

## 06 VICTORIA CROSS STATION

### Existing environment



TOWER SQUARE AND SURROUNDING HIGH-RISE TOWERS

#### Existing environment

The project would occupy two separate sites centred on Miller Street in central North Sydney. These are 194-196a Miller Street in the north (near the corner of McLaren Street), and 155-187 Miller Street in the south (near the corner of Berry Street).

Generally the built character of this area is of a high-rise typology in the south, stepping down to mid-rise and low-rise frontages to the north. This predominantly commercial area is interspersed with schools, tertiary education facilities, restaurants and retail. It includes several heritage buildings and conservation areas. In terms of architectural style, there is a predominance of glazed and rendered concrete office towers juxtaposed with the brick and stone facades of North Sydney's remnant heritage buildings.

The Pacific Highway comprises six lanes in this area, providing a through route to Crows Nest in the north and Milsons Point in the south. Miller Street intersects with the Highway, and is one of the principal north-south access routes through the North Sydney CBD. The intersection of Miller Street and the Pacific Highway forms an important focal point in the centre of North Sydney. The North Sydney Post Office and court house, sits prominently on the corner with its distinctive curved stair and clock tower, alongside a cluster of several other iconic buildings including Northpoint Plaza and the heritage listed MLC building. The public realm in this area generally consists of urban plazas, building entry spaces, courtyards and streetscapes.

Miller Street consist of four lanes, includes a number of bus stops, and rises to the north. Berry Street intersects with Miller Street and has one-way traffic movement. Berry and Miller Streets are flanked by footpaths with intermittent awnings and are heavily used by pedestrians throughout the day. Mature London planetrees, provide a canopy over Miller Street, softening this urban environment.

To the north of the precinct, McLaren Street is located on a local ridgeline with a low to mid-rise built form typology and a mix of heritage and modern buildings. An avenue of mature London planetrees line the street, with grass verges, footpaths, and parallel parking, creating a suburban feel.

The northern site would be located at 194-196a Miller Street. This site is currently occupied by two narrow 2-3 storey office buildings. This site is located adjacent to a double storey heritage listed building 'Montrose' (currently used as a restaurant) at the corner of McLaren and Miller Streets, and the Monte Sant' Angelo Mercy College to the south and west.

The southern site would extend south from Berry Street, along the eastern side of Miller Street. The site is currently occupied by a 7-storey office building at the corner of Miller and Berry Streets, a 13 storey c.1974 office building at 181 Miller Street ('Symantec House'), a remnant heritage listed Victorian shopfront at 187 Miller Street, and the 'Tower Square' retail complex at 155 Miller Street. Tower Square extends to Denison Street and includes a pedestrian bridge across Denison Street to Berry Square. The 'Tower Square' retail complex, has a distinctive Spanish revival style architecture and clock tower, and is a local visual landmark on Miller Street.

Key heritage sites near these sites include the North Sydney Post Office, 'Rag and Famish' hotel, and the Monte Sant' Angelo Mercy College.

Monte Sant' Angelo Mercy College has a local heritage listing and is noted as one of North Sydney Centre's key 'Identity / Icons' in the DCP. It includes several historic buildings and structures, including the Chapel, Convent, Hall and red brick boundary walls. These walls, and mature London planetrees, are a key feature of the northern portion of Miller Street, and are visible from the northern site.

Brett Whiteley Place is a pedestrianised plaza located at the intersection of Miller,

Pacific Highway and Mount Street. This plaza provides a gathering place with shade trees, seating, a water feature and sculptures. It includes a subway connection to underground shopping areas, safe road crossing and the existing North Sydney Station via the Greenwood shopping precinct.

North Sydney Council is planning to revitalize Brett Whiteley Place. The concept plan extends the existing plaza to include Elizabeth Plaza, as well as portions of the Denison Street and Mount Street shared zones, providing dedicated space for outdoor dining, large and small events, public art and other activities.

The precinct, particularly between Berry Street and the Highway, includes a number of development projects. A commercial and retail development is currently under construction at 177 Pacific Highway, to the west of the site. At 150 Pacific Highway there is approval for a high-rise apartment building ('Polaris') to replace a six storey office building. In addition, at the apex of the Pacific Highway and Miller Street, there is a Development Application to demolish the 1990s retail podium in front of 100 Miller Street (Northpoint), and replace it with a 10 storey hotel building with street level retail.



- 01 'RAG AND FAMISH' HOTEL AND MODERN HIGH-RISE OFFICE TOWERS
- 02 MLC BUILDING AND LAWN FORECOURT
- 03 VIEW NORTH TO THE HISTORIC NORTH SYDNEY GPO, AND NORTHPOINT PLAZA
- 04 MILLER STREET

## 06 VICTORIA CROSS STATION

### Character and components of the project



01 HERITAGE LISTED 'MONTROSE' BUILDING  
02 MONTE SANT' ANGELO MERCY COLLEGE BOUNDARY WALL

#### Character and components of the project

This summary describes the construction and operation phases of the project.

##### ***Northern site***

##### Construction phase

The following structures, equipment and activities are likely to be experienced during construction at the Victoria Cross northern site:

- Establishment of construction site compound including demolition of the following buildings:
  - 3 storey office buildings at 194 Miller Street
- Removal of street trees impacted by the site and for site access including approximately:
  - 2 trees on Miller Street
- Relocation of bus stop outside 194 Miller St
- A metal clad acoustic enclosure (approximately 15m in height)
- Hoarding and site fencing surrounding the remainder of the construction site
- Construction traffic and vehicle access via Miller Street
- Footpaths on Miller Street adjacent to hoardings would be reduced in width
- Mobile cranes and other large plant (e.g. excavators)

Duration of the construction phase for all works at this location would be approximately 4-5 years.

It is expected that this site would require spoil haulage to be undertaken outside of standard working hours.

##### Operation phase

The following elements and activities are likely to be experienced during the operation of the project:

- 2 storey services building (approximately 11 metres high)

##### ***Southern site***

##### Construction phase

The following structures, equipment and activities are likely to be experienced during construction at the Victoria Cross southern site:

- Establishment of construction site compound including demolition of the following buildings:
  - 7 storey commercial and 2 storey heritage retail building at 187 Miller Street
  - 15 storey office building at 181 Miller Street ('Symantec House')
  - 2-3 storey 'Tower Square' retail complex at 155-167 Miller Street (including a pedestrian bridge to Berry Square at Denison Street).
- Removal of street trees impacted by the site and for site access including approximately:
  - 10 trees on Miller Street
  - 2 trees on Berry Street
- Open trench construction within the existing road reserve along Berry Street (Approximately 50m) for a power supply upgrade
- A metal clad acoustic enclosure (approximately 15m in height) on the site extending south along Miller Street from Berry Street
- Hoarding and site fencing surrounding the remainder of the construction site
- Site offices, parking area, amenities, workshops, material and plant storage areas, and water treatment plant

- Construction traffic and vehicle access via Miller, Denison and Berry Streets
- Reduction in width of footpaths on Miller Street adjacent to hoardings
- Diversion of traffic and closure of about 10m length of the eastern side of Miller Street during piling installation works
- Mobile cranes and other large plant (e.g. excavators).

Duration of the construction phase for all works at this location would be approximately 4-5 years.

It is expected that this site would require spoil haulage to be undertaken outside of standard working hours.

#### Operation Phase

The following elements and activities are likely to be experienced during the operation of the project:

- A large, landscaped plaza would be created between Miller Street and the station entry
- East west pedestrian route through the plaza from Miller to Denison Street
- Station entry in the centre of the site, between Miller and Denison Streets (south of Berry Street) within the plaza
- Active frontages within plaza areas on corner of Berry Street and Miller Street
- Services located to the east of the transit plaza adjacent to the existing building on Denison Street.

## 06 VICTORIA CROSS STATION

### Sensitivity levels



HARBOUR CYCLES SCULPTURE

#### **Sensitivity levels**

The following list summarises the landscape and visual sensitivity for the project site and main viewing areas across the study area.

##### ***Harbour Cycles Sculpture***

This cast aluminum sculpture is located prominently on the southeastern corner of Miller and Berry Streets. This piece, by Sydney Sculptor Richard Byrnes, was commissioned by North Sydney Council and installed in 2009. It references the character of the Harbour Bridge and local maritime activity, and was designed for this specific townscape location. The artist states that ... *“Seeing through the work is an integral part of perceiving it and so the locality provides an active backdrop for the piece.”* (North Sydney Council website, Public Art Guide, accessed January, 2016) This sculpture has value as both a local visual landmark and artistic merit. The landscape and views to this artwork are considered to be of **local sensitivity**.

##### ***Berry and Miller Streets***

These streetscapes attract large numbers of vehicles and pedestrians and include some important heritage buildings, monuments and open spaces including the ‘Rag and Famish’ Hotel, Monte Sant’ Angelo Mercy College, and Brett Whiteley Place. The landscape and views of these streets are therefore considered to be of **local sensitivity**.

##### ***Monte Sant’ Angelo Mercy College***

The Monte Sant’ Angelo Mercy College, located opposite the project site on the corner of Berry and Miller Streets, is an important historic landscape within North Sydney. It is a gathering place for large numbers of students, has a local heritage listing, and contributes to the character of this precinct. This school includes a number of visual features including brick walls, ironwork gates, and church buildings on the upper slopes of Miller Street. The landscape and views of the Monte Sant’ Angelo Mercy College are therefore considered to be of **local sensitivity**.

##### ***MLC Building Sculpture Garden***

This remnant of a sculpture garden created by Gerard Lewers in 1957 is located at the entry to the heritage listed MLC Building. Although the planting was replaced in 2009, the original carved rocks are included within the forecourt to the building. (North Sydney Council website, Public Art Guide, accessed January, 2016). This sculptural garden has some remnant artistic and historical value. The landscape and views to this sculpture garden are considered to be of **local sensitivity**.

##### ***Brett Whiteley Place***

Brett Whiteley Place includes seating, street trees, and access to the underground retail and public transport. It is a gathering place for large numbers of workers during lunchtime and a confluence of pedestrian routes. The landscape and views of Brett Whiteley Place are therefore considered to be of **local sensitivity**.

## Assessment of landscape impact

In the vicinity of the project, the following places have been identified as potentially being impacted by the project:

- Harbour Cycles sculpture
- Berry and Miller Streets
- Monte Sant' Angelo Mercy College
- MLC Building sculpture garden, and
- Brett Whiteley Place.

The following section summarises the impact identified by the assessment and site observations. This includes impact during construction and operation.

### *Harbour Cycles sculpture*

**Construction:** The Harbour Cycles sculpture would be removed as a part of the establishment of the construction site. The removal of this artwork would reduce the visual prominence and interest on this local street corner. Therefore it is expected that there would be a considerable reduction in the landscape quality of the Harbour Cycles Sculpture, which is of local sensitivity, resulting in a **moderate adverse landscape impact** during construction.

**Operation:** The operational impact on the Harbour Cycles sculpture would be dependent on the nature of any relocation of the item (refer to Section 16 Mitigation measures).

### *Berry and Miller Streets*

**Construction:** Parts of Berry and Miller Streets would be required as part of the construction site and for construction vehicle access. This work would include the closure of footpaths and the roadway during some periods of construction. It is likely that the north south and east west pedestrian connectivity within this precinct would be reduced at times and connectivity and legibility in this part of North Sydney may be impacted due to the scale of the works. A number of street trees on Miller Street would be removed, reducing the shade cover and altering the character of the street somewhat.



01



02

- 01 BERRY STREET
- 02 MILLER STREET

## 06 VICTORIA CROSS STATION

### Assessment of landscape impact



BRETT WHITELEY PLACE

It is expected that there would be a noticeable reduction in the landscape quality of this streetscape which is of local sensitivity. This results in a **minor adverse landscape impact** during construction.

Operation: The footpath on Miller Street would be widened in the vicinity of the station, creating an expanded public realm with additional trees and plaza furnishings. A multiple storey foyer entry to the station on Miller Street would also improve legibility to the station. A new pedestrian plaza extending the full width of the block from Miller to Denison Streets would improve access to the station as well as pedestrian permeability throughout the precinct. Retail frontages at Berry Street and adjacent to the station would activate and increase the vibrancy of this precinct. Views would be opened up along Miller Street, creating a vista between the plaza and the historic 'Rag and Famish' hotel on the corner of Berry Street. The plaza trees and canopy covered station entry would provide shelter and increase the comfort of users.

There would be a considerable improvement in the landscape quality of these streetscapes which are of local sensitivity, this results in a **moderate beneficial landscape impact** during operation.

#### **Monte Sant' Angelo Mercy College**

Construction: There would be no direct impact on the Monte Sant' Angelo Mercy College during construction of the project. However, the impact on footpaths adjacent to the construction site at 194 Miller Street, and at the corner of Miller and Berry Streets, would potentially constrain and divert pedestrians, altering the patterns of access to the school grounds. The removal of street trees to accommodate construction at 194 Miller Street, would also have an impact on the quality and comfort of the streetscape.

However, it is expected that these works would not create a perceived change in the landscape quality of the school, which is of local sensitivity, resulting in a **negligible**

**landscape impact** during construction.

Operation: There would be no direct impact to the school. However, upgrades to Miller Street including the expanded public realm, creation of a boulevard, opening up views along Miller Street towards the intersection with Berry Street, as well as the location of a new station opposite the school, would improve pedestrian accessibility and the walkability of this precinct.

Overall, however, this would not result in a perceived change in the landscape quality of the Monte Sant' Angelo Mercy College, which is a place of local sensitivity, resulting in a **negligible landscape impact** during operation.

#### **MLC Building sculpture garden**

Construction: There would be no direct impact on the MLC Building sculpture garden during construction of the project. However, the impact on footpaths adjacent to the construction site on Miller Street, would divert pedestrians around the construction site and alter the patterns of access to the MLC Building and experience of this garden.

Overall it is expected that this would not create a perceived change in the landscape quality of the MLC Building sculpture garden, resulting in a **negligible landscape impact** during construction.

Operation: There would be no direct impact on the MLC Building sculpture garden during operations. The project would therefore not create a perceived change in the landscape quality of the MLC sculpture garden, which is place of local sensitivity, resulting in a **negligible landscape impact** during operation.

#### **Brett Whiteley Place**

Construction: There would be no direct impact on Brett Whiteley Place during construction of the project. However, the impact on footpaths adjacent to the construction site on Miller Street would divert pedestrians around the construction site and alter the patterns of access to this plaza.

Overall it is expected that this would not create a perceived change in the landscape quality of Brett Whiteley Place, resulting in a **negligible landscape impact** during construction.

**Operation:** There would be no direct impact to Brett Whiteley Place. However, upgrades to Miller Street to the north of this plaza, including the expansion of the public realm, creation of a boulevard, as well as the location of a new station within a block of this plaza, would improve pedestrian accessibility.

It is therefore expected that this would not create a perceived change in the landscape quality of Brett Whiteley Place, which is place of local sensitivity, resulting in a **negligible landscape impact** during construction.

**Assessment of daytime visual impact**

The following viewpoints were selected as representative of the range of views to the site and the proposed development:

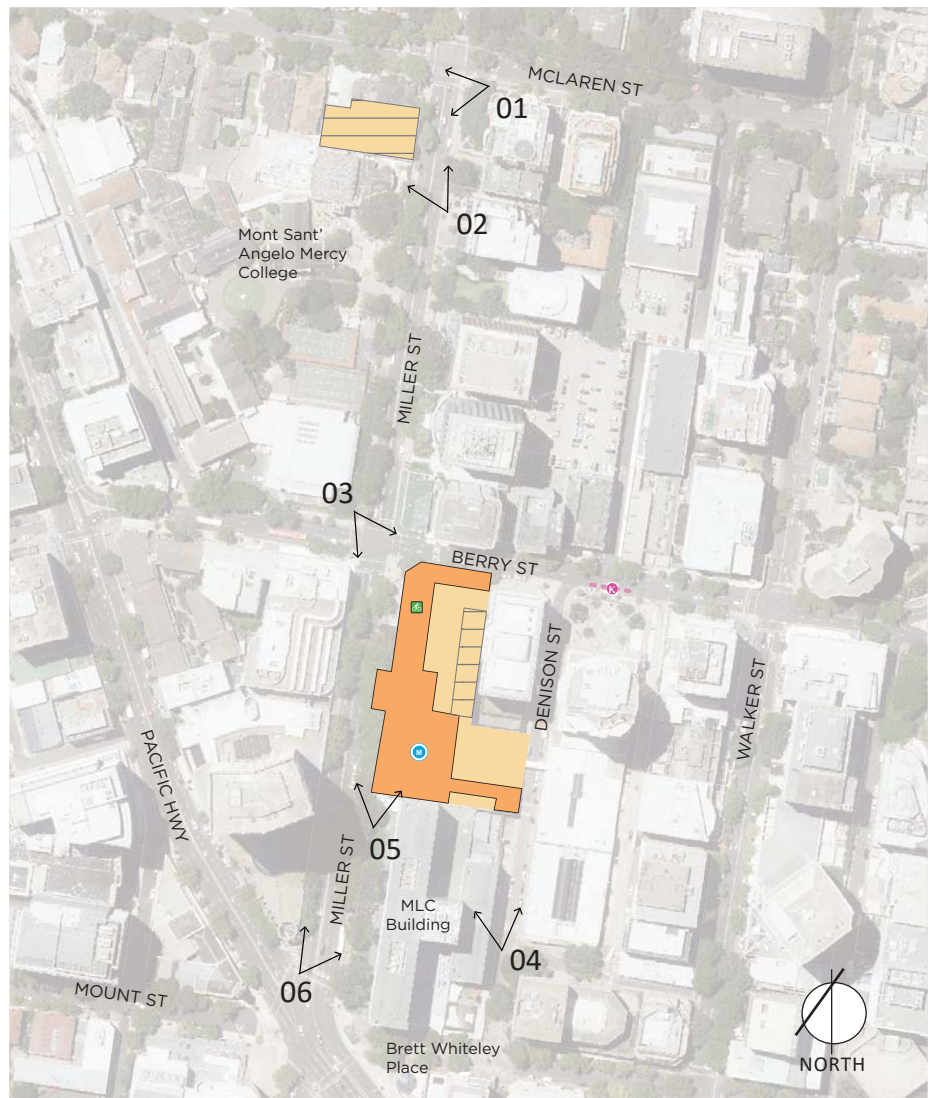
Northern site

- Viewpoint 1: View west from corner of McLaren and Miller Streets
- Viewpoint 2: View northwest along Miller Street

Southern site

- Viewpoint 3: View southeast across the intersection of Berry and Miller Streets
- Viewpoint 4: View north along Denison Street
- Viewpoint 5: View north along Miller Street
- Viewpoint 6: View north at the intersection of the Pacific Highway and Miller Street

The following sections summarise the daytime visual impact identified in the representative viewpoint assessment and site visit observations.



**KEY**

- ↗ Viewpoint location
- Site footprint at street level
- Pedestrian plaza/station lobby
- Ⓜ Metro entry
- 🚲 Proposed cycle parking
- Services

VIEWPOINT LOCATION PLAN



## 06 VICTORIA CROSS STATION

### Assessment of daytime visual impact



01



01A

- 01 EXISTING VIEW WEST FROM CORNER OF MCLAREN AND MILLER STREETS
- 01A INDICATIVE EXTENT OF DEMOLITION

#### Northern site

#### ***Viewpoint 1: View west from corner of McLaren and Miller Streets***

This view is characterised by the surrounding built form of the heritage listed 'Montrose' building on the corner of Miller and McLaren Streets (currently used as a restaurant) with sandstone garden wall. The Monte Sant' Angelo Mercy College, one of North Sydney Character Area's key 'icons' is located to the south (left of view). In the centre of the view are two relatively modern buildings which have been designed to use sympathetic materials and building details, including brickwork and pitched roofline. This view has a leafy and heritage character.

Construction: The demolition of the two modern 2-3 storey buildings along Miller Street would be visible in the centre of the view. An acoustic enclosure would be established on the site, which may rise to approximately 15m, taller than the existing buildings and with less architectural embellishment. Construction vehicles would access the site via Miller Street and would be seen in the foreground of this view.

The project would create a noticeable reduction in the amenity of this view, which is of local visual sensitivity, resulting in a **minor adverse visual impact** during construction.

Operation: In this view a services building would be seen in the centre, middle ground of the view. It would restore the predominant building setback established by the adjacent buildings and boundary wall of the school. This building would have a utilitarian relationship with the street, and not have the architectural detail of the existing buildings. There would be a noticeable reduction in the amenity of this view, which is of local visual sensitivity, creating a **minor adverse visual impact** during operation.

**Viewpoint 2: View northwest along Miller Street**

This view is defined by the heritage buildings of the Monte Sant’ Angelo Mercy College, including white masonry buildings and tall stone and red brick boundary walls. Other nearby historic structures include the stone garden walls of ‘Montrose’ on the corner of Miller and McLaren Streets (196 Miller Street), and the heritage style bus shelter. These historic features and mature London planetrees on the street, define the character of views in this area. In the centre of the view, two modern buildings sit sympathetically within this streetscape.

Construction: This view would change with the demolition of the two 2-3 storey modern buildings along Miller Street, which would open up views to the southern façade of the heritage building at 196 Miller Street (‘Montrose’). An acoustic enclosure would be established on the site, rising to 15m, taller than the existing buildings, and with less architectural embellishment. The bus shelter and London planetrees on the street would also be removed. Construction vehicles would access the site via Miller Street and be seen in the foreground of this view.

The project would create a noticeable reduction in the amenity of this view, which is of local visual sensitivity, resulting in a **minor adverse visual impact** during construction.

Operation: In this view a services building would be seen in the centre, middle ground of the view. This building would restore the predominant building setback established by the adjacent buildings and boundary wall of the school. This building would have a utilitarian relationship with the street, and not have the architectural detail of the existing buildings. There would be a noticeable reduction in the amenity of this view, which is of local visual sensitivity, creating a **minor adverse visual impact** during operation.



02



02A

02 EXISTING VIEW NORTHWEST ALONG MILLER STREET

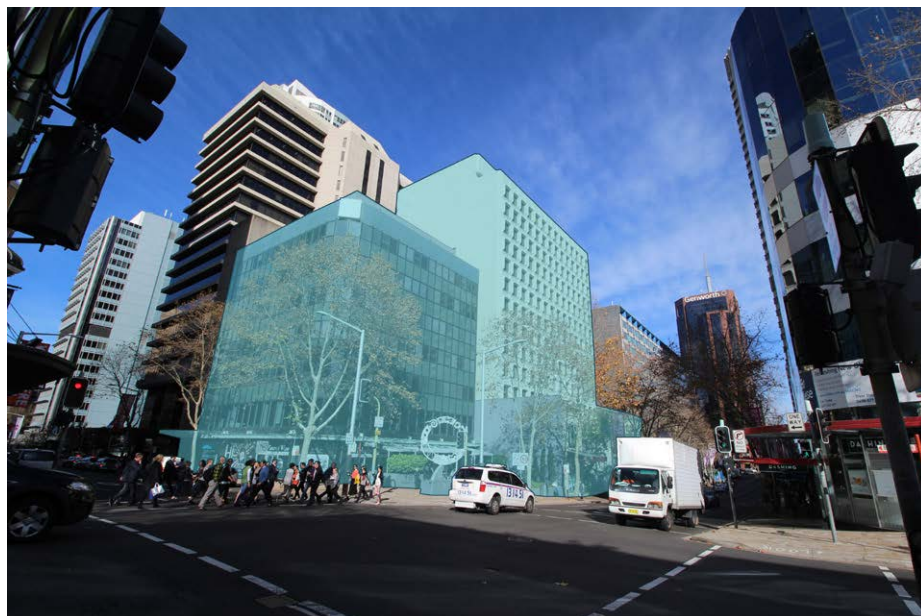
02A INDICATIVE EXTENT OF DEVELOPMENT

## 06 VICTORIA CROSS STATION

### Assessment of daytime visual impact



03



03A

03 EXISTING VIEW SOUTHEAST ACROSS THE INTERSECTION OF BERRY AND MILLER STREETS

03A INDICATIVE EXTENT OF PROPOSAL SITE

#### Southern site

#### ***Viewpoint 3: View southeast across the intersection of Berry and Miller Streets***

The 7-storey glass and steel office building at the corner of Miller and Berry Streets (189 Miller Street) and 13 storey office reinforced concrete and glass office building at 181 Miller Street ('Symantec House') are prominent in this view. Beyond these, and somewhat filtered by London planetrees, are the two storey heritage listed Victorian shopfront at 187 Miller Street, the c.1990s 'Tower Square' retail complex at 155 Miller Street, and in the background, the 14 storey MLC Building at 105–153 Miller Street (c.1957). Miller and Berry Streets are four lanes wide in this location, with fully paved footpaths, and an overhead canopy of mature London planetrees.

Construction: This view would change with the demolition of the two prominent office towers on Miller Street, heritage listed Victorian shopfront and the 'Tower Square' retail complex. This would alter the skyline of this view and open up views to buildings on Denison Street. Furthermore a number of mature London planetrees would be removed, altering the visual character of the Miller Street streetscape. An acoustic enclosure would be established on the site, and construction vehicles would be seen accessing the site via Miller Street and traveling along Miller and Berry Streets in the foreground of this view. Power upgrade works including trenching within Berry Street would also be visible in the middle ground of this view.

It is expected that the project would create a considerable reduction in the amenity of this view, which is of local visual sensitivity, resulting in a **moderate adverse visual impact** during construction.

Operation: In this view a wide landscaped pedestrian plaza would be seen in the middle ground of the view and extending south along Miller Street. This plaza would be framed to the east by retail frontages



03B

03B ARTIST'S IMPRESSION SHOWING PROJECT DURING OPERATION

extending from Berry Street. The removal of the historic Victorian shopfront, and replacement of the streetscape planting with an avenue of street trees, would open up views south along Miller Street, creating a view through the plaza to the station entry. Street level development would be set back from the alignment of the adjacent heritage listed MLC building to the south. A plaza space is created and would increase the visual prominence of the station entry.

Overall, this would be a more open view with an architectural treatment that marks the station entry with a light and open structure. It is expected that the project would result in a noticeable improvement in the amenity of this view, resulting in a **minor beneficial visual impact** during operation.

## 06 VICTORIA CROSS STATION

### Assessment of daytime visual impact



04



04A

04 EXISTING VIEW NORTH ALONG DENISON STREET

04A INDICATIVE EXTENT OF DEMOLITION

#### **Viewpoint 4: View north along Denison Street**

The rear of the Tower Square retail complex and elevated walkway connecting to the 'Berry Square' shopping centre can be seen in the middle ground of this view. This view shows a narrow laneway, which provides rear service access to properties along Miller, Berry and Little Spring Streets. The street is mainly used by service and delivery vehicles, nearby building and apartment tenants, local residents and those visiting Berry Square shopping centre and the Mount Street restaurant precinct.

**Construction:** This view would change due to the removal of the Tower Square retail complex and adjoining pedestrian bridge, and the 13 storey office reinforced concrete and glass office tower ('Symantec House' at 181 Miller Street) glimpsed beyond. This would alter the skyline of this view and potentially open up views between Denison and Miller Streets. It would also expose views to the southern façade of the modern (c.1986) 18 storey office tower at 65 Berry Street ('The Denison') and its adjacent car park with podium-level courtyard. An acoustic enclosure would be established on the site, adjacent to Miller Street and setback from Denison Street. A construction site with site offices and amenities would be located adjacent to Denison Street.

As this view is considered to be of local visual sensitivity and there would be a noticeable reduction in the amenity of the view, the proposed change would result in a **minor adverse visual impact** during construction.

**Operation:** A pedestrian connection to the transit plaza would be seen on the southern portion of the site. Ground flood development would be seen beyond this entry, restoring the predominant building setback established by the adjacent buildings. This development would transition this space somewhat from a character of service access to a more public entry space. The project would therefore result in a noticeable improvement in the amenity of

this view, creating a **minor beneficial visual impact** during operation.

**Viewpoint 5: View north along Miller Street**

The 'Tower Square' retail complex (at 155-167 Miller Street) is visually prominent in the foreground of northerly views along Miller Street. This 2-3 storey development with clock tower and retail frontages, restaurants and offices provide visual relief in this highly urban townscape, and this complex is a local visual landmark on Miller Street. The 13 storey office reinforced concrete and glass office tower building ('Symantec House' at 181 Miller Street) can be seen within the developed the skyline beyond. In this location the streetscape character of Miller Street is four lanes wide with fully paved footpaths and an overhead canopy of mature London planetrees. Vegetation and the heritage shopfront obstruct views further north along Miller Street.

Construction: The demolition of the prominent 'Tower Square' retail complex, adjacent office towers along Miller Street, street trees and vegetation would be seen unobstructed. This would alter the skyline of this view and open up views to Berry Street. The project would also result in the removal of several mature London planetrees, which would change the visual character of the Miller Street streetscape. An acoustic enclosure would be established on the site and rise approximately 15m in the foreground of the view. Construction vehicles would be seen accessing the site via Miller Street and on Miller and Berry Streets.

Therefore the project would result in a considerable reduction in the amenity of this view which is of local visual sensitivity, creating a **moderate adverse visual impact** during construction.

Operation: In this view a wide landscaped pedestrian plaza would be seen in the foreground. Beyond this, in the middle ground of the view, the station entry would be incorporated into a transit plaza with a broad open canopy structure. The removal



05 EXISTING VIEW NORTH ALONG MILLER STREET

## 06 VICTORIA CROSS STATION

Assessment of daytime  
visual impact



06



06A

- 06 EXISTING VIEW NORTH AT THE INTERSECTION OF THE PACIFIC HIGHWAY AND MILLER STREET
- 06A INDICATIVE EXTENT OF DEMOLITION

of the Victorian shopfront and existing streetscape vegetation and furnishings would open up views along Miller Street, creating a vista along the Miller Street plaza to the 'Rag and Famish' hotel on the corner of Berry Street. This view would be framed to the east by retail frontages at Berry Street.

Overall this would be an uncluttered view with an architectural treatment that marks the station entry with a light and open structure. It is expected that the project would result in a noticeable improvement in the amenity of this view, resulting in a **minor beneficial visual impact** during operation.

### *Viewpoint 6: View north at the intersection of the Pacific Highway and Miller Street*

This location provides northerly views to the project site from the junction of the Pacific Highway and Miller Street, one of North Sydney's busiest pedestrian and vehicular intersections. In this location the townscape is defined by several modern and historic landmarks that define North Sydney's CBD, including, from west to east, the historic North Sydney Post Office and courthouse (left and out of view), Northpoint tower (left of view), the heritage listed MLC building (centre) and Brett Whiteley Place (right of view). On the site the 13 storey office building at 181 Miller Street ('Symantec House') is stepped closer to Miller Street, breaking the predominant building setback established by the heritage listed MLC building. The 'Tower Square' complex is also visible on the site, however in this view it is filtered by intervening street trees and urban streetscape elements. The streetscape character of the Pacific Highway and Miller Street is characterised by heavily trafficked four to six lane wide roadways, fully paved footpaths, ground level office tower plazas and foyers with retail space, and an avenue of mature London planetrees along Miller Street.

**Construction:** The demolition of the retail complex ('Tower Square'), Victorian heritage shopfront and adjacent office towers on Miller Street would be seen in the centre of this view. This would alter the streetscape and skyline of this view, opening up views to Berry Street, Denison Street and the western façade of the modern (c.1986) 18 storey office tower at 65 Berry Street ('The Denison'). The project would also require the removal of several mature London planetrees, which would change the visual character of the Miller Street streetscape. An acoustic enclosure would be established on the site, and construction vehicles would be seen accessing the site via Miller Street and traveling along Miller and Berry Streets, in the mid to background of this view.

The project would result in a noticeable reduction in the amenity of this view, which is of local visual sensitivity, creating a **minor adverse visual impact** during construction.

**Operation:** In this view the station and ground floor development would be stepped back from the heritage listed MLC building. This would open up a vista to the historic 'Rag and Famish' hotel on the corner of Miller and Berry Streets, in the background of the view. This vista would be seen across a wide landscaped pedestrian plaza established at the station entry. The elevated canopy structure of the station entry would be set forward so that it becomes a focal point at street level, glimpsed and framed by a double avenue of street trees along Miller Street.

It is expected that the project would result in a noticeable improvement in the amenity of this view of local sensitivity, resulting in a **minor beneficial visual impact** during operation.

### **Assessment of night time visual impact**

The setting of the Victoria Cross Station is considered to be an area of **E4: High district brightness**. This is due to its brightly lit CBD location where there is 24 hour activity and lighting from surrounding buildings, urban plazas and streets creating both direct light sources and a general skyglow around the project site.

#### **Victoria Cross northern site**

**Construction:** It is likely that there would be night works required at this location during construction, including 24 hour deliveries and spoil haulage accompanied by traffic control crews with lit truck mounted crash attenuator vehicles and lighting. This would result in the site, as well as adjacent areas extending along Miller Street being more brightly lit than the existing setting. This lighting would include both static and task illumination and rotating beacon lights mounted on vehicles.

This lighting is expected to create a noticeable reduction in the amenity of views in this area of **E4: high district brightness**, from surrounding streets and potentially from adjacent residential towers on McLaren Street and to the south of Miller Street. It is therefore expected that the project would result in a **negligible visual impact** during evening hours.

**Operation:** It is expected that there would be minimal lighting required on this site. Some lighting would be required for after hours security, consistent with the level of lighting found on the school grounds and adjacent heritage building, and visually absorbed into the surrounding high district brightness environment.

Therefore, the lighting of the northern site of the project during operation would not create a perceived change in the amenity of this area, resulting in a **negligible visual impact** during evening hours.

#### **Victoria Cross southern site**

**Construction:** It is likely that there would be night works required at the southern site. This would include 24 hour deliveries and spoil haulage accompanied by traffic control crews with lit truck mounted crash attenuator vehicles and lighting. The site, as well as adjacent areas extending along Miller and possibly McLaren Streets, would be more brightly lit than the existing setting due to this activity. Although there are numerous other existing and proposed construction sites in the vicinity of the site, which also require some level of night time access, the scale and duration of the project works would be greater.

The surrounding developments are predominantly commercial and office towers and there would be few receptor locations at night. However, in views from the surrounding streets, it is expected that this lighting would create a noticeable reduction in visual amenity. As this is an area of high district brightness, this would result in a **negligible visual impact** during evening hours.

**Operation:** The station entry on Miller Street would be brightly lit 24 hours a day to accommodate station activities and for security after hours. This lighting would be consistent with the surrounding high district brightness environment. It is expected that during operation the lighting of the project would not create a perceived change in visual amenity, resulting in a **negligible visual impact** for this area during evening hours.



## 06 VICTORIA CROSS STATION

### Summary of impact

#### Summary of impact

##### *Landscape impact*

During construction there would be a **moderate adverse landscape impact** on the Harbour cycles sculpture as it would be removed to make way for the construction site. There would also be a **minor adverse landscape impact** on Berry and Miller Streets in the vicinity of the project sites, primarily due to the direct impact on pedestrian movement and the loss of mature street trees.

During operation there would be **moderate beneficial landscape impact** experienced on these surrounding streets. These benefits relate to the improved access to public transport, footpath widening, and the creation of a plaza which would improve overall accessibility and permeability around the entire precinct. There would be **negligible landscape impact** on the surrounding landscapes of the Monte Sant' Angelo Mercy College, the MLC Building sculpture garden and Brett Whiteley Place.

##### *Visual impact*

There would be a range of adverse visual impact created by the project during construction including **minor** and **moderate adverse visual impact** from surrounding streets. These impacts are primarily due to the demolition of buildings, the establishment of acoustic enclosures and construction vehicles accessing the site. The range of impact levels reflect the sensitivity of the view and proximity to the site. The site would be viewed from footpaths directly adjacent to the construction site as well as from locations up and down Miller Street as far away as the Pacific Highway intersection in the south.

During operations, the introduction of a services facility at the northern site would have a **minor adverse visual impact** on views due to the loss of visual interest and reduced compatibility with surrounding built form.

At the southern site there would be **minor beneficial visual impact** experienced in during the operation of the project. These benefits are created by the uncluttering of views to the site and the introduction of a broad open plaza space, street trees, and a prominent station entry.

At night, in both locations, there would be **negligible visual impact** during construction, despite the requirement for vehicle deliveries and haulage at night. During operation, there would also be a **negligible visual impact** as the station lighting would be in character with the **E4: High district brightness** setting.

The following tables summarise the impact of the project.

**Landscape impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Harbour Cycles sculpture	Local	Considerable reduction	Moderate adverse	N/A	N/A
2	Berry and Miller Streets	Local	Noticeable reduction	Minor adverse	Considerable improvement	Moderate beneficial
3	Monte Sant' Angelo Mercy College	Local	No perceived change	Negligible	No perceived change	Negligible
4	MLC Building sculpture garden	Local	No perceived change	Negligible	No perceived change	Negligible
5	Brett Whiteley Place	Local	No perceived change	Negligible	No perceived change	Negligible

**Day time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
	<u>Northern site</u>					
1	View west from corner of McLaren and Miller Streets	Local	Noticeable reduction	Minor adverse	Noticeable reduction	Minor adverse
2	View northwest along Miller Street	Local	Noticeable reduction	Minor adverse	Noticeable reduction	Minor adverse
	<u>Southern site</u>					
3	View southeast across the intersection of Berry and Miller Streets	Local	Considerable reduction	Moderate adverse	Noticeable improvement	Minor benefit
4	View north along Denison Street	Local	Noticeable reduction	Minor adverse	Noticeable improvement	Minor benefit
5	View north along Miller Street	Local	Considerable reduction	Moderate adverse	Noticeable improvement	Minor benefit
6	View north at the intersection of the Pacific Highway and Miller Street	Local	Noticeable reduction	Minor adverse	Noticeable improvement	Minor benefit

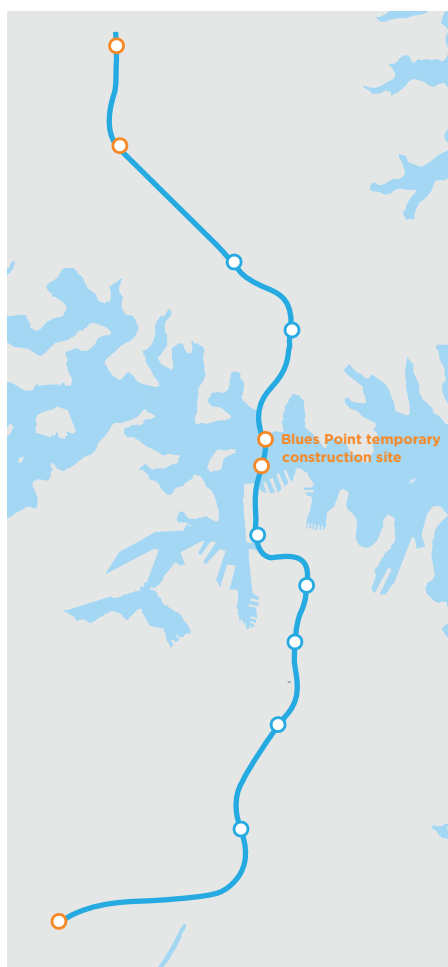
**Night time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Northern site	E4: High district brightness	Noticeable reduction	Negligible	No perceived change	Negligible
2	Southern site	E4: High district brightness	Noticeable reduction	Negligible	No perceived change	Negligible

## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

### Planning context

*The Blues Point temporary construction site would be located within the Blues Point Reserve on the corner of Blues Point Road and Henry Lawson Avenue.*



SITE LOCATION

### Planning context

The following review identifies key documents which provide the planning context for the landscape and visual impact assessment of the Blues Point temporary construction site.

#### ***Sydney Regional Environmental Plan (Sydney Harbour Catchment), 2005***

The project area falls within the Foreshores and Waterways Area as defined in *Sydney Regional Environmental Plan (Sydney Harbour Catchment), 2005* (SREP SHC, now a deemed SEPP). The principal aim of SREP SHC is to:

*“ensure that the catchment, foreshores, waterways and islands of Sydney Harbour are recognised, protected and maintained as an outstanding natural asset and public asset of national and heritage significance for existing and future generations.”*

Part 2, Clause 14 of the SREP SHC states that for land within the Foreshores and Waterways Area, the following planning principles apply:

*“(d) development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores”*

Furthermore, Part 3, Division 2 of SREP SHC includes the following matters for consideration:

*“Foreshore and waterways scenic quality ...*

*(a) the scale, form, design and siting of any building should be based on an analysis of:*

- (i) the land on which it is to be erected,*
- (ii) the adjoining land, and*
- (iii) the likely future character of the locality.*

*(b) development should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands, foreshores and tributaries,*

*(c) the cumulative impact of water-based development should not detract from the character of the waterways and adjoining foreshores.”*

*“Maintenance, protection and enhancement of views ...*

*(a) development should maintain, protect and enhance views (including night views) to and from Sydney Harbour,*

*(b) development should minimise any adverse impact on views and vistas to and from public places, landmarks and heritage items,*

*(c) the cumulative impact of development on views should be minimised.”*

Furthermore, the project site is located within the Sydney Opera House Buffer Zone. Accordingly, Part 5, Division 3A, Clause 58B of the SREP SHC sets out the following matters for consideration when planning development:

*“(b) the need for development to preserve views and vistas between the Sydney Opera House and other public places within that zone*

*(d) the need for development to avoid any diminution of the visual prominence of the Sydney Opera House when viewed from other public places within that zone”.*

These matters are relevant to the assessment of the project and have been applied to this assessment, particularly in relation to the impact on views to and from the Sydney Opera House.

#### ***Sydney Harbour Foreshores and Waterways Area Development Control Plan (DCP), 2005***

The Sydney Harbour Foreshores and Waterways Area DCP 2005 applies to land within the Foreshores and Waterways Area pursuant to SREP SHC. Section 3 of the DCP provides for the landscape assessment of such land. Specifically in Section 3.2, the general aims indicate that:

*“All developments should aim to:*

- *Minimise any significant impact on views and vistas from and to: Public places, Landmarks identified on the maps accompanying the DCP, and Heritage items;*
- *Ensure it complements the scenic character of the area;*
- *Protect the integrity of foreshores with rock outcrops, dramatic topography or distinctive visual features;*
- *Provide a high quality of built and landscape design; and*
- *Contribute to the diverse character of the landscape.”*

These aims are relevant to the assessment, particularly in relation to the impact on views from public places and landmarks (identified within the DCP) including: ‘Blues Point Tower’; ‘Luna Park’; the ‘Olympic Pool’ at Milsons Point; the ‘Harbour Bridge’ and ‘Opera House’.

The matters raised in the Sydney Harbour Foreshores and Waterways Area DCP have been considered in the following landscape character and visual assessment and corresponding mitigation measures are recommended as appropriate.

#### **North Sydney Local Environmental Plan, (NSLEP), 2013**

The site is situated within a Public Recreation (RE1) Land Use Zone. The LEP objectives for this zone include:

*“To ensure sufficient public recreation areas are available for the benefit and use of residents of, and visitors to, North Sydney”.*

Division 2, General Provisions, Clause 6.9 Limited development on foreshore area

- (1) *The objective of this clause is to ensure that development in the foreshore area will not ... affect the significance and amenity of the area. ...*
- (3) *Development consent must not be granted under subclause (2) unless the consent authority is satisfied that: ...*

- (b) *the appearance of any proposed structure, from both the waterway and adjacent foreshore areas, will be compatible with the surrounding area, and ...*
- (e) *opportunities to provide continuous public access along the foreshore and to the waterway will not be compromised, and*
- (f) *any historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance of the land on which the development is to be carried out and of surrounding land will be maintained”*

Under Clause 4.3, Height of Buildings, the relevant objectives for this area include:

- “(a) to promote development that conforms to and reflects natural landforms, by stepping development on sloping land to follow the natural gradient,*
- (b) to promote the retention and, if appropriate, sharing of existing views,*
- (c) to maintain solar access to existing dwellings, public reserves and streets, and to promote solar access for future development, ...*
- (f) to encourage an appropriate scale and density of development that is in accordance with, and promotes the character of, an area”.*

The site is included within the McMahons Point South Conservation Area. Surrounding the site, the study area also contains numerous heritage items including: the adjacent Blues Point Tower, a row of houses on Warung Street, the former tram turning circle, bus shelter on Henry Lawson Avenue and the McMahons Point ferry wharf.

The site is also within view of several locations of heritage significance such as Luna Park and Milsons Point. This assessment will therefore need to consider the “*settings and views*” of these heritage items under the Heritage conservation clause (5.10).

#### **North Sydney Development Control Plan (DCP), City of Sydney, 2013**

The North Sydney DCP identifies a number of Special Character Areas (SCAs). The proposed temporary construction site is located within the Lavender Bay SCA and McMahons Point South Conservation Area.

Key principles for the Lavender Bay SCA relevant to this assessment include:

- *“The conservation of features that positively contribute to the local identity*
- *Public open space is protected from the adverse effects of development – such as...visual impact of structures*
- *Major views from ... vantage points are not obscured by structures or landscaping*
- *There is appropriate built form on the foreshore to maintain the significance of Sydney Harbour.”*

This assessment will consider whether the project works would adversely impact the surrounding public open spaces, as well as whether major views from any of the public domain within this SCA are impacted.

Within the Lavender Bay SCA, McMahons Point South Conservation Area has a specific statement of significance relating to its history, topography, streetscape and views (Clause 9.8.4).

The project is located in close proximity to several heritage sites. Clause 13.4 (Development in the vicinity of heritage items) of the DCP states:

*“development near heritage items is required to consider the potential for new work to impact on the heritage item’s setting.*

*(P1) Respect ...the curtilage, setbacks, form, scale, and style of the heritage item in the design and siting of new work.*

*(P2) Maintain significant public domain views to and from the heritage item”.*

This assessment will consider potential impact on the setting of, and views to and from heritage sites.

## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

### Existing environment

#### ***Foreshore Parks and Reserves Plan of Management (2010), North Sydney City Council***

This plan of management identifies the significance of North Sydney's foreshore parks and reserves as a valuable community resource both locally and for the wider community. It states that: *"The foreshore parks and reserves make a significant contribution to the beauty of Sydney Harbour..."* with Blues Point identified as being an important destination for visitors to North Sydney for viewing events and the Sydney skyline and harbour bridge.

Assessment of the project will consider Clause 3.2.1 which states that: *"all new developments in foreshore parks and reserves should take into consideration (both) the desired landscape character of each particular section of the park (and) the potential impact on views out of the parks."*

The assessment will also consider the site works spatial footprint based on the need for *"the optimisation and enhancement of existing open space areas given the comparatively low level of provision in the North Sydney relative to population"* identified in this clause.

#### ***North Sydney Foreshore Access Strategy (2007), North Sydney City Council***

This report provides the following vision for foreshore access which is relevant to this assessment. *"To promote and improve access links to the North Sydney foreshore for the local and wide community from both the land and the water to continue sustainable use and enjoyment of Sydney Harbour as a unique waterfront environment"*. This assessment will determine whether the project will impact on the qualitative values of foreshore access in relation to visual values.

#### **Existing environment**

Blues Point Road leads from North Sydney through a predominantly residential area, past the Blues Point Hotel, and onto the Blues Point Tower and Sydney Harbour. Tree-lined along much of its length, and cutting through areas with cottages set on top of sandstone outcrops, the street includes a mix of terrace houses, and unit blocks ranging in age, materials, and character.

The 'Blues Point Tower' sits prominently at the end of Blues Point Road, set within the Blues Point Reserve. This controversial residential tower, designed by Harry Seidler in the early 1960's is a 25 storey residential unit tower. The Blues Point Tower is a local and citywide landmark and offers spectacular, panoramic views of the Harbour Bridge and city beyond.

The Blues Point Reserve includes sandstone cliffs, mature trees, playground equipment and open lawns. This reserve is a popular vantage point for the New Year fireworks and as a place to enjoy the views with a number of seats oriented towards the harbour. The large expanse of roadway and surface car parking at the end of Blues Point Road detracts somewhat from the character of this parkland. The harbour front open space extends to the east, along the water's edge, with Henry Lawson Avenue and a sandstone cliff creating a strong northern edge to this precinct.

To the east of Blues Point Road the landform rises so that homes and units are located on a clifftop above Henry Lawson Avenue. Along the harbour front, four to six storey units, prestigious homes and tower blocks on Warung Street and East Crescent Street have spectacular, panoramic views south and southeast to the Sydney Harbour, Harbour Bridge, Sydney Opera House and the City skyline beyond.

Excluding one waterfront property on Henry Lawson Avenue, harbour front parkland extends from Blues Point to McMahons Point and Lavender Bay in the west. At McMahons Point Henry Lawson Avenue terminates at a Ferry Wharf, bus stop and waterfront restaurant. At this point the foreshore becomes privatised and access to the water's edge ends.

The NSW Government is currently planning an upgrade for the McMahons Point Wharf as part of the Transport Access Program. The wharf would have an increased capacity, and be constructed in 2016.

To the east of McMahons Point, Milsons Point is the location of the northern abutment of the Sydney Harbour Bridge. This location includes a ferry wharf, the iconic Luna Park, Olympic pool and a foreshore pathway.

Important views are those from the site to the Sydney Harbour Bridge and Sydney Opera House. Views from this location are unique in that the Opera House can be seen framed by the Bridge. Conversely, the site is visible from the forecourt of the World Heritage Listed Opera House, from the Sydney Harbour Bridge and from locations across Sydney Harbour.

On the southern shores of the harbour, there are northerly views to the site from the Ives Stairs, under the Harbour Bridge, Hickson Road, the finger wharves at Walsh Bay and from Barangaroo Reserve. The site is seen within the context of important views towards the Sydney Harbour Bridge.



01



02



03



04

- 01 WARUNG STREET
- 02 BLUES POINT TOWER
- 03 VIEW TO THE SYDNEY OPERA HOUSE AND SYDNEY HARBOUR BRIDGE
- 04 BLUES POINT ROAD

## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

### Character and components of the project

#### Character and components of the project

This summary of the project describes the construction phase requirements at Blues Point. There would be no operations stage works required at this location.

The following structures, equipment and activities are likely to be experienced during construction:

- Site preparation (may include benching) and establishment of a site compound, including concrete barriers, hoardings and site fencing, site offices, parking area, amenities, material and plant storage areas and water treatment plant
- Excavators, cranes, heavy vehicles, rockbreakers, piling rigs and other construction equipment
- An expansion of the site which would be required for TBM retrieval on four occasions
- Construction vehicle access and movement via Blues Point Road and Henry Lawson Drive
- Pedestrian footpaths and foreshore access interrupted during TBM retrieval (four occasions), with a five metre wide path along the foreshore at all other times for public access
- Removal of approximately four car parking spaces during periods of TBM retrieval

The duration of construction works at this site location would be approximately 2 years.

It is expected that the construction of the TBM retrieval shaft would require some after hours crane operation, and heavy plant haulage. TBM dismantling operations would be undertaken on four occasions, for a duration of approximately two weeks each time, and may occur outside of standard working hours. TBM retrieval would involve the closure of Blues Point Road for one night on four occasions.

Upon completion of the construction work the road, car parking, footpaths and parkland space would be reinstated.

#### Sensitivity levels

The following list summarises the landscape and visual sensitivity of the project site and main viewing areas across the study area.

##### *Blues Point Road*

Blues Point Road is an important access road for residents and visitors to McMahons Point and Blues Point Reserve. This road attracts large numbers of pedestrians during special events in addition to local residents, and is a bus route from North Sydney to the McMahons Point Ferry Wharf. These landscapes and views are therefore considered to be of **local sensitivity**.

##### *Blues Point Reserve*

This reserve provides an important recreational resource within the Sydney Foreshores network featuring spectacular views of the Harbour Bridge and Opera House across the harbour. It attracts tourists and locals and is a popular vantage point for the New Year's Eve fireworks display. When viewed from the harbour this reserve is characterised by open green grassed area, mature spreading Port Jackson and Moreton Bay Fig trees and the iconic Blues Point Tower. It also contains several State heritage listed items such as sandstone walls and steps. This landscape and views are therefore considered to be of **regional sensitivity**.

##### *Henry Lawson Avenue and McMahons Point*

This area is contiguous (apart from one private property) with the Blues Point Reserve. It provides a sweep of green harbour foreshore extending east to the McMahons Point Ferry Terminal and as such has the same characteristic views and features of Blues Point Reserve. The ferry terminal and adjacent bus stop provide access to visitors and local residents. The landscape and views are highly valued as a destination and recreation area and are therefore considered to be of **regional sensitivity**.

### ***Sydney Harbour***

This part of the Sydney Harbour falls within the Foreshores and Waterways Area as defined in *Sydney Regional Environmental Plan (Sydney Harbour Catchment) (2005)* and *Sydney Harbour Foreshores and Waterways Area DCP*. These planning instruments identify views to and from the Harbour as having unique visual qualities. The harbour is an important transport and recreational resource for the city. This portion of the Harbour in particular is highly valued by Sydneysiders and visitors to the City for its visual relationship with the Sydney Opera House and Sydney Harbour Bridge. The harbour landscape and views to and from the harbour in this location are considered to be of **state sensitivity**.

### ***Sydney Harbour Bridge***

The Sydney Harbour Bridge is an important icon for the city containing many visually significant State heritage listed items including pylons, pedestrian stairs and access roads. It also houses a museum and attracts many international and domestic visitors to cross or climb the bridge where they can experience expansive views across the harbour and surrounding areas. The Sydney Harbour Bridge and views are an important and highly valued part of Sydney's landscape and are therefore considered to be of **state sensitivity**.

### ***Sydney Opera House***

The Sydney Opera House is Australia's most recognisable structure and is an icon of creative and technical achievement. Enhanced by its remarkable location on Bennelong Point it functions as a national cultural centre and has had an enduring influence on world architecture. The significant values reflected in this building and its setting are expressed in its inclusion on the National and World Heritage listings. It is visited by large numbers of international and domestic visitors all year as a landscape of high aesthetic and cultural significance. The landscape and views of the Opera House



BLUES POINT RESERVE, NEW YEARS EVE 2015

are therefore considered to be of **national sensitivity**.

### ***Barangaroo Reserve***

The Barangaroo Reserve is located at the northern end of Barangaroo where it meets Millers Point. This area is a six-hectare harbour foreshore park, and has been designed as a contemporary interpretation of the pre-1836 headland, with bush walks, grassed areas, lookouts, walking and cycle paths. The reserve offers expansive views across the harbour from Darling Harbour in the southwest to the Sydney Harbour Bridge in the northeast. The landscape and views of the Barangaroo Reserve are of **regional sensitivity**.



## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

### Assessment of landscape impact



BLUES POINT RESERVE

#### Assessment of landscape impact

Within the vicinity of the site, the following places have been identified as potentially being impacted by the project:

- Blues Point Reserve

The following section summarises the impact identified by the assessment and site observations. This includes impact during construction and operation.

#### *Blues Point Reserve*

Construction: Much of the Blues Point Reserve would be used as a construction site during the construction of the project. The large, mature fig at the eastern end of the reserve would be retained. Public access would also be maintained along the foreshore and diverted on four occasions when the foreshore is required for TBM retrieval. These changes would reduce access to important foreshore open space and highly valued views to the Harbour Bridge and Opera House. This would be particularly relevant during events such as New Year's Eve. Legibility and walkability of this area would also be impacted somewhat as foreshore access is narrowed. Therefore, it is expected that there would be a considerable reduction in the landscape quality of the Blues Point Reserve, which is of regional sensitivity, resulting in a **high adverse landscape impact** during construction.

**Assessment of daytime visual impact**

The following viewpoints were selected as representative of the range of views to the project site:

- Viewpoint 1: View southeast from the corner of Blues Point Road and Henry Lawson Avenue
- Viewpoint 2: View northeast from Blues Point
- Viewpoint 3: View west from the foreshore park on Henry Lawson Avenue
- Viewpoint 4: View west from the Harbour Bridge
- Viewpoint 5: View northwest from the Sydney Opera House forecourt plaza
- Viewpoint 6: View northwest from the Ives Stairs
- Viewpoint 7: View north from Barangaroo Reserve



VIEWPOINT LOCATION PLAN

The following sections summarise the daytime visual impact identified in the representative viewpoint assessment and site visit observations.



**KEY**

	Viewpoint location		Retrieval shaft		Expanded site
	Construction area		Site office/ staff amenities		

## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

Assessment of daytime  
visual impact



01

### *Viewpoint 1: View southeast from the corner of Blues Point Road and Henry Lawson Avenue*

This view includes the site in the middle ground of the view, with open waters of the harbour, Sydney Harbour Bridge and Opera House beyond. In this view the Harbour Bridge is aligned across the view. This unique angle of view frames the Sydney Opera House through the Sydney Harbour Bridge. The view is enclosed to the north (left of view) by the mature fig tree and heritage style bus shelter. Surface car parking is located to the west of the view, and overhead power lines cross and obstruct the view somewhat. The reserve itself slopes towards the harbour and is therefore not clearly seen from this location.

**Construction:** A construction site would be seen in the middle ground of the view, extending across the lawn area between the viewer and harbour foreshore. The site would be enclosed by hoarding and would contain construction related structures and activities including excavators, cranes, piling rig and other construction equipment. It is likely that the activities upon the site would rise above the hoarding at times. Construction vehicles would be seen accessing the site in the middle ground of the view at times via Blues Point Road adjacent to the car parking, and exiting via Henry Lawson Avenue.

These elements would partially obstruct views to the harbour waters, the Harbour Bridge and Opera House.

The prominence of the Harbour Bridge and Opera House would be diminished in views from this location by the context which would have an inconsistent character to the surrounding foreshore landscape. It is expected that the project would create a considerable reduction in the amenity of this view, which is of regional visual sensitivity, resulting in a **high adverse visual impact** during construction.



01a

01 EXISTING VIEW SOUTHEAST FROM THE CORNER OF BLUES POINT ROAD AND HENRY LAWSON AVENUE

01A ARTIST'S IMPRESSION SHOWING PROJECT DURING CONSTRUCTION

**Viewpoint 2: View northeast from Blues Point**

This view is part of a wider panorama, it includes the site in the middle ground of the view, with residential areas of Blues Point, Lavender Bay and Milsons Point seen in the background. It shows the green foreshore open space in the middle ground, with the mouth of Lavender Bay, a pylon of the heritage listed Harbour Bridge and Luna Park on the foreshore in the background.

From this slightly elevated location, the sloping lawn of the site is clearly visible with a mature fig tree marking its eastern edge. The Henry Lawson Avenue cliff encloses the site to the north, whilst a surface car parking area, power lines and the entry drive to the Blues Point Tower building, comprise the foreground of the view.

**Construction:** A construction site would be seen in the middle ground of the view, extending across the lawn area between the harbour foreshore, car parking area and Henry Lawson Avenue. The site would be enclosed by hoarding and contain construction related structures and activities including excavators, concrete pumps, piling rigs and other construction equipment. Construction activities within the site would rise above the hoarding.

Construction vehicles would be seen moving along Blues Point Road at times and accessing the site via Blues Point Road adjacent to the car parking area in the centre of this view.

It is therefore expected that the project would create a considerable reduction in the amenity of this view, which is of regional visual sensitivity, resulting in a **high adverse visual impact** during construction.



02



02a

02 EXISTING VIEW NORTHEAST FROM BLUES POINT

02A INDICATIVE EXTENT OF PROJECT SITE

## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

Assessment of daytime  
visual impact



03

03 EXISTING VIEW WEST FROM THE  
FORESHORE PARKLAND ON HENRY  
LAWSON AVENUE

### *Viewpoint 3: View west from the foreshore park on Henry Lawson Avenue*

This view includes the Blues Point headland, aligned across the view and protruding into the harbour. This headland is characterised by a natural rocky cliff edge with mature trees softening this local ridgeline. The heritage listed Blues Point Tower is located prominently on this headland, contrasting starkly with the horizontality of the green headland and foreshore edge. The southern portion of the site is visible in the middle ground of this view, seen as a sloping lawn, with mature vegetation screening the private residence to the eastern edge of the site.

**Construction:** A construction site would be seen in the middle ground of the view, set back from the harbour foreshore to allow for pedestrian access, and extending across the visible lawn area, and behind intervening vegetation. The site would be enclosed by hoarding and would contain excavators, concrete pumps, piling rigs and other construction equipment. Construction activities upon the site would rise above the hoarding and obstruct views to the lower levels of the Blues Point Tower.

The construction site would interrupt the visual continuity of the green harbour foreshore edge. It is therefore expected that the project would create a considerable reduction in the amenity of this view, which is of regional visual sensitivity, resulting in a **high adverse visual impact** during construction.

**Viewpoint 4: View west from the Harbour Bridge**

This distant and glimpsed view can be seen from trains on the Sydney Harbour Bridge, a moving vantage point. This view shows the site seen prominently from this elevated location. This view includes a broad view of the lower north shore and shows a variety of harbour edge treatments in the vicinity of the site. Lavender Bay is in the west (right of view) and has a highly urbanised edge with a mix of over water private and public developments. To the west of Lavender Bay, a sweep of green foreshore open space stretches from McMahons Point to Blues Point (including the project site). Beyond this open space and further west, the vegetated headlands of Blues Point, Waverton Peninsula, Balls Head Reserve and Goat Island can be seen. This variety of harbour edge treatments is an important feature of this view.

The southern portion of the site is visible in the background of this view, seen as a sloping lawn, with mature vegetation at the eastern edge of the site. The site is seen against a backdrop of urban development and the heritage listed Blues Point Tower is located prominently on this headland.

Construction: A construction site would be seen in the background of the view, interrupting the visual continuity of the green harbour foreshore edge in this view. It is therefore expected that the project would create a noticeable reduction in the amenity of this view, which is of regional visual sensitivity, resulting in a **moderate adverse visual impact** during construction.



04 EXISTING VIEW WEST FROM A TRAIN ON THE HARBOUR BRIDGE

## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

Assessment of daytime  
visual impact



05



05A

- 05 EXISTING VIEW NORTHWEST FROM THE SYDNEY OPERA HOUSE FORECOURT PLAZA
- 05A ARTIST'S IMPRESSION SHOWING PROJECT DURING CONSTRUCTION (zoom to equivalent focal length of 60mm)

### *Viewpoint 5: View northwest from the Sydney Opera House forecourt plaza*

In views from the Sydney Opera House and forecourt, the site is framed by the Sydney Harbour Bridge, within a section of the lower north shore and seen in the background of the view.

Although seen at a distance of over a kilometre, the entire site is visible from this angle, set within a sweep of green foreshore open space which stretches from Blues Point Road to McMahons Point. The sloping landform exposes the entire site to views from the harbour, somewhat reducing the foreshortening effect of distance.

This green foreshore edge provides some visual relief within the surrounding highly urban context which comprises a layering of urban developments. In particular, the juxtaposition of the heritage listed Blues Point Tower, located prominently on the Blues Point headland, both detracts from the view and attracts attention.

The waters of Sydney Harbour between Circular Quay and McMahons Point, seen in this view, are frequented by a range of vessels from small boats, yachts and ferries, to cruise ships. Visually this creates a dynamic middle ground to this view.

Construction: At this distance, the construction site would be seen in the background of this view, interrupting the continuous green foreshore edge. This developed character would be visually absorbed into the surrounding highly urban townscape seen beyond.

Although the construction site would break the visual continuity of the green harbour foreshore edge in this view it is seen in the background of the view at a distance in excess of a kilometre. The project would therefore not create a perceived change to the amenity of this view, which is of national visual sensitivity, resulting in a **negligible visual impact** during construction.

**Viewpoint 6: View northwest from the Ives Stairs**

The site can be seen in the background of this view, along the foreshore of the lower north shore.

The entire site is visible from this angle, seen at a distance of approximately 600 metres, across the open waters of Sydney Harbour. The sloping landform exposes the entire site to views from across the harbour, reducing the foreshortening effect of distance.

The site is seen within a sweep of green foreshore open space extending from the vegetated character of the Blues Point headland to the tip of McMahons Point.

This green foreshore edge provides visual relief within the surrounding highly urban context which steps up and down over the surrounding undulating landform. In particular, the heritage listed Blues Point Tower, is seen prominently on the Blues Point headland, both detracting from and attracting attention to Blues Point.

The waters of Sydney Harbour between Dawes and McMahons Points, comprising much of the middle ground of this view, are frequented by a range of vessels through the day, creating both a visually calming and dynamic effect on this view.

Construction: The construction site would be seen in the background of this view, interrupting the continuous green foreshore edge. This developed character would extend the built character of the surrounding development to the waters edge for nominally two years, and be visually absorbed into the surrounding highly urban townscape seen beyond.

The construction site would break the continuity of the green harbour foreshore edge seen in this view. It is therefore expected that the project would create a noticeable reduction in the amenity of this view, which is of regional visual sensitivity. This would result in a **moderate adverse visual impact** during construction.



06 EXISTING VIEW NORTHWEST FROM THE IVES STAIRS



## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

Assessment of daytime  
visual impact



07

07 EXISTING VIEW NORTH FROM THE  
BARANGAROO RESERVE

### *Viewpoint 7: View north from Barangaroo Reserve*

The foreshore of the Barangaroo Reserve offers spectacular views to the Sydney Harbour Bridge and across the open waters of the harbour and to the lower north shore suburbs of McMahons Point, Lavender Bay and Blues Point. This view is part of a wider panorama including areas of the harbour to the west (left of view).

In views from this location the skyline of the North Sydney CBD and residential high-rise at Milsons Point forms an arc, generally following the landform. The harbour is fringed in this view by vegetated headlands and green open space.

The site is partially obstructed by the Blues Point headland in views from this location. The waters of Sydney Harbour between Barangaroo, Blues Point and McMahons Point, comprising much of the middle ground of this view, are frequented by a range of vessels through the day, creating both a visually calming and dynamic effect on this view.

Construction: In views from this location the site is partially obstructed by the Blues Point headland. The construction site may be visible but would not be prominent in this view and would be visually absorbed into the surrounding highly urban townscape seen beyond.

It is expected that the project would not create a perceived change in the amenity of this view, which is of regional level sensitivity. This would result in a **negligible visual impact** during construction.

### **Assessment of night time visual impact**

The setting of the Blues Point site is considered to be an area of **E3: Medium district brightness**. It is a moderately lit urban area, with lighting from surrounding buildings and streets creating both direct light sources and a general skyglow around the project site.

Construction: It is expected that there would be some night works required at this location during construction, including some 24 hour crane operations and heavy vehicle haulage for TBM retrieval accompanied by traffic control crews with lit truck mounted crash attenuator vehicles and lighting. This lighting would be somewhat visually contained by the Henry Lawson Avenue cliff, to the north of the site.

Overall, it is expected that at night the project would create a noticeable reduction in the amenity of views in this area, including adjacent residential properties and streets. It is therefore expected that the project would result in a **minor adverse visual impact** during evening hours.

## 07 BLUES POINT TEMPORARY CONSTRUCTION SITE

### Summary of impact

#### Summary of impact

##### *Landscape impact*

During construction the project would result in a **high adverse landscape impact** on the Blues Point Reserve as a consequence of the direct loss of harbour foreshore open space.

These impact are temporary, and there would be no landscape impact during operation as there are no activities proposed for this site.

##### *Visual impact*

There would be a range of visual impact created by the project during construction. In views from areas around Blues and McMahons Point there would be **high adverse visual impact**. These impact are created by the obstruction of views to the open water of the harbour and incongruent character of the project works within these views.

In views from the Harbour Bridge and the Ives stairs, there would be **moderate adverse visual impact** during construction. This is due to the disruption of the green foreshore edge seen from across the harbour.

The highly sensitive viewing location of the Sydney Opera House and forecourt is expected to experience **negligible visual impact** as a result of the project during construction. Although the site would be clearly visible, the distance and visual absorption capacity of the surrounding urban environment would result in no perceived change in the amenity of views from this location.

**Negligible visual impact** would be experienced from the Barangaroo Reserve during construction, where distance and intervening elements would limit the visibility of the site.

These impact are temporary, and there would be no visual impact during operation as there are no activities proposed for this site.

At night there would be **minor adverse visual impact** expected during construction. This is due to the night works that would be required at the site, particularly 24 hour deliveries and TBM retrieval activities.

BLUES POINT RESERVE



The following tables summarise the impact of the project.

**Landscape impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Blues Point Reserve	Regional	Considerable reduction	High adverse	N/A	N/A

**Day time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	View southeast from the corner of Blues Point Road and Henry Lawson Avenue	Regional	Considerable reduction	High adverse	N/A	N/A
2	View northeast from Blues Point	Regional	Considerable reduction	High adverse	N/A	N/A
3	View west from the foreshore park on Henry Lawson Avenue	Regional	Considerable reduction	High adverse	N/A	N/A
4	View west from the Harbour Bridge	Regional	Noticeable reduction	Moderate adverse	N/A	N/A
5	View northwest from the Sydney Opera House forecourt plaza	National	No perceived change	Negligible	N/A	N/A
6	View northwest from the Ives Stairs	Regional	Noticeable reduction	Moderate adverse	N/A	N/A
7	View north from Barangaroo Reserve	Regional	No perceived change	Negligible	N/A	N/A

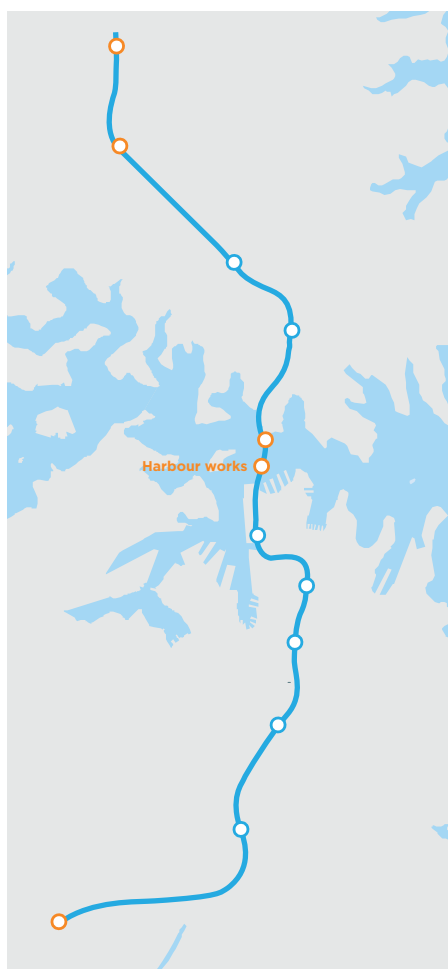
**Night time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Project site	E3: Medium district brightness	Noticeable reduction	Minor adverse	N/A	N/A

## 08 HARBOUR GROUND IMPROVEMENT WORKS

### Planning context

*The Harbour Works temporary construction site would be located within the Sydney Harbour in two locations along the alignment of the tunnel between Blues Point and the Barangaroo Reserve*



SITE LOCATION

### Planning context

The following review identifies key documents which provide the planning context for the landscape and visual impact assessment of the Harbour Works temporary construction site.

#### **Sydney Regional Environmental Plan (Sydney Harbour Catchment), 2005**

The project area falls within the Foreshores and Waterways Area as defined in *Sydney Regional Environmental Plan (Sydney Harbour Catchment), 2005* (SREP SHC, now a deemed SEPP). The principal aim of SREP SHC is to:

*“ensure that the catchment, foreshores, waterways and islands of Sydney Harbour are recognised, protected and maintained as an outstanding natural asset and public asset of national and heritage significance for existing and future generations.”*

Part 2, Clause 14 of the SREP SHC states that for land within the Foreshores and Waterways Area, the following planning principles apply:

*“(d) development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores”*

Furthermore, Part 3, Division 2 of SREP SHC includes the following matters for consideration:

*“Foreshore and waterways scenic quality ...*

*(b) development should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands, foreshores and tributaries,*

*(c) the cumulative impact of water-based development should not detract from the character of the waterways and adjoining foreshores.”*

*“Maintenance, protection and enhancement of views ...*

*(a) development should maintain, protect and enhance views (including night*

*views) to and from Sydney Harbour,*

*(b) development should minimise any adverse impact on views and vistas to and from public places, landmarks and heritage items,*

*(c) the cumulative impact of development on views should be minimised.”*

Furthermore, part of the project site is located within the Sydney Opera House Buffer Zone. Accordingly, Part 5, Division 3A, Clause 58B of the SREP SHC sets out the following matters for consideration when planning development:

*“(b) the need for development to preserve views and vistas between the Sydney Opera House and other public places within that zone*

*(d) the need for development to avoid any diminution of the visual prominence of the Sydney Opera House when viewed from other public places within that zone”.*

These matters are relevant to the assessment of the project and have been applied to this assessment, particularly in relation to the impact on views to and from the Sydney Opera House.

#### **Sydney Harbour Foreshores and Waterways Area Development Control Plan (DCP), 2005**

The Sydney Harbour Foreshores and Waterways Area DCP 2005 applies to land within the Foreshores and Waterways Area pursuant to SREP SHC. Section 3 of the DCP provides for the landscape assessment of such land. Specifically in Section 3.2, the general aims indicate that:

*“All developments should aim to:*

- *Minimise any significant impact on views and vistas from and to: Public places, Landmarks identified on the maps accompanying the DCP, and Heritage items;*
- *Ensure it complements the scenic character of the area;*
- *Protect the integrity of foreshores with*

*rock outcrops, dramatic topography or distinctive visual features;*

- *Provide a high quality of built and landscape design; and*
- *Contribute to the diverse character of the landscape."*

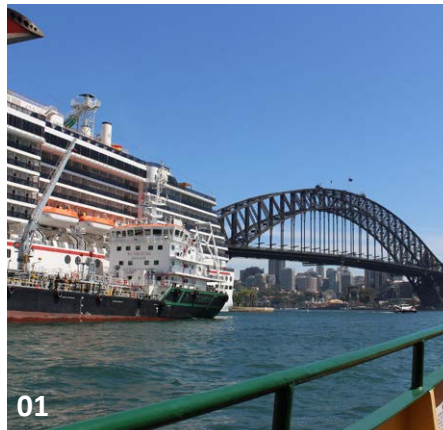
These aims are relevant to the assessment, particularly in relation to the impact on views from public places and landmarks identified in the DCP, including the: *'Blues Point Tower'; 'Luna Park'; 'Olympic Pool' at Milsons Point; 'Victorian mansion' on the foreshore at Balmain; and the 'native and exotic vegetation' on Goat Island, the 'Harbour Bridge' and 'Opera House'.*

The matters raised in the Sydney Harbour Foreshores and Waterways Area DCP have been considered in the following landscape character and visual assessment and corresponding mitigation measures are recommended as appropriate.

### Existing environment

The site is located within a busy area of the Sydney Harbour, surrounded by Blues Point, McMahons Point, Lavender Bay, and Milsons Point in the north, the Sydney Harbour Bridge and Sydney Opera House in the east, Walsh Bay and the Barangaroo Reserve in the south, and Balmain East, Goat Island and the Balls Head in the west.

In particular, views from the Sydney Harbour Bridge and Sydney Opera House, and the site's contribution to the setting of these places is important. In addition, there are numerous other important historic and cultural buildings and landscapes located within view of this area of the harbour. These include the Blues Point Tower, Luna Park, Barangaroo Reserve, a heritage listed Victorian Mansion at Balmain East, and the Goat Island National Park, Balls Head Reserve and Waverton Peninsula Reserve. There are also views from surrounding foreshore and elevated residential areas where views of the harbour are the focal point.



01



02



03



04

- 01 CRUISE SHIP IN CIRCULAR QUAY
- 02 WAVERTON POINT RESERVE
- 03 LUNA PARK AND THE MILSONS POINT FERRY WHARF
- 04 BALMAIN EAST

## 08 HARBOUR GROUND IMPROVEMENT WORKS

### Character and components of the project

#### Sensitivity levels

Although the site comprises the undeveloped, open water of the harbour, this is a busy section of the waterway. It is often frequented by a range of vessels from small boats, yachts and ferries, to tankers and large cruise ships. Visually this creates a dynamic and animated landscape.

#### Character and components of the project

This summary describes the construction phase requirements of the project within the Sydney Harbour.

In-harbour ground improvement works would occur at the two nominated locations, but not concurrently. At these locations the following structures, equipment and activities are likely to be experienced during construction:

- Grout plant barge with crane and drilling lead moving progressively around the grouting site
- A grout barge, alongside the grout plant barge and returning intermittently to an onshore facility to transport staff and supplies
- Spoil barge, alongside the grout plant barge and returning intermittently to an onshore facility to offload spoil

The location of an onshore facility is not currently known and is not considered within this assessment.

The duration of construction works at this site location would be approximately 12 months.

It is expected that the jet grouting activity would require some after hours operation. This would include lighting on the barges to facilitate a safe working platform for the grouting activity. Lighting would also be seen on barges traveling within the harbour.

#### Sensitivity levels

The following list summarises the landscape and visual sensitivity of the project site and main viewing areas across the study area.

##### *Sydney Harbour*

This part of the Sydney Harbour falls within the Foreshores and Waterways Area as defined in *Sydney Regional Environmental Plan (Sydney Harbour Catchment) (2005)* and *Sydney Harbour Foreshores and Waterways Area DCP*. These planning instruments identify views to and from the Harbour as having unique visual qualities. The harbour is an important transport and recreational resource for the city. This portion of the Harbour in particular is highly valued by Sydneysiders and visitors to the City for its visual relationship with the Sydney Opera House and Sydney Harbour Bridge. The harbour landscape and views to and from the harbour in this location are considered to be of **state sensitivity**.

##### *Sydney Harbour Bridge*

The Sydney Harbour Bridge is an important icon for the city containing many visually significant State heritage listed items including pylons, pedestrian stairs and access roads. It also houses a museum and attracts many international and domestic visitors to cross or climb the bridge where they can experience expansive views across the harbour and surrounding areas. The Sydney Harbour Bridge and views are an important and highly valued part of Sydney's landscape and are therefore considered to be of **state sensitivity**.

##### *Sydney Opera House*

The Sydney Opera House is Australia's most recognizable structures and is an icon of creative and technical achievement. Enhanced by its remarkable location on Bennelong Point it functions as a national cultural centre has had an enduring influence on architecture. The significant values reflected in this building and its setting are expressed in its inclusion on the National

and World Heritage listings. It is visited by large numbers of international and domestic visitors all year as a landscape of high aesthetic and cultural significance. The landscape and views of the Opera House are therefore considered to be of **national sensitivity**.

#### ***Blues Point Reserve***

This reserve provides an important recreational resource within the Sydney Foreshores network featuring spectacular views of the Harbour Bridge and Opera House across the harbour. It attracts tourists and locals and is a popular vantage point for the New Year's Eve fireworks display. When viewed from the harbour this reserve is characterised by open green grassed area, mature spreading Port Jackson and Moreton Bay Fig trees and the iconic Blues Point Tower. It also contains several local heritage listed items such as sandstone walls and steps. This landscape and views are therefore considered to be of **regional sensitivity**.

#### ***Waverton Peninsular Reserve***

This reserve provides an important recreational resource within the Sydney Foreshores network featuring spectacular views of the Sydney Bridge across the harbour. It attracts mainly local residents and is a popular vantage point for the New Year's Eve fireworks display. This former industrial site is characterised by the restored natural vegetation along the harbour edge and headland vegetation, with circular lawns enclosed by curved sandstone walls elevated footpaths and viewing platforms. This landscape and views are therefore considered to be of **local sensitivity**.

#### ***Barangaroo Reserve***

The Barangaroo Reserve is located at the northern end of Barangaroo where it meets Millers Point. This area is a six-hectare harbour foreshore park, and has been designed as a contemporary interpretation of the pre-1836 headland, with bush walks, grassed areas, lookouts, walking and cycle paths. The reserve offers expansive views



WAVERTON PENINSULAR RESERVE

across the harbour from Darling Harbour in the southwest to the Sydney Harbour Bridge in the northeast. The landscape and views of the Barangaroo Reserve are of **regional** landscape visual sensitivity.



## 08 HARBOUR GROUND IMPROVEMENT WORKS

### Assessment of landscape impact

#### Assessment of landscape impact

Within the vicinity of the site, the following places have been identified as potentially being impacted by the project:

- Sydney Harbour

The following section summarises the impact identified by the assessment and site observations. This includes impact during construction and operation.

#### *Sydney Harbour*

**Construction:** Two areas within Sydney Harbour, along the alignment of the harbour crossing tunnel, would be required for jet

grouting as a part of the construction of the project. During this time a number of barges would be both moored within the harbour and moving between the site and shore to haul supplies, staff and remove spoil. This equipment would be moved to obstruct access to large ships as required and not impact on ferry or recreational boating activity. Due to the dynamic and busy nature of this section of the harbour it is expected that there would not be a perceived change in the landscape quality of this portion of the Sydney Harbour, which is of regional sensitivity, resulting in a **negligible landscape impact**.



VIEWPOINT LOCATION PLAN

**KEY**

↗ Viewpoint location      ■ Grout barge site

### Assessment of daytime visual impact

The following viewpoints were selected as representative of the range of views to the project site:

- Viewpoint 1: View southeast from Waverton Peninsular Reserve
- Viewpoint 2: View southeast from Blues Point Reserve
- Viewpoint 3: View southwest from Milsons Point Wharf
- Viewpoint 4: View northwest from the Sydney Opera House forecourt plaza
- Viewpoint 5: View north from Barangaroo Reserve
- Viewpoint 6: View northeast from Balmain East Ferry Wharf

The following sections summarise the daytime visual impact identified in the representative viewpoint assessment and site visit observations.

#### ***Viewpoint 1: View southeast from Waverton Peninsular Reserve***

This view includes the southern site in the background of the view, seen over Berrys Bay and with the Sydney Harbour Bridge and CBD skyline beyond. The view is framed by the Blues Point and Balls Head peninsulas.

The waters of Sydney Harbour between Blues Point and Barangaroo Reserve, seen in this view, are activated by a range of vessels including small boats, yachts, ferries and cruise ships. This creates a dynamic background to this view, which contrasts somewhat to the Berrys Bay where yachts and small boats are moored, fringing the foreshore.

**Construction:** Both the southern and northern sites would be visible between Blues Point Reserve and Barangaroo Reserve. Each site would comprise three barges, two of which would be moving across the harbour to an onshore facility at times during the day.

These barges and barge mounted crane would be seen within the context of other ships, boats and ferries, which regularly pass through the harbour between Blues Point and Barangaroo Headland. They would also be seen against the developed shoreline of Walsh Bay and with the City skyline beyond.

Although the harbour crossing construction site would be seen in this view, the absorption capacity of the surrounding landscape and distance mitigate the potential visual impact. It is therefore expected that the project would not change the amenity of this view, which is of local visual sensitivity, resulting in a **negligible visual impact** during construction.



01 VIEW SOUTHEAST FROM WAVERTON PENINSULAR RESERVE

01

## 08 HARBOUR GROUND IMPROVEMENT WORKS

Assessment of daytime  
visual impact



02

### ***Viewpoint 2: View southeast from Blues Point Reserve***

This view includes the northern site in the background of the view. It is seen over the harbour and within a panoramic view to the Sydney Harbour Bridge, Sydney Opera House and CBD skyline. This view extends from the bridge around Walsh Bay, and is filtered by mature trees within the Blues Point Reserve.

The waters of Sydney Harbour between Blues Point and Walsh Bay, are activated by a range of vessels from small boats, yachts and ferries, to cruise ships. This creates an active and dynamic character to the harbour, which varies throughout the day, week and year, and during different events such as at New Years eve.

**Construction:** Three barges would be seen in the middle ground of this view, at the northern site, with two of these barges moving across the harbour at times during the day. These barges and barge mounted crane would be seen within the context of other ships, boats and ferries, which regularly pass through this area of the harbour. They would also be seen against the developed shoreline of Walsh Bay and with the CBD skyline beyond.

Although the harbour crossing construction site would be seen in the middle ground of this view, the absorption capacity of the surrounding landscape would reduce the visual impact somewhat. It is therefore expected that the project would result in a noticeable reduction in the amenity of this view, which is of regional visual sensitivity, resulting in a **moderate adverse visual impact** during construction.

### ***Viewpoint 3: View southwest from Milsons Point Wharf***

This view includes both the northern and southern construction site areas in the background of the view, seen over the harbour. This view is enclosed by the Barangaroo Reserve, Darling Harbour, Balmain East, Goat Island and Blues Point Reserve in the west. The former harbour



03

02 VIEW SOUTHEAST FROM BLUES POINT RESERVE

03 VIEW SOUTHWEST MILSONS POINT WHARF

control tower and Blues Point Tower rise dramatically above the surrounding landscape and are visual landmarks in this view.

This view is set within a panoramic view which includes the Sydney Harbour Bridge, Sydney Opera House and CBD skyline to the east (left of view).

The waters of Sydney Harbour between Lavender Bay and Darling Harbour, are activated by a range of vessels including small boats, yachts, ferries, and cruise ships. This creates an active and dynamic character to the harbour, which varies throughout the day.

Construction: Both the northern and southern areas of the construction site would be visible and unobstructed in this view. There are both static and moving elements that would be seen at the southern site, which would be located in the background, and would be visually absorbed into the surrounding active harbour landscape and varied background of Barangaroo and Balmain.

The northern site, however, would be more prominent due to its location in the middle ground of the view, and the static nature of the grout plant barge and barge mounted crane.

The two harbour crossing construction sites would be seen at different times in the background and the middle ground of this view, and the absorption capacity of the surrounding landscape would reduce the visual impact somewhat. It is therefore expected that the project would result in a noticeable reduction in the amenity of this view, which is of regional visual sensitivity, resulting in a **moderate adverse visual impact** during construction.

#### ***Viewpoint 4: View southwest from the Sydney Opera House forecourt plaza***

In views from the Sydney Opera House and forecourt the northern site is seen with the harbour in the background and framed by the Sydney Harbour Bridge. The construction



04 VIEW WEST FROM THE SYDNEY OPERA HOUSE FORECOURT

04

site would be seen at a distance of over a kilometre and seen against the Blues Point headland.

The waters of Sydney Harbour between Circular Quay and McMahon's Point, seen in this view, are frequented by a range of vessels including small boats, yachts and ferries, and cruise ships. Visually this creates a dynamic middle ground to this view.

Construction: At this distance the construction site would be seen in the background of this view, visually absorbed into the green vegetated headland beyond, and into the surrounding busy stretch of inner city harbour.

The project would therefore not change the amenity of this view, which is of national visual sensitivity, resulting in a **negligible visual impact** during construction.

## 08 HARBOUR GROUND IMPROVEMENT WORKS

Assessment of daytime  
visual impact



05



05A

- 05 EXISTING VIEW NORTH FROM BARANGAROO RESERVE
- 05A ARTIST'S IMPRESSION SHOWING PROJECT DURING CONSTRUCTION

### *Viewpoint 5: View north from the Barangaroo Reserve*

The foreshore of the Barangaroo Reserve offers spectacular views to the Sydney Harbour Bridge and across the open waters of the harbour and to the lower north shore suburbs of McMahons Point, Lavender Bay and Blues Point. This view is part of a wider panorama including areas of the harbour to the west (left of view).

Construction: In views from this location the northern and southern sites would be visible. It is expected that the northern site would be visually absorbed into the surrounding busy harbour landscape. The southern site, however, would be more prominent as it is closer to the viewer and seen within the open waters of the harbour.

It is expected that the project would create a noticeable reduction in the amenity of this view, which is of regional level sensitivity. This would result in a **moderate adverse visual impact** during construction.

**Viewpoint 6: View northeast from Balmain East Ferry Wharf**

Views northeast from the Balmain East Ferry Wharf offer panoramic views across the open waters of the harbour. This includes the Sydney Harbour Bridge in the centre, with Lavender Bay and Blues Point in the north, and Walsh Bay and Barangaroo in the south. This view is part of a wider panorama including Goat Island to the northwest (left of view) and Darling Harbour (right of view).

The waters of Sydney Harbour between Balmain and McMahon's Point, seen in this view, are frequented by a range of vessels from small boats, yachts and ferries, to cruise ships. Visually this creates a dynamic middle ground to this view.

**Construction:** In views from this location, the northern and southern sites would be seen unobstructed within the harbour.

The visual prominence of the northern site would be mitigated by distance, so that it would be visually absorbed into the surrounding harbour landscape, and blend into the urban landscape of the north shore which forms a backdrop.

The southern site, however, would be more prominent as it is closer to the viewer and seen within the open waters of the harbour.

It is expected that the project would create a noticeable reduction in the amenity of this view, which is of local level sensitivity. This would result in a **minor adverse visual impact** during construction.



06 VIEW NORTHEAST FROM BALMAIN EAST FERRY WHARF

## 08 HARBOUR GROUND IMPROVEMENT WORKS

### Summary of Impact

#### Assessment of night time visual impact

The setting of the harbour works site is considered to be an area of **E3: Medium district brightness**. It is an area of the harbour influenced by lighting from buildings and streets on the surrounding urban areas creating a general skyglow around the project site. It also includes use by vessels during night time hours.

Construction: It is expected that there would be some night works required at this location during construction, including lighting to facilitate safe working on the barges within the site and traveling to an onshore facility.

Overall, it is expected that at night the project would create a noticeable reduction in the amenity of views in this area, including views from nearby residential properties and foreshore parkland. It is therefore expected that the project would result in a **minor adverse visual impact** during evening hours.

#### Summary of impact

##### *Landscape impact*

During construction the landscape impact of the project would result in a **negligible landscape impact** due to the absorption capacity of the surrounding busy harbour.

These impact are temporary, and there would be no landscape impact during operation as there are no activities proposed for this site.

##### *Visual impact*

There would, however, be **negligible, minor and moderate adverse visual impact** experienced due to the Harbour Works during construction. In distant views, it is expected that the project works would be visually absorbed into the busy waters of this section of the harbour, resulting in **negligible visual impact** from the Sydney Opera House and Waverton Peninsular Reserve during construction. In views where the site is seen at a closer proximity, and where both sites would be seen there are **minor and moderate adverse visual impact**. This includes views from Blues Point Reserve, Milsons Point Wharf, Balmain East Ferry Wharf and Barangaroo Reserve.

These impact are temporary, there are no visual impact during operation as there are no activities proposed for this site.

MCCMAHONS POINT FERRY WHARF



The following tables summarise the impact of the project.

**Landscape impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Sydney Harbour	Regional	No perceived change	Negligible	N/A	N/A

**Day time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	View southeast from Waverton Peninsular Reserve	Local	No perceived change	Negligible	N/A	N/A
2	View southeast from Blues Point Reserve	Regional	Noticeable reduction	Moderate adverse	N/A	N/A
3	View southwest from Milsons Point Wharf	Regional	Noticeable reduction	Moderate adverse	N/A	N/A
4	View southwest from the Sydney Opera House forecourt plaza	National	No perceived change	Negligible	N/A	N/A
5	View north from Barangaroo Reserve	Regional	Noticeable reduction	Moderate adverse	N/A	N/A
6	View northeast from Balmain East Ferry Wharf	Local	Noticeable reduction	Minor adverse	N/A	N/A

**Night time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Project site	E3: Medium district brightness	Noticeable reduction	Minor adverse	N/A	N/A



## 09 BARANGAROO STATION

### Planning context

The project site is centred on Hickson Road and extends east to the Millers Point cliff wall and west into the Central Barangaroo site.



SITE LOCATION

### Planning context

The following review identifies key documents which provide the planning context for the landscape and visual impact assessment of the proposed Barangaroo station.

#### **Sydney Regional Environmental Plan (Sydney Harbour Catchment), 2005**

The project area falls within the Foreshores and Waterways Area as defined in *Sydney Regional Environmental Plan (Sydney Harbour Catchment), 2005* (SREP SHC, now a deemed SEPP). The principal aim of SREP SHC is to:

*“ensure that the catchment, foreshores, waterways and islands of Sydney Harbour are recognised, protected and maintained as an outstanding natural asset and public asset of national and heritage significance for existing and future generations.”*

Part 2, Clause 14 of the SREP SHC states that for land within the Foreshores and Waterways Area, the following planning principles apply:

*“(d) development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores”*

Furthermore, Part 3, Division 2 of SREP SHC includes the following matters for consideration:

*“Foreshore and waterways scenic quality ...*

*(a) the scale, form, design and siting of any building should be based on an analysis of:*

- (i) the land on which it is to be erected,*
- (ii) the adjoining land, and*
- (iii) the likely future character of the locality.*

*(b) development should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands, foreshores and tributaries,*

*(c) the cumulative impact of water-based development should not detract from the character of the waterways and adjoining foreshores.”*

*“Maintenance, protection and enhancement of views ...*

*(a) development should maintain, protect and enhance views (including night views) to and from Sydney Harbour,*

*(b) development should minimise any adverse impact on views and vistas to and from public places, landmarks and heritage items,*

*(c) the cumulative impact of development on views should be minimised.”*

The above matters have been considered in the following landscape and visual assessment and corresponding mitigation measures are recommended as appropriate.

#### **Sydney Harbour Foreshores and Waterways Area Development Control Plan (DCP), 2005**

This DCP applies to land within the Foreshores and Waterways Area pursuant to SREP SHC. Section 3 of the DCP provides for the landscape assessment of such land. Specifically in Section 3.2, the general aims indicate that:

*“All developments should aim to:*

- Minimise any significant impact on views and vistas from and to: Public places, Landmarks identified on the maps accompanying the DCP, and Heritage items;*
- Ensure it complements the scenic character of the area;*
- Protect the integrity of foreshores with rock outcrops, dramatic topography or distinctive visual features;*
- Provide a high quality of built and landscape design; and*
- Contribute to the diverse character of the landscape.”*

These aims are relevant to the assessment, particularly in relation to the impact on views from public places and landmarks,

which include the 'Victorian mansion' on the foreshore at Balmain; and the 'native and exotic vegetation' on Goat Island.

***Barangaroo Revised Statement of Commitments, Barangaroo Delivery, 2010***

This document outlines an agreement between the Barangaroo Delivery Authority (BDA) and the NSW Government. It includes the following commitments which relate to views and amenity:

*"Views from public spaces on opposite foreshores to Observatory Hill Park will be retained. Panoramas from Pyrmont Park around to the Harbour Bridge (from Observatory Hill Park) will also be retained."*

Future development within the Barangaroo site is to provide adequate view corridors over and between new built form to maintain the key attributes of views from Millers Point.

The key attributes to be retained are:

- *"views to significant tracts of the water,*
- *the junction of Darling Harbour and the Harbour proper,*
- *the opposite foreshores,*
- *panoramic qualities of existing views and,*
- *the most distinctive views to landmark structures."*

Of particular relevance to this assessment is preserving the panoramic quality of views, such as those from Observatory Hill Park. These recommendations have been considered in the following assessment.

***Sydney Local Environmental Plan, City of Sydney, 2012***

The project is located in close proximity to several heritage sites of local and state significance, including the Terrace duplex group (at 2-80 High Street), the Lance Kindergarten and its mature London Planetrees (37 High Street), the retaining wall, palisade fence and steps along High Street and High Lane, as well as the Millers Point Conservation Area, an area of state significance. This assessment will therefore

need to consider the *"settings and views"* of these heritage items under the Heritage conservation clause (5.10).

***Sydney Development Control Plan (DCP), City of Sydney, 2012***

The Sydney DCP identifies a number of Special Character Areas (SCAs) that relate to the locality statements and supporting principles for development within the Sydney LEP. The project site is not located within or adjacent to any SCAs.

The project site includes several mature Weeping Hills Fig trees, which are a key feature of the Sussex Street and Hickson Road streetscape. The Sydney DCP considers urban vegetation such as this to be one of the City's *"most important assets"*. In accordance with clause 3.5.2, the design should ensure *"tree canopy cover is considered ... and provided appropriately"*.

## 09 BARANGAROO STATION

### Existing environment

#### **Existing environment**

The Barangaroo development is divided into three precincts: Barangaroo Reserve, Central Barangaroo and Barangaroo South. The project is located in Central Barangaroo, in the vicinity of Hickson Road. The following paragraphs give an overview of the current and future form and character of the Barangaroo development, which would provide the context for the Sydney Metro Barangaroo Station project.

#### ***Barangaroo Reserve***

The Barangaroo Reserve is located at the northern end of Barangaroo where it meets Millers Point. This area is a six-hectare harbour foreshore park, and has been designed as a contemporary interpretation of the pre-1836 headland, with bush walks, grassed areas, lookouts, walking and cycle paths. A plaza has been created at North Cove, marking a southern entry to the Reserve at Hickson Road.

#### ***Central Barangaroo***

Located to the south of the Reserve, the 5.2 hectare Central Barangaroo precinct is currently being planned. It will be the cultural heart of Barangaroo and the final stage of the Barangaroo development to be constructed. The development is expected to include civic and cultural attractions with recreational, residential, retail and commercial uses. Although the actual building heights, form and massing are not yet known, the planned site development envelopes allow for medium and high density urban form.

#### ***Barangaroo South***

Barangaroo South, currently under construction, is a major new extension of the Sydney CBD with a number of high-rise buildings and stepping down to mid-rise development along the harbour foreshore. This mixed use precinct will include commercial office buildings, residential apartments, a landmark international hotel, shops, cafes and restaurants. A waterfront promenade has recently been completed,

and construction of the Barangaroo Ferry Hub will occur throughout 2016, adjacent to the Barangaroo South precinct.

The Barangaroo South Stage 1A Public Domain document (Form and Oculus, 2014) illustrates the current plans for the public domain areas of the Stage 1A of Barangaroo South. The master plan shows a sequence of arrival spaces, public squares and a waterfront promenade connected to the CBD by a series of pedestrian streets. These streets increase permeability of the site and promote views through the Barangaroo South site to the harbour.

The waterfront promenade has recently been opened to public use, as has a number of pedestrian streets, opening up new views and creating a new, permeable public realm for this precinct.

#### ***Hickson Road and High Street***

Hickson Road forms the eastern boundary of the Barangaroo development site, extending north from the intersection with Sussex and Napoleon Streets, adjacent to Barangaroo South, to Town Place in the north at Walsh Bay.

Hickson Road is located at the base of a distinctive cliff wall which rises approximately four storeys high. This cliff forms a distinctive local visual feature, with its exposed sandstone rock face and masonry, heritage railings and staircase cut into the stone. This cliff also creates a strong spatial 'edge' to the Barangaroo peninsular between Munn Street and the High Street stairs in the south, and a physical barrier to east-west movement.

South of the High street stairs, there are mixture of contemporary and heritage buildings which align with the line of the wall, addressing the road with a mix of commercial, offices and service entries. In this area, there is a second staircase, providing access to the upper levels of the peninsula along Kent Street.

Hickson Road is currently two lanes with parking and an avenue of mature Fig trees on the western side, and a cluster of Livistona

palms to the east, adjacent to the cliff, marking the stair entry on the eastern side of the road.

High Street runs along the top of the escarpment, offering panoramic, open views across Barangaroo, and the harbour beyond. A row of heritage listed terrace houses ('Terrace duplex group' at 2–80 High Street) line the eastern side of High Street, and are a visual feature in views towards the site, as well as in local streetscape views.

The Barangaroo South and Central precincts will provide activation to the west of Hickson Road, with a high quality public realm incorporating streets, plazas, and parks, as well as active street level frontages, which will be populated by a large number of users from the commercial, civic and residential buildings of Barangaroo. A new pedestrian connection called the 'Sydney Steps' is proposed as a part of the Central Barangaroo precinct, and would connect Barangaroo with Central Sydney CBD, via High Street.



- 01 HIGH STREET
- 02 VIEW ALONG SUSSEX STREET
- 03 VIEW FROM NORTHERN COVE AT BARANGAROO RESERVE
- 04 VIEW FROM HICKSON ROAD TO THE MILLERS POINT CLIFF WALL

## 09 BARANGAROO STATION

### Character and components of the project

#### Character and components of the project

This summary describes the construction and operation phases of the project.

##### Construction Phase

The following structures, equipment and activities are likely to be experienced during construction:

- Removal of street trees impacted by the site and for site access including approximately:
  - 5 Fig trees on Hickson Road
  - 6 Palm trees on Hickson Road
- Establishment of a site compound including site offices, parking area, amenities, workshops, material and plant storage areas, water treatment plant
- Open trench construction within the existing road reserve along Hickson Road, Shelley Street, Lime Street, Erskine Street to the City North substation (Approximately 950m) for a power supply upgrade
- Site hoardings and site fencing to the perimeter of sites
- Two acoustic enclosures adjacent to the Millers Point cliff wall (approximately 15m high)
- Cranes and large plant (e.g. excavators)
- Staged construction along and partial closure of Hickson Road
- Temporary closures of Hickson Road footpath (east and west)
- Laydown area extending north along Hickson Road from North Cove Park to the Dalgety Bridge
- Construction of draft relief risers in front of the Millers Point cliff wall (approximately 5m wide x 8m high)
- Separation plant including silos and tanks (approximately 15m high)

- Construction vehicle access via Hickson Road

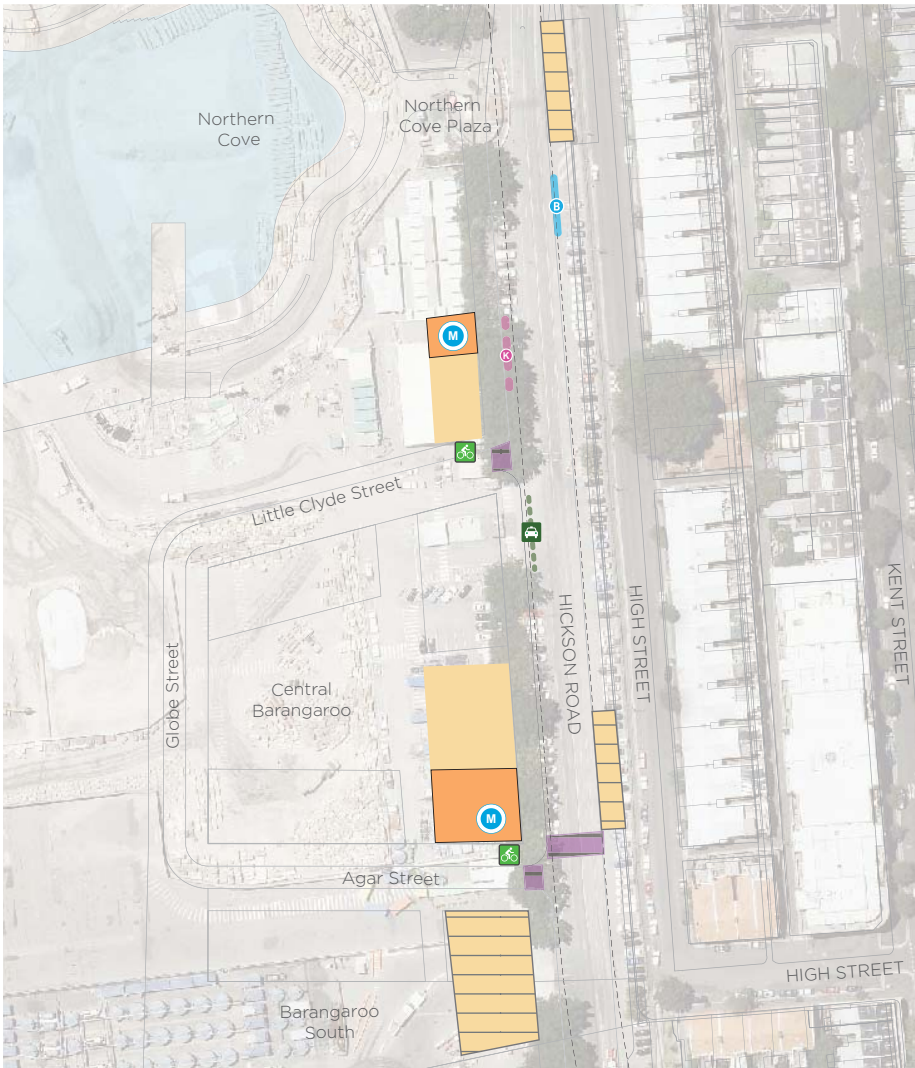
The duration of construction works at this location would be approximately 5-6 years.

It is expected that the construction of this site would require spoil haulage and heavy plant deliveries to be undertaken outside of standard work hours.

##### Operation Phase

The following elements and activities are likely to be experienced during operation:

- Station entry point at Hickson Road within Barangaroo Central Master Plan area and integrated into future above station development (by Barangaroo Delivery Authority)
- Freestanding north station entry within North Cove plaza
- Services (draft relief risers) located in front of the Millers Point cliff wall (within the footpath zone plus one traffic lane, approx. 5 metres wide x 8m high)
- Services (platform ventilation risers) under the Sydney Steps over-bridge facing Hickson Road
- Traction substation building (2 storey)
- Hickson Road and footpaths reinstated



OPERATION PHASE LAYOUT



BARANGAROO STATION ENTRY CONCEPT

## 09 BARANGAROO STATION

### Sensitivity levels



- 01 DEVELOPMENT ON HICKSON ROAD
- 02 SANDSTONE CLIFF FACE

#### Sensitivity levels

The following list summarises the landscape and visual sensitivity for the project site and main viewing areas across the study area.

##### *Barangaroo Reserve*

This reserve is a recently developed, six-hectare parkland that provides harbour foreshore access within a short distance to the CBD. It provides a recreation and event space with numerous design features including sandstone walls and sandstone harbour edge, path network and extensive botanical displays of local flora. The reserve has numerous lookout opportunities from the harbour edge as well as at the top of the recreated headland. This reserve is an important resource for Sydneysiders and visitors alike. The landscape and views of the Barangaroo Reserve are therefore considered to be of **regional sensitivity**.

##### *Hickson Road*

Hickson Road is part of a scenic Sydney Harbour foreshore route from Hickson Road Reserve (below the Harbour Bridge) to Sussex Street, west of the Sydney CBD. This is a popular pedestrian route for locals and visitors experiencing views into some of Sydney's heritage sites as well as broader harbour water views. Hickson Road, in the vicinity of the site, includes nose in parking, used by workers from the adjacent construction sites, city workers and residents. This landscape and views are therefore considered to be of **local sensitivity**.

##### *High Street*

High Street is located in Millers Point overlooking the Barangaroo project site. The street is within a state heritage conservation area and contains a number of terrace house groups listed on the state heritage register. These houses are also visible from many vantage points within Sydney Harbour and contribute to the visual character of this historic precinct and Sydney Harbour in general. This landscape and its views are therefore considered to be of **regional sensitivity**.

##### *Central Barangaroo*

The Central Barangaroo precinct is currently being planned. It will be the cultural heart of Barangaroo and the final stage of the Barangaroo development to be constructed. The development is expected to include civic and cultural attractions with recreational, residential, retail and commercial uses. The locality would be used by large concentrations of residents and workers. The landscape and views of this future area are considered to be of **local sensitivity**.

##### *Sydney Harbour & foreshore areas*

This part of Sydney Harbour falls within the Foreshores and Waterways Area as defined in *Sydney Regional Environmental Plan (Sydney Harbour Catchment) (2005)* and *Sydney Harbour Foreshores and Waterways Area DCP*. These planning instruments identify views to and from the Harbour as having unique visual qualities. The harbour is an important transport and recreational resource for the city. The harbour to the west of Barangaroo is highly valued by Sydneysiders and visitors to the City. This portion of the harbour is out of view of the iconic Harbour Bridge and Sydney Opera House and, therefore, the harbour landscape and views to and from the harbour in this area are considered to be of **regional sensitivity**.

##### *Observatory Hill*

Observatory Hill park and buildings are listed on the state heritage register. The picturesque Italianate character of the Observatory and residence building, set within grassy slopes and framed by a mature Fig tree, is visible from many vantage points across Sydney, and contributes to the visual character of this historic precinct. This landscape and its views are therefore considered to be of **state sensitivity**.

### Assessment of landscape impact

Within the vicinity of the site, the following places have been identified as potentially being impacted by the project:

- Barangaroo Reserve
- Hickson Road, and
- Central Barangaroo.

The following section summarises the impact identified by the assessment and site observations. This includes impact during construction and operation.

#### **Barangaroo Reserve**

**Construction:** Works to construct a freestanding Metro station entry would be seen within the North Cove plaza to the southern boundary of the Barangaroo Reserve. The impact on footpaths adjacent to the construction site on Hickson Road, would divert pedestrians to surrounding footpaths and alter the patterns of access to the reserve from the south. This activity would be occurring within the context of the continuous development across the Barangaroo peninsular, including works at Central Barangaroo. Overall it is expected that there would be no perceived change in the landscape quality of Barangaroo Reserve, which is of regional sensitivity, resulting in a **negligible landscape impact** during construction.

**Operation:** There would be improved access to the reserve facilitated by the upgraded footpaths and location of the Metro station adjacent to the reserve entry. It is therefore expected that there would be a noticeable improvement in the landscape quality of Barangaroo Reserve, resulting in a **moderate beneficial landscape impact** during operation.

#### **Hickson Road**

**Construction:** Part of Hickson Road would be required as a construction site and for construction vehicle movement and access. This work would include the closure of both the east and western footpaths during

some periods of construction. It is likely that north south pedestrian connectivity within this precinct would be reduced at times. A number of mature fig trees (*Ficus* sp.) and palms (*Livistona* sp.) along Hickson Road would be removed, reducing the shade cover and altering the character of the street. This portion of Hickson Road is currently located adjacent to the Central Barangaroo and Barangaroo South construction sites, and the level of comfort and accessibility is already limited somewhat by this activity. There would be a noticeable reduction in the landscape quality of this streetscape, which is of local sensitivity, resulting in a **minor adverse landscape impact** during construction.

**Operation:** The footpaths on Hickson Road would be restored, widened, and an expanded public realm would be created around the station. The station entry would have an identifiable entry structure creating a legible entry to the station in two locations. Hickson Road would become a major pedestrian and vehicle thoroughfare. It is expected that there would be a noticeable improvement in the landscape quality of this streetscape, resulting in a **minor beneficial landscape impact** during operation.

#### **Central Barangaroo**

**Construction:** Central Barangaroo will not be completed during the construction period of the project works. Therefore there would be no impact on this precinct during construction.

**Operation:** Although the final design and composition of Central Barangaroo is unknown at the time of writing it is expected that the functioning of this future urban precinct would be improved by the integration of a station into the public realm. It is therefore expected that there would be a noticeable improvement in the landscape quality of this precinct, which would be of local sensitivity, resulting in a **minor beneficial landscape impact** during operation.

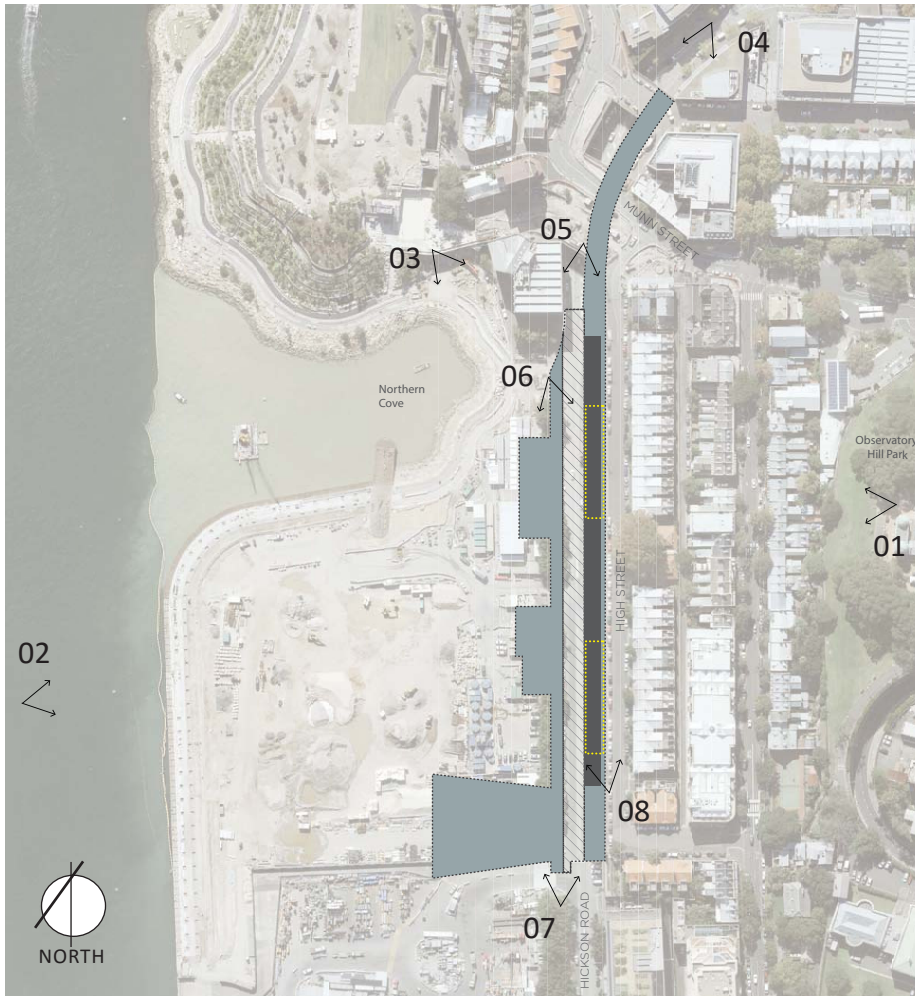


BARANGAROO RESERVE



# 09 BARANGAROO STATION

## Assessment of daytime visual impact



KEY	
	Construction area
	Station excavation
	Acoustic shed
	Staged construction

VIEWPOINT LOCATION PLAN  
(SHOWING CONSTRUCTION LAYOUT)

### Assessment of daytime visual impact

The following viewpoints were selected as representative of the range of views to the project site:

- Viewpoint 1: View west from Observatory Hill
- Viewpoint 2: View east to Barangaroo from Sydney Harbour
- Viewpoint 3: View southeast from Barangaroo Reserve
- Viewpoint 4: View south from Hickson Road at the Windmill Street Bridge
- Viewpoint 5: View south from the Munn Street Bridge
- Viewpoint 6: View southeast from Northern Cove plaza
- Viewpoint 7: View north along Hickson Road
- Viewpoint 8: View north along High Street
- Views to power upgrade temporary works

The following sections summarise the daytime visual impact identified in the representative viewpoint assessment and site visit observations.

#### ***Viewpoint 1: View west from Observatory Hill***

The views from this State heritage listed site are an important part of its listing, and have been specifically identified for protection within the context of the Barangaroo development. In particular the preservation of panoramas from Observatory Hill Park. This view, west towards the Barangaroo site, includes the harbour and Balmain peninsular in the background, framed by the heritage roofscape of Millers Point.

**Construction:** In this view, the construction site would not be visible and there would be no perceived change in the amenity of this view, which is of state visual sensitivity, resulting in a **negligible visual impact** during construction.

Operation: The project would not be seen from this location during operation and therefore there would be no perceived change in the amenity of this view, resulting in a **negligible visual impact** during operation.

***Viewpoint 2: View east to Barangaroo from Darling Harbour***

This view includes the site in the background of the view, seen across Northern Cove and the future Central Barangaroo construction site. The 'v' shaped sandstone and concrete cliff wall on Hickson Road, and copse of heritage listed mature London planetrees at the Lance Kindergarten, can be seen clearly in the centre of the view. Beyond this, the Observatory and Observatory Hill Park can be seen prominently amongst rows of historic terraces. In the background and to the south, the built form steps up to the visually prominent 'The Langham' hotel and high-rise commercial and office towers of the CBD, which create a strong urban skyline view.

This view will be transformed as Barangaroo South is completed and work continues on the Central Barangaroo development site. It is expected that much of the southern portion of Hickson Road, the cliff face and Millers Point will be obscured to views from this location by the Barangaroo development. However, views to Observatory Hill will be protected as a part of the design of Central Barangaroo, so that a view would be maintained across Northern Cove and to Hickson Road and the cliff beyond.

Construction: This view would change as a construction site is established across a large area of the eastern end of the Central Barangaroo site, adjacent to Hickson Road and extending north into the Northern Cove plaza. A separation facility and site compounds to the west of Hickson Road and two acoustic sheds would be established and potentially visible to the north and southern ends of the site over Hickson Road. These acoustic enclosures would obstruct views to sections of the Millers Point cliff but not rise above the top of the cliff wall.



01



02

- 01 VIEW WEST FROM OBSERVATORY HILL
- 02 VIEW NORTHEAST TO BARANGAROO FROM DARLING HARBOUR

## 09 BARANGAROO STATION

### Assessment of daytime visual impact



03



03A

03 VIEW SOUTHEAST FROM BARANGAROO RESERVE

03A ARTIST'S IMPRESSION SHOWING PROJECT DURING CONSTRUCTION

This view is seen in the context of a highly urban backdrop and with development at Barangaroo South (would be complete) and Central Barangaroo (under construction) would intervene, limiting and obstructing visibility of the works. Due to the context of development, it is expected that the project would not create a perceived change in the amenity of this view, which is of regional visual sensitivity, resulting in a **negligible visual impact** during construction.

**Operation:** This view would be transformed during the operation of the project with the development of Central Barangaroo, comprising much of the view (not within the scope of this assessment). The project, however, is not likely to be seen prominently in this view. The services would obstruct views to the Millers Point cliff wall, seen in the background of this view. It is expected that the project would not create a perceived change in the amenity of this view, resulting in a **negligible visual impact** during operation.

#### ***Viewpoint 3: View south from Barangaroo Reserve***

This view includes the site in the middle ground, seen across the Barangaroo Reserve and Northern Cove and adjacent to the Central Barangaroo construction site. It is framed to the left of view (north) by the State heritage listed Dalgety's Bond Stores building, and to the south by a continuous backdrop of high-rise commercial and office towers of the CBD and Barangaroo South. The 'v' shaped sandstone and concrete cliff wall, Hickson Road, nearby row of mature Fig trees and groupings of Livistona palms, can be seen clearly in the centre of the view.

To the south of the view, the Barangaroo South construction site (within the Central Barangaroo site) can be seen, surrounded by hoarding and including offices and construction activities including cranes and large plant. This view will continue to change over the coming years as Barangaroo South is completed and work extends towards the viewer (north) at the Central Barangaroo development site.

**Construction:** This view would change as a construction site is established across a large area of the eastern end of the Central Barangaroo site, adjacent to Hickson Road and extending north into the Northern Cove plaza. A separation facility and site compounds to the west of Hickson Road (right of view) and two acoustic sheds established and potentially visible to the north and southern ends of the site over Hickson Road (left and centre of view). These acoustic enclosures would obstruct views to portions of the Millers Point cliff wall but not rise above the top of the wall.

This view is seen in the context of a highly urban backdrop and middle ground of high intensity development at Barangaroo South (would be complete) and Central Barangaroo (under construction).

Due to the context of construction activity, there would not be a noticeable reduction in the amenity of this view, which is of regional sensitivity. This would result in a **negligible visual impact** during construction.

**Operation:** This view would be transformed during the operation of the project with the development of Central Barangaroo, comprising much of the view (by Barangaroo Delivery Authority). A freestanding station entry would be seen within the Northern Cove plaza and have a light and open form. On Hickson Road, the service facilities would be visible adjacent to the cliff wall, obstructing views to sections of masonry, and filtered by future streetscape works including street tree planting.

The visible elements of the project are not likely to be seen prominently in this view. It is therefore expected that the project would not create a perceived change in the amenity of this view, resulting in a **negligible visual impact** during operation.



**Viewpoint 4: View south from Hickson Road at the Windmill Street Bridge**

04 VIEW SOUTH FROM HICKSON ROAD AT THE WINDMILL STREET BRIDGE

Mid-rise contemporary brick and masonry residential and office buildings line this area of Hickson Road. Street trees filter views to the buildings and frame a view to the twin arches of the Dalgety Road and Windmill Street Bridges. These elements are a focal point in the centre, middle ground of this view. Exposed sandstone cliffs and constructed sandstone walls contribute to the character of this streetscape.

**Construction:** From this location there would be views to a construction site which would include a laydown area located on the eastern side of Hickson Road (left of view), under the Dalgety Road and Windmill Street Bridges. This would include construction site perimeter fencing, hoarding, construction equipment within the construction site, as well as construction vehicles using Hickson Road. These elements would obstruct views to the sandstone cliff walls and change the character of the roadway in this area.

It is expected that the project would create a noticeable reduction in the amenity of this view, which is of local visual sensitivity,

## 09 BARANGAROO STATION

### Assessment of daytime visual impact



05

05 VIEW SOUTH FROM THE MUNN STREET BRIDGE

resulting in a **minor adverse visual impact** during construction.

Operation: There would be no part of the project visible from this location during the operation of the project.

***Viewpoint 5: View south from the Munn Street Bridge***

This dramatic vista is directed along Hickson Road, a wide corridor lined with car parking, mature figs and clusters of palms. From this commanding elevated location, a large area of the road and adjacent construction site can be seen. The cliff wall creates a strong visual edge to this view, and contains the heritage character of the terraces of Millers Point to the east. In contrast, the Central Barangaroo construction site can be seen to the west of Hickson Road, framed to the right of view (west) by the State heritage listed Dalgety's Bond Stores building. When completed, the Barangaroo Central site would transform this portion of the view. A backdrop of high-rise commercial and office towers of the CBD and Barangaroo South, create a skyline which unifies this view.

Construction: This location would offer unobstructed views to the construction site which would be established across Hickson Road and extending into the Central Barangaroo site to the west (right of view). This would require the removal of a number of mature street trees to the west of Hickson Road, the establishment of two acoustic enclosures on Hickson Road, one in the middle ground of the view, and one in the distance. Both enclosures would rise to approximately 15m, which would not exceed the height of the cliff wall. These elements would obstruct views to the sandstone and masonry wall in two locations. There would be temporary closures and construction sites established as well as storage and laydown areas on Hickson Road. Glimpses to the eastern edge of the separation plant are likely to be seen in the background of the view.

This view is seen in the context of a highly urban backdrop and middle ground of high intensity development at Barangaroo South and future construction activity at Central Barangaroo. It is therefore expected that the project would create a noticeable reduction in the amenity of this view, which is of regional visual sensitivity, resulting in a **moderate adverse visual impact** during construction.

Operation: This view would be transformed during the operation of the project with the development of Central Barangaroo, visible to the east (right of view) (by Barangaroo Delivery Authority). The freestanding northern station entry would be visible within the Northern Cove plaza and the services would be seen adjacent to the Millers Point cliff wall.

As much of the change in this view is due to the works at Central Barangaroo, it is expected that the project would not create a perceived change in the amenity of this view, resulting in a **negligible visual impact** during operation.

**Viewpoint 6: View southeast from Northern Cove plaza**

This view includes a plaza in the foreground of the view, with a formal grid of trees, asphalt and decomposed granite paving, and lawns beyond. Hickson Road can be seen in the foreground and extending south towards Barangaroo South. The Millers Point cliff wall can be seen to the east (right of view) with heritage terraces and CBD high-rises visible above the wall. The heritage listed London planetrees at the Lance Kindergarten can be seen clearly above the cliff wall, and mature fig trees on Hickson Road, obstruct views to the CBD skyline beyond. To the west (right of view) the future Central Barangaroo development can be seen filtered through plaza trees.

**Construction:** There would be open, unobstructed views to the works on Hickson Road. This would include an acoustic enclosure on the eastern side of Hickson Road and obstructing views to the cliff wall, partial closures and establishment of construction sites on Hickson Road, surrounded by hoarding, concrete barriers and traffic control devices. Project related work to the west of Hickson Road, within the Central Barangaroo site, would include site offices and construction of the northern station entry point, visible filtered through plaza trees. These elements would be seen within the context of the construction of Central Barangaroo. However, the scale and extent of the works would create a noticeable reduction in the amenity of this view, which is of regional sensitivity, resulting in a **moderate adverse visual impact** during construction.

**Operation:** On Hickson Road, the service facilities would be visible adjacent to the cliff wall, obstructing views to the lower sections of masonry. Hickson Road, footpaths and street trees would be reinstated, visually softening this view. Due to the introduction of the service facilities it is expected that the project would create a noticeable reduction in the amenity of this view, resulting in a



06



06

- 06 EXISTING VIEW SOUTHEAST FROM NORTHERN COVE PLAZA
- 06A ARTIST'S IMPRESSION SHOWING PROJECT DURING OPERATION

## 09 BARANGAROO STATION

### Assessment of daytime visual impact



07

07 EXISTING VIEW NORTH ALONG HICKSON ROAD

**moderate adverse visual impact** during operation.

#### ***Viewpoint 7: View north along Hickson Road***

This view is defined to the east by the 'v' shaped Millers Point cliff wall, which exaggerates the length of Hickson Road as seen from street level. In the middle ground of the view the historic High Street Steps are cut into the sandstone, and a cluster of Livistona palms are silhouetted against the wall, which is topped by the heritage palisade fencing. In this view Hickson Road is seen as a wide road corridor lined with nose-in car parking, and mature figs to the west, directed to the arch of the heritage Munn Street Bridge which is the focal point of this view. The Barangaroo South construction site and site entry is visible to the west, unobstructed. However, to the north, the existing fig trees obstruct views to the eastern portion of the Barangaroo construction site and heritage listed Dalgety's Bond Stores building.

Construction: There would be open, unobstructed views to the works on Hickson Road and adjacent to the Millers Point cliff wall. This would include the establishment of a construction site that would extend across part of Hickson Road, with site boundary hoarding, concrete barriers and traffic control devices. The establishment of two acoustic sheds on the eastern side of Hickson Road, and rising to a height of 15m which would not exceed the height of the cliff wall but would obstruct views to the lower portions of the wall. These elements would be seen in the middle ground and background of the view. To the west (right of view) there would be a separation plant, visible in the foreground.

Although the construction activity would be prominent and expansive in this view, the visual influence of the Barangaroo construction activity to the west (left of view), would reduce the contrast of the project works with the surrounding view. It is therefore expected that construction of the project would create a noticeable reduction in the amenity of this view. Resulting in a

**minor adverse visual impact** to this view of local sensitivity, during construction.

Operation: The project works are expected to be visually absorbed into the surrounding streetscape. The service facilities would rise above the surrounding street in two locations along Hickson Road and obstruct views to the lower portion of the cliff wall. The roadway, footpaths and street trees would be reinstated and be visually consistent with the public domain of the surrounding Central Barangaroo development. The southern station entry would be visible at street level (left of view), integrated into the above station development (by Barangaroo Delivery Authority). It is therefore expected that the project would not create a perceived change in the amenity of this view, this would result in a **negligible visual impact** during operation.

***Viewpoint 8: View north along High Street***

This view is from the elevated residential street within the Millers Point Conservation Area, offering panoramic views across the Central Barangaroo site, to the harbour and Balmain peninsula beyond. These views, filtered through the heritage iron railings, are framed by heritage terrace houses to the east. A direct view along High Street includes the former harbour control tower as a prominent skyline element.

Construction: This view would change as the trees on Hickson Road are removed and a construction site is established across Hickson Road a large area of the Central Barangaroo site including a separation plant. There would be acoustic sheds established to the west of the cliff wall which would rise to 15 m and be partially visible. These elements would be seen in the context of the construction of Central Barangaroo to the west (left of view). It is therefore expected that the project would create a noticeable reduction in the amenity of this view, which is of local visual sensitivity, resulting in a **minor adverse visual impact** during construction.



08

08 VIEW NORTH ALONG HIGH STREET

Operation: This view would be transformed during the operation of the project with the development of Central Barangaroo, comprising much of the view, and obstructing views to the harbour (not within the scope of this assessment). The project, however, is not likely to be seen prominently in this view. Street trees would soften the view along Hickson Road. It is expected that the project would not create a perceived change in the amenity of this view, resulting in a **negligible visual impact** during operation.



# 09 BARANGAROO STATION

Assessment of daytime visual impact



POWER UPGRADE ALIGNMENT



VIEWS ALONG (L-R) HICKSON ROAD, SUSSEX STREET, SHELLEY STREET, SHELLEY STREET, LIME STREET, ERSKINE STREET



### *Views to power upgrade temporary works*

The power upgrade would require temporary works within the road corridor south along Hickson Road and Sussex Street, southwest along Shelley and Lime Streets, and turning east along Erskine Street.

Views along Hickson Road and Sussex Street are influenced by the Barangaroo development which is under construction and nearing completion. Considerable construction works are being undertaken in this area including works within the road corridor.

Barangaroo South (completed areas), Shelly and Lime Streets are characterised by a dense urban development, wide pedestrian footpaths and plazas. Sculptural planter boxes and ventilation structures are visual features within the streetscape. Street trees provide some softening and shading of these otherwise urban views. There are glimpses westward to the harbour in a number of locations.

Construction: Views may include some road and footpath closures to accommodate the temporary trenching works. Existing trees and public artwork would be retained.

It is expected, due to the small scale of these works, that the project would create a noticeable reduction in the visual amenity of views from these streets and adjacent properties. Views along this route are of local visual sensitivity, resulting in a **minor adverse visual impact** during construction.

Operation: There would be no permanent project elements visible along this route.

### **Assessment of night time visual impact**

The setting of the Barangaroo Station is considered to be an area of **E4: High district brightness**. This is due to its brightly lit CBD location and the intensity of the future Barangaroo South and Central Barangaroo where there is 24 hour activity and lighting from surrounding buildings, urban plazas and streets creating both direct light sources and a general skyglow around the project site.

Construction: It is expected that there would be night works required at this location during construction, including 24 hour deliveries and spoil haulage accompanied by traffic control crews with lit truck mounted crash attenuator vehicles and lighting. This lighting would also include both static construction site and task illumination. The lighting would be largely contained to the east by the cliff wall, and from Central Barangaroo there would be few visual receptors as it would be an unoccupied construction site. Therefore, it is expected that at night the project would not create a perceived change in the amenity of views in this area of high district brightness. It is therefore expected that the project would result in a **negligible visual impact** during evening hours.

Operation: The station entry on Hickson Road would be brightly lit 24 hours a day to accommodate station activities and for security after hours. This lighting would be consistent with the surrounding high district brightness environment created by the surrounding Central Barangaroo development. It is expected that during operation the lighting of the project would not create a perceived change in visual amenity, resulting in a **negligible visual impact** for this area during evening hours.

## 09 BARANGAROO STATION

### Summary of impact

#### Summary of impact

During construction the project would result in a **minor adverse landscape impact** on Hickson Road in the vicinity of the project sites, primarily due to the direct impact on vehicular and pedestrian movement and the loss of mature street trees.

During operation, however, there would be **minor beneficial landscape impact** experienced at Hickson Road and Central Barangaroo, and **moderate beneficial landscape impact** at the Barangaroo Reserve. These benefits are due to improved access of public transport and public realm enhancements which would increase the overall accessibility and permeability around this precinct.

There would be a range of visual impact created by the project during construction including **minor** and **moderate adverse visual impact**. These impact are the result of a balance between the mitigating effect of the existing surrounding context of construction activity on the adjacent Central Barangaroo site, and the high sensitivity of surrounding visual receptors.

Greater impact would be experienced in locations of higher visual sensitivity, and where construction of the project is seen extending into new areas, such as the Millers Point cliff wall in views from the Munn Street Bridge, which would result in a **moderate adverse visual impact**.

In addition, there would be temporary **minor adverse visual impact** experienced during the power upgrade works on Hickson Road, Sussex, Shelley, Lime and Erskine Streets.

During the operation of the project **negligible visual impact** are expected from most assessed viewing locations, due to the integration of the project into the surrounding Central Barangaroo development. There is a **moderate adverse visual impact** expected from views at the North Cove plaza (in Barangaroo Reserve), where the service facilities would be located adjacent to the Millers Point cliff wall, and become a prominent element in streetscape views.

At night there would be **negligible impact** expected during construction and operation. This is due to the existing construction activity, experienced in views from the west, and containing effect of the Millers Point cliff wall to viewing locations to the east.

The following tables summarise the impact of the project.

**Landscape impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Barangaroo Reserve	Regional	No perceived change	Negligible	Noticeable improvement	Moderate benefit
2	Hickson Road	Local	Noticeable reduction	Minor adverse	Noticeable improvement	Minor benefit
3	Central Barangaroo	Local	N/A	N/A	Noticeable improvement	Minor benefit

**Day time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	View west from Observatory Hill	State	No perceived change	Negligible	No perceived Change	Negligible
2	View northeast to Barangaroo from Darling Harbour	Regional	No perceived change	Negligible	No perceived change	Negligible
3	View southeast from Barangaroo Reserve	Regional	No perceived change	Negligible	No perceived change	Negligible
4	View south from Hickson Road at the Windmill Street Bridge	Local	Noticeable reduction	Minor adverse	N/A	N/A
5	View south from the Munn Street Bridge	Regional	Noticeable reduction	Moderate adverse	No perceived change	Negligible
6	View southeast from Northern Cove plaza	Regional	Noticeable reduction	Moderate adverse	Noticeable reduction	Moderate adverse
7	View north along Hickson Road	Local	Noticeable reduction	Minor adverse	No perceived change	Negligible
8	View north along High Street	Local	Noticeable reduction	Minor adverse	No perceived change	Negligible
	Views to power upgrade temporary works	Local	Noticeable reduction	Minor adverse	N/A	N/A

**Night time visual impact**

No	Location	Sensitivity	Construction		Operations	
			Modification	Impact	Modification	Impact
1	Project site	E4: High district brightness	No perceived change	Negligible	No perceived change	Negligible