



## Birrong Station Upgrade

Addendum Landscape Character & Visual Impact Assessment

# BIRRONG STATION UPGRADE

## ADDENDUM LANDSCAPE CHARACTER AND VISUAL IMPACT ASSESSMENT

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# 1. Introduction

## 1.1 Purpose of this report

This report assesses the landscape and visual impacts associated with Transport for NSW's (TfNSW's) proposed upgrade to Birrong Station. The Proposal would provide a station precinct that is accessible to those with a disability, limited mobility, parents/carers with prams, and customers with luggage.

This Landscape Character and Visual Amenity Impact Assessment informed the Review of Environmental Factors (REF) which was placed on public display for community consultation in December 2019.

As design changes have occurred since the public display of the REF, an addendum Landscape Character and Visual Amenity Impact Assessment (this report) has subsequently been prepared to inform the revised assessment within the Determination Report. This report assesses the revised design, which is referred throughout as the 'Revised Proposal', with the previous design referred to as the 'Displayed Proposal'.

## 1.2 Proposal overview

The general Proposal is part of the Transport Access Program (TAP), which is a NSW Government initiative to ensure that stations meet legislative requirements stipulated within the *Commonwealth Disability Discrimination Act, 1992 (DDA)* and the *Disability Standards for Accessible Public Transport, 2002 (DSAPT)*.

Birrong Station is approximately 21 kilometres west of Sydney Central Business District (CBD). A location map is provided in **FIGURE 1-1**.

### Comparison of Displayed Proposal to Revised Proposal

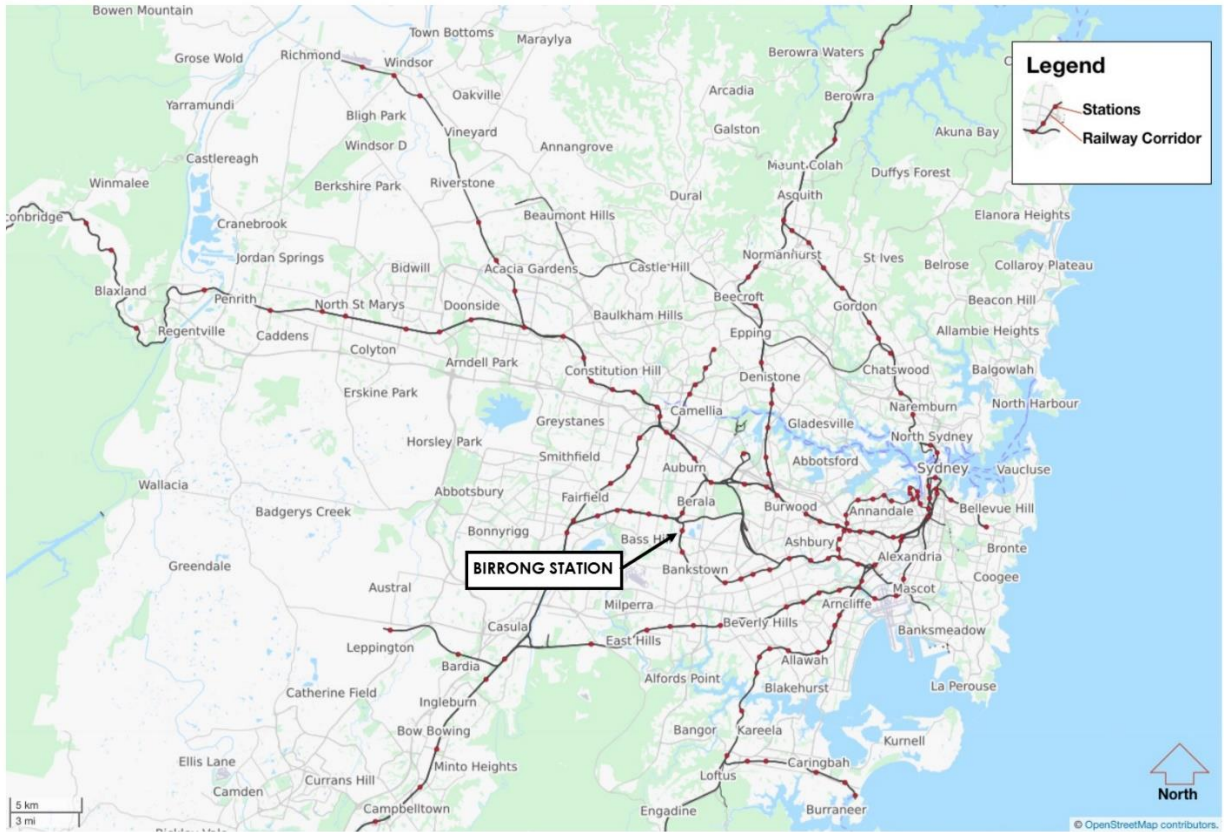
The main difference between the Displayed Proposal and Revised Proposal is the replacement of a proposed separate full footbridge over the rail corridor (with a central lift and stairs), to a new concourse/lift/stair arrangement from the existing Avalon Street overbridge. The likely landscape character and visual impacts of both Proposals are compared within this report and summarised in SECTION 7 (Key Findings and Conclusion).

The main elements of the Revised Proposal visible at completion would be:

- a new concourse, lift and stairs to the Birrong Station platform from Avalon Street overbridge (the lift shaft would protrude approximately six metres above road level and be approximately 20 metres to the south of the Avalon Street overbridge)
- two canopies over the Boarding Assistance Zones (BAZ) on the station platform

- a signposted accessible kiss and ride bay on Teresa Street adjacent to the eastern station entrance
- widening of the footpath along the south side of Avalon Street overbridge.

A more detailed description of the Revised Proposal is provided in SECTION 4.2.



**FIGURE 1-1: LOCATION OF BIRROING RAILWAY STATION**

### 1.3 Report format

The report is set out in the following format:

- SECTION 2. Defines the methodology for the assessment
- SECTION 3. Describes the location and context of the site
- SECTION 4. Describes the Revised Proposal and its main visual changes
- SECTION 5. Assesses the likely effects to landscape character
- SECTION 6. Assesses the likely effects to surrounding viewpoints
- SECTION 7. Describes measures that have been, and could be, incorporated to improve the visual outcome, and
- SECTION 8. Presents a summary of key findings and conclusion.

## 2. Assessment methodology

This section outlines the methodology for the assessment, which is based on the NSW Roads and Maritime Services' *Guideline for Landscape Character and Visual Impact Assessment, Environmental Impact Assessment Practice Note EIA-N04*, December 2018 (referred to hereafter as the 'Guideline')<sup>1</sup>.

### 2.1 Field survey

The Site was inspected 30 September 2019 under the supervision of TfNSW staff. The inspection included a walk-over of Railcorp property and surrounding streets. The day of the inspection was dry and sunny.

During the site inspection an approximate viewshed (i.e. the potential area from where the Proposal could be seen) was determined and potentially sensitive viewpoints identified. Private property was not entered. Viewpoints were assessed from the nearest publicly accessible location.

### 2.2 Assessment

The Guideline requires a two-part assessment process, each equally important:

- landscape character assessment - the assessment of impact on the aggregate of an area's built, natural and cultural character or sense of place – which helps determine the overall impact of a Proposal on an area's character and sense of place.
- visual impact assessment - the assessment of impact on views - which helps define the day to day visual effects of a Proposal on people's views.

The method to measure impact is based on the combination of sensitivity of the existing area or view to change, and magnitude of the Proposal on that area or view. Sensitivity and magnitude are defined by the Guideline as:

- Sensitivity: refers to the qualities of an area, the number and type of receivers and how sensitive the existing character of the setting is to the proposed nature of change.
- Magnitude: refers to the physical scale of the Proposal, how distant it is and the contrast it presents to the existing condition.

The combination of sensitivity and magnitude provide the rating of the landscape character impact for a Proposal, or visual impact for individual viewpoints (refer **TABLE 2-1**).

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<sup>1</sup> As of 1 December 2019, Roads and Maritime Services was integrated with TfNSW

**TABLE 2-1: LANDSCAPE CHARACTER AND VISUAL IMPACT RATING MATRIX**

		Magnitude			
		High	Moderate	Low	Negligible
Sensitivity	High	High	High-moderate	Moderate	Negligible
	Moderate	High-moderate	Moderate	Moderate - low	Negligible
	Low	Moderate	Moderate - low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

**Landscape character assessment**

The Guideline sets out the tasks for landscape character impact assessment:

1. Analyse existing landscape character and its sensitivity
2. Identify landscape character zones (if required because of the size or complexity of the Proposal)
3. Determine the magnitude of impact
4. Assess landscape character impact (based on both the sensitivity of the character zone and magnitude of the proposal in that zone).

**Visual impact assessment**

The Guideline sets out the tasks for visual impact assessment:

1. Identify the extent of visibility of the Proposal
2. Identify existing viewpoints and their sensitivity to change
3. Determine the magnitude of change from each viewpoint
4. Assess visual impact (based on a composite of the sensitivity of the view and magnitude of the proposal in that view).

**2.3 Report illustration**

Three-dimensional illustrations in the report include both ‘artist impressions’ (stylised approximations of the likely appearance of the Proposal - provided by TfNSW) and a photomontage (a photorealistic image of the modelled Proposal superimposed on a photograph of the existing situation - independently prepared by Cambium Group).

Images are referred to within relevant report sections.

**2.4 Mitigation measures**

As described in SECTION 7, where relevant and possible, mitigation measures have been included to reduce potentially adverse visual impacts as part of the Proposal, and additional recommendations have been made.



# 3. Site context

This section describes the site location and general context of the Proposal.

## 3.1 Site location and station context

Birrong Station is located at Rodd Street, Birrong, within the Canterbury-Bankstown local government area, in Sydney's south-west. Birrong Station is on the T3 Bankstown line, approximately 21 kilometres from the Sydney CBD.

In peak periods there are approximately nine services per hour, with six services in off peak periods. In 2013, approximately 1,940 trips were recorded on an average weekday, and patronage is expected to rise in the future.

The station is entered via a pedestrian path along the Avalon Street overbridge and stairs to the platform. A locality map showing the station vicinity is provided in **FIGURE 3-1**.



**FIGURE 3-1: VISUAL CONTEXT OF PROPOSAL LOCATION**

### 3.2 Landform and existing land use

The local context and existing land use surrounding Birrong Station is provided at **FIGURE 3-2**.

The landform immediately surrounding Birrong Station is comprised of a slight slope that falls from east to west. This results in the station being below a cutting embankment to the east, with the western side generally at ground level near the station building, and with a lower cutting embankment further north where the landform rises to the side of the road bridge. North of the platform is the existing Avalon Street overbridge which has stairs providing the only entrance to the station. Further north of the overbridge the landform slopes gently away.



**FIGURE 3-2: LOCAL CONTEXT AND SURROUNDING LAND USE**

Existing land use surrounding the station includes:

- East – low density housing and Birrong Boys High (shares a boundary with railway corridor).
- West – a mixture of: a small parking area (containing 17 spaces on eastern side of Hudson Parade); a local, low density residential street (Hudson Parade); currently vacant shops (corner of Hudson Parade and Avalon Street), a small public reserve alongside the corridor; and, a larger public reserve on the opposite side of Avalon Street (Avalon Reserve).

- North – Avalon Street overbridge (with stairs to platform) with low density residential each side.
- South – the railway corridor continues in this direction flanked by Birrong Boys High (east) and low density residential (west).



**FIGURE 3-3: VIEW OF BIRRONG STATION BUILDING FROM HUDSON PARADE**



**FIGURE 3-4: AVALON STREET OVERBRIDGE (INCLUDES PATHWAY AND STATION ENTRANCE (TO LEFT))**

### **3.3 Biodiversity**

Land use associated with suburban development and the railway has resulted in a highly modified environment within and around the Proposal site. There would be no existing vegetation affected by the Proposal.

### 3.4 Heritage

TfNSW's Preliminary Environmental Assessment (PEA)<sup>2</sup> found no non-Indigenous heritage value or listings associated with the station precinct itself.

A search for known Aboriginal heritage items within 200 metres of the station was undertaken for the PEA. The search confirmed there to be no known Aboriginal heritage items within or close to the station.

### 3.5 Planning and legislative requirements

The Proposal is subject to the provisions of the *State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)* and Part 5, Division 5.1 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)* and is permissible without consent under the Infrastructure SEPP.

The Proposal is permissible without development consent and does not formally require consideration of local planning instruments. However where possible, the design and/or systems associated with any development should have some regard for these local planning instruments, and to establish a high level of aesthetic synergy with the wider LGA.

Under *Bankstown Local Environmental Plan (LEP) 2015* (refer **Figure 3.5**), the railway line, station and the reserve areas on either side are zoned SP2 Infrastructure. The Proposal meets the objectives of the zone, that is, to provide for infrastructure and related uses.



FIGURE 3-5: EXISTING LAND USE ZONING, BANKSTOWN LOCAL ENVIRONMENTAL PLAN 2015<sup>3</sup>

The surrounding residential area is zoned R2 Low Density Residential. Objectives of that zone are<sup>4</sup>:

<sup>2</sup> Transport for NSW (TfNSW, 2018) Birrong Station Upgrade Preliminary Environmental Assessment (PEA)

<sup>3</sup> Ibid

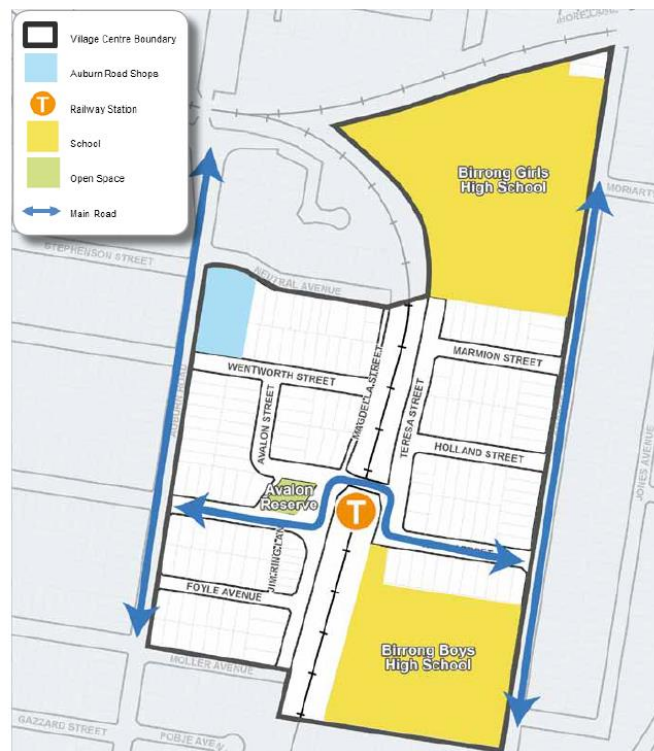
<sup>4</sup> *Bankstown Local Environmental Plan (LEP) 2015*

- 'To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To allow for certain non-residential development that is compatible with residential uses and does not adversely affect the living environment or amenity of the area.
- To allow for the development of low density housing that has regard to local amenity.
- To require landscape as a key characteristic in the low density residential environment'.

The Proposal meets the relevant zone objectives, in particular that it is compatible with residential land uses, does not adversely affect the living environment or amenity and responds to landscape as a key characteristic due to the proposed station access improvements and landscape works.

### 3.6 Future land use

Bankstown Council<sup>5</sup> has identified that a substantial proportion of the area immediately surrounding the station is planned for future high density residential (refer **Figure 3-6**). Buildings of up to 3-4 storeys are planned within the area indicated as the 'Village Centre Boundary', with Birrong Station the central focus of that area.



**FIGURE 3-6: LAND USE CHANGE PLANNED AROUND BIRROING STATION<sup>6</sup>**

<sup>5</sup> Bankstown Council (2016) *North Central Local Area Plan*.

<sup>6</sup> Ibid

That transformation will alter the existing built environment and presumably lead to an increase in local residents and station users. The timing of the future redevelopment is currently unavailable, and therefore, has not been taken into account as part of the detailed impact assessment (SECTION 6 and SECTION 7).

# 4. Revised Proposal description

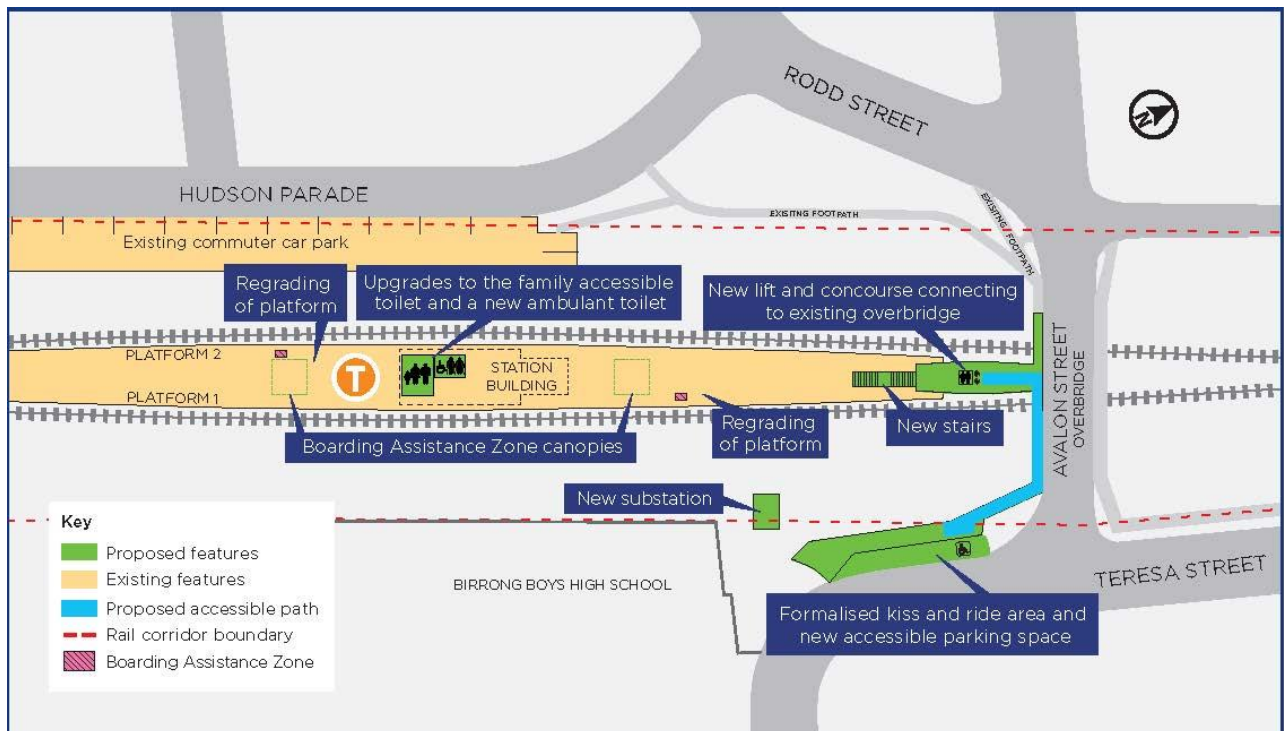
## 4.1 Revised Proposal elements visible at completion

**Figure 4-1** shows the proposed Birrong Station precinct layout. The Revised Proposal would be further developed during the detailed design phase.

The main elements visible at completion would be:

- a new concourse, lift and stairs to the Birrong Station platform from Avalon Street overbridge (the lift shaft would protrude approximately six metres above road level and be approximately 20 metres to the south of the Avalon Street overbridge)
- two canopies over the Boarding Assistance Zones (BAZ) on the station platform
- a new signposted kiss and ride bay and new accessible parking space on Teresa Street adjacent to the eastern station entrance
- widening of footpath along the south side of Avalon Street overbridge.

The plan at **Figure 4-2** shows the proposed station access. The artist impression at **Figure 4-3** illustrates the proposed lift, concourse and stairs as viewed from the station. Additional illustrations are included in SECTION 6. A more detailed description of all components of the revised Proposal is provided in SECTION 4.2.



**FIGURE 4-1: SCHEMATIC OF REVISED PROPOSAL LAYOUT<sup>7</sup>**

<sup>7</sup> Schematic design of Proposal (supplied by TfNSW)







**FIGURE 4-3: ARTIST IMPRESSION - VIEW FROM STATION PLATFORM LOOKING NORTH TOWARDS AVALON STREET OVERBRIDGE<sup>9</sup>**

## **4.2 Detailed Revised Proposal description**

The Revised Proposal comprises the following main components:

### **New lift and stairs:**

- removal of the existing stair access from Avalon Street overbridge to platform
- installation of a new concrete concourse (with protection screens approximately three metres high) and stair access to the island platform from Avalon Street overbridge
- installation of one new lift (approximately 10.5 metres high) from the landing access from Avalon Street to the platform (the lift shaft would protrude approximately six metres above street level and be approximately 20 metres to the south of the Avalon Street overbridge).

### **Platform and station building works:**

- localised platform regrading to ensure accessibility, tactile ground surface indicators and line marking as required for DSAPT compliance
- provide new handrails, stair treads for new and existing stairs to make DDA compliant
- canopies at the two Boarding Assistance Zones (BAZ)
- conversion of the existing unisex toilet to a unisex ambulant toilet
- upgrades to the existing family accessible toilet include:

<sup>9</sup> Supplied by TfNSW

- o replacement of items for compliance with DSAPT.

#### **Interchange upgrades:**

- a signposted kiss and ride bay on Teresa Street adjacent to the eastern station entrance, including associated road and kerb adjustments
- installation of an accessible parking space on Teresa Street
- widening of the existing footpath to achieve DSAPT compliance, including traffic delineation along the southern side of Avalon Street overbridge.

#### **Electrical supply and systems work:**

- upgrade to the station power supply and installation of a new 11kV padmount substation on the eastern side of the rail corridor
- adjustments to station lighting, security systems including CCTV and communication systems including public announcement and hearing induction loops.

### **4.3 Materials and finishes**

Final materials and finishes would be determined during the detailed design stage. The artist impressions and photomontage provide indicative images of the likely materials and finishes, with typical material selection expected to be:

- lift shaft: concrete, steel, aluminium lift panels with clear glass glazing
- roof of the lift shaft: structural steel with metal roof sheeting (basalt/dark grey colour)
- concourse and access stairs: natural concrete base, steel handrails, welded wire panels with mesh infills (three metres high) and non-slip treads where required
- access paths: natural concrete
- balustrades and fences: powder coated aluminium (basalt/dark grey colour) palisade-style
- gutters, downpipes, doors: basalt/dark grey colour
- seating: dark timber.

The intention is to match any changes to the parapet overbridge to existing materials.

### **4.4 Construction phase**

#### **Timing**

Subject to approval, construction is expected to commence in mid-2020 and take around 16 months to complete. The construction methodology would be further developed during the detailed design of the Revised Proposal by the nominated Construction Contractor in consultation with TfNSW.

### Disturbance area and temporary site facilities

The proposed disturbance area is shown in **Figure 4-4** and **Figure 4-5** and includes:

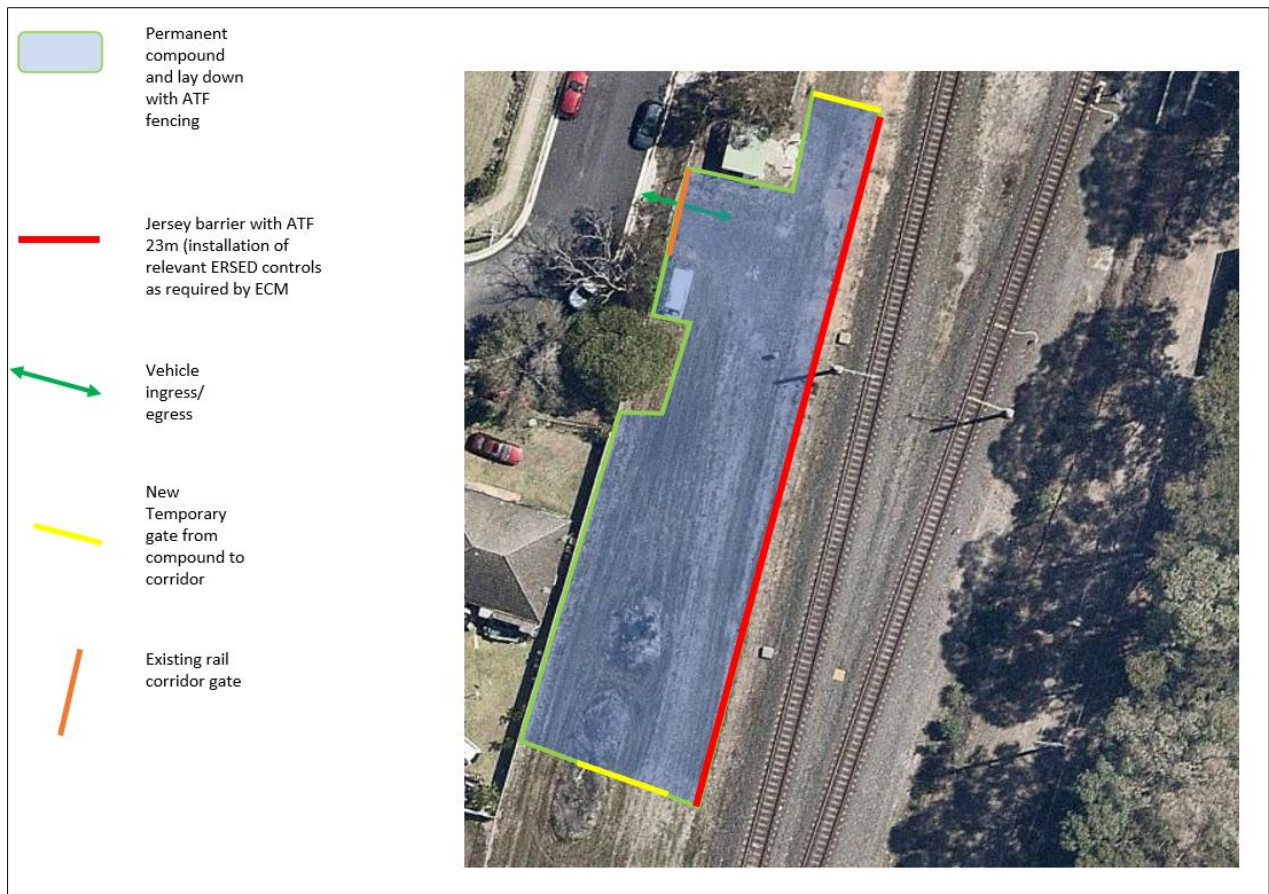
- a site compound including offices and site amenities on the corner of Rodd Street (west) and Avalon Street backing onto the rail corridor
- existing footpath diverted to the perimeter of the site compound to follow the kerb line
- work area/laydown off Rodd Street (east) backing onto the rail corridor in front of Birrong Boys High School
- potential Jersey kerbs (on both sides) if the corridor fence is temporarily removed
- temporary footbridge required during construction whilst Avalon Street overbridge entrance is closed.

There would also be a materials laydown compound within the railway corridor using the gate off Hudson parade. Construction areas would be demarcated with 1.8m high mesh fencing for public safety.



**FIGURE 4-4: POTENTIAL EXTENT OF REVISED PROPOSAL DISTURBANCE AREA (NEAR AVALON STREET OVERBRIDGE)<sup>10</sup>**

<sup>10</sup> Supplied by TfNSW



**FIGURE 4-5: POTENTIAL AREA OF REVISED PROPOSAL DISTURBANCE (SOUTHERN END NEAR HUDSON PARADE)<sup>11</sup>**

### Equipment, machinery and earthworks

During construction, various types of equipment and machinery would be required to complete the works. Expected larger equipment includes excavators, trucks, light vehicles, piling rigs, mobile cranes, concrete pumps/trucks.

Excavations and earthworks would generally be required for the following:

- installation of access paths
- installation of the lift on the platform
- installation of footings for the temporary pedestrian bridge
- installation of footings for the new concourse and stairs
- installation and relocation of services and utilities.

Excavated material would be reused onsite where possible or transported to an appropriately licensed offsite waste disposal facility in accordance with relevant legislative requirements.

### Construction hours

Most of the work required for the Revised Proposal would be undertaken during standard (NSW) Environment Protection Authority (EPA) construction hours:

<sup>11</sup> Supplied by TfNSW

- 7.00 am to 6.00 pm Monday to Friday
- 8.00 am to 1.00 pm Saturdays.

Work outside of standard hours may be required occasionally at night, on weekends and during scheduled rail possessions.

#### **4.5 Proposed public domain, landscape and rehabilitation works**

There are no existing trees that require removal as part of the Revised Proposal.

Upon completion of the proposed construction works, all disturbed areas would be landscaped and rehabilitated. Rehabilitation works would include removal of the construction compound, temporary fencing and storage areas; resurfacing of the carpark and re-grassing of disturbed turf areas where required.

The Revised Proposal includes new planting on the eastern side of the Avalon Street overbridge, including a number of trees. Recommendations related to proposed landscape works are included in SECTION 7.2.

# 5. Impact to landscape character

This section assesses the likely impact of the Revised Proposal on landscape character based on the combination of two criteria previously defined in SECTION 2: sensitivity and magnitude of change.

## 5.1 Existing landscape character

The existing landscape character of the vicinity is dominated by the surrounding low-density residences, modest-sized station building, gently sloping landform and a relatively low tree cover. The existing residential area is mostly comprised of single-story detached houses on moderate-sized blocks.

Birrong Boys High on the eastern side of the station (refer **Figure 5-1**) is the most dominant nearby existing built form, consisting of 2-3 storey brick buildings alongside the railway corridor.



**FIGURE 5-1: BIRRONG BOYS HIGH ON EASTERN SIDE OF RAILWAY CORRIDOR NEAR BIRRONG STATION**

Birrong Station has a small station building with an attractive, more traditional appearance with an island platform (refer **Figure 5-2**). North of the platform is the existing two-lane Avalon Street overbridge which has stairs to the platform. The bridge has solid dark, brick sides (or parapet) and a narrow pedestrian footpath along the southern side (refer **Figure 5-3**).



**FIGURE 5-2: EXISTING VIEW OF BIRRONG STATION FROM SOUTHERN END OF ISLAND PLATFORM**

Vegetation cover around the station is relatively low, with surrounding streets tending to have small street trees. The small public reserve alongside the corridor on the western side includes a number of larger trees as does the larger public reserve on the opposite side of Avalon Street (Avalon Reserve). The reserve on the eastern side of the railway corridor is bare of trees.

The surrounding landscape character is typical of suburban streets and does not have any recognised landscape or heritage conservation value. Photographs of the surrounding landscape character are provided as **Figure 5-3**.

Character within the railway corridor is more 'infrastructure based' and features lighting, stanchions, fencing, small buildings, open grassed areas and material stockpile.

## **5.2 Sensitivity of landscape character**

The landscape character of the site and immediate surroundings is rated as having a **low** sensitivity to change:

- the station building, other infrastructure and general landscape have not been formally recognised as having landscape or heritage conservation value
- the landscape surrounding the station is typical of other nearby residential areas with no particularly notable landscape features
- character within the railway corridor is more 'infrastructure based'.



FIGURE 5-3: LANDSCAPE CHARACTER OF LOCAL AREA

### 5.3 Magnitude of change to landscape character

The anticipated visual changes with the Revised Proposal have been described in SECTION 4. The main changes to landscape character would occur during construction, during which the Revised Proposal would have a **moderate** magnitude of change on the landscape character:

- the construction area (including the compounds) would be relatively large, would involve large equipment and dominate the local character within the immediate area
- the temporary footbridge would be clearly visible in the vicinity of the station and changes to the Avalon Street overbridge would be viewed in close proximity by the public from the bridge
- these changes would slightly diminish the scenic quality of the immediate landscape character yet would be temporary.

Following construction, the Revised Proposal would have a **low** magnitude of change on the landscape character:

- when operational, the station precinct would look notably different due to the new infrastructure (comprising the new concourse, stairs and lift shaft) contrasting to a degree with the scale of the existing station building
- the Revised Proposal would be a visible and recognisable new element within the overall scene, yet one that is relatively compatible with the surrounding character
- the proposed new station entry and landscaping would increase the station's attractiveness and enhance local landscape character and the overall amenity for rail customers.



#### 5.4 Summary of landscape character impact

Construction: The low sensitivity ranking, combined with the moderate magnitude of change, leads to an overall **moderate-low** level of impact.

Operation: The low sensitivity ranking, combined with the low magnitude of change post-construction, would lead to an overall **low level** of impact following construction.

The assessed impact of the Revised Proposal on landscape character during construction and operation is summarised in **TABLE 5-1**.

**TABLE 5-1: ASSESSMENT OF LANDSCAPE CHARACTER IMPACT**

Phase	Sensitivity	Magnitude	Landscape character impact
Construction	Low	Moderate	<b>Moderate-low</b>
Operation	Low	Low	<b>Low</b>

#### 5.5 Comparison of Revised Proposal with Displayed Proposal

The Revised Proposal was predicted to have a slightly lower impact during construction compared to the Displayed Proposal. This was mostly due to construction activities being less visible from outside the railway corridor and the lower impact on Avalon Reserve (close to the railway corridor).

The Revised Proposal was also predicted to have a slightly lower impact to landscape character following construction, compared to the Displayed Proposal. This was largely due to the decreased visibility of the Revised Proposal from outside the railway corridor, the smaller overall structure (more visually associated with the existing structure of Avalon Street overbridge) and no long term change to Avalon Reserve.

# 6. Impact to viewpoints

This section assesses the likely impact of the Revised Proposal on representative viewpoints based on the combination of two criteria: sensitivity and magnitude of change, as defined previously in SECTION 2.

## 6.1 Visibility of the Revised Proposal

Birrong Station has a relatively small visual catchment due to the surrounding topography which has a slight slope falling from east to west. The station sits within a cutting which limits views of the station from the eastern side unless close to the fenced boundary. The existing Avalon Street overbridge also blocks views from locations to the north-east (Teresa Street) and north-west (Magdella Street).

There are views available of the station building from the lower western side (Hudson Parade, Rodd Street (west) and Avalon Reserve on the immediate western side) and from the eastern side from parts of Teresa Street and Rodd Street (east). Views are also possible from the Avalon Street overbridge when descending the stairs to the platform, and for pedestrians looking through the gap in the sidewall of the overbridge. Road users in vehicles only have a brief opportunity to glimpse the station through the gap in the overbridge parapet.

The Revised Proposal would be more visible than the existing station elements as it includes an elevated concourse (of approximately 40 metres) and a lift shaft that would protrude above the railway platform (by approximately 10.5 metres to the lift roof) and above Avalon Street overbridge (by approximately six metres above the height of road level). Mesh protection screens of approximately three metres high would surround the concourse.

Direct views of the Revised Proposal location include:

- public views from local roads (Hudson Parade, Rodd Street (west and east), Avalon Street and Magdella Street), and the public reserves to the west and east
- private views from adjacent residential properties (on Hudson Parade, Rodd Street (west and east), Avalon Street and Magdella Street).
- views from other potentially sensitive viewing locations (such as the Birrong Boys High School, Avalon Street overbridge and Birrong Station platform).

The approximate viewing area (or viewshed) is shown at **FIGURE 6-1**.

## 6.2 Assessed viewpoints

Five representative public and private viewpoints (VPs) within the viewing area have been identified for assessment. These viewpoints cover views from Birrong Station and views from the surrounding main viewing directions. All are within approximately 100 metres of the station as this is where the main change would be seen.



FIGURE 6-1: APPROXIMATE VIEWSHED AND REPRESENTATIVE VIEWPOINTS ASSESSED

Those viewpoints are:

- VP1: View from station platform
- VP2: View from Rodd Street (east) (represents view from road users, residents and Birrong Boys High School)
- VP3: View from northern Hudson Parade
- VP4: View from Magdella and Avalon Streets
- VP5: View from Avalon Street overbridge.

The viewpoint locations are shown in **FIGURE 6-1**.

For each viewpoint, a brief description of the existing view, the assessed sensitivity to change, and the assessed magnitude of change to the view has been provided.

### 6.3 VP1: View from Birrong Station platform

This viewpoint would be seen by a high number of public users as customers of Birrong Station. The existing view is illustrated in **Figure 6-2** and a simulated image (photomontage) of the Revised Proposal in **Figure 6-3**. Larger images of the photomontages are provided in **Appendix A**.

#### Existing view

From the station building the view to the north is of the platform extending towards the Avalon Street overbridge, the overbridge and stairs to the platform, a lower cutting to the west and higher embankment to the east.

#### Sensitivity

The sensitivity of the view toward the Revised Proposal is **low**:

- the viewpoint is close to the Revised Proposal site and there are direct views of that location by the general public as customers of the station
- the existing view is typical of a small station in a residential environment, with the brick overbridge being quite dominant in the scene and the higher embankment on the eastern side having minimal landscaping.

#### Magnitude of change

The magnitude of change to the view during construction is rated as **moderate**:

- the area of disturbance would extend over a significant portion of the viewed area seen by customers
- construction activities would be an immediately apparent part of the scene and there would be views of the construction areas and the incremental construction of the Revised Proposal
- the temporary footbridge would be seen on the western side.



**FIGURE 6-2: VIEWPOINT 1 (VP1): EXISTING VIEW FROM EASTERN SIDE OF STATION BUILDING**



**FIGURE 6-3: VIEWPOINT 1 (VP1): SIMULATED IMAGE (PHOTOMONTAGE) OF LIKELY VIEW OF REVISED PROPOSAL FROM STATION<sup>12</sup>**

<sup>12</sup> Prepared by Cambium Group, with an A4 version provided in Appendix A

Following construction, the magnitude of change to the view is rated as **low**:

- the concourse and lift shaft would be a dominant part of the scene, introducing larger scale infrastructure, including the centrally located stairs
- however, the viewers would be the general public (rail customers) that expect to see rail infrastructure as integral to this location.

#### Assessed impact

Construction: The low sensitivity ranking, combined with the moderate magnitude of change, leads to an overall **moderate-low** level of impact.

Operation: The low sensitivity ranking, combined with the low magnitude of change post-construction, would lead to an overall **low** level of impact following construction.

### 6.4 VP2: View from Rodd Street (east)

This viewpoint represents views from the eastern side of the station, including from Rodd Street closest to the Proposal, from nearby residents and from the front entrance to Birrong Boys High School. A photograph of the existing view is shown in **Figure 6-4** and an artist impression of the Proposal from the vicinity of the viewpoint is shown in **Figure 6-5**.

#### Existing view

This section of Rodd Street (east) is elevated above the railway corridor and so views of the station building are only possible when in close proximity, although other railway infrastructure such as the overhead lines and gantries are more visible. The brick Avalon Street overbridge is seen close and blocks most views behind it. On the opposite (western) side can be seen some trees within the Avalon Reserve and the wider low-density residential area.

#### Sensitivity

The sensitivity of the view toward the Revised Proposal is **low**:

- the viewpoint is close to the site of the Revised Proposal and there are direct views of the station for quite a moderate number of users, particularly associated with Birrong Boys High
- however, the existing view is typical of the surrounding residential area with the trees within Avalon Reserve seen in the background and enhancing scenic quality.

#### Magnitude of change

The magnitude of change to the view during construction is rated as **moderate**:

- the area of disturbance would extend over a wide part of the viewed area with the main construction compound being in view on the opposite, side of the railway corridor
- construction activities would be an immediately apparent part of the scene, with views of the incremental construction of the tall and bulky concourse and lift shaft seen.

Following construction, the magnitude of change to the view is rated as **low**:

- the new concourse, stairs and lift shaft would introduce a large built element, yet from this location the difference in height would be less apparent due to its elevated location
- the access improvements and landscaping on the eastern side would in general increase the attractiveness of this part of the station entry and partially obscure direct views of the concourse and lift over time as the trees mature.

#### Assessed impact

Construction: The moderate sensitivity ranking, combined with the moderate magnitude of change, leads to an overall **moderate** level of impact.

Operation: The moderate sensitivity ranking, combined with the low magnitude of change post construction, would lead to an overall **moderate-low** level of impact following construction.



FIGURE 6-4: VIEWPOINT 2 (VP2): EXISTING VIEW FROM RODD STREET (EAST), APPROXIMATELY 50M AWAY



FIGURE 6-5: VIEWPOINT 2 (VP2): ARTIST IMPRESSION OF GENERAL VIEW OF REVISED PROPOSAL<sup>13</sup>

### 6.5 VP3: Northern end of Hudson Parade

VP3 represents the viewpoint from the vicinity of the existing vacant shops, road users travelling along Hudson Parade and more distant residents further south on Hudson Parade. An image in this vicinity is illustrated in **Figure 6-2**.

#### Existing view

The elevated Avalon Street overbridge is viewed in the background. There are also views towards the Birrong Station building through the surrounding wire-mesh fence as well as the surrounding residential area, street trees and Avalon Reserve.

#### Sensitivity

The sensitivity of the view toward the Revised Proposal is **low**:

- there is an opportunity for relatively close public views of the Revised Proposal from this viewpoint
- however, it represents a typical view of the railway corridor from the surrounding urban area that includes the dark brick Avalon Street overbridge.

#### Magnitude of change

The magnitude of change to the view during construction is rated as **moderate**:

<sup>13</sup> Artist impression provided by TfNSW (a stylised image of the likely general look of the Revised Proposal from Rodd Street, excluding proposed tree planting)



- the Revised Proposal site would occupy a moderate proportion of the area seen
- the area of disturbance would include close views of the Revised Proposal compound, and there would be views of the incremental construction of the concourse, lift shaft, and stairs
- the temporary footbridge and access arrangements would be seen in close proximity.

Following construction, the magnitude of change to the view is rated as **low**:

- the upper part of the changes near the overbridge would be seen (concourse, lift shaft and upper stairs) yet not be dominant
- in general, the changes would be compatible with the expected character of the railway corridor and Birrong Station.



**FIGURE 6-6: VIEWPOINT 3 (VP3): EXISTING VIEW FROM HUDSON PARADE (NORTH)**

#### **Assessed impact**

Construction: The low sensitivity ranking, combined with the moderate magnitude of change, leads to an overall **moderate-low** level of impact.

Operation: The low sensitivity ranking, combined with the low magnitude of change post construction, would lead to an overall **low** level of impact following construction.

## 6.6 VP 4: View from Magdella and Avalon Streets

VP4 represents private views from residents in close proximity to the Revised Proposal site, from the intersection of Magdella Street and Avalon Street and extending west along Avalon Street.

### Existing view

Residents at this viewpoint overlook the railway corridor, Avalon Street overbridge, the reserve areas on the western side and the residential area on the opposite (eastern) side of the railway corridor.

An existing view in this vicinity is illustrated in **Figure 6-7**.

### Sensitivity

The sensitivity of the view toward the Revised Proposal is **moderate**:

- elements of the railway corridor (such as the gantries) are seen in the foreground of views
- there are private residents in close proximity (less than 100 metres) to the Revised Proposal site, with the nearest some two-storey apartments on the corner of Magdella Street and Avalon Street.



**FIGURE 6-7: VIEWPOINT 4 (VP4): VIEW FROM CORNER OF MAGDELLA AND AVALON STREETS**

### Magnitude of change

The magnitude of change to the view during construction is rated as **moderate**:

- the area of disturbance would include close views of the Revised Proposal compound within the area of Avalon Reserve (next to railway corridor)
- there would be views of tall machinery such as cranes
- views of construction would be temporary.

Following construction, the magnitude of change to the view is rated as **low**:

- the upper part of the changes near the overbridge (mostly the lift shaft) would be partially visible behind existing vegetation, overbridge parapet and fencing
- the changes would introduce a new built element yet, in general, the changes would be compatible with the expected character of the railway corridor and Birrong Station.

#### Assessed impact

Construction: The moderate sensitivity ranking, combined with the moderate magnitude of change, leads to an overall **moderate** level of impact.

Operation: The moderate sensitivity ranking, combined with the low magnitude of change post construction, would lead to an overall **moderate-low** level of impact following construction.

### 6.7 VP5: View from Avalon Street overbridge

VP5 represents the public views that would be available from Avalon Street overbridge. The existing view is illustrated in **Figure 6-8** and an artist impression in the vicinity of the viewpoint in **Figure 6-9**.

#### Existing view

The existing entrance to Birrong Station is through a gap in the southern side of the overbridge parapet. From here, public customers enter the station along a short landing before descending down the existing stairs to the island platform. From this viewpoint there is a clear sightline towards the station platform and station building, and the more distant wider urban area.

#### Sensitivity

The sensitivity of the view toward the Revised Proposal is **moderate**:

- the viewpoint is close to the station and elevated above the platform
- there is an opportunity for close public views of the Revised Proposal from this viewpoint, for both rail customers and the general public using the overbridge
- the overbridge is a landmark of the local visual environment which identifies the railway crossing
- there is an existing stair access to the station in this location.

#### Magnitude of change

The magnitude of change to the view during construction is rated as **moderate**:

- when on the bridge the general public would have close views of demolition activities, the Revised Proposal's construction, temporary hoardings/fencing, construction machinery and changes to the bridge parapet.



**FIGURE 6-8: VIEWPOINT 5 (VP5): EXISTING VIEW FROM AVALON STREET OVERBRIDGE**



**FIGURE 6-9: VIEWPOINT 5 (VP5): ARTIST IMPRESSION OF VIEW OF REVISED PROPOSAL FROM AVALON STREET OVERBRIDGE<sup>14</sup>**

<sup>14</sup> Artist impression provided by TfNSW (which represents a stylised image of the likely general look of the Revised Proposal, yet it is understood that there would also be safety fencing installed alongside the roadway)

Following construction, the magnitude of change to the view is rated as **low**:

- the upper part of the changes to the station access (mostly the lift shaft which would extend approximately six metres above the road level) would be visible where currently there are no close structures seen, with more distant views that are currently available largely prevented
- changes to the overbridge would include safety palisade fencing alongside a widened footpath
- there would no longer be a clear sightline from the footpath/entry to the stairs and station building
- changes to the parapet would match existing materials of the overbridge
- in general, the changes would be compatible with the general landscape character of the railway corridor and Birrong Station and replace an existing access landing and stairs from the overbridge.

#### Assessed impact

Construction: The moderate sensitivity ranking, combined with a moderate magnitude of change, leads to an overall **moderate** level of impact.

Operation: The moderate sensitivity ranking, combined with a low magnitude of change post-construction, leads to an overall **moderate-low** level of impact following construction.

### 6.8 Summary of visual impact of Revised Proposal

The assessed impact of the Revised Proposal on viewpoints during construction and post-construction (operation) is summarised in **Table 6-1** and **Table 6-2**.

**TABLE 6-1: ASSESSMENT OF IMPACTS TO VIEWPOINTS - CONSTRUCTION**

Viewpoint	Sensitivity	Magnitude	Assessed visual impact
VP1: View from station platform	Low	Moderate	<b>Moderate-low</b>
VP2: View from Rodd Street (east)	Moderate	Moderate	<b>Moderate</b>
VP3: View from northern Hudson Parade	Low	Moderate	<b>Moderate-low</b>
VP4: View from Magdella and Avalon Streets	Moderate	Moderate	<b>Moderate</b>
VP5: View from Avalon Street overbridge	Moderate	Moderate	<b>Moderate</b>

**TABLE 6-2: ASSESSMENT OF IMPACTS TO VIEWPOINTS – OPERATION**

Viewpoint	Sensitivity	Magnitude	Assessed visual impact
VP1: View from station platform	Low	Low	<b>Low</b>
VP2: View from Rodd Street (east)	Moderate	Low	<b>Moderate - low</b>
VP3: View from northern Hudson Parade	Low	Low	<b>Low</b>
VP4: View from Magdella and Avalon Streets	Moderate	Low	<b>Moderate-low</b>
VP5: View from Avalon Street overbridge	Moderate	Low	<b>Moderate-low</b>

## 6.9 Comparison of Revised Proposal with Displayed Proposal

The four representative viewpoints (VP1 – VP4) were assessed for the Displayed Proposal. An additional viewpoint (VP5) was included for the assessment of the Revised Proposal due to the direct impact to the Avalon Street overbridge.

The Revised Proposal was predicted to have a slightly lower impact to viewpoints during construction, compared to the Displayed Proposal. This is mostly due to proposed construction activities being less visible from the northern end of Hudson Parade. Yet overall, the level of impact would not vary substantially during construction.

The Revised Proposal was also predicted to have a slightly lower impact to surrounding viewpoints following construction. This was largely due to the decreased visibility of the Revised Proposal from surrounding viewpoints as it is confined to the centre of the railway corridor and closer to the existing Avalon Street overbridge.

# 7. Mitigation measures

This section describes the current positive design measures of the Revised Proposal and additional design measures that could be incorporated to improve visual outcomes.

## 7.1 Positive visual attributes of the Revised Proposal

The Revised Proposal has a number of characteristics which reduce its potential landscape character and visual impacts:

- the proposed new station entrance and new landscaping would increase the station's visual amenity, improve access and generally be consistent with the landscape character
- lighting designed and installed in accordance with requirements of *AS4282 Control of the Obtrusive Effects of Outdoor Lighting*
- no existing trees require removal, and unnecessary loss or damage to vegetation would be avoided by protecting trees prior to construction and/or trimming vegetation (if necessary) to avoid total removal
- any existing and future graffiti would be removed in accordance with TfNSW's standard requirements.

## 7.2 Additional measures

It is important proposed changes are designed to be as visually sympathetic as possible to the small scale of the station building and the station's setting.

Particular attention should be given to:

1. Ensuring that the design of the new structure is as visually lightweight as possible (including minimising the height and width of the lift shaft and reducing the height of the protection screens to as low as possible.

In addition to the above, to improve the landscape, visual and general amenity outcomes, the following design measures are suggested:

2. Screen the work site and compounds (where visible to residents or in direct public view) by covering temporary construction zone fencing with shade cloth (or similar material) to minimise visual impacts
3. Ensure the proposed planting includes canopy trees of a mature size that would provide amenity benefits such as shade and landscape improvement
4. Consider installing seating on the eastern side of the platform (near Kiss and Ride) as part of the landscape improvements to increase amenity for railway customers and the general public.

# 8. Key findings & conclusion

## 8.1 Comparison of Revised Proposal with Displayed Proposal

A comparison of the overall predicted impact to landscape character and surrounding viewpoints shows that the Revised Proposal would have a slightly lower impact during construction. That is mostly due to the construction activities being less visible from outside the railway corridor and the lesser impact on Avalon Reserve (close to the railway corridor).

Once constructed, the Revised Proposal would similarly have a slightly lower impact than the Displayed Proposal due to decreased visibility from outside the railway corridor, a smaller overall structure, direct association with the Avalon Street overbridge (i.e. a less visually open location and not a completely new freestanding structure).

## 8.2 Key findings Revised Proposal

### Impact to landscape character

During construction, local landscape character would be temporarily reduced by construction activities, particularly affecting the eastern side of Avalon Reserve and the installation of a temporary, second footbridge for alternative station access. However, following construction, the proposed upgrade would enhance the station precinct accessibility and attractiveness and the proposed landscaping would improve the general amenity. The impact to local landscape character was assessed as moderate-low during construction, and low following construction.

### Visibility and visual impact to surrounding viewpoints

Direct views of the Revised Proposal would be possible from:

- public views from local roads (Hudson Parade, Rodd Street (west and east), Avalon Street and Magdella Street) and the public reserves to the west and east
- private views from adjacent residential properties (on Hudson Parade, Rodd Street (west and east), Avalon Street and Magdella Street)
- views from other potentially sensitive viewing locations (such as the Birrong Boys High School, Avalon Street overbridge and Birrong Station platform).

Five representative viewpoints of the Revised Proposal were identified to assess the potential visual impact to both public and private views:

- VP1: View from station platform
- VP2: View from Rodd Street (east) (also represents view from entrance of Birrong Boys High School)
- VP3: View from northern Hudson Parade



- VP4: View from Magdella and Avalon Streets
- VP5: View from Avalon Street overbridge.

The highest change would occur during the construction period. Some viewpoints would be in close proximity to the construction zone and construction activities would be an immediately apparent (and unavoidable) part of the scene. The visual impact during construction was assessed as moderate from three viewpoints and moderate-low for the remaining two.

The visual impact during operation was assessed as moderate-low for three viewpoints and low for remaining two.

#### **Measures to consider during the detailed design phase**

It is important proposed changes are designed to be as visually sympathetic to the small scale of the station building and to the station's setting as far as possible.

Recommendations include:

- the new structure to be as visually lightweight as possible (including minimising the height of the lift overrun and the overall lift shaft width)
- include canopy trees of a mature size in proposed landscape improvements to provide shade
- include an additional seat near the Kiss and Ride as part of the landscape improvements to create a more inviting station vicinity.

### **8.3 Overall conclusion Revised Proposal**

Overall, when operational, the station precinct would look notably different and to a degree, the change would contrast with the scale of the existing station building. However, the proposed change replaces an existing access in the same location and would occur within a railway corridor which has the capacity to absorb such change.

## 9. References

Bankstown Council (April 2016). *North Central Local Area Plan*.

Roads and Maritime Services (December 2018) *Guideline for Landscape Character and Visual Impact Assessment, Environmental Impact Assessment Practice Note EIA-N04*.

Transport for NSW (February 2018) *Birrong Station Upgrade Preliminary Environmental Assessment - Transport Access Program*.

Bankstown Council (2015). *Bankstown Local Environmental Plan (LEP), 2015*.

Transport for NSW (22 July 2019) *Vegetation Management (Protection and Removal) Guideline*.

Transport for NSW (23 August 2019) *Vegetation Offset Guide*.

Transport for NSW (23 August 2019) *Weed Management and Disposal Guide*.

Umwelt (Australia) Pty Limited (on behalf of Transport for NSW) (October 2019). *Birrong Station Upgrade – Biodiversity Assessment*.

# Appendix A: Photomontage (simulated image of Revised Proposal)

View of Revised Proposal from Birrong Station building

