area.

The newly constructed Rozelle Parklands opened to the public in March 2024, creating an attractive active transport link between Rozelle Bay Light Rail Station and the site, with a typical walk time of around 20 minutes. As such, visitors and employees of the event would be expected to use the light rail network for travel to and from the site.

Table 3 shows the notable town centres provided along the L1 line and average service headways during peak and off-peak periods, with the L1 line illustrated by **Figure 4**.

Table 3: Light Rail Services

SERVICE	DESCRIPTION	AVERAGE HEADWAY
L1	Central, Capitol Square, Paddy's Market, Exhibition Centre, Pyrmont Bay, Fish Markey, Wentworth Park, Glebe, Rozelle Bay, Leichhardt North, Lewisham West, Dulwich Hill	Weekday peak: 8 minutes Weekday off-peak: 10-15 minutes Weekend: 10-15 minutes

Figure 4: L1 Light Rail Line Map

2.3.4. Cycle Network

Figure 5 shows that the site is serviced by cycle facilities, with on-road cycle facilities provided along the Robert Street site frontage, which connect to dedicated off-road facilities along Victoria Road for connection to the broader cycle network including connections to Inner West suburbs and Anzac Bridge. It is however noted that the off-road shared path along the site's Robert Street frontage has been under 'cyclists dismount' conditions since the commencement of Biennale in March 2024 and this is expected to continue into the future.

These facilities are supported by a network of low-speed local streets near the site, particularly in Balmain to the north, which provide relatively safe and efficient connections for cyclists.

Further new cycle connections opened through the Rozelle Parklands in March 2024. This has improved cycle connectivity to the Rozelle Bay Light Rail Station, but also further south and west of the site towards Inner West suburbs of Lilyfield, Leichhardt, and beyond.

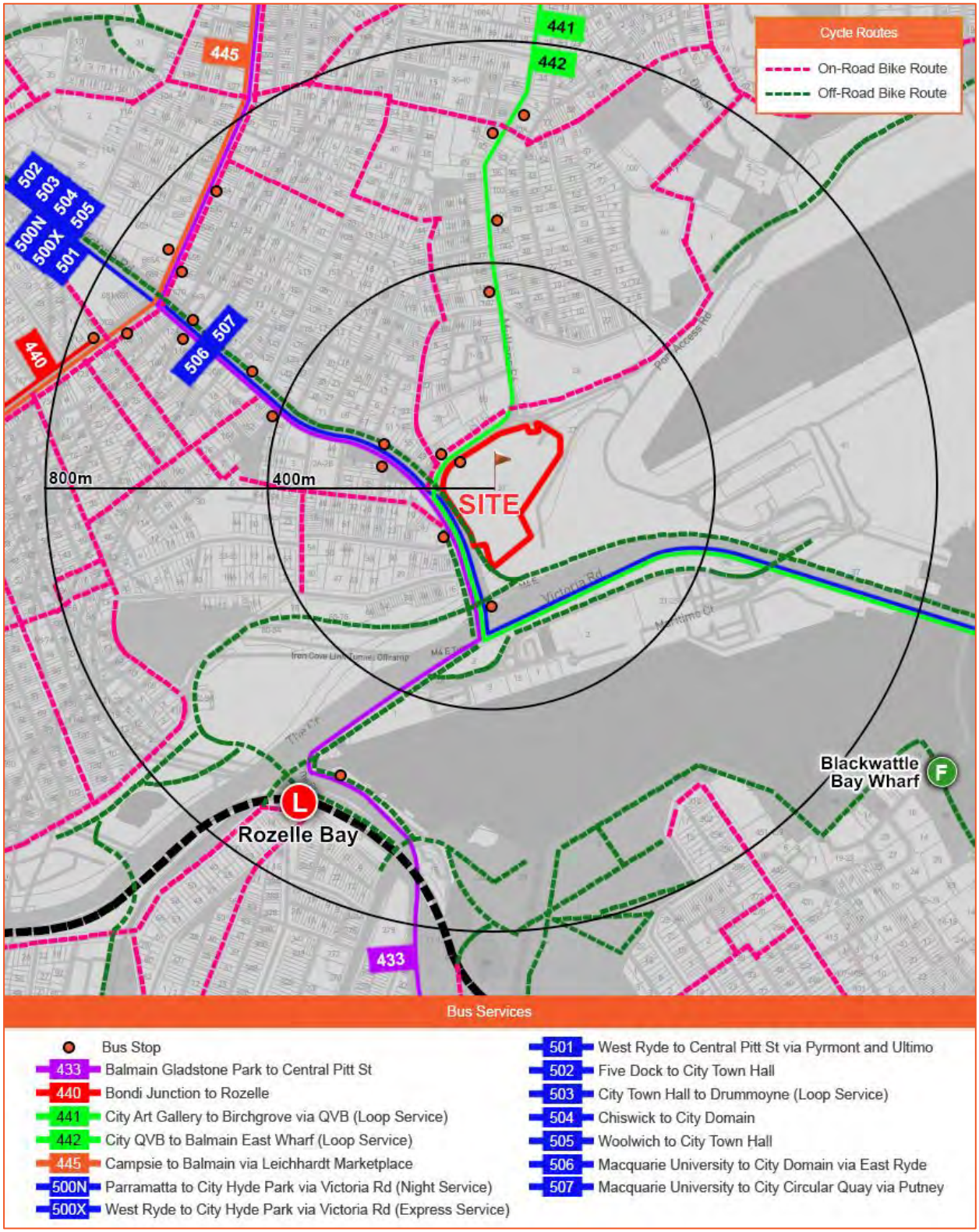


Figure 5: Public and Active Transport Services

2.4. Traffic Conditions

Intersection turn counts, queue lengths, and automatic tube counts (ATC) were undertaken in March 2023 to understand baseline traffic conditions before any material works to remediate the site began. It is noted that since this date, significant road network infrastructure changes have occurred in the area, most notably opening of the Rozelle Interchange. Intersection turn count and queue length data was collected on Saturday 18 March 2023 between 11am—2pm and on Tuesday 21 March 2023 between 7—9am and 4—6pm at the following locations:

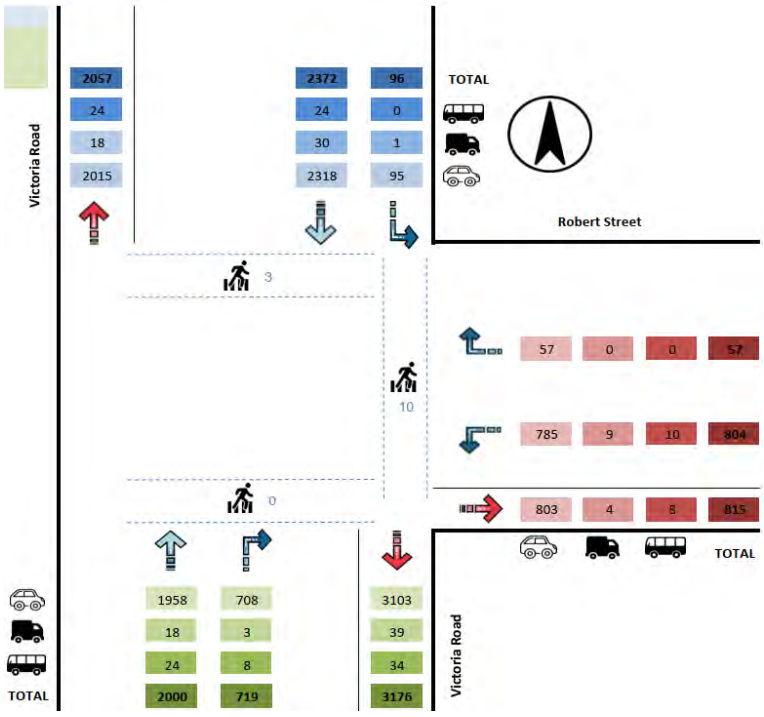
- Victoria Road / Robert Street.
- Robert Street / Mullens Street.
- Robert Street WBPS Site Access (formerly the only site access, catering for both entry and exit movements).

These times of day and days of the week were chosen to capture both the commuter peak periods and anticipated peak visitation periods for a Saturday event. ATC surveys were undertaken on Robert Street between Victoria Road and Mullens Street and were conducted for seven consecutive days commencing 30 March 2023.

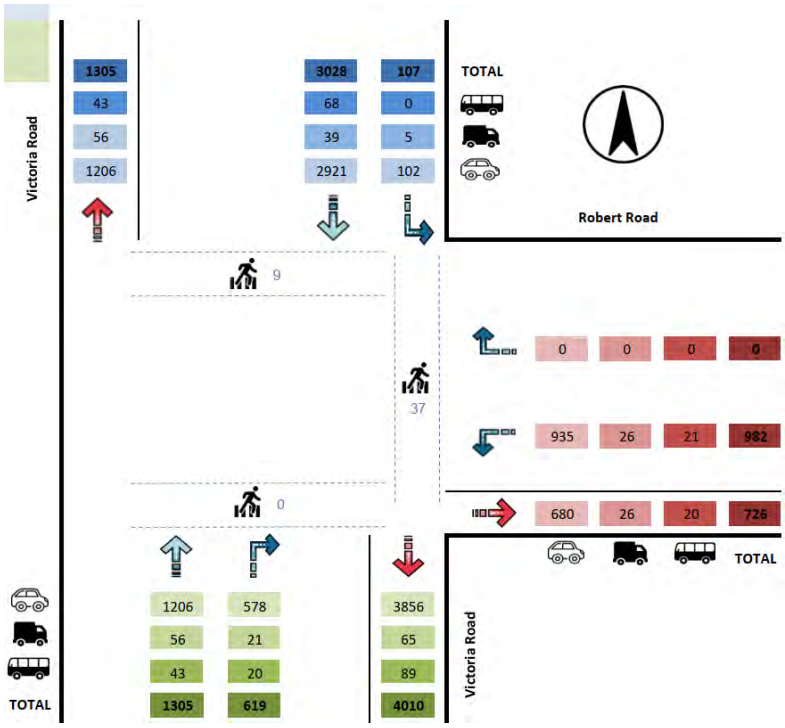
2.4.1. Intersection Turn Counts

Intersection turn counts at the three locations surveyed are provided for the weekday AM, PM, and Saturday peak hours as **Figure 6**, **Figure 7** and **Figure 8**.

SATURDAY 11:15am—12:15pm



WEEKDAY AM 7:45—8:45am



WEEKDAY PM 4:45—5:45pm

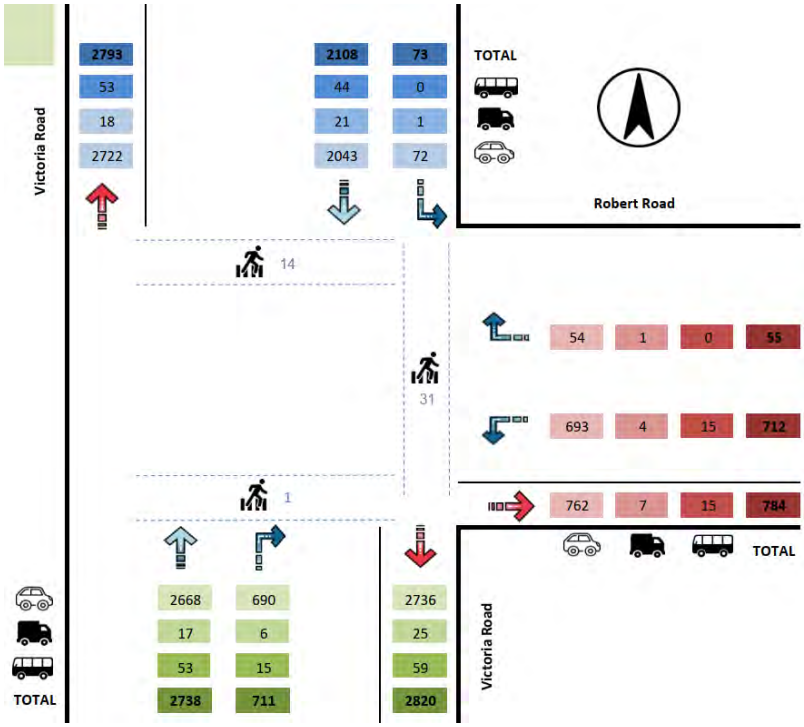
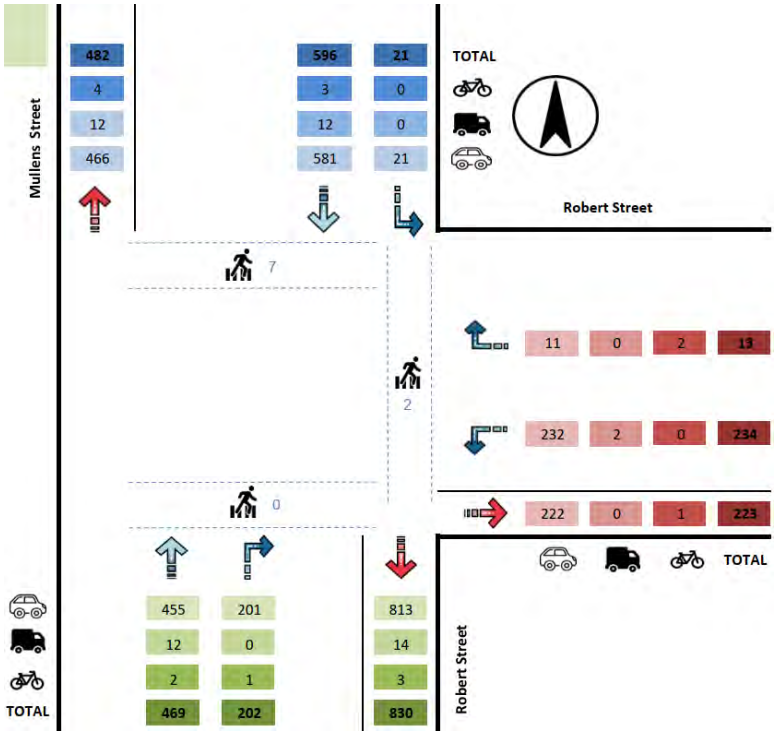
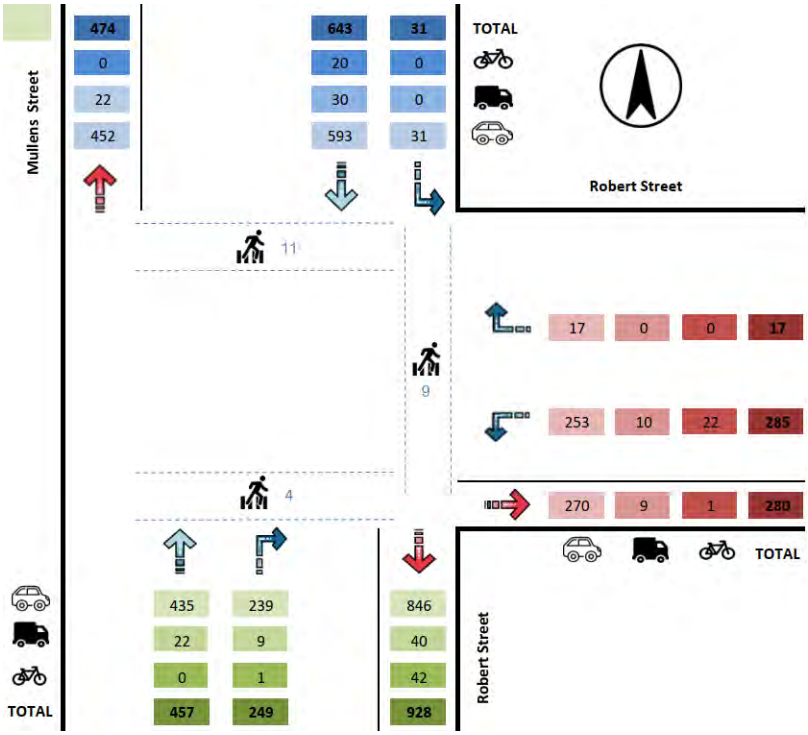


Figure 6: Victoria Road / Robert Street Intersection Turn Counts

SATURDAY 11:30am—12:30pm



WEEKDAY AM 8:00—9:00am



WEEKDAY PM 4:45—5:45pm

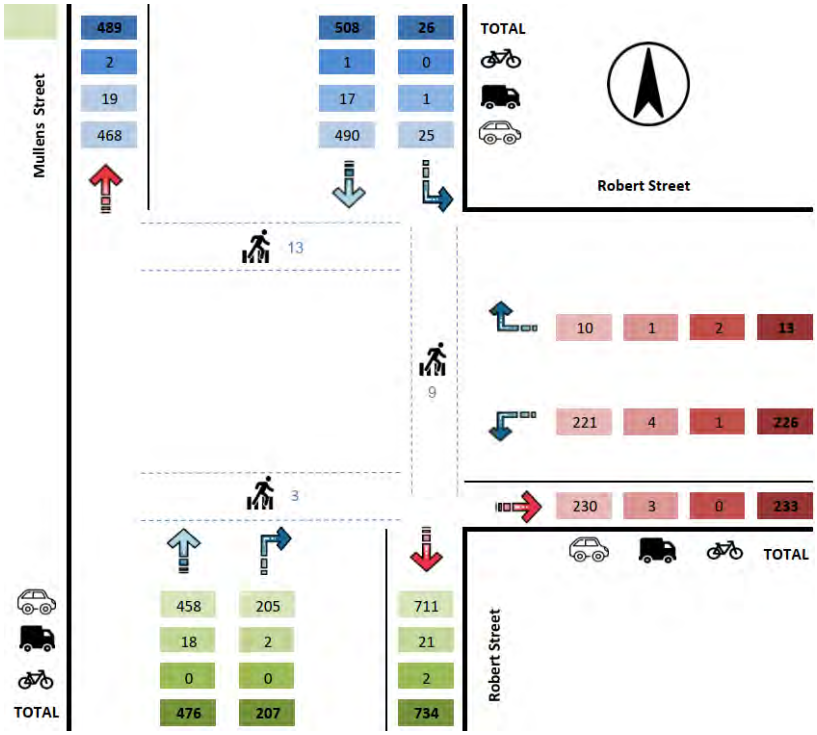
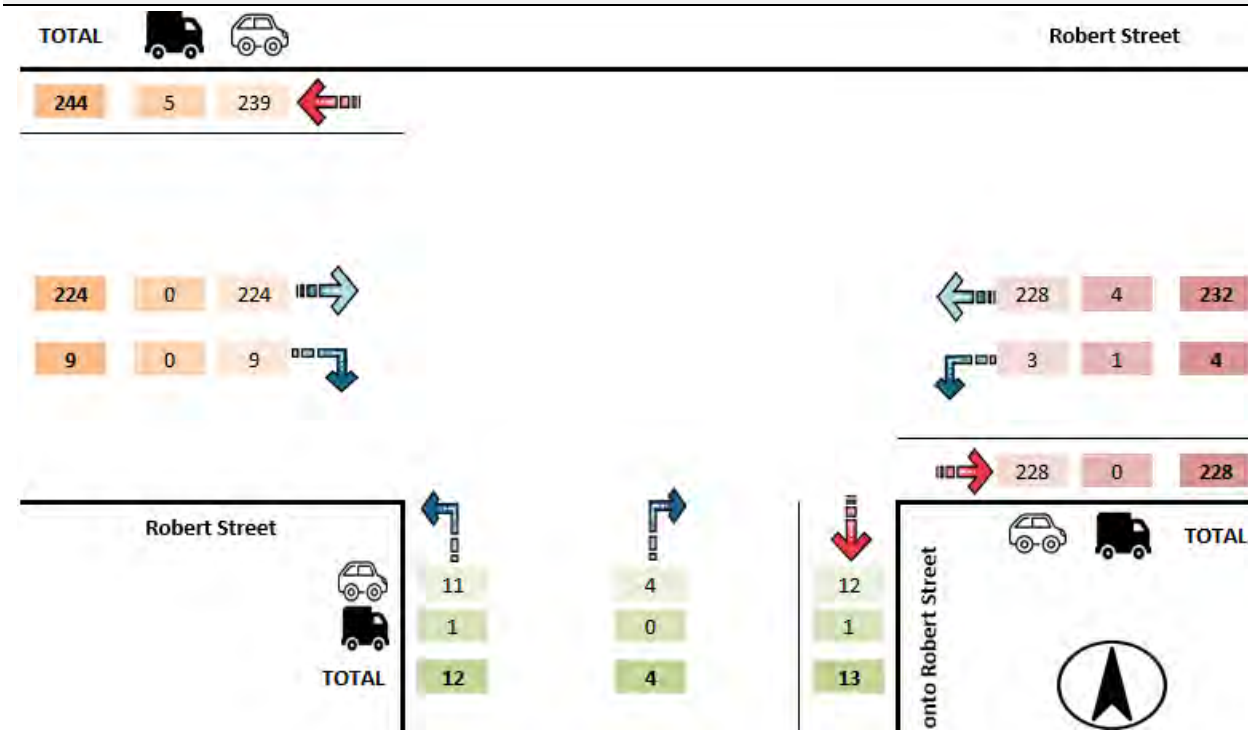
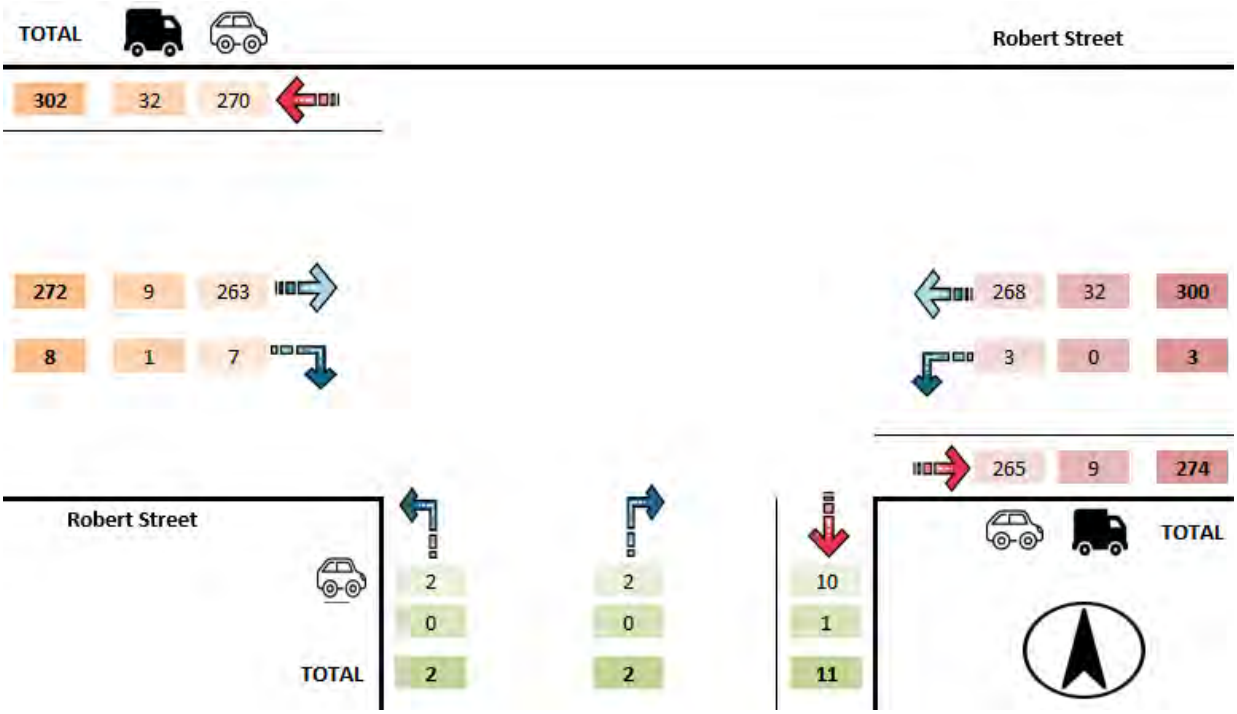


Figure 7: Robert Street / Mullens Street Intersection Turn Counts

SATURDAY 11:00am—12:00pm



WEEKDAY AM 8:00—9:00am



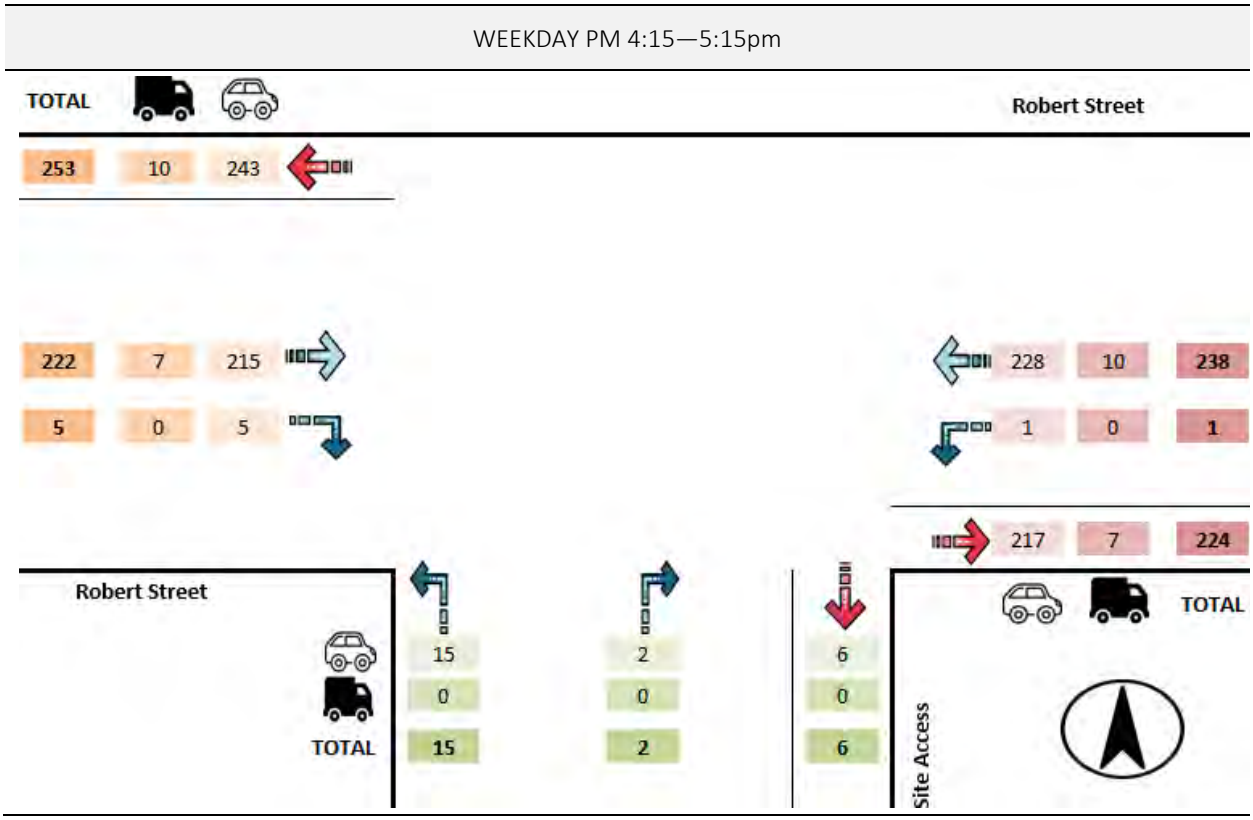


Figure 8: Robert Street / WBPS Site Access Intersection Turn Counts

2.4.2. Automatic Tube Counts

The daily traffic flow profiles across the week, vehicle classifications, and vehicle speeds recorded on Robert Street between Victoria Road and Mullens Street are illustrated by **Figure 9**, **Table 4** and **Figure 10.**

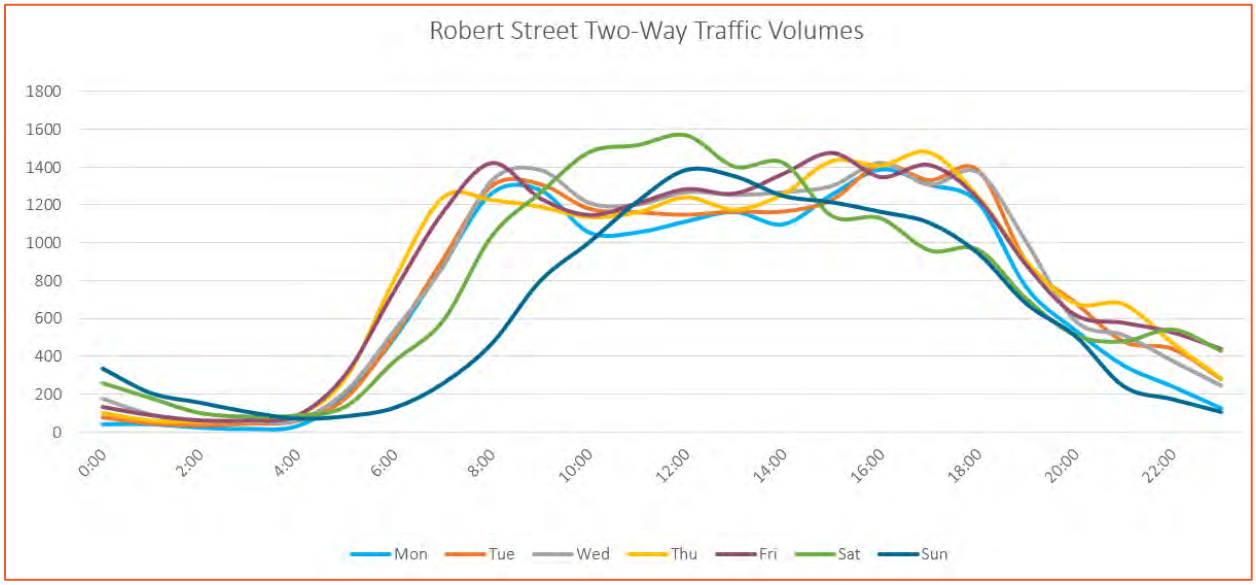
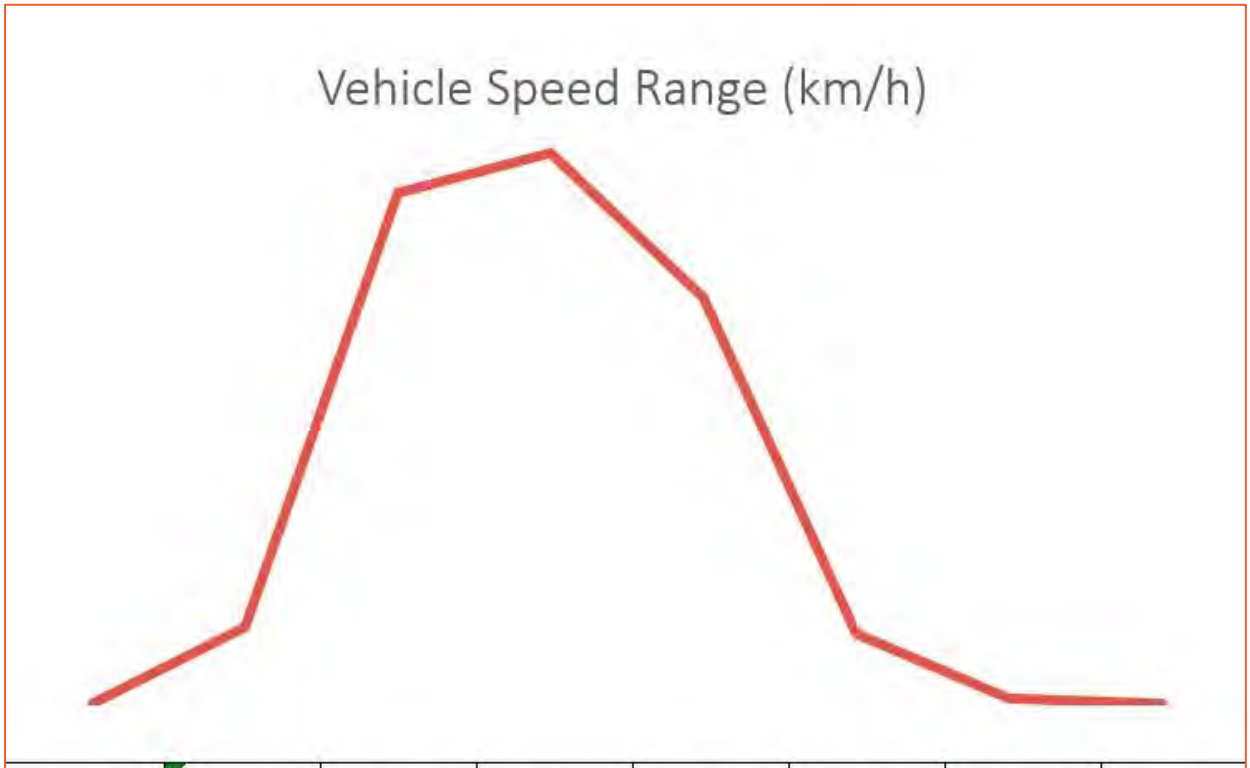


Figure 9: Robert Street Daily Traffic Profiles

Table 4: Robert Street Vehicle Classifications (Weekly Totals)

CLASS	DESCRIPTION	VEHICLE	TOTAL
Class 1	Short - Sedan, Wagon, 4WD, Utility, Light Van, Bicycle, Motorcycle, etc		120154
Class 2	Short Towing - Trailer, Caravan, Boat, etc.		620
Class 3	Two axle truck or Bus		4894
Class 4	Three axle truck or Bus		1108
Class 5	Four axle truck		218
Class 6	Three axle articulated vehicle or Rigid vehicle and trailer		66
Class 7	Four axle articulated vehicle or Rigid vehicle and trailer		185
Class 8	Five axle articulated vehicle or Rigid vehicle and trailer		27
Class 9	Six (or more) axle articulated vehicle or Rigid vehicle and trailer		92
Class 10	B-Double or Heavy truck and trailer		11
Class 11	Double road train or Heavy truck and two trailers		15
Class 12	Triple road train or Heavy truck and three (or more) trailers		3



0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
0.0%	4.7%	31.6%	34.0%	25.1%	4.3%	0.3%	0.0%

Figure 10: Robert Street Vehicle Speeds

Figure 6 demonstrates that across all peak periods, most traffic travelling to Robert Street from Victoria Road arrives from the south, with less than 15% of all arrivals being via a left turn from the north. The same is true of departures, with most Robert Street traffic approaching Victoria Road turning left and less than 10% turning right.

Robert Street at the Victoria Road intersection has peak hourly volumes of around 700—1,000 in each direction. Figure 7 demonstrates that around 60—80% of these trips travel to and from Mullens Street northwards to Balmain, with the remainder being via Robert Street (east) towards the White Bay Cruise Terminal.

Robert Street generally has around 200—300 vehicles per hour in each direction on its eastern leg of the Mullens Street intersection and at the site access. Most of these trips follow an east—west alignment and are along Robert Street. Right turning volumes from Robert Street (east) to Mullens Street (north) are very low, with a peak hourly volume of 17 vehicles observed; the corresponding left turn from Mullens Street (north) to Robert Street (east) is also low, with a peak hourly volume of 31 vehicles.

Volumes on Robert Street between Mullens Street and Victoria Road are generally consistent between 7am—6pm throughout the week, with two-way volumes between these times ranging 1,000—1,600 vehicles depending on the day. Speeds are generally low, with the vast majority ranging 20—50 km/h and less than 5% exceeding 50 km/h.

3. Case Study: Biennale 2024

3.1. Event Summary

Biennale of Sydney (Biennale) is a leading international contemporary art exhibition which held its 24th edition in 2024, occurring over six venues in the Greater Sydney region, with the largest and most activated site being WBPS. Biennale formed the first arts and culture event ever held at WBPS, and featured a free contemporary art exhibition, public events and workshops, live music, special events, and food and beverage facilities.

Biennale was open to public between March and June 2024, with two months of bump-in and installation preceding this and two months of deinstallation following. Temporary traffic management measures were implemented on the surrounding local roads for the duration of event, occasionally being modified as lessons were learned and in response to travel patterns of patrons. These measures are documented by the Event Traffic Management Plan prepared for Biennale (PDC Consultants, 2 February 2024).

In addition to public and active transport measures discussed in Section 2, Biennale also benefitted from the 443 shuttle bus service, operated by Transport for NSW, which ran throughout the duration of the event at various frequencies depending on the time and day. At peak periods, this service was initially running between the QVB and site at headways of around 2—4 minutes, reducing to headways of 10—15 minutes after the first couple of weeks and during quieter periods. Further, Council ran a new special event shuttle between WBPS and Darling Street at a 30-minute frequency.

3.2. Data Collection and Surveys

3.2.1. Overview

Throughout Biennale, a range of data collection and survey activities were undertaken which form a useful input to future planning for the site. Pedestrian and vehicle count surveys were undertaken for the 11:00am—6:00pm opening hours on Sunday 31 March (Easter Sunday), Monday 1 April (Easter Monday), and Thursday 23 May 2024. Person attendances were counted daily by Biennale and a visitor questionnaire, which included two questions on travel modes, was commenced at the end of April 2024. The Easter weekend was chosen to record an expected high-visitation weekend, with 23 May 2024 selected to be more representative of typical conditions.

Biennale was a four-month event at WBPS, over the course of which a range of different uses occurred which varied in patronage and travel mode and intensity. Whilst forming a good reference case for travel patterns associated with events at the site, care should be taken in extrapolating these findings to every different type of event or activity which might be held at the site in the future.

3.2.2. Vehicle Movements

Vehicle movement surveys were undertaken to gain an understanding of how many private vehicle trips were generated by the site. These trips would include any passenger vehicle dropping off visitors, taxis, or rideshare vehicles. Cameras were set to record movements illustrated by **Figure 11**, including vehicles either:

- Location 1 (L1): Entering the site to drop off in the northern forecourt.
- Location 2 (L2): Making a U-turn on Robert Street near the site access to drop off at the site frontage.
- Location 3 (L3): Dropping off a visitor elsewhere along Robert Street within close proximity to the site.

Location 3 had limitations in that given camera positions, it is unlikely that every private vehicle drop-off was captured, but those within camera shot near the site frontage were. The number of drop offs were recorded every 15 minutes for the full opening hours (11:00am—6:00pm) of the three days and are summarised by **Table 5**.

Table 5: Biennale Vehicle Movements

TIME	SUNDAY 31 MARCH 2024			MONDAY 1 APRIL 2024			THURSDAY 23 MAY 2024		
	L1	L2	L3	L1	L2	L3	L1	L2	L3
11:00 - 11:15	3	8	1	8	3	2	5	5	1
11:15 - 11:30	2	2	0	2	1	1	3	8	0
11:30 - 11:45	2	5	0	2	2	0	1	3	0
11:45 - 12:00	2	3	3	4	2	2	3	1	0
12:00 - 12:15	5	3	3	2	3	0	1	4	0
12:15 - 12:30	2	4	0	3	7	3	3	4	0
12:30 - 12:45	4	0	0	2	4	2	1	3	0
12:45 - 13:00	3	4	1	2	3	2	3	6	0
13:00 - 13:15	2	4	1	3	4	3	1	1	0
13:15 - 13:30	3	5	2	3	3	0	4	1	0
13:30 - 13:45	5	4	3	2	4	4	5	4	0
13:45 - 14:00	3	5	1	3	2	1	2	2	0
14:00 - 14:15	5	5	1	1	5	2	2	6	0
14:15 - 14:30	5	3	1	6	3	1	1	2	0
14:30 - 14:45	5	1	0	3	4	1	4	3	0
14:45 - 15:00	3	3	2	2	1	0	1	5	0
15:00 - 15:15	2	4	0	3	1	1	3	4	0
15:15 - 15:30	3	2	1	3	3	1	1	5	0
15:30 - 15:45	3	5	2	3	1	0	1	5	1
15:45 - 16:00	3	1	0	2	1	2	0	1	0
16:00 - 16:15	4	1	1	4	1	0	2	2	0
16:15 - 16:30	3	4	2	2	2	0	2	2	0
16:30 - 16:45	2	0	0	3	2	1	2	3	0
16:45 - 17:00	3	0	0	2	1	1	0	2	0
17:00 - 17:15	2	1	0	2	4	2	3	1	0
17:15 - 17:30	3	0	1	2	2	0	0	1	0
17:30 - 17:45	3	3	4	3	1	0	1	1	0
17:45 - 18:00	3	0	0	3	2	0	2	1	0
TOTAL	**88**	**80**	**30**	**80**	**72**	**32**	**57**	**86**	**2**
	198			**184**			**145**		

The total vehicle counts recorded do not necessarily capture every visitor who drove a private vehicle to the site, as the majority of those who drove to the site would have parked their car elsewhere. Accordingly, these counts should not be interpreted as total vehicular traffic generation of the site over any given time or day.

Table 5 demonstrates that the number of vehicular drop offs which occurred across the three survey days was relatively consistent around 150—200 vehicles per day over the seven-hour opening period, or around 20—30 vehicles per hour on average.

The Easter weekend days did have the higher patronages which might be expected, though the surveys undertaken of a typical Thursday in May, chosen for not having any special trip generating events, still experienced around 75% of the total number of vehicular drop offs.

Locations 1 and 2, being vehicles either entering the site or making a U-turn on Robert Street at the site access to drop off along the frontage, were approximately equally made by drivers dropping passengers off, with each of these two movements experiencing roughly equal volumes on Easter Sunday and Monday, and the U-turn being favoured a little more on the typical Thursday in May.

All buses which arrived at the site entered the site via Location 1, whereas the majority (though not all) of passenger vehicles made their trip via the site frontage at Location 2. Traffic marshals on duty over the Easter weekend may have favoured encouraging buses to enter the site and passenger vehicles not to do so.

There were fewer random drop offs in the vicinity of the site (Location 3), with these making up around 15% of all drop offs over the Easter weekend and far fewer still on the typical Thursday.

Figure 11: Vehicle and Pedestrian Survey Locations

The combined totals of the three locations have been summed to determine the typical arrival profile over the course of the seven-hour day, with profiles illustrated as Figure 12.

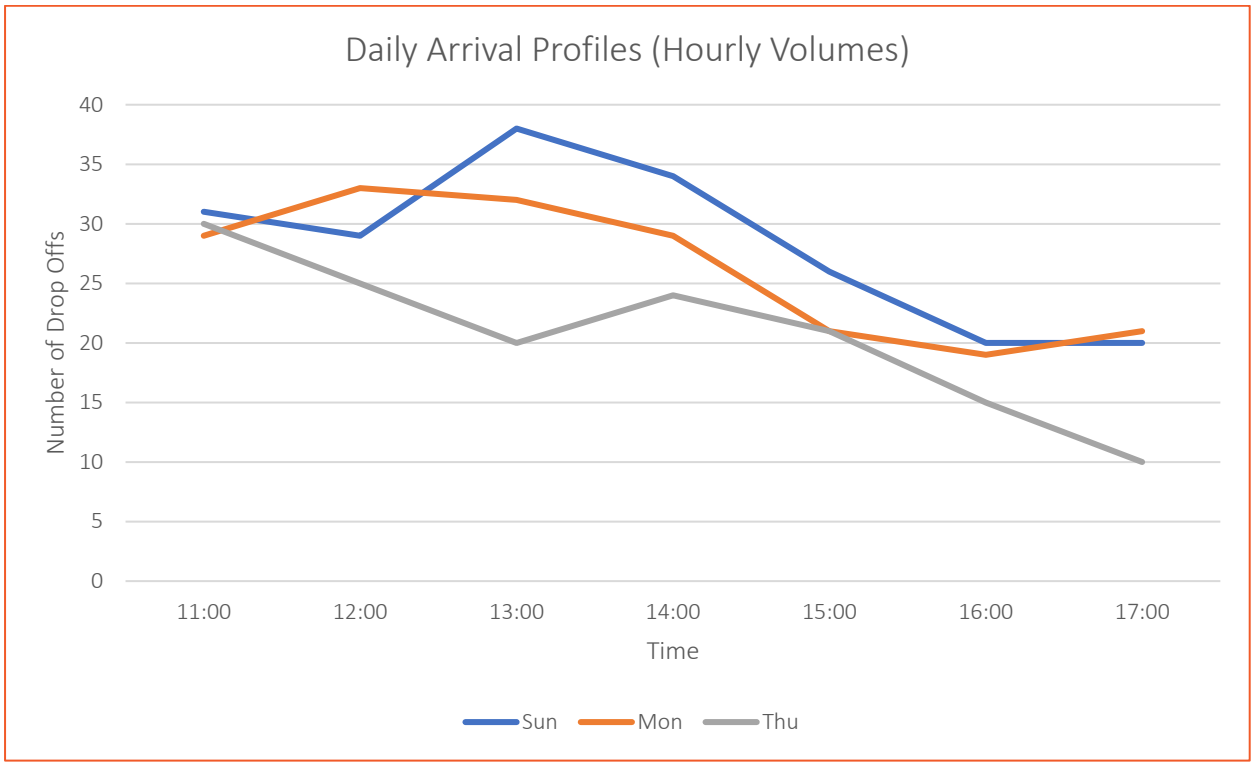


Figure 12: Biennale Arrivals Profile

Figure 12 demonstrates that visitation was high upon opening at 11:00am on all three days, remaining high on Easter Sunday and Monday until around 2:00pm, after which there was a notable reduction in the number of vehicle arrivals. On the typical Thursday surveyed, the reduction in arrivals was starker immediately after the 11:00am opening, though did increase slightly at 2:00pm before again reducing for the remainder of the day.

Raw survey data is provided as **Appendix A**.

3.2.3. Pedestrian Movements

Pedestrian movement surveys were undertaken for the same three days for which vehicle movement surveys were undertaken. These counted the number of pedestrians entering and exiting the site at the following locations:

- Ped A: Westernmost pedestrian access, west of the exit-only vehicle driveway.
- Ped B: Central pedestrian access, to the immediate west of the exit-only vehicle driveway.
- Ped C: Easternmost pedestrian access, east of the entry-only vehicle driveway.

These movements are illustrated by **Figure 11** and full survey data providing counts for each movement at these three locations is provided as **Appendix A.**

The central pedestrian access (Ped B) was not observed during surveys of the Easter weekend given it was understood that this would not form a pedestrian access way to enter and exit the site due to traffic management measures put in place. However, whilst not specifically designated or intended as such, a portion of pedestrians were found to enter and exit the site at this point. Accordingly, this forms a limitation of the Easter weekend surveys. Pedestrian access and egress at this location was captured in the later Thursday surveys.

The number of pedestrians who used each of the three access locations is provided as **Table 6**.

Table 6: Biennale Daily Pedestrian Counts

LOCATION	SUNDAY 31 MARCH 2024	MONDAY 1 APRIL 2024	THURSDAY 23 MAY 2024
PED A	879	775	365
PED B	-	-	369
PED C	2,133	1,657	844
TOTAL	**3,012**	**2,432**	**1,578**

Table 6 demonstrates that Ped C, being the easternmost pedestrian access to the east of the entry-only vehicle driveway, was the one used by most visitors to the site, with more than double the number of pedestrians counted here than using any of the other accesses.

On the day for which pedestrian use of the exit-only vehicle driveway (Ped B) was also counted, being the Thursday, this location was found to have very similar usage to the westernmost pedestrian access (PED A), though again, the easternmost pedestrian access (Ped C) had the highest use.

Scrutinising the data further, the vast majority (over 90%) of pedestrians using both Ped A and Ped B entered and exited via the west towards Victoria Road. The equivalent was observed for pedestrians using Ped C, for which the vast majority entered and exited the site via the east, either using the temporary pedestrian crossing provided across Robert Street or walking along Robert Street east.

Finally, surveys also counted jaywalking to cross Robert Street via the central islands at the Robert Street / Mullens Street intersection. Whilst capturing these movements was again limited by the available camera angles and cannot be considered a complete count of all jaywalking associated with the site, those movements at the immediate vicinity of the site were captured.

Jaywalking pedestrians would have been counted as entering and exiting the site via one of the above three accesses and so they are not included in **Table 6** to avoid double counting. Across all three days, jaywalkers represented around 5% of all pedestrians entering and exiting the site and ranged from 80—150 pedestrians across the seven-hour day for the three survey days.

3.2.4. Attendances

The event organisers for Biennale undertook daily counts of visitors to the site. Data for Monday 10 March to Sunday 5 May 2024 was made available and is summarised by **Figure 13**.

Biennale did not open to the public on Mondays, with the exception of Easter Monday on 1 April 2024. The site was also closed to the public on Saturday 6 April 2024 due to inclement weather. Days for which the site was closed are excluded from **Figure 13.**

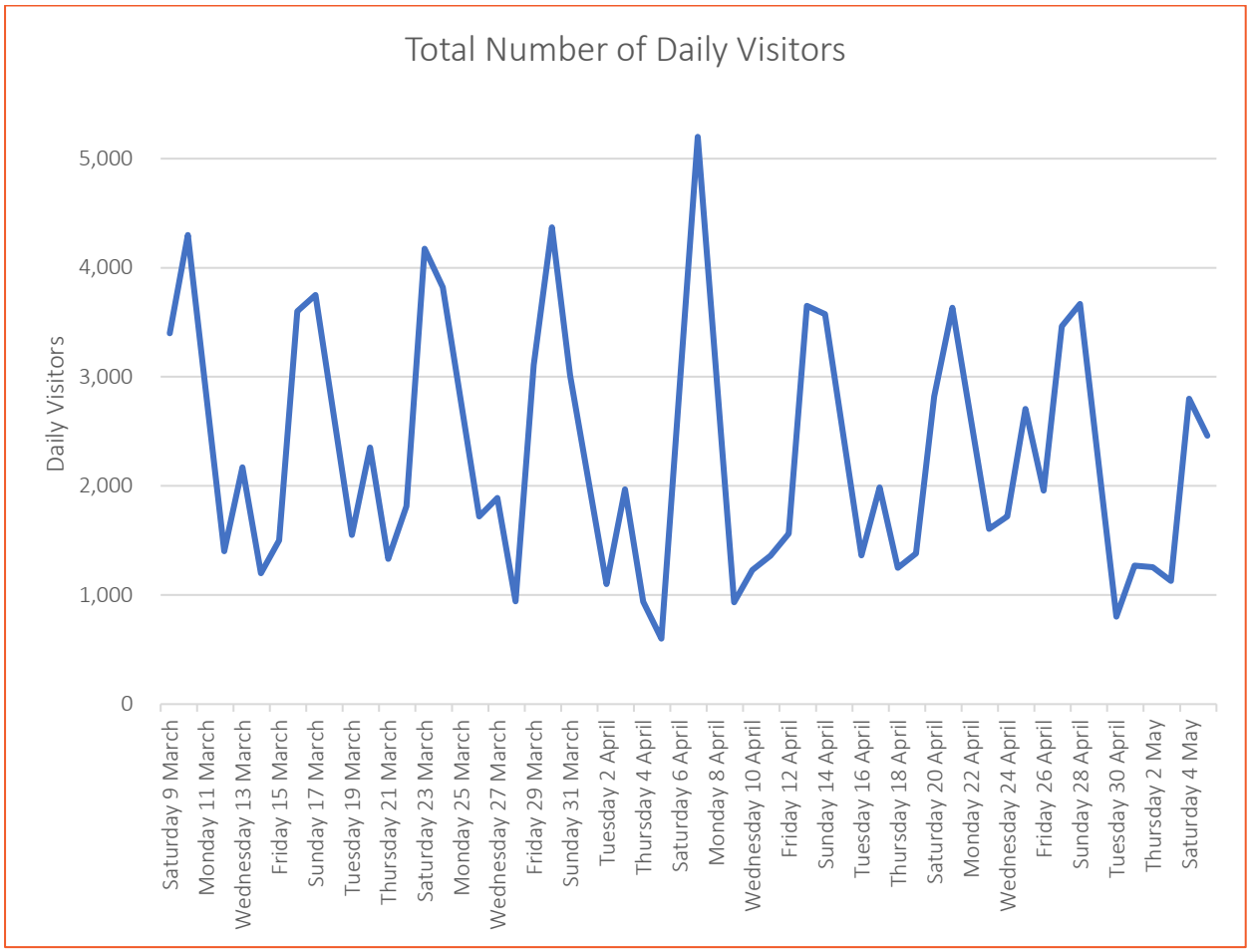


Figure 13: Biennale Daily Visitor Counts

Figure 13 demonstrates that daily visitation was generally consistent across the two-month period for which data was available, with discernible peaks in visitation over weekends and then dips through the week.

The highest visitation was of 5,200 persons on Sunday 7 April 2024, though this is thought to be partially because the site was closed the day before due to inclement weather. Otherwise, visitation during the week generally hovered between 1,000—2,000 persons and on weekends was around 3,000—4,000. Visitation generally waned over the course of the two months.

The average daily visitation over the two months for the seven days of the week are summarised by **Table 7**. Easter Monday was an anomaly as the site was otherwise closed on Mondays and so this is excluded (though visitation can be derived from **Figure 13**), as is the Saturday for which visitation was zero due to inclement weather closure.

Table 7: Average Daily Visitation

MON	TUE	WED	THU	FRI	SAT	SUN
-	1,382	1,902	1,390	1,703	3,496	3,899

Table 7 demonstrates that visitation through the week was variable, with Wednesdays and Fridays being slightly busier than Tuesdays and Thursdays. Higher visitation on Wednesdays is likely due to the extended opening hours into the evening which occurred most Wednesdays. Weekend visitation is generally around double that of weekdays, with Sunday being the busiest day on average with almost 4,000 daily visitors.

3.2.5. Travel Mode Survey

Surveys of Biennale attendees, and of some persons who had not yet attended Biennale but intended to, were undertaken via questionnaires, which included two questions relevant to transport:

- What mode of transport did you take to White Bay Power Station when you last visited?
- What is your preferred mode of transport to travel to White Bay Power Station?

Responses to the first of these questions are summarised by **Figure 14**.

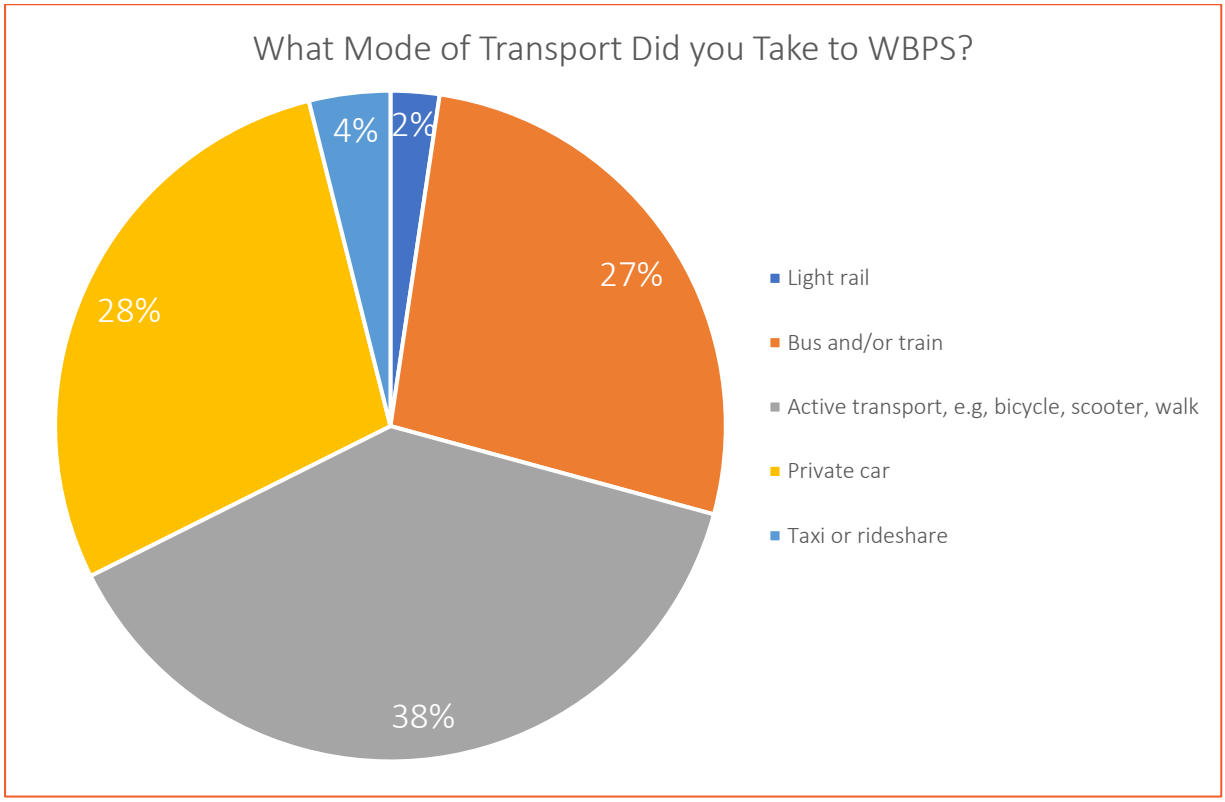


Figure 14: Observed Modes of Travel to Biennale

A total of 383 responses for this first question were received between 29 April and 24 May 2024. **Figure 14** demonstrates that of those who had attended during this period and responded to the survey, the most popular mode of travel to the site was active transport (bicycle, scooter, walk) which accounted for 38% of all visitors. This was followed by both private car and public transport (bus and/or train), which garnered 28% and 27% of responses, respectively.

A relatively low number of visitors travelled via taxi or rideshare (4%), and fewer still used light rail (2%). It is though that the taxi and rideshare proportions would be significantly higher during special events, such as Biennale Opening Night or one-off live concerts at which visitors consume alcohol. The low light rail percentage presents a significant messaging opportunity given Rozelle Bay Light Rail Station is located some 15—20 minutes' walk from the site via the Rozelle Parklands.

When respondents were asked how they would prefer to travel to the site given the choice, and when given the two additional options of 'future ferry links' and 'future metro links', responses were as in **Figure 15**. This demonstrates that the preferred mode of travel to the site is active transport, which received 35% of responses.

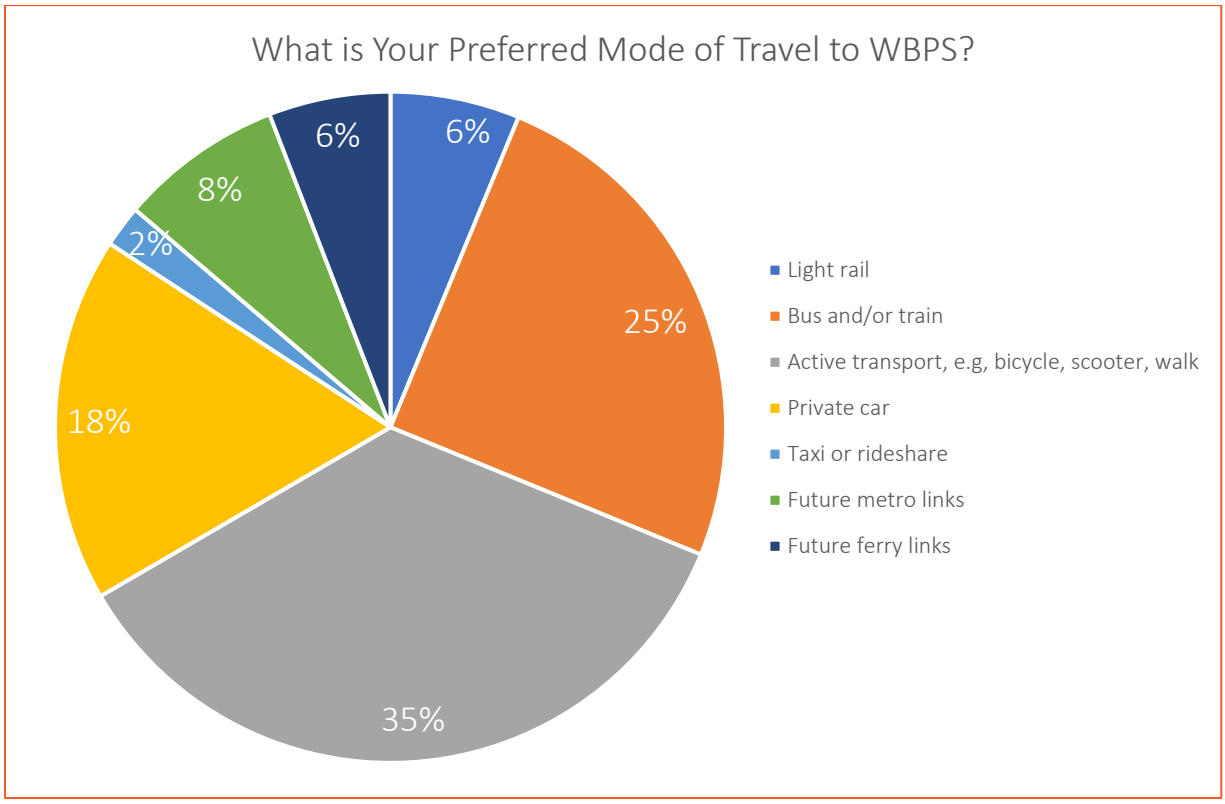


Figure 15: Desired Modes of Travel to the Site

The notable difference between the desirable and observed travel modes is the reduction in private car use desired by visitors, which in turn suggests that a lack of public transport alternatives is leading to some people driving who would otherwise prefer to take public transport. This is evidenced by votes for travel modes which do not currently exist but may do in future, with 8% responding they would like to use future metro links and 6% future ferry links for travel to and from the site.

4. Event and Activity Categorisation

4.1. Categories

As discussed in Section 1.1, a range of events and activities are anticipated for the site for consideration by the REF. Accordingly, it is not possible to predict the specific transport impacts each and every type of event and activity of the site might have in the future. In response to this, consideration has been given to key factors which are thought most relevant in influencing transport impacts, being:

1. Event patronage.
2. Travel intensity.
3. Travel Mode.

The event patronage is categorised by the number of patrons attending the event, including staff. This number is best considered as patronage of the site at any given time. For example, some events may have 2,000 persons at one time, whereas others would have 2,000 persons over the course of a day but only ever a maximum of 1,000 persons at any given time. It is patronage of the site at any given time which is of most importance t the consideration of transport impacts.

The travel intensity is categorised by the duration of time over which arrival or departure trips generated by the site occur. It is recognised that often, not every single patron would travel within the categorised durations. The event or activity proponent should adopt the intensity which reflects visitation of at least 85% of patrons.

The use of these key factors allows for a categorisation system to be established for which the traffic impacts of event or activity categories can be more broadly considered, and mitigation proposed. The categorisation takes the form of a matrix and is presented as **Figure 16**.

		EVENT PATRONAGE (persons)		
		0—1,000	1,001—2,500	2,501 +
TRAVEL INTENSITY (time)	0:00—1:00	MEDIUM	HIGH	HIGH
	1:00—2:00	LOW	MEDIUM	HIGH
	2:00 +	LOW	LOW	MEDIUM

Figure 16: Event Categorisation

Each box in the matrix is then assigned a designation which describes the likely scale of transport impacts, ranging from low impacts during which little to no mitigation would be recommended, through to high impacts, during which a high degree of mitigation would be recommended. Discussion on the transport impacts and mitigation for each category is made in the following sections.

4.2. Event Scheduling

Informing the determination of category thresholds adopted by **Figure 16** has been an appreciation of the likely range of potential uses of the site. Preliminary and high-level scheduling information for September 2024 to January 2025 was reviewed to identify the potential number of events which may occur at the site, the anticipated scale of impacts (not only from a traffic perspective, but other disciplines too) and the estimated peak capacity.

Around 5—8 different events or activities are forecast to use the site per month over this period, with around 30% being single day events and the remaining 70% being multi-day uses.

A range of different land use descriptions are considered, ranging from art gallery use, trade shows, dance parties, corporate functions, market and festival days, rehearsals, and community uses. Most events were of the Medium or High Impact categories when assessed against **Figure 16**.

The event thresholds and categorisation system were calibrated to the anticipated uses for the site to ensure an appropriate assessment of the impacts and potential mitigation could be made, each of which are discussed in the following sections.

5. Transport Impacts

5.1. Overview

The following sections broadly identify the likely anticipated transport impacts associated with events of the three different impact categories, which are defined as:

1. High impact.
2. Medium impact.
3. Low impact.

It is acknowledged that every future event or activity which may occur at the site cannot be entirely anticipated and may also not sit neatly within one of these categories. They are given as a guide PMNSW as the proponent and determining authority, and for any future specific event or activity proponent, to the potential likely impacts which may result from events of different scales and intensities.

It is recommended that consideration of the likely transport impacts specific to any given activity or event be made prior to any event or activity occurring to ensure that appropriate mitigation measures are implemented if considered necessary.

5.2. Low Impact

A Low Impact event is one which is likely to have a lower total visitation and / or has visitors arriving over a longer period of time. Smaller events would be unlikely to have any extensive dedicated travel services (such as the 443 bus implemented for Biennale), but small private groups may use buses or coaches to travel to site (such as school groups). Most trips would likely be spread across the variety of travel modes available to visitors, presented earlier.

The types of events forecast for the site which may fall into this category would include local community uses (such as rehearsal or makers spaces), commercial filming, small private hire events, conferences, workshops, or educational programs.

The below forms a summary of the expected transport impacts which might arise from ‘Low Impact’ category events or activities:

- Private bus and passenger vehicles expected to enter the northern forecourt for patron pick-up and drop-off, with little impact expected to be caused by such behaviour occurring on nearby streets.
- Whilst variable given the range of different event types, total vehicle trip generation might range between fewer than 50 to 150 vehicle arrivals before a given event and then the same amount after the event, which would include both visitors arriving by private car and parking elsewhere, and those arriving by taxi and

rideshare. This estimate assumes average car occupancy of two persons and adopts the observed Biennale mode shares for private car and taxi or rideshare (**Figure 14**).

- Pedestrian traffic would be low to moderate without significant surges or peaks.
- Likely increase in patronage of nearby public transport services (such as local bus and light rail services) but this is not expected to have a material impact on their spare capacity; no additional services required.
- Not expected to have a material impact on performance of local road network, though perhaps localised impacts during peak arrival or departure times.
- Events and activities with arrivals and / or departures occurring during weekday commuter AM and PM peak periods would have a larger impact on local road network performance.
- No additional public bus services (such as the 443) would be considered necessary.
- Low car parking demand possible, higher during events with patronage to the upper limits of the 'Low Impact' category. This is highly dependent upon the effectiveness of communication prior to the event and the type of event (such as whether alcohol consumption is likely, as alcohol consumption would likely reduce the use of private cars for travel to the site and thus car parking demand).
- Car parking demand might create stresses on local supply if the event or activity occurs concurrently with other parking generators in the area (such as during typical weekday working hours) but would have less of an impact when more supply is available, such as during weekday evenings and weekends in local commercial areas and during the day on local residential areas.
- Footpath widths would be expected to have capacity to cater for pedestrian demands, but accessibility between the site and the northern side of Robert Street and / or Mullens Street would form an issue, with uncontrolled pedestrian crossings at this intersection considered likely.

5.3. Medium Impact

A Medium Impact event is one which is likely to have a moderate to high total visitation and / or have visitors arriving over a relatively short period of time. These events may implement dedicated travel services (such as the 443 bus implemented for Biennale) through either public partnership or privately organised. A large proportion of trips would likely be spread across the variety of travel modes available to visitors, though there would be an increased demand for on-street or on-site pick-up and drop-off by passenger vehicles, such as taxis and rideshares.

The below forms a summary of the expected transport impacts which might arise from 'Medium Impact' category events or activities:

- Private bus and passenger vehicles expected to enter the northern forecourt for patron pick-up and drop-off.
- Whilst variable given the range of different event types, total vehicle trip generation might range between 150—400 vehicle arrivals before a given event and then the same amount after the event, which would include both visitors arriving by private car and parking elsewhere, and those arriving by taxi and rideshare.

This estimate assumes average car occupancy of two persons and adopts the observed Biennale mode share for private car (**Figure 14**), though an increased taxi or rideshare mode share of 20% (for a total private vehicle mode share of 48%). A reduced use of private cars (for example, during events serving alcohol to which attendees would be less likely to drive) or higher car occupancy would reduce this number of trips further.

- Expected that a high volume of pick-up and drop-offs would also occur on-street, informally along either Robert Street or Mullens Street.
- Pedestrian traffic would be moderate with the potential for short-term peaks around the start or end of certain event types.
- Likely increase in patronage of nearby public transport services (such as local bus and light rail services) which impact on their spare capacity during peaks.
- Additional public bus services (such as the 443) might be considered necessary for larger profile events or events which occur over a longer period (several days or weeks).
- Events or activities with shorter travel intensity (arrivals and / or departures occurring over a shorter timeframe) may cause localised road network capacity impacts, including higher delays and queuing at nearby intersections, such as Victoria Road / Robert Street and Robert Street / Mullens Street. However, these impacts would only be experienced over a short duration.
- Events and activities with arrivals and / or departures occurring during weekday commuter AM and PM peak periods may have some impact on local road network performance.
- Moderate to high car parking demand possible, higher during events with patronage to the upper limits of the 'Medium Impact' category. This is highly dependent upon the effectiveness of communication prior to the event and the type of event (such as whether alcohol consumption is likely, as alcohol consumption would likely reduce the use of private cars for travel to the site and thus car parking demand)).
- Car parking demand would create stresses on local supply of event or activity occurs concurrently with other parking generators in the area (such as during typical weekday working hours) and would also likely be high outside these peaks, with event demand alone likely using much of the local capacity.
- Pedestrian footpath use would be high and may result in localised footpath congestion, with mitigation likely required to prevent unsafe or unlawful entering of the adjacent roadways.
- Accessibility between the site and the northern side of Robert Street and / or Mullens Street would form an issue, with uncontrolled pedestrian crossings at this intersection considered likely. Temporary pedestrian crossing management would likely be considered necessary.

5.4. High Impact

A High Impact event is one which is likely to have a high total visitation and / or have visitors arriving over a very short period of time. These events may implement dedicated travel services (such as the 443 bus implemented for Biennale) through either public partnership or privately organised. Limitations may be placed on vehicles entering the site's northern forecourt given the likely high volume of pedestrians and / or the short timeframe over which

pedestrians are arriving at the site, though contrarily it may prove beneficial to use the northern forecourt for vehicles as much as possible to limit uncontrolled vehicular pick-ups and drop-offs on-street.

A large proportion of trips would likely be spread across the variety of travel modes available to visitors, though there would be distinct peaks in arrivals and departures which would have a significant localised impact on the road network, for example dozens of taxis and rideshares arriving within a short timeframe at the end of an event to pick up several hundreds or thousands of departing visitors. The likely demand for taxis and rideshares would be highest during a High Impact event.

The below forms a summary of the expected transport impacts which might arise from 'High Impact' category events or activities:

- Whilst variable given the range of different event types, total vehicle trip generation might range between 500—1,200 vehicle arrivals before a given event and then the same amount after the event, which would include both visitors arriving by private car and parking elsewhere, and those arriving by taxi and rideshare. This estimate assumes average car occupancy of two persons and adopts the observed Biennale mode share for private car (**Figure 14**), though an increased taxi or rideshare mode share of 30% (for a total private vehicle mode share of 58%).

- A reduced use of private cars (for example, during events serving alcohol to which attendees would be less likely to drive) or higher car occupancy would reduce this number of trips further. Further, should dedicated shuttle bus services or the like be implemented by the event organiser, Transport for NSW, or Council, then this would reduce the number of private vehicle trips further. The higher end of this trip generation estimate would only occur should all patrons of the site arrive within a one-hour period, which is considered unlikely. This trip generation is also based on the maximum anticipated person capacity, which again might not always eventuate.

- Expected that a high volume of pick-up and drop-offs would be generated, which could occur via the northern forecourt or on-street, either informally along Robert Street and Mullens Street, or in a designated temporary on-street pick-up and drop-off zone should one be provided to support the event.

- Likely increase in patronage of nearby public transport services (such as local bus and light rail services) which impact on their spare capacity during peaks; additional services may be required.

- Likely localised traffic impacts to nearby road network, particularly Robert Street intersections with Victoria Road and Mullens Street and more notably during commuter peak periods. Potential broader traffic impacts elsewhere as a result of queuing, such as within Balmain or at the Rozelle Interchange.

- Events and activities with arrivals and / or departures occurring during weekday commuter AM and PM peak periods would have a larger impact on local road network performance.

- Moderate to high car parking demand possible, higher during events with patronage to the upper limits of the 'High Impact' category. This is highly dependent upon the effectiveness of communication prior to the event and the type of event (such as whether alcohol consumption is likely, as alcohol consumption would likely reduce the use of private cars for travel to the site and thus car parking demand).

- Car parking demand would create stresses on local supply of event or activity occurs concurrently with other parking generators in the area (such as during typical weekday working hours) and would also likely be high outside these peaks, with event demand alone likely using much of the local capacity.
- Pedestrian traffic would be high with the potential for significant peaks around the start or end of certain event types.
- Pedestrian footpath use would be high and may result in localised footpath congestion, with mitigation likely required to prevent unsafe or unlawful entering of the adjacent roadways.
- Accessibility between the site and the northern side of Robert Street and / or Mullens Street would form an issue, with uncontrolled pedestrian crossings at this intersection considered likely. Temporary pedestrian crossing management would likely be considered necessary.

6. Mitigation Measures

6.1. Overview

The proposed mitigation measures for any transport related impacts can be considered either holistically for the site for all events and activities, or on a case-by-case basis via the consideration of category-specific measures which may be implemented based on the scale and intensity of the use.

The following sections make recommendations firstly on the interim measures which are recommended to address the safety and efficiency of travel to and from the site, and then on further category-specific temporary measures for each of the event categories defined in Section 4.

It is however emphasised though that the success of any future event or activity at the site would require careful consideration of the transport implications specific to the use. The services of a qualified person experienced in the consideration of transport impacts should be sought, particularly for more impactful events, for the preparation of event specific Traffic Management Plans (TMP) using this TMAP as a guide.

6.2. Proposed Permanent Measures

A number of local traffic and transport upgrades are being undertaken by PMNSW and Transport for NSW. These works will require a separate approvals process, however, were considered in the context of understanding what other interim measures are required until these works are completed. The upgrades include:

- Signalisation of the Robert Street / Mullens Street intersection with signalised pedestrian crossings across all three intersection approaches.
- Widening of the footpath along the northeast side of Victoria Road for around 80 metres south of the Robert Street intersection.
- A new southern pedestrian and cycle connection between the site and the ‘mouse hole’ to the Rozelle Parklands.
- A new signalised pedestrian crossing across Victoria Road at Robert Street.

Separate additional longer term works are under consideration as part of the broader Bays West Stage 1 urban renewal; the scope of this REF is to consider the time between current day and the opening of the Bays West Stage 1 at around 2032. Accordingly, no detailed consideration is given to potential permanent measures that may be implemented once the Bays Precinct is complete.

6.3. Proposed Interim Measures

The following outlines the minimum local traffic upgrades that could be implemented to facilitate events being held at the site and to ensure the same movement of all road users, particularly pedestrians, in the vicinity of the site. Implementation of these proposed interim measures is subject to engagement with and support from Council.

- Pedestrian barriers along the northwest kerb of the Robert Street / Mullens Street intersection between Parsons Street in the north and the southwestern corner of the Bunnings property boundary in the south.
- Modification to the central median islands at the Robert Street / Mullens Street intersection as follows:
    - Ban the right turn from Robert Street (east) to Mullens Street (north).
    - Amalgamate the two islands either side of this right turn lane to create one large island.
    - Provide pedestrian pram ramps on the two remaining islands and on the footpaths to create an accessible pedestrian path of travel between the northeast corner of the intersection and the WBPS site frontage on the southern side of Robert Street.
- Safety barrier to extend the large central median island eastwards along Robert Street towards the site entry driveway, to discourage U-turns in front of the site near the entry access.
- Pedestrian barriers along the southern side of Robert Street between the site's exit-only driveway and the proposed taxi zone.
- Conversion of the existing on-street parking along the site frontage (east of the exit-only driveway and west of the truck zone) to No Stopping, to ensure visibility for the new pedestrian crossing facility.
- Relocation of the existing truck zone at the site frontage to further east along Robert Street to the Metro compound site access as temporarily adopted for Biennale.
- Implementation of around 70 metres of No Stopping parking restrictions on the northeast corner of the intersection of Robert Street / Mullens Street, an extension of around 20 metres of the No Stopping implemented here for Biennale.
- Implementation of a taxi zone of around 40 metres in length on the southern side of Robert Street, west of the site's exit-only driveway, timed to operate between 6:30pm—midnight only, to ensure it only operates outside of commuter peak periods.
- Conversion of 113 metres of car parking on the southern side of Robert Street to the east of the site to parallel on-street car parking and an adjacent pedestrian walkway to service pedestrians using these spaces. The walkway would not be raised; rather pedestrians would walk on the existing pavement surface and be separated from vehicles via a temporary traffic lane separator (rubber kerb and bollards). These spaces would be time restricted to 2P (Mon—Fri 6am—4pm) to ensure turnover of car spaces.
- Special Event Clearway signs would be provided between the No Stopping at the site's frontage (in between the entry and exit driveways) and around 80 metres along the proposed new parallel parking discussed above.

These would allow for this entire stretch of the southern side of Robert Street to be converted to Special Event Clearways during High Impact events, such that it could in effect be used as one large drop off and pick up area.

Provision of these signs up front as part of the interim measures works means other parking signs at this same location would not need removing or covering each time a High Impact event occurs. These Special Event Clearway times can display the time and dates the Clearway would be in effect, in advance of it being so, in accordance with Transport for NSW and Council requirements. This in turn offers pre-warning of upcoming changes to parking restrictions to regular users of these car spaces.

- Wayfinding signage for pedestrians and traffic at the intersection and at bus stops on Robert Street and Mullens Street.
- Changed Traffic Conditions signs would be provided in advance of works on Robert Street and Mullens Street, for a duration required by Council.

These interim measures are illustrated via the plan provided as **Appendix B**.

Notwithstanding the above, further permanent works are being considered by Transport for NSW and PMNSW and are expected to be delivered towards the end of 2025; these measures are discussed further under Section 6.2. Accordingly, given the timeframe over which these interim measures would be in place (12—18 months) there is the potential for these measures to either be in the form of permanent infrastructure where it complements the future upgrades, or alternatively as temporary infrastructure to avoid any potentially redundant work.

A degree of on-street parking was removed during Biennale. Adopting the Biennale conditions as a reference, **Table 8** summarises the key changes in on-street parking and loading conditions resulting from the proposed local traffic upgrades.

Table 8 demonstrates that implementation of all proposed interim measures would result in the net loss of around 45 permanent car spaces around and to the east of the Robert Street intersection with Mullens Street, whilst seven taxi zone spaces would be gained during evenings.

Comparing the proposed interim measures to the temporary measures adopted for Biennale, the net loss resulting from the interim measures would however only be of a further four car spaces. On-street parking impacts resulting from the proposed interim measures would therefore be comparable to those which resulted from temporary measures implemented over a three-month period for Biennale.

Table 8: On-Street Parking and Loading Impacts

LOCATION	EXISTING (PRE-BIENNALE)	REF PROPOSED	NET CHANGE
WBPS site frontage; between exit-only driveway and truck zone	4 spaces (Unrestricted)	0 spaces No Stopping (Permanent)	- 4 spaces
WBPS site frontage; truck zone	3 spaces Truck Zone (7am—7pm Mon–Sat) Unrestricted (All Other Times)	3 spaces No Parking (10am—10pm All Days) Unrestricted (All Other Times)	- 3 spaces (7—10pm Mon—Sat and all-day Sun) + 3 spaces (7—10am Mon—Sat)
Robert Street; southern side between WBPS and Metro compound vehicle access	15 spaces (2P 6am—4pm Mon—Fri) 31 spaces (Unrestricted)	19 spaces (2P 6am—4pm Mon—Fri)	+ 4 spaces (2P) - 31 spaces (Unrestricted)
Mullens Street; eastern side (north of Robert Street central island)	6 spaces (No Parking 6:30—9:30am Mon—Fri)	0 spaces No Stopping (Permanent)	- 6 spaces (No Parking 6:30—9:30am Mon—Fri)
Robert Street; northern side east of Mullens Street	4 spaces (2P 6am—4pm Mon—Fri)	0 spaces No Stopping (Permanent)	- 4 spaces (2P)
Robert Street; west of exit-only driveway	0 spaces No Stopping (Permanent)	7 spaces Taxi zone (6:30pm—midnight)	+ 7 spaces (taxi zone 6:30pm—midnight)

Some of the interim measures would likely no longer be needed once the new signalised intersection of Robert Street / Mullens Street is built. Alternatively, they may be incorporated into the design of those permanent or interim measures if considered worthwhile.

6.4. Proposed Temporary Measures

6.4.1. Low Impact Category Temporary Mitigation

The following mitigation requirements are recommended for 'Low Impact' events. Once the permanent measures (Section 6.2) are implemented, the proposed temporary mitigation measures would need to be reviewed accordingly.

- Unlikely that temporary traffic management, infrastructure, or mitigation at the site or local streets would be considered necessary.
- Online communications and ticketing information sent to patrons of events and activities advising of transport arrangements and limitations, such as firm recommendation to use public or active transport and not drive to the site and advising that no car parking is available on-site. This would include distribution of a Transport Access Guide which has been prepared by PMNSW.
- Liaison with the event organiser when the site is booked to make clear the site's accessibility and limitations.
- A high-level traffic management plan must still be developed in consultation with PMNSW prior to event or activity (including bump-in and bump-out).

6.4.2. Medium Impact Category Temporary Mitigation

The following mitigation requirements are recommended for 'Medium Impact' events. Once the permanent measures (Section 6.2) are implemented, the proposed temporary mitigation measures would need to be reviewed accordingly.

- Localised temporary traffic management measures are likely to be required, which is primarily expected to be the provision of traffic marshals and associated signage to manage pedestrians crossing Robert Street and vehicles at and around the site access.
- Online communications and ticketing information sent to patrons of events and activities advising of transport arrangements and limitations, such as firm recommendation to use public or active transport and not drive to the site and advising that no car parking is available on-site. This would include distribution of a Transport Access Guide.
- Liaison between PMNSW and the event organiser when the site is booked for use to make clear the site's accessibility options and limitations.
- Events should be strongly encouraged to occur at times which do not generate high levels of traffic during the commuter peak periods, such as outside of 7—9am and 4—6pm on weekdays.
- TGS were prepared for Biennale and were approved by Inner West Council's Local Traffic Committee (LTC); see Appendix C. This TGS can be used as a guide for the development of a traffic management plan for future Medium Impact events. However, assessment of the event specific needs should be undertaken, and a Traffic Management Plan prepared by accredited traffic management consultants, for approval by PMNSW and, where relevant, the Inner West Council LTC.

6.4.3. High Impact Category Temporary Mitigation

The following mitigation requirements are recommended for 'High Impact' events. Once the permanent measures (Section 6.2) are implemented, the proposed temporary mitigation measures would need to be reviewed accordingly.

- Localised temporary traffic management measures likely to be required. A 'large event' TGS was prepared for Biennale and approved by the Inner West Council LTC (Appendix C) and can be used as a guide.
- Mitigation may involve modifications to traffic operations on Robert Street east of Mullens Street to provide a dedicated U-turn facility (for vehicles arriving from and departing back to the west) for patrons to be picked up and dropped off at the site's frontage. This however may not be required if vehicles can make use of the northern forecourt for pick-up and drop-off.
- Additional public bus services (such as the 443) or private bus and coach services might be considered necessary for larger profile events or events which occur over a longer period (several days or weeks).
- Online communications and ticketing information sent to patrons of events and activities advising of transport arrangements and limitations, such as firm recommendation to use public or active transport and not drive to

the site and advising that no car parking is available on-site. This would include distribution of a Transport Access Guide.

- Liaison with the event organiser when the site is booked for use to make clear the site's accessibility options and limitations.
- Events should be strongly encouraged to occur at times which do not generate high levels of traffic during the commuter peak periods.
- Engagement with Government authorities to consider and manage transport impacts, including but not limited to, Inner West Council, Transport for NSW, and Port Authority.
- An event specific TMP must be developed in consultation with PMNSW prior to each event or activity bump-in. Consideration of event or activity-specific transport impacts by the event organiser by a suitably qualified person or company, with findings to be documented and submitted to PMNSW for consideration and endorsement prior to the use of the site being approved.

6.4.4. Temporary Mitigation Summary

The following provides a summary of the temporary mitigation strategy proposed for the REF:

- An event specific TMP must be developed in consultation with PMNSW for all Medium and High Impact events and activities by a suitably qualified professional.
- A high-level TMP is to be developed in consultation with PMNSW for local impact events and activities.
- Online communications and ticketing information shall be sent to patrons of all events and activities advising of transport arrangements and limitations, such as firm recommendation to use public or active transport and not drive to the site and advising that no car parking is available on-site. This should include distribution of the TAG via ticket distribution, on the PMNSW website, and via social media.
- Liaison between PMNSW and the event organiser must occur when the site is booked for use to make clear the site's accessibility options and limitations.
- Medium Impact events will require a degree of traffic management to manage local traffic impacts. High Impact events would require more intensive traffic management. The Biennale TGS (**Appendix C**) can be used as a guide.
- Event-specific TMP and TGS should be developed well in advance of the event to ensure enough time is allowed for referral to Inner West Council LTC, when such is required.

7. Conclusion

This Transport Management and Accessibility Plan has been prepared to assess the potential transport impacts that could arise from the proposed use of the White Bay Power Station (WBPS), Rozelle, between 2024 and opening of the Bays West Metro Station, anticipated in 2032. It forms part of a broader Review of Environmental Factors which considers both the environmental impacts of the proposed events and activities which may occur at the site, and any mitigation measures required to address identified impacts.

A review of the existing conditions and transport context of the site has been undertaken, which considers the public and active transport options available to staff and visitors of the site, as well as presenting key findings of traffic surveys from March 2023, forming a reference date before any activation of the site occurred.

A range of data collection and surveys was undertaken during Biennale which forms a useful reference for future planning for the site. From a transport perspective, these included vehicular and pedestrian counts over three different days, recording of daily person attendances, and travel mode questionnaire surveys of hundreds of attendees. Key findings are summarised, including:

- The most common mode of travel to the site for Biennale was active transport (walk, scooter, bicycle), followed jointly by private car and public transport.
- Active transport use accounted for 38% of visits of those surveyed, with private car and public transport receiving 28% and 27% respectively.
- Vehicular arrivals were generally steady throughout the seven-hour opening period, with no discernible peak on a typical day.
- Visitation on weekends was around double that of weekdays, with Sundays being the busiest day on average with almost 4,000 visitors per day.
- Fourteen per cent of visitors expressed a desire to use future ferry and metro links to travel to the site when they become available. Active transport remained the most common desired travel mode at 35%, followed by public transport at 25%. Private car use was identified as the preferred mode of travel by 18% of respondents.

Whilst forming a good reference case for travel patterns associated with events at the site, care should be taken in extrapolating these findings to every different type of event or activity which might be held at the site in the future.

A range of events and activities are anticipated for the site. Accordingly, it is not possible to predict the specific transport impacts each and every type of event and activity of the site might have in the future. In response to this, consideration has been given to key factors which are thought most relevant in influencing transport impacts, being event patronage, the period of time over which arrivals and departures occur, and travel modes.

These categories were used to identify the likely typical transport impacts which would arise from a Low, Medium, or High Impact event, ranging from relatively modest impacts to the local road and transport network during

smaller events through to significant localised traffic and transport impacts during major events. It was acknowledged though that every future event or activity which may occur at the site cannot be entirely anticipated and may also not sit neatly within one of these categories.

It is recommended that consideration of the likely transport impacts specific to any given activity or event be made prior to any event or activity occurring to ensure that appropriate mitigation measures are implemented if considered necessary.

Mitigation measures were then identified which consisted of three key types:

- **Interim measures** proposed by this study to be implemented semi-permanently between now and the permanent measures coming into effect towards the end of 2025.
- **Temporary measures** which would be required for larger events only to manage specific localised impacts.
- **Permanent measures** being undertaken by PMNSW and Transport for NSW to occur towards the end of 2025.

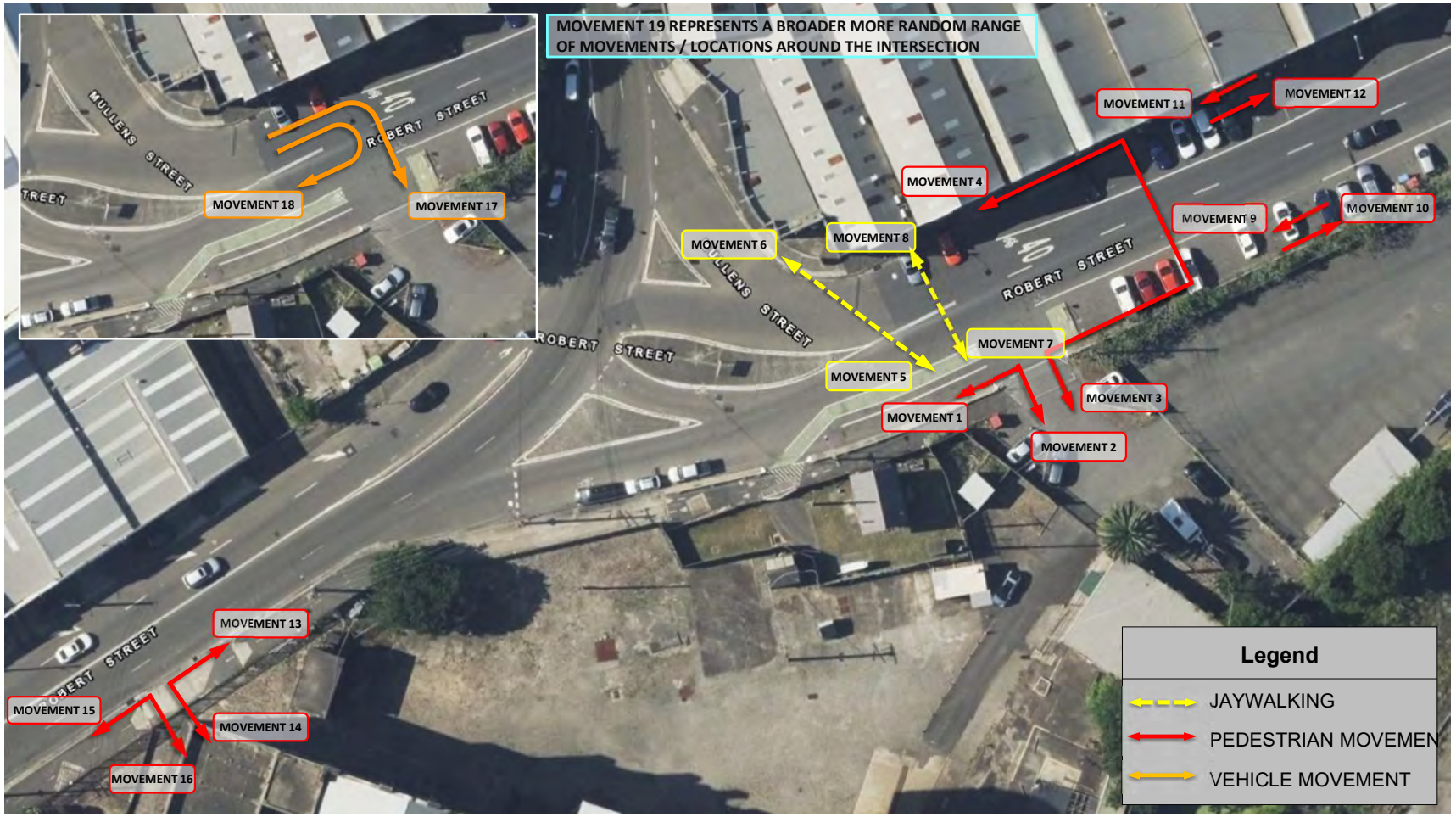
The proposed interim measures were determined through coordination and consultation with PMNSW and would be subject to Council endorsement. These are illustrated by a sketch provided as **Appendix B**.

The proposed temporary measures are intended as guidance only; event-specific traffic management and mitigation would be necessary for Medium and High Impact events and an event specific TMP shall be developed in consultation with PMNSW and prepared by a suitably qualified SafeWork NSW licenced professional.

The TGS approved by Inner West Council LTC (**Appendix C**) are provided as a guide for future event organisers.

All event organisers will be required to prepare an event specific TMP for approval by PMNSW and, where relevant, the Inner West Council LTC.

Appendix A



Traffic Information Specialist
ABN: 42 613 389 923
Email info@tistraffic.com.au

Location	White Bay Power Station	**Duration**	11:00 - 18:00
			-
			-
		Date	Sunday, 31 March 2024
Suburb	Rozelle	**Weather**	Dry

PED COUNT	White Bay Power Station																		
Time Per 15 Mins	MOVEMENT																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
11:00 - 11:15	0	0	37	0	3	0	1	0	15	0	23	1	0	0	0	30	3	8	1
11:15 - 11:30	0	0	19	1	0	0	0	0	14	5	22	5	0	0	2	35	2	2	0
11:30 - 11:45	0	0	19	5	0	0	1	1	6	2	27	5	0	0	5	22	2	5	0
11:45 - 12:00	0	0	21	12	4	0	0	0	14	8	22	12	0	0	10	14	2	3	3
12:00 - 12:15	0	0	24	17	6	0	2	4	16	8	4	22	0	0	8	31	5	3	3
12:15 - 12:30	0	0	20	13	0	0	0	2	4	12	13	15	0	0	12	56	2	4	0
12:30 - 12:45	0	0	7	30	0	0	1	2	9	2	6	20	0	0	12	22	4	0	0
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13:00 - 13:15	0	0	10	54	0	3	2	2	14	7	9	25	0	0	9	28	2	4	1
13:15 - 13:30	0	0	25	8	5	3	2	8	24	8	20	21	0	0	7	32	3	5	2
13:30 - 13:45	1	0	11	16	3	0	6	6	28	11	23	10	1	0	10	20	5	4	3
13:45 - 14:00	2	2	13	13	0	2	12	0	13	14	19	16	0	0	13	25	3	5	1
14:00 - 14:15	0	0	16	9	1	2	3	5	13	11	11	14	0	0	15	32	5	5	1
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14:30 - 14:45	0	0	29	5	0	0	0	0	16	13	13	24	0	0	6	36	5	1	0
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15:00 - 15:15	0	0	14	22	0	0	5	3	13	15	8	19	2	0	20	18	2	4	0
15:15 - 15:30	2	0	20	14	0	2	5	5	24	15	12	24	0	0	19	33	3	2	1
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16:45 - 17:00	0	0	2	14	0	0	1	1	5	7	3	19	0	1	2	4	3	0	0
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17:30 - 17:45	0	0	0	5	0	2	0	2	0	6	1	17	0	0	2	0	3	3	4
17:45 - 18:00	1	0	0	10	0	0	0	0	0	1	3	4	0	0	0	0	3	0	0
Period End																			
	862				152				1271				879						

PED COUNT	White Bay Power Station																		
Time Per 15 Mins	MOVEMENT																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
11:00 - 12:00	0	0	96	18	7	0	2	1	49	15	94	23	0	0	17	101	9	18	4
11:15 - 12:15	0	0	83	35	10	0	3	5	50	23	75	44	0	0	25	102	11	13	6
11:30 - 12:30	0	0	84	47	10	0	3	7	40	30	66	54	0	0	35	123	11	15	6
11:45 - 12:45	0	0	72	72	10	0	3	8	43	30	45	69	0	0	42	123	13	10	6
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12:30 - 13:30	0	0	76	122	5	6	7	12	59	28	44	76	0	0	54	111	12	13	4
12:45 - 13:45	1	0	80	108	8	6	12	16	78	37	61	66	1	0	52	109	13	17	7
13:00 - 14:00	3	2	59	91	8	8	22	16	79	40	71	72	1	0	39	105	13	18	7
13:15 - 14:15	3	2	65	46	9	7	23	19	78	44	73	61	1	0	45	109	16	19	7
13:30 - 14:30	3	2	59	61	8	4	22	12	59	48	76	47	1	0	51	91	18	17	6
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14:00 - 15:00	2	0	82	72	5	5	4	6	42	49	58	64	0	0	58	107	18	12	4
14:15 - 15:15	2	0	80	85	4	3	6	4	42	53	55	69	2	0	63	93	15	11	3
14:30 - 15:30	4	0	81	76	0	5	10	8	61	56	44	86	2	0	69	112	13	10	3
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16:15 - 17:15	0	0	16	66	0	0	6	7	18	26	18	64	2	1	33	33	10	5	2
16:30 - 17:30	0	0	11	57	0	0	3	2	11	30	9	55	2	1	25	25	10	1	1
16:45 - 17:45	0	0	8	51	0	2	3	3	7	34	7	50	0	1	12	9	11	4	5
17:00 - 18:00	1	0	6	47	0	2	2	2	2	28	7	35	0	0	10	5	11	4	5
Period End																			

Location White Bay Power Station **Duration** 11:00 - 18:00

\- \-

Date Monday, 1 April 2024

Suburb Rozelle **Weather** Dry

PED COUNT	White Bay Power Station																		
Time Per 15 Mins	MOVEMENT																		
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12:30 - 12:45	0	0	11	12	0	0	1	2	10	0	20	45	2	0	17	21	2	4	2
12:45 - 13:00	0	0	4	13	0	0	2	2	6	15	9	42	0	0	3	23	2	3	2
13:00 - 13:15	1	1	30	10	0	0	1	6	15	5	19	20	3	0	20	19	3	4	3
13:15 - 13:30	0	0	9	7	0	0	2	0	14	9	9	35	2	0	23	13	3	3	0
13:30 - 13:45	0	0	5	21	0	0	5	0	7	11	8	20	0	0	7	33	2	4	4
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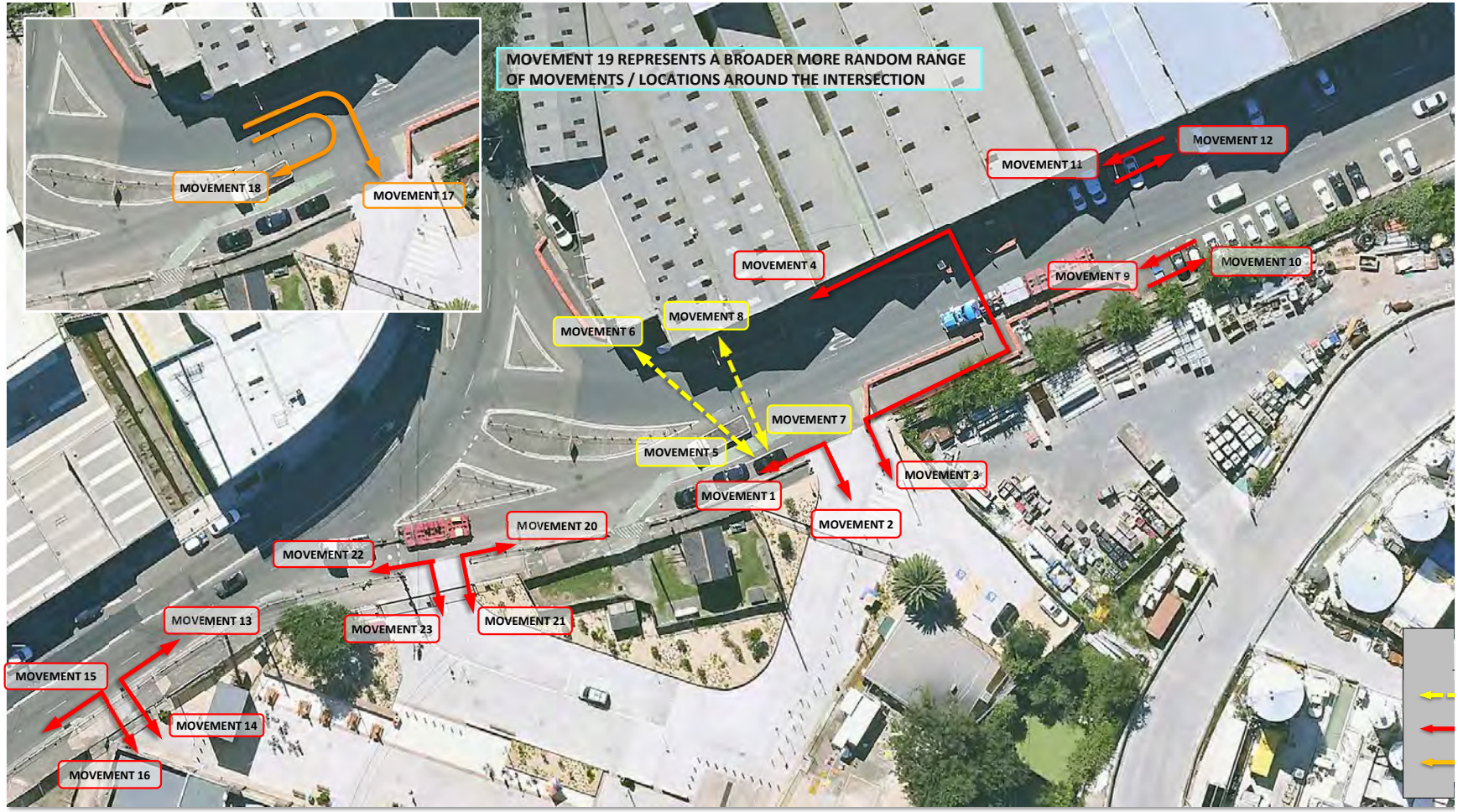
16:15 - 16:30	0	0	0	10	0	0	2	2	2	14	12	15	0	0	0	3	2	2	0
16:30 - 16:45	0	0	2	3	0	0	3	0	0	3	3	5	0	0	2	6	3	2	1
16:45 - 17:00	0	0	0	5	0	0	0	2	4	3	3	13	0	0	1	1	2	1	1
17:00 - 17:15	0	0	0	0	0	0	2	4	2	2	0	4	0	0	3	7	2	4	2
17:15 - 17:30	0	0	0	6	0	0	0	2	4	4	0	7	0	0	2	0	2	2	0
17:30 - 17:45	0	0	1	3	0	0	0	0	0	1	0	9	0	0	7	0	3	1	0
17:45 - 18:00	0	0	0	0	2	0	0	0	0	2	2	3	0	0	3	0	3	2	0
Period End																			
	575				101				1082				775						

PED COUNT	White Bay Power Station																		
Time Per 15 Mins	MOVEMENT																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
11:00 - 12:00	1	1	100	19	2	0	8	1	23	5	106	58	3	0	16	181	16	8	5
11:15 - 12:15	1	1	89	29	1	0	6	3	15	7	67	53	3	0	35	137	10	8	3
11:30 - 12:30	1	1	77	49	3	0	9	6	20	13	50	85	0	0	48	108	11	14	5
11:45 - 12:45	1	1	66	58	3	0	9	8	25	8	45	107	2	0	60	102	11	16	7
12:00 - 13:00	0	0	41	58	3	0	6	10	28	23	36	124	2	0	56	104	9	17	7
12:15 - 13:15	1	1	61	57	2	0	7	13	42	26	55	144	5	0	54	96	10	18	10
12:30 - 13:30	1	1	54	42	0	0	6	10	45	29	57	142	7	0	63	76	10	14	7
12:45 - 13:45	1	1	48	51	0	0	10	8	42	40	45	117	5	0	53	88	10	14	9
13:00 - 14:00	1	2	58	50	2	0	8	7	41	36	47	94	6	0	66	82	11	13	8
13:15 - 14:15	0	1	45	62	2	0	7	2	42	34	35	83	5	0	56	78	9	14	7
13:30 - 14:30	0	1	40	62	3	0	9	6	32	44	33	53	3	0	39	85	12	14	8
13:45 - 14:45	0	1	58	62	3	0	8	6	28	39	36	51	3	0	37	76	13	14	5
14:00 - 15:00	0	0	49	65	1	0	10	7	33	32	47	42	2	0	29	65	12	13	4
14:15 - 15:15	0	0	48	61	2	0	12	6	21	30	50	43	0	0	33	64	14	9	3
14:30 - 15:30	0	0	46	76	1	0	8	2	28	16	54	69	0	0	41	59	11	9	3
14:45 - 15:45	0	0	24	66	1	0	6	5	26	17	63	69	0	0	61	46	11	6	2
15:00 - 16:00	0	0	31	56	1	0	7	6	21	23	43	72	0	0	62	50	11	6	4
15:15 - 16:15	0	0	22	44	0	0	6	8	23	29	40	73	0	0	57	43	12	6	3
15:30 - 16:30	0	0	20	32	0	0	8	10	14	38	41	57	0	0	43	31	11	5	2
15:45 - 16:45	0	0	21	24	0	0	9	7	13	34	24	44	0	0	20	26	11	6	3
16:00 - 17:00	0	0	9	24	0	0	6	6	12	27	25	44	0	0	12	17	11	6	2
16:15 - 17:15	0	0	2	18	0	0	7	8	8	22	18	37	0	0	6	17	9	9	4
16:30 - 17:30	0	0	2	14	0	0	5	8	10	12	6	29	0	0	8	14	9	9	4
16:45 - 17:45	0	0	1	14	0	0	2	8	10	10	3	33	0	0	13	8	9	8	3
17:00 - 18:00	0	0	1	9	2	0	2	6	6	9	2	23	0	0	15	7	10	9	2
Period End																			

Location	White Bay Power Station	**Duration**	11:00	-	18:00
				-	
				-	
		Date	Sunday, 31 March 2024		
Suburb	Rozelle	**Weather**	Dry		

	MOVEMENT-17				
TIME	**LV**	**HV**	**BUS**	**MCL**	**PCL**
11:00	0	0	2	0	1
11:15	0	0	2	0	0
11:30	0	0	2	0	0
11:45	0	0	2	0	0
12:00	2	0	3	0	0
12:15	1	0	1	0	0
12:30	2	0	2	0	0
12:45	0	0	3	0	0
13:00	1	0	1	0	0
13:15	1	0	2	0	0
13:30	2	0	3	0	0
13:45	1	0	2	0	0
14:00	4	0	1	0	0
14:15	1	0	4	0	0
14:30	1	0	4	0	0
14:45	1	0	2	0	0
15:00	1	0	1	0	0
15:15	1	0	2	0	0
15:30	0	0	3	0	0
15:45	1	0	2	0	0
16:00	3	0	1	0	0
16:15	1	0	2	0	0
16:30	0	0	2	0	0
16:45	0	0	3	0	0
17:00	0	0	2	0	0
17:15	0	0	3	0	0
17:30	2	0	1	0	0
17:45	1	0	2	0	0

	MOVEMENT-18				
TIME	**LV**	**HV**	**BUS**	**MCL**	**PCL**
11:00	7	1	0	0	0
11:15	2	0	0	0	0
11:30	5	0	0	0	0
11:45	3	0	0	0	0
12:00	3	0	0	0	0
12:15	4	0	0	0	0
12:30	0	0	0	0	0
12:45	4	0	0	0	0
13:00	4	0	0	0	0
13:15	4	0	0	0	1
13:30	4	0	0	0	0
13:45	5	0	0	0	0
14:00	5	0	0	0	0
14:15	3	0	0	0	0
14:30	1	0	0	0	0
14:45	3	0	0	0	0
15:00	4	0	0	0	0
15:15	2	0	0	0	0
15:30	5	0	0	0	0
15:45	1	0	0	0	0
16:00	1	0	0	0	0
16:15	4	0	0	0	0
16:30	0	0	0	0	0
16:45	0	0	0	0	0
17:00	1	0	0	0	0
17:15	0	0	0	0	0
17:30	3	0	0	0	0
17:45	0	0	0	0	0



Traffic Information Specialist
ABN: 42 613 389 923
Email info@tistraffic.com.au

Location	White Bay Power Station	**Duration**	11:00 - 18:00
			-
			-
		Date	Thursday, 23 May 2024
Suburb	Rozelle	**Weather**	Dry

PED COUNT	White Bay Power Station																						
Time Per 15 Mins	MOVEMENT																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
11:00 - 11:15	0	1	11	0	2	0	9	0	0	0	2	3	0	0	1	39	5	5	1	0	0	4	3
11:15 - 11:30	0	0	18	0	0	0	2	1	1	1	9	10	0	0	0	14	3	8	0	2	0	2	0
11:30 - 11:45	1	0	13	0	0	0	2	1	4	2	4	8	0	0	3	27	1	3	0	0	0	6	2
11:45 - 12:00	0	0	9	2	0	0	2	4	0	0	14	7	0	0	5	2	3	1	0	0	1	5	13
12:00 - 12:15	2	0	8	13	0	0	1	3	1	0	9	11	0	1	2	10	1	4	0	2	0	7	2
12:15 - 12:30	0	1	9	10	0	0	1	0	8	4	6	14	0	0	12	37	3	4	0	8	0	8	6
12:30 - 12:45	4	0	8	17	0	0	1	2	2	1	6	9	0	0	12	10	1	3	0	4	0	11	4
12:45 - 13:00	0	0	0	10	0	0	0	3	8	0	4	6	0	0	3	10	3	6	0	1	0	14	0
13:00 - 13:15	0	0	13	13	0	0	5	0	2	0	7	9	1	0	1	7	1	1	0	0	0	19	7
13:15 - 13:30	0	1	2	4	0	0	4	0	6	4	10	13	0	0	7	5	4	1	0	1	0	6	6
13:30 - 13:45	2	0	4	1	0	0	3	0	2	5	12	8	0	0	4	19	5	4	0	6	1	9	15
13:45 - 14:00	0	1	4	0	0	0	1	0	3	0	4	8	0	0	1	13	2	2	0	4	2	8	17
14:00 - 14:15	0	0	5	5	0	0	6	2	3	8	10	9	0	0	0	6	2	6	0	4	2	5	6
14:15 - 14:30	0	0	5	0	0	0	0	0	5	6	10	14	0	0	35	10	1	2	0	2	0	23	13
14:30 - 14:45	0	0	3	13	0	0	2	0	5	10	7	5	0	0	0	7	4	3	0	2	2	11	5
14:45 - 15:00	0	0	3	15	0	0	0	1	0	2	6	4	1	0	5	1	1	5	0	3	1	13	5
15:00 - 15:15	0	0	19	4	0	0	0	1	7	3	4	15	0	0	3	10	3	4	0	1	0	2	2
15:15 - 15:30	0	0	0	4	0	0	1	0	2	5	1	8	0	0	3	5	1	5	0	2	0	0	1
15:30 - 15:45	0	0	4	0	0	0	1	1	1	2	5	7	0	0	3	2	1	5	1	3	1	2	7
15:45 - 16:00	0	0	0	4	0	1	0	0	3	2	4	6	0	0	4	1	0	1	0	1	1	3	3
16:00 - 16:15	0	0	0	3	0	0	0	0	1	7	4	6	0	0	2	0	2	2	0	0	1	5	0
16:15 - 16:30	0	0	0	0	2	0	6	0	3	4	6	6	0	0	0	5	2	2	0	0	1	6	0
16:30 - 16:45	2	0	0	6	0	0	1	0	2	0	6	10	0	0	5	1	2	3	0	0	4	5	2
16:45 - 17:00	0	0	0	0	0	0	1	0	7	3	10	1	0	0	4	0	0	2	0	0	0	2	0
17:00 - 17:15	0	1	0	3	0	0	1	1	3	3	7	5	0	0	4	2	3	1	0	0	0	3	1
17:15 - 17:30	0	1	0	0	0	1	0	3	2	1	4	5	0	0	0	0	0	1	0	2	0	0	0
17:30 - 17:45	0	0	0	3	0	0	0	1	3	1	0	5	0	0	0	0	1	1	0	0	0	1	0
17:45 - 18:00	1	0	0	2	0	0	0	0	0	6	1	8	0	0	0	0	2	1	0	0	0	4	0
Period End																							

PED COUNT	White Bay Power Station																						
Time Per 15 Mins	MOVEMENT																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
11:00 - 12:00	1	1	51	2	2	0	15	6	5	3	29	28	0	0	9	82	12	17	1	2	1	17	18
11:15 - 12:15	3	0	48	15	0	0	7	9	6	3	36	36	0	1	10	53	8	16	0	4	1	20	17
11:30 - 12:30	3	1	39	25	0	0	6	8	13	6	33	40	0	1	22	76	8	12	0	10	1	26	23
11:45 - 12:45	6	1	34	42	0	0	5	9	11	5	35	41	0	1	31	59	8	12	0	14	1	31	25
12:00 - 13:00	6	1	25	50	0	0	3	8	19	5	25	40	0	1	29	67	8	17	0	15	0	40	12
12:15 - 13:15	4	1	30	50	0	0	7	5	20	5	23	38	1	0	28	64	8	14	0	13	0	52	17
12:30 - 13:30	4	1	23	44	0	0	10	5	18	5	27	37	1	0	23	32	9	11	0	6	0	50	17
12:45 - 13:45	2	1	19	28	0	0	12	3	18	9	33	36	1	0	15	41	13	12	0	8	1	48	28
13:00 - 14:00	2	2	23	18	0	0	13	0	13	9	33	38	1	0	13	44	12	8	0	11	3	42	45
13:15 - 14:15	2	2	15	10	0	0	14	2	14	17	36	38	0	0	12	43	13	13	0	15	5	28	44
13:30 - 14:30	2	1	18	6	0	0	10	2	13	19	36	39	0	0	40	48	10	14	0	16	5	45	51
13:45 - 14:45	0	1	17	18	0	0	9	2	16	24	31	36	0	0	36	36	9	13	0	12	6	47	41
14:00 - 15:00	0	0	16	33	0	0	8	3	13	26	33	32	1	0	40	24	8	16	0	11	5	52	29
14:15 - 15:15	0	0	30	32	0	0	2	2	17	21	27	38	1	0	43	28	9	14	0	8	3	49	25
14:30 - 15:30	0	0	25	36	0	0	3	2	14	20	18	32	1	0	11	23	9	17	0	8	3	26	13
14:45 - 15:45	0	0	26	23	0	0	2	3	10	12	16	34	1	0	14	18	6	19	1	9	2	17	15
15:00 - 16:00	0	0	23	12	0	1	2	2	13	12	14	36	0	0	13	18	5	15	1	7	2	7	13
15:15 - 16:15	0	0	4	11	0	1	2	1	7	16	14	27	0	0	12	8	4	13	1	6	3	10	11
15:30 - 16:30	0	0	4	7	2	1	7	1	8	15	19	25	0	0	9	8	5	10	1	4	4	16	10
15:45 - 16:45	2	0	0	13	2	1	7	0	9	13	20	28	0	0	11	7	6	8	0	1	7	19	5
16:00 - 17:00	2	0	0	9	2	0	8	0	13	14	26	23	0	0	11	6	6	9	0	0	6	18	2
16:15 - 17:15	2	1	0	9	2	0	9	1	15	10	29	22	0	0	13	8	7	8	0	0	5	16	3
16:30 - 17:30	2	2	0	9	0	1	3	4	14	7	27	21	0	0	13	3	5	7	0	2	4	10	3
16:45 - 17:45	0	2	0	6	0	1	2	5	15	8	21	16	0	0	8	2	4	5	0	2	0	6	1
17:00 - 18:00	1	2	0	8	0	1	1	5	8	11	12	23	0	0	4	2	6	4	0	2	0	8	1
Period End																							

Location	White Bay Power Station	**Duration**	11:00	-	18:00
				-	
				-	
		Date	Monday, 1 April 2024		
Suburb	Rozelle	**Weather**	Dry		

	MOVEMENT-17				
TIME	**LV**	**HV**	**BUS**	**MCL**	**PCL**
11:00	1	0	3	0	4
11:15	0	0	2	0	0
11:30	0	0	2	0	0
11:45	0	0	2	0	2
12:00	0	0	2	0	0
12:15	1	0	2	0	0
12:30	0	0	2	0	0
12:45	0	0	2	0	0
13:00	1	0	2	0	0
13:15	0	0	3	0	0
13:30	0	0	2	0	0
13:45	0	0	3	0	0
14:00	0	0	1	0	0
14:15	2	0	4	0	0
14:30	0	0	3	0	0
14:45	0	0	2	0	0
15:00	2	0	1	0	0
15:15	1	0	2	0	0
15:30	0	0	3	0	0
15:45	0	0	2	0	0
16:00	2	0	2	0	0
16:15	0	0	2	0	0
16:30	1	0	2	0	0
16:45	0	0	2	0	0
17:00	0	0	2	0	0
17:15	0	0	2	0	0
17:30	1	0	2	0	0
17:45	1	0	2	0	0

	MOVEMENT-18				
TIME	**LV**	**HV**	**BUS**	**MCL**	**PCL**
11:00	3	0	0	0	0
11:15	1	0	0	0	0
11:30	2	0	0	0	0
11:45	2	0	0	0	0
12:00	3	0	0	0	0
12:15	6	0	0	0	1
12:30	4	0	0	0	0
12:45	3	0	0	0	0
13:00	4	0	0	0	0
13:15	3	0	0	0	0
13:30	4	0	0	0	0
13:45	2	0	0	0	0
14:00	5	0	0	0	0
14:15	3	0	0	0	0
14:30	4	0	0	0	0
14:45	1	0	0	0	0
15:00	1	0	0	0	0
15:15	3	0	0	0	0
15:30	1	0	0	0	0
15:45	1	0	0	0	0
16:00	1	0	0	0	0
16:15	2	0	0	0	0
16:30	2	0	0	0	0
16:45	1	0	0	0	0
17:00	4	0	0	0	0
17:15	1	0	0	1	0
17:30	1	0	0	0	0
17:45	2	0	0	0	0

Traffic Information Specialist
ABN: 42 613 389 923
Email info@tistraffic.com.au

Appendix B

GENERAL NOTES

1. This Traffic Guidance Scheme (TGS) has been designed in accordance with:
   - NSW Government Traffic Control at Work Sites (TCAWS) Version 6.1 dated February 2022.
   - AS 1742.3-2019: Manual of Uniform Traffic Control Devices - Part 3 Traffic Control for Works on Roads (AS 1742.3).

2. Implementation of this TGS is to be undertaken by a suitably qualified person holding the 'Implement Traffic Control Plans' (ITCP) qualification, managed by SafeWork NSW.

3. Traffic controllers that are required under this TGS are to hold the 'Traffic Control' (TC) qualification, managed by SafeWork NSW.

4. Workers performing the temporary traffic management (TTM) are to wear appropriate Personal Protective Equipment (PPE).

5. Workers performing the TTM are to adhere to site safety policies including Safe Work Method Statement (SWMS) issued by the principal contractor, builder or traffic control company that is implementing the TGS.

6. In accordance with Clause 4.3.4 of AS 1742.3, signs are to face towards approaching traffic approximately at right angles to the line of sight from the driver to the sign.

   At curved alignments, the sign shall be placed approximately at right angles to the line of sight of a motorist 50 metres in advance of the sign as shown below.

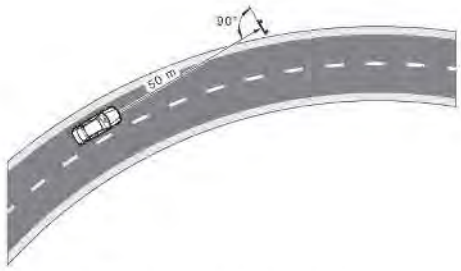


Figure 4.1 — Orientation of sign at curved alignments

Source: AS 1742.3

7. Positioning of signs and devices are to be in accordance with Clause 4.3.2 of AS 1742.3:
   (a) Are properly displayed and securely mounted.
   (b) Are within the line of sight of the intended road user.
   (c) Are not and cannot be obscured from view (e.g. by vegetation or parked cars).
   (d) Do not obscure other devices from the line of sight of the intended road user.
   (e) Do not become a possible hazard to workers, pedestrians, people with disabilities (e.g. trip hazards for people with vision impairment), cyclists or vehicles.
   (f) Do not direct pedestrians, cyclists or vehicles into an undesirable path.
   (g) Do not restrict sight distance for drivers entering from side roads or streets, or private driveways.
   (h) Are not installed using supports that could be a hazard if struck by a vehicle.

8. Temporary signs and devices under this TGS are to be removed or covered when not in use, during breaks (e.g. lunch) or at the end of a work shift.

9. Maintenance of temporary signs and devices are to be in accordance with Section 6.3 of TCAWS with particular attention to the following:
   - Signs and devices displayed must remain appropriate for changing circumstances during the work.
   - Signs which are not required between shifts must be covered.
   - Sign placement, including covers must be checked after weather events.
   - Signs and devices must be in good condition.
   - Damaged or disfigured signs in the work environment must be replaced as soon as possible, especially if the warnings displayed are not clear.
   - Signs and devices erected before they are required must be covered by a suitable, opaque material in accordance with AS 1742.3. The cover must be removed immediately prior to the commencement of work.

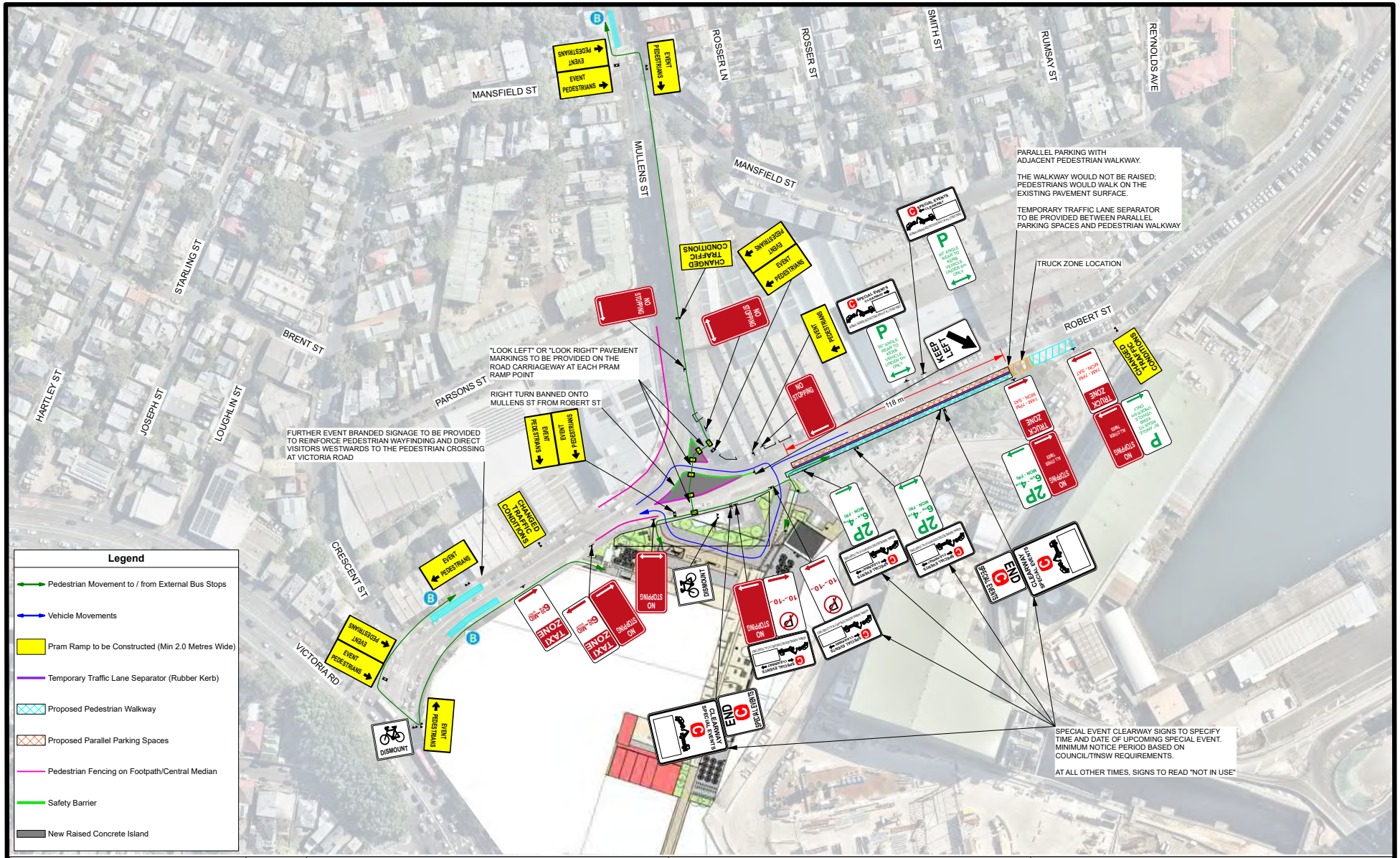
   Note: Covering signs with hessian material does not sufficiently inhibit the sign's retroflective performance and should not be used. Additionally, dark coloured and plastic materials may cause overheating or excessive moisture build-up and therefore damage to the sign.

10. Dimension D values in accordance with Section 6.2.6 of TCAWS and Austroads Guidelines.

11. Traffic controllers are to manage pedestrians and cyclists only. Traffic controllers are to assist exiting drivers in identifying a safe gap in traffic before leaving the Works Zone / site.

12. Tree protection to be implemented to arborist detail.

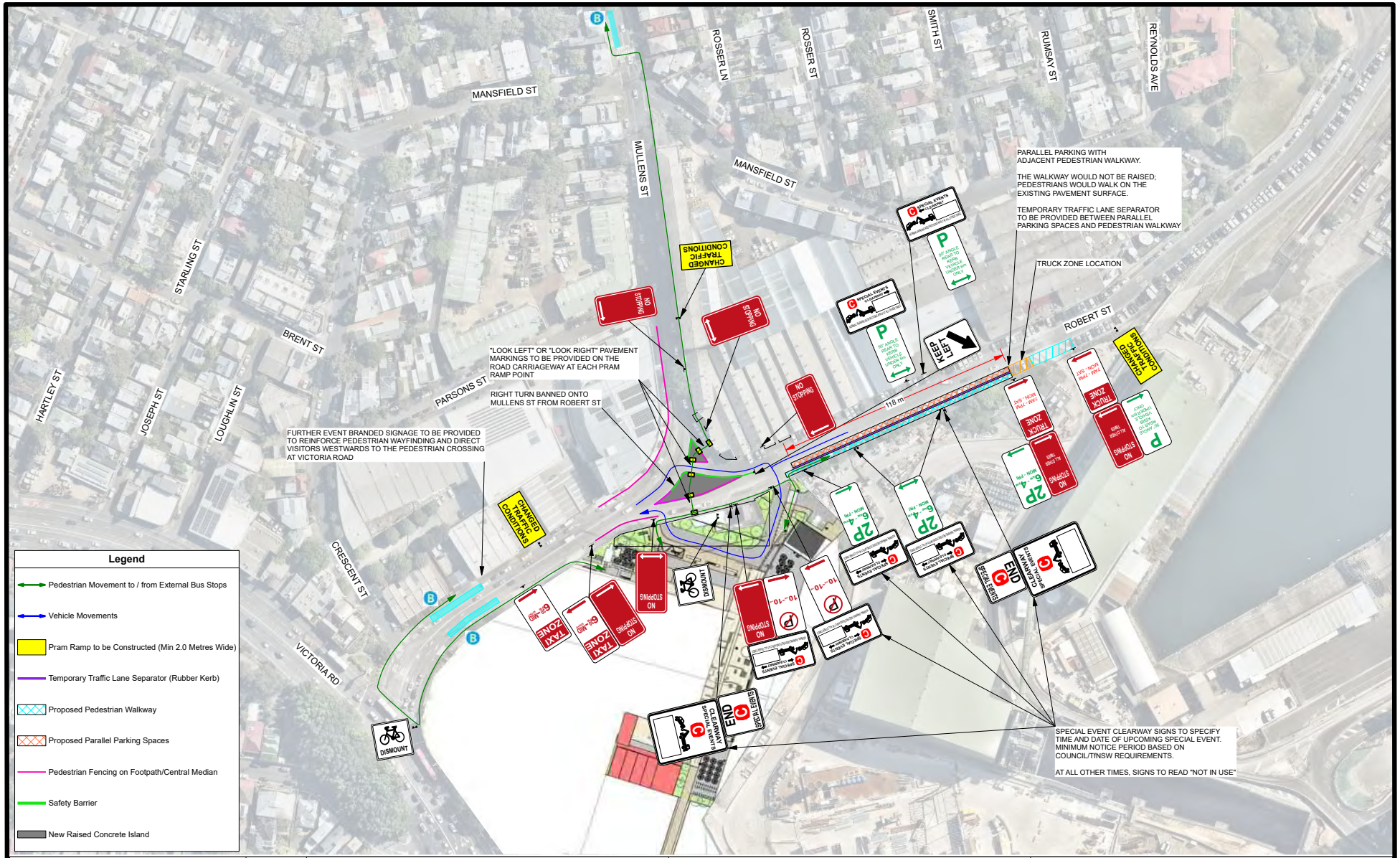
Traffic Guidance Scheme Prepared By	North	Project	Plan Title	Plan No.	Revision No.
pdc CONSULTANTS	▲	White Bay Power Station	General Notes	-	-
		Project No. 0740	Accreditation Name: Rohan Jain Card No: TCT 1056815 (Prepare a Work Zone Traffic Management Plan)	Date 14/06/2024	



Traffic Guidance Scheme Prepared By

North

Project White Bay Power Station	Plan Title White Bay Power Station Interim Measures to be Implemented Until Intersection is Signalised	Plan No. 001	Revision No. 1
Project No. 0740	Accreditation Name: Rohan Jain Card No: TCT 1056815 (Prepare a Work Zone Traffic Management Plan)	Date 14/06/2024	



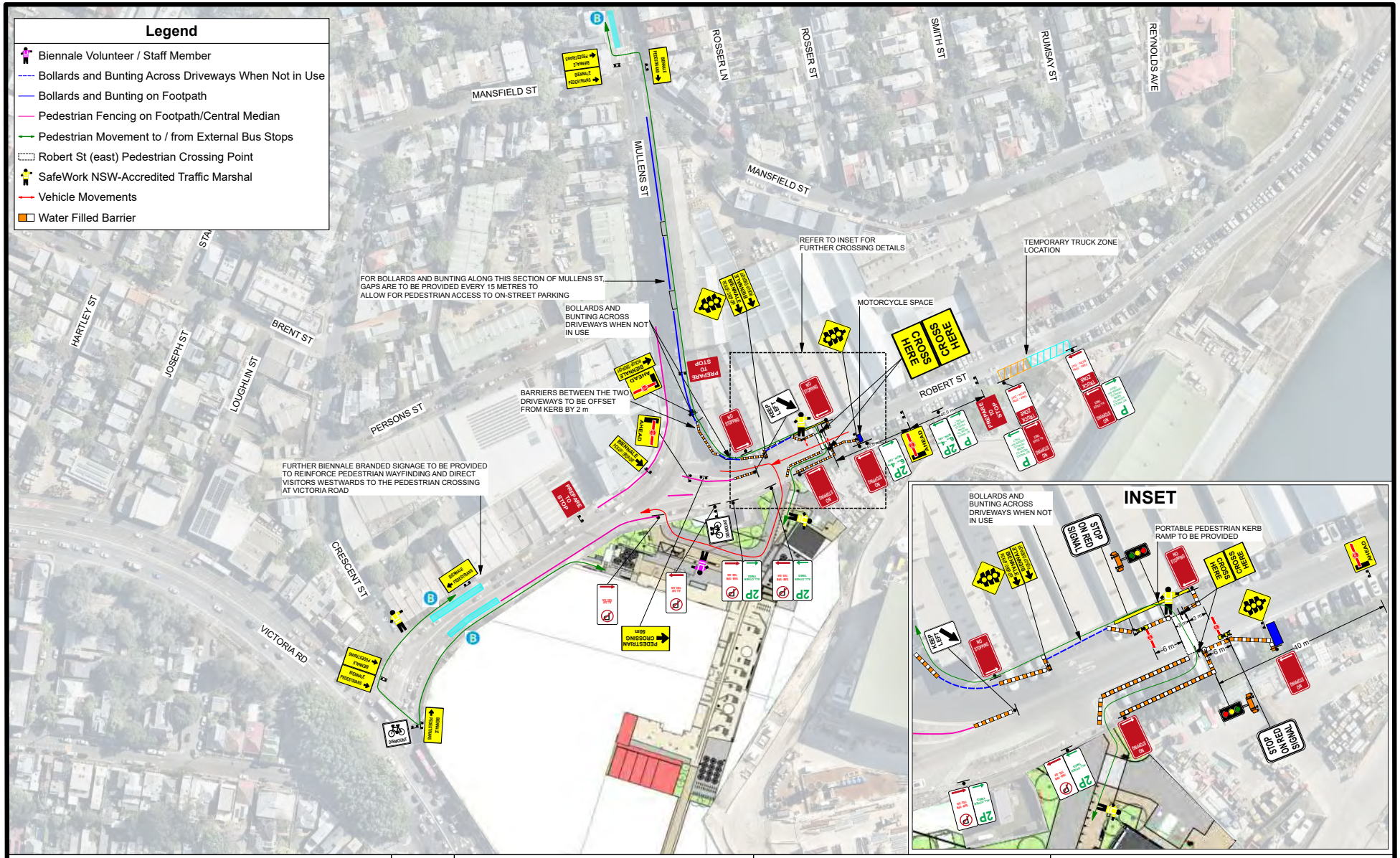
Traffic Guidance Scheme Prepared By

pdc CONSULTANTS

North

Project White Bay Power Station	Plan Title White Bay Power Station Interim Measures to be Implemented Until Intersection is Signalised	Plan No. 002	Revision No. -
Project No. 0740	Accreditation Name: Rohan Jain Card No: TCT 1056815 (Prepare a Work Zone Traffic Management Plan)	Date 14/06/2024	

Appendix C



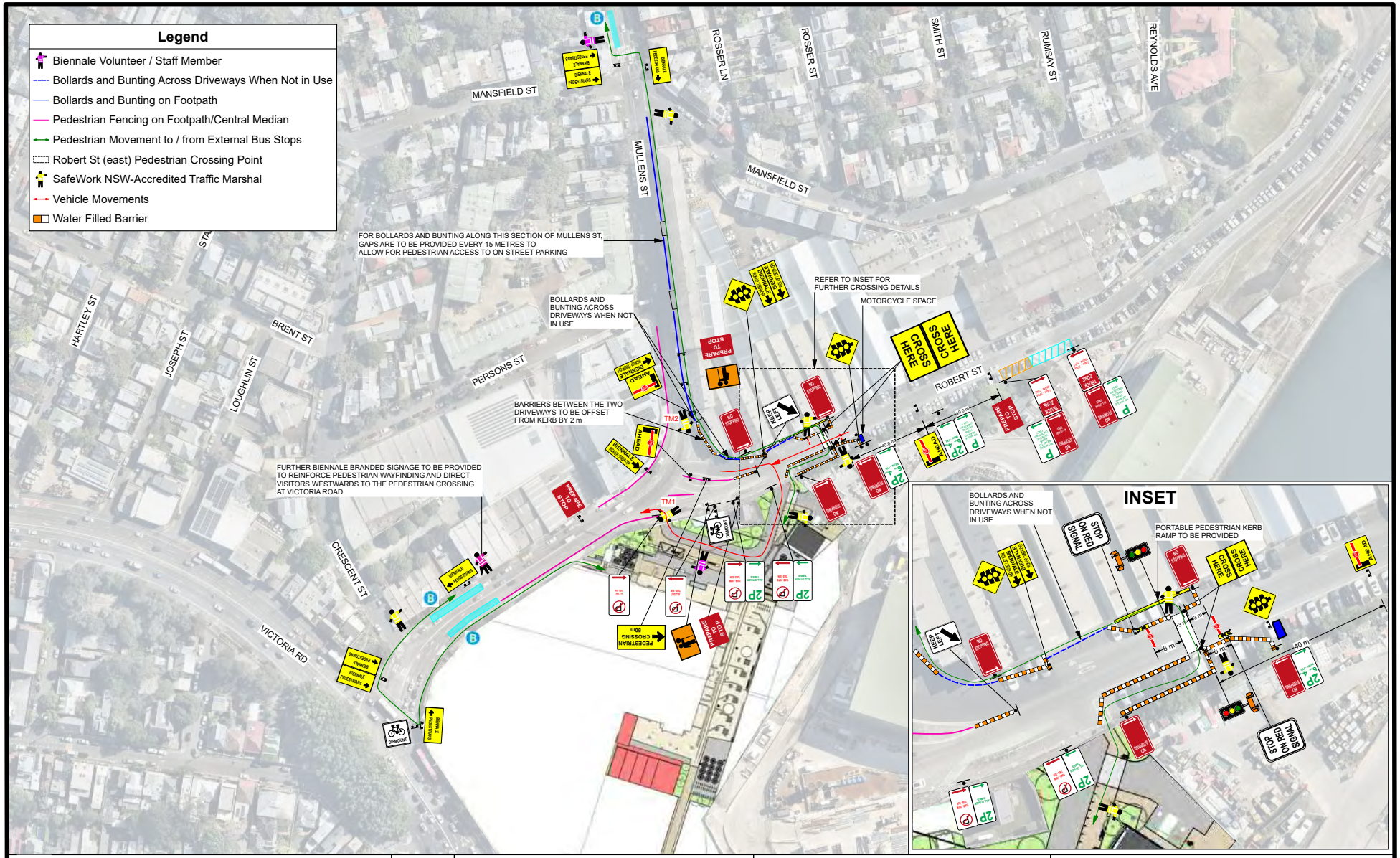
Notes:

1. Portable boomgates and traffic signals and associated signage to be packed up or covered when not in use.
2. All Traffic Marshals to have SafeWork NSW Traffic Controller accreditation.

North

Title White Bay Power Station - Pedestrian Management (Small / Typical Events)	Project White Bay Power Station - Biennale of Sydney
Client CBRE	Job No. 0740
Accreditation Julius Boncato - TCT0038351	Date 15/03/2024

PDC Consultants
a: Level 14, 100 William St
Woolloomooloo NSW 2011
e: info@pdcconsultants.com.au
t: +61 2 7900 6514
w: www.pdcconsultants.com.au



Notes:
1. Portable boomgates and traffic signals and associated signage to be packed up or covered when not in use.
2. All Traffic Marshals to have SafeWork NSW Traffic Controller accreditation.
3. Traffic Marshals at Crescent St and Mansfield St to assist in pedestrians crossing however, cannot go on the road and stop vehicular traffic. They are able to advise pedestrians when it is safe to cross.
4. TM1 to stop westbound traffic along Robert St slip lane to allow vehicles to depart the site if queues within the site are impacting the ability for vehicles to enter the site
5. TM2 to stop southbound traffic along Mullens St to allow vehicles to right turn from Robert St (west) to Robert St (east) if the right turn queue extends beyond the right turn bay and block the northbound through movement
6. Traffic Marshalls to communicate via two-way radio.

North

Title White Bay Power Station - Pedestrian Management (Larger Events)	Project White Bay Power Station - Biennale of Sydney
Client CBRE	Job No. 0740
Accreditation Julius Boncato - TCT0038351	Date 15/03/2024

PDC Consultants
a: Level 14, 100 William St
Woolloomooloo NSW 2011
e: info@pdcconsultants.com.au
t: +61 2 7900 6514
w: www.pdcconsultants.com.au

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APPENDIX A5

Section S57 Heritage Record Keeping Form

Standard Exemption Record Keeping Form

This form is to assist owners and managers when recording the use of standard exemptions under section 57(2) of the *Heritage Act 1977*. Use the form each time a standard exemption is used. Retain copies of completed forms and all relevant information for your records and to demonstrate compliance with the general conditions of use for the standard exemptions.

Use of the standard exemptions is self-assessed. In completing this form you acknowledge that this record is not for assessment purposes and does not represent an endorsement of the Heritage Council for the work or use of exemptions. This form may be requested as part of an audit or compliance investigation. This information cannot be relied on as a defence to prosecution.

Affected heritage item

Name of State Heritage Register item/IHO item:

Insert name as it appears in the State Heritage Inventory or interim heritage order

Street address of heritage item:

Local government area: Choose an item.

State Heritage Register/ interim heritage order reference number:

Activity/works

Description of works:

Include at a minimum what the activity/work is, how it will be carried out, what parts of the item it affects, what materials will be used.

Standard Exemption: Choose an item.

Statement of Significance Referred to: Choose an item.

If not the State Heritage Register, record the document title, author and date:

Document Title	Author	Date

Was professional advice required to use the Standard Exemption? Yes: ☐ No: ☐

Was professional advice sought to use the Standard Exemption (even if it was not required by the relevant standards)? Yes: ☐ No: ☐

If yes to either of the above questions on professional advice, complete the table below (add additional rows if required):

Name of company/ person who advised	Date of advice	Title of any document containing the advice

Cost of works:	$	Start date:	Click or tap to enter a date.	Completion date:	Click or tap to enter a date.

Were any inspections undertaken? Yes: ☐ No: ☐

If yes, complete below (add additional rows if required):

Date of inspection	Who inspected (name and organisation)	Purpose of inspection	Inspection findings

Challenges encountered and/or change of plans

Describe here the challenge or change and how you managed it. Remember: any change of plans that would not comply with the Standard Exemption require approval under the *Heritage Act 1977* before activity/works can be undertaken.

Heritage NSW | Department of Planning and Environment | Locked Bag 5020 Parramatta NSW 2124 | Phone: 02 9873 8500
Email: heritagemailbox@environment.nsw.gov.au EHG2022/0485 August 2022

Heritage impact

Summarise how the activity/ work will change the heritage item. What elements of the item will be affected? Are those elements significant or non-significant? How will those elements change? Is the change permanent or temporary and will the change be reversible? Does the change to those elements affect their significance and/or the item's overall significance? Remember: there must be no impact to the item's overall significance to work under a Standard Exemption.

Heritage controls:

What measures were put in place to minimise or avoid impact from the activity/ work to significant elements, fabric, values and the item's overall heritage significance?

Contact details (person completing is form)

Name	
Organisation/role	
Postal address:	
Email:	
Phone number:	

Name of heritage item owner (if not the contact who completed this form)	

Attachments

List the names of any other documents or files that form part of the exemption record in addition to this form.

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APPENDIX A6

Schedule of Previous Part 5 Approvals

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Appendix 6

Schedule of Previous Part 5 Approvals for WBPS

Typical Work to All Buildings (S60_2021_020)

- Removal of hazardous materials from all buildings, including lead dust, asbestos, bird faeces, and animal carcasses. It included general cleaning and removal of dust and debris.
- Installation of handrails and fences around dangerous penetrations and pits. Pit covers in poor condition were replaced.
- Façade repairs include redressing sandstone lintels, cornices, and capitals. Repair and replacement of lintels, repair of rendered façades, and patch brickwork. Removed and repaired spalling render and concrete surfaces, internal and external, for safety.
- Removal of broken and dangerous glass from windows. Installation of new timber frames and transparent polycarbonate covers to external windows and some doors (except the Coal Handling Shed and the Ash Handling Tower).
- Roof repairs and replacement of box gutters (Boiler House, Turbine Hall, Pump House, Administration Building, Switch House, and Control Room). Repair and replacement of stormwater downpipes and drainage systems.
- Repaired concrete flat roofs, roof membranes and improvement of drainage systems.
- Lowered all existing lift cars and counterweights to ground level.
- Installation of new electrical power supply, lights and fire detection for all internal spaces. New fire hydrants and improvements to the security system.
- Identification and storage of moveable heritage.

North Forecourt (S60_2023_010)

- Reconfigured new vehicle entry and exit, including hardstands and sliding gates along Robert Street.
- Two new accessible parking spaces adjacent to the Robert Street entry driveway.
- Construction of a pedestrian plaza, including new and repaired concrete hardstands, bollards, concrete dwarf walls and landscaping.
- Services upgrade of the main distribution board, a new fire brigade booster, improvements to stormwater drainage and new lighting poles.
- New temporary security shed.

Coal Handling Plaza and South Forecourt (S60_2023_10)

- New amenities building including male, female, gender neutral and accessible toilets, and a cleaner's room. The amenities include a covered awning, ramps, and stairs. New water supply and connection to the existing sewer.
- Reconfigured gates and barriers to prevent access to non-public spaces.
- New timber bench seating over plinths in the Coal Loader Plaza.
- Repaired and replaced stormwater grates and covers and repair concrete ground surfaces for safety.
- New stormwater pits.

Western Forecourt (S60_2021_020)

- Cleaned out drainage channels, make safe pits, remove trees and vegetation around the Control Room and regrade ground surfaces away. Minor repairs to external structures.

Chimneys (S60_2021_020)

- Tested and strengthened hold-down bolts, splice corroded steel, and installed new internal bracing.
- Replaced covers to the side openings of the chimneys (four in total) where the former as precipitators connected.
- Localised repair and patching and applied protective coatings.
- Reinstate external ladders to the north and south chimneys.
- Installed a new access system internally.

Coal Handling Shed (CHS), Coal Conveyor, Transfer Shed and Ash Handling Tower (AHT) (S60_2021_020)

- Replacement of cladding using galvanised corrugated metal sheets and replace all associated flashings.
- Repaired roofs and replace roof sheeting using Colorbond "Windspray" and blanket insulation.
- Structural steel stabilisation, including repairs, replacement, and application of protective coatings.
- Removed timber windows and cover openings with transparent polycarbonate sheeting.
- De-watered the CHS basement, fully clean area, structural steel repair, installation of drainage pump system and water tanks, and application of rust treatment to steelwork.
- Repaired the timber walkway floor of the incline conveyor and install a safety walkway.

- Removal of the south coal elevator between the roof of the CHS and the Coal Handling Tower (due to severe corrosion). Retention of elevator below roof level (S65a_2023_116).
- Interpretation of the coal elevator with new elevator cladding and cladding of the north coal elevator to match and protect.

Boiler House (S60_2021_020)

- Replacement of the roof sheeting, box gutters and stormwater drainage over the 1953 section of the building. Install a safe roof access system.
- Repaired and sealed concrete roof decks.
- Replaced the 1953 east awning at roof level, including the existing precast concrete and steel structure, with a new steel framed awning to match.
- Façade remediation, including brick patching and removing ferrous embedment's and spalling concrete.
- Treated the external steel elements, including roof ventilators, for rust.
- Repaired and reclad the Ash Kibble Shed on the north of the Boiler House.
- Installation of a new large door on the east elevation. Replaced roller doors.
- Installation of new BCA-compliant steel framed stairs on the north elevation and internally at Boiler no. 4.
- Installation of new BCA-compliant barriers and handrails.
- General safety works, including resin fill to damaged and uneven flooring, removal of trip hazards, plinths, repair, and replacement of steel hatch covers and grates.
- Repainted the internal steel structure and part of Boiler No. 1 to encapsulate lead paint. Existing machinery was protected with clear coatings of rust preservatives.

Turbine Hall and Pump House (S60_2021_020)

- Repaired concrete flat roofs and apply torch-on membranes.
- Removed steel windows at the south end of the Turbine Hall.
- Prop the level 1 concrete slab at the north end of the Pump House.
- Façade repairs include redressing sandstone lintels, cornices, and capitals, repairing concrete lintels, repairing rendered façade surfaces, and repairing brickwork.
- New steel framed hinged door on the east elevation. Replaced existing roller doors to ground floor openings.
- Repainted internal steel and masonry walls to encapsulate lead paint. Existing machinery was protected with clear coatings of rust preservatives.
- Installation of new BCA-compliant steel framed stairs and ramps.

- Installation of new glazed lift in the Pump House.
- Installation of new BCA-compliant barriers and handrails.
- General safety works, including resin fill to damaged and uneven flooring, removal of trip hazards, plinths, repair and replacement of hatch covers and grates.
- New bin room and first aid room on the ground floor.
- Installation of a new false floor on the ground floor, south end of the Turbine Hall, for public access and safety.

Transformer Alley (S60_2021_020)

- Facade repairs as previously detailed to the Turbine Hall and Switch House facades.
- Clean out and improved drainage. Replaced hatch covers.
- Steel strengthening and repairs to cantilevered walkways and other steel structures. Application of clear protective coatings to steel.

Administration Building (S57(2) Exemption)

- Replacement of existing windows with new steel framed windows.
- New suspended plasterboard ceilings on level 3.
- Repair offices on level 4 including replacement of asbestos ceilings, repainting, repair of flooring, repair of office partitions, repair of doors, and new lights.
- Fire isolation of the lift shaft by constructing a new fire-rated partition.
- New and refurbished amenities for male and female bathrooms and cleaners' room. New accessible bathroom.
- New services suitable for office use on level 3 and part of level 4 including power, lights, and data.
- Repainted internal rooms to encapsulate lead paint.

Victoria Road Access Bridge (S60_2021_020)

- Structural steel strengthening and repairs.
- Waterproofing to the concrete deck.
- Repair of the existing balustrade and wire mesh
- New access ramp to comply with Premises Standards and lighting.

Switch House (S60_2021_020)

- Entertainment room: Repair timber flooring, new ceiling lining, repainting walls, conserve murals, lighting, and fire sprinklers.

Control Room Building (S60_2021_020)

- Replace roof including box gutters.
- Reinstate a fibre cement ceiling in the main control room.
- Repair and reclad the lean-to structure on the east elevation.
- New services, including lighting and fire sprinklers, to the main control room.