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Transport for NSW Transport Access Program
Waratah Station Upgrade

Landscape Character & Visual Impact Assessment

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Table 1 Terms

Term	Description
City of Newcastle	Local Government Area (LGA) for the Proposal area.
Inbound	South bound trains and stops (heading to Newcastle/Sydney).
Landscape Character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Zone	An area of landscape with similar properties or strongly defined spatial qualities, distinct from areas immediately adjacent.
Magnitude	A term that combines the judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
Outbound	North bound trains and stops heading to Maitland.
Proposal	Construction and operation of the Waratah Station Upgrade.
Proposal area	The extent to which the station upgrade would occur, including works to the platform, stairs, the station building and other ancillary items.
Road reserve	Public roads that are controlled by a local authority / government or other State authority.
RPS	The author of this Landscape Character, and Visual Impact Assessment report.
Scenic amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Sensitivity	A term applied to visual receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.
Viewpoint	Positions looking towards a proposal and considers views from a cluster of receptors.
Visual amenity	The overall pleasantness of the views people take-in of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Visual catchment	Extent of potential visibility to or from a specific area, feature or project.
Visual prominence	Is determined by the size, height and colour of proposed infrastructure elements and the degree to which the landscape within which they sit can assist in reducing their visual prominence (e.g. screening vegetation, land-form, etc.).
Visual receptor	Individuals and/or defined groups of people who have the potential to be affected by a proposal. These are sensitive visual receptors such as houses, roads and other infrastructure that is used frequently.

Table 2 Acronyms

Abbreviation	Title
AHD	Australian Height Datum
DCP	Development Control Plan
DDA	Commonwealth *Disability Discrimination Act 1992*
DSAPT	*Disability Standards for Accessible Public Transport*
EP&A Act	NSW *Environmental Planning and Assessment Act 1979*
FAT	Family Accessible Toilet
LCZ	Landscape Character Zone
LEP	Local Environment Plan
LGA	Local Government Area
NCC	Newcastle City Council
REF	Review of Environmental Factors
TfNSW	Transport for NSW

1 Introduction

1.1 Purpose

RPS has been commissioned by Transport for NSW (TfNSW) to undertake a Landscape Character and Visual Impact Assessment for proposed modifications to Waratah Station located on Platt Street, Waratah NSW.

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

This Landscape Character and Visual Amenity Impact Assessment delivers an objective assessment of the probable impacts on the visual environment resulting from the construction of the Proposal. This report outlines results from site assessment and describes the present landscape character. It documents the assessment of visual impact resulting from the Proposal and provides recommendations for suitable mitigation measures.

This Landscape Character and Visual Amenity Impact Assessment supports the Review of Environmental Factors (REF), which has been developed concurrently with this report.

1.2 Study limitations

This assessment is intended to be an objective report based on professional analysis of the concept design. It seeks to establish the anticipated visual impacts of the Proposal on a wide range of receivers. The assessment has been undertaken based on conceptual level information and therefore is generally broad in its approach.

Landscape character and visual impact assessment requires qualitative (subjective) judgements to be made. The assessment process aims to be objective and describe any changes factually. Potential changes because of the Proposal have been defined, however the significance of these changes requires qualitative (subjective) judgements to be made. The conclusions of this assessment therefore combine objective measurement and subjective professional interpretation.

The opinions, conclusions and any recommendations in this report are based on assumptions made by RPS described in this report.

1.3 Methodology

This report adopts the industry standard in its approach to visual impact assessment that is process-driven, consistent and based on professional, value judgement of commonly accepted and adopted criteria in the industry.

The methodology adopted for this report is guided by policy and guidelines outlined in '*Beyond the Pavement'* (NSW Roads and Maritime Services') and the '*Environmental Impact Assessment Practice Note Guideline for Landscape character and visual impact assessment 2013'* (NSW Roads and Maritime Service, 2013).

The methodology for this visual impact assessment involves the following activities:

- desktop study using aerial photography to identify the potential visual catchments and possible visual receptors
- ground truthing of assumptions reached through initial desktop studies
- visiting the Proposal area and reviewing the surrounding vantage points from publicly accessible areas

- describing and evaluating the existing landscape character and visual environment to establish a baseline for the visual assessment
- mapping the visual envelope based on field studies and data while identifying sensitive visual receptors. Sensitive visual receptors are people who would might experience a visual impact
- undertaking a visual impact assessment using the grading matrix, considering visual sensitivity (of the visual amenity or viewpoints) and the magnitude of the visual change, to arrive at an overall level of effect or impact
- views from habitable room windows and private outdoor areas of residences are treated as sensitive receptors. Views from residual land beyond the primary outdoor area (such driveways, cropping lands, easements) are treated as less sensitive receptors
- this assessment adopts the standard methodology of sensitivity relating to proximity - the greater the distance between the visual receptor and the Proposal, the lesser the visual sensitivity of that visual receptor.

Key information reviewed as part of this report included:

- Transport for NSW. 2018. Waratah Station Upgrade Preliminary Environmental Assessment Transport Access Program 3 Ref–6116787
- Transport Access Program – Waratah Station. Combined Package. Drawings issued 11/10/18 – Draft Scoping Design Issue for Review. Received 12th October.

2 Proposal outline

2.1 Site description

Waratah Station first opened in 1858 (refer Figure 1) located at Station Street in Waratah within the Newcastle local government area (LGA) in the Hunter Region of NSW. The station is positioned on the Hunter Line, approximately 6.0 kilometre north west of Newcastle's Central Business District (refer Figure 2), and 165km north of the Sydney Central Business District (NSW Rail.net 2008).

As shown in Figure 3, the local context of Waratah is predominately a residential. Close by is a commercial shopping centre along Turton Road providing a range of retail, entertainment, and community uses. The architectural and urban character of Waratah Station retains the same aesthetic of other stations on the Hunter Line. The steel stairs, pedestrian fencing, and existing footbridge have contributed to the urban and landscape character across the Hunter Line stations.

Waratah Station features one side platform (Platform 2) on the western side of the Hunter Line, and one island platform (Platform 1) which is only used by rail customers on the western side of the Platform. On the eastern side of Platform 2 are two railway lines used for coal freight. Access to Platform 2 is currently via a set of stairs from Platt Street (west). Access to the island platform, Platform 1 is via stairs and the existing footbridge that connects the island with Platform 2, and across to the eastern entrance at Hanbury Street.

Topographically, the suburb of Waratah has little degree of elevation as shown in Figure 4. The nearby Braye Park and the Waratah Lookout are at the highest elevation in the region, however due to the location (1.3km away), the train station is blended into the urban landscape. South of the site is a built-up road bridge over the rail lines.

The proposal area has been based on the extent to which the accessibility upgrade would occur, including works to the platform, stairs, the station building, and several other ancillary items.

Figure 1 Waratah Station, 31 December 1910 (State Records & Archives, 2018)

Table 3 Proposal area particulars

Aspect	Details
Station name	Waratah Station
Address	Station Street, Waratah NSW
LGA	City of Newcastle
Coordinates (approx.)	32°54'09"S, 151°43'53"E
Site total area (approx.)	3.754ha
Lot and Plan	1004//DP1193102
Land zoning (site)	SP2 Infrastructure
Adjacent land zoning	RE1 Public Recreation, B2 Local Centre, R2 Low Density Residential, R3 Medium Density Residential, R4 High Density Residential

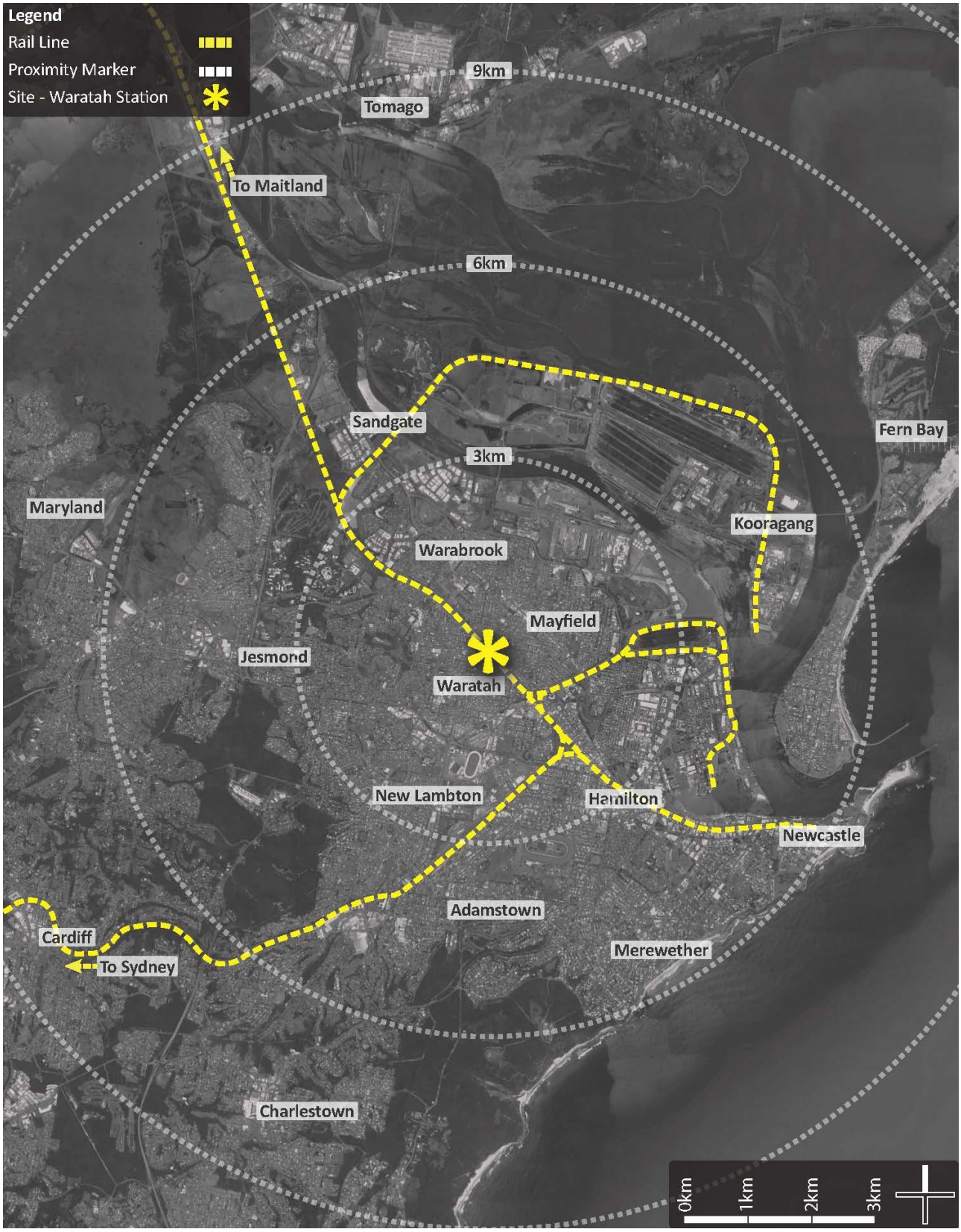

Figure 2 Waratah Station: Regional context

Figure 3 Waratah Station: Local context

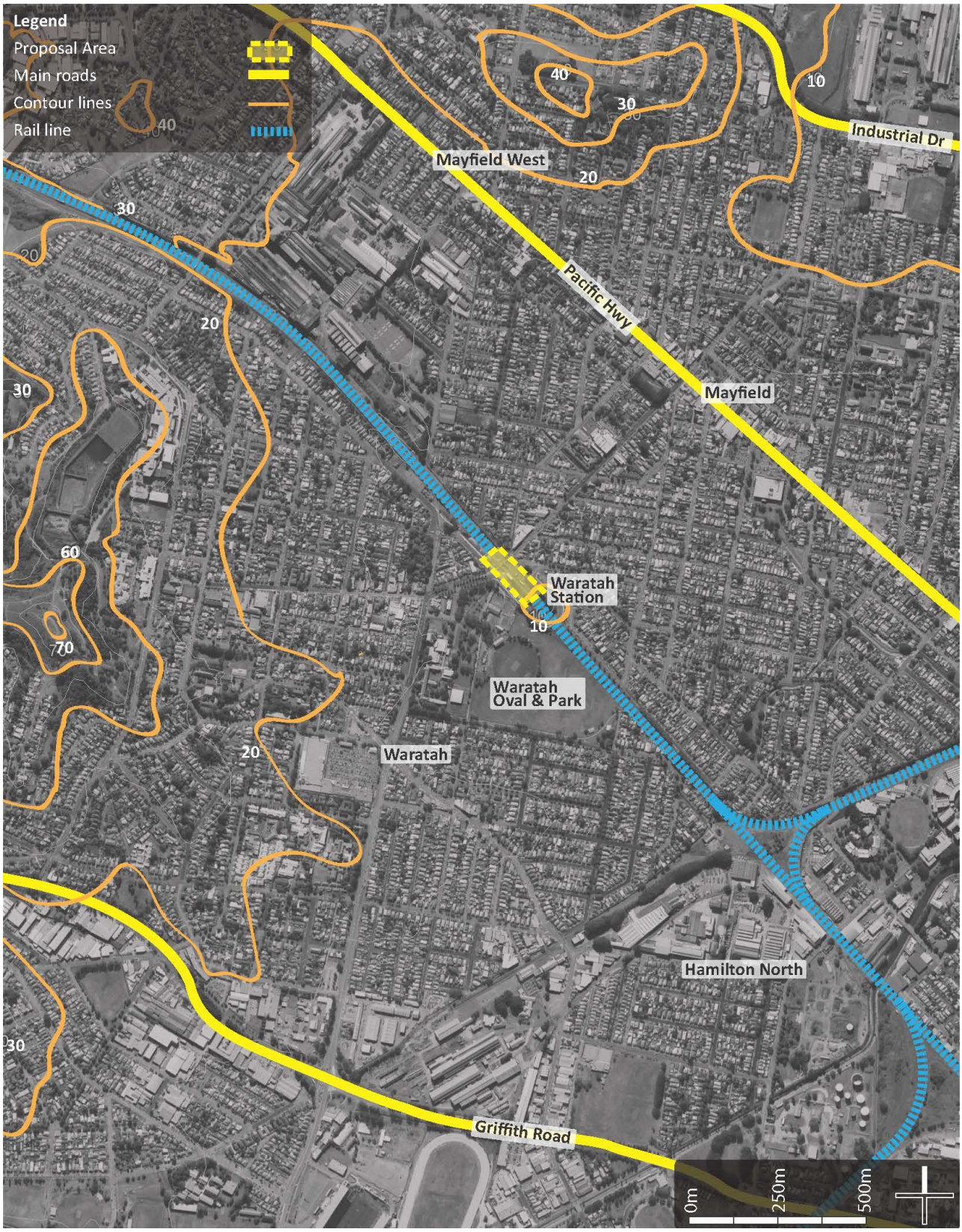

Figure 4 Waratah topography

2.2 Proposal overview

Upgrades under the Transport Access Program are designed to ensure that stations are fully accessible to a wider range of customers, to deliver improved travel to and between modes, encourage greater public transport use and better integrate interchanges with the role and function of town centres.

It is noted that the description of the Proposal is based on the preliminary concept design options and is subject to further design refinement. The key features of the Proposal are summarised in Table 4 and are based on design drawings, titled TAP – Waratah Station (received 12th October).

Table 4 Proposal overview and construction activities

Stage	Activities
Site Investigations (Pre-detailed design)	• Surveying • Potholing / non-destructive digging to confirm underground services location • Condition assessments / inspect pits by suitably experienced personnel when excavation works are occurring, etc • Geotechnical boreholes and other site investigations
Site Establishment & Enabling Works	• Site establishment – install site sheds / amenities and services connection and demarcation fencing • Remove billboards / adjust fencing • Modifications to noise wall and install temporary acoustic screens (Railway Terrace side) • Install platform / site demarcation fencing and hoardings • Install temporary concrete pump line • Tree removal / vegetation trimming • Services protection / relocation (incl. signalling in GST) • Services diversion / relocation works including in platforms (if required)
Footbridge, Stairs, Lifts & Ramps	• Repair / strengthen / patch paint existing footbridge / stairs • Construct lift pits / foundations / lift bases (behind hoardings) • Install lift shafts and upper lift landing • Install elevated walkway cantilever beams, stringers and precast deck slabs (with temporary balustrades) • Install elevated walkway protection screens and external finishes • Construct new ramp to Platform 2 and modifications to stairs • Install services containment to elevated walkway • Install lift shaft services, lift cars and fitout lift cars • Install lighting / CCTV / PA services to elevated walkway and lift landings • Replace stair treads and hand railing (out of hours work)
Building & Platform Works	• Construct foundations / retaining structure for local platform widening • Install select fill material / concrete for local platform widening • Construct combined services route for power /communications to new station services equipment room / switch room • Building works and services / fitout for new FAT, ambulant toilet and waiting room • Construct new station services equipment room / switch room • Building services / fitout and equipment installation for new station services equipment room / switch room • 'Make good' existing station building following removal of communications equipment / racks. • Platform re-grading/resurfacing, TGSI and hearing loops • Platform finishing works (reinstatement / resurfacing, line marking etc.)

Stage	Activities
Interchange Works, Finalisation, & Site demobilisation	• Test and commission new station power supply • Interchange works including civil/lighting (as required) • Cutover / commission digital PA / hearing induction loops • Test and commission CCTV cameras / station systems installation • Test and commission new lifts / open to public • Finishing works including landscaping, fencing • Site demobilisation

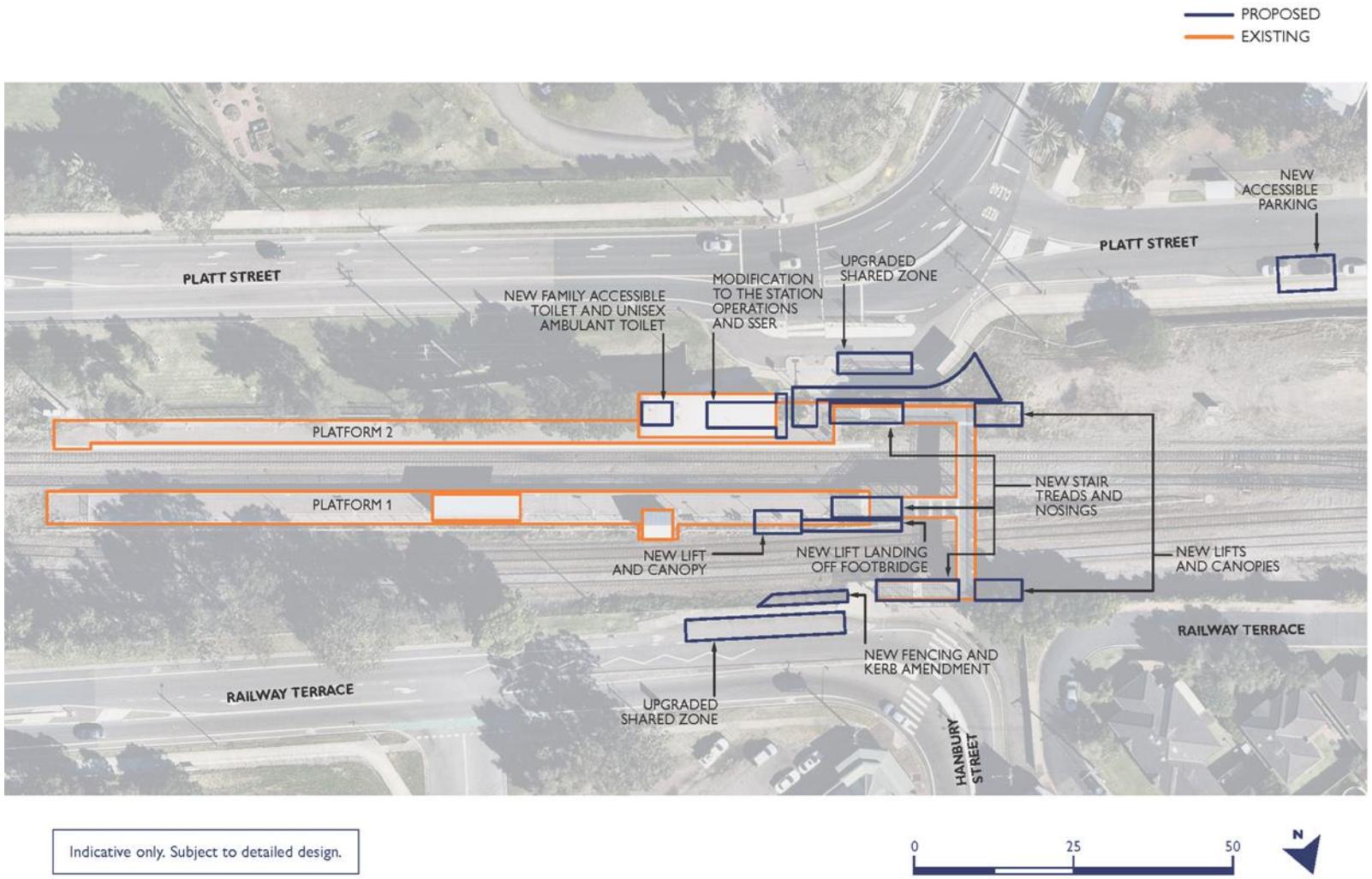

Figure 5 Key elements of the Proposal

2.3 TfNSW guidelines

The Proposal is subject to the provisions of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) and Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and is permissible without consent under the ISEPP. However, the design outcomes for the Proposal will be largely guided by the respective TfNSW Urban Design Guidelines, which include the following documents:

- *TfNSW Creativity Guidelines for transport systems* (Interim Issue)
- *TfNSW Managing Heritage issues in rail projects* (Interim Issue)
- *TfNSW Around the Tracks - urban design for heavy and light rail* (Interim Issue)
- *TfNSW Commuter Car Parks urban design guidelines* (Interim Issue).
- *NSW Sustainable Design Guidelines – Version 4.0 (TfNSW, 2017)*

2.4 Planning context

Where possible the design and/or systems associated with any development should have some regard for local government policies, and to establish a high level of aesthetic synergy with the wider LGA. A proposal should also be considerate of the broader objectives and strategies within the local government ‘s Development Control Plan (DCP), in addition to more specific design parameters such as those relating to development within publicly accessible / public domain areas.

Relevant City of Newcastle Council policy includes:

- *The Newcastle Local Planning Strategy 2015*
- *Newcastle Local Environmental Plan 2012*

Newcastle Local Planning Strategy 2015 outlines visions and objectives for the Waratah neighbourhood centre and the Proposal is consistent with some of the objectives:

- Enhance the walkability of the area, particularly pedestrian access between Station Street and Waratah Station
- Encourage development which is capable of catering for additional population, particularly for older persons and students

Waratah Station plays an important l role in the area’s realisation of its vision and objectives as expressed within the strategy.

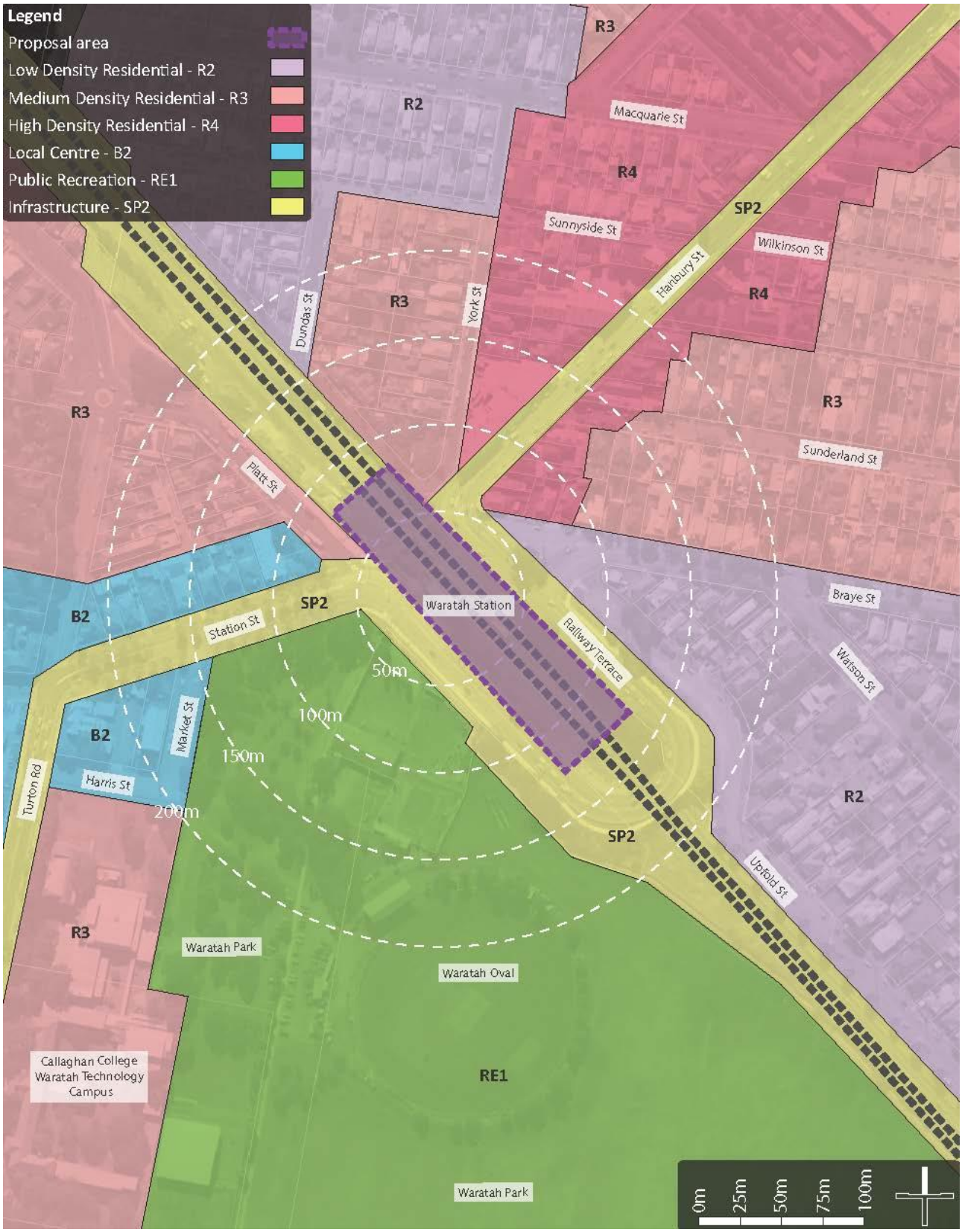

Figure 6 Waratah Land Zoning

3 Landscape Character Assessment

3.1 Methodology

This chapter outlines the urban landscape character within a localised context to obtain an appreciation of the existing visual environment of the area in which the Proposal is located, and to subsequently to develop a visual baseline. This visual baseline will be used as a measurement to gauge the level of influence the Proposal has on its surrounding area.

The methodology inherited for the landscape character used herein is based on an objective assessment of the landscape attributes of a place. The Proposal area is viewed as a whole site within a broader context for the specific purpose of evaluation, and to assist with developing guidelines to manage and plan for the landscape character type and its relationship with the site and Proposal.

3.2 Landscape Character Zones

A Landscape Character Zone (LCZ) is defined as the collective qualities including the built form, natural elements, and the cultural and social facets that combine to provide a locale with a unique sense of place. An appreciation of the visual character of the present landscape assists in the development of a baseline and means for evaluation in visual impact assessment, and subsequently how the Proposal will influence: the present visual environment; aesthetic and perceptual aspects of the landscape, and; its unique character.

An LCZ takes place when there are apparent patterns of elements occurring consistently in a specific type of landscape. The landscape character zones and prominent landscape features identified and described below collectively define the overall character for the part of the local area. Five LCZs have been identified within a 100-metre radius from the Proposal and Figure 7 presents the location of these zones. The following sections provides a description of each LCZ to convey the urban style of the locale, for means of assessment against the influence of the Proposal.

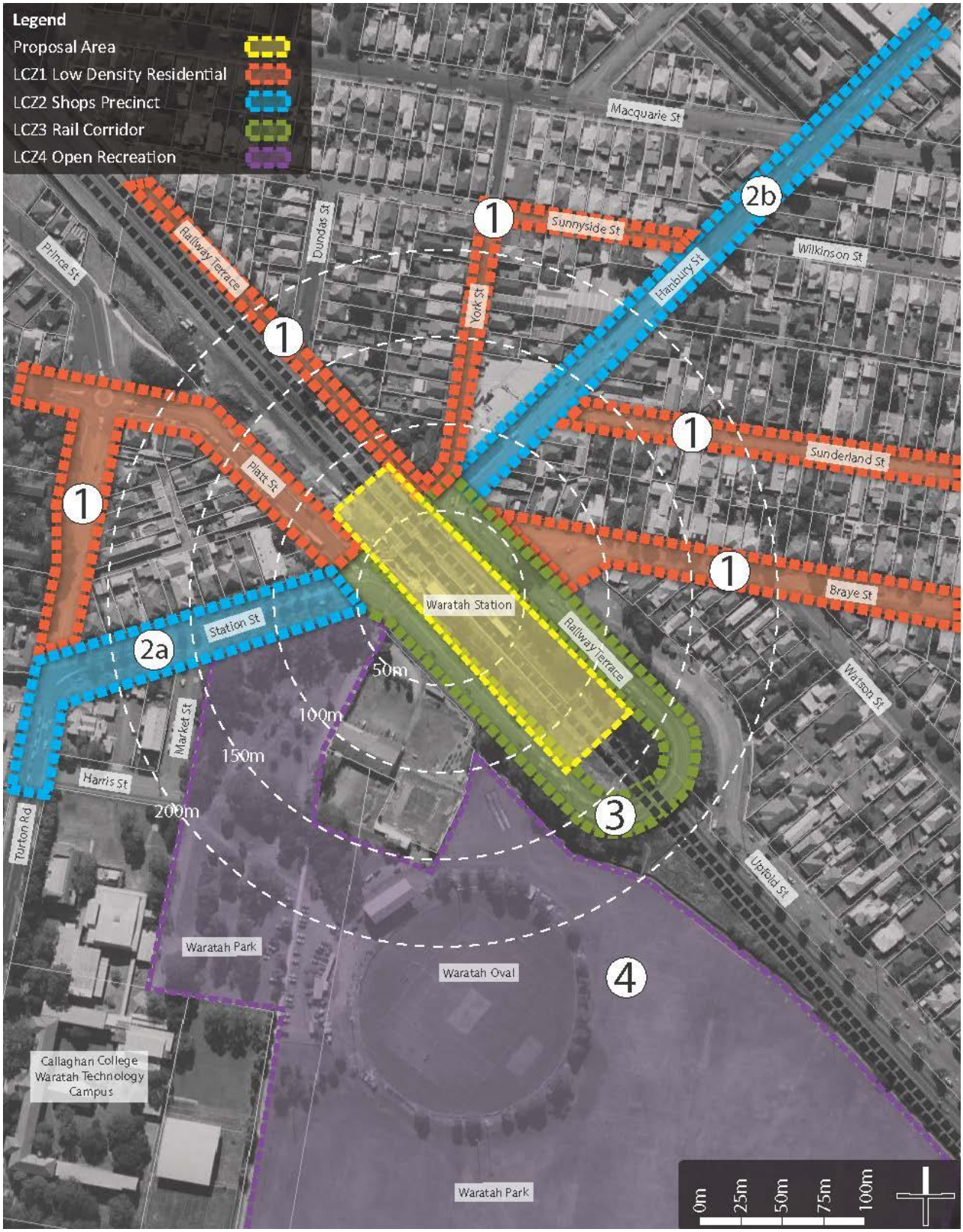

Figure 7 Landscape Character Zones

3.2.1 LCZ 1 – Residential

LCZ1 encompasses Platt Street, Turton Road, Railway Terrace, York Street, Sunnyside Street, Sunderland Street, and Braye Street. The character of the LCZ1 has been represented in Figure 8.

This zone is defined by a generally homogenous style of residential urban development on either side of the road. Dwellings are typically 1 to 2 stories in height with a 6-metre setback off the road, providing a narrow streetscape. The streets are lined with a mix of native and exotic trees, with pedestrian pathways on most streets. The streetscapes are complimented with low timber fencing boundaries to the residential lots.

The urban vernacular of the individual dwellings is a variable mix of colonial and post war architecture. Many dwellings typically face onto the street through inclusion of a veranda. Construction materials are predominately weatherboarding on the exterior and the roof is typically corrugated iron. Waratah features several heritage listed residential properties, including 92 Station Street, 21 Platt Street, and 23 Platt Street (2015, NSW Office of Environment and Heritage).

Image from Braye Street, Waratah

Figure 8 Landscape Character Zone 1 – Residential

3.2.2 LCZ 2a – Waratah Shops Precinct

LCZ2a encompasses Station Street and Turton Road including the Town Hall Hotel. The character of the LCZ2a has been represented in Figure 9. This landscape character zone is concerned with the various commercial activities of Waratah as well as the landscape of Station Street creating a distinct street.

This zone features several heritage listed residential properties, including Town Hall Hotel, Waratah Park, and Station Street Palms, Waratah Post Office (Former), Waratah School of Arts (2015, NSW Office of Environment and Heritage). The Town Hall Hotel contributes to the character of the street. The form of the building is similar to its original appearance from the 1920s but displays renovations over time including wall coatings, details, and windows. The two-storey building with a hipped roof of corrugated iron is decorative to the intersection at Station Street and Turton Road, standing on the corner facing towards the former Waratah Post Office. The former post office is a single storey building of painted brickwork and rendered mouldings, with a hipped and gabled roof of corrugated iron. This heritage listed site neighbours the Waratah School of Arts, a single storey brick building with classical mouldings in cement render to the front façade with a hall to the rear section of the building dating back to 1888.

The remaining Station Street features residential properties, Waratah Park and the Station Street Palms. This landscape zone is notable because of its old plantings and buildings.

Image from Station Street, Waratah

Figure 9 Landscape Character Zone 2a – Waratah Shops Precinct

3.2.3 LCZ 2b – Waratah Shops Precinct

LCZ2b encompasses Hanbury Street and terminates at the Pacific Highway intersection. The character of the LCZ2b has been represented in Figure 10. The landscape character zone is concerned with the various commercial activities of Waratah, centred around mixed use. Hanbury Street features businesses, and commercial properties, residential, larger scale developments and Webb Park.

Both sides of Hanbury Street have parallel parking and pedestrian pathways. There is a collection of fence types featured, and minimal landscaping and street trees throughout. The landscape character zone features a collection of brickwork, corrugated iron, and cement depending on the age of the building. Outside of the commercial qualities of this landscape character is the typical urban streetscape effects, including electrical light poles, pedestrian paths, and signage.

Image from Hanbury Street, Waratah

Figure 10 Landscape Character Zone 2b – Waratah Shops Precinct

3.2.4 LCZ 3 – Railway Infrastructure

LCZ3 encompasses a section of road along Platt Street extending into Railway Terrace crossing over the railway, providing vehicular connection from the west side to the east side of Waratah. The character of the LCZ3 has been represented in Figure 11.

Platt Street runs parallel to the railway line on the western side railway corridor and follows a ramp up to a U turn leading into Railway Terrace over the rail corridor. Railway Terrace runs parallel to the railway line on the eastern side of the rail corridor, before turning east and extending into Hanbury Street. The road's elevation over the crossing has exposed and unobstructed views to the rail corridor and train station as seen in Figure 12.

The elevated road bridge is vegetated on the built-up areas with established trees on the boundary line on the outside of the rail corridor. The road is one lane each way and bounded by barrier fencing, median concrete strips, with a bicycle lane on either side of the road.

Land usage to the south west of the road is the open recreational park and sporting fields, while the remaining external boundaries to this zone are low density residential dwellings.

Image from Road bridge, Waratah

Figure 11 Landscape Character Zone 3 – Railway Infrastructure

3.2.5 LCZ 4 – Open Recreation

LCZ4 encompasses the open recreational space including Waratah Park and Waratah Oval. The character of the LCZ4 has been represented in Figure 12. The precinct is bounded by Waratah Park featuring established trees, soft landscapes, turfed areas, and pedestrian connections through to Waratah Oval, Callaghan Collage and the neighbouring Community-use buildings. Waratah Oval features multiple sporting fields that are catered for many different sports. There's a large grandstand overlooking a semi-formal oval, bounded with established trees and an informal carpark west to the oval.

To the west of this zone is the Callaghan College, the north and east boundaries are defined by Station Street, Platt Street, and the railway corridor. The southern boundary is low residential dwellings.

Large established trees obstruct the views to the train station however most of the railway corridor is exposed from the sporting fields. Waratah Park established in 1860s contains various plantings and features making it valuable to the local townscape. The large Brush Box (*Lophostemon confertus)* in the north-west corner stands as a prominent feature adjoining Station Street. The southern end is quite bland with a line of Fig Trees along Young Street.

Image from Young Street, Waratah

Figure 12 Landscape Character Zone 4 – Open Recreation

3.3 Urban and landscape design objectives and principles

The following urban design objectives and principles have been developed to provide initial design safeguards. These are focussed towards maintaining the existing landscape character where possible, through strategic and practical measures.

3.3.1 Urban design objectives

- Integrated infrastructure / landscape design response that permits the landscape to take precedence over the new built form where possible, to harmonize with the existing landscape character of Waratah.
- Strengthen the vegetated character of the Proposal area and express the urban heritage where possible.
- Preserve screening to residential properties within the affected zone to protect permeant and sensitive receptors, particularly considerate of any elevated low-density dwellings.
- Any urban design features should reflect, and be sympathetic to, the existing historic, cultural and natural character of the area. This can be achieved through the implementation of design and the use of materials which assist with blending the Proposal into the existing environment.
- Design lighting so not to negatively impact adjacent land uses, for instance, no light spill into adjacent residential properties containing dwellings.
- If possible, ensure the location of the Proposal infrastructure does not impact on existing view lines and view corridors, for example significant corridors from residential dwellings, and views along the rail corridor.

3.3.2 Landscape design principles

- Re-vegetation undertaken to all areas influenced by construction work. This includes the removal of trees, garden areas and other landscape-related infrastructure.
- The re-vegetation should be advanced indigenous species to ensure alignment with local government policy, within the context of overarching state legislation.
- Use of locally grown endemic plant material wherever possible to assist with landscape blending.
- Maximise the retention of existing visual screening opportunities.
- Where mature bushland vegetation must be removed, consider replacing with vegetation / landscaping in keeping with the local area.
- The material and colour palette should reflect the existing heritage qualities of the Proposal area.
- Where landscaping is specified to visually soften or block Proposal infrastructure, ensure the specification of shrubs and trees which are consistent with the existing landscape character of the area.
- Specify shrub and tree species that will not inhibit existing view corridors through to the rail corridor. Moreover, strengthen existing view corridors through the placement and specification of landscaping.

4 Visual Impact Assessment

4.1 Methodology

The methodology adopted in this assessment has been adapted from the Roads and Maritime Services *Environmental Impact Assessment Guidance Note (2013): Guidelines for landscape character and visual impact assessment*. This methodology therein has been used as a guide to align with the features and requirements of this Proposal.

Due to the unfeasible nature of completing an assessment for each individual visual receptor within a four-kilometre radius, this report considers groups or clusters of visual receptors which are used to highlight the influence of the Proposal on a broader context.

There are two primary measurements used to determine impacts to the landscape character:

1. Sensitivity of the character
2. Magnitude of the Proposal.

4.1.1 Sensitivity

Visual sensitivity refers to the character of a setting, the quality of the view, and how sensitive it is to the proposed change (Roads and Maritime Services, 2013). Combined with magnitude, sensitivity provides a measure of impact. Visual sensitivity relates to the direction of view and the composition of the view.

Table 5 has been extracted from the Landscape Institute and Institute of Environmental Management and Assessment. These terms and definitions are generally accepted within the industry to identify visual receptor sensitivity.

Table 5 Sensitivity terms and definitions

Rating	Definition
High	Private residents at home with prolonged viewing opportunities, heritage properties and landscapes
Moderate	Commercial properties, travellers on road, rail or other transport routes with an interest in their environment
Low	Low transient type spaces and people at their place of work whose attention is on their work
Negligible	Bushland, rural area and other properties with little to no viewing potential

The higher the visual quality of the landscape, the greater the significance of introducing new development and therefore the higher the sensitivity. For example, road widening would be ranked lower than changes to national parkland. A place with a more consistent character would be more visually sensitive to new development than a place with less consistency.

4.1.2 Magnitude

The magnitude of a visual effect is the degree of change the visual landscape undergoes because of the proposed development. It is the measurement of the overall scale, form and character of a proposed development when compared to the existing condition (Roads and Maritime Services, 2013).

Magnitude also takes into consideration the distance between the viewer(s) and the proposed development. Judging the magnitude of visual effects takes account of:

- the scale of the change within the view with respect to the addition (or loss) of elements taken up by the proposed development
- the degree of change and/or integration of any new features or changes in the landscape in terms of form, scale and mass, line height, colour and texture
- the nature of the view of the proposed development and whether the views are permanent, full, partial or glimpses (Landscape Institute and Institute for Environmental Management and Assessment, 2013)
- the magnitude of proposed development in a landscape character depends on the scope of the Proposal
- the location of the proposed development in relation to the region in question also influences magnitude.

Six categories are used in ranking the magnitude of a Proposal, ranging from negligible to high. Impact on the Landscape Character is determined using the matrix shown in Figure 13. Rankings for sensitivity and magnitude are combined to generate the impact in the body of the table.

Sensitivity \ Magnitude	High	Moderate	Low	Negligible
High	High Impact	High-Moderate	Moderate	Negligible
Moderate	High-Moderate	Moderate	Moderate-Low	Negligible
Low	Moderate	Moderate-Low	Low	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

Figure 13 Roads and Maritime impact grading matrix

4.1.3 Viewpoints Vs Receptors

The visual impact assessment focuses on Viewpoints and Receptors as the fundamental subject of assessment. Viewpoints are general positions looking towards the Proposal and considers views from a cluster of Receptors. Receptors are sensitive visual receptors such as houses, roads and other infrastructure that are used frequently. Figure 14 outlines the position and direction of the viewpoints for the Proposal.

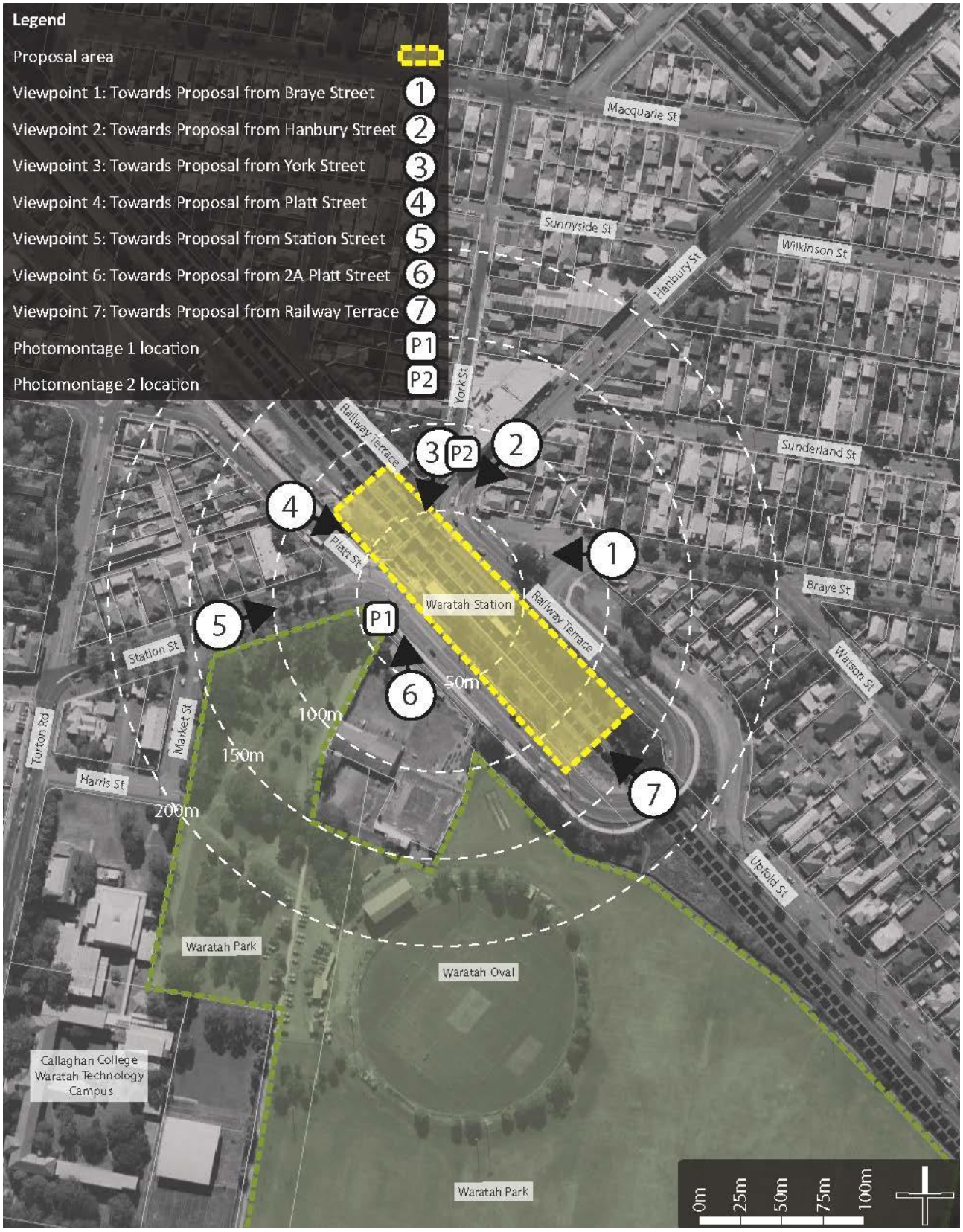

Figure 14 Viewpoint locations

4.1.4 Photomontages

Photomontages provide an indication of what a proposal may look like from key representative viewpoints once complete and help to demonstrate the bulk and scale. Photomontages for the Proposal area have been prepared from two standpoints. The photomontages have been chosen to highlight different aspects of the proposal as well as highlight the proposal area from the most impacted viewpoints. The photomontages are shown against the existing environment noting that materials and finishes. The materials and finishes are indicative and would be further investigated during detailed design. Refer to Figure 15, 17, 18 and 19.

Figure 15 Station Street and Platt Street – existing view

Figure 16 Platt Street/Station Street – photomontage

Figure 17 York Street – existing view

Figure 18 York Street – photomontage

4.2 Viewpoint assessment

4.2.1 Viewpoint 1: Views from Braye Street

4.2.1.1 Viewpoint description

Views towards the Proposal area from Viewpoint 1 are dominated by the existing station's infrastructure within the immediate locality. From this location on Braye Street the rail infrastructure can be identified, including the platform and associated structures such as the main station building and overhead wiring; the footbridge is prominent above the station platform. This is represented in Figure 19. There are several large trees in the along Railway Terrace which rise above the urban streetscape. All aspects of the railway infrastructure are visible from the road.

Figure 19 Viewpoint 1 – Views from Braye Street

4.2.1.2 Viewpoint impacts

- Negligible: New lift shafts would be visible but due to the urbanised nature of the setting would not materially impact the nature of the visual environment.

Table 6 Viewpoint 1: Visual Impact Assessment

Sensitivity (High)	Magnitude (Negligible)	Overall impact
• Lowset residential properties to Braye Street. • Waratah Station and associated infrastructure are already visible to residents in Braye Street • The viewpoint has an urbanised landscape character • Braye Street: single width two lane road is urban in character with urban infrastructure	• New station infrastructure not a significant visual departure from the existing visual conditions • Moderate distance between the Proposal and residential dwellings. • Mature trees in places visually filter some parts of the views to Proposal. • Motorists and pedestrians with direct views to the Proposal area.	**Negligible**

4.2.2 Viewpoint 2: Views from Hanbury Street

4.2.2.1 Viewpoint description

Viewpoint 2 is positioned at the Hanbury Street looking towards the footbridge. This is represented in Figure 20.

Views in this area are dominated by adjacent shopfront leading to the station footbridge. The commercial buildings are nominally two stories at the approach to the railway station. Some single-story residences and business intersperse these two-story buildings.

The linear nature of the street highlights the station footbridge at the termination of the view. There is some minor vegetation screening to the right of the view down Hanbury Street.

Overhead wires, traffic signage and some advertising devices are also noted in this very urbanised environment.

Figure 20 Viewpoint 2 – Views from Hanbury Street

4.2.2.2 Viewpoint impacts

- Low: Some of the screening vegetation and noise wall would be removed to install new lift shafts.
- Negligible: New lift shafts would be visible but due to the urbanised nature of the setting would not materially impact the nature of the visual environment.

Table 7 Viewpoint 2: Visual Impact Assessment

Sensitivity (Moderate)	Magnitude (Low)	Overall impact
• One to two storey commercial properties line each side of Hanbury Street. • Station infrastructure prominent on termination of view. • Waratah Station and associated infrastructure already exposed to users and businesses on Hanbury Street. • Hanbury Street: two lane mirror arterial road is urban in character with urban infrastructure • Rail infrastructure, including signage, walkway, fencing noted.	• New station infrastructure not a significant visual departure from the existing visual conditions. • Moderate distance between the Proposal and residential dwellings. • Mature trees screen some parts of the views to the Proposal area. • Motorists and pedestrians have direct views to the Proposal area.	**Moderate-Low**

4.2.3 Viewpoint 3: Views from York Street

4.2.3.1 Viewpoint description

Viewpoint 3 is located directly north of the proposal on York Street where it intersects with Railway Parade. Views from this position are highlighted in Figure 21.

York Street itself is characterised on the west by lowset housing stock. The eastern side of the street is parking and utilities areas for businesses facing Hanbury Street.

There are heavily filtered views of the railway assets with only the pedestrian overpass and existing noise wall prominent from this location due to a thick vegetation screen, noting vegetation is not endemic. The Railway infrastructure becomes more visually prominent towards the southern end of York Street.

Figure 21 Viewpoint 3 – Views from York Street

4.2.3.2 Viewpoint impacts

- Moderate: Demolition of noise wall would open views up to station infrastructure.
- Negligible: New lift shafts would be visible but due to the urbanised nature of the setting will not materially impact the nature of the visual environment.

Table 8 Viewpoint 3: Visual Impact Assessment

Sensitivity (High)	Magnitude (Low)	Overall impact
• Single storey residential properties, on the western side of York Street • Station infrastructure prominent on termination of view down York Street • Noise wall and pedestrian overpass already exposed to residences on York Street • York Street: two lane residential street is urban in character with urban infrastructure • Rail infrastructure such as walkway and fencing noted from this viewpoint • Overhead power infrastructure not prominent from this location	• New station platform infrastructure (such as the lift) would not be a significant departure from the existing visual conditions • Close distance between the Proposal and residential dwellings • Residents with filtered views to the Proposal • Mature vegetation within Proposal area visually mitigates views to Proposal but the removal of some of this vegetation and adjacent noise wall will expose receptors to new and existing station infrastructure • Proposal likely to result in a Low-Moderate impact on the existing viewpoint due to the close distance to sensitive receivers and the removal of the noise wall in this location	**Moderate**

4.2.4 Viewpoint 4: Views from Platt Street

4.2.4.1 Viewpoint description

Viewpoint 4 is located on Platt Street. This is represented in Figure 22. A childcare facility and residential housing lines the southern side of the street. A bikeway and linear open drain run along the northern side of Platt Street between the roadway and the railway chain-wire fencing.

Due to the open character of the frontage much of the urban infrastructure is visible. Views in this area are largely characterised by the Waratah Station infrastructure; the platform, signage, fencing and other urban elements are visible. Adjoining Platt Street are gravel stockpiles within the ARTC storage area.

A lone Acacia is the only vegetation between the users/residents on Platt Street and the proposal area.

Figure 22 Viewpoint 4 – Views from Platt Street

4.2.4.2 Viewpoint impacts

- Negligible: New lift shafts will be visible but due to the urbanised nature of the setting will not materially impact the nature of the visual environment.
- Negligible: New Bus Stop seating and accessible parking will not materially impact the nature of the visual environment.

Table 9 Viewpoint 4: Visual Impact Assessment

Sensitivity (High)	Magnitude (Negligible)	Overall impact
• Single storey residential properties plus childcare facility on the southern side of Platt Street • Waratah Station and associated infrastructure on the northern side of Platt Street • Open urban character with little vegetation in the streetscape • Platt Street: wide two-lane road is urban in character with urban infrastructure • Rail infrastructure along Platt Street, including bus stop, signage, walkway, fencing • Close view to ARTC gravel stockpile	• New station platform infrastructure (such as the lift) and new disabled parking bays would not be a significant departure from the existing visual conditions • 100m distance between the Proposal and residential dwellings • Little/no existing vegetation in streetscape	**Negligible**

4.2.5 Viewpoint 5: Views from Station Street

4.2.5.1 Viewpoint description

As per Figure 23, Viewpoint 5 is East-North-East along Station street. Residences along the Northern side of Station Street face away from the proposal and onto the adjacent on the southern side of Station Street. As such vehicular and pedestrian movements are the parties exposed to views to the proposal from this location.

The street is lined with mature Phoenix Palms (*Phoenix canariensis*) with the view terminating at the proposal area. A large advertising billboard is also at the termination of this view.

Figure 23 Viewpoint 5 – Views from Station Street

4.2.5.2 Viewpoint impacts

- Relocation of existing billboard
- Stair Upgrade visible to Station Street.
- New lift shafts will be visible but due to the urbanised nature of the setting will not materially impact the nature of the visual environment.

Table 10 Viewpoint 5: Visual Impact Assessment

Sensitivity (Moderate)	Magnitude (Negligible)	Overall impact
• Single storey residential properties, on the northern side of Station Street facing away from proposal. • Waratah Park on southern side of Station Street • Phoenix palms line station street. • Station Street: two lanes westbound, one lane eastbound with small dividing median. Trees between carriageway and stone table drain. • Rail infrastructure at termination of view, including signage, walkway, fencing	• New station infrastructure (such as the lifts) would not be a significant visual departure from the existing visual conditions and would be obscured by existing vegetation • Moderate distance between the Proposal and residential dwellings who have restricted views • Primary receptors are motorists and pedestrians with direct views to the Proposal • The Proposal is likely to result in a Negligible impact. As although the Sensitivity of the adjacent visual receivers is considered moderate, the existing vegetation mitigates views to the Proposal (negligible Magnitude).	**Negligible**

4.2.6 Viewpoint 6: Views from Waratah Park/Community Use Buildings

4.2.6.1 Viewpoint description

Viewpoint 6 is located on Platt Street from the Waratah Park and Community use buildings. This is represented in Figure 24. A pathway runs along the western side of Platt Street between the lot and the road and eastern side of the road has barrier fencing, a linear open drain.

The open character of the street means that much of the railway infrastructure is visible. The station buildings, platform, signage, billboards, fencing overheard rail wiring, and the stairs are all visible. Existing trees are established along the boundary to the rail corridor but do not impact the views to the urban infrastructure.

Figure 24 Viewpoint 6 – Views from the Community Use Buildings

4.2.6.2 Viewpoint impacts

- Stair upgrade visible.
- New lift shafts will be visible but due to the urbanised nature of the setting will not materially impact the nature of the visual environment.
- Relocation of existing billboard.

Table 11 Viewpoint 6: Visual Impact Assessment

Sensitivity (Moderate)	Magnitude (Low)	Overall impact
• Community use users face towards the Proposal to the Station upon exiting the building. • Large exotic vegetation between park/community centre and proposal screens some of the proposal area.	• Primary receptors are pedestrians leaving the community use buildings are park area with direct and indirect views to the Proposal. • Pedestrian movement in this area would include passengers to rail station. • The Proposal is a not a visual departure from the existing visual conditions.	**Moderate-Low**

4.2.7 Viewpoint 7: Views from Railway Terrace Overbridge

4.2.7.1 Viewpoint description

Viewpoint 7 is located along the Railway Terrace and considers the vehicular and pedestrian movement around Railway Terrace. The road is built over the railway and this elevation exposes the rail infrastructure. The position of this viewpoint is highlighted in Figure 25.

This location is largely characterised by rail corridor infrastructure, including the rail line / train tracks and the platforms. The station buildings are around 200m away and are visible from this location.

Figure 25 Viewpoint 7 – Views from Railway Terrace Overbridge

4.2.7.2 Viewpoint impacts

- New lift shafts may be visible but due to the distance the receptor is away from the proposal and the urbanised nature of the setting will not materially impact the nature of the visual environment.

Table 12 Viewpoint 7: Visual Impact Assessment

Sensitivity (Low)	Magnitude (Negligible)	Overall impact
• Rail infrastructure is prominent from this receptor view, including signage, walkway and fencing • The road overpass is two lanes roadways with one in each direction • There is some vegetation (eucalypt dominant) between the viewpoint and the station infrastructure	• New station infrastructure (like the lifts) would not be a significant visual departure from the existing visual conditions and would be obscured by existing vegetation • Moderate distance between the Proposal and residential dwellings who have restricted views • Primary receptors are motorists and pedestrians with direct views to the Proposal • The Proposal is likely to result in a Negligible impact. As although the Sensitivity of the adjacent visual receivers is considered moderate, the existing vegetation mitigates views to the Proposal (negligible Magnitude)	**Negligible**

4.3 Summary of Visual Impact Assessment

Table 13 Summary of Visual Impact Assessment

Viewpoint	Summary	Overall impact
Viewpoint 1: Views from Braye Street	• The proposal is 200m from Braye Street • There is some existing vegetation screening this view • Little visual change to landscape character form this location	Negligible
Viewpoint 2: Views from Hanbury Street	• There is some existing vegetation and fencing screening being removed from this view • Some minor visual change to environment from this location but changes are in line with existing landscape character	Moderate-Low
Viewpoint 3: Views from York Street	• Removal of vegetation and fencing on this view line to station • This change will expose more of the station infrastructure to viewpoint from this station however is still in keeping with existing urban landscape character	Moderate
Viewpoint 4: Views from Platt Street	• No change to level of exposure from this location to the proposal • The landscape character in this area is already dominated by the station infrastructure • The addition of the proposal will have negligible change to the landscape character of this view	Negligible
Viewpoint 5: Views from Station Street	• Small increase in exposure of proposal from this location due to relocation of advertising device • The landscape character at the termination of the view is already dominated by the station infrastructure and arguably improved by removing the advertising device • The addition of the proposal will have negligible change to the landscape character of this view	Negligible
Viewpoint 6: Views from Waratah Park and Community Use Buildings	• No change to level of exposure from this location to the proposal • There is some existing vegetation screening this view • The addition of the proposal will have low impact to the landscape character of this view	Moderate-Low
Viewpoint 7: Views from Railway Terrace Overbridge	• No change to level of exposure from this location to the proposal • There is some existing vegetation adjacent to the view to the proposal • In combination with the distance and the type of changes proposed the development will have negligible impact to the landscape character of this view	Negligible

5 Conclusion and safeguards

5.1 Conclusion

A key consideration in the visual impact assessment of the Proposal will be the sensitivity of residents, passengers and other stakeholders to specific elements, which may result in a variety of responses, both positive and negative. Whilst the degree to which is the Proposal area is visible from certain vantage points can be quantified, ultimately, the residents and users of the landscape surrounding the site will reflect a range of sensitivities. The degree to which the changes to the landscape are perceived will depend on the values of the actual users / residents.

This report considers views from passengers, motorists, habitable room windows, outdoor areas of the home yard dwelling as the most sensitive receptors. Views from residual land beyond the home yard area (such as recreational land) are treated as less sensitive receptors. This report also adopts the standard methodology of sensitivity relating to proximity, in that the greater the distance between the visual receptor and the Proposal, the lesser the visual sensitivity.

In summary, the Proposal would result in negligible to low-moderate impacts for most of the selected viewpoints except for Viewpoint 3: Views from York Street (Moderate).

The increased impact for this street is due in part to the proximity of a residential receiver to one of the new station entry lifts and where tree removal is required to facilitate this lift. Except for this one viewpoint the assessment of the Proposal area is that it would have a low or low-moderate impact on the current landscape character of the setting.

The report also proposes guidelines to assist with maintaining existing viewing corridors and the landscape character of the area. The following recommendations are based on these guidelines and the results of the visual impact assessment.

5.2 Safeguards

Mitigation measures to manage and minimise the potential visual impacts have been identified based on the findings in this report. Mitigation measures are proposed in response to impact assessment ratings of Moderate to High, to help reduce the visual impacts of the Proposal during the construction and operational stages.

Design recommendations relate to the findings of the urban design issues discussed in this report with the aim of meeting the key urban design objectives as outlined in Section 3.3.

5.2.1 Design safeguards

- A landscape plan highlighting planting and street-scape design should be prepared in alignment with the civil design, with the intent to provide some integration between the new Proposal and the existing / planned landscape character. This could include landscape design for visual mitigation for the Proposal lift shaft and footbridge – from the York Street viewpoint.
- Additional consideration should be given to screening the existing stair infrastructure, or alternatively providing consistent maintenance of the areas beneath the stairs.
- The landscape plan should support and strengthen the existing landscape characters values of Waratah Station.
- New ancillary items including signage and balustrades should reflect the overall aesthetic of the existing station to ensure the character qualities of the station are retained - referring to the *Sydney Trains Station Components Guide,* where possible.

5.2.2 Construction safeguards

- Avoid unnecessary loss or damage to vegetation adjacent the rail corridor by protecting trees not proposed for removal prior to construction. This includes vegetation that makes a substantial and positive contribution to landscape character such as the mature native and exotic trees and vegetation to the station corridor boundary. Restore any areas that are impacted by construction with appropriate landscape treatments.
- Minimise light spill from the development areas into adjacent visually sensitive residential properties surrounding the development by directing construction lighting into the construction areas and ensuring the site is not over-lit. This includes the sensitive placement and specification of lighting to minimise any potential increase in light pollution
- Temporary hoardings, barriers, traffic management and signage would be removed immediately when no longer required. This is particularly critical to the Proposal's location which is adjacent low-density residential dwellings.
- The site to be kept tidy and well maintained, including removal of all rubbish at regular intervals. There should be no storage of materials beyond the construction boundaries. Storage should occur off-site considering the location of sensitive receptors, utilise rail corridor storage space where possible
- Graffiti, posters and other visual nuisance should be removed during construction in accordance with standard requirements, particularly to areas immediately adjacent Waratah Station.

5.2.3 Operational safeguards

- Plan for rehabilitation / offset planting as early as possible to replace vegetation that provided screening to adjacent residential properties and sensitive visual receptors
- Undertake regular landscape maintenance works to maximise the health and effectiveness of existing planting to help buffer the removal of any existing landscape items
- Retain any critical views through to the station building and through the rail corridor through regular pruning maintenance.

6 References

6.1 Text references

1. NSWrail.net, 2008, Waratah Station, accessed 26 September 2018, https://www.nswrail.net/locations/show.php?name=NSW:Waratah

6.2 Image references

State Archives and Records, NSW Government, *Waratah Railway Station (NSW),* https://www.records.nsw.gov.au/image/17420_a014_a014000775, accessed 26 September 2018.