



IRIS Visual Planning + Design



Transport Access Program

Roseville Station

Landscape and Visual Impact Assessment

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Roseville Station Transport Access Program Landscape and Visual Impact Assessment

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TABLE 1-1 ABBREVIATIONS

Term	Meaning
CBD	Central Business District
CCTV	Closed Circuit TV
CPTED	Crime Prevention Through Environmental Design
DDA	Disability Discrimination Act (1992)
OHLE	Overhead line equipment
TGSI	Tactile Ground Surface Indicators

TABLE 1-2 DEFINITIONS

Term	Meaning
Concept design	The concept design is the preliminary design presented in the Review of Environmental Factors which would be refined by the Contractor (should the Proposal proceed) to a design suitable for construction (subject to TfNSW acceptance).
Detailed design	Detailed design broadly refers to the process that the Contractor undertakes (should the Proposal proceed) to refine the concept design to a design suitable for construction (subject to TfNSW acceptance).
Out of hours work	Defined as works outside standard construction hours (i.e. outside of 7am to 6pm Monday to Friday, 8am to 1pm Saturday and no work on Sundays/public holidays).
Overhead line equipment	A system of masts and overhead wires used to supply electricity to trains.
Rail possession	Possession is the term used by railway building/maintenance contractors to indicate that they have taken possession of the track (usually a block of track) for a specified period, so that no trains operate for a specified time. This is necessary to ensure the safety of workers and rail users.
Sensitive receivers	Land uses which are sensitive to potential noise, air and visual impacts, such as residential dwellings, schools and hospitals.
The Proposal	The construction and operation of Roseville Station transport access upgrade.

1. Introduction

IRIS Visual Planning + Design were commissioned by Transport for NSW (TfNSW) to undertake an assessment of the visual impact of a proposed accessibility upgrade at Roseville Station.

Roseville is located on the upper north shore, about ten kilometres north of the Sydney CBD. Roseville Station operates with two rail lines which service intercity and regional connections including North Shore and Western Line (T1) and Northern Line (T9). Roseville Station is located within the Ku-ring-gai Council local government area.

Roseville Station has been identified for inclusion in the Transport Access Program for a precinct accessibility upgrade as it currently does not accommodate mobility impaired access to rail services, or meet key requirements of the *Disability Standards for Accessible Public Transport* (DSAPT) or the Commonwealth *Disability Discrimination Act 1992* (DDA).

The Proposal would include provision of two lifts attached to the existing footbridge, accessed by new and upgraded accessible pathways and stairs (including handrailing and nosing). The station entrances at the Pacific Highway and Hill Street would be upgraded to improve east-west access over the station. Two new accessible parking spaces would be installed on Hill Street (south of station entrance) and the kiss and ride facility on Hill Street (north of station entrance) would be formalised, including two spaces with new signage.

Other proposed improvements include the reconfiguration of the existing amenities in the platform building (including one family accessible toilet and a male and female ambulant toilet), regrading of the platform, new platform canopies and provision of a new canopy to the existing boarding assistance zone on Platform 1, installation of tactile ground surface indicators (TGSI), signage and other associated public realm improvements.

The Hill Street station entrance would be widened (including a new canopy, retaining walls and bicycle shelter), and there would be a new bus shelter at Hill Street (beside rail corridor). Access to the existing Pacific Highway bus stop beside the western station entrance would be upgraded to achieve DSAPT compliance. New areas of planting would also be installed at the Hill Street and Pacific Highway station entrances.

The following landscape and visual impact assessment has been prepared to inform a Review of Environmental Factors (REF) for the Proposal.

This visual impact assessment identifies the potential visual impacts of the Proposal on views within the station and to the station from surrounding areas. The study area for this assessment is bounded to the east and west by Hill Street and the Pacific Highway. It extends north to the Clanville Road overbridge and south to the RailCorp siding at Hill Street. The visual catchment of the Proposal is largely contained by existing mature vegetation within the station precinct and in the surrounding streets and residential and commercial areas. These trees enclose and filter views to the station.

This assessment is based on a viewpoint assessment, identifying and assessing viewpoints that represent the range of publicly accessible views to the Proposal. This assessment includes views from surrounding footpaths, streets, and from the Roseville Station platforms.

This assessment includes a description of the existing character of the station precinct; a description of the visual character of the Proposal; and an individual viewpoint assessment. The viewpoint assessment has been undertaken by identifying the sensitivity and magnitude of change for each view. These factors are then combined to determine a level of impact. The assessment has identified the visual impacts of the Proposal during the day and night, and throughout construction and operation.

The assessment also considers the urban design and landscape character impacts of the Proposal in terms of its consistency with relevant TfNSW urban design principles and Ku-ring-gai Council Local Environmental Plan (LEP) and Development Control Plan (DCP) in relation to local landscape character.

2. The Proposal

2.1.1. Proposal components

The Proposal includes the following components:

- Station access
- Platform works
- Station building works
- Intermodal works
- Ancillary works.

The main features of these components are as described in the following paragraphs.

Station access

- construction of a new lift connecting the Hill Street entry to the existing footbridge
- construction of a new lift connecting the existing footbridge to the station platforms
- modification to the existing footbridge including the following:
 - addition of extensions to create lift landings
 - regrading of the existing ramp entrances to provide accessible access
 - provision of anti-throw screens to the footbridge and existing stairs
- installation of a weather protection canopy at the Hill Street station entrance connecting the footpath, the lift entry and the existing footbridge and stairs at this location
- installation of steps from the existing heritage building and access ramp from the Pacific Highway to the existing footbridge
- additional works including provision of DSAPT compliant handrails, nosing and tactile surfaces on stairs and ramps.

Platform works

- the installation of weather protection canopies at the following locations:
 - along either side of the platforms near the new lifts
 - between the stairs and existing station building

- over the existing boarding assistant zone on the northern end of the platform
- line marking of the boarding assistant zones on each platform
- regrading and resurfacing of the platforms connecting the new lifts, boarding assistance zones and existing station building
- removal and replacement of the existing tactile ground surface indicators (TGSI) throughout the station.

Station building works

- reconfiguration of the existing toilets to include a new family accessible toilet and modification of the existing station building to accommodate one female ambulant toilet and one male ambulant toilet
- minor modification to the existing store room to provide the SSER room, including relocation of communication racks and new electrical racks and equipment.

Intermodal work

- provision of two new accessible parking spaces and an accessible kiss and ride bay with a waiting shelter along Hill Street
- relocation of the existing bus stop along Hill Street about 500 metres north of Roseville Station including a shelter, seats and an upgrade to achieve DSAPT compliance
- provision of new sheltered seating along the south side of Hill Street near the kiss and ride bay, and taxi zone
- upgrade of existing bus shelter seating along the Pacific Highway station entrance to be DSAPT compliant
- regrading of the footpath along Hill Street to be accessible for the new entry point connecting the proposed Hill Street lift, accessible parking spaces, accessible kiss and ride bay, bus stop and pedestrian crossing
- regrading of the footpath along the Pacific Highway providing accessibility from the bus stop to the station entry ramp
- installation of steps from the existing heritage building and the accessible entry path and ramp

near the Pacific Highway station entry toward the existing footbridge

- the provision of five undercover bicycle rack spaces near the Hill Street entrance at the location of the existing the bus shelter and retaining the three bicycle hoops near the Pacific Highway entrance.

Ancillary works

- relocation and suitable reinstatement of existing infrastructure (e.g. seats, signage, fencing and rubbish bins) which may be required to be temporarily removed to construct the Proposal
- provision of anti-graffiti coating to all new and modified hard surfaces
- provision of upgraded lighting along new accessible areas including footpath, parking, kiss and ride bay, station entries and bus stop
- improvements to existing station systems (including installing new CCTV cameras as required, installing new LED lighting, installing new Public Address speakers as required)
- provision of new passenger information displays as required
- provision of, or relocating existing help points, water fountains, pay phones and an Opal top up machine
- temporary site compounds for storage of material and equipment utilising the existing commuter car park
- temporary work (where required) during construction to maintain access to the station
- relocation or protection of any identified services, utilities and electrical works
- provision of new kerbs, guttering, drainage adjustments, footpath modifications, line-marking, signage and landscaping adjacent to Hill Street and the Pacific Highway.

Figure 2-1 shows the general layout of key elements for the Proposal.

2.1.2. Materials and finishes

Materials and finishes for the Proposal would be selected based on the criteria of durability, low maintenance and cost effectiveness, to accord with the heritage setting requirements, to minimise visual impacts, and to be aesthetically pleasing.

Based on the existing design, the following materials are currently proposed for the key station elements for the Proposal. These materials would be further considered during the detailed design of the Proposal:

- In situ concrete (natural grey) lift shaft, with steel louvres at top of shaft and glazed window panels at front and rear facades.
- Metal roof sheeting and louvres to the top of the lift structure (light grey)
- Stainless steel framed lift doors with clear glass
- Polished stainless steel lift door control button panel and indicator
- Painted steel frame, prefinished metal roof sheeting and downpipes (linish finish stainless steel), soffit lining to canopies at footbridge, Hill Street stairs and adjacent bicycle rack
- Glass panels at Hill Street end of footbridge
- Stainless steel handrails and balustrades to footbridge and stairs
- Perforated aluminium anti-throw screens and/or mesh screens (with laser cut graphic design) to footbridge, elevated landings and stairs
- Off form concrete (natural grey) at footbridge landings and stairs
- Asphalt concrete platform surface
- TGSIs to platform coping, stairs and ramps
- Concrete paving along Pacific Highway accessible footpath (colour to match existing)
- Dry pressed brick retaining walls at Hill Street station entrance (brick and grout colour to match existing)
- Broom finished concrete pathways
- Black steel rail corridor fencing (2700mm high).

These materials would be further considered during the detailed design of the Proposal.

2.1.3. Landscape and urban design

The Proposal would include the removal of six trees, and some smaller shrubs in the adjacent raised garden beds, at the Hill Street station entrance. A further six small trees at the western station entrance would also be removed, to accommodate the plaza upgrade

works. Elsewhere, the existing vegetation along the rail corridor would be retained, with some trimming of vegetation if required along the construction site boundary.

The Proposal includes local public realm improvements including new areas of landscaping, upgraded footpaths and street furniture. Where the footprint of the construction site and compound impacts existing landscaped areas, these areas would be reinstated at the completion of the works.

2.1.4. Construction

Two temporary construction compounds would be required to accommodate a site office, amenities, laydown and storage area for materials. The main construction compound would be established at the Roseville Station commuter car park on Hill Street, with a secondary narrow laydown area on the verge of the Pacific Highway, north of the former Station Master's Residence (refer Figure 2-2).

The construction works would include:

- Site establishment, enabling works and site compound
- Lift work
- Ramp upgrade
- Kiss and ride bay and accessible car parking space
- Station building and platform works
- Existing bridge refurbishment
- Demobilisation.

Subject to approval, construction is expected to commence in Q3 and take around 18 months to complete. The station would remain operational for the duration of the works (outside of scheduled rail possessions), with customer accessible areas maintained around the construction works.

While some publicly accessible area of platform may be reduced at times, it is not expected that customer access to the station would be restricted or closed during construction, with the exception of rail possessions.

The concourse work area and construction compound would be enclosed in temporary security fencing and hoarding. The machinery and activities occurring in these areas would include excavators, mobile cranes, heavy and light vehicles, concrete trucks and pumps, elevated work platforms, piling rig, and other typical construction equipment. At night there would be lighting towers.

The majority of works required for the Proposal would be undertaken during standard (NSW) Environment Protection Authority (EPA) construction hours, which are as follows:

- 7.00 am to 6.00 pm Monday to Friday
- 8.00 am to 1.00 pm Saturdays
- no work on Sundays or public holidays.

Certain works may need to occur outside recommended standard hours and would include night works and works during rail possessions, which are scheduled closures that would occur regardless of the Proposal when part of the rail network is temporarily closed for maintenance and trains are not operating.

Out of hours works are required in some cases to minimise disruptions to customers, pedestrians, motorists and nearby sensitive receivers; and to ensure the safety of railway workers and operational assets. It is estimated that approximately five rail shutdowns would be utilised to facilitate the following activities:

- site survey and services location investigations within and around the rail corridor
- piling, excavation of pits and installation of lift shaft
- stabilisation and grading of platforms
- installation of electrical containment
- services relocations.

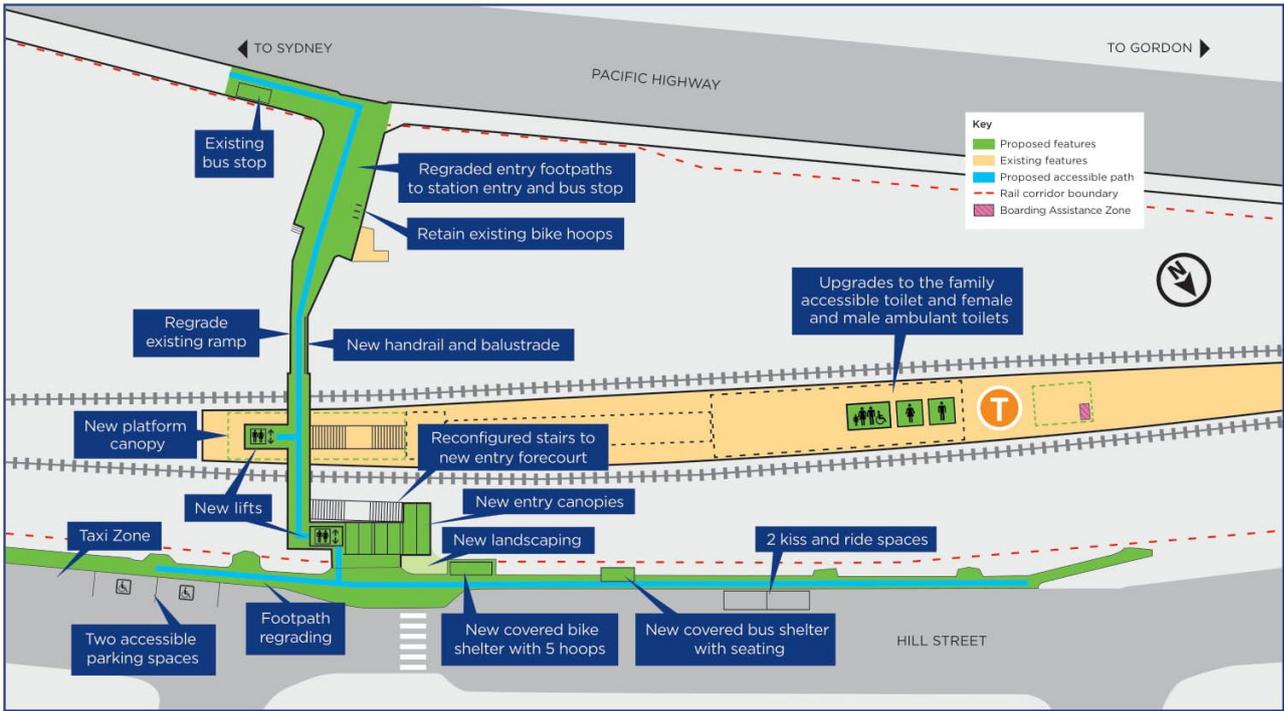


FIGURE 2-1 KEY FEATURES OF THE PROPOSAL (INDICATIVE ONLY, SUBJECT TO DETAILED DESIGN)



FIGURE 2-2 LOCATION OF PROPOSED CONSTRUCTION COMPOUND AND LAYDOWN AREA



FIGURE 2-3 STATION ENTRY FROM HILL STREET, EXISTING



FIGURE 2-4 STATION ENTRY FROM HILL STREET, PHOTOMONTAGE

3. Planning context

There are several state and local government planning documents which provide relevant guidance as to the landscape character and visual values of the site. These are summarised in the following paragraphs.

3.1. State and regional planning documents

3.1.1. Greater Sydney Regional Plan: A Metropolis of Three Cities, NSW Greater Sydney Commission

This plan (Greater Sydney Commission, 2018a) sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters. It identifies three key cities in Greater Sydney, including the *'Eastern Harbour City'* around Sydney CBD and extending north to Hornsby (p.21).

The role of this plan is to co-ordinate a whole-of-government approach to provide the appropriate infrastructure to support the growth of three cities.

Roseville Station is located in the northern part of the *'Eastern Harbour City'*. It is located to the north of the Eastern Economic Corridor from Macquarie Park to Sydney Airport and is not within an *'Urban Renewal Area'*. It is not identified as a local centre, nor is it a focus for *'Transit Oriented Development'* (p.65).

However, *'amenity'* and *'liveability'* are key priorities for the Region (Objective 12). This includes to promote *'great places that bring people together'* (p.73). Provision of *'safe, direct and comfortable pathways'*, including improvement to *'lighting, shading, way finding, kerb ramps, rest points and natural surveillance'* are listed as key considerations for the delivery of *'great places'* (p.74).

The region's *'green infrastructure'* including urban bushland is identified as valued assets for Greater Sydney (p.156). Views in the Eastern Harbour City to *'scenic foreshore areas from public spaces'* are recognised as important in the plan (p.158). The plan aims to *'enhance and protect views of scenic and cultural landscapes from the public realm'* (Strategy 28.2, p.158). *'Expanding urban tree canopy in the*

public realm' is also a priority for Greater Sydney along streets, in parks and other public spaces, and on privately owned land, in Strategy 30.1 (p.164).

3.1.2. North District Plan, NSW Greater Sydney Commission

This plan, for the North District, contains the planning priorities and actions for implementing the *Greater Sydney Region Plan, A Metropolis of Three Cities* (NSW Greater Sydney Commission, 2018b), at a district level and is a bridge between regional and local planning. The North District extends between the North Sydney and Hornsby local government areas and includes the Roseville Station.

Roseville is located on the Pacific Highway, however, it is not identified as a *'local centre'* in the structure plan (p.11).

Generally, increasing urban tree canopy cover and delivering Green Grid connections are key priorities in the district, including tree-lined streets, urban bushland and tree cover on private land. Sustaining boulevards of trees along the District's busiest roads, including the Pacific Highway, is identified as an *'important step towards improving amenity'* (p.108). In particular, trees are *'valued by residents and contribute to the streetscape, character and amenity of the District'* (p.108). Objective 30 of the plan aims to protect *'scenic and cultural landscapes'* (p.105) and objective 28 aims to *'increase urban tree canopy cover'* (p.108).

3.1.3. Around the Tracks: Urban Design for Heavy and Light Rail, Transport for NSW

The NSW Government is committed to the development of a customer focused transport network to help it achieve its economic, social and environmental objectives. Good urban design can help achieve the NSW Governments aims for the rail systems of NSW.

The Interim version of the Urban Design best practice guideline *Around the Tracks urban design for heavy and light rail* refers to eight principles:

- Draw on a comprehensive site and context analysis to inform the design direction.

- Provide value-for-money design solutions that achieve high quality low maintenance architectural and urban design outcomes that have longevity.
- Provide connectivity and permeability for pedestrians.
- Integrate the project with the surrounding area.
- Maximise the amenity of the public domain.
- Protect and enhance heritage features and significant trees.
- Maximise positive view opportunities.
- Design an efficient and functional transport solution which enhances and contributes to local amenity and prosperity.

Projects are required to outline how they have addressed each of these principles as part of their project Urban Design and Landscape Plan (UDLP).

These principles have been considered in Section 6 (Assessment of Landscape Character and Urban Design) of this report.

3.1.4. Better Placed, Office of the NSW State Government

The office of the NSW State Government Architect has prepared a suite of documents under the title of 'Better Placed' which aim to improve the urban design quality of places in NSW. These documents include:

- *Better Placed: An integrated design policy for the built environment of NSW* (2018)
- *Better Placed: Draft Good Urban Design Strategies for realising Better Placed objectives in the design of the built environment* (2018)
- *Better Methods: Evaluating Good Design, Implementing Better Placed design objectives into projects* (2018).

These documents are intended to inform those involved in the design, planning, and development of the built environment in NSW. The policy establishes the objectives and expectations in relation to design and creating good places.

The policy includes seven distinct objectives for the design of the built environment. These objectives apply to the design of landscapes, buildings, and our public domain and aims for design which is healthy, responsive, integrated and equitable. These objectives are:

- Better fit – contextual, local and of its place
- Better performance – Sustainable, adaptable and durable
- Better for community – Inclusive, connected, and diverse
- Better for people – Safe, comfortable and liveable
- Better working – Functional, efficient and fit for purpose
- Better value – Creating and adding value
- Better look and feel – Engaging, inviting and attractive.

These objectives are expanded upon in the Strategy and Evaluation documents.

The 'Better methods' draft working paper lists requirements that can be used as criteria for evaluating a project. These criteria are based upon the seven design objectives from the Better Placed policy.

The principles identified in the 'Better Methods, Evaluating good design' paper have been used in this Proposal for the evaluation of the urban design impacts of the Proposal. (Refer Section 4.0 Methodology).

3.2. Local government planning documents

Roseville Station is located in the Ku-ring-gai Council local government area. While the Local Environmental Plan (LEP) and Development Control Plan (DCP) do not apply to this Proposal, they contain the planning intent for areas surrounding the station.

Relevant clauses from the *Ku-ring-gai Local Environmental Plan (Local Centres) 2012* and *Ku-ring-gai Local Centres Development Control Plan 2017*, are summarised in the following sections.

3.2.1. Ku-ring-gai Local Environmental Plan (Local Centres) 2012

The *Ku-ring-gai Local Environmental Plan (Local Centres) 2012* (LEP) applies to land surrounding the station. The relevant aims of this plan are to:

- ‘guide the future development of land’ (cl 1.2.2b)
- ‘protect the character of low density residential areas, and the special aesthetic values of land in the Ku-ring-gai area’ (cl 1.2.2j).

The LEP includes a number of plans which offer guidance for development within the study area including land use zoning, heritage areas and maximum heights for development.

Land use zoning

The study area includes the following land use zones:

- SP2 – Infrastructure
- B2 – Local Centre
- R2 – Low Density Residential
- R4 – High Density Residential
- RE1 – Public Recreation.

Roseville Station and the railway corridor are located in the SP2 zone. The objectives of this zone include: ‘To provide for infrastructure and related uses’ and ‘to prevent development that is not compatible with or that may detract from the provision of infrastructure’.

The station is located within Roseville local centre (B2 zone), with low and high density residential development (R2 and R4 zone) surrounding the centre. The Grove and Clanville Conservation Areas are located to the north and northeast of the station.

Potential building heights

The potential building heights within the local centre and high density residential areas, which surround the station, are up to 11.5 metres.

Heritage

Roseville Station is listed as a local heritage item in the LEP. Other heritage items and heritage conservation areas in and around the station include the:

- Former station master’s residence
- Former Commonwealth Bank building, beside the former station master’s residence
- Roseville Cinema, opposite the station at 112–116 Pacific Highway
- Former Westpac Bank building, north of the station at 65 Hill Street
- The Grove and Clanville Conservation Areas to the north and northeast of the station
- Lord Street/Bancroft Avenue Conservation Area east of the station

These heritage places are identified on Figure 5-1.

In relation to heritage the LEP includes the objective ‘to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views’ (cl 5.10).

The Grove Heritage Conservation Area is of aesthetic importance for its ‘intact streetscapes of Federation to Inter-war period housing, largely single storey, with mature street tree planting (predominantly brush box) characteristic of the same period’ (Davies, 2008).

The Lord Street/Bancroft Avenue Heritage Conservation Area is of aesthetic significance for its ‘intact streetscapes of Federation one and two storey housing’ (Davies, 2008).

To manage ‘view protection’ in both areas, development within the Roseville Town Centre, particularly adjacent to the heritage conservation areas, ‘should be restricted to two storeys in height and incorporate a landscape buffer particularly along property boundaries adjacent to the Heritage Conservation Area, to soften potential impacts’ (Davies, 2008).

3.2.2. Ku-ring-gai Local Centres Development Control Plan 2017

The *Ku-ring-gai Local Centres Development Control Plan 2017* (DCP) provides further detail to support the LEP. Relevant general aims of this DCP include to:

- Establish a future character for Ku-ring-gai's Local Centres, and ensure that development across the Local Government Area positively contributes to the existing character of the residential areas
- Ensure high quality sustainable urban design and architectural design of buildings
- Provide high quality public spaces and streets
- Ensure buildings and other development have a good relationship with neighboring developments, the public domain and the landscape qualities of the locality
- Ensure the heritage significance of the Heritage Items and Heritage Conservation Areas is conserved, and encourage development which respects that significance
- Ensure the long term survival of Ku-ring-gai's native and exotic tree and vegetation cover (s. 1A.5).

Roseville Local Centre:

Part 14.F of the DCP includes objectives and controls for the Roseville Local Centre. The station footbridge is included in 'Precinct R3' of the Local Centre.

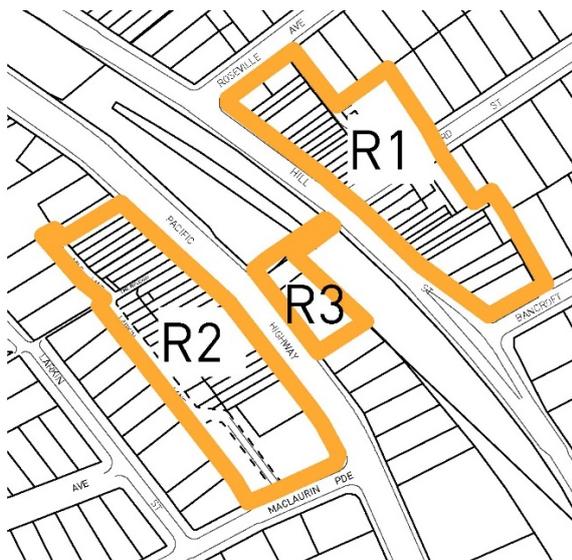


FIGURE 3-1 ROSEVILLE LOCAL CENTRE PRECINCT (KU-RING-GAI COUNCIL, 2017)

The relevant objectives for this precinct include the following:

In relation to the **Roseville Local Centre Context**

- 4 To retain and enhance the distinctive scale and character of Hill Street.
- 6 To establish a small mixed use precinct incorporating a new urban square at the western rail station entry.
- 10 To promote ease of circulation and connectivity between the railway station and the local centre.

In relation to **Public Domain and Pedestrian Access:**

- 1 To increase the pedestrian permeability of the local centre.
- 2 To improve pedestrian amenity by providing continuous sun and rain protection to footpath areas.
- 3 To provide a consistently high quality and visually pleasing streetscape environment.
- 4 To improve and enhance accessibility to the commercial precinct particularly for pedestrians, pram walkers, people with disabilities, cyclists and public transport users.
- 5 To improve commercial activity in the local centre by promoting street-level activity.
- 8 To improve safety (sic.) and passive surveillance of the public domain by encouraging street-level activity.

In relation to **Setbacks:**

- 4 To allow for visual and acoustic privacy between the centres and adjoining residential zones

In relation to **Built Form:**

- 5 To minimise the visual bulk and scale of new buildings when viewed from public areas.

In relation to **Building entries, car parking and service access:**

- 5 To ensure vehicular access points do not visually detract from the streetscape.
- 6 To promote pedestrian safety (sic.) and ease of movement through the local centre.

In relation to **Heritage:**

- 6 To ensure that new development (sic.) responds appropriately to the quality and context of any adjoining and neighbouring listing heritage items.

In relation to **Community infrastructure:**

- 1 To be consistent with the objectives and strategies of Council's Town Centre Public Domain Plan 2010

A community infrastructure plan for the Roseville Local Centre has been included in the DCP (Figure 14F.3.1). An excerpt from this plan is shown at Figure 3-1.



1. Reconstruction of Roseville Lane from Roseville Avenue through to Lord Street (6 metre wide carriage way with 2 metre wide footpaths on both sides).
2. Extension and widening of Bancroft Lane from Bancroft Avenue to Lord Street (6 metre wide carriage way with 2 metre wide footpaths on both sides).
3. New village green
4. Embellishment of existing Railway Gardens on Hill Street to urban park standard.
5. Embellishment existing Hill Street median garden to urban park standard
6. Embellishment of the public domain areas and footpaths on the Pacific Highway and Hill Street
7. Upgrade of existing pedestrian lane ways including Sixth Mile Lane and the Rifleway
8. Embellishment of Roseville Memorial Park to urban park standard
9. Improvements to western rail station entry off Pacific Highway to create new urban square
10. Embellishment of existing 'railway gardens' on the Pacific Highway to urban park standard.

FIGURE 3-2 KEY COMMUNITY INFRASTRUCTURE PLAN (KU-RING-GAI COUNCIL, 2017)

The station is located in Precinct R3, 'Pacific Highway to Roseville Station'. This Precinct includes the railway gardens and the listed former station master's residence at 89 Pacific Highway. This Precinct is intended to 'provide a "bridge" between the two main commercial precincts' and 'become a small mixed use precinct incorporating a new urban square at the western rail station entry' (s. 14F.10.1).

Siting and design:

Site analysis objectives aim to ensure that proposed development 'is compatible with the existing or desired future character of the area', considers 'the amenity of users of the subject site and the locality' and 'ensure that the design response is well founded and responsive to site context' (s. 2.1).

Tree and vegetation management

The 'established tree canopy' in Ku-ring-gai is one of the areas 'defining characteristics' and is 'essential to the areas look and feel' (p.31-2).

Development in the Vicinity of Heritage Items or Heritage Conservation Areas

Development on sites that either directly adjoin or are in the vicinity of a Heritage Item or an heritage conservation area is ensure that the proposed works will not adversely impact upon the significance of the heritage item/place, including its 'setting' and 'views' to and from the item/place (s. 19F.1).

In particular, development on sites that either directly adjoin or are in the vicinity of a heritage item or conservation area is to have regard to:

- the form of the existing building or buildings including height, roofline, setbacks and building alignment;
- materials and colours;
- siting and orientation;
- setting and context;
- streetscape patterns' (s. 19F.1.2).

It also requires new development to 'demonstrate that it will not reduce or impair important views to and from the Heritage Item from the public domain' (s. 19F.1.4).

Development near Rail Corridors and Busy Roads:

‘On lots adjoining the rail corridor and/or a busy road, landscaping is to be designed to:

create a setting for the building by planting tall trees which contribute to the tree canopy; and

be durable and suited to the conditions of the road and railway environment.’ (s. 20.1)

Landscape Design:

The DCP refers to the need to retain and enhance *‘existing natural features on the site including trees, shrubs and groundcovers ... rock outcrops’* which *‘define the character of the locality’* (s. 21.2.1i), and *‘significant and visually prominent trees and vegetation that contributes to neighbourhood character’*. (s. 21.2.1ii)

Site planning and design of development is to *‘be located to retain views of public reserves’* (s. 21.2.1iv) and the retention of *‘existing screen planting’* is also encouraged (s. 21.2.2).

3.2.3. Town Centres Public Domain Plan 2010

The *Ku-ring-gai Town Centres Public Domain Plan 2010* was developed to guide the design of streets and public spaces within and around town centres, including the Roseville Local Centre. The plan includes a range of objectives and strategies (2F.2).

Objectives for **Street Character** (2F.2.1), include:

- *To maintain, strengthen and enhance the role of Hill Street as the “main street” for Roseville.*
- *To ensure the Pacific Highway retains a retail character within the town centre area. (p.2-227)*

Objectives for **Public Spaces** (2F.2.2), include:

‘To improve the quality and design of railway lands within Roseville town centre and ensure they are integrated with Council’s park and streetscape design.’ (p.2-229)

Objectives for **Tree Canopy** (2F.2.3), include:

- *To provide supplementary street tree planting to all Roseville town centre streets.*
- *Retain and protect trees of local significance. (p.2-231).*

Figure 3-2 shows an excerpt from Figure 2F.2-3: Roseville Tree Canopy. It identifies the opportunity for supplementary street tree planting along both the Pacific Highway and Hill Street, as well as a row of significant trees along the northern verge of Hill Street, opposite the commuter carpark.

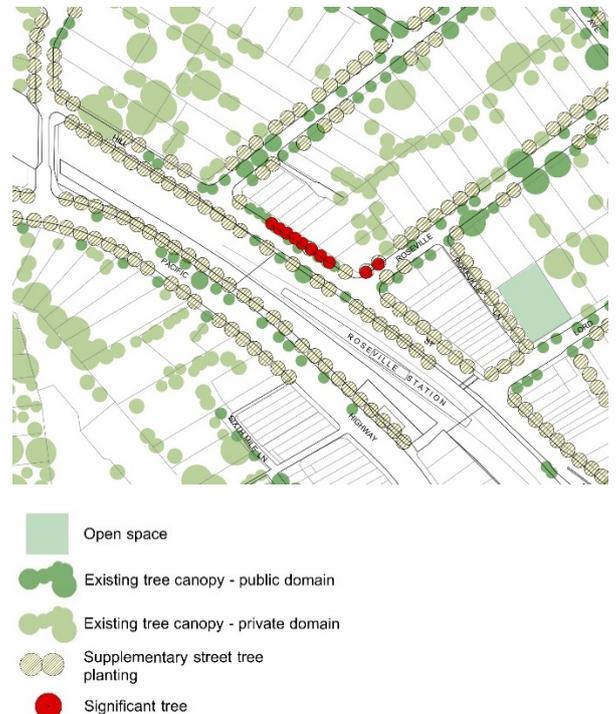


FIGURE 3-3 ROSEVILLE TREE CANOPY (SOURCE: KU-RING-GAI COUNCIL, 2010, P.2-230)

Objectives for **Views and View Corridors** (2F.2.8), include:

- *To protect and acknowledge key views in Roseville with historical importance.*
- *To protect views from the Pacific Highway ridgeline to the west.*
- *To improve the entry to Roseville town centre along the Pacific Highway when arriving from the south or the north.*
- *To enhance and emphasise the view corridor along Hill Street. (p.2-241).*

Figure 3-3 shows an excerpt from Figure 2F.2-8: Roseville Views and View Corridors. It identifies Pacific Highway entry to the station as a *‘Focal points / feature’*. It identifies a south-easterly view along the Pacific Highway towards the station entry, and seasonal character vistas along Hill Street.

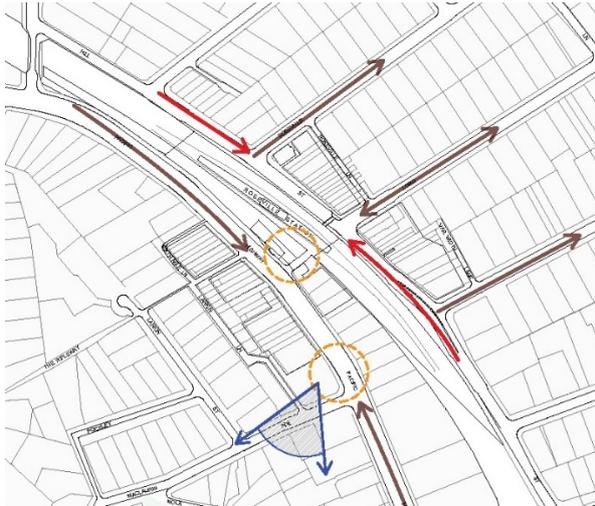


FIGURE 3-4 ROSEVILLE VIEWS AND VIEW CORRIDORS (KU-RING-GAI COUNCIL, 2010, P.2-240)

The strategies identified to meet the views and view corridor objectives, include the following which are relevant to the Proposal:

- 3 *Maintain open views to the former Commonwealth Bank and the Station Master's Cottage adjacent to the railway*
- 4 *Enhance the visual character of the Hill Street streetscape including the rose garden, the borrowed landscape of the railway gardens and the seasonal tree character.*

The Public Domain Plan includes a **Roseville Station Concourse Concept Plan** (s. 2F.4).

This plan proposes a widened station concourse with lift access to the station platforms. It includes upgrading the lane leading from the Pacific Highway with paving, lighting and public art. It identifies an opportunity to providing access to the railway gardens. It proposes a generous entrance to the station and a ramp from Hill Street. (p.2-258)

This concept plan is guided by the following **objectives**:

- *Widen the station concourse with a lift access to platforms and ramp access from Hill Street to provide equal access to the station and improve the street to street link.*
- *Create a small plaza at the station entrance giving an opportunity for adjacent buildings to activate the space.*
- *Improve amenity and appearance of Hill Street station access.*
- *Investigate possibility of providing public access to railway gardens. (p.2-258)*



FIGURE 3-5 ROSEVILLE STATION CONCOURSE CONCEPT PLAN (KU-RING-GAI COUNCIL, 2010. P.2-259)

4. Methodology

4.1. Guidance for landscape and visual assessment

While there are no specific legislative requirements for the methodology of an assessment such as this in New South Wales, the industry typically refers to the guidance offered by:

- *Guidance note EIA-N04 Guidelines for Landscape Character and Visual Impact Assessment*, NSW State Government, Roads and Maritime Services (2018)
- *The Guidance Note for Landscape and Visual Assessment (GNLVA)*, Australian Institute of Landscape Architects Queensland (2018).

The methodology used for this assessment conforms generally with the direction offered by these guidelines.

4.2. Approach

This assessment identifies the visual impacts of the Proposal during construction and operations. The process of assessment involved the following steps. Identification of:

- existing visual conditions
- visual sensitivity
- magnitude of change as a result of the Proposal
- level of visual impact
- mitigation opportunities.

The potential visual impacts have been classified according to the impact significance criteria set out in this methodology.

4.3. Method

4.3.1. Identification of existing visual conditions

The key landscape features of the site have been identified, described and located on a site plan (refer Figure 5-1).

A number of viewpoints have been selected to illustrate the visual influence of the Proposal. These views represent publicly accessible viewpoints from a range of locations and viewing situations. Particular attention was paid to views from places where people are expected to congregate such as the station and park areas, as well as views to and from heritage items.

4.3.2. Visual sensitivity

Visual sensitivity refers to the nature and duration of views. Locations from which a view would potentially be seen for a longer duration, where there are higher numbers of potential viewers and where visual amenity is important to viewers can be regarded as having a higher visual sensitivity. In addition, any views recognised by local, state or federal planning regulations would, by nature of their recognition in these documents, increase the sensitivity level of the view.

In order to ensure the assessment of impact is reasonable, the sensitivity of a viewpoint is considered in the broadest context of possible views, from those of national importance through to those considered to have a neighbourhood visual importance.

The following terminology is used to describe the level of visual sensitivity, see Table 4-1.

TABLE 4-1 VISUAL SENSITIVITY LEVELS

Visual sensitivity	Description
National	Heavily experienced view to a national icon, e.g. view to Sydney Opera House from Circular Quay or Lady Macquarie’s Chair, view to Parliament House Canberra along Anzac Parade.
State	Heavily experienced view to a feature or landscape that is iconic to the State, e.g. view along the main avenue in Hyde Park.
Regional	Heavily experienced view to a feature or landscape that is iconic to a major portion of a city or a non-metropolitan region, or an important view from an area of regional open space, e.g. an identified view corridor to a state heritage listed item.
Local	High quality view experienced by concentrations of residents and/or local recreational users, local commercial areas, and/or large numbers of road or rail users, e.g. view from the Pacific Highway or Hill Street, from a conservation area, or local park such as the Roseville Memorial Park.
Neighbourhood	Views where visual amenity is not particularly valued by the wider community such as views from local streets and residences.

4.3.3. Magnitude of change

Magnitude describes the extent of change resulting from the Proposal and the compatibility of these new elements with the surrounding landscape. There are some general principles which determine the magnitude of change; these include elements relating to the view itself such as distance, landform, backdrop, and contrast. There are also characteristics of the development which are: scale, form, colour, pattern, texture and line/alignment. Change can result in an improvement or reduction in visual amenity.

A high magnitude of change would result if the development contrasts strongly with the existing landscape. A low magnitude of change occurs if there is minimal visual contrast and a high level of integration of form, line, shape, pattern, colour or texture values between the development and the environment in which it is located.

In some circumstances, there may be a visible change to a view which does not alter the amenity of the view, this would be due to the visual absorption capacity of the surrounding landscape and / or the compatibility of the Proposal with the surrounding visual context.

Table 4-2 lists the categories used to describe the magnitude of change.

TABLE 4-2 MAGNITUDE LEVELS

Magnitude	Description
Considerable reduction or improvement in visual amenity.	Substantial part of the view is altered. The Proposal contrasts substantially with surrounding landscape.
Minor reduction or improvement in visual amenity.	Alteration to the view is clearly visible. The Proposal contrasts with surrounding landscape.
No change in visual amenity.	Either the view is unchanged or it is visible but a change in amenity would not be experienced by viewers. The Proposal does not contrast with the surrounding landscape or is visually compatible.

A benefit is when the contrast is positive and improves the view. Conversely an adverse visual impact occurs when the change contrasts in a way that is not visually compatible and is detrimental to the amenity of the view.

4.3.4. Identifying night time visual impacts

The assessment of night time impacts has been undertaken with a similar methodology to the daytime assessment. However, rather than assessing particular viewpoints or landscape features, this assessment draws upon the guidance of the Institution of Lighting Engineers (UK), and their '*Guidance for the reduction of obtrusive light*' (2011). This guidance note identifies environmental zones, useful for the categorising of night time landscape settings.

These zones are:

- E0 / E1: Dark / Intrinsically dark landscapes – national parks, state forests etc.
- E2: Low district brightness areas – rural, small village, or relatively dark urban locations
- E3: Medium district brightness areas – small town centres or urban locations
- E4: High district brightness areas – town/city centres with high levels of night time activity.

Specific features of the lit landscape can be described in terms of:

- **Sky glow** – the brightening of the night sky
- **Glare** – the uncomfortable brightness of a light source when viewed against a dark background
- **Light intrusion** ('trespass') – the spilling of light beyond the boundary of the property or area being lit.

The level of impact on the precinct has been described according to the impact levels that are identified in Table 4-4.

4.3.5. Assigning impact levels

An impact visual impact level has been determined by combining the sensitivity and magnitude level according to the following matrix, refer to Table 4-3.

Similarly, for the assessment of visual impacts at night, the following matrix has been used, refer to Table 4-4.

4.3.6. Mitigation measures

Following the identification of potential landscape and visual impacts, opportunities for mitigation were identified. Measures include opportunities to avoid, reduce and manage potential adverse impacts during construction and operation of the Proposal.

4.3.7. Photomontages and artists impressions

Photomontages have been prepared to illustrate the massing and scale of the Proposal. This combines the architectural 3D model with a photograph using a 3D model and photo editing techniques to create a photorealistic impression of the Proposal.

The photomontage locations were selected in consultation with TfNSW to illustrate typical views toward the Proposal. The photomontage locations were selected from the station platform and footbridge, adjacent pathways and streets, looking towards the station and key components of the Proposal.

TABLE 4-3 VISUAL IMPACT LEVELS

		Sensitivity				
		National sensitivity	State Sensitivity	Regional sensitivity	Local sensitivity	Neighbourhood sensitivity
Magnitude	Considerable reduction	Very high adverse	Very high adverse	High adverse	Moderate adverse	Minor adverse
	Minor reduction	Very high adverse	High adverse	Moderate adverse	Minor adverse	Negligible
	No change in amenity	Negligible	Negligible	Negligible	Negligible	Negligible
	Minor improvement	Very high beneficial	High beneficial	Moderate beneficial	Minor beneficial	Negligible
	Considerable improvement	Very high beneficial	Very high beneficial	High beneficial	Moderate beneficial	Minor beneficial

TABLE 4-4 NIGHT TIME VISUAL IMPACT LEVELS

		Sensitivity			
		E0/E1: Dark / Intrinsically dark landscapes	E2: Low district brightness	E3: Medium district brightness	E4: High district brightness
Magnitude	Considerable reduction	Very high adverse	High adverse	Moderate adverse	Minor adverse
	Minor reduction	High adverse	Moderate adverse	Minor adverse	Negligible
	No change in amenity	Negligible	Negligible	Negligible	Negligible
	Minor improvement	High beneficial	Moderate beneficial	Minor beneficial	Negligible
	Considerable improvement	Very high beneficial	High beneficial	Moderate beneficial	Minor beneficial

4.3.8. Assessment of Urban Design and Landscape Character Impacts

An assessment of urban design and landscape character impacts has been undertaken in two steps, these are:

- a response to state and local government urban design considerations, and
- a general urban design and landscape character impact assessment.

While the DCP and LEP are not directly relevant to the approval of the Proposal, the site-specific objectives identified in the Roseville Local Centre urban precinct to guide future development (Section B, Part 14F) have been considered.

A general assessment of urban design considerations has been undertaken, based on the themes identified in relevant national and state guidance for urban design. This includes the NSW State Government Architect's Better Placed suite of documents, the Federal Government's National Urban Design Protocol, and best practice urban design principles, including those set out in *Around the Tracks urban design for heavy and light rail (TfNSW)*.

This assessment includes consideration of impacts the Proposal would have on the urban design functionality of the Proposal, including:

- accessibility, legibility and permeability
- direct impacts on trees, open space and public realm areas
- changes to the level of shade and comfort to public areas
- access to sunlight and the effect of overshadowing.

5. Assessment of visual impacts

5.1. Existing conditions

Roseville Station is located ten kilometres north of the Sydney CBD on the T1 North Shore and Western Line. This station is also on the T9 Northern Line servicing regional connections to the Greater Newcastle region.

Roseville is a well-established, predominantly residential, suburb surrounding a small mixed use commercial centre and the Roseville Station. The local centre is located on the Pacific Highway and Hill Street, extending from Maclaurin Parade to Roseville Avenue. The station is located between these parallel roads, and the rail corridor, along with the adjacent wide roadways, divide the local centre and residential areas of Roseville.

The built form of the local centre, both on the south western side of the Pacific Highway and north eastern side of Hill Street, has a uniform character with a continuous row of two storey pre-war terrace buildings. These buildings contain ground level retail, office and showroom development with 'shop top' residential and office space. These terraces have a generally consistent width and height, varied rooflines, and awnings, providing a consistent building line to the street.

The station is located on a gentle curve of the rail corridor, slightly elevated above the adjacent Hill Street streetscape. The south western side of the station is located in a cutting, as the landform rises to the Pacific Highway. Generally, the station is visually enclosed by landform and existing mature vegetation along the rail corridor and within adjacent streets and properties.

Roseville station consists of an island platform and footbridge, linking Hill Street in the east to the Pacific Highway in the west. A heritage listed (s170) platform building is centrally located on the platform. The station platform building is federation style, constructed of red brick, with decorative curved awnings supported with cast iron brackets.

A footbridge is located at the southern end of the station. This structure is highly modified and includes a steel framed structure, awnings, balustrades, and anti-throw screens, concrete stairs and decking.



FIGURE 5-1 LOCAL CENTRE ON THE PACIFIC HIGHWAY



FIGURE 5-2 LOCAL CENTRE ON HILL STREET



Figure 5-3 VIEW ALONG ROSEVILLE STATION



Figure 5-4 FOOTBRIDGE

While the footbridge and platform building have been modified, including loss of the original roof and chimneys, the station it is considered to have *'aesthetic significance at a local level'* (NSW OEH, 2009).

The footbridge provides east-west access over the rail corridor, between Hill Street and the Pacific Highway. It also footbridge provides access to the station platform via stairs with overhead canopies. There is a retail premises on the footbridge above the platform.

There are footpaths along both sides of the rail corridor and pedestrian crossings adjacent to the station footbridge on Hill Street and the Pacific Highway. There is a kiss and ride bay and taxi zone on Hill Street, bus stops on both Hill Street and the Pacific Highway. A commuter and staff car park along Hill Street, north of the station.

The former Station Master's residence is located to the south of the station, beside the Pacific Highway. While it is not utilised by RailCorp, this building and the adjacent former Commonwealth Bank building (both local heritage items) contribute to the character of the south western station and entrance to the station.

The ornamental gardens at both the eastern and western station entrance *'adds greatly to the heritage significance of the place as it helps to maintain the historic setting of the station'* (NSW OEH, 2009).

The mature trees and shrubs along the rail reserve provide a strong sense of visual enclosure to the station and screen views to and from the local centre and adjacent residential areas of Roseville.

Residential areas to the south west of the station have a leafy character with mature gardens and street trees. This area has numerous heritage character houses and forms part of the Lord Street, Bancroft Avenue and The Grove conservation areas.



Figure 5-5 HERITAGE LISTED STATION PLATFORM BUILDING



FIGURE 5-6 FOOTBRIDGE CONNECTION TO THE PACIFIC HIGHWAY



Figure 5-7 FORMER STATION MASTER'S RESIDENCE



FIGURE 5-8 RAILWAY ORNAMENTAL GARDENS

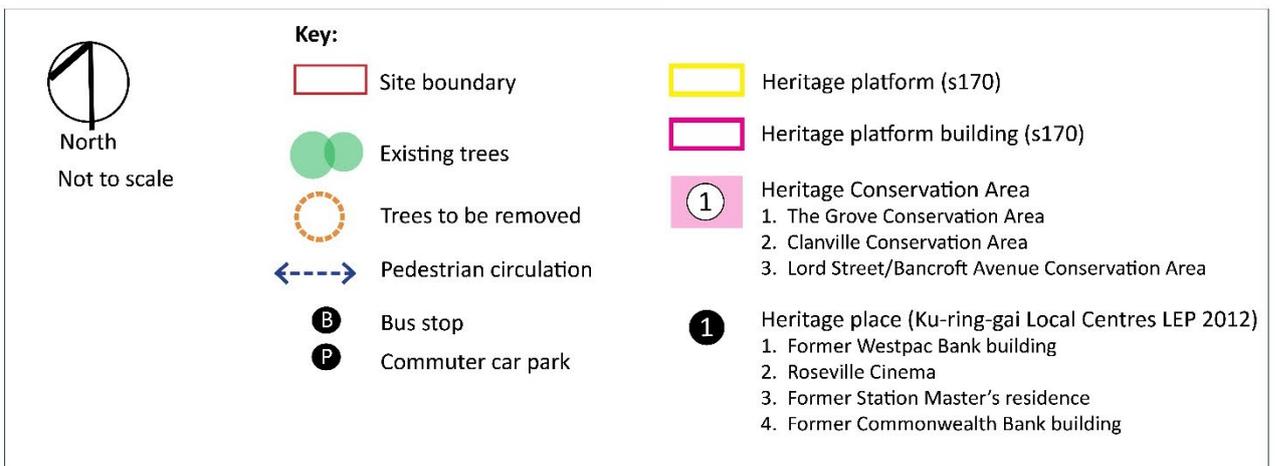


FIGURE 5-9 LANDSCAPE AND VISUAL FEATURES OF THE SITE

5.2. Assessment of Representative Viewpoints

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

- Viewpoint 1: View northwest from Hill Street
- Viewpoint 2: View southeast along Hill Street from the commuter car park
- Viewpoint 3: View northwest along the platform
- Viewpoint 4: View southeast along the platform
- Viewpoint 5: View northeast from the Pacific Highway
- Viewpoint 6: View northwest along the Pacific Highway.

The location of these viewpoints is shown on Figures 5-10 and an assessment of each viewpoint is been summarised on the following pages.

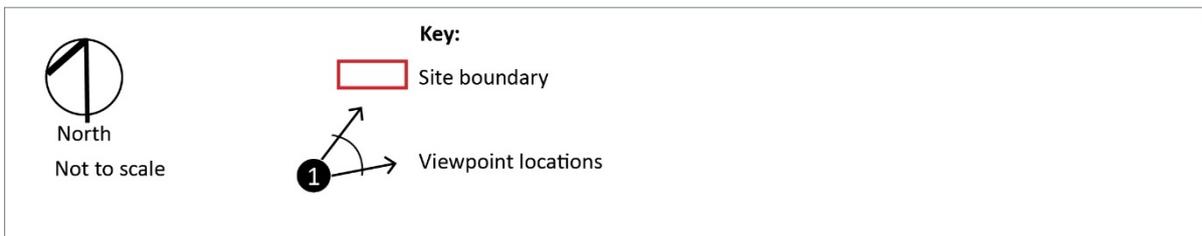
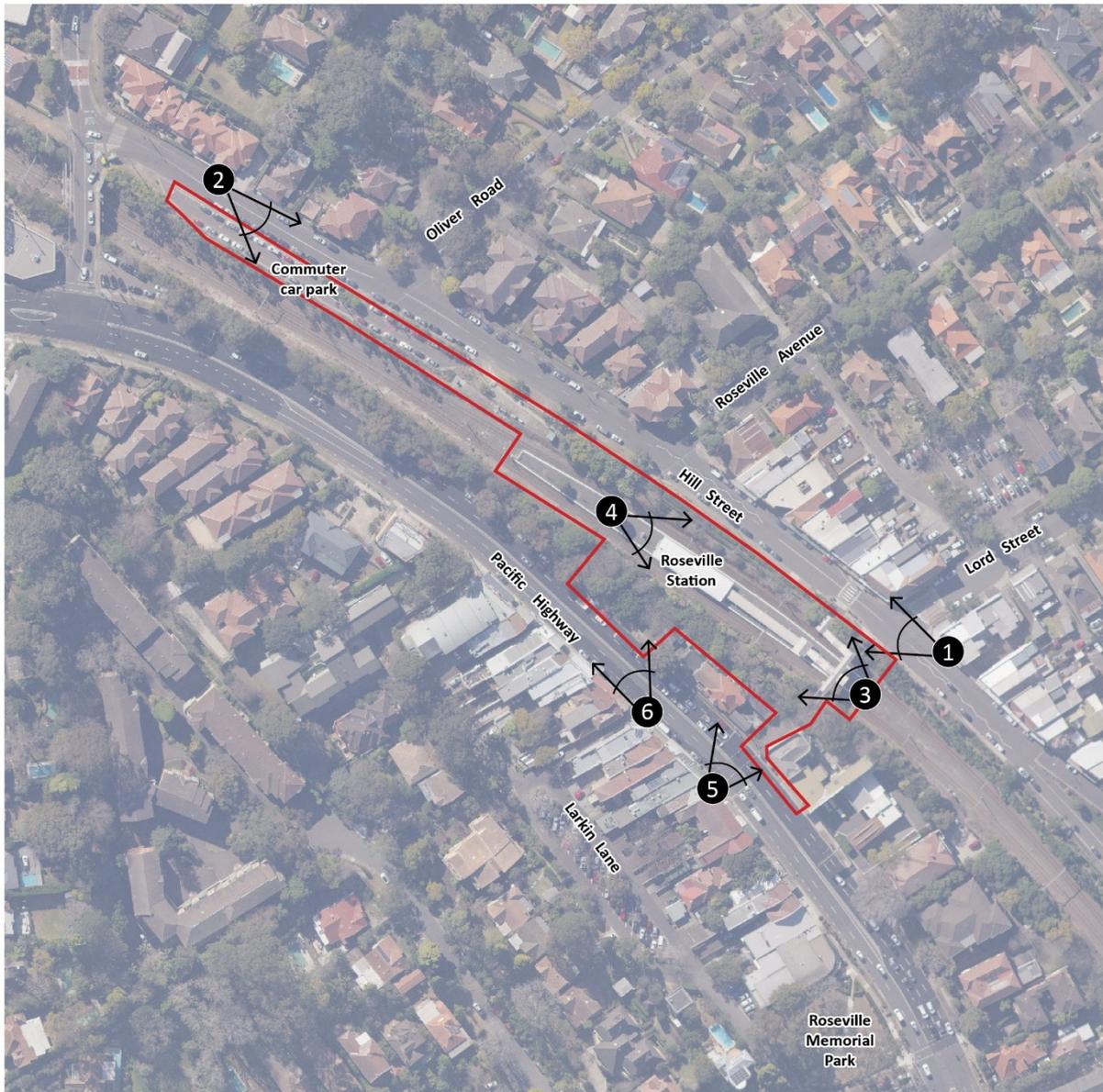


FIGURE 5-10 VIEWPOINT LOCATION PLAN

5.2.1. Viewpoint 1: View northwest from Hill Street



FIGURE 5-11 VIEWPOINT 1: VIEW NORTHWEST FROM HILL STREET



FIGURE 5-12 VIEWPOINT 1: VIEW NORTHWEST FROM HILL STREET, PHOTOMONTAGE

Existing view: This view across Hill Street, includes the Roseville Station in the centre of the view, elevated above the street level. Much of the station, including the platform, platform building, and trains is concealed by the existing trees and shrubs along the rail corridor. The eastern end of the footbridge is visible rising above this vegetation in the middle ground of the view.

The Hill Street station entry can be seen amongst the trees (right of view), marked by a small gabled awning. There is seating, bike racks and a sheltered bus stop on Hill Street (centre of view).

Several large power poles are located on the western side of Hill Street, adjacent to the station, including wires along and crossing the street, detracting from the character of the streetscape.

Visual sensitivity: This view is of **local visual sensitivity**. It would be experienced by residents and visitors accessing Roseville Station and the commercial centre. The ornamental gardens along the rail corridor, and commercial terrace buildings along Hill Street, are local features in this view.

Visual impact during construction: Works to upgrade the eastern station entrance would be seen in the centre of this view. This would include the removal of about six existing trees and four shrubs along the rail corridor, opening up the view to the existing footbridge.

Demolition works would include the removal of the entry retaining walls and excavation of the rock embankment to widen the entrance. The bus shelter, seats, bicycle racks and planter pots adjacent to the street would also be removed.

Works and equipment to install both the platform lift and Hill Street entry lift would be seen rising above the treeline and existing footbridge, in the middle ground of the view.

Overall, due to the removal of vegetation, and scale of the lift works, there would be a minor reduction in the amenity of this view. This would result in a **minor**

adverse visual impact during construction. This visual impact would be temporary and short term, being experienced only during construction. Visual impact during operation: The upgraded eastern station entrance would be seen in the middle ground of this view. This would include a widened entry plaza, with new retaining walls and garden beds, new footpath pavements, a new bus shelter, seats and bike racks. The taller power pole, located adjacent to the station, would be removed and the power lines relocated underground.

The Hill Street lift would be prominent in the centre of this view, rising above the existing vegetation and footbridge. The station platform lift would also be visible from this location, set back from the road, and also rising above the existing footbridge.

These lifts would increase the visual prominence of the station, particularly as the station is elevated above the street and the station footbridge and lifts would be taller than the commercial terrace buildings on Hill Street.

The existing vegetation along the rail corridor would continue to screen much of the station, and there would be new areas of planting provided at the station entry, maintaining the leafy character of this view. However, the view would contain additional built form elements than currently present within the view.

Overall, the widened entry plaza and new lift structures would increase the visual prominence of the station entry. This increased prominence is appropriate for a public building such as a local train station, improving legibility and wayfinding within the commercial centre. Overall, the Proposal would result in a minor improvement to the amenity of this view and a **minor beneficial visual impact** during operation.

5.2.2. Viewpoint 2: View southeast along Hill Street from the commuter carpark



FIGURE 5-13 VIEWPOINT 2: VIEW SOUTHEAST ALONG HILL STREET FROM THE COMMUTER CARPARK

Existing view: This view includes the rail corridor and Roseville Station commuter car park (right of view). The vegetation along the side of the rail corridor provides a leafy backdrop and filters views of the rail corridor and Pacific Highway.

The fore and middle ground of this view is dominated by vehicle parking. A narrow commuter car park includes one-way vehicle circulation and cars parallel parked. In this location Hill Street is two lanes wide with parallel parking on either side. The car park is separated from Hill Street by a narrow footpath and low stone retaining wall. There are some scattered trees and shrubs in this median in the background of the view, providing some filtering to views of the carpark.

Opposite the commuter car park, to the northeast of Hill Street, there are single storey Federation to Inter-war period residences (left of view). These houses are included in The Grove conservation area. Street trees on the north eastern side of Hill Street are identified in the Ku-ring-gai Local Centres

Development Control Plan 2017 as '*significant trees*' and '*seasonal character vista*'.

Visual sensitivity: This view is of **local visual sensitivity**. It would be experienced by residents and visitors accessing the Roseville Station commuter car park and from the adjacent residential properties. This residential area is within a heritage conservation area and the street trees are 'significant'.

Visual impact during construction: The commuter car park would be temporarily converted to the main construction compound for the Proposal. This compound would include site offices and staff amenities, machinery, equipment and materials storage areas. There would be construction vehicles accessing the compound and seen travelling along Hill Street.

These elements would partly screen views to the existing rail corridor including trains which would cross this view; however, the leafy backdrop would remain.

The vegetation between the commuter car park and Hill Street would be retained and would provide some softening of the views to this compound, however, in this view the structures and activities within the construction compound would be unobstructed and contrast with the leafy residential properties to the northeast.

Overall, while the introduction of construction elements would be seen in the context of the existing railway line, this activity would contrast with the leafy, residential character of the properties to the northeast of Hill Street. This would result in a considerable reduction in the amenity of this view, which is of local sensitivity, and a **moderate adverse visual impact**. This would be a temporary visual impact, experienced only during construction.

Visual impact during operation: The compound area would be reinstated and returned to its former use as a commuter car park. As the existing vegetation would be retained there would be no change in the amenity of this view. This would result in a **negligible visual impact** during operation.

5.2.3. Viewpoint 3: View northwest along the platform



FIGURE 5-14 VIEWPOINT 3: VIEW NORTHWEST ALONG THE PLATFORM



FIGURE 5-15 VIEWPOINT 3: VIEW NORTHWEST ALONG THE PLATFORM, PHOTOMONTAGE

Existing view: This view from the south eastern end of the platform shows the footbridge in the middle ground. The footbridge is a visually complex structure with steel braced supports and balustrades, concrete stairs and decking, and a mixture of timber lattice and metal sheet balustrades, steel framed awnings with gable ends.

The awnings extend along the platform, linking the footbridge with the heritage listed (s170) platform building. The platform building is mostly concealed behind the platform awnings and stairs.

The platform has an asphalt surface, with seating, station signage and several vertical elements including light poles and overhead line masts along the rail corridor, which add to the built character of the view. Commuter trains are regularly seen in this view, approaching and departing the station.

To the northwest of the rail corridor (left of view) the railway gardens can be seen, including several mature trees and palms. This landscape is a local visual feature and encloses the view to southwest. There is also vegetation along the eastern side of the rail corridor, which further encloses the view and screens the commercial centre on Hill Street.

Visual sensitivity: This view from Roseville Station platform is of **local** visual sensitivity. It is used by commuters at the station and is an arrival point for Roseville.

Visual impact during construction: Construction of the platform lift would be seen, unobstructed in the middle ground of this view. The rear timber wall of retail premises on the footbridge would be removed and the new lift would be installed in its place (centre of view). This would include removal of the signage and lighting pole, excavation works for the lift foundations, installation and fit-out of the lift shaft and a new platform canopy.

Regrading and surfacing of the platforms and removal and replacement of existing TGSIs would also be seen in the foreground of this view.

To the north (right of view), installation of the Hill Street lift and entrance canopy adjacent to the existing stairs, would be visible. Works would include some excavation and vegetation removal within the rail corridor.

This activity would include equipment and the construction of structures that would rise above the existing footbridge

Overall, the extent and close proximity of the construction activity seen in this view would result in a considerable reduction in the amenity of this view. This view is of local sensitivity and there would be a **moderate adverse visual impact**. This would be a temporary visual impact, experienced only during construction.

Visual impact during operation: During operation, the new platform lift would be prominent in the foreground of this view. The lift structures would rise about one storey higher (about 2.5 metres) than the existing footbridge.

From this angle, the lifts would be simple rectangular structures, and incorporate glazing to the southern façade, which would visually lighten the structures. While these structures would add modern built elements to the station in this view, the palette of materials would be simplified with the removal of the timber wall of retail premises on the footbridge.

Improvements to the platform, including new platform surfaces and TGSIs, lighting and furniture, would enhance the visual quality of this view for customers.

Overall, this view within the station has a high capacity to absorb this additional built form without substantially altering the character of the view. The Proposal would result in a minor improvement to the amenity of this view and a **minor beneficial visual impact** during operation.

5.2.4. Viewpoint 4: View southeast along the platform



FIGURE 5-16 VIEWPOINT 4: VIEW SOUTHEAST ALONG THE PLATFORM

Existing view: This view from the northern end of the platform shows the gentle bend of the rail corridor, curving to the southeast towards the footbridge at the southern in the platform. From this location, the footbridge is concealed behind the heritage listed platform building, with only a small glimpse to the western entry ramp and balustrade visible.

The northern façade of the platform building is a feature of this view, with its brick façade, low-pitched gable and timber framed awning extending over the platforms. This view includes the only largely unobstructed view to the profile of this building

In this view the landform surrounding the station setting is apparent, with the landform gently rising to the southwest (right of view), towards the Pacific Highway. In this area, the ornamental railway gardens can be seen with several mature trees and palms. To the east of the platform (left of view) ornamental gardens screen views to Hill Street. This vegetation creates a strong sense of visual enclosure to the station.

Visual sensitivity: This view from Roseville Station platform is of **local** visual sensitivity. It is used by commuters at the station and is an arrival point for Roseville. This view includes several visual features including a largely unobstructed view to the heritage platform building and views to the ornamental gardens to the northwest and southeast of the station.

Visual impact during construction: Construction of a new canopy to the existing boarding assistance zone would be visible in the foreground of this view. There would also be works to regrade and resurface the station platform including the removal and replacement of existing TGSIs seen across this view.

The area required to install the new canopy and progressive regrading of the platform surface would be enclosed by temporary fencing and hoarding as required.

Machinery used to install the Hill Street lift and platform lift structures may also be seen, rising above the roof of the platform building, in the background of this view.

While the character of this construction activity would contrast with the leafy setting of the station, the work seen the northern end of the station would be minor in scale. Overall, there would be a minor reduction in the amenity of this view, and a **minor adverse visual impact** during construction. This would be a temporary visual impact, experienced only during construction.

Visual impact during operation: A new low-pitched roof canopy structure would extend to the existing boarding assistance zone and across the middle ground of this view. This new canopy would be a stand-alone structure, partially obstructing the view to the heritage listed station platform building.

The form of this structure would be lightweight and would differ from the gabled roofs elsewhere at the station so that it would appear as visually distinct from the heritage features of the station.

Improvements to the platform, including new platform surfaces and TGSIs, lighting and furniture, would enhance the visual quality of this view for customers.

While there may be glimpses to the upper section of the new lift structures, these would be largely absorbed into the background of this view.

Overall, there would be a small scale structure added to the middle ground of this view, however, this new built element would obstruct the uncluttered view to the heritage listed platform building. This would result in a minor reduction in the amenity of this view and a **minor adverse visual impact** during operation.

5.2.5. Viewpoint 5: View northeast from the Pacific Highway



FIGURE 5-17 VIEWPOINT 5: VIEW NORTHEAST FROM THE PACIFIC HIGHWAY

Existing view: The western entrance to Roseville Station can be seen in the background of this view. The entry is flanked by the former Station Master's residence (left of view) and former Commonwealth Bank building (right of view), both local heritage items (Ku-ring-gai Local Centres LEP 2012). The small rotunda beside the station entrance with a decorative cupola and the art deco façade of the former Commonwealth Bank building are visual features in this view. The ornamental tree plantings at the station entrance gardens, including palms and deciduous trees, can be seen beyond the former Station Master's residence and are also local visual feature.

The station entry ramp is located in the background of this view, the station platform is set below street level in a small cutting and largely screened by the intervening built form and vegetation. At the end of the station entry ramp there is a glimpse to the existing station footbridge through the intervening fence and vegetation.

Visual sensitivity: This view from the station entrance is of **local** visual sensitivity. It shows the entrance to the station where there would be concentrations of commuters approaching the station. This view is also appreciated by users of the adjacent bus stops, retail and commercial properties on the Pacific Highway within the Roseville local commercial centre. This view would also be experienced by people travelling along the Pacific Highway.

Visual impact during construction: A construction site would be established in the centre of this view, extending west from the station footbridge towards the Pacific Highway, and also south (right of view) along the Pacific Highway footpath. The steel fencing and part of the garden beds (including three small trees) between the station entrance and Station Master's residence would be removed and works to construct a widened entry plaza would be undertaken. The pavement inside the construction site would be removed, regraded and resurfaced.

It is possible that works to construct the lifts may glimpsed in the background of this view, beyond the trees that would be retained along the rail corridor.

While the character of this construction activity would contrast with the historic, leafy station setting, much of the station works would be well contained by the surrounding built form, landform and retained vegetation. Overall, there would be a minor reduction in the amenity of this view, and a **minor adverse visual impact** during construction. This would be a temporary visual impact, experienced only during construction.

Visual impact during operation: The upgraded western station entrance would be seen in the middle ground of this view, including a widened entry plaza with new paving, trees and garden areas, seating, lighting, signage and fencing, improving the visual quality of the station entry.

There would be glimpses to the upper section of the platform lift shaft in the background of this view, rising above the retained trees. The visible portion of the platform lift would be a precast concrete façade. The lift would have a contemporary character which is visually distinct from the historic character of the existing station entry buildings and platform but would not visually dominate this view or the setting.

The streetscape improvements and additions would enhance the visual quality and visual prominence of the station entry. Overall, this would result in a minor improvement in the amenity of this view, and a **minor beneficial visual impact** during operation.

5.2.6. Viewpoint 6: View northwest along the Pacific Highway



FIGURE 5-18 VIEWPOINT 6: VIEW NORTHWEST ALONG THE PACIFIC HIGHWAY

Existing view: In this view, the Pacific Highway consists of six lanes of parking and traffic and relatively narrow footpaths. The built form facing the Highway (left of view) comprises two storey pre-war terrace buildings, which provides a consistent building line to the street, and an awning covered footpath. On the eastern side of the street, the former Station Master's residence (right of view) provides visual interest and built form diversity to the streetscape, with its decorative timber gables and adjacent rotunda.

The rail corridor is located in a small cutting, below the street. The cutting is covered by mature trees within ornamental gardens, blocking views to Roseville Station. These gardens extend to the Pacific Highway for a section beyond the former Station Master's residence (centre, background of view).

Visual sensitivity: This view would be experienced by those travelling along the Pacific Highway, a bus arterial route to/from Sydney CBD. It would also be viewed by local residents and their visitors, accessing Roseville Station, the local centre and nearby streets. The vegetation along the rail corridor and buildings along the highway are local features in this view. Overall, this view is of **local visual sensitivity**.

Visual impact during construction: A small temporary laydown area would be established on the verge area between the rail corridor and Highway, in the middle ground of this view. This laydown area would incorporate the eastern parking lane and would be used during construction to support deliveries and temporary storage of materials. There may be some trimming of vegetation, however, the existing street trees and vegetation along the rail corridor would not be removed.

The temporary loss of the lawn verge on this section of the Highway and introduction of a temporary laydown area to this view would be relatively minor and result in a minor reduction in the amenity of this view, and a **minor adverse visual impact** during construction. This would be a temporary visual impact, experienced only during construction.

Visual impact during operation: The laydown area used during construction would be reinstated and returned to a grassed verge and there would be no visible elements of the Proposal seen in this view during operation. Overall, there be no change in the amenity of this view and a **negligible visual impact** during operation.

5.3. Summary of visual impacts

The following table (Table 5-1) summarises the impacts identified in the viewpoint assessment.

TABLE 5-1 SUMMARY OF VIEWPOINT ASSESSMENT

	Viewpoint number and location	Sensitivity	Construction		Operation	
			Magnitude	Visual impact	Magnitude	Visual impact
1	View northwest from Hill Street	Local	Minor reduction	Minor adverse	Minor improvement	Minor beneficial
2	View southeast along Hill Street from the commuter car park	Local	Considerable reduction	Moderate adverse	No change in amenity	Negligible
3	View northwest along the platform	Local	Considerable reduction	Moderate adverse	Minor improvement	Minor beneficial
4	View southeast along the platform	Local	Minor reduction	Minor adverse	Minor reduction	Minor adverse
5	View northeast from the Pacific Highway	Local	Minor reduction	Minor adverse	Minor improvement	Minor beneficial
6	View northwest along the Pacific Highway	Local	Minor reduction	Minor adverse	No change in amenity	Negligible

The following summarises the findings of this viewpoint assessment.

5.3.1. Daytime visual impact during construction

During construction there would be **moderate adverse visual impact** experienced in views from the southern area of the station platform. This is due to the close proximity, scale and extent of the works that would be seen across the station from this location.

There would be **moderate adverse visual impacts** experienced from residential properties on Hill Street which overlook the construction compound site which would be established on the existing commuter car park site. The construction activity would be relatively unobstructed in views from the residential areas opposite and contrast with the scale character of the leafy residential areas.

There would be a **minor adverse visual impact** in views from the northern end of the station platform, as there would only be a small amount of work undertaken to the north of the heritage listed platform building.

The existing ornamental gardens which surround the station would continue to enclose most views to the station. However, there would be **minor adverse visual impacts** in views from Hill Street and the Pacific Highway in views to the station entry and lift construction works.

These visual impacts would be experienced temporarily, during the construction of the project.

5.3.2. Daytime visual impact during operation

During operations there would be a **minor beneficial visual impact** experienced in views from the Pacific Highway, where views to the widened station entrance would be seen. This is due to the new pavements, feature planting, furniture, signage, and lighting which would improve the character and legibility of the station entry.

There would be a **minor beneficial visual impact** in views from Hill Street in the vicinity of the station entry. Whilst the lift structures would be seen rising above the existing footbridge in these views, they would not be visually dominant. The footbridge and station entry would have an improved character and increased visual presence in views from Hill Street.

There would also be a **minor beneficial visual impact** in views at the southern end of the station platform, where improvements to the platform and new lift would improve the amenity of the platform.

In views from the northern end of the platform there would be a **minor adverse visual impact**. While there would only be a small, visually lightweight canopy introduced into this view, this structure would partly obstruct the view to the northern façade of the heritage listed station building.

There would be **negligible visual impacts** in views from both the Pacific Highway and Hill Street where the sites used as construction compounds and support sites would be reinstated and returned to their original condition and use.

5.3.3. Views at night during construction

The Proposal is located in an area of **moderate district brightness**. This is due to the combination of surrounding land uses, which includes relatively high light levels within the station and adjacent commercial centre on the Pacific Highway and Hill Street. The brightly lit environment of the station is somewhat contained by the surrounding landform and vegetation along the rail corridor. However, parallel to the station, there are bright streetlights and the moving vehicle headlights. This brightly lit centre is surrounded by residential areas which have moderate to low light levels.

During construction, the construction site and construction compounds would be lit for security. It is unlikely that these areas would be used on an ongoing basis for construction activity during evening hours (other than on about five occasions for specific activities or where works are undertaken during rail possession periods).

Generally, the character of the construction works at the lift work areas, platform, station entrances and construction compound areas at night would be absorbed into the surrounding brightly lit environment of the station and enclosed by the

existing vegetation which surround the station.

There may be some lighting visible from nearby residential properties which overlook the compound areas, however this would be partly screened by existing vegetation.

Overall, the works would result in a minor reduction in the amenity of views at night and a **minor adverse visual impact** during construction.

5.3.4. Views at night during operations

During operations, the station would continue to be brightly lit for security and safe use at night. The new Hill Street lift and upgraded station entrance at Hill Street would be seen in the context of the existing station and adjacent commercial centre. This area of the station would be prominent in views from Hill Street and from the restaurants, cafés, offices and retail outlets directly overlooking the station, with views opened up due to the removal of an existing tree and some shrubs within the rail corridor.

Both the Hill Street lift and platform lift would introduce lighting to a higher level above the station in the vicinity of Hill Street and the commercial centre. However, the lifts are viewed in the context of the existing brightly lit station entry, footbridge and platform. The lifts would not be prominent in views from the Pacific Highway, due to intervening built form, vegetation and landform.

There may be additional lighting provided for the bus shelter, bicycle racks, kiss and ride and DDA compliant parking spaces on Hill Street. Similarly, at the western entrance, may also be additional lighting provided at the station entrance and adjacent bus shelter. This additional lighting would be seen in the context of Roseville local centre and not in close proximity to residential properties.

There is not expected to be any additional direct light spill (trespass) onto private residential properties to the east or west of the station as these residences are separated from the station by existing vegetation along the rail corridor, the Hill Street or the Pacific Highway streetscapes, and adjacent built form.

Generally, the character of the proposed station upgrade at night would be visually absorbed into the surrounding brightly lit environment. This would result in no perceived change in the amenity of views at night, resulting in a **negligible visual impact** at night during operation.

6. Assessment of urban design and landscape character

6.1. Response to state and local urban design and landscape character considerations

Whilst the requirements of the LEP and DCP are not applicable to this assessment, the requirements of these planning instruments have been used as a

guide to ensure locally appropriate urban design outcomes are achieved.

In particular, Part 14F of the *Ku-ring-gai Local Centres DCP 2017* provides guidance for development at Roseville Local Centre, which includes Roseville Station and the study area. This guidance includes several landscape and urban design considerations (Section B, Part 14F).

The following table provides a summary of how the Proposal has responded to these considerations

TABLE 6-1 RESPONSES TO URBAN DESIGN AND LANDSCAPE CHARACTER CONSIDERATIONS

Consideration	Response
<i>Ku-ring-gai Local Centres Development Control Plan 2017</i>	
<i>Public Domain and Pedestrian Access (Roseville Local Centre, clause 14F.2)</i>	
To improve pedestrian amenity by providing continuous sun and rain protection to footpath areas	The existing canopies over the footbridge, stairs, platform and at the eastern station entrance would be retained. The new eastern entrance canopy would include a covered waiting area beside the Hill Street lift. New awnings along the platform beside the platform lift would provide continuous sun and rain protection for pedestrians at the station, using the new lifts.
To provide a consistently high quality and visually pleasing streetscape environment	The Proposal would improve the streetscape environment through improvements to the station entrances including new paving, landscaping, furniture, bicycle racks, signage and lighting. There would be a limited impact on the existing railway ornamental gardens and street trees, which contribute to the character of the streetscape environment. Six trees, including one <i>Camphor laurel</i> , would be removed at the Hill Street station entrance, to accommodate the Hill Street lift and adjacent landing area. A further six small trees would also be removed to the west of the station, to accommodate the western station entry upgrade works. The trees identified as of 'significance' in the <i>Ku-ring-gai Town Centres Public Domain Plan 2010</i> are not impacted.
To improve and enhance accessibility to the commercial precinct particularly for pedestrians, pram walkers, people with disabilities, cyclists and public transport users	The Proposal would improve the efficiency and functionality of the station by providing DDA compliant facilities. The upgrade would also improve east-west access across the rail corridor, between Hill Street and the Pacific Highway, connecting these physically separate areas of the commercial centre. This would improve access within Roseville local centre and providing 'a bridge between the two main commercial Precincts' (clause 14F.10, Precinct R3).
<i>Roseville Local Centre – Built Form and Heritage (Roseville Local Centre, clause 14F.5 and 14F.7)</i>	
To ensure building facades are well designed, articulated and address public streets, public spaces, footpaths, parks and reserves.	The location and scale of the new lifts are determined by their function; however, the clustering of the lifts with the existing footbridge allows these vertical structures to provide further articulation to this area of the station. The lifts would rise above the height of the existing footbridge and would increase the visual prominence of the station in the view from Hill Street. The use of glazing on the northern and southern facades would visually lighten the structure in views from adjacent public spaces including Hill Street.

Consideration	Response
To minimise the visual bulk and scale of new buildings when viewed from public areas	The bulk and massing of the lift structures is consistent with the scale of the existing footbridge. The simple form would be broken up with glazed panels at the northern and southern lift facades and louvres at the upper level. Glazing of the upper landing of lift 1 would also lighten the structure visually, when viewed from Hill Street.
To promote development that responds to the pedestrian scale of the street	The lifts would be taller than the existing station building and surrounding residential built form, however, the mix of materials used on the lift structures, awnings and canopy at the base of each lift would assist in responding to the pedestrian scale of the street and platform.
To conserve heritage items and ensure new buildings respond to the scale, design, and character of adjoining heritage buildings	<p>The heritage listed platform building and footbridge would be retained. The lifts would be clustered with the existing modern footbridge and set away from the heritage listed platform building.</p> <p>While there is a small canopy structure proposed to the north of the existing heritage platform building, which would partly obstruct the view to the northern façade and profile of the building, adding visual clutter to views from the northern end of the platform, this proposed canopy structure would not overshadow the heritage building.</p> <p>Much of the vegetation to the east and west of the platform, identified being important to the <i>'historic setting of the station'</i> (NSW OEH, 2009), would be retained.</p>

6.2. Urban design and landscape character impacts

The following assessment considers the urban design and landscape character impacts of the Proposal during construction and operation.

Urban design and landscape character impacts during construction:

During construction, the main compound would be located at the existing commuter car parking area to the north of the station in Hill Street. This would reduce the area of commuter carparking available in close proximity to the station. While this compound would be in close proximity to residences in Hill Street, particularly between Roseville Avenue and Clanville Road, the retention of streetscape vegetation and access along pathways would reduce the direct landscape impact during construction.

A small area of the verge, east of the Pacific Highway would be used as a temporary laydown area during construction. While this would occupy a small linear area of open space in the vicinity of the station, the existing vegetation in this location would be retained and pedestrian access along the adjacent pathway would be maintained. Where possible, trees which overhang the construction compounds would be retained with some minor trimming if required.

There would be some modification to the landform at the station, including the excavation of part of the eastern cutting between station and Hill Street, to widen the station entrance and provide a platform for the proposed Hill Street lift. This area would also require removal of six mature trees and some smaller shrubs and the reconfiguration of the retaining walls and garden beds at the eastern station entrance. The western station entry plaza would be regraded and widened, including the removal of a further six small trees and the reconfiguration of the garden beds, retaining walls and rear access to the Former Commonwealth Bank building.

Temporary pedestrian access arrangements and footpath diversions would potentially reduce the legibility and accessibility of the station. There would also be reduced amenity and comfort for pedestrians approaching the station from the east and west, particularly during the earthworks and installation of the lifts, due to the use of large-scale machinery.

Overall, there would be a temporary, minor reduction in the landscape and urban design functionality of the station precinct. This would result in a **minor adverse landscape impact** during construction.

Urban Design and landscape character impacts during operation:

During operation there would be substantial improvements to accessibility of the station precinct with the introduction of lifts at the station, upgrades to the footbridge and station entrances, provision of accessible car parking spaces, kiss and ride zone and bicycle racks, and improvements to the platform surface and facilities within the platform buildings.

The Proposal would improve legibility within the station precinct through the increased visual prominence of the station entry on Hill Street. This improved entry would include a widened entrance, public realm improvements and opening up views to the new Hill Street lift. The vegetation and gardens removed at the station entry on Hill Street during construction would be replaced with new ornamental gardens. The upgraded western station entry plaza, with new feature planting, paving, furniture and signage, would also improve the legibility and accessibility of the station. The new entry space would be wider and create a visually appropriate address for the station from the Pacific Highway, while maintaining the existing mature trees which frame views to the station entry. While the proposed lifts would rise above the existing station building and footbridge, the location of the lifts at the southern end of the station, away from the heritage listed station platform building and heritage character buildings in the adjacent local centre, limits the potential for overshadowing. Furthermore, due to the distance between the lifts and nearby residential properties, there is not expected to be any overshadowing impact on residential properties on Hill Street or the Pacific Highway.

Overall, there would be a considerable improvement in the urban design functionality and landscape character of the station precinct and a **moderate beneficial landscape impact** during operation.

7. Mitigation of impacts

The following mitigation measures shall be implemented to reduce the visual impacts of the Proposal:

- An Urban Design Plan and Landscaping Plan is to be submitted to TfNSW and endorsed by the Precincts and Urban Design team. The Urban Design Plan is to address the fundamental design principles as outlined in *'Around the Tracks' – urban design for heavy and light rail*, TfNSW, Interim 2016. The Urban Design Plan and Landscaping Plan shall:
 - Demonstrate a robust understanding of the site through a comprehensive site analysis to inform the design direction, demonstrate connectivity with street networks, transport modes, active transport options, and pedestrian distances
 - Identify opportunities and challenges
 - Establish site specific principles to guide and test design options
 - Demonstrate how the preferred design option responds to the design principles established in *'Around the Tracks'*, including consideration of Crime Prevention through Environmental Design Principles
- The Urban Design Plan and Landscaping Plan is to include the Public Domain Plan for the chosen option and will provide analysis of the:
 - Landscape design approach including design of pedestrian and bicycle pathways, street furniture, interchange facilities, new planting and opportunities for public art
 - Materials Schedule including materials and finishes for proposed built works, colour schemes, paving and lighting types for public domain, fencing and landscaping
 - An Artist's Impression or Photomontage to communicate the proposed changes to the precinct.
- The following design guidelines are available to assist and inform the Urban Design Plan and Landscaping Plan for the Proposal:

- TAP Urban Design Plan, Guidelines, TfNSW, Draft 2018
- Commuter Car Parks, urban design guidelines, TfNSW, Interim 2017
- Managing Heritage Issues in Rail Projects Guidelines, TfNSW, Interim 2016
- Creativity Guidelines for Transport Systems, TfNSW, Interim 2016
- Water Sensitive Urban Design Guidelines for TfNSW Projects, 2016.
- Endorsement of the Urban Design Plan and Landscaping Plan will demonstrate compliance with the Conditions of Approval in the Review of Environmental Factors (REF) Determination Report. The Urban Design Plan and Landscaping Plan shall be:
 - Prepared prior to concept design and finalised
 - Prepared in consultation with Local Council and relevant stakeholders
 - Prepared by a registered Architect and/or Landscape Architect.

In addition, the following mitigation measures should be considered:

- temporary access arrangements should be well signed and provide a visually legible route for pedestrians
- consolidate site equipment and facilities to maximise the area of useable public realm and maintain pedestrian access across the footbridge where possible.
- Consider opportunities for the use of public art or a green wall at the Hill Street lift shaft to minimise the visual impact of the wall.

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