



# **Powerhouse Ultimo Revitalisation – Proposed Modification Traffic Statement**

**16 April 2025**

Department of Planning, Housing & Infrastructure

16 April 2025

Dear Sir/Madam

## **Powerhouse Ultimo Revitalisation, Modification Proposal – Traffic Statement**

### **INTRODUCTION**

This traffic statement has been prepared by JMT Consulting on behalf of Infrastructure NSW (INSW) to support a Modification Proposal related to the approved State Significant Development Application SSD-67588459 for the Powerhouse Ultimo Revitalisation.

The Powerhouse Ultimo Revitalisation is a transformative investment by the NSW Government to establish a world-class museum that will significantly contribute to an important and developing part of Sydney. The renewed Powerhouse Museum in Ultimo will deliver a dynamic applied arts and applied science program, presenting exhibitions that showcase the Powerhouse collection, international exclusive exhibitions and programs that support the creative industries.

### **SITE CONTEXT**

Powerhouse Ultimo is situated upon the lands of the Gadigal people of the Eora Nation. It is located within the City of Sydney Local Government Area and its primary address is 500 Harris Street, Ultimo. The site comprises part Lot 1 DP 631345; Lot 3 DP 631345; Lot 1 DP 770031; Lot 1 DP 781732; and Lot 37 DP 822345.

The site contains two heritage-listed buildings, being the 'Ultimo Power House' (c.1899-1905) and the 'Former Ultimo Post Office including interior' (c.1901), both of which are listed on the State Heritage Register under the Heritage Act 1997.

Other buildings within the site include the 1988 museum building fronting Harris Street (Wran Building). A café building has been constructed immediately to the south of the Power House at the northern end of the Ultimo Goods Line. Located at the corner of Harris Street and Macarthur Street is a forecourt that acts as the main public entrance to the site, but provides limited activation and is disconnected from higher-quality urban spaces including the Ultimo Goods Line.

The primary focus of the Powerhouse Ultimo Revitalisation project is the museum to the north of Macarthur Street and bounded by Harris Street, Pier Street and the light rail corridor.



Figure 1 Indicative site plan and key features

Source: Ethos Urban

## ***PROPOSAL DESCRIPTION***

The modification proposal involves the following key elements:

### **1. Deletion of Loading Dock**

A revised loading and servicing strategy has been prepared for the development, which has determined that the loading dock will no longer be required within Powerhouse Ultimo. Therefore, it is proposed that the loading dock on the ground level be deleted from the scheme, including the access door and ramp through the Switch House. This is further discussed in subsequent sections of this document.

### **2. Amendments to the Switch House**

#### ***Ground Floor***

- Amendments to the design of the fire stairs exiting to Macarthur Street.
- Revised location of back of house facilities including, waste and storage rooms, plant and fire pump and control rooms.
- Revised locations for amenities, cloakings and security rooms and vertical transport.
- Removal of end of trip facilities (with facilities being provided in Harwood Building).
- Revised layout for food and beverage retail.
- Removal of exhibition hoist.

#### ***Level 1***

- Retention of plant in existing location and retention of entire floor slab.
- Revised locations for vertical transport.
- New ramp to access internal courtyard through west façade of Switch House.

#### ***Level 2***

- Retention of existing floor slab and windows.
- Relocation of plant.

#### ***Level 3***

- Removal of proposed roof top bar and terrace and replacement with new roof lining to ensure water protection.

### **3. Wran Building**

Through detailed design of the development, the construction methodology for the alterations to the Wran building have been prepared, which conclude that the structure in its current form cannot be retained in a manner that would meet safe work requirements. For this reason, it is proposed to demolish the existing Wran Building structure in its entirety and rebuild the structure in accordance with the approved plans. This change is shown on the demolition plans.



## TRANSPORT ASSESSMENT OF PROPOSED MODIFICATION

### (i) Vehicle access and loading strategy

Vehicle access into the site is currently via the following means, as illustrated in Figure 2 below:

- Staff / contractor parking accessed via Pymont Street (underneath Pier Street overpass), Mary Ann Street and Macarthur Street (staff parking located to the east of the Harwood Building)
- Loading and servicing via Macarthur Street, with the main loading dock located within the Harwood Building. For large museum deliveries trucks manoeuvre within the main forecourt area at the eastern end of Macarthur Street and reverse back towards the Boiler House and Turbine Hall.



Figure 2 Existing vehicle access arrangements

The current approval under SSD-67588459 provided for an on-site loading dock within the Switch House accessed via Macarthur Street. Vehicular access to the loading dock was proposed to be located on the northern side of Macarthur Street, approximately 35m east of the Harris Street signalised intersection.

While operational vehicle access to the museum will continue to be obtained via Macarthur Street as per the current approval, the modification proposes changes to the loading strategy for the site.

The revised loading strategy is as follows and illustrated in the vehicle swept paths on the following pages of this document:

- The majority of goods loading (including collection items) is proposed to occur through the existing loading dock within the Harwood Building (see Figure 4), consistent with the previous loading arrangements for the Powerhouse Museum operations. Vehicles travel east along Macarthur Street before reversing back into the loading dock of the Harwood Building (refer to drawing number 2209\_01). All vehicles then exit Macarthur Street in a forward direction. Goods would then be trolleyed across from the Harwood Building to the Powerhouse Museum and transported via internal back of house corridors.
- Smaller deliveries vehicles (mostly vans), including those servicing the on-site café, may load directly adjacent to the goods handling area adjacent to the Switch House (refer to drawing number 2209\_02).





Figure 4 Existing loading dock within the Harwood Building

It is important to note that the number of deliveries to the Powerhouse Ultimo following the completion of the revitalisation project will not differ significantly to that previously experienced when the museum was operational. Typically the museum would generate between 15 and 20 deliveries per day, with this level of activity expected to remain consistent with the future development. With respect to loading of the future building:

- The only change in loading from prior operations will be the servicing of the food and beverage outlet on the ground floor, however there was no loading dock to service the former cafe on L2 of the Switch House.
- Waste will be stored in a waste room in the proposed development and emptied externally, in the same manner as previous operations
- All collections items and other major deliveries (apart from large collections) will go through the Harwood Building as per previous operations.



**Job Title**  
Powerhouse Ultimo Renewal

**Client**  
Infrastructure NSW

JMT Consulting  
ABN: 32 6358 30054  
www.jmtconsulting.com.au  
PO Box 99, Kingsford NSW 2032

**Drawing Title**  
Turning Paths

**Drawing No**  
2209\_11

**Date**  
08.04.25

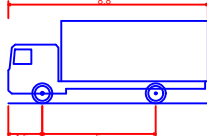
**Legend**

- Body Envelope
- 300mm Envelope
- Wheel Envelope

**Job No**  
2209

**Scale at A3**  
1:200

**Vehicle type(s)**



MRV - Medium Rigid Vehicle  
Overall Length 8.800m  
Overall Width 2.500m  
Overall Body Height 3.633m  
Min Body Ground Clearance 0.428m  
Track Width 2.500m  
Lock to Lock Time 4.00 sec  
Curb to Curb Turning Radius 10.000m





**Job Title**  
Powerhouse Ultimo Renewal

**Client**  
Infrastructure NSW

JMT Consulting  
ABN: 32 6358 30054  
www.jmtconsulting.com.au  
PO Box 99, Kingsford NSW 2032

**Drawing Title**  
Turning Paths

**Drawing No**  
2209\_12

**Date**  
08.04.25

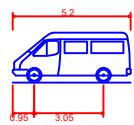
**Legend**

- Body Envelope
- 300mm Envelope
- Wheel Envelope

**Job No**  
2209

**Scale at A3**  
1:200

**Vehicle type(s)**



B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min Body Ground Clearance	0.312m
Track Width	1.840m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	6.250m



The loading of larger items directly into the Boiler House and Turbine Hall across the Terrace area will remain as per the approved development. Swept path analysis for a semi-trailer accessing the Boiler House, as prepared for the approved development under SSD-67588459, is illustrated in Figure 5.

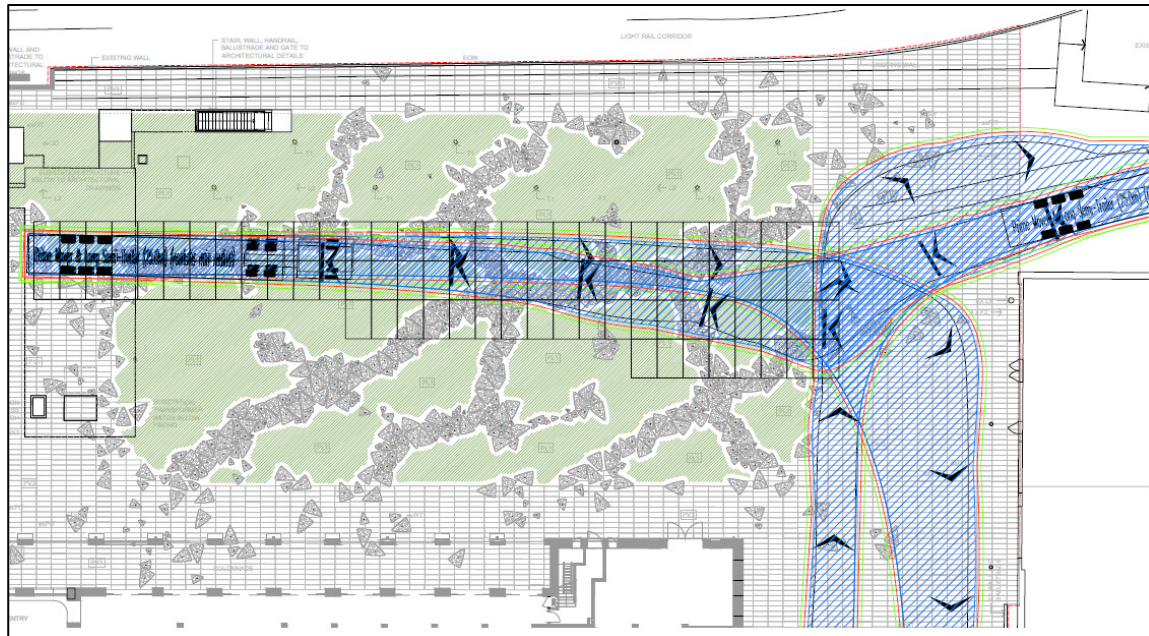


Figure 5 Swept path for 20m semi-trailer accessing the Boiler House

## (ii) Management of Delivery Vehicles

The following management measures will be implemented to maintain appropriate arrangements for loading to the Powerhouse Ultimo:

- Retention of the existing security bollards on Macarthur Street (see Figure 6) to restrict unauthorised vehicle entries to the museum. The current intercom system will be retained to allow access for approved vehicles to the loading areas within the site.



Figure 6 Existing bollards on Macarthur Street

- Implementation of a dock management system which will enable the on-site management team to schedule truck delivery times and allocate loading docks within the Harwood Building using an online booking system such as Bestrane (or similar). The major benefit of the implementation of such a system is the ability to moderate demand throughout the day and minimise any queuing impacts. The allocation of deliveries to timeslots reduces the risk the loading dock reaching capacity and manages traffic flow into the site during peak periods for the Powerhouse. The booking system also largely mitigates the risk of vehicle queues forming to enter the site and improving the flow of traffic on the adjacent streets.
- On-site management of the loading dock within the Harwood Building including the presence of a loading dock manager – consistent with current site conditions (see Figure 7). The loading dock managers responsibilities include:
  - Granting access through Macarthur Street to authorised vehicles only
  - Ensuring the loading dock to be accessed by authorised personnel only
  - Supervising and managing all incoming and outgoing vehicle movements
  - Monitoring deliveries and ensuring vehicles do not overstay their pre-allocated booking period.
- Waste collection to be managed through the dock management system to avoid conflict and congestion with peak operational times.
- Maintaining existing arrangements whereby a trained member of security is present outside the Harwood Building loading dock to manage conflicts between vehicles and pedestrians – refer to Figure 7. This includes the use of concertina style gates which are extended out to ensure pedestrians do not walk adjacent to the loading area and clash with vehicles or goods being trolleyed across to the museum building.

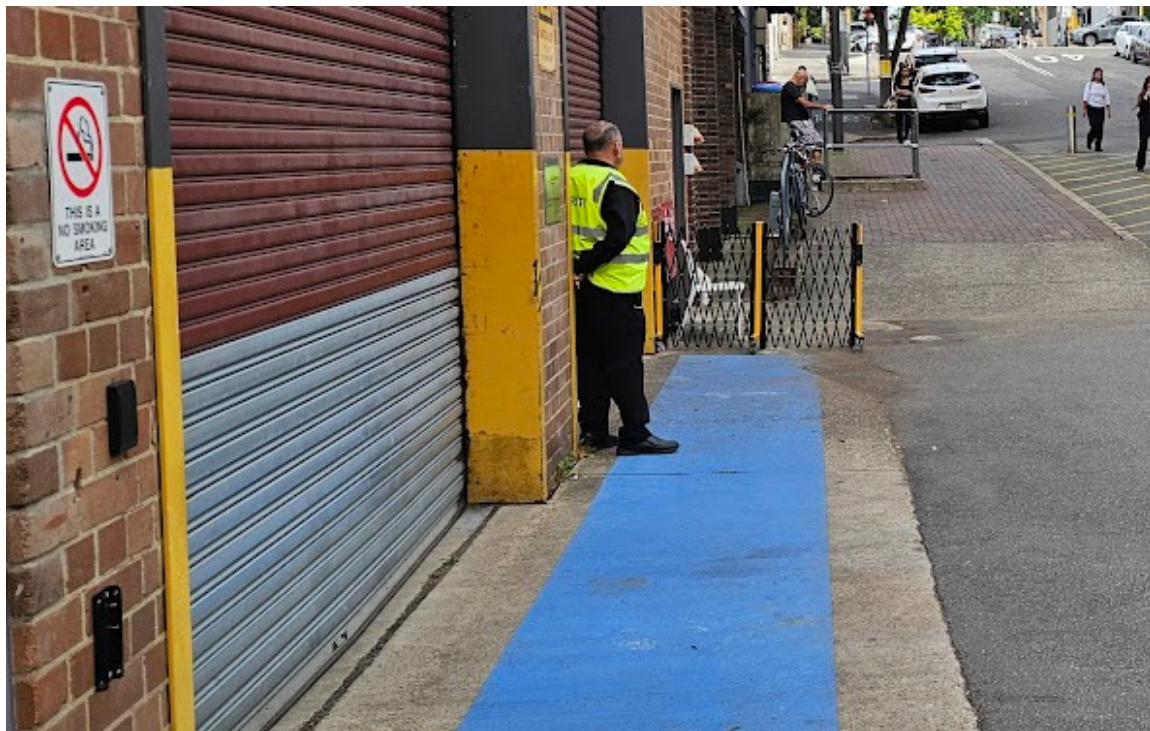


Figure 7 Existing security staff and gate system in place



**(iii) Road network impacts**

The modification proposal will not impact the operation of the surrounding road network compared to that previously considered under the current project approval given:

- The modification does not materially change the overall building floor space and therefore would not trigger additional levels of travel demand to the museum; and
- There will be no change in the car parking policy for the site compared to that considered in the original project approval, with no on-site car parking provided for visitors to the museum.

In the above context the modification would not trigger any additional traffic impacts compared to the current approval for the Powerhouse Ultimo.

**(iv) Car parking**

The proposal continues to provide no on-site car parking for visitors – consistent with the current approval under SSD-67588459. Maintaining this approach to car parking maximises the amount of publicly accessible open space and minimises the traffic impacts arising from the development – particularly given the strong public transport links within Ultimo and the adjacent Sydney CBD. For those that choose to drive to the site, there are a number of public car parks within close walking distance of the site as indicated in Figure 8.

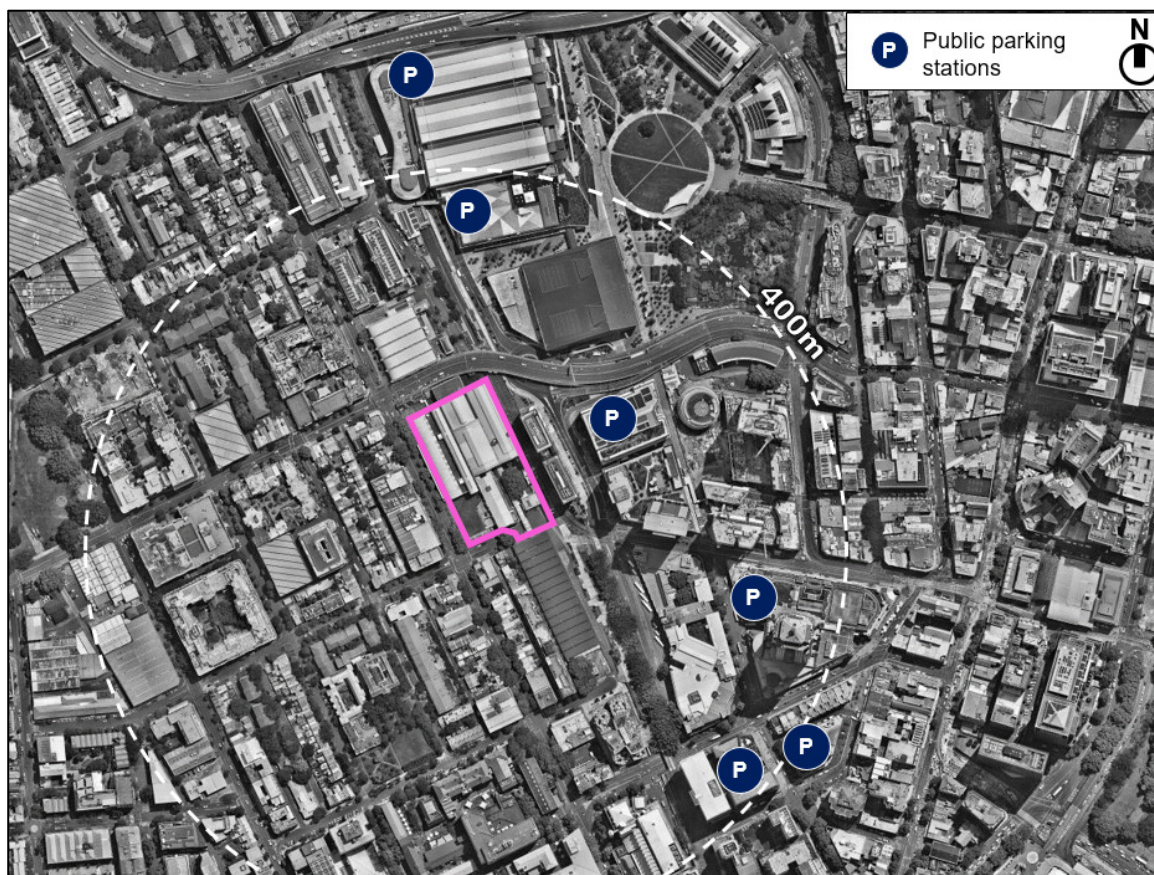


Figure 8 Existing off-street public car parking areas

**(v) Bicycle parking**

The approved development proposal included 16 bicycle parking spaces and associated end of trip facilities for staff of the Powerhouse Museum within the Switch House building. Accordingly Condition B24 of the approval under SSD-67588459 required that a minimum of 16 staff bicycle parking spaces be provided to serve the site.

The modification proposal removes the bike parking and end of trip area from the Switch House and instead staff cycling to the site would utilise bicycle parking to be provided within the Harwood Building. 20 bicycle parking spaces for staff would be provided in a secure (Class 2) facility within the Harwood Building, with the layout of the bicycle parking area presented in Figure 9. The 20 staff bicycle parking spaces exceeds the minimum of 16 spaces noted in Condition B24 of SSD-67588459.

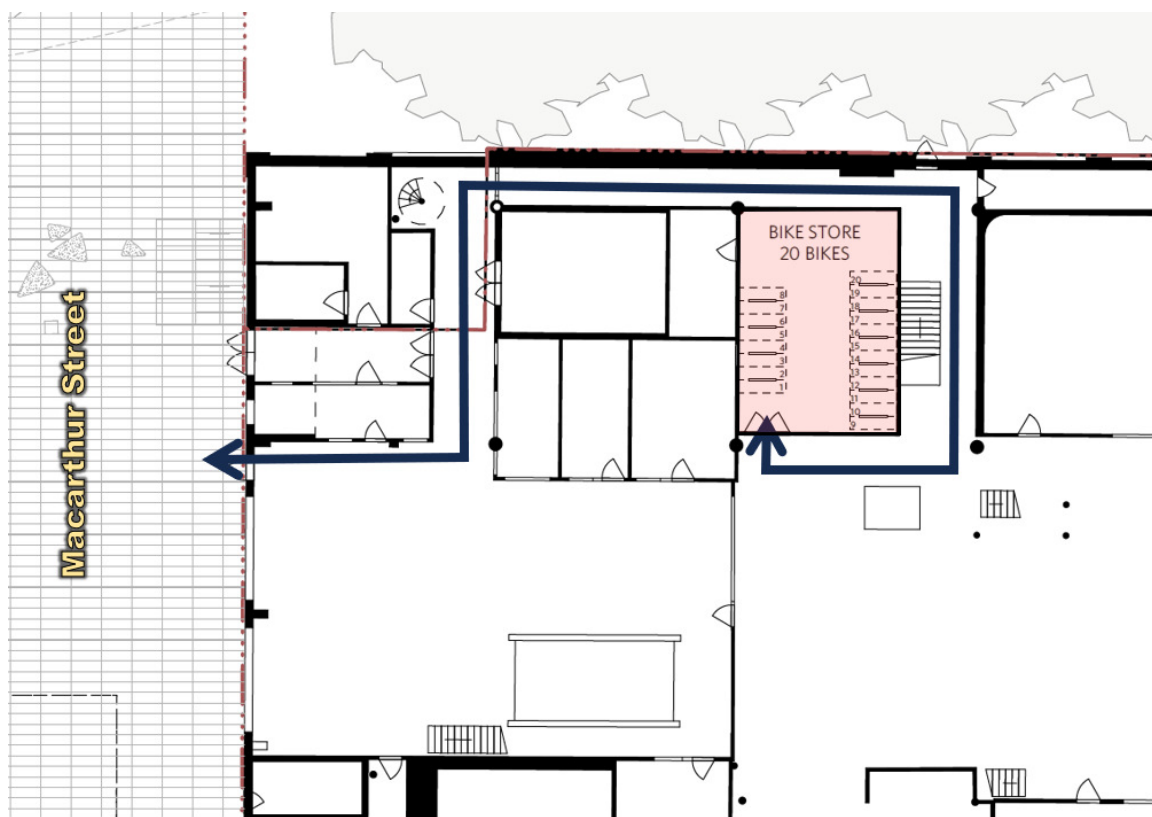


Figure 9 Proposed bicycle parking within the Harwood Building

Cyclists would access the Harwood Building via either Maryann Street (which includes a dedicated off-road cycleway) or Macarthur Street which are both well connected to the broader cycling network as illustrated in Figure 10.

From the bicycle parking room in the Harwood building there are a number of nearby end of trip facilities (lockers and showers) within the same building. As per Condition B24(iii) of the project consent the Harwood Building provides for a minimum of two showers (with change areas) along with 16 personal lockers for the use of Powerhouse staff members. Staff utilising would then make the short walk across from the Harwood Building to the museum building.

The project maintains the 20 visitor bicycle parking spaces in the public domain for the use of visitors to the site as per the current approval under SSD-67588459.

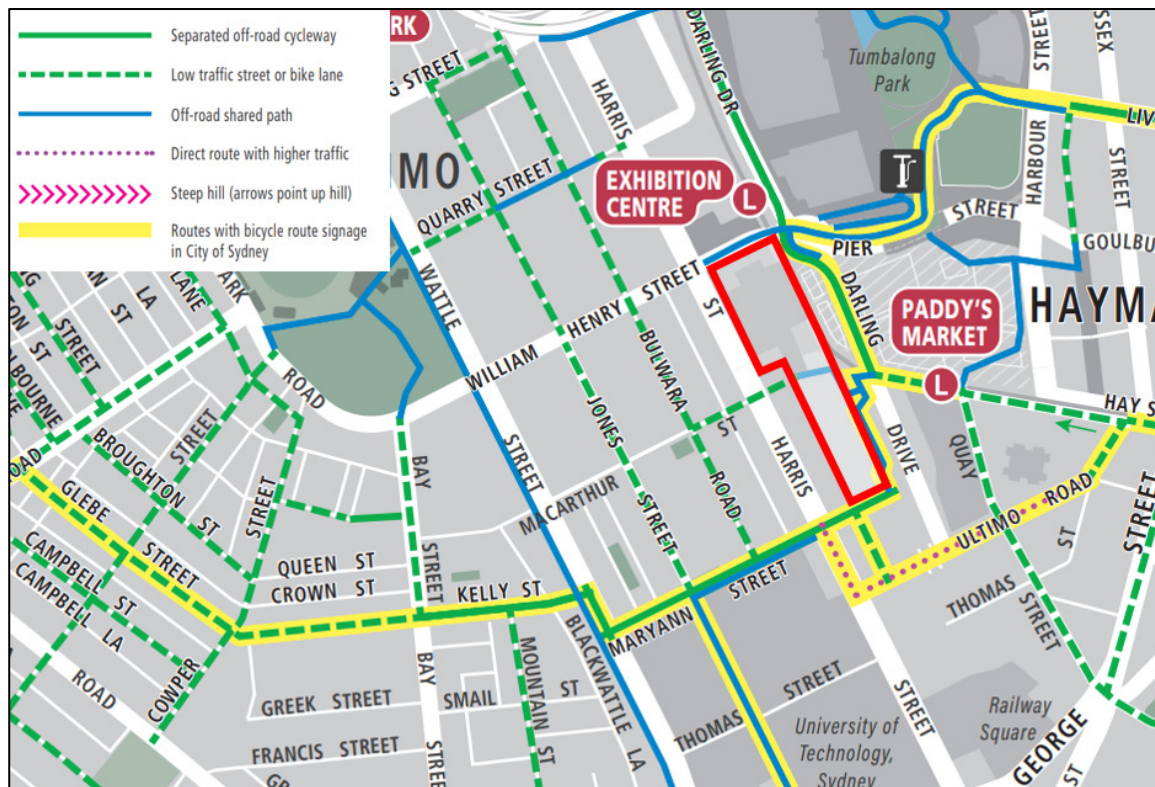


Figure 10 Bicycle routes adjacent to the Powerhouse Ultimo

## SUMMARY

JMT Consulting has prepared this transport assessment to support a modification proposal for the approved State Significant Development Application SSD-67588459 for the Powerhouse Ultimo Revitalisation.

The assessment confirms that the modification will continue to provide appropriate levels of transport access to the site. A revised loading strategy is proposed which involves the use of the existing loading dock in the Harwood Building for deliveries including those of collection items. Smaller delivery vehicles will also have the ability to load / unload immediately adjacent to the Switch House and access a back of house corridor. A range of management measures are to be implemented to ensure loading to the site is undertaken in a safe and efficient manner – consistent with the current approval for the development.

The modification would not result in any traffic impacts of significance on the surrounding road network and appropriate levels of bicycle parking and end of trip facilities.

Please do not hesitate to contact the undersigned should you require any further information.

Regards

**Josh Milston**

Director | JMT Consulting

MIEAust CPEng