

Sydney Harbour Federation Trust
**Sub Base Platypus – Torpedo
Factory Renewal Project**
Construction Traffic Management
Guidelines

Final | 10 November 2020

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1 Introduction

This report details the Construction Traffic Management Guidelines (CTMG) for the Torpedo Factory Renewal Project works relating to the Sub Base Platypus renewal project. The CTMG has been prepared by Arup on behalf of Sydney Harbour Federation Trust (the Harbour Trust).

The purpose of the CTMG is to assess the proposed access and operation of construction traffic associated with the proposed works with respect to safety and capacity.

This CTMG will provide guidelines for managing construction traffic, with regards to the surrounding environment and allowing for appropriate access to Sub Base Platypus. The appointed contractors will also be required to prepare a traffic management plan outlining specific methods for safely managing construction vehicle traffic. This will ensure impacts on the surrounding transport network are appropriately managed.

1.1 Location

The site is located 1km from North Sydney Central Business District (CBD) and 4km from Sydney CBD. It is within the vicinity of North Sydney Station, Milsons Point Station, North Sydney Wharf and a number of bus stops. The site location is illustrated on Figure 1.

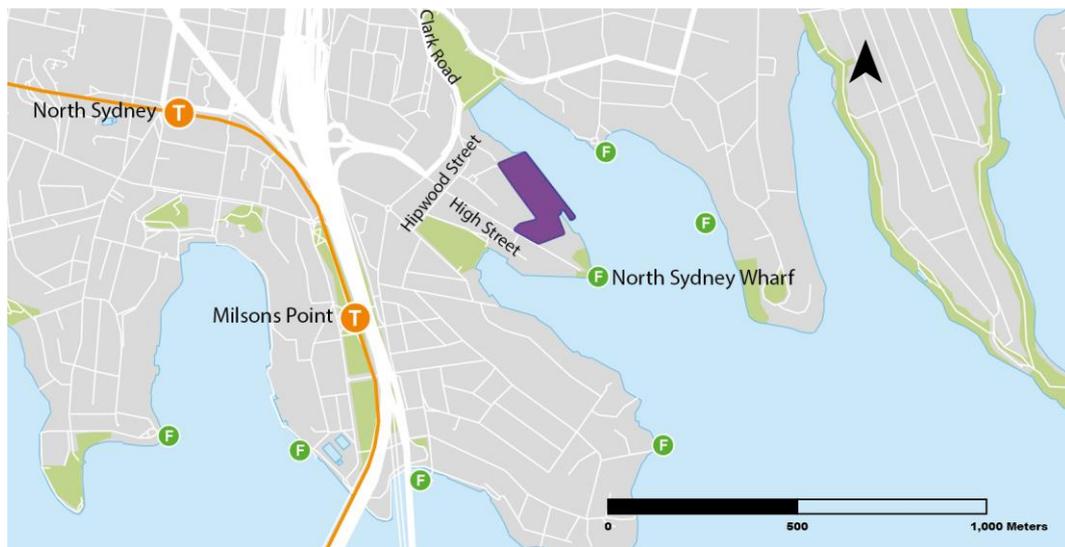


Figure 1: Former HMAS Platypus site location (highlighted in purple)

2 Description of proposed works

2.1 Overview

In December 2016 the Harbour Trust adopted a statutory Management Plan for the renewal of former HMAS Platypus (now known as Sub Base Platypus). The Management Plan proposes to reactivate the site through the provision of public open space, and the adaptation of buildings and open spaces for a range of cultural, recreational, community and commercial uses.

The initial focus of the renewal project (Stage 1) was to provide public access to as much of the site as soon as possible and adaptively re-use buildings 2 and 10. With this now complete, the Harbour Trust now seeks to commence the next stage of the renewal project which focuses on the Torpedo Factory building. The following is proposed as part of the Torpedo Factory development as per a 2020 draft amendment to the Management Plan.

The Harbour Trust's proposed Torpedo Factory Renewal project includes the following:

- **Foreshore Park** - Create a new foreshore park, through a series of landscaped terraces replacing the multi-level, harbour-facing portion of the Torpedo Factory.
- **Entry Forecourt facing High Street** – Create an enlarged entry forecourt through the demolition of a portion of the Torpedo Factory facing High Street.
- **Torpedo Factory Walkway** – Provide public walkways and viewing areas along the northern and eastern sides of the Torpedo Factory, offering elevated views towards Neutral Bay.
- **New Pedestrian Connections** – Investigate opportunities to connect the upper level and the new foreshore park, and a potential new path to Kesterton Park
- **Sandstone Cliff** - Reveal the large sandstone cliff face that divides the upper and lower levels of the site. The excision of the building at this point will allow for expansive views and an opportunity to better integrate Sub Base Platypus' lower foreshore level with adjoining public land (Kesterton Park).
- **Heritage** – Retain key significant heritage elements of the building, including the majority of the factory floor level, and the characteristic saw-tooth roof.
- **Visitor Access**- Retained portion of Torpedo Factory to include a public car park to support visitors accessing the site.
- **Interpretation**- Interpret the site's multi-layered history – natural, First Nations and defence heritage, with a focus on the ongoing connection to Country. Interpretation will be guided by the *Australian Indigenous Design Charter* launched in 2018, and *Designing with Country*, by the Government Architect NSW March 2020.
- The new public domain will also present the story and history of the place's industrial and military heritage, specifically related to torpedo manufacturing and maintenance.

- **Improved Visual outcomes** - The removal of the multi-storey, harbour-facing section of the building, and the peeling away of walls on three of its sides, will substantially reduce the visual bulk and scale of the building, and open up views to and through the site.
- **Environmentally Sustainable Design** - Explore opportunities to use the roof to capture solar power and rainwater
- **Amenity** – Protect local amenity by minimising potential impacts such as noise and light
- **Possible future uses** – The covered space of the remnant Torpedo Factory provides the opportunity for a future pop-up café at the harbour-end, or a space for occasional community uses (such as a small market). Any such proposals would be subject to separate assessment and approval.

Artist's impressions for the proposed car park and public park are shown in Figure 2.

Existing

Proposed

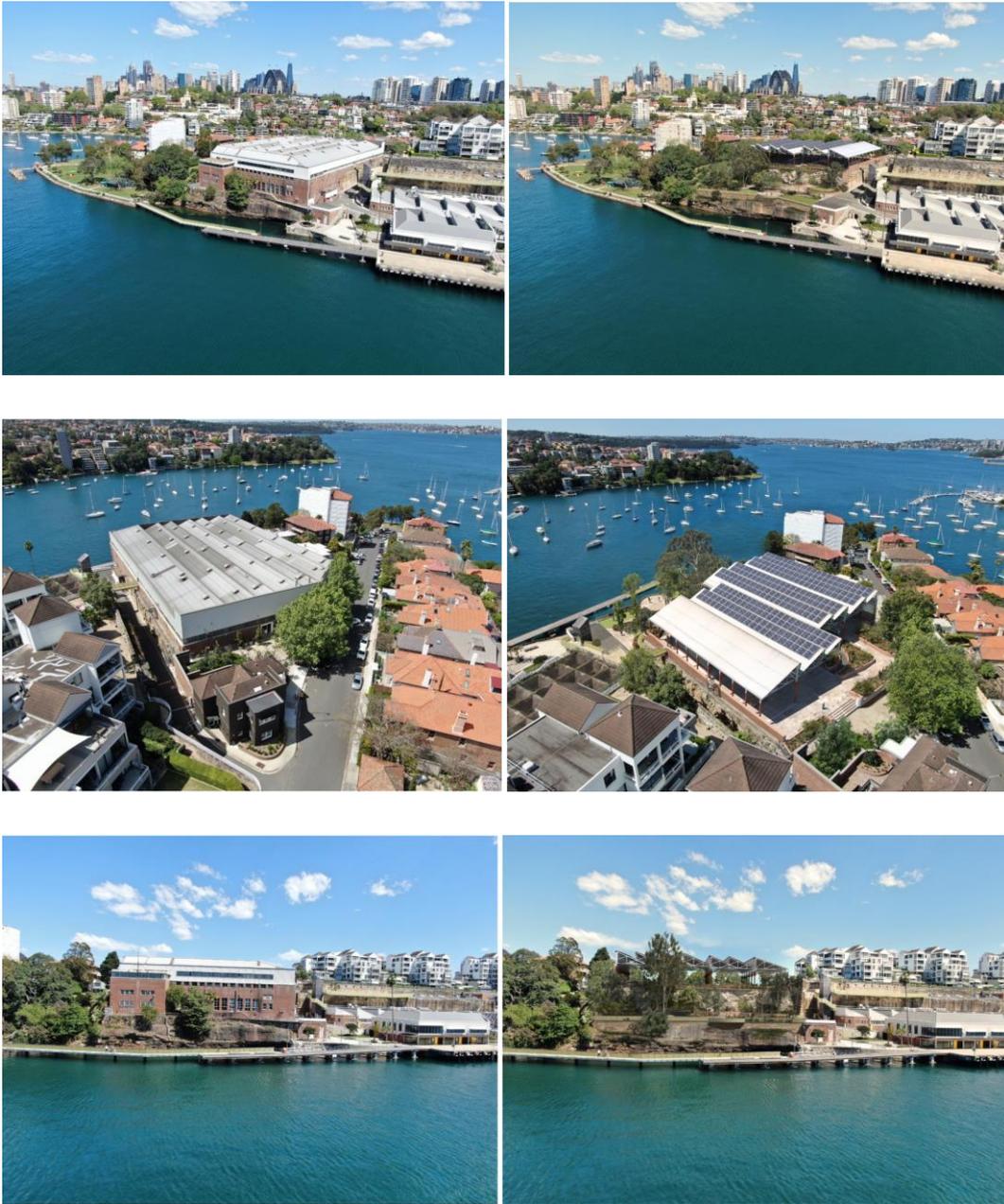


Figure 2: Artist's impressions of the Torpedo Factory Renewal works

2.2 Construction programme

The project will likely commence in 2021 and it is envisaged to be complete in 2022.

There may be a requirement for these timeframes to be adjusted as the design is conceptual and contractors are not yet appointed. The construction program will be updated during the tender and award stage of the head works contractor as more detailed design documentation becomes available.

2.3 Proposed Construction Hours

The proposed hours of operations for all construction work and deliveries may be:

Monday to Friday	7am to 6pm
Saturday	8am to 1pm
Sunday and Public Holidays	No works permitted

The proposed hours of construction are within the recommended standard hours of work within the Interim Construction Noise Guideline (DECC, 2009).

As part of the NSW Government's response to the COVID 19 pandemic, *Environmental Planning and Assessment (COVID - 19 Development – Construction Work Days) Order 2020* commenced on 2 April 2020.

These Orders will be in place until 25 March 2021, unless otherwise advised by the NSW Government.

Under the Order, on weekends and public holidays during the COVID - 19 pandemic, construction hours have been extended to the same hours normally allowed on weekdays. This is necessary to ensure workers can practice social distancing and allow construction work to continue safely. The Order requires that all feasible and reasonable measures to minimise noise are taken.

Works may take place during the extended hours, as permitted in the *Environmental Planning and Assessment (COVID - 19 Development – Construction Work Days) Order 2020*.

2.4 Vehicle types expected

The following types of vehicles may access the site during the Torpedo Factory Renewal works:

- Trucks
- Excavators
- Skid steer loaders
- Drilling rigs

- Types of cranes
- Boom and scissor lifts; and
- Concrete pumps and agitators.

Vehicles required by the contractor are not limited to the above and a detailed CTMP produced by the head contractor will outline the likely range of vehicle types to be used throughout the duration of the works.

Where possible, heavy goods such as machinery and plant may be delivered outside of peak traffic hours. Traffic surveys within the TAMP indicated these hours are 08:00-09:00 and 17:00-18:00.

2.5 Truck routes and controls

To keep construction related traffic to a minimum on the surrounding local roads, it is necessary to define routes for all construction traffic accessing the site. The routes will be clearly marked by traffic control signage to ensure construction vehicles follow the correct route. Figure 3 describes the inbound and outbound routes to the construction site.

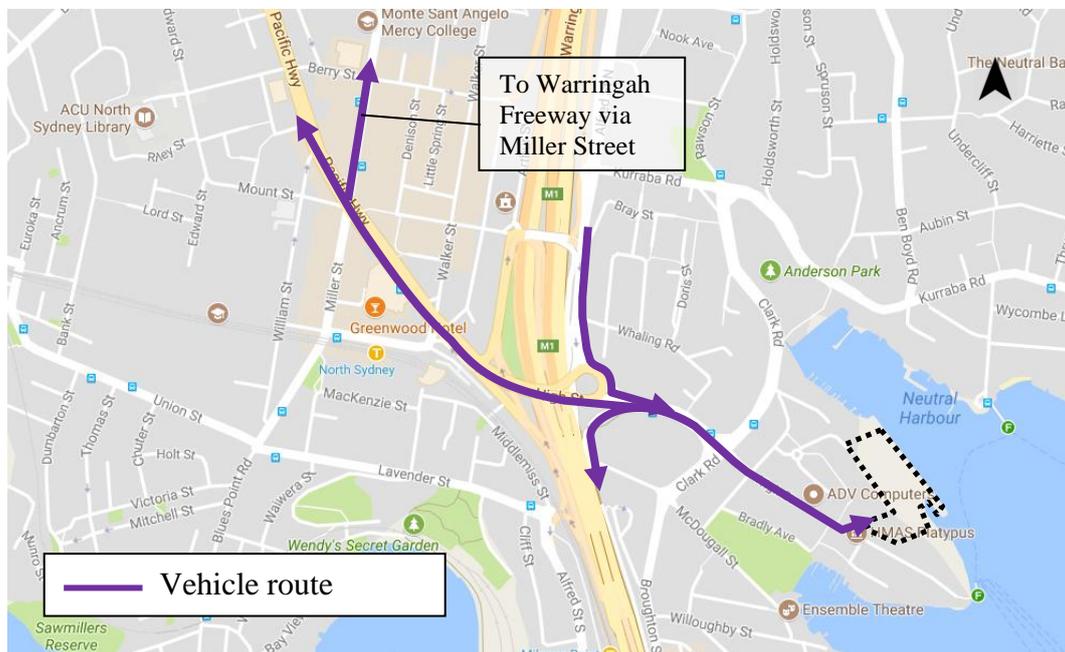


Figure 3: Construction vehicle routes to and from the site

Construction vehicles accessing the site will primarily utilise the state and regional road network. The key roads envisaged to be utilised are:

State Roads

- Pacific Highway
- Cahill Expressway

Regional Roads

- High Street, north of Clark Road
- Clark Road

2.6 Construction traffic

At this stage of the design an estimate for the volume of heavy vehicles required for construction cannot be determined. All construction traffic movements to and from the development will be managed appropriately to minimise impacts on other road users and surrounding uses. Estimated construction volumes may be presented in the detailed CTMP produced by the head contractor.

Workers may generate additional traffic to the site in the form of passenger vehicles, vans and utes. Construction workers generally start earlier and finish earlier than the commuter peak periods and would likely not coincide with the commuter peak periods.

2.7 Construction worker parking

Where practically possible, construction workers will park within the Sydney Harbour Federation Trust property confines. Generally, the Harbour Trust's preference is for contractors to park within the Torpedo Factory. In some cases, it may be necessary for construction workers to park in Kiara Car Park. These movements will be appropriately managed to avoid impacts on surrounding residents and minimise noise. Construction workers will also be encouraged to travel to the site by public transport. The head contractor will further outline management of the construction worker parking and measures to maintain amenity of adjoining residents in their detailed CTMP.

2.8 Construction site access

In order to complete the Torpedo Factory renewal works the feasible construction site access options are as follows:

1. Platypus Lane;
2. High Street; and
3. Access via the Torpedo Factory.

These options are described in the following sections. Both options require the use of High Street. East of Clark Road, High Street is limited to vehicles with a Gross Load Limit of less than 15 tonnes. A temporary construction zone may be established on High Street in front of the Torpedo Factory. Further consideration of site access will be needed if larger vehicles require access and whether approvals from North Sydney Council need to be sought.

High Street has parking on either side of the road and a trafficable width of between 4.2m and 4.6m. At certain sections along the road, construction vehicles would need to give way to oncoming vehicles.

Sight distance to the south along High Street immediately south of Hipwood Street is somewhat limited due to the retaining wall on the northern side as the road curves. Given the nature of the street with low traffic volumes, reduced speeds and on street parking, the sight lines are deemed adequate for existing traffic and future construction traffic.

2.8.1 Platypus Lane

Platypus Lane is accessed from High Street (see Figure 4) and is directly north of the Torpedo Factory. This road is currently a Shared Zone used by service vehicles, pedestrians and cyclists. Vehicle access is controlled by a boom gate.



Figure 4: Platypus Lane off High Street

Pedestrian access, as well as servicing and loading access, for public and tenants to Platypus Lane will be maintained during the construction period. There may be temporary interruptions to access during some works. Potentially affected tenants and other stakeholders will be informed of any temporary interruptions and any necessary alternative access arrangements. Measures to ensure public and tenant access will be detailed in the head contractor's Construction Traffic Management Plan and the relevant information will be available on the Sydney Harbour Federation Trust's website.

2.8.2 High Street

Construction vehicles will use High Street to access Sub Base Platypus. Sub Base Platypus is located adjacent to various residential properties, therefore this would require careful management to minimise potential impacts on pedestrian safety and residential amenity.

Impacts to the kerbside restrictions would need to be considered to designate appropriate road space for construction vehicles. A temporary construction zone may be established on High Street in front of the Torpedo Factory. North Sydney

Council would need to be engaged to gain approval to amend any kerb side restrictions.

Impacts to the footpath would also need to be managed with appropriate measures to ensure walking routes were maintained and conflicts between construction activities and pedestrians are avoided.

2.8.3 Access via the Torpedo Factory

Given vehicle access already exists from High Street into the Torpedo Factory there may be scope for vehicles to access the site via this entrance.

As with other options construction vehicle movements in and out of the site would need to occur in a forward direction and be managed to ensure safety for users of High Street and its eastern footpath. Appropriate construction traffic management measures could be implemented by the head contractor to manage this risk.

2.9 Emergency vehicle access

No special provisions are required or proposed for emergency vehicles.

3 Impacts on the Transport Network

3.1 Road network impacts

The Transport and Access Management Plan (TAMP) (Arup, 2019) assessed traffic volumes for 50 to 100 vehicles entering and leaving the site within the same hour. The findings of the study concluded that while the increase in traffic will be noticeable, local streets will be within the environmental capacity of a local street (200-300 vehicles per hour). It is therefore expected that the low volume of construction traffic associated with the Torpedo Factory renewal works (outlined in Section 2.6) will not detrimentally impact the operation of the surrounding road network. Moreover, these construction and workforce related vehicles would arrive to the site throughout the day, generally outside of commuter peak periods. Any localised impacts will be managed through the mitigation measures discussed in Section 4.

3.2 Public transport impacts

No bus services will likely be impacted by construction traffic as the works are confined within the site and on streets that buses do not use.

3.3 Walking impacts

Pedestrians using High Street and Sub Base Platypus may need to be held for short periods of time as trucks enter and exit the site to minimise delay for other vehicles using these streets. Pedestrians will be managed using industry best practice standards, to maximise safety.

3.4 Visitor Parking

The Torpedo Factory currently provides a temporary public carpark to support visitation at Sub Base Platypus. An outcome of this proposal is to provide a permanent public carpark.

The temporary carpark operates from 7am – 9pm everyday, and provides for 39 cars. Visitors are able to park for free for 2 hours and can pay for an additional hour of parking.

During the construction period, this temporary carpark will not be available for public car parking.

As a mitigation measure, clients visiting tenants at Sub Base Platypus will be able to pre-arrange, with the Harbour Trust, temporary visitor parking within the Kiara carpark.

No parking will be generally provided for park visitors on the site. Members of the public will be encouraged to walk, cycle or use public transport, to access the site for the duration of the construction works.

4 Proposed Mitigation Measures

The measures proposed to mitigate the impacts of the construction work may include:

- Containment of most works and vehicles within site; and
- Detailed CTMP prepared by head contractor.

These measures are discussed in earlier sections of the report. Additionally, drivers wishing to access the site for any reason will need to report to the Harbour Trust rangers or the site foreman and receive instructions and guidance. Scheduling will be the main management method in ensuring minimal multi-vehicle arrivals. A radio set-up may be used to manage multiple vehicle arrivals and allow for circulation routes around the site.

Detailed traffic management plans will be developed by the appointed contractor. Traffic will not be impacted on entry or exit unless a temporary partial road closure is in place on the rare occasion that a mobile crane is required. Any temporary road closures would be obtained through the normal approvals process.

4.1 Proposed vehicle movements

Mitigation measures would be adopted during the construction phase to minimise impacts on the surrounding transport network, ensure activities occur in a safe manner and avoid delays to the construction programme. The measures will be outlined further in the head contractor's Detailed CTMP and may include but are not limited to:

- Truck loads would be covered during transportation off-site;
- Establishment and enforcement of appropriate on-site vehicle speed limits (10km/h), which would be reviewed depending on weather conditions or safety requirements;
- Accommodating construction worker parking demand on site, where reasonably practicable;
- Construction workers who use Kiara Car Park will be inducted regarding safe use of the roadway and the importance of quiet arrivals and departures from the site;
- All activities, including the delivery of materials would not impede traffic flow along local roads and highways;
- Materials intend to be delivered, and spoil removed during standard construction hours;
- Avoid idling and queuing vehicles alongside sensitive receivers;
- Deliveries would be planned to ensure a consistent and minimal number of trucks arriving at site at any one time; and
- Council will be notified of any future disruption to roadways and footpaths.

4.2 Driver code of conduct

Vehicles entering, exiting and driving around the site will be required to give way to pedestrians at all times.

4.3 Consultation with local authorities

The Harbour Trust will consult with North Sydney Council regarding the management of the proposed works.

5 Stakeholder consultation

Should temporary road closures or adjustment to kerb side restrictions be required be required at any stage during the construction period, they would be obtained separately through the normal approvals process.

Ongoing communication will be conducted with the local community and affected stakeholders to ensure the community and users/tenants of Sub Base Platypus are kept informed about the proposed works.