

Victoria Street Station Upgrade

Landscape Character and Visual Impact Assessment



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Client: Transport for New South Wales

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Quality Information

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1.0 Introduction

1.1 Background Information

AECOM Australia Pty Ltd (AECOM) has been commissioned by Transport for New South Wales (TfNSW) to undertake a Landscape Character and Visual Impact Assessment for the construction and operation phases of the proposed Victoria Street Station Upgrade ('the Proposal'). Construction of the Victoria Street Station Upgrade is expected to commence in mid-2017 and take around 18 months to complete.

1.2 Scope

The scope of this visual impact assessment is to:

- describe the existing landscape character of the Proposal study area and the visibility of the proposed works at Victoria Street Station
- identify key existing receivers/viewpoints and their sensitivity to the proposed change
- assess landscape character impacts of the Proposal
- assess visual impacts of the Proposal
- recommend management and mitigation strategies to minimise any impacts from the Proposal.

1.3 Proposed works

The Proposal involves an easy access upgrade of Victoria Street Station as part of the Transport Access Program which would improve accessibility and amenities for customers. The Proposal would provide a number of improved features to provide an accessible station and improved interchange facilities. The Proposal would include the following key elements:

- installation of three new lifts to provide access to the existing footbridge and island platform
- new canopies installed at both station entrances and along the existing footbridge, stairs, lift landings and platform
- upgrades to the northern and southern station entrances
- refurbishment of the Platform Building with a new family accessible toilet, staff amenities and communications room to replace existing facilities
- provision of new undercover bicycle racks on the northern and southern side of the station
- provision of a kiss and ride area and taxi rank on the northern side of the station on Waller Street
- provision of a new accessible parking space within Waller Street commuter car park on the northern side of the station
- new kerb ramps to provide an accessible path of travel to new and existing interchange facilities
- relocation of existing and installation of new services including communications systems and low and high voltage electrical cabling
- ancillary works including platform stabilisation and regrading, station power supply upgrade, minor drainage works, adjustments to lighting, upgrades to fencing and landscaping, new ticketing facilities including additional Opal card readers, improvement to station communication systems (including CCTV cameras) and wayfinding signage.

Figure 1 shows the key elements of the Proposal (subject to detailed design).

This report should be read in conjunction with Section 3 of the Victoria Street Station Upgrade Review of Environmental Factors (AECOM 2017a), which provides a detailed description of the Proposal and its associated works.

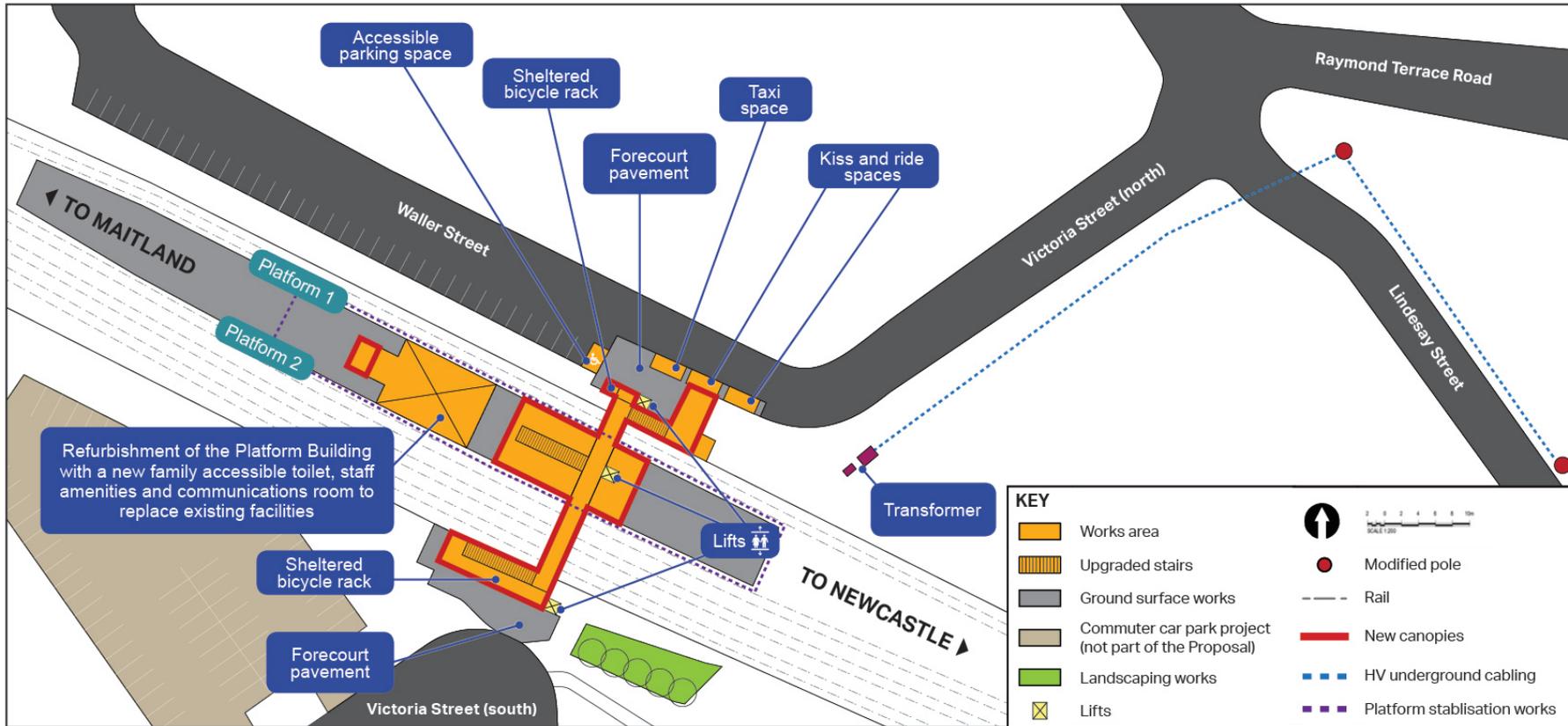


Figure 1 Key elements of the Proposal

Indicative only, subject to detailed design

2.0 Methodology

This visual impact assessment has been undertaken in accordance with the Roads and Maritime Services (RMS) *Environmental Impact Assessment Practice Note – Guideline for Landscape Character and Visual Impact Assessment* (RMS 2013). This method is widely accepted by NSW Government agencies and is considered relevant to this Proposal in that it addresses changes to corridor infrastructure within the urban setting.

In accordance with these guidelines, the following assessments have been carried out:

- assessment of existing landscape character and visual environment
- assessment of landscape character and visual impacts
- recommendation of mitigation measures.

2.1 Sensitivity and magnitude

An impact grading matrix (refer to Table 1) is used to assess both landscape and visual impact, and examines sensitivity and magnitude to give a combined impact rating of between negligible and high.

2.1.1 Sensitivity

The sensitivity of the landscape is assessed based upon the extent to which it can accept change of a particular type and scale without adverse impacts on its character. Sensitivity varies according to the type of development and nature of the landscape, including:

- inherent landscape value, e.g. its condition, perceptual qualities and cultural importance
- the likely congruency of the proposed changes, i.e. the extent to which the proposal may fit or be ‘visually absorbed’ into the landscape, e.g. in relation to line, colour, form, texture, scale, etc.

The sensitivity of visual receivers and views are dependent on the:

- location and context of the viewpoint
- expectations and activity of the receiver
- number of the receivers
- importance of the view
- sensitivity of the receivers, which may include:
 - users participating in outdoor passive recreational pursuits
 - communities where the development results in changes in the landscape setting or valued views enjoyed by the community
 - occupiers of residences with views affected by the Proposal.

2.1.2 Magnitude

The magnitude of change affecting a landscape or visual receiver depends on factors such as nature, scale and duration of the particular change that is expected to occur. In the landscape, the magnitude of change would depend on factors such as the extent of the loss, change or addition of a feature, or changes in the backdrop, or outlook from a landscape that affects its character. The impact on a view would depend on factors such as the extent of visibility, degree of obstruction of existing features, degree of contrast with the existing view, angle of view, duration of view and distance from the Proposal.

Table 1 Landscape character and visual impact grading matrix

		MAGNITUDE			
		HIGH CHANGE	MODERATE CHANGE	LOW CHANGE	NEGLIGIBLE CHANGE
SENSITIVITY	HIGH	HIGH	HIGH - MODERATE	MODERATE	NEGLIGIBLE
	MODERATE	HIGH - MODERATE	MODERATE	MODERATE - LOW	NEGLIGIBLE
	LOW	MODERATE	MODERATE - LOW	LOW	NEGLIGIBLE
	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE

2.2 Visual envelope mapping

The likely visibility of the Proposal, once operational, from surrounding areas has been broadly mapped to define a visual envelope. This provides an indication of which parts of the Proposal are likely to be viewed from surrounding land uses. The mapping typically shows ‘worst case’, i.e. some receivers may only see the roofline of the new lifts and canopies, while other receivers may view a more substantial part of the Proposal.

2.3 Photography

A photograph of Victoria Street Station from each of the nominated receiver locations has been used to assist in the analysis process. These photos were taken using a single-lens reflex digital camera using a 28 millimetre full frame lens with no parallax error.

Photomontages were then prepared to illustrate the likely visual changes from a number of key viewpoints and are included in Section 5.2. These images focus on viewing the Proposal in its wider setting, at the view level of a pedestrian at a nominal eye height of 1.7 metres. The materials and finishes used are indicative only and would be further investigated during detailed design.

To prepare photomontages, a 3D model of the Proposal was developed and confirmed against survey information, architectural plans, elevations and sections from 2D concept design drawings. Viewpoint locations were selected and photographs taken during a site visit on Wednesday 1 February 2017. Photographs were corrected for distortion using specific camera and lens profiles and camera coordinates were then merged with the 3D model to allow ‘virtual camera’ to be setup using these coordinates. Camera matching was undertaken using reference points common to the 3D model and physical features in the photographs. The model was then rendered with the photograph and edits to the foreground elements made as necessary.

3.0 Contextual analysis

3.1 Existing environment

Victoria Street Station is located in the suburb of East Maitland, approximately 30 kilometres north-west of Newcastle, within the Maitland Local Government Area (LGA). Victoria Street Station is served by the Hunter Line providing train services between Hamilton and Dungog/Scone. The station has four tracks, two of which service each side of the single island platform at the station. Waller Street provides access to the station from the north, while Victoria Street provides access from the south both via stairs and a footbridge. Figure 2 shows the location and local context of the Proposal.

Victoria Street Station is a suburban customer station with a catchment consisting of general residential housing surrounding the station. There is a local centre to the west of the railway corridor which serves the local community. An off-street commuter car park and the Lifehouse Church are located south of the station on Victoria Street. The area to the north of the station is characterised by low density residential dwellings and an on-street commuter car parking facility along Waller Street.

Newcastle Street is the nearest arterial road and is located approximately 800 metres south-west of the station which connects to the New England Highway to the south.

A mixture of exotic and native trees and shrubs are located along the northern rail corridor along Waller Street, which provide some screening of the railway from residential areas to the north. There is no vegetation planting adjoining the rail corridor to the south and the rail corridor itself is primarily bare of vegetation with the exception of some minor weed cover. Several mature Brush Box (*Lophostemon confertus*) street trees line Victoria Street to the south and provide filtered views and minor screening of the railway line from the front yard of residents on the southern side of the station.

3.2 Existing station description

Victoria Street Railway Station Group is listed on the State Heritage Register (SHR) (#01277), the RailCorp Section 170 Heritage and Conservation Register (#4801004) and the *Maitland Local Environmental Plan (LEP) 2011* (#120). The station has heritage significance as a tangible link to the development of the Main North line as the original terminus of the line from Newcastle from 1857 to 1858 and for its demonstration of the increase in rail services at the time of duplication through the conversion of the platform into an island platform. The Platform Building and existing footbridge are representative examples of railway design throughout NSW during the early twentieth Century.

Refer to the Victoria Street Station Upgrade Statement of Heritage Impact (AECOM 2017b) for more information.

The station was built in 1877 and converted to an island platform in 1914. There is a single Platform Building on the island platform, containing a ticket office, kitchen, store room, toilet, and male toilet/store. Key visual features of the station include:

- existing footbridge providing access to and from the island platform and across the railway line
- the existing station access stairs to the existing footbridge and stairs to the island platform
- steel fence panelling along the stairs and existing footbridge
- the Platform Building
- station lighting
- east-west bound railway line.

Existing transport interchange facilities available at Victoria Street Station include:

- a bus stop located at the southern station entrance on Victoria Street. The bus stop is operated by Hunter Valley and is served by four bus routes including:
 - Route 181: Aberglasslyn to Woodberry via Rutherford, Maitland, East Maitland, Stockland Green Hills and Beresford

- Route 182: Rutherford to Thornton via Maitland, East Maitland, Stockland Green Hills and Ashtonfield
 - Route 183: Rutherford to Tenambit via Maitland, East Maitland and Stockland Green Hills
 - Route 184: Stockland Green Hills to Morpeth via East Maitland and Tenambit.
- commuter car parks located on each side of the station providing a total of approximately 94 car parking spaces.

There are currently no accessible car parking spaces, taxi ranks or kiss and ride facilities at Victoria Street Station.

3.3 Landscape character zones

Landscape character zones were determined primarily by land use, as these were considered to be the strongest defining landscape character elements in the area. Three dominant landscape character zones have been identified surrounding the Proposal, comprising:

- residential landscape character zone
- infrastructure corridor and heritage landscape character zone
- local centre landscape character zone.

Figure 3 presents the extents of these landscape character zones.

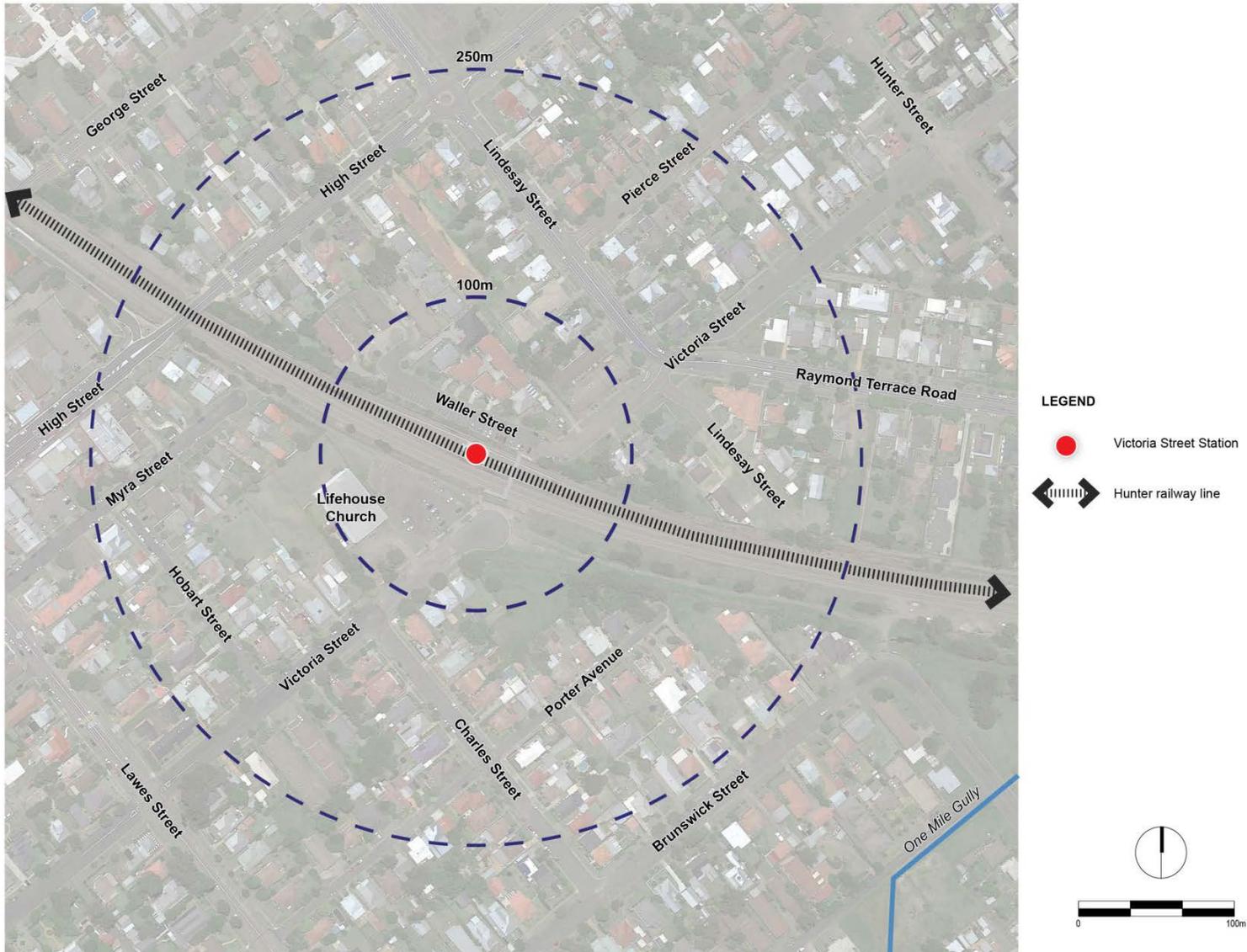


Figure 2 Victoria Street Station site location and local context

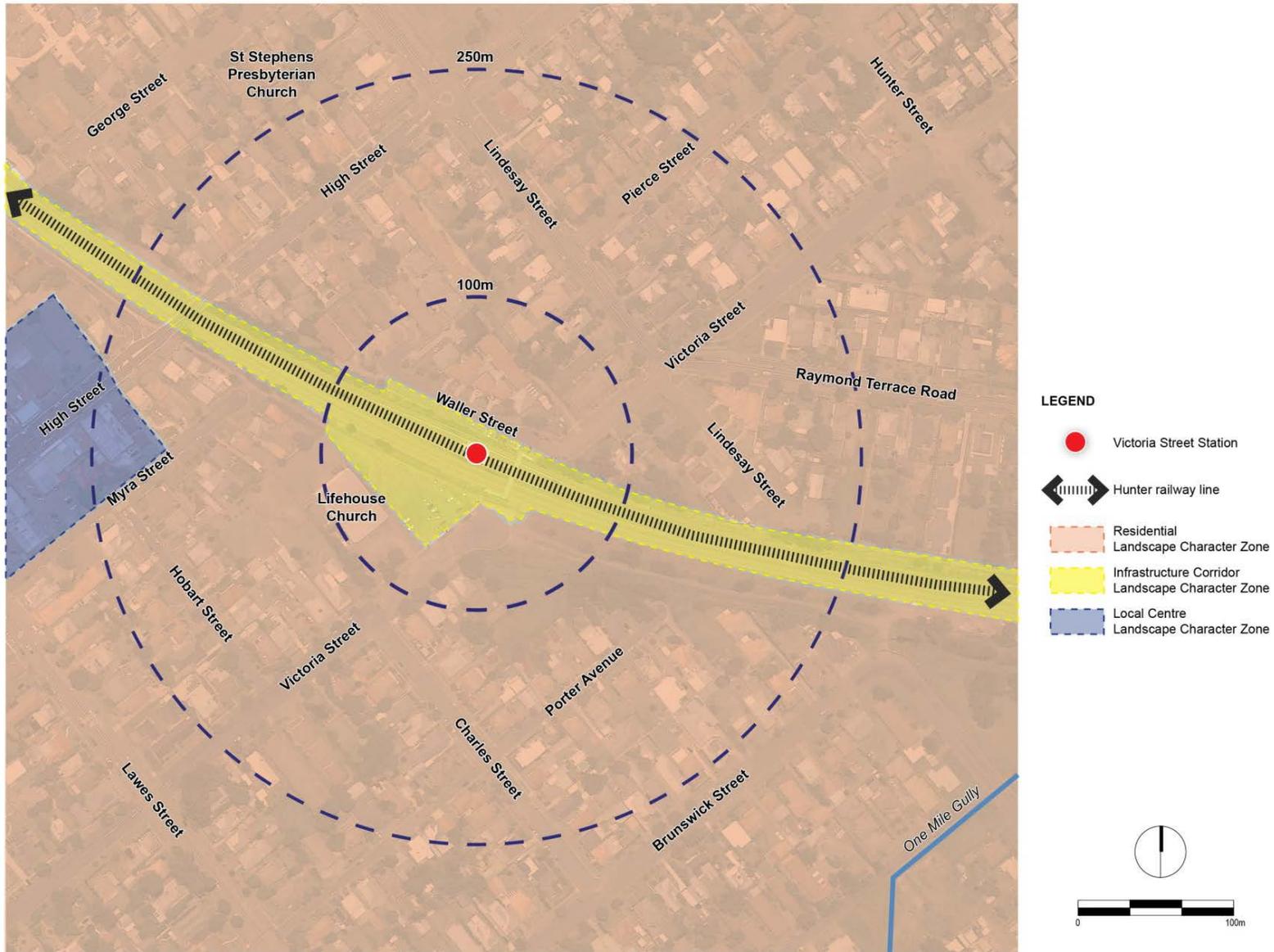


Figure 3 Victoria Street Station landscape character zones

4.0 Landscape character impact assessment

An assessment of the landscape character impacts from the construction and operation of the Proposal on the three dominant landscape character zones has been undertaken to determine the potential changes to the character of the landscape.

4.1 Residential landscape character zone

4.1.1 Existing situation

The residential landscape character zone is defined by a gently rolling landscape, overlaid with a loose grid of roads, throughout a predominantly residential landscape (refer to Figure 3 for the extent of this landscape character zone).

Low density housing (consisting of one to two storey single dwellings) is located to the north and south of the railway line. A small scattering of one to two storey townhouses is located north of the railway line. A typical example of these townhouses located along Waller Street is shown in Figure 4.



Figure 4 Typical two storey low density housing located along Waller Street

A representative of single storey dwellings is shown in Figure 5.

Mature trees consisting of predominantly large native and exotics are scattered throughout the landscape, many comprising trees along residential streets and garden areas. The majority of the streets to the south of the Proposal are lined with mature Brush Box (*Lophostemon confertus*) which provide filtered screening from the south along Victoria Street (refer to Figure 6). However, there is no street planting alongside the southern railway corridor at the terminus of the cul-de-sac of Victoria Street resulting in open views of the station from the south. Existing street trees north of the station comprise hedged Callistemon ssp. plantings adjacent to the station along Waller Street, however vegetation within the rail corridor and the significant level change of the station (the island platform is located below the ground level of Waller Street) provides filtered screening of the station from the north (refer to Figure 7).



Figure 5 Typical single storey dwellings located along Charles Street south of the station



Figure 6 Mature street trees providing filtered screening of the railway line along Victoria Street



Figure 7 View west from the top of the existing footbridge showing vegetation adjoining the rail corridor and the level change between the station and Waller Street providing filtered screening of the station from along Waller Street

4.1.2 Landscape character impacts

The Proposal would have a series of impacts on the character of the landscape, as follows:

- during construction, two temporary construction compounds would likely be located on the southern side of the station within the grassed area to the west of the commuter car park and the grassed area at the end of the Victoria Street cul-de-sac to the east. Temporary storage/laydown areas may also be required on the island platforms
- typical visual impacts would include the presence of temporary fencing and hoarding, road barriers, cranes, signage, scaffolding, temporary ticketing office and amenities
- temporary visual impacts from trenching in front of residential properties along Victoria Street (north) and Lindesay Street for high voltage cabling
- the change would be limited to the edge between where the infrastructure and residential landscape character zone converge with the Proposal. The Proposal would introduce new elements and built forms in the visual environment including the new canopy over the existing footbridge, three new lifts and upgraded stairs and station entrance forecourts. To achieve clearance for safety and rail operational requirements, the top height of the new infrastructure would be approximately nine metres above existing ground level and would be visible from surrounding areas within the residential character
- road works and interchange works associated with the station entrances (including new paving, pram ramp, taxi and kiss and ride bays and works associated with the Victoria Street car park upgrade) would be visible in the residential landscape character zone.

4.1.3 Impact assessment

The sensitivity of the landscape is rated as low, as the land use, pattern and scale have the capacity to accommodate the type of change envisaged. The magnitude of change is rated as low, as this is considered a minor change within the context of the broader landscape setting. The upgrade is a minor change to a small area of an existing infrastructure element adjoining this landscape character zone.

Although the new lifts, canopies and interchange upgrades would be visible from nearby buildings, the change would in most cases be only visible in the area immediately adjacent to the Proposal site to those with existing views of the station. The proposed changes are in keeping with the existing landscape character and maintain the consistency of design and materials that has characterised the existing station.

The overall rating for this landscape character zone is low (refer to Table 2). The upgrade work is relatively minimal and would be most noticeable as a landscape character impact in the short term (i.e. during construction), and a minor change in the landscape character in the operation phase.

Table 2 Landscape character impact grading matrix for the residential landscape character zone

		MAGNITUDE			
		HIGH CHANGE	MODERATE CHANGE	LOW CHANGE	NEGLIGIBLE CHANGE
SENSITIVITY	HIGH	HIGH	HIGH - MODERATE	MODERATE	NEGLIGIBLE
	MODERATE	HIGH - MODERATE	MODERATE	MODERATE - LOW	NEGLIGIBLE
	LOW	MODERATE	MODERATE - LOW	LOW	NEGLIGIBLE
	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE

4.2 Infrastructure corridor and heritage landscape character zone

4.2.1 Existing situation

The railway line is a highly contained, linear landscape character zone approximately 30 metres wide. Refer to Figure 3 for the extents of the infrastructure corridor and heritage landscape character zone. The corridor comprises a distinct unit which traverses the landscape, with the railway line and platform sitting below the surrounding ground plane to the north. Features of Victoria Street Station include the existing footbridge, island platform and single storey Platform Building.

Victoria Street Station is heritage listed on the SHR, the RailCorp Section 170 Heritage and Conservation Register and the Maitland LEP 2011. The station represents three significant historical phases in the development of the NSW railways.

Prominent visual elements of Victoria Street Station include the existing footbridge, Platform Building, stairs, steel fence panelling and associated overhead wires (although these don't traverse the station) (refer to Figure 8).

From outside the corridor to the north, this landscape character zone is experienced as an impenetrable barrier, consisting of a series of noise walls, tree plantings and security fences. These elements tend to limit visual access across the railway line.

Figure 9 shows a photograph of this landscape character zone.



Figure 8 View towards Victoria Street Station looking north from Victoria Street



Figure 9 View of the island platform and Platform Building from the existing footbridge looking west

4.2.2 Landscape character impacts

The Proposal would have a series of impacts on the character of the landscape, as follows:

- temporary changes to the character during construction, e.g. temporary fencing, hoarding, road barriers, cranes, signage and scaffolding
- impacts would generally comprise relatively minor changes to a small section of a larger railway corridor
- the Proposal would introduce new elements and built forms in the visual environment including the canopy over the existing footbridge and proposed family accessible toilet entrance on the western end of the Platform Building, new lifts and upgraded stairs
- new infrastructure would be a prominent architectural element of the landscape character zone and would be designed to sit sympathetically in keeping with the existing heritage features of the station.

4.2.3 Impact assessment

The sensitivity of the landscape is rated as low, as the land use pattern and scale of the corridor have the capacity to accommodate the type of change envisaged. The contained nature of the railway corridor limits the impact of changes to this landscape character zone on the broader surrounding landscape.

The magnitude of change is rated as low, as this comprises a relatively minor change in the landscape character. The change would in most cases be only visible in the area immediately adjacent to the Proposal and the change is in keeping with the existing character and use. The addition of relatively few contemporary architectural elements is undertaken in a well-integrated manner with the heritage features of the station. However, the addition of new elements from the Proposal, including the canopy over the existing footbridge and proposed family accessible toilet entrance on the western end of the Platform Building would exhibit scale and bulk over the existing structure.

The overall rating for this landscape character zone is low (refer to Table 3). The upgrade works are relatively minimal and would be noticeable as a landscape character impact in the short term, creating a greater level of impact during construction. During operation the Proposal would have an overall low impact upon the landscape character zone.

Table 3 Landscape character impact grading matrix for the infrastructure corridor and heritage landscape character zone

		MAGNITUDE			
		HIGH CHANGE	MODERATE CHANGE	LOW CHANGE	NEGLIGIBLE CHANGE
SENSITIVITY	HIGH	HIGH	HIGH - MODERATE	MODERATE	NEGLIGIBLE
	MODERATE	HIGH - MODERATE	MODERATE	MODERATE - LOW	NEGLIGIBLE
	LOW	MODERATE	MODERATE - LOW	LOW	NEGLIGIBLE
	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE

4.3 Local centre landscape character zone

4.3.1 Existing situation

The Proposal is located to the north-east of a small local centre character zone containing a mix of shops, small businesses and cafes. Refer to Figure 3 for extent of the local centre landscape character zone.

The local centre landscape character zone is generally comprised of one and two storey premises with ground floor retail shops and commercial above. Refer to Figure 10 for a typical example of this landscape character zone. Built form is prominent on either side of High Street and at the intersection of Lawes Street. This built form limits views of the surrounding landscape and beyond.



Figure 10 View towards local centre along High Street looking south-west

4.3.2 Landscape character impacts

Overall, the Proposal would have a limited impact on this landscape character zone. The local centre landscape character zone is visually isolated from the changes due to the surrounding built form. Potential impacts would comprise the movement of construction vehicles (including heavy vehicles) as High Street is a potential haulage route for the Proposal.

4.3.3 Impact assessment

The sensitivity is considered low as the changes to the Proposal fall outside this landscape character zone and are separated by the residential landscape character zone.

The magnitude of change due to the Proposal is negligible. The overall rating for this landscape character zone is negligible (refer to Table 4).

Table 4 Landscape character impact grading matrix for the local centre landscape character zone

		MAGNITUDE			
		HIGH CHANGE	MODERATE CHANGE	LOW CHANGE	NEGLIGIBLE CHANGE
SENSITIVITY	HIGH	HIGH	HIGH - MODERATE	MODERATE	NEGLIGIBLE
	MODERATE	HIGH - MODERATE	MODERATE	MODERATE - LOW	NEGLIGIBLE
	LOW	MODERATE	MODERATE - LOW	LOW	NEGLIGIBLE
	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE

5.0 Visual impact assessment

5.1 Visual envelope mapping

The Proposal would introduce new elements and built forms into the visual environment including the canopy over the existing footbridge and proposed family accessible toilet entrance on the western end of the Platform Building, new lifts and upgraded stairs. To achieve clearance for safety and rail operational requirements, the top height of the new infrastructure would be approximately nine metres above existing ground level.

The potential visibility of the Proposal from the surrounding area is shown in Figure 11. The visual envelope extends in a north-east to south-west orientation following the main view corridor of Victoria Street.

Associated interchange works on the surrounding local road network and upgraded interchange facilities (including new kiss and ride and taxi facilities, accessible parking spaces and installation of kerb ramps) would only be visible in the immediate vicinity of these works which would be undertaken along Waller Street. Interchange works would also be undertaken along Victoria Street to the south of the station as part of the car park upgrade works.

The road works and interchange facility upgrades would be minimal in nature and would be in keeping with the existing streetscape.

The view shed beyond the Proposal is responsive to both mature tree planting and existing residential development to the north and the south, and results in a generally restricted extent of visibility from many areas. The residential interface to the railway line is setback and screened by mature street planting along Victoria Street.

5.2 Visual impact assessment

Twelve visual receiver locations have been identified to represent viewpoints for assessment of potential impacts on views as a result of the Proposal, as shown in Figure 12. These are:

1. Victoria Street (north) – this receiver assesses the impact of changes on residential neighbours on Victoria Street north of Raymond Terrace Road
2. Corner of Raymond Terrace Road and Lindesay Street – this receiver assesses the visual impact on residential neighbours
3. Victoria Street (north) – this receiver assesses the visual impact on residential neighbours
4. Corner of Victoria Street (north) and Waller Street – this receiver assesses the visual impact on residential neighbours and pedestrians approaching the station
5. Waller Street – this receiver assesses the impact of the changes on residential neighbours and pedestrians approaching the station
6. Waller Street – this receiver assesses the visual impact on residential neighbours and pedestrians
7. High Street overpass – this receiver assesses the impact of changes on pedestrians
8. Victoria Street (south) – this receiver location assesses the impact of the changes on pedestrians and users of the Lifehouse Church
9. Victoria Street (south) – this receiver assesses the impacts on residential neighbours and pedestrians, directly opposite the station entrance, on the eastern side of Victoria Street
10. Victoria Street (south) – this receiver assesses the visual impact on residential neighbours on the western side of Victoria Street
11. Victoria Street (south) – this receiver assesses the visual impact on residential neighbours on the eastern side of Victoria Street

12. Corner of Lawes Street and Victoria Street – this receiver assesses the visual impact on residential neighbours on the corner of Lawes Street and Victoria Street.

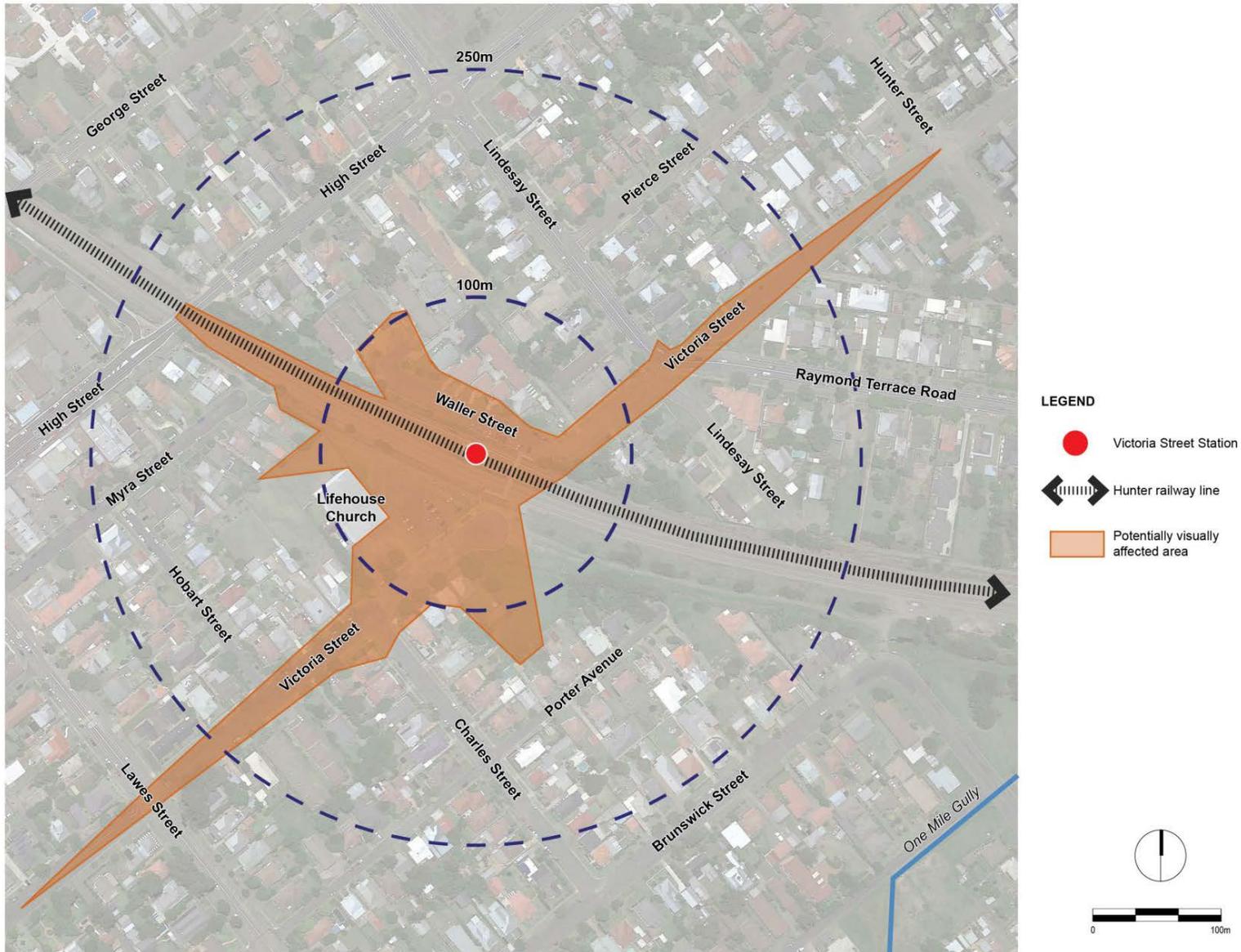


Figure 11 Visual envelope map showing potential visually affected areas



Figure 12 Visual impact assessment receiver locations

5.2.1 Construction visual impacts

The construction of the Proposal would include the following activities:

- establishment of site compound (erect fencing, tree protection zones, site offices, amenities and plant/material storage areas)
- establishment of temporary facilities as required (e.g. temporary pedestrian access to station, temporary toilets)
- removal of vegetation
- services relocation and installation including trenching along the northern side of Victoria Street (north) and Lindesay Street for high voltage cabling
- platform modification, including piling and foundations for lift shafts
- construction of lift shafts, stairs, fencing and new canopies
- installation of lifts
- installation of fixtures, lighting, signage and CCTV cameras for the station areas
- reconfiguration of the Platform Building to allow for communications, staff facilities and toilets including a family accessible toilet
- refurbishment of the Platform Building
- provision of new accessible car spaces, taxi and kiss and ride zones and bicycle racks
- installation of wayfinding signage
- electrical and power supply upgrade works
- replanting/landscaping, fencing adjustments and bollards.

Subject to approval, construction of the Proposal is expected to commence in mid-2017 and take around 18 months to complete. The construction methodology would be further developed during detailed design of the Proposal in consultation with TfNSW.

Construction activities would be temporary and transient in nature. To the south, views towards construction activities would be focused on the terminus of the cul-de-sac of Victoria Street, where construction of the new canopy over the existing footbridge, new lifts and upgraded stairs would be undertaken.

The temporary construction compounds (refer to Figure 13) south of the Proposal would be well contained and have limited visibility. Views from the north would primarily focus on the construction of the new canopy over the existing footbridge, new lifts and upgraded stairs.

The majority of works would be undertaken during standard working hours, however works would also be required outside standard hours during rail shutdowns. The implementation of management measures would manage impacts as a result of temporary lighting during construction outside standard working hours.

The overall visual impact of the construction of the Proposal is considered to be low, given that construction activities would be temporary and transient in nature.



Figure 13 Proposed works areas and construction compound locations

5.2.2 Operational visual impacts

Table 5 provides an assessment of the visual sensitivity and magnitude of each receiver location (as identified in Figure 12) during the operation of the Proposal. Photomontages showing the changes in views as a result of the Proposal are provided for three key viewpoints, as follows:

- receiver location 4. Corner of Victoria Street (north) and Waller Street, refer to Figure 14 and Figure 15
- receiver location 5. Waller Street, refer to Figure 16 and Figure 17
- receiver location 9. Victoria Street, refer to Figure 18 and Figure 19.

Table 5 Visual impact assessment

Receiver location	Sensitivity	Magnitude	Rating
1. Victoria Street (north)	The sensitivity would be low. Views from residential receivers would be indirect and would be seen from a distance.	The magnitude of change would be low. The Proposal would generally be expected to have low levels of visibility from this location, with only a small portion of the northern most lift and top of the footbridge canopy visible.	Low

Receiver location	Sensitivity	Magnitude	Rating
2. Corner of Raymond Terrace Road and Lindsay Street	The sensitivity of the receivers would be low as it is expected that a low number of residents and pedestrians would have direct views to the Proposal.	The magnitude of change would be low. Views towards Victoria Street Station are partially screened by the existing tree located in the rear yard of a property located at the corner of Victoria Street and Waller Street. The Proposal would generally be expected to have low levels of visibility from this location, with only the top of the new footbridge canopy and lifts visible.	Low
3. Victoria Street (north)	The sensitivity to the proposed change would be moderate within the context of a low number of residents which would comprise highly oblique views towards the Proposal.	The magnitude of change would be moderate. Views to the station would be direct and include the new lifts, the canopy over the footbridge and station forecourt, and the new padmount transformer. The Proposal would introduce well considered architectural elements which are complementary to the scale and form of adjacent residential buildings.	Moderate
4. Corner of Victoria Street (north) and Waller Street	The sensitivity would be moderate. Residential receivers and pedestrian views would be direct and in close proximity to the Proposal.	The magnitude of change to the view seen from this location is moderate. Views from this location would be detailed and include key built elements such as the canopy over the footbridge, stairs and station forecourt, and new padmount transformer. However, the Proposal would introduce constructed elements which complement the scale and form of the existing infrastructure adjoining the station and would comprise well considered architectural elements.	Moderate
5. Waller Street	The sensitivity to the proposed change would be moderate within the context of a low number of residents and views would be partially screened by street trees.	The magnitude of change would be moderate. The Proposal would form visually prominent elements along the southern side of Waller Street. New architectural elements would be well considered; respect the heritage values and provide amenity benefit to the residential streetscape.	Moderate
6. Waller Street	The sensitivity of the receivers would be low as it is expected that a low number of residents would have direct views towards the Proposal.	The magnitude of change would be low. The Proposal would generally be expected to have low levels of visibility from this location, with only the top of new footbridge canopy and lifts visible.	Low

Receiver location	Sensitivity	Magnitude	Rating
7. High Street overpass	The sensitivity would be low. Pedestrian and road user views would be indirect and seen from a distance.	The magnitude of change would be low. The Proposal would generally be expected to have low levels of visibility from this location, with only the top of the new footbridge canopy and lifts visible in the background.	Low
8. Victoria Street (south)	The sensitivity would be moderate. Church users and pedestrians would have direct and immediate views towards Victoria Street Station; however church visitation is expected to be periodic and infrequent.	The magnitude of change to the view seen from this receiver location is moderate. Views from this location would be detailed and include key built elements such as the new canopy structures, lifts and upgraded southern station entrance. However, the Proposal would introduce constructed elements which complement the scale and form of the existing infrastructure adjoining the station, and would comprise well considered architectural elements.	Moderate
9. Victoria Street (south)	The sensitivity of receivers would be moderate within the context of a relatively low number of receivers from these locations. Views toward Victoria Street Station would be expected from residents on the eastern side of Victoria Street.	The magnitude of change would be low. Views toward the Proposal would be partially screened and filtered by street tree plantings along Victoria Street.	Moderate - low
10. Victoria Street (south)	The sensitivity of the receivers would be low as it is expected that a low number of residents would have direct views of the Proposal from the front yard of their property.	The magnitude of change would be low. Views towards the Proposal would be substantially filtered and screened by existing street tree planting along Victoria Street with only the new southern lift and canopy structure visible in the background.	Low
11. Victoria Street (south)	The sensitivity of the receivers would be low as residents would have highly oblique views towards the Proposal from the front yard of their property. Views towards the station would be screened by street trees.	The magnitude of change would be low. The Proposal would generally be expected to have low levels of visibility from this location, with only the new canopy and new lift on the southern side of the station visible in the background.	Low

Receiver location	Sensitivity	Magnitude	Rating
12. Corner of Lawes Street and Victoria Street	The sensitivity of the receivers would be low as it is expected that a low number of residents would have direct views of the Proposal from the front yard of their property.	The magnitude of change would be low. Views towards the Proposal would be substantially filtered and screened by existing street tree plantings along Victoria Street.	Low



Figure 14 Receiver location 4 – existing view looking south-west across Waller Street to Victoria Street Station



Figure 15 Receiver location 4 – Photomontage 1 - proposed view looking south-west across Waller Street to Victoria Street Station



Figure 16 Receiver location 5 – existing view looking east along Waller Street to Victoria Street Station



Figure 17 Receiver location 5 – Photomontage 2 - proposed view looking east along Waller Street to Victoria Street Station



Figure 18 Receiver location 9 – existing view looking north across Victoria Street to Victoria Street Station



Figure 19 Receiver location 9 – Photomontage 3 – proposed view looking north across Victoria Street to Victoria Street Station

6.0 Mitigation measures

Mitigation measures would be implemented to minimise the level of visual impact during the design development, construction and operation phases of the Proposal.

6.1 Design development

The following general mitigation measures are further recommended to minimise visual impacts during the design development process:

- further design refinement of the new canopies, columns and fascia edge to articulate and form profiles which may assist in minimising of bulk and height and ensure the design is consistent with the heritage setting of the station
- select materials and colour finishes for new elements with the aim of minimising bulk of these elements and use non-reflective materials for facades and finishes
- design of new elements to achieve an architectural character that is complementary to existing elements rather than contrasting
- lighting design to minimise upward spread of light near to and above the footbridge and interchange facilities (e.g. Waller Street commuter car park). Care should be taken when selecting luminaires to ensure that light spill and glare are kept to a minimum
- design of street furniture to consider Maitland City Council guidelines, as relevant
- disturbance of vegetation would be limited to the minimum amount necessary to construct the Proposal to maintain screening of views
- prepare a landscape masterplan for the areas surrounding the station (including street trees) which considers the provision of screening for the existing noise wall on the northern side of the station on Waller Street.

6.2 Construction

The following mitigation measures are recommended to minimise visual impacts as a result of construction:

- Tree Protection Zones (TPZs) would be established around trees to be retained. Tree protection would be undertaken in line with *AS 4970-2009 Protection of Trees on Development Sites* and would include exclusion fencing of TPZs
- provide well-presented and maintained construction hoarding and site fencing with shade cloth (or similar material) (where necessary) to minimise visual impacts on key view points during construction. Hoardings and site fencing would be removed following construction completion
- provide cut-off or directed lighting to be used with and outside of the construction site, with lighting location and direction considered to ensure glare and light spill is minimised.

6.3 Operation

The following mitigation measures are recommended to minimise visual impacts during operation:

- ongoing maintenance and repair of constructed elements
- graffiti would be removed in accordance with TfNSW's standard requirements
- long term maintenance and replacement of tree planting and landscaping to maintain visual filtering and the framing of views to the station, and maintenance of adjoining streetscape amenity.

7.0 References

AECOM, 2017a, *Review of Environmental Factors – Victoria Street Station Upgrade*, Sydney

AECOM, 2017b, *Statement of Heritage Significance – Victoria Street Station Upgrade*, Sydney

Roads and Maritime, 2013, *Environmental Impact Assessment Practice Note – Guideline for Landscape Character and Visual Impact Assessment*, Sydney