IRIS Visual Planning + Design

Transport Access Program

Faulconbridge Station

Landscape and Visual Impact Assessment

NSW Government | Transport for NSW

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Faulconbridge Station Transport Access Program Landscape and Visual Impact Assessment

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TABLE 1-1 ABBREVIATIONS

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

TABLE 1-2 DEFINITIONS

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

1. Introduction

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

Faulconbridge is located in the Blue Mountains, 83 kilometres west of the Sydney CBD. Faulconbridge Station is on the Blue Mountains Line (BMT), an intercity connection between Sydney Central and Lithgow. The Faulconbridge Station is located within the Blue Mountains City Council local government area.

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

The proposed upgrade would include the provision of two lifts to the existing footbridge and construction of a new accessible ramp west of the station, linking between the commuter car park and footbridge. Other proposed improvements include the provision of a family accessible toilet (replacing the existing male station toilet), provision of an ambulant toilet (replacing the existing female toilets), upgrade of the stairs (including handrailing and nosing), localised regrading of the platform, installation of tactile ground surface indicators (TGSI), signage and other associated public realm improvements. Upgrades to create DDA compliant car parking spaces and a Kiss and ride area would also be completed in the existing western commuter car park at Railway Avenue.

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

The Transport Access Program is an initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure. Key benefits include:

- Stations that are accessible to people with a disability, limited mobility and parents with prams
- Modern buildings and facilities for all modes that meet the needs of a growing population
- Modern interchanges that support an integrated network and allow seamless transfers between all modes for all customers.

1.1. Study scope

This visual impact assessment identifies the potential visual impacts of the Proposal on views to the station from surrounding areas. The study area for this assessment extends north and south along the Great Western Highway for approximately 300 metres, to Sir Henrys Parade in the east, and to the residential areas, commuter car park and Railway Avenue in the west. The visual catchment of the Proposal is largely defined by existing mature vegetation within the surrounding residential areas and alongside the Great Western Highway, which enclose and filter views to the station.

This assessment is based upon a viewpoint assessment, identifying and assessing viewpoints that represent the range of publicly accessible views to the Proposal. This assessment includes views from surrounding residential areas, footpaths and streets, parks, and from within Faulconbridge Station.

This assessment begins with the identification of the existing character of the station precinct; a description of the visual character of the Proposal; and an individual viewpoint assessment. The viewpoint assessment includes identifying the sensitivity of the view and the magnitude of change that is proposed. These factors are then combined to determine a level of impact.

The assessment has identified the visual impacts of the Proposal during the day and night, and throughout construction and operation.

While this assessment considers the visual impacts created by the Proposal as seen within the context of the local heritage listed buildings from a landscape character perspective, detailed consideration of

potential heritage impacts have been addressed separately as part of the REF in the *Faulconbridge Station Statement of Heritage Impact* [Artefact, 2019].

The assessment also considers the urban design and landscape impacts of the Proposal in terms of its consistency with requirements of the *Blue Mountains Local Environmental Plan 2015*, which covers issues of scenic and landscape values.

This assessment is based on the scoping report prepared by Stantec (dated 04/12/2018) and the final scoping design drawings prepared by DesignInc, including Faulconbridge Station precinct accessibility upgrade architectural plans, elevations, sections, perspectives and artist impressions (dated 29/10/2018).

1.2. Site location and description

Faulconbridge Station consists of a single island platform with a single track either side. The Federation style platform building (c. 1902) is of local heritage significance, featuring a red-brick façade and a gabled corrugated iron roof with two decorative brick chimneys.

The station platform is currently accessed by a footbridge extending over the rail corridor and the Great Western Highway, connecting to Sir Henrys Parade to the east and the station car park to the west. The platform is accessed via uncovered stairs connecting to the footbridge. There is currently no lift access.

The footbridge and adjacent pathways and cycleways alongside the highway and Sir Henrys Parade connect the station to surrounding residential and open space areas, and the local shopping precinct north of the station. The small commuter car park east of the station in Sir Henrys Parade is also accessed via the footbridge.

Mature ornamental trees such as liquidambar, oak and poplar are a common landscape feature along the rail corridor. Beyond the rail and highway corridor, dense tracts of eucalypts and acacia feature.

The Blue Mountains National Park is located to the west of the station, at the end of Railway Avenue.

FIGURE 1-1 SITE LOCATION

2. The Proposal

2.1. Proposal components

The proposal includes the following components:

- Station upgrades
- Electrical upgrades
- Parking, Kiss and ride and pedestrian works
- Ancillary works.

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

Station upgrades

Details of the proposed works to take place at the station to improve accessibility and customer experience are:

- Construction of two new lifts including construction of appropriate waiting areas, canopies and safety screens.
    - One lift located to the south of the existing pedestrian footbridge, to provide access between the existing pedestrian footbridge and the station platform
    - Second lift located to the north of the existing pedestrian footbridge to provide access between the existing footbridge, the existing bus stop and pedestrian and cycle network next to the Great Western Highway
- Upgrade of the existing platform surfaces (including localised regrading/re-surfacing) to provide compliant access paths
- Upgrade of all existing stairs to include new compliant handrails, TGSIs and nosings
- Internal station building works including:
    - Reconfiguration of the existing toilets into one new family accessible toilet and one new unisex ambulant toilet, including relocating brick privacy screen and existing boarding ramp in front of the existing male toilet entrance to provide access to family accessible toilet
    - Other associated works to accommodate the new toilets including providing compliant door hardware and canopy over entry to new family accessible toilet
    - Other building modifications include provision of one allocated space in the waiting room and all other associated works (e.g. circulation space) to achieve DDA compliance
- Provision of boarding assistance zones on platform
- Upgrade of existing platform and access paths to include TGSIs and safety zone markings including removal of three planter boxes on the northern end of the platform.
- Landscaping/planting within the station precinct
- The removal of approximately eleven mature trees in the vicinity of the new ramp to the west of the station.

Electrical upgrades

- Electrical upgrade works needed to accommodate the power requirements of the Proposal.

Parking, Kiss-ride and pedestrian works

- Provision of two upgraded DDA car parking spaces and one upgraded Kiss and ride bay, including localised regrading within the car park and any associated works
- Provision of a new DDA compliant ramp (including demolition of existing non-complaint access path) from the existing footbridge to the upgraded DDA car parking spaces in commuter car park on Railway Avenue
- Provision of a new rest area with seating at the western entrance of the existing footbridge including one wheelchair space.

Ancillary work

The following ancillary work would also be undertaken as part of the upgrade:

- Modification of existing seating at the bus stops on Great Western Highway to provide one allocated wheelchair space
- Provision of wayfinding signage within the Station and Interchanges

- Provision of anti-graffiti coating to all new and modified hard surfaces
- Relocation of any existing station platform furniture including but not limited to seats, Opal card readers, rubbish bins, and lighting
- Upgrades to existing customer facilities including; relocation of existing telephone booth to provide access and provision of new accessible water fountain
- Upgrade existing station communications systems (including installing additional CCTV cameras as required, installing new LED lighting, and upgrading existing Public Address (PA) system to include new speakers as required).
- Temporary site compounds for storage of material and equipment
- Temporary work (where required) during construction to maintain access to the Station
- Installation of portable fire extinguisher/s
- Provision of a bike rack near the station.

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

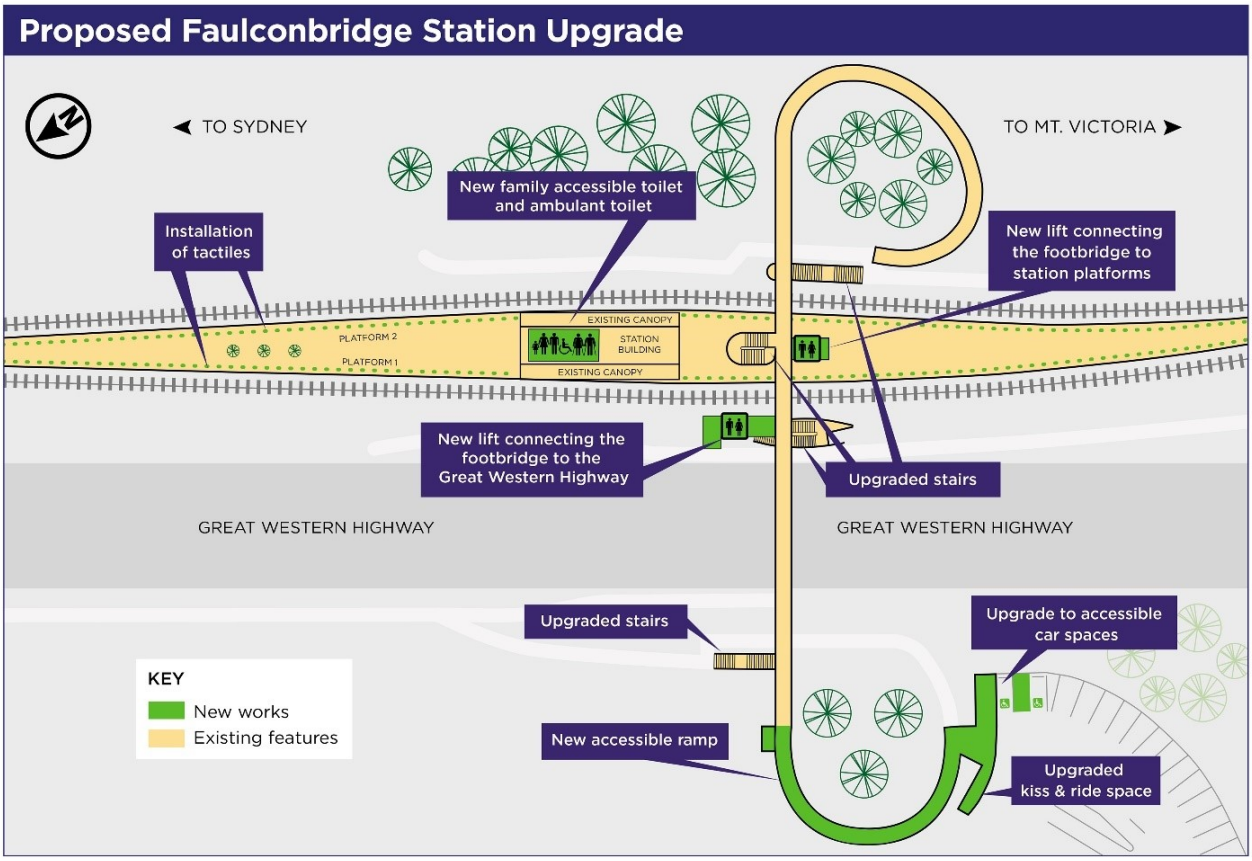


FIGURE 2-1 KEY FEATURES OF THE PROPOSAL (INDICATIVE ONLY, SUBJECT TO DETAILED DESIGN)

2.2. Materials and finishes

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

The following materials are currently proposed for the key station elements for the Proposal. These materials would be further considered during the detailed design of the Proposal.

Based on the existing design, the Proposal would include the following materials and finishes for the key elements:

- Pre-cast concrete (natural grey) lift structure
- Metal roof sheeting and louvres to the top of the lift structure (dark charcoal grey in colour)
- Polished stainless steel lift door, control button panel and indicator
- Stainless steel framed lift doors with clear glass
- Stainless steel mesh anti-throw screens
- Asphalt platform surface
- TGSI tiles
- Stainless steel handrails and painted steel balustrade
- Concrete DDA ramp with painted steel balustrade and stainless steel hand rails
- Broom finished concrete pathways.

Construction

A temporary construction compound would be required to accommodate a site office, amenities, laydown and storage area for materials. Two areas have been identified for construction support facilities:

- To the east of the station, at the unsurfaced commuter car park area
- To the west of the station (on the lawn area north of the commuter car park) (refer Figure 2-2).

The construction works would include:

- Site establishment and enabling works, including establishment of site compounds and temporary facilities and erecting temporary hoarding
- Lift work
- Stair upgrade
- Ramp upgrade
- Commuter car park upgrades
- Station building work
- Platform modification work
- Demobilisation.

The works would be undertaken over a program of approximately 12 – 18 months. The station would remain operational for the duration of the works (outside of scheduled track possessions), with customer accessible areas maintained around the construction works.

While some publicly accessible area of platform may be reduced at times, it is not expected that customer access to the station would be restricted or closed during construction, with the exception of rail possessions. The ramp from the commuter car park to the footbridge would be closed during construction of the new ramp. However, the existing stairs providing access to the footbridge from the commuter car park would remain open. The commuter car park would be closed during rail possessions, and part of the carpark would be closed during construction of the DDA car park and Kiss and ride bay.

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

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

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

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

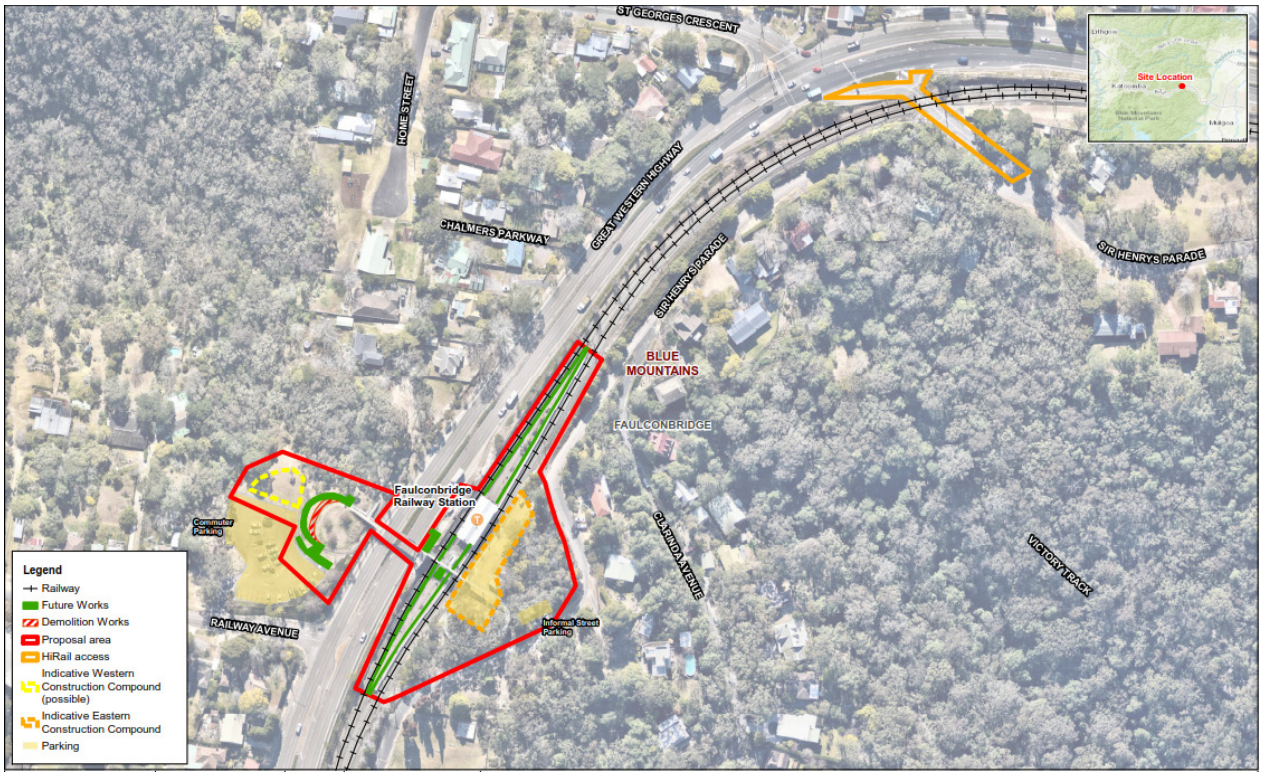


FIGURE 2-2 PROPOSED COMPOUND AREAS

3. Planning context

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

3.1. State and regional planning documents

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

This plan (Greater Sydney Commission, 2018b) sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters. It identifies three key cities in Greater Sydney, including the '*Western Parkland City*' (comprising Penrith, Western Sydney Airport– Badgerys Creek Aerotropolis and Campbelltown –Macarthur), the '*Central River* City' (including Greater Parramatta) and the *'Eastern Harbour City*' around Sydney CBD (p.6).

The role of this plan is to co-ordinate a whole-of-government approach to provide the appropriate infrastructure in the right places to support the growth of three cities. Faulconbridge Station is located in the Metropolitan Rural Area west of the '*Western Parkland City*'.

The region's '*green infrastructure*' including the '*natural waterways and ridgelines, the Greater Blue Mountains World Heritage Area and rural landscapes*' (p.148) are identified as valued assets for Greater Sydney. The scenic value of the Blue Mountain landscape is recognised in the plan. Strategy 28.2 aims to '*enhance and protect views of scenic and cultural landscapes from the public realm*' (p.158).

3.1.2. Western City District Plan, NSW Greater Sydney Commission

Greater Sydney's three cities, identified in the *Greater Sydney Regional Plan: A Metropolis of Three Cities* (NSW Greater Sydney Commission, 2018a), extend across five districts: Western City District, Central City District, Eastern City District, North District and South District. This plan is focused on the Western City District, covering the Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly local government areas. Faulconbridge Station is located within this district.

This is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It contains the planning priorities and actions for implementing the Greater Sydney Region Plan, *A Metropolis of Three Cities*, at a district level and is a bridge between regional and local planning.

Faulconbridge is located between Greater Penrith and Katoomba, within the Metropolitan Rural Area. It is not identified as a '*local centre*' in the structure plan (p.12).

The region's '*Green Grid*' (p.107) including the network of walking and cycling links are recognised as important. In particular, the Great Western Highway Penrith to Blackheath Corridor, located to the west of the station, is identified as a District project (p.122) connecting Penrith to Blackheath via a safe and separated east-west walking and cycling trail. The rural hills and ridgelines within the district, which '*provide outstanding landscapes and views*' are also valued and '*special to the District's character and identity*' (p.124). Objective 28 aims to '*enhance and protect views of scenic and cultural landscapes from the public realm*' (p.124).

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

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

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

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

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

3.1.4. Better Placed, Office of the NSW State Government

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

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

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

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

The objectives are:

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

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

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

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

3.2. Local government planning documents

Faulconbridge Station is located in the Blue Mountains City Council local government area. While the Local Environmental Plan and Development Control Plan do not apply to this Proposal, they contain the planning intent for areas surrounding the station.

Relevant clauses from the Blue Mountains Local Environmental Plan (LEP) and Development Control Plan (DCP), are summarised in the following sections.

3.2.1. Blue Mountains Local Environmental Plan 2015

The Blue Mountains Local Environmental Plan 2015 (LEP) applies to land surrounding the station upgrade works. Key relevant aims of this plan are to *'maintain the unique identity and values of the City within a World Heritage National Park'* (cl 1.2.2a), … *'retain the diverse built and landscape elements that contribute to the character and image of the Blue Mountains'* (cl 1.2.2j), and protect '*local amenity*' and '*character*' (cl 1.2.2m).

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

Land use zoning

The study area includes the following land use zones:

SP2 – Infrastructure

E4 – Environmental Living

E2 – Environmental Conservation

RE1 – Public Recreation.

There are some objectives identified for these zones of relevance to the visual amenity of the study area, these are listed in the following paragraphs.

Faulconbridge Station and the railway corridor are located in the SP2 zone. The objectives of this zone include:

'To provide for infrastructure and related uses' and *'To prevent development that is not compatible with or that may detract from the provision of infrastructure'.*

The station is surrounded by extensive areas of bushland (E2 zone) and residential development on large lots (E4 zone), including heritage listed homes on gardens. Relevant objectives of the Environmental Conservation (E2) zone are: '*to protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values*' and '*prevent development that could destroy, damage or otherwise have an adverse effect on those values*'.

Objectives of the Environmental Living (E4) zone aim: *'To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values'* and ensure *'the form and siting of buildings are appropriate for, and harmonise with, the bushland character of the locality*'.

There are a number of established parks and open spaces near the station such as Faulconbridge Cemetery and Jackson Park. These parks are zoned Public Recreation (RE1). A key objective of this zone is: *'To protect and enhance the natural environment for recreational purposes'.*

Potential building heights

The parcels of land surrounding the station, containing low-density residential, are permitted to include development with a maximum building height of 8 metres. This reflects the desire to maintain the low-rise built character in this area.

Although the rail corridor and station is not subject to a building height restriction under the LEP, clause 4.3 aims to ensure: '*that the bulk of development is not excessive and relates well to the local context*' and that there is '*an appropriate height transition between new buildings and heritage items*'.

Heritage

Faulconbridge Station is listed on Sydney Trains Section 170 Register as an item of local significance. It is also listed as a heritage item in the LEP.

Other heritage items and heritage conservation areas in and around the station include:

- Faulconbridge Cemetery including Sir Henry Parkes Grave, a locally listed heritage landscape southeast of the station, located in an 'attractive' and 'natural bushland setting' (NSW OEH, 1999)
- 'The Pines', at 6 Railway Avenue
- House at 25 Sir Henrys Parade (refer to Figure 5-1)

A key objective of the heritage conservation clause is *'to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views'* (clause 5.10).

Scenic and landscape values

The station is not within or adjacent to any protected areas, as defined in the Scenic and Landscape Values Map in the LEP. The closest protected area is an escarpment at Faulconbridge House and gardens (2 Sir Henrys Parade), located 400 metres east of the station.

3.2.2. Blue Mountains Development Control Plan 2015

The Blue Mountains Development Control Plan (DCP) provides further detail to support the LEP.

The DCP describes the Blue Mountains as an area *'defined by a string of villages and towns, many with a unique character, located along the Great Western Highway and within the World Heritage Blue Mountains National Park*' (p.9). The DCP supports the conservation of significant buildings, landscape elements, views and special places within the LGA that contribute to its heritage significance such as the '*land between towns*' which has retained a natural bushland character.

Although the DCP does not apply to the Proposal , it places importance on the appearance and compatibility of development with the surrounding context, including:

Siting and design:

'Development siting and design is to respect and enhance the natural landscape attributes that contribute to the character and distinct sense of place of the streetscape and neighbourhood, including:

(a) prominence of ridgelines, and

(b) landmarks, and

(c) topography, and

(d) views, vistas and outlooks, and

(e) waterways, and

(f) vegetation.

Buildings, particularly in bushland settings, are to be located to minimise adverse physical and visual impacts on the site.' (cl B2.2.2).

Building scale, forms and articulation:

'To ensure that building forms provide a presentation appropriate to the surrounding neighbourhood and immediate neighbours in terms of visual appearance and amenity

To ensure that new forms preserve and enhance site characteristics, site constraints and neighbourhood amenity

In bushland settings, rooflines should follow slopes and be below the established tree canopy wherever possible'. (clause B3.2.3).

Roof forms:

'To ensure that the design of roof forms is compatible with the surrounding streetscape where desirable.

To ensure that roof designs in bushland settings are compatible with sloping topography' (clause B3.2.4).

Materials, details, finishes and colours:

'In bushland settings, building materials, finishes and external colours are to use natural muted earth tones of low reflective quality to blend in with bushland. Colours include ochres, browns, olives, and greys.

Façades or roofs are not to incorporate large areas of highly reflective materials.

Avoid expanses of any single material'. (clause B3.2.5).

Tree preservation:

'Development of any land within Zone E4 Environmental Living, regardless of the condition of the vegetation or the presence of any environmentally sensitive feature or area, is to include any environmental protection works' (clause C2.1.5).

Landscape design:

The DCP also promotes the *'use of a landscaping style which reflects and reinforces the character of the locality'* and '*retention of trees and other vegetation which are of ecological, aesthetic and cultural significance'* (clause C3.1). It further states:

'Landscape design should be responsive and complementary to the bulk and scale of the proposed development. It is to include plant material capable of achieving sufficient mature height to achieve a balance between the built form and the landscape elements' (clause C3.4).

Heritage conservation:

'An adequate and respectful curtilage is to be retained around heritage items to preserve their setting' (cl D1.1).

Building type: Industrial – Residential Interface:

'To ensure that industrial development is compatible with the amenity of existing and likely future residential use within the adjoining residential zone

New industrial development is to minimise bulk and scale and utilize design elements such as articulation to limit visual intrusion' (clause F3.1).

These requirements have been addressed in section 8 of this report, Urban Design and Landscape Character Assessment.

4. Methodology

4.1. Guidance for landscape and visual assessment

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

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

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

4.2. Approach

This Visual Impact Assessment has identified potential visual impacts during construction and operations of the Proposal, day and night.

The process involved the identification of:

- existing visual conditions
- visual sensitivity
- magnitude of change
- visual impact
- mitigation opportunities.

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

4.3. Method

4.3.1. Identification of existing visual conditions

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

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

4.3.2. Visual sensitivity

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

In order to ensure the assessment of impact is reasonable, the sensitivity of a viewpoint is considered in the broadest context of possible views, from those of national importance through to those considered to have a neighbourhood visual importance. For this reason, the following terminology is used to describe the level of visual sensitivity, see Table 4-1.

TABLE 4-1 VISUAL SENSITIVITY LEVELS

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

4.3.3. Magnitude of change

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

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

In some circumstances, there may be a visible change to a view which does not alter the amenity of the view, this would be due to the visual absorption capacity of the surrounding landscape and / or the compatibility of the Proposal with the surrounding visual context. Table 4-2 lists the categories used to describe the magnitude of change.

TABLE 4-2 MAGNITUDE LEVELS

Magnitude	Description
Considerable reduction or improvement in visual amenity.	Substantial part of the view is altered. The Proposal contrasts substantially with surrounding landscape.
Minor reduction or improvement in visual amenity.	Alteration to the view is clearly visible. The Proposal contrasts with surrounding landscape.
No perceived reduction or improvement in visual amenity.	Either the view is unchanged or if it is, the change in the view is generally unlikely to be perceived by viewers. The Proposal does not contrast with the surrounding landscape.

4.3.4. Identifying night time visual impacts

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

These zones are:

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

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

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

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

The precinct is considered to be an area of **medium district brightness**, as the existing station platform, stairs, overbridge and commuter car park are brightly lit at night. The Great Western Highway, which is aligned parallel with the rail line, is also brightly lit at night with fixed street lighting and vehicle headlights. Surrounding the station area, there are further, less brightly lit residential areas with street lights and illuminated residences.

4.3.5. Assigning impact levels

An assessment of visual impact has been made on a range of representative viewpoints. An impact visual impact level has been determined by combining the sensitivity and magnitude level. The following criteria have been used, refer to Table 4-3.

Similarly, for the assessment of visual impacts at night, the following criteria has been applied. (Table 4-4).

4.3.6. Mitigation measures

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

4.3.7. Photomontages and artists impressions

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

The photomontage locations were selected in consultation with TfNSW to illustrate typical views toward the Proposal. The photomontage locations were selected from accessible parts of the adjacent highway corridor, pathways and commuter car park, looking towards the station and key components of the Proposal.

TABLE 4-3 VISUAL IMPACT LEVELS

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

TABLE 4-4 NIGHT TIME VISUAL IMPACT LEVELS

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

4.3.8. Assessment of Urban Design and Landscape Character Impacts

Whilst the requirements of the LEP and DCP are not applicable to this approval, for the purposes of this assessment, impacts on urban design and landscape character have been undertaken with reference to the guidance provided in these documents.

Specifically, the urban design and landscape character impacts will be assessed against the 'Design Excellence' considerations identified in the *Blue Mountains LEP 2015*.

This requires consideration of:

(iii) 'heritage issues and streetscape constraints,

(iv) the relationship of the development with other development (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,

(v) bulk, massing and modulation of buildings,

(vi) street frontage heights,

(vii) environmental impacts such as sustainable design, overshadowing, wind and reflectivity,

(x) the impact on, and any proposed improvements to, the public domain,

(xi) achieving appropriate interfaces at ground level between the building and the public domain'. (clause 6.19.4f)

In addition, overshadowing will be considered.

5. Assessment of visual impacts

5.1. Existing conditions

Faulconbridge Station is located in the Blue Mountains region, over a kilometre south of the village of Faulconbridge and approximately 450 metres from the Blue Mountains National Park.

The landform surrounding the station is undulating, generally rising from east to west. The rail corridor is oriented north to south in the vicinity of the station and follows the alignment of the Great Western Highway, which are both located within a gentle valley.

The station and highway are cut into a local east west ridgeline, so that the rail corridor is on an embankment as it approaches the station from both the north and south, and transitions to a cutting at the station. There are exposed sandstone rock faces to the east of the station, and rocky outcrops in the west adjacent to the highway.

THE GREAT WESTERN HIGHWAY

The landscape surrounding the station consists of low-rise and low-density residential development, characterised by a framework of mature trees and gardens. These residential areas include several heritage listed houses, including the former home of Sir Henry Parkes located on Sir Henrys Parade. The station is not visible from this heritage listed property.

The Faulconbridge Cemetery, which contains the grave of Sir Henry Parkes, is located within an area of open space to the southeast of the station, on Sir Henrys Parade. The landform drops away sharply in this area, which in combination with the exiting mature trees, is visually separated from the station.

VIEW TO THE FAULCONBRIDGE CEMETERY

FILTERED VIEW THROUGH EXISTING TREES TO THE STATION FROM SIR HENRYS PARADE

Generally, the station is enclosed by dense tracts of vegetation along road and rail corridor, which visually contain the station from surrounding residential areas. To the north and south of the station, the boundary of the road and railway corridor is partially vegetated with native and ornamental trees, creating a strong north south visual boundary, enclosing and filtering views between the station and adjacent highway. To the east and west, mature trees within the residential areas and streets, including a large vegetated reserve to the northwest of the station, enclose views.

The landscape and visual conditions of the study area are illustrated in Figure 5-1.

A commuter car park is located to the west of the station, on slightly higher ground, connected via an overhead footbridge to the station. The footbridge and stairs are predominantly modern concrete structures, located at the southern end of the platform. These stairs also provide access to the platform from the pathways and cycleways beside the Great Western Highway (including bus stops) and surrounding residential areas. The footbridge provides elevated views to the station and the surrounding landscape.

RESIDENTIAL PROPERTY ON SIR HENRYS PARADE

EXISTING STATION FOOTBRIDGE AND STAIRS

Faulconbridge Station consists of a curved island platform and footbridge, linking to Sir Henrys Parade in the east and a commuter car park west of the station. The platform building is centrally located on the platform, north of the footbridge. It is a red brick federation style building, with fretted timber work and a corrugated metal gabled roof extending as an awning to both platforms, with two decorative corbelled chimneys. It is considered to be '*a landmark within the landscape of Great Western Highway and the immediate townscape*' (NSW OEH, 1999).

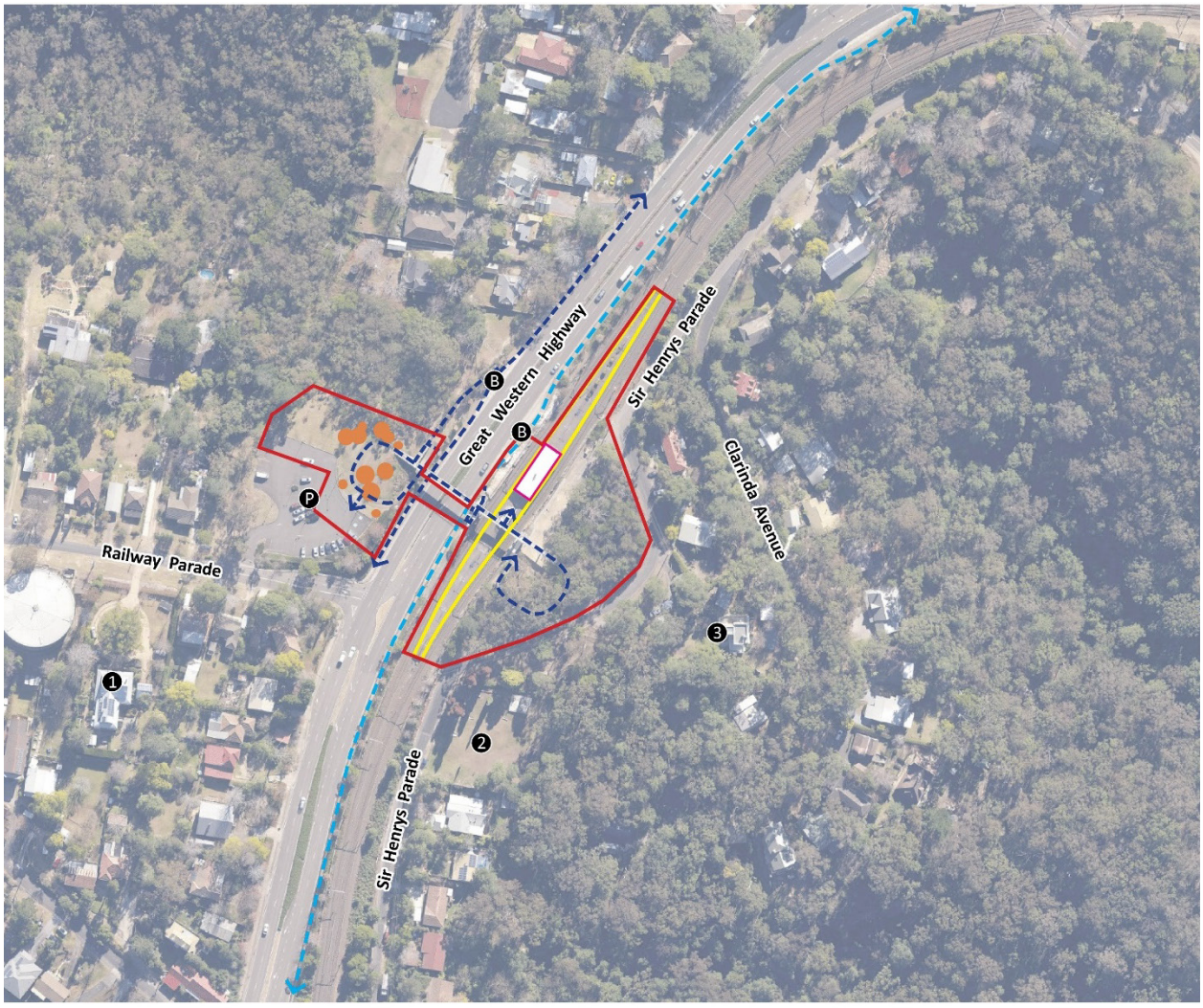
Notably, there are garden areas within the platform at the northern end, which are characteristic of the Blue Mountains rail network.

HERITAGE LISTED STATION PLATFORM BUILDING

EXISTING PLATFORM GARDENS TO THE NORTH OF THE STATION

The rail corridor includes numerous overhead poles and wires, and corridor security fencing which create some visual clutter particularly to the west of the station, beside the highway, where there is little planting to filter views between the station and road corridor.

VEGETATION TO THE WEST OF THE COMMUTER CAR PARK



North

Not to scale

Key:

- Site boundary
- Existing trees
- Tree to be removed
- Pedestrian circulation
- Cycle route
- Bus stop
- Commuter car park
- Heritage platform (s170)
- Heritage platform building (s170)
- Heritage place (Blue Mountains LEP)
  1. 'The Pines', at 6 Railway Avenue
  2. Faulconbridge Cemetery
  3. House at 25 Sir Henrys Parade

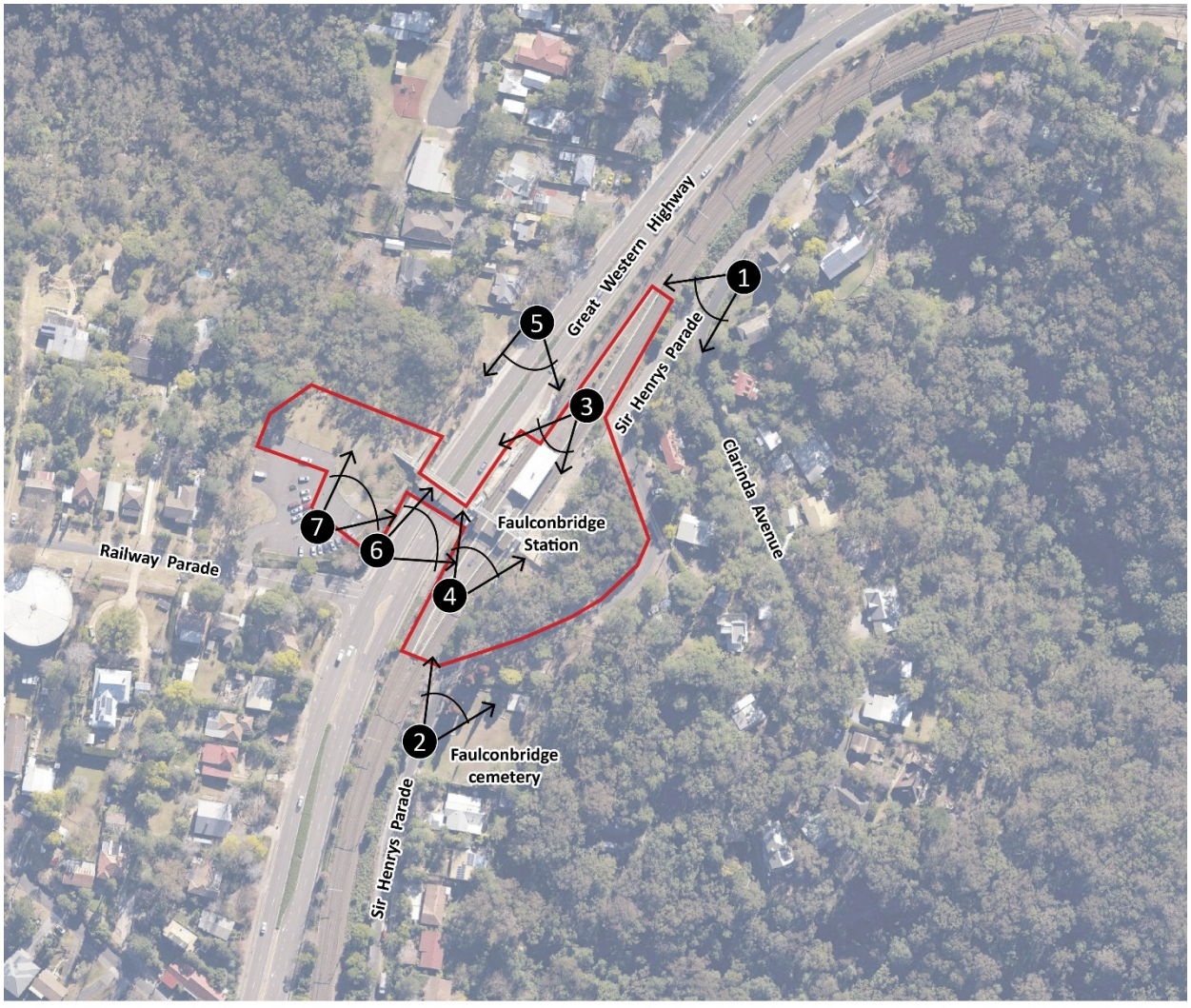
FIGURE 5-1 LANDSCAPE AND VISUAL FEATURES OF THE SITE

5.2. Assessment of Representative Viewpoints

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

- Viewpoint 1: View southwest from Sir Henrys Parade
- Viewpoint 2: View north from Sir Henrys Parade at Faulconbridge Cemetery
- Viewpoint 3: View south from the station platform
- Viewpoint 4: View north from the station platform
- Viewpoint 5: View south from the Great Western Highway
- Viewpoint 6: View northeast from the Great Western Highway
- Viewpoint 7: View northeast from the commuter car park

The location of these viewpoints is shown on Figure 5-2 and an assessment of each viewpoint is been summarised on the following pages.



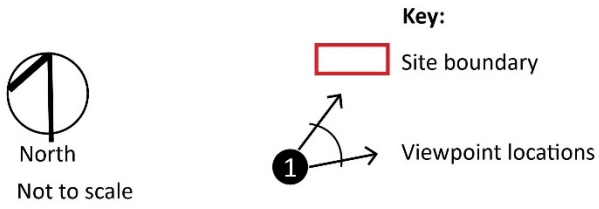


FIGURE 5-2 VIEWPOINT LOCATION PLAN

5.2.1. Viewpoint 1: View southwest from Sir Henrys Parade

FIGURE 5-3 VIEWPOINT 1: VIEW SOUTHWEST FROM SIR HENRYS PARADE

Existing view: This view, from the corner of Sir Henrys Parade and Clarinda Avenue, represents views from residential properties to the east of the railway corridor and in close proximity to the station. It is a leafy view characterised by dense vegetation within adjacent residential gardens and along the narrow roads.

The station and rail corridor are located on higher ground to the west (right of view), in a small cutting, with dense vegetation located on the roadside and rail corridor embankment screening views to the station platform. There are glimpses to the upper section of trains, overhead wires and associated equipment along the rail corridor above and filtered through this vegetation.

The eastern part of the heritage listed platform building can be seen, glimpsed through a break in the roadside vegetation, beyond the rail corridor fencing. The footbridge is not visible from this location.

Visual sensitivity: This view is of **neighbourhood** visual sensitivity as it is located adjacent to the existing railway corridor, within a residential area and is experienced by a small number of receptors.

Visual impact during construction: There may be some glimpses to the construction works on the station platform and at the lift sites in the background of this view. This would include cranes and the erection of the lift structure above the footbridge and beyond the station building. Construction vehicles may be seen travelling along the local roads in the foreground of the view, accessing a construction support site, located to the east of the station in the background of this view, screened by intervening trees.

The works would extend across a small portion of this view and would be in the middle to background of views from this location. The character of this construction activity would contrast somewhat with the heritage and leafy character of the station. Overall, this would create a **minor reduction** in the amenity of this view, resulting in a **negligible visual impact** during construction.

Visual impact during operation: There would be a glimpse to the new eastern lift shaft, in the background of this view, rising above and contrasting in scale and form to the heritage listed platform building. This lift would protrude above the skyline in this view but as it would be located south of the platform building it would not obstruct the glimpsed view to this building.

Overall, the densely vegetated setting of the station would be maintained and the new station structures would be largely absorbed into the background of this view. Overall, there would be **no perceived change** in the amenity of this view, and a **negligible visual impact** during operation.

5.2.2. Viewpoint 2: View north from Sir Henrys Parade at Faulconbridge Cemetery

FIGURE 5-4 VIEWPOINT 2: VIEW NORTH FROM SIR HENRYS PARADE AT FAULCONBRIDGE CEMETERY

Existing view: The station is located in the centre background of this view, largely filtered by existing trees along the road to the east of the rail corridor. As the station is located in a cutting, the heritage listed platform and platform building are not visible from this location. There are glimpses through the intervening vegetation to part of the concrete footbridge, in the background of this view. The curved ramp at the eastern end of the footbridge is also discernible through this vegetation. The view is further enclosed by mature trees to the east of the rail corridor (left of view), and vegetation.

The landform descends from Sir Henrys Parade towards the Sassafras gully (right of view). The Faulconbridge Cemetery can be seen to the east (right of view), including the historic grave of Sir Henry Parkes, several large cypress pines and ornamental terraced gardens, which are a feature of this view. Some residential properties can be glimpsed in the background of the view in areas to the north and east of the cemetery, through a mature framework of existing trees and vegetation.

Visual sensitivity: This view is of **local** visual sensitivity. Faulconbridge Cemetery and the adjacent station are heritage listed places, reflecting their value to the community, visited by groups of people from the local and wider community.

Visual impact during construction: Most of the construction activity within the station would be screened from this location by the intervening landform and vegetation. Works to install the eastern lift structure may be visible filtered through this vegetation, in the background of this view. This work would include cranes and there may be a compound seen in the vicinity of the footbridge ramp also glimpsed through existing vegetation.

While the character of this construction activity would contrast with the heritage and leafy character of the station, the works would comprise a small portion of this view. Overall there would be a **minor reduction** in

the amenity of this view and a **minor adverse visual impact** during construction.

Visual impact during operation: The new eastern lift shaft may be visible from this location, glimpsed through the intervening vegetation. While the roofline of the lift would rise above the footbridge, the simple form and palette of materials would assist in visually integrating it with the character of the existing footbridge. The vegetation surrounding the station would be retained and any areas impacted by the construction compound in areas to the east of the station would be reinstated.

Overall, due to the restricted visibility of the proposal works and the consistency in character with the existing footbridge, there would be **no perceived change** in the amenity of this view. This would result in a **negligible visual impact** during operation.

5.2.3. Viewpoint 3: View south along the station platform

FIGURE 5-5 VIEWPOINT 3: VIEW SOUTH ALONG THE STATION PLATFORM

Existing view: This view along the island platform includes the heritage listed platform building in the centre middle ground. In this view the northern elevation of the building is partly obstructed by a brick wall, however, the fretted timber work and corrugated steel gabled roof extending as an awning to both platforms, can be seen in profile, with a decorative corbelled chimney.

The existing modern footbridge and stairs, can be seen beyond this building, extending east-west over the rail corridor and highway.

In this view the small exposed sandstone cuttings can be seen to the east with informal parking area and mature trees on higher ground adjacent to the rail corridor (left of view). On the west, there is a low rocky outcrop between the rail line and the highway.

The view includes several elements which reinforce the developed character of the view, including fences, lighting poles, overhead wiring along the rail corridor. Commuter trains are regularly seen in this view, entering and departing the station.

Visual sensitivity: This view from Faulconbridge Station platform is of **local** visual sensitivity. It is used by groups of people accessing the station and is a place of arrival for visitors. The platform in particular is a location where passengers congregate, therefore there would be a higher number of people who see the works.

The platform building is a heritage listed place, described as a '*landmark within the landscape of Great Western Highway and the immediate townscape*' (NSW OEH, 1999).

Visual impact during construction: Platform upgrade works would be seen in the foreground of this view, including the removal and replacement of the brick privacy screen wall to the north of the heritage platform building. Works would also include localised regrading, installation of TGSIs and safety lines along the platform edge.

The construction of a new lift within the platform, to the south of the existing footbridge, would be visible in

the distance, rising up above the platform building and existing footbridge.

Works to construct the second lift structure to the west of the station, would be seen in the middle ground of the view, opposite the station platform building. These works would be visually prominent rising above the surrounding footbridge, including a range of intensive construction activities with cranes and heavy vehicles. This work would include the construction of a new landing to link the footbridge to the new lift structure, and removal of part of the existing sandstone rock outcrop.

There would also be works to install new handrails, TGSIs and nosing on the existing stairs and across the footbridge.

The eastern construction compound would also be visible, to the east of the station fencing (left of view) including hoarding, offices, plant and equipment.

Combined, there would be construction activity visible across several areas of this view , including works in close proximity to customers as well as in the distance.

The intensive character, close proximity and extent of construction activity seen in views from the northern areas of the station would contrast with the leafy, heritage character of the station. Overall, there would be a **considerable reduction** in the amenity of this view, and a **moderate adverse visual impact** during construction.

Visual impact during operation: The platforms would have been refurbished and refreshed. There would be a new brick privacy screen wall located to the north of the station platform building, closer to the viewer, but still obstructing the view of the heritage building.

The new western lift would be clearly seen in this view, between the rail corridor and the highway (right of view), rising above and in front of the existing footbridge. The façade of the lift structure, including a street level canopy over the lift doors, would be seen from this location with customers using the lift via a lift landing area. The lift structure would have a character generally in keeping with the existing modern footbridge. It would add a strong vertical element to the bridge. This structure would contrast in scale and form with the heritage platform building.

The eastern lift structure to the south of the footbridge would also be visible in the background of this view, beyond the existing station building, with the upper section of the lift rising above the existing footbridge. The new handrails along the footbridge and stairs would be consistent with the character of the existing modern footbridge.

The new lift structures would contrast in scale and form with the heritage platform building and be prominent in views from the northern areas of the station, increasing the overall scale and developed character of the station.

While the view has some capacity to absorb these elements, the extent of change in this view and context of the heritage platform building would result in **a minor reduction** in the overall amenity of this view, which is of local sensitivity, resulting in a **minor adverse visual impact** during operation.

5.2.4. Viewpoint 4: View north along the station platform

FIGURE 5-6 VIEWPOINT 4: VIEW NORTH ALONG THE STATION PLATFORM – EXISTING VIEW

FIGURE 5-7 VIEWPOINT 4: VIEW NORTH ALONG THE STATION PLATFORM – PHOTOMONTAGE

Existing view: This view along the island platform of the station towards the existing modern footbridge and stairs extending east-west over the rail corridor. This view is enclosed by the small exposed sandstone cuttings and native vegetation along the rail corridor (left of view) and on the higher ground to the east of the station (right of view).

The heritage listed platform building is located to the north of the footbridge and largely screened by the wide curved staircase.

The view includes several vertical elements adding to the built character of the view, including fences, lighting poles, overhead wiring and associated equipment along the rail corridor. Commuter trains are regularly seen in this view, entering and departing the station.

Visual sensitivity: This view from Faulconbridge Station platform is of **local** visual sensitivity. It is used by groups of people accessing the station. While it the platform heritage building is largely obscured from the southern areas of the platform, the station is a heritage listed place, described as a '*landmark within the landscape of Great Western Highway and the immediate townscape*' (NSW OEH, 1999).

Visual impact during construction: The works to construct a landing and lift on the platform, south of the existing footbridge in the centre middle ground of this view, would be prominent in this view.

Platform upgrade works would be seen in the foreground of this view, and would include the removal of a seat to accommodate a landing area at the base of the lift, localised regrading, installation of TGSIs and safety lines along the platform edge.

Installation of the western lift would also be visible to the left of view, north of the footbridge. This work would be seen rising above the existing footbridge, but be otherwise out of view due to the existing stairs. There would also be works to install new handrails, TGSIs and nosing on these stairs.

Site fencing and hoarding would be erected along the worksite boundary, adjacent to rail customers, and construction equipment and machinery would be visible rising above the hoarding.

The character and close proximity of this construction activity would contrast with the leafy, heritage character of the station. This would result in a **considerable reduction** in the amenity of this view, and a **moderate adverse visual impact** during construction.

Visual impact during operation: The new platform lift would be the focus of this view, rising above and in front of the existing footbridge. The façade of the lift structure, including a platform level canopy over the lift doors, would be seen from this location with passengers entering and exiting. The lift structure would further obstruct views to the existing station platform building.

The western lift structure would also be seen from this location (left of view). The upper section of the lift structure would be seen, rising above the existing footbridge and stairs. The new handrails would be consistent with the character of the existing modern footbridge.

The new lift structures would be prominent in this view, and increased the scale and developed character of views from the southern areas of the station platform. However, the structures would be consistent in style and materials to the existing footbridge, and the vegetated setting of the station and exposed sandstone cuttings would be retained. This view has the capacity to absorb these elements and therefore there would be **no perceived change** in the overall amenity of this view, which is of local sensitivity, resulting in a **negligible visual impact** during operation.

5.2.5. Viewpoint 5: View south from Great Western Highway

FIGURE 5-8 VIEWPOINT 5: VIEW SOUTH FROM GREAT WESTERN HIGHWAY - EXISTING VIEW

FIGURE 5-9 VIEWPOINT 5: VIEW SOUTH FROM GREAT WESTERN HIGHWAY – PHOTOMONTAGE

Existing view: The Faulconbridge Station is visible in the middle ground of this view from the footpath approaching a bus stop on the western side of the Great Western Highway. The station and highway are relatively level, both located in a small cutting, with some exposed natural sandstone providing a visual feature in the vicinity of the station. The heritage listed platform building can be seen (left of view) with its red brick façade, gable roof with fretwork and decorative chimney providing visual interest.

The station is viewed against a backdrop of dense native trees, which are located on a local highpoint and provides a leafy setting to the station.

This section of the highway is heavily trafficked with two lanes in each direction. The moving vehicles and wide road corridor visually dominate the foreground of this view. The view includes several vertical elements, including lighting poles, fences and overhead wiring and associated equipment along the rail corridor. There is a bus stop on the eastern side of the Highway, adjacent to the station marked with a small shelter and signage. Trains are also visible intermittently, travelling across this view as they approach and depart the station.

Visual sensitivity: This view is of **local** visual sensitivity as it represents transient views from the highway and longer duration views from the adjacent bus stops. These views are large numbers of locals and visitors travelling within the lower Blue Mountains. It also includes a view of the station heritage platform building which is a local heritage listed place, described as a '*landmark within the landscape of Great Western Highway and the immediate townscape*' (NSW OEH, 1999).

Visual impact during construction: Installation of the two new lifts would be seen from this location, in the middle ground of view. One lift would be positioned on the platform, south of the footbridge. The other would be installed on the eastern side of the highway, between the bus stop and footbridge. There would be works to excavate an area of the sandstone rock outcrop visible in the middle ground of this view, facing the Highway. Cranes would be seen at each lift construction site, above the rising footbridge and surrounding vegetation.

The platform upgrade works, including localised regrading, installation of TGSIs and safety lines, would be visible in the vicinity of the heritage platform building, as would works to demolish and rebuild the brick wall further north on the station platform.

There would be works to upgrade the handrails on the existing stairs and footbridge extending across the view.

There would be heavy vehicles travelling along the highway, accessing the site and compound via Railway Avenue. The trees to the west of the bus stop (right of view) would be retained, obstructing views to the construction compounds and works within the commuter car park.

The character of this construction activity would create a **considerable reduction** in the amenity of this view and result in a **moderate adverse visual impact** during construction.

Visual impact during operation: During operation, the new lifts would be prominent in this view, adding to the modern built character of the existing footbridge and in the vicinity of the station platform building. The rectangular lift structures would be vertical elements, rising above the footbridge, and above the existing skyline. The lifts would not block or compete with views to the heritage listed platform buildings from this location. The potential visual impact of the lifts would also be balanced by the proposed simple form and material palette which would largely match the existing footbridge.

Overall, while the station would have an increased visual prominence in this view the character would be in keeping with the existing character of the footbridge and set within the built setting of the station and busy highway. The proposed station additions would create a **minor reduction** in the amenity of this view, resulting in a **minor adverse visual impact** during operation.

5.2.6. Viewpoint 6: View northeast from Great Western Highway

FIGURE 5-10 VIEWPOINT 6: VIEW NORTHEAST FROM GREAT WESTERN HIGHWAY – EXISTING VIEW

FIGURE 5-11 VIEWPOINT 6: VIEW NORTHEAST FROM GREAT WESTERN HIGHWAY – PHOTOMONTAGE

Existing view: The Faulconbridge Station is visible in the middle ground of this view from the footpath on the western side of the Great Western Highway. In this view there is a small rock cutting separating the station platform and highway, which are otherwise relatively level. This exposed natural sandstone provides a visual feature in this view.

This view includes the modern footbridge in the middle ground, including an east west aligned bridge deck with handrails, stairs adjacent to the highway with handrails and angled throw screens, a stair set back in the view, on the station platform also with handrails and angled throw screens. The bridge has a contemporary form with blade walls and angled throw screens creating a strong angular form. The stairs and concrete walls adjacent to the highway screen views into the station and to the southern end of the heritage station platform building.

The heritage listed platform building can be seen (left of view), set behind the footbridge stairs, within the station. It is a visual feature in this view with its red brick façade, gable roof with fretwork and decorative chimney providing visual interest.

The station is viewed against a backdrop of dense native trees, which are located on a local highpoint and provides a leafy setting to the station.

This section of the highway is heavily trafficked with two lanes in each direction. The moving vehicles and wide road corridor visually dominate the foreground of this view. The view includes several vertical elements, including lighting poles, fences and overhead wiring and associated equipment along the rail corridor. There is a bus stop on the eastern side of the Highway, adjacent to the station marked with a small shelter and signage. Trains are also visible intermittently, travelling across this view as they approach and depart the station.

Visual sensitivity: This view is of **local** visual sensitivity as it is represents transient views from the highway. These views are large numbers of locals and visitors travelling within the lower Blue Mountains. It also includes a partial view of the station heritage platform building which is a local heritage listed place, described as a '*landmark within the landscape of Great Western Highway and the immediate townscape*' (NSW OEH, 1999).

Visual impact during construction: Construction of both the east and western lift structures would be seen in the middle ground of this view. The eastern lift works would be positioned on the platform, south of the footbridge, and partly screened by the intervening rocky outcrop. This work would rise above the existing footbridge and above the vegetated skyline beyond.

The western lift structure construction area would be installed closer to the highway, to the north of the existing footbridge. There would be works to excavate part of the sandstone rock outcrop at the base of the stairs, facing the Highway. Works at this site would further obstruct the view to the heritage listed station platform building, and would rise above the footbridge and vegetated backdrop to create a strong contrast with the existing station character.

The platform upgrade works, including localised regrading, installation of TGSIs and safety lines, would be visible in the background of this view where this is not blocked by the intervening construction site. There would also be works to upgrade the handrails on the existing stairs and footbridge extending across the view.

Heavy vehicles travelling along the highway, accessing the site and compound via Railway Avenue would be seen crossing this view.

The character of this construction activity would create a **considerable reduction** in the amenity of this view and result in a **moderate adverse visual impact** during construction.

Visual impact during operation: During operation the new lifts would be prominent in this view, adding to the modern built character of the existing footbridge and in the vicinity of the station platform building. The rectangular lift structures would be strong vertical elements, rising above the footbridge, and skyline. The character of these structures would, however, be consistent with the existing modern footbridge.

The western lift would further obstruct the view of the heritage listed platform building from this location. The structure would be somewhat visually dominant in this view, detracting from the prominence of the heritage platform building which has already been surrounded in this view by contemporary structures and highway.

Overall, the modern station elements would have an increased visual prominence in this view with the proposed lift structures, however, the character of the

Proposal would be in keeping with the existing modern footbridge, set within the built setting of the station and adjacent to the busy highway. Due to the reduced visibility of the heritage building and its reduced prominence in this view, the Proposal would create a **minor reduction** in the amenity of this view, resulting in a **minor adverse visual impact** during operation.

5.2.7. Viewpoint 7: View northeast from the commuter car park

FIGURE 5-12 VIEWPOINT 7: VIEW NORTHEAST FROM THE COMMUTER CAR PARK – EXISTING VIEW

FIGURE 5-13 VIEWPOINT 7: VIEW NORTHEAST FROM THE COMMUTER CAR PARK – PHOTOMONTAGE

Existing view: This view from the commuter car park shows a curved, ramping path leading to a concrete footbridge which leads to the station (right of view). The lawn covered embankments of the ramping pathway contains scattered ornamental trees. The background of this view is enclosed by the dense adjacent bushland.

The highway and station are set in a small cutting below the car park and can be glimpsed through the bridge.

Visual sensitivity: The Faulconbridge Station commuter car park is a gathering place for local residents and commuters using the adjacent station and this view is of **local** visual sensitivity.

Visual impact during construction: A temporary construction compound would be established on the lawn area to the north of the car park (left of view). This compound would include site offices and staff amenities, light vehicle parking, machinery, equipment and materials storage areas.

The existing ramping path would be demolished, and earthworks would be undertaken to construct a new curved ramp which extends further to the west. Several existing trees would be removed to make way for installation of this new ramp.

The existing footbridge would be retained, with some works to upgrade the balustrades.

As the station is located below street level, the station platform re-grading and building works would typically not be seen from this location. Similarly, the construction compound to the east of the station, at the base of the ramp, would be screened from this location be intervening vegetation and landform.

Roadworks to create a Kiss and ride zone, upgrade the accessible parking spaces would be visible in the foreground of the view.

The character of this construction activity would contrast with this quiet leafy setting, which is of local sensitivity, however the vegetated backdrop would remain, as would the view to the footbridge and station. Overall, this would create a **minor reduction** in the amenity of this view, and a **minor adverse visual impact** during construction.

Visual impact during operation: From this location, the new western station entry ramp would be seen in the centre of this view. There would be a widened embankment to the north, and the areas used for the site compound and temporary facilities would be reinstated as a lawn area. The ramp would be formalised with landings and handrails which would add to the visual clutter of the view. There would be some new trees in the vicinity of the new ramp and surrounding grassed areas.

The new accessible parking bays and Kiss and ride zone would be seen in the middle ground of the view as new kerbs, footpaths with TGSIs, road line markings and signage.

Overall, the proposed station additions would extend the developed character of the footbridge architecture into the commuter car park. While the ramp would be more visually prominent, the visual context of the commuter car park has a high visual compatibility with this infrastructure.

Due to the absorption capacity of this view there would be **no perceived change** in the amenity of this view, and a **negligible visual impact** during operation.

5.3. Summary of visual impacts

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

TABLE 5-1 SUMMARY OF VIEWPOINT ASSESSMENT

			Construction		Operation	
	Viewpoint number and location	Sensitivity	Magnitude	Visual impact	Magnitude	Visual impact
1	View southwest from Sir Henrys Parade	Neighbourhood	Minor reduction	Negligible	No perceived change	Negligible
2	View north from Sir Henrys Parade at Falconbridge Cemetery	Local	Minor reduction	Minor adverse	No perceived change	Negligible
3	View south along the station platform	Local	Considerable reduction	Moderate adverse	Minor reduction	Minor adverse
4	View north along the station platform	Local	Considerable reduction	Moderate adverse	No perceived change	Negligible
5	View south from Great Western Highway	Local	Considerable reduction	Moderate adverse	Minor reduction	Minor adverse
6	View northeast from Great Western Highway	Local	Considerable reduction	Moderate adverse	Minor reduction	Minor adverse
7	View northeast from the commuter car park	Local	Minor reduction	Minor adverse	No perceived change	Negligible

The following summarises the findings of this viewpoint assessment.

5.3.1. Views from the east

East of the station, the landform rises to Sir Henrys Parade and then slopes down towards the Sassafras Creek valley. This area includes mature trees which filter and enclose views to the station.

The roads in this predominantly residential area are narrow, and curve to follow the landform. The roadside and garden trees enclose views. Views from this area, including the roads, trails, parkland and residences, towards the station, are limited by this vegetation and landform.

Glimpsed views to the footbridge and heritage station platform building can be seen in short range views along Sir Henrys Parade (refer to viewpoints 1 and 2).

Residential properties to the east of the station are generally oriented east, away from the station, overlooking the Sassafras Valley and national park beyond. Although there are some windows oriented towards the road and station, mature trees along the rail corridor would screen and filter views to the station and Proposal.

While the character of this construction activity would contrast with the heritage and leafy character of the station, there would be limited visibility of the works. During construction, there would be **minor adverse** and **negligible visual impact** on views from the east.

During operation, there may be views to the new lift structures, glimpsed through existing rail corridor and roadside vegetation, from areas to the east of the station. The new lifts would be seen within the context of the existing railway station infrastructure and largely absorbed into these views.

Due to the restricted visibility of the proposal works and the consistency in character with the existing footbridge, there would be a **negligible visual impact** during operations.

5.3.2. Views from the platform

The heritage platform building is a visual feature in views within the northern part of the station. In views from the southern areas of the station platform, however, views of the heritage platform building are largely obstructed by the existing modern footbridge and stairs (refer to viewpoints 3 and 4).

In views from the northern areas of the station, works to construct the western lift shaft would be seen in close proximity. The eastern lift construction works would also be seen in the background as would the works extending across the footbridge, resulting in construction activity being seen across much of these views.

In views from the southern areas of the station, the works to construct the eastern lift would be seen in close proximity to customers using the station platforms, and close to the heritage platform building.

Overall, due to the scale of works and extent of change across these views, in close proximity to customers, which would contrast with the leafy, heritage character of the station, there would be a **moderate adverse visual impact**.

During operation there would be two new lift structures located on the footbridge, in close proximity to the heritage platform building and customers. These new lift structures would be prominent in views within the station, increasing the scale and developed character of the precinct.

While views from the north have some capacity to absorb these elements, the extent of change and context of the heritage platform building would result in a **minor adverse visual impact**. In views from the southern areas of the station however, the structures would be less of a contrast and represent an incremental change which is consistent in style and materials to the existing footbridge. There would be a **negligible visual impact** during operation in these areas.

5.3.3. Views from the Great Western Highway

Faulconbridge Station is located in a shallow curved cutting, beside the Great Western Highway. In this location, the rail corridor is surrounded by dense tracts of native vegetation along the verge of the highway. This vegetation, along with the undulating landform restricts the visibility of the station to a short distance north and south of the station.

During construction, works at the station platform, footbridge, stairs and installation of the new lifts

would be visible in the fore and middle ground of the views from the highway. Whilst the works would contrast with the heritage and leafy character of the station, these viewing opportunities would be of a short duration from vehicles. There would also be views from cyclists and pedestrians on the western footpath and commuters waiting at the bus stops.

Overall, due to the contrasting character and scale of the construction works, there would be **moderate adverse visual impact** during construction. (refer viewpoints 5 and 6).

In views during operation, while the new lift structures would be set back from the heritage platform building, particularly the western shaft would be prominent in views from the Highway, rising above the existing footbridge and adding a strong vertical element to the built form of the station. The simple form of these structures and compatibility of the materials and forms with the existing modern footbridge would assist in the integration of these elements into views to the station.

The new lift structures and other adjustments to the footbridge would increase the visual prominence of the station while being generally in character with the existing modern footbridge and seen in the context of the highway and station infrastructure. Overall, this would result in a **minor adverse visual impact** during operation.

5.3.4. Views from the west

During construction, in views from the west, the works to construct the new ramp would be seen in close proximity, from the commuter car park and residences at the eastern end of Railway Avenue. Beyond this, the works would be screened by vegetation and changes in landform.

The character of this construction activity would contrast with this quiet leafy setting, which is of local sensitivity, however the vegetated backdrop would remain, as would the view to the footbridge and station. Overall, this would result in a **minor adverse visual impact**. (refer to viewpoint 7).

During operation, the ramp and new lift structures would be visible in the fore and middle ground of views from the commuter car park and nearby streets, footpaths and residential properties.

Overall, the proposed station additions would extend the developed character of the footbridge architecture into the commuter car park, however, due to the high visual compatibility of the proposal with the existing infrastructure and visual enclosure and absorption capacity of this setting, there would be a **negligible visual impact** from views to the proposal during operation.

5.3.5. Views at night

At night, the Proposal is an area of **moderate district brightness**, with lights from the existing heavily trafficked highway, station and railway corridor, creating a moderately well-lit at environment night. The light levels reduce in the surrounding residential areas, with lighting from residential properties being screened by the densely vegetated setting.

During construction, the work areas and adjacent main construction compound would be lit for security. However, it is unlikely that these areas would be used on an ongoing basis for construction activity during evening hours (other than for specific activities or where works are undertaken during possession periods).

Generally, the character of the construction works at the lift work areas and main construction compound at night would be absorbed into the surrounding brightly lit environment, particularly with the context of moving headlights lights from traffic along the Great Wester Highway.

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

During operations, the upgraded station would continue to be brightly lit for security and safe use at night. The new lifts and upgraded ramp beside the commuter car park at Railway Avenue would be seen in the context of the existing station and car park lighting, and streetlights along the highway.

The lift structures would introduce lighting to a higher level in the vicinity of these structures, however, they are located within the station footprint and have limited visibility from surrounding residential areas.

The station would be likely to create minor additional sky glow above the site due to the additional built form. There is not expected to be any additional direct light spill (trespass) onto private property as all

neighbouring residential properties are separated from the station by the rail corridor and roads, and vegetation.

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

6. Assessment of urban design and landscape character

6.1. Response to urban design guidelines

At a strategic level, the principles contained in the Urban Design best practice guideline *Around the Tracks urban design for heavy and light rail* provides strategic direction for Project. The following table 6-1 includes a summary of how the project responds to each principle.

Whilst the requirements of the LEP are not applicable to this assessment, this assessment uses the requirements of these planning instruments as a guide to ensure locally appropriate urban design outcomes are achieved.

The Proposal is generally consistent with the intent and strategies identified in the *Blue Mountains LEP 2015*. In particular, the *Blue Mountains LEP 2015* '*Design Excellence'* clause identifies several urban design considerations at Clause 6.19.4f. The following table also provides a summary of how the Proposal has responded to these requirements.

TABLE 6-1 RESPONSES TO URBAN DESIGN CONSIDERATIONS

Urban design considerations	Response
Around the Tracks urban design for heavy and light rail	
Draw on a comprehensive site and context analysis to inform the design direction.	A scoping design report was prepared by Stantec and DesignInc which includes a comprehensive site analysis covering the station and its context. This analysis has informed the design layout, architectural style and materials selection.
Provide value-for-money design solutions that achieve high quality low maintenance architectural and urban design outcomes that have longevity.	Finishes have been selected to balance cost with whole of life issues and aim at achieving a value-for money design. Further refinements would be made at the detail design stage.
Provide connectivity and permeability for pedestrians.	The Project is primarily concerned with improving connectivity and permeability for pedestrians at the station. The provision of lifts, accessible ramp, and DDA compliant car parking spaces improve connectivity and permeability for customers.
Integrate the project with the surrounding area.	The design of the station elements of the Project have been designed to complement the form and materials of the existing modern footbridge and heritage building as appropriate. Works at the commuter car park are minor and the new landform and landscaped areas would integrate the works in to the existing landscape setting.
Maximise the amenity of the public domain.	An Urban and Landscape Design Plan (ULDP) would be prepared to ensure a high-quality public domain is delivered as part of the Project.

Urban design considerations	Response
Protect and enhance heritage features and significant trees.	Refer to the *Faulconbridge Station Statement of Heritage Impact* [Artefact, 2019] for details of how the heritage items have been protected and enhanced. There would be 11 trees removed to accommodate the works. These trees are a mix of native and exotic amenity trees which have not been identified as significant. The stands of mature trees which surround the station to the east and the existing bushland to the north of the commuter car park would be unaffected by the Project.
Maximise positive view opportunities.	Views to the heritage station building have been protected in views from the station and surrounding areas in the north. There would be some obstruction to the visibility of the station platform building in views from the south. Views to the vegetation setting of the station would be maintained with the removal of a small number of trees in the vicinity of the commuter car park. There would be offset vegetation provided which would improve views in this area.
Design an efficient and functional transport solution which enhances and contributes to local amenity and prosperity.	The Project improves the efficiency and functionality of the station by providing DDA compliant facilities. The lift structures, whose location and scale are determined by their function, would, however, result in some minor adverse impacts on amenity.
Blue Mountains LEP 2015 'Design Excellence'	
(iii) heritage issues and streetscape constraints	The lift structures would have a simple form and material palette that matches the existing modern footbridge. The proposal would be visually consistent with the modern footbridge and visually distinct from the heritage platform building. Existing views to the heritage station platform building are limited from surrounding areas. Views to the heritage platform building would remain unobstructed from the highway, cycle and footpaths in the northwest and from the station platform in the north. There may be some reduced visibility to the heritage platform building in close range views from the highway, cycle and footpath where the western lift structure is viewed from the south and southwest.
(iv) the relationship of the development with other development (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form	The lifts would be taller than the existing station building and surrounding residential built form, however the form, scale and materials used on the lift structures would be consistent with the existing modern footbridge. The lift structures would be set back from the heritage platform building and located a considerable distance from surrounding residential areas due to its location adjacent to the highway and areas of open space. The visual catchment of the station is relatively constrained, and the station is visually separated from the surrounding developed areas by landform and vegetation so that impacts on the amenity of adjacent residents is limited.
(v) bulk, massing and modulation of buildings	The bulk and massing of the building is consistent with the existing scale of the modern footbridge. The simple form would be broken up with glazed awnings over the landings and louvres at the upper level.

Urban design considerations	Response
(vii) environmental impacts such as sustainable design, overshadowing, wind and reflectivity	Overshadowing of adjacent properties would be negligible. This is due to the separation of the station and Proposal from neighbouring residential areas to the east and west.
(x) the impact on, and any proposed improvements to, the public domain	The Proposal would provide improvements to the public domain by providing accessible access to the station. It would also provide improvement to the public realm area at the commuter car park, in Railway Avenue, and the station entry beside the Great Western Highway bus stop. This includes works to provide accessible car parks, Kiss and ride, and ramp at the commuter car park, upgrades to the existing footbridge and stairs, and platform regrading and TGSIs. Awnings would be provided at the lift entries to provide further weather protection for customers.

6.2. Landscape character and urban design impacts

The following assessment considers the

Urban Design and landscape character impacts during construction:

An area of open space north of the commuter car park would be used for a construction compound during construction. There would also be several trees within this area would be removed and the landform would be modified. This would reduce the area of accessible open space in this location. There would be reduced amenity, shade and comfort for pedestrians accessing the footbridge from the commuter car park.

Temporary pedestrian access arrangements and footpath diversions would potentially reduce the legibility and accessibility of the station and interchange with the bus stops on the Great Western Highway. Overall, there would be a temporary minor reduction in the landscape and urban design functionality of the station precinct. This would result in a **minor adverse landscape impact** during construction.

Urban Design and landscape character impacts during operation:

During operation there would be substantial improvements to accessibility of the station precinct with the introduction of lifts within and adjacent to the station, upgrades to the footbridge and stairs, the new ramp at the commuter car park, accessible car parks, and improvements to the platform surface. The proposal would also improve legibility within the station precinct. The trees and gardens removed during construction would be reinstated within the precinct.

Overall, this would result in a minor improvement in the urban design functionality and landscape character of the station precinct and a **minor beneficial landscape impact** during operation.

7. Mitigation of impacts

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

- an Urban and Landscape Design Plan (ULDP) would be prepared by the Contractor, in consultation with Blue Mountains City Council, and submitted to TfNSW for endorsement by the Precincts and Urban Design team, prior to finalisation of the detailed design. The ULDP, at a minimum, would address the following:
    - the appropriateness of the proposed design with respect to the existing surrounding landscape, built form, behaviours and use-patterns (including consideration of Crime Prevention Through Environmental Design principles). This is to include but not be limited to:
        - site analysis
        - vision and objectives for the infrastructure
        - strategies that apply to ISCA approved guidelines in accordance with Urb-1 (ISCA version 1.2)
    - connectivity with surrounding local and regional movement networks including street networks, other transport modes and active transport networks. Existing and proposed paths of travel for pedestrians and bicycles should be shown
    - integration with surrounding local and regional open space and or landscape networks. Existing and proposed open space infrastructure/landscape elements should be shown
    - integration with surrounding streetscape including street trees, entries, vehicle cross overs etc.
    - integration with surrounding built form (existing or desired future) including building height, scale, bulk, massing and land-use
    - design detail that is sensitive to the amenity and character of heritage items located within or adjacent to the Proposal site.
- a Public Domain Plan (PDP) would be prepared by the Contractor, in consultation with Blue Mountains City Council, and submitted to TfNSW for endorsement by the Precincts and Urban Design team, prior to finalisation of the detailed design. The PDP, as a minimum, would address the following:
    - materials, finishes, colour schemes and maintenance procedures including graffiti control for new walls, barriers and fences
    - location and design of pedestrian and bicycle pathways, street furniture including relocated bus and taxi facilities, bicycle storage (where relevant), telephones and lighting equipment
- landscape treatments and street tree planting to integrate with surrounding streetscape,
- opportunities for public art created by local artists to be incorporated, where considered appropriate, into the Proposal
- total water management principles to be integrated into the design where considered appropriate design measures included to meet *Infrastructure Sustainability Rating Scheme - Version 1.2* (ISCA, 2018)
- requirements identification of design and landscaping aspects that will be open for stakeholder input, as required
- all permanent lighting would be designed and installed in accordance with the requirements of standards relevant to *AS 1158 Road Lighting* and *AS 4282 Controlling the Obtrusive Effects of Outdoor Lighting* the detailed design of the Proposal
- would comply with Crime Prevention Through Environmental Design principles worksite compounds would be screened with shade cloth (or similar material, where necessary) to minimise visual impacts from key viewing locations
- temporary hoardings, barriers, traffic management and signage would be removed when no longer required

- during construction, graffiti would be removed in accordance with TfNSW's Standard Requirements.
- all trees to be retained would be protected prior to the commencement of construction in accordance with TfNSW *Vegetation Management (Protection and Removal) Guideline* (2019)
- The offset site and landscaped areas would be maintained in accordance with the TFNSW *Vegetation Offset Guide* (2019).

In addition, the following mitigation measures should be considered:

- temporary access arrangements should be well signed and provide a visually legible route for pedestrians
- consolidate site equipment and facilities to maximise the area of useable public realm and maintain pedestrian permeability
- select a colour palette and materials which are consistent with the existing modern footbridge and complementary to the heritage character of the station where possible.

8. References

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