JACKSON TEECE

envisage

PACIFIC HIGHWAY UPGRADE THROUGH WYONG TOWN CENTRE

URBAN DESIGN CONCEPT AND LANDSCAPE CHARACTER AND VISUAL IMPACT ASSESSMENT

FINAL JULY 2015

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CONTENTS

Fig. 1.1: Extent of the proposal area

1 INTRODUCTION

1.1 BACKGROUND

Wyong is a major regional centre with a vital economic, residential, social and cultural role in the northern half of the Central Coast. The Pacific Highway through Wyong Town centre is currently a single lane in each direction. The Roads and Maritime Services has undertaken extensive work on the Pacific Highway Upgrade through Wyong Town Centre proposal since 2006 including technical studies, design studies and the assessment of options, and related community consultation.

In December 2013, Jackson Teece in association with Envisage were engaged by SMEC (Snowy Mountains Engineering Corporation) Australia for Roads and Maritime to prepare an urban design concept in collaboration with the engineering team, and a corresponding landscape character and visual impact assessment for the proposal.

A number of concept design options were presented to the community, between 2006 and 2015, to determine and discuss a preferred design direction.

The current design proposes a new highway essentially following the existing Pacific Highway alignment, encompassing two lanes in each direction; and allowances for roadside parking, turning lanes, drop-off zones, cyclist and pedestrian pathways, street trees and generous footpaths.

1.2 PURPOSE OF THIS REPORT

This report provides a description of the concept urban design for the proposal, and the relevant background information and process that has informed its development.

The Concept Urban and Landscape Design has been developed in collaboration with Roads and Maritime to ensure that the upgrade has been designed in accordance with the Roads and Maritime Services policy Beyond the Pavement - Urban Design Policy, Procedures and Design Principles (February 2014).

A landscape character and visual impact assessment has also been undertaken as an integral part of the design process to identify potential related impacts of the concept road design. While the design development process aimed to achieve continual improvement as the road design and concept urban and landscape design was refined, and include actions taken to reduce any negative impacts, some additional mitigation and/or recommendations have been identified in this report. The assessment has been carried out in accordance with the Environmental Impact Assessment Practice Note: Guidelines for Landscape Character and Visual Impact Assessment (Roads and Maritime, “EIA No4 Guidelines”, March 2013).

This report for Roads and Maritime Services is part of the Review of Environmental Factors for the proposal and is intended to guide the subsequent detailed design of the proposed highway upgrade.

1.3 STRUCTURE OF THE REPORT

The report is structured as follows:

- Chapter 1: The introduction to the proposal and provides a background to the work undertaken to date on the proposal.
- Chapter 2: The contextual analysis focusing on urban design relevant issues.
- Chapter 3: A description of the key issues and makes an assessment of the opportunities and constraints of the proposal and site.
- Chapter 4: The urban design vision, objectives and design principles to guide the concept and detailed design stages of the proposal.
- Chapter 5: The proposed Concept Design.
- Chapter 6: The Landscape Character and Visual Impact Assessment of the Concept Design.
- Chapters 7: Conclusion.

1.4 DEFINITION OF THE PROPOSAL AREA

The section of the Pacific Highway through Wyong proposed to be widened and upgraded is approximately 2.4 kilometres in length and extends from Johnson Road at Tuggerah, to just north of Cutler Drive in a north-south alignment; it is currently a single lane (each-way) carriageway with signalised intersections at Johnson Road, Church Street and Alison Road.

At the southern end of the study the road would connect to Tuggerah Straight which has recently been upgraded to a dual-lane split-carriageway (see Figure 1.2). The Wyong town centre is the commercial and administrative centre for Wyong Shire and is serviced by a railway station and a bus interchange.

Fig. 1.2: Pacific Highway upgrade through Tuggerah Straight

Fig. 2.1: Wyong town centre looking north from the intersection of Church Street and the Pacific Highway

2. CONTEXTUAL ANALYSIS

2.1 REGIONAL CONTEXT

Wyong is located on the Central Coast, approximately 95 kilometres north of Sydney, and 70 kilometres south of Newcastle.

The Pacific Highway, which runs through the town centre of Wyong, is an important part of the Central Coast road network; connecting the northern and the southern parts of the region and forming a major link to the surrounding rural and coastal urban areas of Wyong Shire.

Wyong town centre is part of the Tuggerah and Wyong major regional centre. The Tuggerah and Wyong area is uniquely placed with good access to the rural and coastal communities of the Central Coast, Newcastle and Hunter regions via road and rail transport. As the traditional gateway to Wyong Shire, the Wyong/Tuggerah area is the focus of trade and commerce within the northern half of the Central Coast and performs an important social, cultural, sporting, recreation and community service role for Wyong Shire.

The landscape character of the Central Coast region is known for its high environmental qualities. The region has over 81 kilometres of coastline, important national parks, bushland, open space and aquatic environments, with the nearest attributes to Wyong including the Wyong River and floodplain, wetlands, creeks and vegetated hills.

Fig. 2.2: Central Coast Region (Source: Central Coast Regional Transport Plan, December 2013)

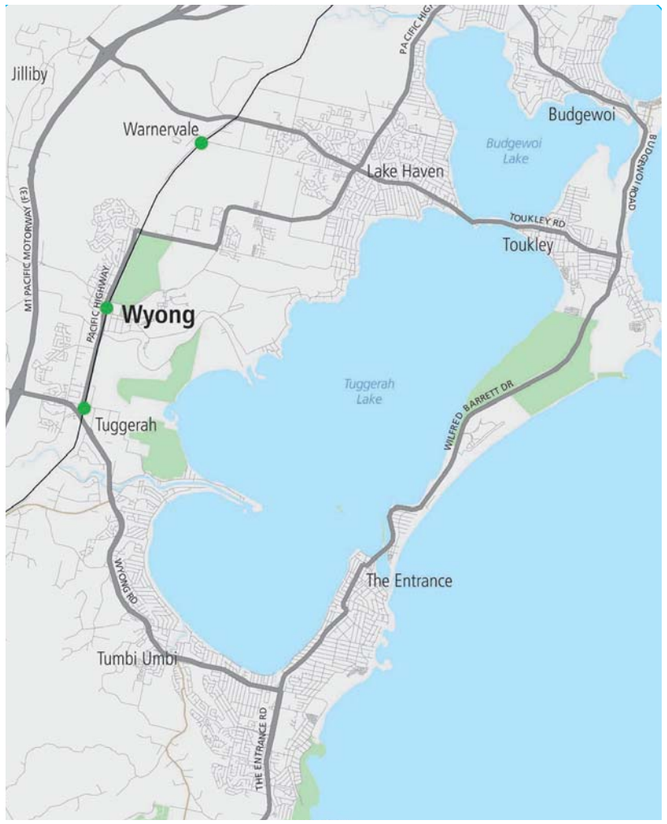

Fig. 2.3: Wyong Shire LGA (Source: the Central Coast Regional Transport Plan, December 2013)

Fig 2.4: Local context plan

2.2 LOCAL CONTEXT

The Wyong town centre is bounded by the Wyong River to the south, Rockleigh Street and Pollock Avenue to the east, Rose Street and North Road to the north, and Wyong High School to the west. It is approximately three kilometres north of the commercial centre of Tuggerah and three kilometres south of the residential area of Watanobbi. The Main Northern Railway and the Pacific Highway run through the centre of the town.

The town centre is focussed around the Wyong Railway Station, with the main civic and retail/commercial activities concentrated west of the railway and major recreational and sport uses focused to the east of the railway. Wyong River is located south of the town centre and acts as a natural gateway into the town from that direction.

The railway station overbridge and Rose Street bridge provide pedestrian access across the railway line within the highway commercial precinct (Figure 2.7). However, these connections and the highway commercial precinct in general, are perceived as not being pedestrian friendly due to the current congested traffic conditions along the Pacific Highway and the extensive surface parking areas in front of the station entries to the east and west (Figure 2.10).

The town centre is enriched with numerous heritage assets including buildings that are of state and local significance and palm trees that are of cultural significance.

Fig. 2.5: Shops along the western edge of the Pacific Highway


Fig. 2.7: Railway station entry from the Pacific Highway


Fig. 2.9: Red-tiled turret on the Turton Building at the corner of Church Street and the Pacific Highway


Fig. 2.6: Alison Road intersection with the Pacific Highway


Fig. 2.8: Traffic congestion on the Pacific Highway


Fig. 2.10: Extensive commuter car parking

2.2.1 EXISTING CHARACTER OF THE PROPOSAL AREA

Wyong has been shaped by the physical form of its surroundings - the Wyong River, the floodplain, the Tuggerah Lakes system to the east, hilly forested areas to the west and the rail and the highway itself. These together determine its footprint. The town centre is situated on the eastern-most slopes of the hills surrounding the Wyong River valley.

The town centre sits on a low hill that visually separates the town from the southern side to the northern side. When approaching from the south and north the Pacific Highway gently rises up towards a high point near the town centre, with the landform also sloping across the highway, rising up from the railway corridor to the east to the well landscaped Wyong Town Park on a low hill to the west.

The current character of the proposal area is summarised below:

- The southern approach to the town is heralded by strip commercial development along Tuggerah Straight and the crossing of Wyong River with views to the riverside parkland.
- The northern approach is less defined, with the town being heralded by the roadside Apex Park. This area is generally characterised by a flat landform with clear views towards the town.
- The predominant natural feature of Wyong township is the topography; the gentle rise of the Pacific Highway indicating the arrival at Wyong Railway Station and town centre, with the town situated around a local high point.
- There are a number of recognisable elements which combine to influence the overall character, including the Warner Shops and other heritage buildings, the existing Palm trees along the eastern side of the highway, the red-tiled turret on the Turton Building on the corner of the highway and Church Street, the fine-grained scale of the shops along the western highway edge, the vegetated hill visible west of the highway that is Wyong Town Park, the visually-dominant railway pedestrian overbridge and the views over the racecourse and low-lying land east of the railway.
- Low-scale and small shops form the western edge along the Pacific Highway, with larger, yet low-rise, commercial and retail buildings extending one to two blocks further west.
- The linear form of the Pacific Highway and parallel railway corridor dominate the town and dissect the area immediately to the east, creating barriers to pedestrian connectivity as well as subjecting town centre users to high volumes of traffic and noise.

LANDSCAPE CHARACTER ZONES

The Pacific Highway traverses a range of landscape character zones from Johnson Road to Cutler Drive which defines the visual character and identity of Wyong. Five distinct landscape character zones have been identified in the proposal area, with these being:

1) Southern Approach
2) Riverside
3) Highway Commercial
4) Eastern Railway
5) Northern Approach

Each of these landscape character zones, and the sensitivity to change of each, are described in detail in Chapter 6.


Fig. 2.11: Approach to town from the south


Fig. 2.12: Pacific Highway with the Warner's Shops to the east


Fig. 2.13: East of the railway station


Fig. 2.14: Wyong River heralding the town centre


Fig. 2.15: Pedestrian footbridge across the railway station


Fig. 2.16: Northern approach in to Wyong town

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Key

Character Zones

1 Southern Approach
2 Riverside
3 Highway Commercial
4 Eastern Railway and Commuter Carpark
5 Northern Approach

Fig. 2.17: Character zones

2.2.2 LAND USES AND BUILT FORM

Wyong developed as a town in the late 19th Century. The street pattern of subdivision is orthogonal, characteristic of that time, and perpendicular to the Pacific Highway and the railway line. Buildings from this period are still evident in the residential areas and town centre, being typically single and two storey structures constructed from a wide range of materials including, face brick, rendered and painted brickwork, timber and fibre cement weatherboard, corrugated metal and concrete.

The larger more formal commercial and administrative buildings were built from 1910 and were the product of the confident growth of Wyong as a regional administrative and commercial centre at that time.

The town centre is now a mix of two storey, small scale buildings with shops at ground–level mostly along the western edge of the highway, with a small cluster on the eastern side that include the State heritage listed Warner's shops. Smaller shops extend along the streets running to the west, particularly Alison Road, rising toward Wyong Town Park. One block west of the highway, along Hely Street, is the retail, commercial and services hub that consists of larger, more recent developments such as the Council building, Wyong Shopping Plaza and local courthouse. Overall, the town centre is quite small and dominated by low rise buildings.

The proposal area presents a variety of uses along the Pacific Highway with the main activity concentrated around the railway station and town centre.

SOUTHERN APPROACH

Land south of the town centre and immediately to the west of the Pacific Highway has historically been occupied by light Industrial uses (IN2). Recently the growth in the region and the need to establish employment corridors in the area has seen the rezoning of some of this land to B6 (Enterprise Corridor). To the east of the Pacific Highway on the southern approach is the Tuggerah Nature Reserve (E3 and E4 Environmental Conservation and Management). The Wyong riverbanks are zoned public recreation (RE1) and environmental conservation (E2).

TOWN CENTRE

The Commercial Core (B3) of the town is predominantly located to the west of the Pacific Highway and surrounded by medium density residential (R3). Along the Pacific Highway, commercial offices and small retail stretch from Centennial Park near Wyong River to North Road. Alison Road is the main road into the town centre from the east, to where Wyong Town Park and the local shopping centre are located. To the east of the Pacific Highway there is some scattered mixed use (B4) development.

South of the station there is a small cluster of retail shops and a café in the Warner's shops. The corner of Rose Street bridge and Pacific Highway and marked by an existing Memorial Garden.

EASTERN RAILWAY

Immediately east of the station there is a strip of large commercial uses from Rose Street to Warner Avenue, beyond which the land use is predominantly medium density residential (R3) and public and private recreational land uses (RE2, RE1), like the Wyong Racecourse, Olympic pool, tennis club, Bakers Park Oval and a parking lot.

NORTHERN APPROACH

Land north of the town centre is occupied by a mix of land uses, including public parks, commercial development, and the railway station to the east. The eastern side of the railway is mostly occupied by the Wyong Golf Course.

PROJECTED GROWTH

The Central Coast region is experiencing rapid population growth. As such the Wyong Local Environment Plan (WLEP) allows for higher built form, particularly in the town centre. Currently Wyong town has predominantly two storey buildings with a few taller civic buildings along Hely Street. The WLEP allows for 3 - 4 storeys on blocks immediately adjacent to the Pacific Highway, except on land identified as "Area 3" (Figure 2.19), which has a restriction of 10 metres, if the building is to be located within 5 metres of any lot boundary with a frontage to Alison Road or the Pacific Highway (Clause 4.3 LEP 2013). The provision for higher built form and higher densities around the study area further indicate the need to provide better pedestrian and cyclist links across the railway line and the Pacific Highway.

Fig. 2.18: View of Wyong town centre looking south-west from the railway pedestrian bridge

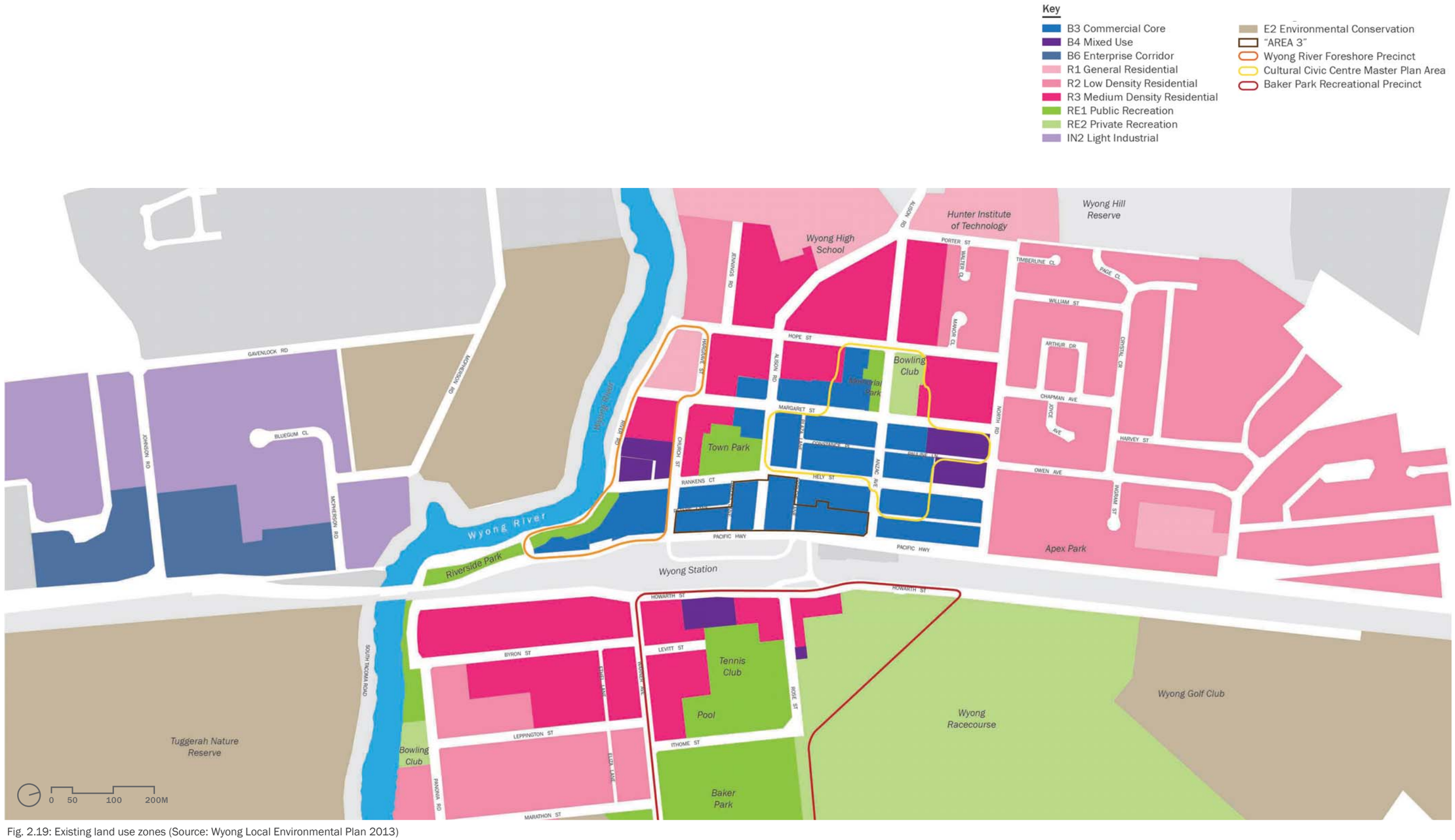

Fig. 2.19: Existing land use zones (Source: Wyong Local Environmental Plan 2013)

2.2.3 LAND FORM AND VEGETATION

The landform surrounding Wyong town centre is mostly flat to undulating, being part of the wider floodplain of the Wyong River. The landform becomes more distinct within the town centre and strongly influences its landscape character. From the high point of the park the landform falls away in all directions, with the town centre sloping downwards to the east towards the Pacific Highway and railway.

Native vegetation in the study area comprises a mosaic of disturbed remnant alluvial forest, dry sclerophyll forest, and freshwater wetland on coastal lowlands and alluvial plain, as well as constructed landscaped areas on fill and imported soil. On the southern boundary of Wyong town centre is the Wyong River, lined on both sides with Casuarina and Eucalypt stands that form a distinct vegetation corridor. South of the Wyong River is a large, mature stand of native trees dominated by Eucalypts, and a high number of native trees within Apex Park in the north of the study area. A detailed biodiversity assessment has been undertaken for the proposal (refer SMEC, 2014) with a map of existing vegetation reproduced as Figures 2.24 and 2.25.

There are culturally important Date Palms that delineate the Pacific Highway from Wyong Railway Station. These Palm trees have been identified as an established part of Wyong and are valued by the local community and should be retained and integrated into the proposal where possible, as reinforced by the following:

"*The palm tree plantings on the western side of the Railway Station, along the eastern side of the Pacific Highway, provide an aesthetic link between the station and the town and reinforce the town as a centre. Any assessment of changes to the route of the Pacific Highway in the Wyong town centre should also address these plantings*" (City Plan Heritage, 2010).

Other trees that are prevalent in the town centre include 'Little Gem' Magnolias (along Pacific Highway/ main street), Ornamental Pear Trees (Alison Road) and Plane Trees (civic precinct near Anzac Avenue and Hely Street). The majority of existing street trees in the main town centre, apart from the Palms, are on the western side of the highway and can be retained as part of the highway changes. The Palms are well-suited to possible transplantation to other locations within the town centre.

Approximately 6.4 hectares of vegetation would be removed to accommodate the proposed upgrade including 3.5 hectares of native vegetation, 2.2 hectares of which is from Endangered Ecological Communities (EEC). Recommendations to minimise the impacts of the proposal include the retention of remnant native vegetation, implementation of effective sediment and erosion control, stormwater controls, weed management and rehabilitation of affected habitat (SMEC, 2014).


Fig. 2.20 Grassland with scattered canopy trees


Fig. 2.21 Wetland and drainage lines


Fig. 2.22 Commercial district


Fig. 2.23 Blackbutt gully

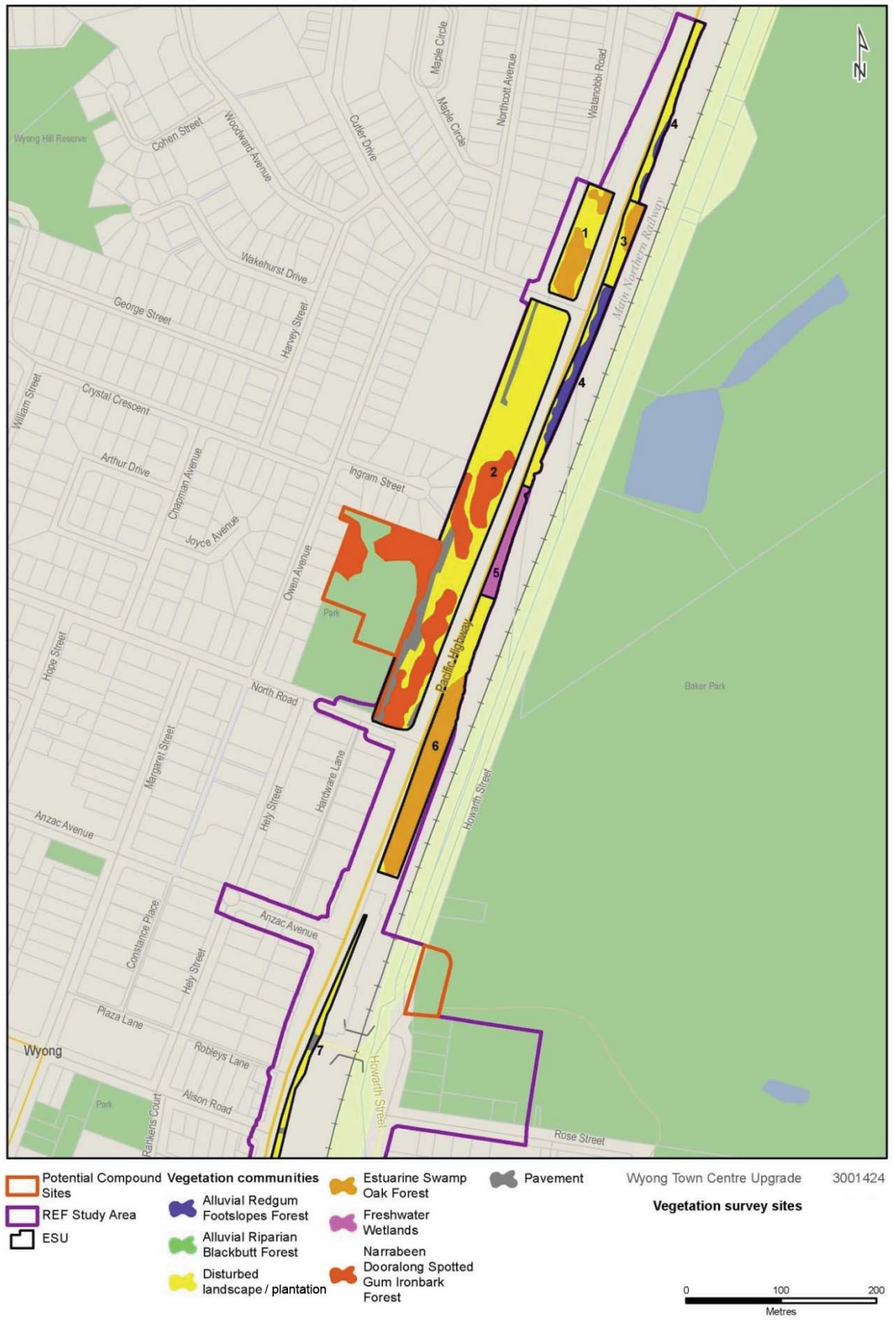

Fig. 2.24: Existing vegetation communities A (Source: Biodiversity Assessment Report, 2014)

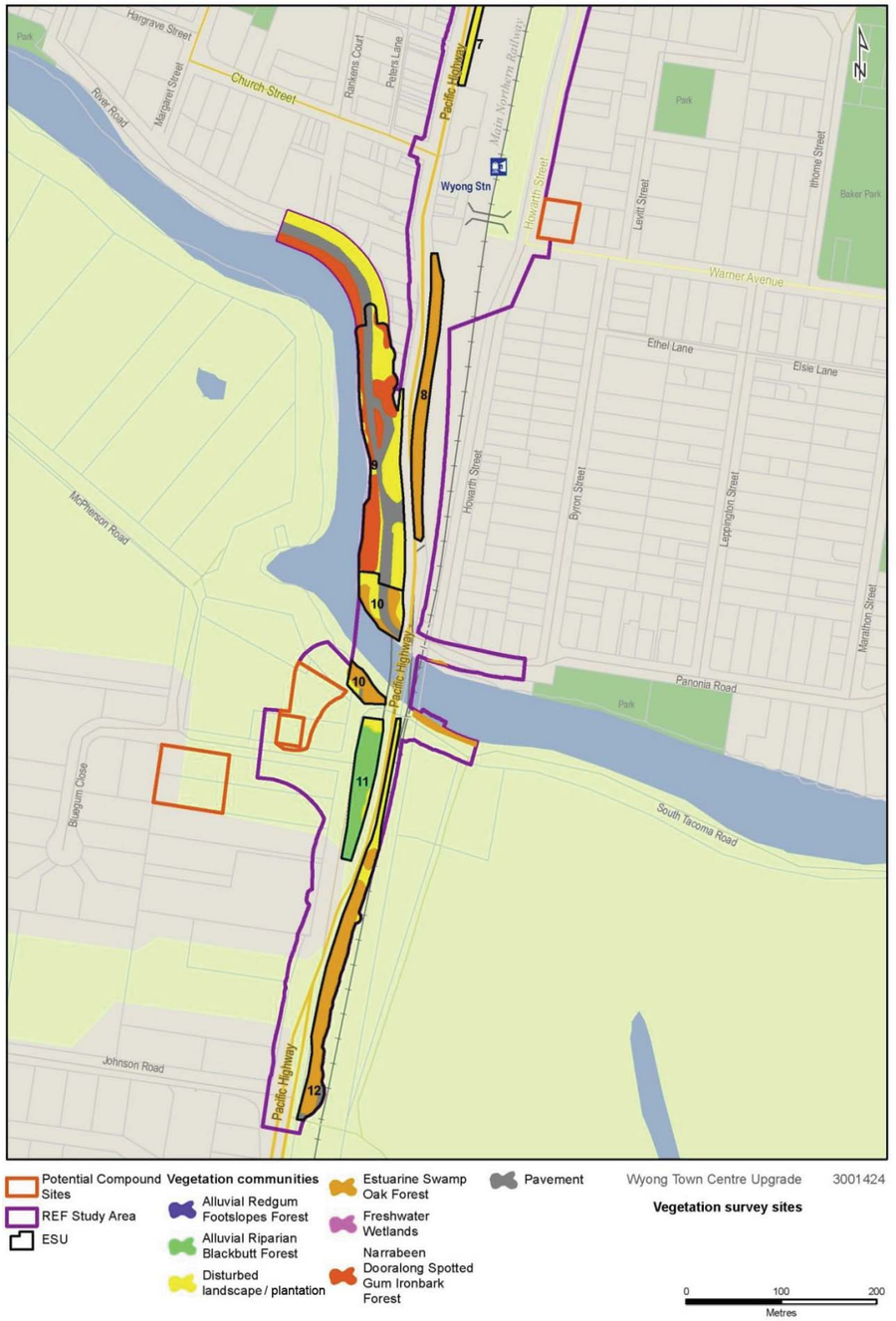

Fig. 2.25: Existing vegetation communities B (Source: Biodiversity Assessment Report, 2014)

2.2.4 ROAD NETWORK, PUBLIC TRANSPORT AND PARKING

The road network of the proposal area comprises a central spine road, the Pacific Highway, which runs alongside the railway line, and a sub-system of local collectors and access roads that service the main urban areas. Wyong is greatly dependent on the Pacific Highway for local and regional traffic, circulation and access.

The configuration of the Pacific Highway varies along the proposal area, although it is generally a two-lane (one each way) carriageway. At the start of the town centre the northbound carriageway accommodates an extra lane for parking which extends until North Road and is well used by locals and passing traffic to gain access to the shops along the highway.

PUBLIC TRANSPORT

Wyong is serviced by the Main Northern Railway line. There are frequent trains south to Gosford and Sydney, and north to Newcastle and the north coast, with increased services at peak morning and evening times.

The railway station is serviced by the Central Coast and Newcastle Lines and has lifts, wheelchair access, bike parking and commuter parking on both sides. There is also a bus layover on the western side of the station between the railway line and the Pacific Highway, with two stops servicing approximately 24 bus lines.

Bus services occur along the Pacific Highway in both directions, with a few services going west into the town centre along Church Street into Alison Road, North Road and Owen Avenue; and east across the railway line at the overpass at Rose Street, and along Howarth Street and Warner Avenue (See Figure 2.27)

Public transport is a major component of the study area. The widening of the Pacific Highway should principally consider the ease of access to and from the station, town centre and recreational precinct beyond by pedestrians, cyclist, buses, taxis and private vehicles.

PARKING

There is extensive surface car parking in and around the railway station and town centre (Figure 2.26). There is also a large existing commuter car park located on Rose Street. This is heavily under-utilised at present due to its low visibility and lack of passive surveillance. With the widening of the Pacific Highway there is an opportunity to enhance commuter facilities and the commuter experience, potentially with better and more efficient drop - off zones and parking and through links.

There is on-road parking along the western side of the Pacific Highway from the Wyong Bridge to North Road, and along Howarth Street from Warner Avenue to the overpass.

On-road parking is also available along Church Street, Alison Road, Rankens Court, Hely Street, Margaret Street, Anzac Avenue and Rose Street.

Fig. 2.26: View shows the Pacific Highway to the west, Wyong bus station and the commuter car parking to the east and west of the railway station

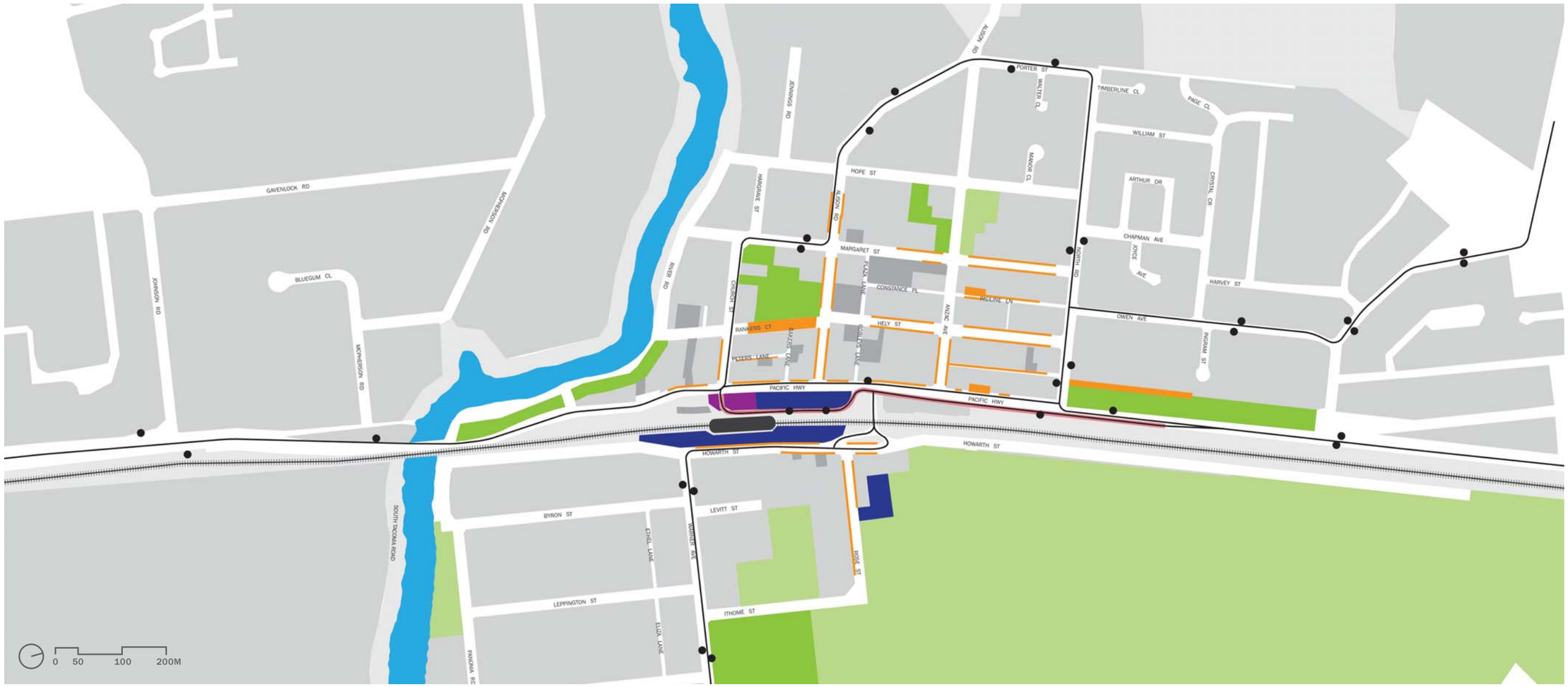

Fig. 2.27: Existing public transport and parking

2.2.5 ACCESS AND CIRCULATION

PEDESTRIAN AND CYCLE ACCESS

There are three signalised pedestrian crossings along the 2.4 kilometres of the Pacific Highway subject to this proposal. The first is located at the intersection of Johnson Road and the Pacific Highway, approximately 1.5 kilometres south of the town centre. The second crossing is located at the intersection of the Pacific Highway with Church Street (See Figure 2.28) and allows access to the station forecourt, the Warner's shops and the station. However, the proximity of this crossing to vehicular access and egress to the station and the priority given to vehicles at this junction reduces pedestrian amenity and safety. The third crossing is located 170m north of the Church Street crossing at the intersection of the highway with Alison Road (See Figure 2.29), and directly provides access to the commuter car park and bus layover.

There are a few cycle paths near the town centre. The Tuggerah Straight road widening recently provided a cycle path along the eastern side of the Highway up to Johnson Road and there is an existing cycle path along River Road north of Wyong River.

The railway line and the Pacific Highway constitute a barrier for pedestrian, cyclist and vehicular east-west movement. This divide is accentuated by the extensive surface car parking on either side of the railway line and the changes in grade.

Currently there are only two pedestrian crossings across the railway line, at the station via a footway and on the southern side of the Rose Street rail overpass. The Rose Street crossing provides poor pedestrian amenity and safety due to the narrow footpaths.

VEHICULAR ACCESS

The Wyong town centre core can be accessed from the south and north by the Pacific Highway, from the west by Alison Road and from the east by the Rose Street Bridge.

Vehicular access to the town centre (west) is mainly from the Pacific Highway from Church Street, Alison Road, Robleys Lane, Anzac Avenue and North Road. Vehicular access across the railway line is limited to the Rose Street Bridge (See Figure 2.30) and two narrow underpasses on each side of the Wyong River below the Wyong Bridge, both of which are subject to flooding.

The underpass on the south side of the river, South Tacoma Road (See Figure 2.32), provides the only access to the small lakeside settlement of Tacoma South, which is periodically cut-off by floodwaters.

Vehicular access to on-street parking and rail commuter parking along the Pacific Highway is intermittent and impacts traffic flow and safety for all road users, including cyclist and pedestrians.

Traffic surveys over multiple years have been analysed to provide insight in to traffic patterns in and through Wyong. (Wyong Town Centre Traffic Study; SKM 2011).

The major findings are:

- *The study shows that the traffic at Wyong is growing at about 1% per annum.*
- *Approximately 40% of the traffic in the peak times is through traffic, concentrated on the north-south direction along Pacific Highway.*
- *In 2011, the majority of peak period traffic is either destined for Wyong or stops at Wyong on the way through. Outside the peaks, there is an even greater proportion destined for Wyong.*
- *The proportion of trips originating from each of the four external areas (i.e. North, East, South and West) have remained similar since 2007. However, the distribution of trips across different destinations appears to have changed since 2007.*
- *In 2011, there appear to be more trips from outside Wyong destined for locations within Wyong.*
- *There is some evidence of important queues within Wyong at the major intersections along the southern end of Pacific Highway during peak periods. Future traffic growth may make this worse but these queues have remained relatively constant since 2007.*

Fig. 2.28: Pedestrian access near Church Street to the railway station forecourt across the commuter carpark

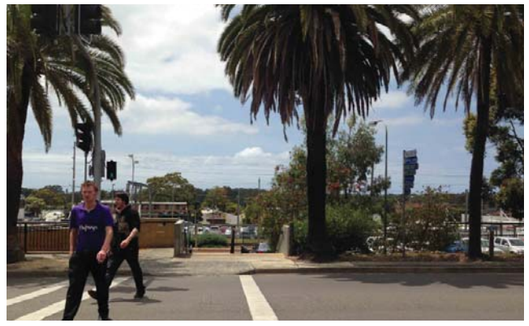

Fig. 2.29: Pedestrian access to the railway station, commuter carpark, and bus interchange adjacent to Alison Road

Fig. 2.31: Cycle path on the recently upgraded Tuggerah Straight

Fig. 2.30: Rose Street rail overbridge

Fig. 2.32: The underpass on the north side of Wyong River

Key

- Town Centre
- Primary pedestrian movement
- Traffic lights /crossings
- Primary road
- Secondary road
- Vehicular crossings of the railway
- Wyong River
- Railway station
- Railway line

Legend

01 Wyong Racecourse and Showground
02 Apex Park
03 Wyong Station
04 Tuggerah Nature Reserve
05 Baker Park
06 Wyong Olympic Pool
07 Wyong Town Park
08 Wyong Hill Reserve
09 Wyong Race Club
10 The Grand Hotel
11 Wyong Shire Council
12 Wyong Police Station
13 Wyong Shopping plaza
14 Arthur Mollet Reserve
15 Wyong Bowling Club
16 Wyong Preschool
17 Bottle-O- Royal Hotel
18 Fire Brigade NSW
19 Wyong Tafe Campus
20 Frank Ballance Memorial Park
21 Wyong RSL
22 Wyong High School
23 Riverside Park
24 Wyong Ambulance Station
25 Central Coast Volunteer Rescue Squad Inc
26 Memorial Garden

Fig. 2.33: Existing pedestrian and vehicular movement

2.2.6 PEDESTRIAN AMENITY

There are footpaths along the western side of the highway from the first property on the southern approach up to Anzac Avenue along the highway commercial precinct. The local shops and cafes are centred within this precinct in front of the railway station (See Figure 2.34). Awnings exist along the west side of the Pacific Highway, from the Royal Hotel to Robley Lane. These awnings provide weather protection and shade along the highway and kerb side parking creates a buffer from the heavy traffic volumes along the Pacific Highway. Some street furniture is also located along this edge. There is a consistent paving treatment along the highway, with it extending into Alison Road, signalling this as the main pedestrian access to the town centre and beyond.

Along the eastern side of the highway footpaths are disturbed by vehicular access to the station, existing parking, and Rose Street (Figure 2.35). Provision of shade on this side is only available along the Warner's Shops.

Pedestrian amenity and the public realm in general has suffered within the highway commercial precinct due to the congested traffic on the Pacific Highway and the vehicular movements in and out of the car park in front of the railway station. In addition, large areas of surface car parking impact on the visual amenity of the town and signal the dominance of the vehicle over pedestrians.

There is little provision for shade at the railway station forecourt. The paving treatment used along the Pacific Highway is also used here to demarcate the forecourt space. Although this public space is located next to the entrance to the station, the domination of cars, buses and vehicular movements makes it an uncomfortable space to be in and walk through.

Fig. 2.34: Local retail shops along the Pacific Highway in the town centre


Fig. 2.35: Pedestrian amenity reduced due to the dominance of vehicles

Fig. 2.36: Railway station forecourt area and bus stops

Fig. 2.37: Pedestrian environment at the Rose Street intersection

2.2.7 HERITAGE

ABORIGINAL HERITAGE

The assessment area is situated within the boundaries of the Darkinjung Local Aboriginal Land Council (DLALC). DLALC is located on the Central Coast of New South Wales, its boundaries stretch from Catherine Hill Bay to the Watagan Mountains to the North, Hawkesbury River to the South, Pacific Ocean to the east while the western boundary stretches along Judge Dowling Range from Bucketty to Spencer (Darkinjung Local Aboriginal Land Council)

The preliminary Aboriginal heritage impact assessment for H10 Pacific Highway Upgrade Wyong Township and Wyong Bridge, by Roads and Maritime Services (March 2015), states that the project is unlikely to have an impact on Aboriginal cultural heritage. This is due to no high or moderate concentrations of Aboriginal objects or places, no landscape features that indicate the presence of Aboriginal objects, and modification of the site reducing heritage potential.

NON-ABORIGINAL HERITAGE

Wyong town centre is historically important as a representative example of a small regional service town in the Central Coast region. The town centre is of aesthetic significance because of the relationship between its urban form and the town's natural landscape setting, producing strong visual linkages with the surrounding rural hinterland and the remnant coastal forests.

Heritage items and the Heritage Conservation Area in the Wyong town centre are identified in the Wyong Local Environmental Plan 2013, and shown here in Figure 2.40.

The existing Palm trees in the town centre, although not listed on any hertiage register, are considered to have heritage value.

The proposed widening of the Pacific Highway would impact item C - "Shopping Complex - Warner's Shops", and part of item A - Station Master's Cottage. For further information, refer to Pacific Highway Upgrade through Wyong Town Centre- Historic Heritage Assessment and Statement of Heritage Impact; prepared by Australian Museum Consulting for SMEC Australia, Dec 2014.

Fig. 2.38: Warner's Shops

Fig. 2.39: Station Masters Cottage

Key

- Railway station
- Railway line
- Heritage conservation area

Listing

- Wyong LEP 2013
- RailCorp S170 Register

Legend

HERITAGE LISTED ITEMS RELEVANT TO THE PROPOSAL AREA
A: Wyong Railway Station Group (State and Local Heritage)
B: 1 Pacific Highway - Eleanor Duncan Aboriginal Health Centre (Local Heritage)
C: 1-4 Railway Square, Pacific Highway - Shopping Complex - Warner's Shop (Local Heritage)
D: 54; 56-64; 66-68; 70; 72 Pacific Highway - Shops (Including Turton Building) (Local Heritage)
E: Opposite Railway Station - Milepost (Local Heritage)
F: 64-70; 78 Pacific Highway- Streetscape (Local Heritage)
G: 74 Pacific Highway - Shop (Local Heritage)
H: 98 Pacific Highway - Rural Bank (former) (Local Heritage)
I: 128 Pacific Highway - Brisbane Water Ambulance Station (Local Heritage)
J: Wyong Underbridge (Local Heritage)
K: Tuggerah Pioneer Dairy (Local Heritage)

Source:
Wyong LEP 2013
Heritage Council of NSW
"Pacific Highway Upgrade through Wyong Town Centre: Historic Assessment and Statement of Heritage Impact", Australina Museum Consulting for SMEC Australia, (December 2014)

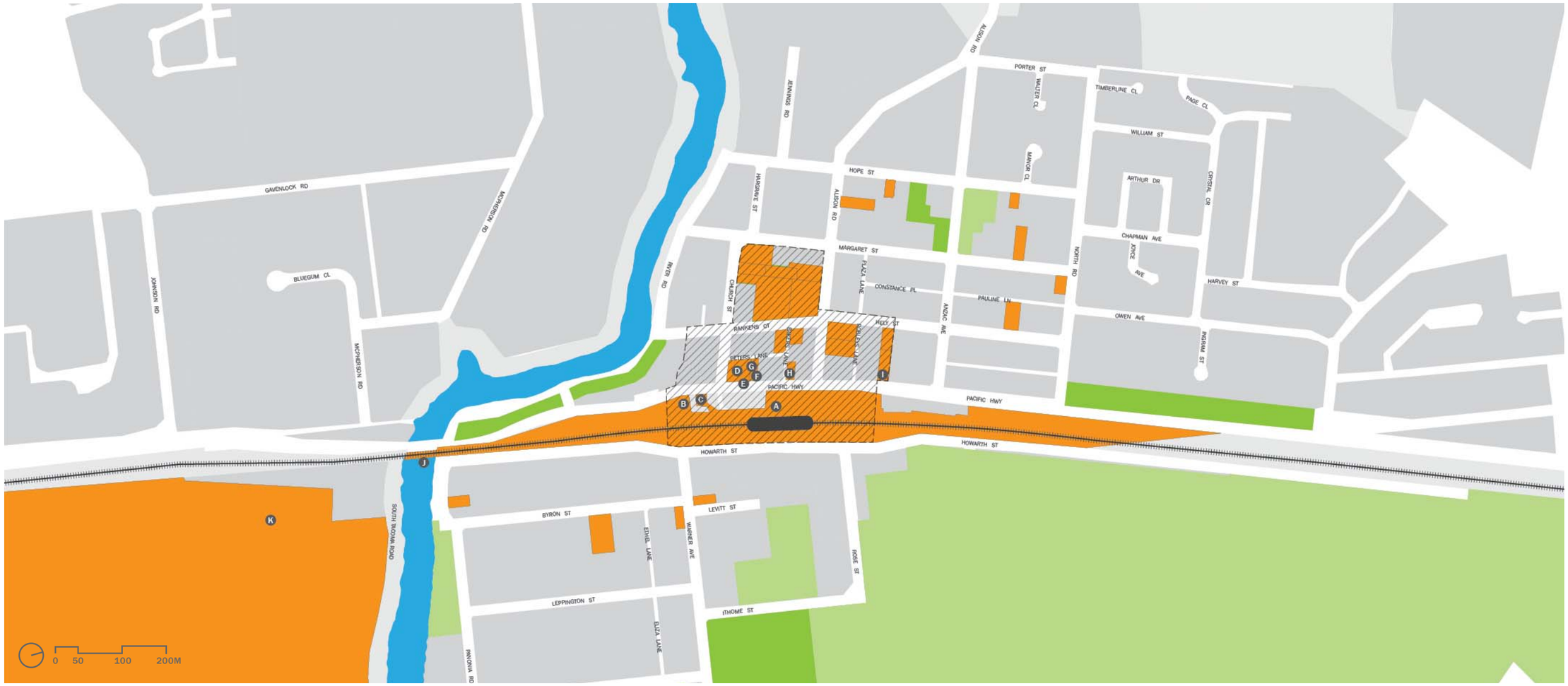

Fig. 2.40: Heritage items in the Wyong town centre

2.2.8 SAFETY AND SECURITY

High levels of vehicular traffic in the public realm and the low levels of passive surveillance to the east of the railway line and the car parks, are the main safety and security concerns in the area. The changing grades and roadside vegetation on the eastern side of the Pacific Highway hinder passive surveillance of the public realm around the station and bus stops. The steep grades are particularly problematic for the disabled, elderly and frail.

There is a need for the upgrade works along the Pacific Highway to consider and allow for the future development of the station and its surrounds in order to address safety and security issues around the train station, commuter car parks and town centre.

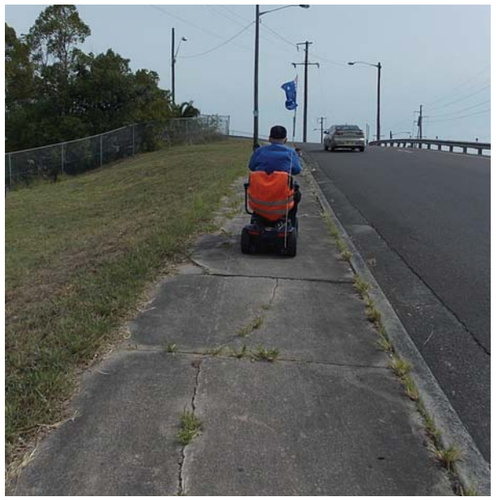

Fig. 2.41: Pedestrian access across the railway on Rose Street bridge

2.2.9 HYDROLOGY AND FLOODING

Parts of Wyong town centre are subject to flooding due to its proximity to the Wyong River. Figure 2.42 shows the extent of areas subject to flooding. This includes the southern approach of the Pacific Highway, at Johnson Road up to just over River Road and Panonia Road, and on the northern approach Apex Park is subject to flooding from Cutler Drive to North Road.

During flood events, an alternate route bypassing the stretch of the Pacific Highway mentioned above is used. The Rose Street Bridge provides the only flood free access to East Wyong. Flood management and related issues are discussed further in the specialist report carried out as part of the proposal.

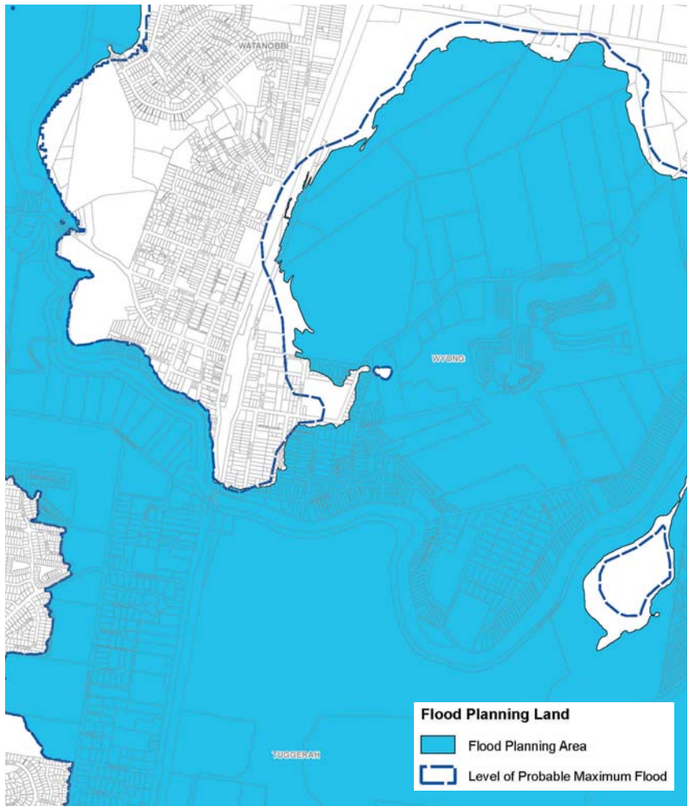

Fig. 2.42: Flood planning (Source: Wyong Local Environmental Plan, 2013)

2.3 RELEVANT PLANNING CONTROLS AND STUDIES

In the development of the concept design, we have reviewed the relevant local and regional planning documents and have taken in to consideration the objectives and design controls that are applicable to the proposal.

Documents reviewed include the following:

- Wyong Local Environmental Plan 2013
- Wyong Shire Development Control Plan 2013
- Wyong Tuggerah Planning Strategy (October 2007)
- Wyong Tuggerah Planning Strategy - *Urban Design Vision and Master Plan (June 2007)*
- *Wyong Civic and Cultural Centre Master Plan (August 2011)*
- *Central Coast Regional Strategy (December 2008)*
- *Central Coast Regional Action Plan (December 2012)*
- *Wyong Shire-wide Heritage Review (November 2010)*

Some key relevant extracts from these documents are provided below and have influenced the development of the concept design.

2.3.1 DEVELOPMENT CONTROL PLAN 2013

One of the key messages from local and state government is to provide transport choice. People should be able to walk, cycle and use public transport for access to jobs, shops, schools and services and not rely solely on private cars. A choice of alternative transport may help the environment, provide more equitable access, and improve the livability of our urban areas.

The relevant objectives and controls as outlined in this document are:

Fig. 2.43: Wyong Development Control Plan 2013, Section 5.2 Wyong Town Centre

[Extract - no page numbers in original report]

CHAPTER 5 CENTRES – 5.2 Wyong Town Centre

- *To provide a range of features which create an identifiable heritage character for the public realm of the Wyong Town Centre and the surrounding residential areas.*
- *To provide street furniture in appropriate locations that is well designed, distinctive and will complement existing items, including the heritage theme.*
- *To provide unique lighting for the public realm that is high quality, well designed, appropriate to the location, adds safety and liveliness to the town and is of a scale suited to pedestrian activity.*
- *To ensure a practical and safe ground surface for the public realm which must meet specific criteria in terms of appearance, structural properties, cost, quality control and cleaning.*
- *To retain any existing landscaping that complements the existing buildings and the public realm generally.*
- *To provide additional street trees and plantings wherever possible, that are consistent with the Street Tree Masterplan for the Wyong Town Centre, in order to improve the appearance and amenity of the public realm.*
- *Promote heritage buildings as a point of difference for retail and strengthen the heritage character of the precinct.*
- *Continuous awnings are to be provided along the Pacific Highway.*
- *Lots fronting the Pacific Highway and Anzac Avenue are to have noise attenuation and security measures provided to achieve adequate amenity.*
- *Buildings are to create a consistent edge to the Pacific Highway, Hely Street, Margaret Street, Alison Road, and Anzac Avenue.*
- *To establish "gateway" locations to the Wyong Town Centre to ensure a favourable first impression which projects a sense of arrival and encourages visitors to stay and explore. Five (5) main 'gateway' locations to the Wyong Town Centre have been identified for special attention to establish attractive entrance features to the township. Three (3) minor entry points to the retail/commercial precinct have also been identified. Refer to appendix: Map showing the sites adjacent to the 'gateways' in the Wyong Town Centre, extracted from the DCP 2013.*
- *To create a pedestrian and bicycle focussed environment by enhancing or providing new pedestrian connections in the local area.*
- *Anzac Avenue as the main street of The Wyong cultural and civic centre Master Plan.*
- *Continue any new paving works commenced within the precinct in accordance with the principles outlined in The Wyong cultural and civic centre Master Plan.*
- *To strengthen open space linkages to Wyong Town Centre by integration of open corridor extension from Alison Road over Railway Corridor through existing Tennis Courts and Wyong Pool.*
- *To improve connectivity to Wyong Race Course at intersection with Rose Street and south to Warner Avenue.*
- *Maintain a view corridor from Alison Road looking east across Wyong Station to the Baker Park Precinct.*
- *Reinforce the existing urban grid and block structure between Warner Avenue and Rose Street.*
- *Four sites have been identified by Council as having potential to be developed into public car parking locations. The public car parking locations are proposed to contain a mix of at-grade and multi-level car parking, and are expected to be developed as demand and development increases. Refer to appendix Map Wyong Town Centre potential public car park locations, extracted from the DCP 2013.*

CHAPTER 6 LOCATION SPECIFIC DEVELOPMENT PROVISIONS – 6.1 KEY SITES

Aldi, Wyong

- *To promote safety, accessibility and healthy by design principles including improved pedestrian connections from the site to the Town Centre.*
- *Street tree planting shall include the Bull Bay Magnolia (Magnolia grandiflora).*
- *Extend streetscape improvements along the Pacific Highway to upgrade the approach to the Wyong Town Centre.*
- *Continuous awnings are to be provided along the Pacific Highway.*

Southern Gateway Site, Wyong

- *Development shall create strong interaction between Wyong River and the Wyong Town Centre through physical and visual linkages.*
- *Distinctive plant forms and colours shall emphasis the entry to Wyong at the Pacific Highway/River Road intersection.*
- *Street tree planting along the Pacific Highway shall include the Bull Bay Magnolia (Magnolia grandiflora).*
- *Activate and improve the pedestrian connections from the site to the river foreshore and Town Centre to the north and Centennial Park to the south.*
- *Address flooding constraints consistent with Council's Lower Wyong River Floodplain Risk Management Study and Plan.*

2.3.2 WYONG TUGGERAH ADOPTED URBAN DESIGN VISION, 2007

This report identifies the key physical and cultural features and existing character of the Wyong / Tuggerah area and establishes opportunities and objectives for the direction of future development.

The character areas that comprise the Wyong proposal area and their objectives are listed below:

1. Wyong Town Centre

[Extract - page 8]

- *Improve pedestrian access between the Railway Station and the retail / business area west of the Pacific Highway.*
- *Provide a unified family of streetscape elements.*
- *Expand and enhance the use of Canary Island Date Palm planting.*

[Extract - page 13]

- *Enhance the amenity of the built environment through the provision of high quality private, communal and public open space.*
- *Retain existing significant trees and features that contribute to the amenity of the site.*
- *Incorporate plant species[... .]*
- *Minimise the use of hard, impermeable surfaces that promote stormwater runoff.*
- *Provide for bicycle access and storage.*

2. Business / Administration

[Extract - page 14]

- *Linkages focus to provide strong connections to the Town Centre.*
- *Rationalisation of parking to maximise usage of land in proximity to the Town Centre.*
- *Upgrade of the Town Centre approach along the Pacific Highway and incorporate an entry statement to signify entry to the Town Centre from the north.*

[Extract - page 15]

- *Extend streetscape improvements along the Pacific Highway to upgrade approach to the Town Centre.*

2.3.3 WYONG AND TUGGERAH PLANNING STRATEGY, 2007

The Wyong/Tuggerah Planning Strategy outlines the way in which the Wyong/Tuggerah area might develop over the next 10 - 20 years. The strategy proposes stronger linkages between Wyong, Tuggerah Straight and Tuggerah, whilst encouraging the revitalisation of the Wyong Township.

Relevant strategies as outlined in this document are:

[Extract - page 21]

- *Improve linkages between east and west Wyong, especially across the railway line and Pacific Highway.*
- *Improve connections to key recreational areas and pedestrian attractors within Wyong (e.g. Baker Park, Wyong Town Park, Wyong Race Club etc).*
- *Key issues that need to be addressed by the RTA when designing the Wyong section of the Pacific Highway upgrade include:*
  - *Maintaining and contributing to the heritage character of the Town Centre.*
  - *Improving accessibility to the eastern half of the town (east-west connections) for pedestrians and vehicles.*
  - *Major intersection treatments to facilitate traffic movement into and out of the Wyong Town Centre.*
  - *Retain on-street parking to ensure the economic viability of existing business.*
  - *Reduction of the visual impact of the road within a limited road corridor.*
  - *Minimising the disturbance to the fabric of the town, including important building and landscape features.*
  - *Investigating opportunities for place making as part of the upgrade works.*

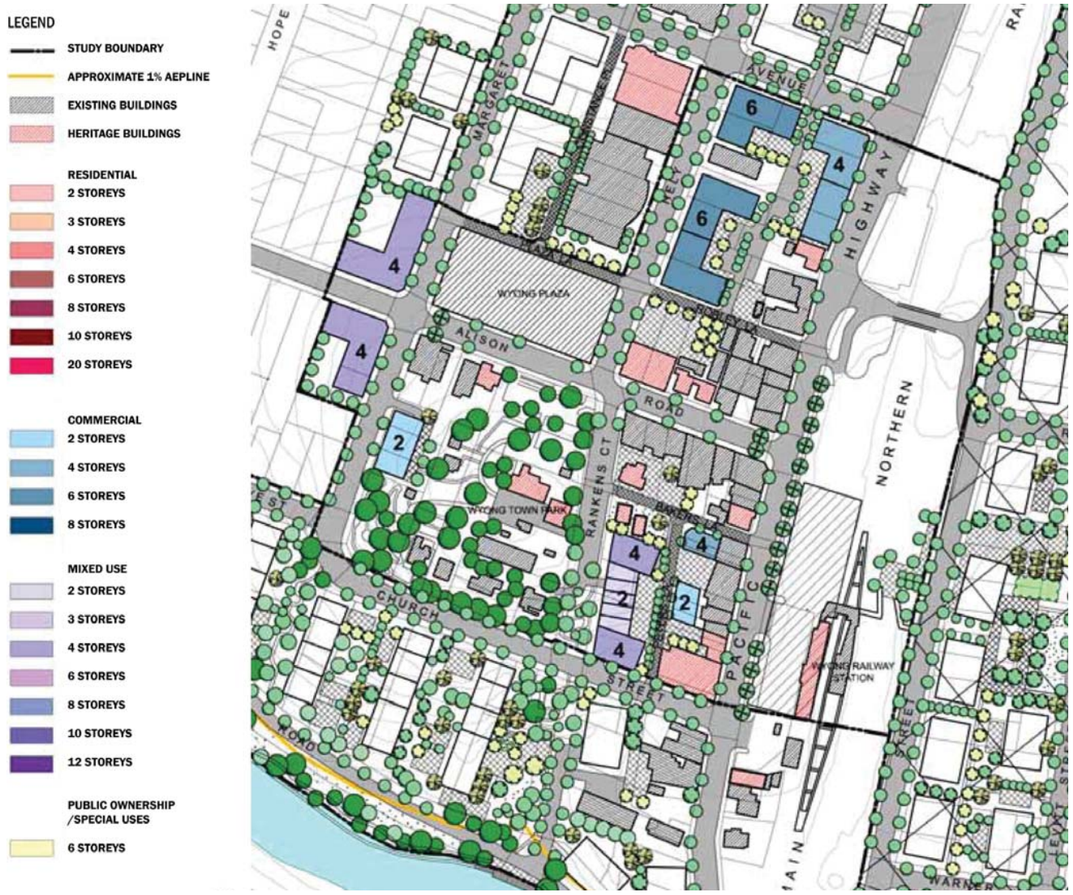

Fig. 2.44: Draft Concept Master Plan for Wyong Town Centre (Source: Wyong Tuggerah Planning Strategy, June 2007)

3. ASSESSMENT OF ISSUES, OPPORTUNITIES AND CONSTRAINTS

The following section outlines the key urban design issues identified by the team and the opportunities and constraints that each involve.

ISSUE 1 – CHARACTER OF THE WYONG TOWN CENTRE AND THE PUBLIC REALM:

Constraints

- Lack of a high quality public domain and an active open space in the town centre along the Pacific Highway retail strip.
- The town centre area and the railway station access has low visual amenity and low pedestrian amenity and safety. This is largely due to the high volumes of traffic and congestion on the highway and conflicts between pedestrian needs and needs of drivers.
- Loss of the entrance feature arriving in to town from the south currently provided by the Warner's Shops and the general loss of a distinct built edge to the highway on the east with the changes in ground level due to the highway upgrade.
- Entrance to the town from the north is nondescript, with no defined landscape treatment or built form.

Opportunities

- Opportunity to provide quality public open space and connections to link the railway station and town centre, with potential to improve the attractiveness and safety of the area.
- Existing Palm trees in the central median form part of the character of Wyong and should be retained in their current role. If required they can be feasibly transplanted and reinforced with additional landscape works.
- This upgrade of the Pacific Highway would ease the current high levels of traffic congestion and noise pollution helping create a more attractive public realm at the town centre.
- Opportunity to improve the experience of the Pacific Highway through landscape works, street trees, improved pedestrian access and links, and a new active public space.
- Opportunity to provide a new Town Centre entrance experience.

Fig. 3.1: Character of the Wyong town centre

ISSUE 2 – THE HIGHWAY AND RAILWAY LINE AS A BARRIER

Constraints

- The Pacific Highway and the railway line have poor visual amenity and is a barrier to pedestrian and vehicular connectivity.
- There is only a single vehicular access point and two pedestrian crossings across the railway line in the town centre area.

Opportunities

- Improve vehicular and pedestrian/cyclist access, between the town centre and railway station.
- Design an upgraded highway that considers all users, including pedestrians and cyclists.
- Opportunity to create an active forecourt/ public space in front of the railway station to improve area and enhance the focus of this important community facility and meeting place.
- Improve vehicular and pedestrian crossings across the railway line to the recreational precinct.

ISSUE 3 – PARKING REQUIREMENTS

Constraints

- There is a high dependency of vehicular access to land uses at present and therefore a high level of surface car parking on the highway. Pressures from different interest groups need to be understood and addressed appropriately (e.g. where and what type of parking is required).
- Expectation to provide a similar level of parking to that currently existing can lead to a very wide highway corridor and large expanses of on-street (highway) and off-street parking.
- The under-utilisation of the existing commuter car park along Howarth Street due to safety issues and perceived inconvenience of access.

Opportunities

- Improve the parking situation by considering the overall parking provision, taking into account the different needs of the users of the town centre and railway commuters.
- There is an opportunity to visually relieve parking areas/ bays with planting and increase the overall amenity of the town centre and the area to the east of the railway line.

ISSUE 4 – IMPACT ON LOCAL BUSINESS AND OTHER LAND USES

Constraints

- Appropriate and comparable access needs to be maintained to local businesses, including larger scale businesses to north and south of town, retail/ commercial business in town and other land uses.
- Existing town centre shows signs of downturn and lower than desirable economic activity at present.

Opportunities

- Opportunity to improve the amenity of the retail/ commercial area to the west of highway through streetscape improvements, better pedestrian connections and adequate on-street parking.
- Opportunity to provide improved connectivity for rail and bus commuters to access the town centre.
- The upgrade of the highway would ease traffic congestion on the highway through the town centre helping create a more attractive retail centre with better access to shops and other land uses.

ISSUE 5 – THE IMPACT ON THE HERITAGE ELEMENTS OF THE TOWN CENTRE

Constraints

- The Warner's Shops, and to a lesser extent the Station Master's Cottage, currently provide a strong visual 'bookend' to town and contribute to the character and retail/social activation of this part of town centre. Requirements for the new highway mean the loss of both the shops and cottage, with the cottage unsuitable for re-location due to its fabric and condition.
- The line of Palm trees in the town centre is impacted and would need to be relocated.

Opportunities

- There appear to be no opportunities to retain or relocate the Warner's Shops and the Station Master Cottage. However, their removal facilitates the provision of an improved railway station entry and public domain.
- There is opportunity to relocate the Palm trees in a manner that retains their existing role as a marker for the town centre and railway station.
- There is opportunity to make references to the character of heritage elements in the design of some of the new built elements proposed.

ISSUE 6 – PEDESTRIAN AND CYCLIST FACILITIES AND AMENITY

Constraints

- The construction of a four-lane highway has the potential to exacerbate the already poor pedestrian amenity in the area.
- There is currently no shared pathway through Wyong town centre connecting with the rest of the Tuggerah Straight cycleway.
- The highway goes through the busiest section of Wyong town centre, comprised of the railway and bus station entry, town centre access and retail. This contributes to a high level of conflict between pedestrians, cyclist and vehicle.

Opportunities

- Responding to the strong desire - line from the station to the town centre can potentially enliven the town centre, particularly the retail along the western side of the Pacific Highway and improve current access to, and amenity of, the town centre.
- Opportunity to create a high quality shared pathway along length of proposal to connect with existing shared path along Tuggerah Straight.
- Opportunity to connect to existing river parkland and existing and planned pathways along Wyong River on eastern side.
- Opportunity to explore options to improve and provide universal access from station to town centre, particularly as the new ground levels would be similar to that of the existing railway pedestrian bridge.
- Safety and security of pedestrians and commuters can be improved near the station and town centre through better design.
- Opportunity to provide safe and appropriately located, well-lit pedestrian crossings across highway and consider future pedestrian crossings across the railway to the recreation precinct to the east.

ISSUE 7 – IMPACT ON THE EXISTING VEGETATION

Constraints

- Some vegetation would need to be removed, the most substantial being a stand of large Eucalypts south of the river, some existing trees north of the river bridge, the Palm trees, some trees in Apex Park and screening trees alongside the railway line when approaching from the north and south.

Opportunities

- Opportunity to retain and/or re–locate existing Canary Island Date Palms in central median or in a nearby area.
- Use of existing Canary Island Date Palms to enhance the town character and create an immediate landscape effect.
- Opportunity to ensure road design allows adequate space for tree planting in key locations, such as south of river, town centre/railway and northern and southern approaches.

Fig. 3.2: Heritage character of Wyong at the southern end

Fig. 3.3: Valued local retail shops along the Pacific Highway


Fig. 3.4: Rose Street bridge


Fig. 3.5: Existing bridge over Wyong River

Fig. 3.6: Opportunities and constraints analysis

VISION STATEMENT

“To achieve a functional and attractive highway corridor that fits sensitively within the existing built and natural environment of Wyong, contributing to the connectivity of the community and delivering a high quality public domain”.

4. VISION AND DESIGN PRINCIPLES

4.1 INTRODUCTION

Roads and Maritime is committed to providing an improved outcome for people and communities through the delivery of their projects and have developed an urban design policy to guide the design and delivery of the projects.

'Beyond the Pavement' describes Roads and Maritime's commitment that projects will fit sensitively with the landform and the built, natural and community environments in which they are situated, contribute to the accessibility and connectivity of communities, and contribute to the overall quality of the public domain for the community and transport users (Roads and Maritime, 2014).

The planning and design of road transport infrastructure is governed by nine urban design principles established by Roads and Maritime in Beyond the Pavement (refer Table 4.1 for more detail). They are:

1) *Contributing to urban structure and revitalisation.*
2) *Fitting with the built fabric.*
3) *Connecting modes and communities.*
4) *Fitting with the landform.*
5) *Responding to natural pattern.*
6) *Incorporating heritage and cultural contexts.*
7) *Designing roads as an experience in movement.*
8) *Creating self-explaining road environments.*
9) *Achieving integrated and minimal maintenance design.*

These nine overriding urban design principles have informed the development of an urban design vision and objectives for the proposal.

4.2 PROJECT URBAN DESIGN OBJECTIVES AND PRINCIPLES

4.2.1. URBAN DESIGN VISION

The overall vision for the Pacific Highway upgrade through Wyong Town Centre is:

"To achieve a functional and attractive highway corridor that fits sensitively within the existing built and natural environment of Wyong, contributing to the connectivity of the community and delivering a high quality public domain".

PRINCIPLE ONE Contributing to urban structure and revitalisation	› Consider the role of networks in the structuring of towns, cities and regions. › Consider the role of road and maritime transport infrastructure in revitalizing and transforming areas. › Consider both transport and community needs in planning and designing road networks and hierarchies. › Create streets and boulevards that provide a sense of place. › Consider the potential opportunities of a reduction in traffic volume.
PRINCIPLE TWO Fitting into the built fabric	› Keep the road footprint to the minimum possible to achieve a good design outcome. › Integrate noise control into road corridor and project design. › Avoid adverse visual impacts in the planning and design of roads and wharfs. › Consider the potential use of adjoining land.
PRINCIPLE THREE Connecting modes and communities	› Consider connectivity into and through surrounding environments. › Consider connectivity between modes. › Consider where people want to cross and the quality of crossing points along a busy road.
PRINCIPLE FOUR Fitting with the landform	› Form a road in response to topography and landform. › Consider slope stabilisation design as part of the project.
PRINCIPLE FIVE Responding to natural pattern	› Integrate natural patterns and systems into road design. › Ensure physical continuity of natural systems. › Use natural characteristics in the road's landscape design.
PRINCIPLE SIX Incorporating heritage and cultural contexts	› Integrate historic buildings and precincts into design of transport infrastructure. › Adapt and reuse heritage infrastructure in projects. › Protect and incorporate Aboriginal heritage in road design. › Recognise European cultural plantings. › Protect bridges of heritage significance within their setting. › Preserve roads that provide a sense of history.
PRINCIPLE SEVEN Designing an experience in movement	› Enhance the view from the road. › Provide visual stimuli within the road corridor. › Create a progressive sequence of visual events.
PRINCIPLE EIGHT Creating self-explaining road environments	› Distinguish between the different functions and speeds of roads by differentiating their appearance. › Improve the legibility of roads.
PRINCIPLE NINE Achieving integrated and minimal maintenance design	› Use robust durable materials fit for purpose and place. › Provide a self-reliant and minimal maintenance natural landscape. › Avoid opportunities for vandalism. › Create a simple, coordinated and neat composition of road elements along a corridor. › Consider the design quality of major road and maritime components and individual built elements.

Table 4.1: Summary of Urban Design principles (source: Beyond the Pavement, Roads and Maritime 2014)

4.2.2. URBAN DESIGN OBJECTIVES AND PRINCIPLES

The new highway upgrade will reinforce the local character of Wyong and act as a catalyst for the revitalisation of the town centre. The vision is to be achieved through the following objectives and guiding principles:

OBJECTIVE 1

To provide a sense of entry to Wyong town from the north and south through the design of the approaches and structures, and enhance the experience of the town and its facilities.

Principles:

- Create an approach experience to the town centre through landscape and appropriate design statements in relation to new structures.
- Maintain views to Wyong River from the highway in the detailing of the highway and the bridge – for example by the use of double rail bridge barriers rather than high concrete barriers.
- Create a visual transition from the outlying, more informal town approaches towards the central urban centre through changing planting themes.
- Incorporate feature elements that provide a welcome statement from the northern and southern approaches.

OBJECTIVE 2

To contribute to the creation of a high quality public domain in Wyong town centre with the design of the Pacific Highway through the town in a manner that is sensitive to the existing character and functioning of the centre and fits well with the built and natural environment.

Principles:

- Create an active and vibrant eastern edge to the Pacific Highway commercial precinct by providing high quality public areas, including a new railway station forecourt, enhancing the overall character of the town centre.
- Enhance the community's experience and use of the retail strip west of the highway along the highway commercial precinct.
- Improve safety, security and amenity of pedestrians and cyclists near the station, town centre and new parking areas on the eastern side of the railway through adequate shade, lighting, sightlines and weather protection.
- Work closely with the Wyong Shire Council to ensure that a functional public realm that is easy to maintain is developed to achieve the desired future character of Wyong Town Centre.
- Develop a materials palette and a consistent architectural language through the town centre that is sympathetic to the existing heritage character and features.
- Consider climate appropriate design through appropriate building materials, shade and planting.
- Consider opportunities to use lighting to enhance the night-time town character such as at pedestrian crossings, public spaces and key bridges.
- Lighting should contribute to creating a safe town centre environment during night time and be based on Crime prevention through Environmental Design Principles (CPTED).
- Incorporate artwork in the public domain as appropriate to enhance the public domain at the highway commercial precinct.

Fig. 4.1: Northbound entrance to the highway commercial precinct

Fig. 4.2: Landscape, wide footpaths and kerb side parking to promote town activity

Fig. 4.3: Enhanced town centre and public realm

OBJECTIVE 3

To enhance and highlight the key desirable attributes and features of the existing town centre whilst at the same time contributing to the creation of an attractive and revitalised centre.

Principles:

- Relocate the Palm trees and reinforce their role in Wyong town's identity and the approach experience in to and out of town.
- Reinforce notable features of the existing local character, and important and valued views, through appropriate design of the highway, public realm and landscape treatments.
- Incorporate references and interpretation of the cultural heritage of Wyong into the new built elements through materials, signage and artwork.
- Desirable views to the context, and views at strategic points, should be identified and maintained.

OBJECTIVE 4

To create an inviting transport interchange at the railway station area with easy access to the railway station, efficient bus movement and adequate commuter parking and drop-off opportunities within a pleasant and safe environment for all transport users.

Principles:

- The new railway station entry should be designed as a new architectural landmark in the town to reinforce the town's desired future character and improve the legibility of the station.
- Provide easy and safe access to the railway station and bus stop including all their associated services including drop off and pick up and commuter parking.
- Provide covered access to the railway station on the eastern side of the highway consistent with the covered ways provided by shop awnings on the western side.
- Consider CPTED (Crime Prevention Through Environmental Design) design principles in the design of the railway, bus stop and facilities.

Fig. 4.4: Improved pedestrian and cyclists connectivity

Fig. 4.5: Improved railway access and bus facilities

OBJECTIVE 5

To enhance the pedestrian and vehicular connectivity of the town centre with safe and desirable pedestrian and cyclist connections, vehicular access from the commercial centre to the surrounds; particularly helping to overcome the physical barrier of the highway and railway line.

Principles:

- Improve pedestrian and cyclist access between the town centre, the railway station and the recreational precinct to the east.
- Identify, and design for, preferred pedestrian links (desire lines) to and from the station and major land uses.
- The design of shared paths should be convenient and ensure low conflict between the different modes of movement.
- Provide safe and appropriately located pedestrian crossings across the highway.
- Improve pedestrian safety through passive surveillance and adopting Crime Prevention through Environmental Design Principals (CPTED).
- Improve vehicular, access between the town centre, the railway station and the eastern area.
- Minimise conflicts between vehicles, pedestrians and cyclists through design.

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5. CONCEPT DESIGN

The proposed Concept Design are described in the following pages. The relevant urban design principles, as outlined in the previous Chapter, would be applied in the detail development of the design.

5.1 CONCEPT DESIGN

The design seeks to complement and enhance the existing character of Wyong Town Centre, and acknowledge its role as an important economic and cultural centre for the region, and a public transport hub. It has a posted speed of 50 and design speed of 60 kilometres per hour and the design aims to reflect a low-speed environment where possible.

The focus of the new highway design has been to revitalise the town centre of Wyong through a functional and attractive transport corridor that integrates rather than overwhelms, the local business and shopping area.

It is to be noted that the face of Wyong Town Centre along the highway commercial precinct would change dramatically with the highway upgrade in combination with any future potential railway upgrade. Within this scenario it is important to ensure that the detailed design of the various built elements and the landscape is sensitive to, and complements, the existing architecture of Wyong. The new character of Wyong that is inevitable with the new works should be carefully considered in all its detail.

The design achieves the following key outcomes:

- Provides a town entry experience along the approaches in to Wyong Town for motorists and cyclists reinforced by planting and street trees, treatment of the eastern edge of the Pacific Highway through the centre, references to the heritage elements of the town, maintaining the palm trees, albeit relocated, in their current role as a town centre statement and reinforcing the entry into the railway station.
- Reinforces the east - west connectivity by providing improved access at the railway pedestrian bridge, new Rose Street bridge and upgraded South Tacoma and Panonia Roads.
- Creates a safer public entry into the railway station with direct and at-grade pedestrian access to the station, by removing the car park and bus routes in front of the station. The car park and bus interchange has been moved east to a dedicated area.
- Creates a sense of place by the station entry forecourt and walkway area, enhanced by the relocated palm trees, landscape, seating, paving, potential artwork and other built structures.
- Improves legibility to the railway station entry.
- The Warner's Shops have been removed due to the highway and railway corridor expansion.
- Provides three signalised and one non- signalised crossing at the town centre improving connectivity between the eastern and western sides of the town. The latter is signified by the relocated Date Palms.
- The introduction of a built element on the eastern edge to provide pedestrian shade and amenity, and importantly creating a built edge that reflects the scale and language of existing buildings on the other side.
- Maintains approximately a similar number of parking spaces for commuters as well as town centre retail.

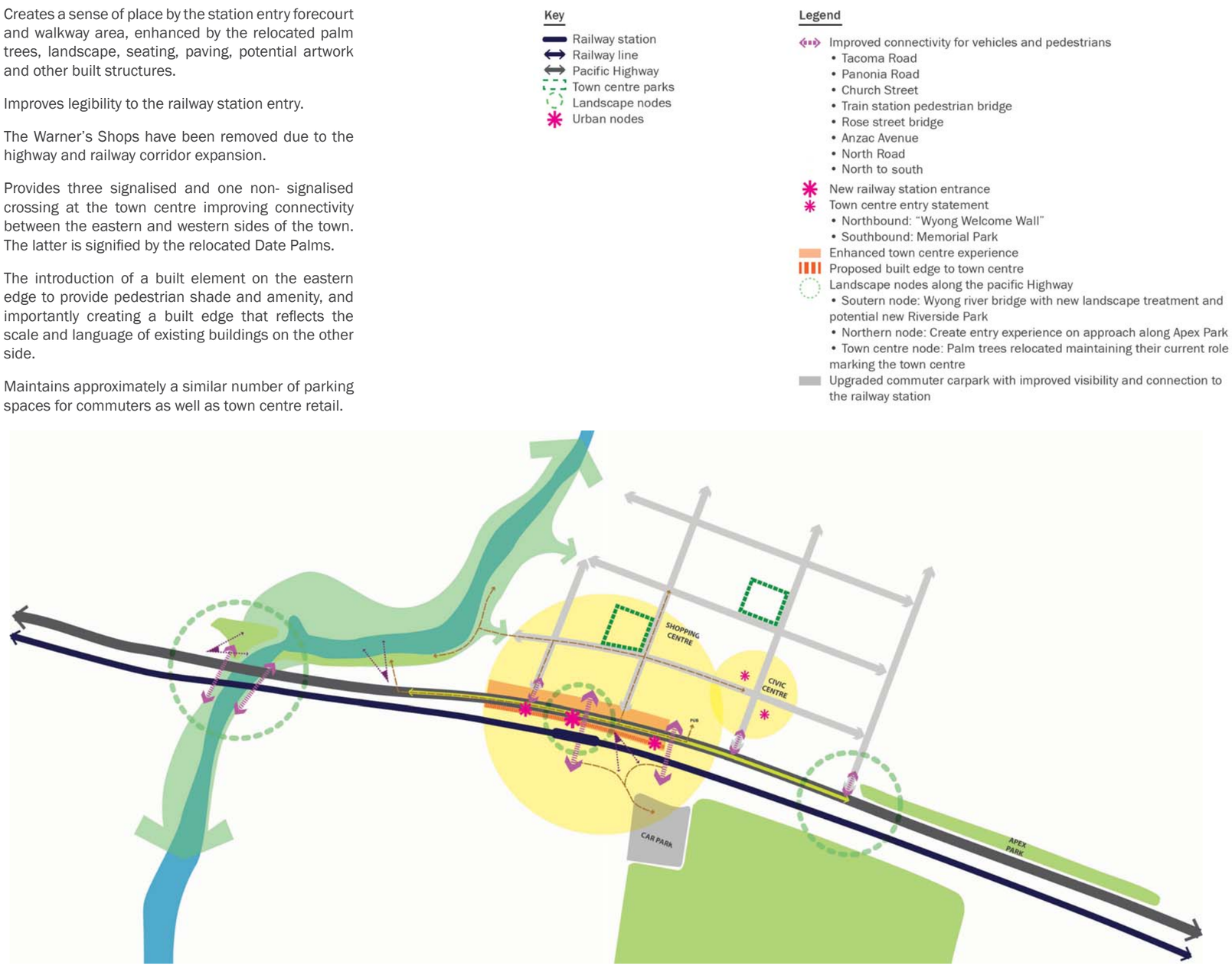


Fig. 5.1: Urban Design and Landscape strategy

Fig. 5.2: View looking north at the Church Street intersection showing the transplanted Date Palms, median planting in the centre and the Welcome Wall to the west

ARTIST IMPRESSION OF PROPOSAL. DESIGN IS AT CONCEPT STAGE AND IS INDICATIVE ONLY

Fig. 5.3: Master Plan Overview

A BRIDGES OVER WYONG RIVER

B TOWN ENTRY SOUTH - WYONG WELCOME WALL

C RAILWAY STATION ENTRANCE AND WALKWAY

D BUS LAYOVER AND CAR PARK

E TOWN CENTRE ENTRY NORTH - MEMORIAL GARDEN

F APEX PARK

Fig. 5.4: Concept Master Plan (Sheet 1; Scale 1:1000 @ A3)

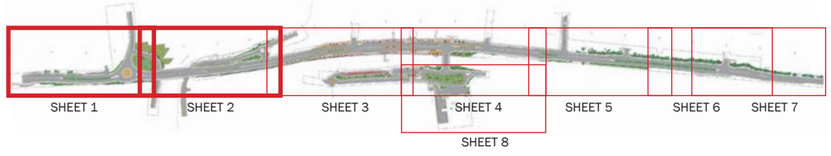


Fig. 5.5: Concept Master Plan (Sheet 2; Scale 1:1000 @ A3)

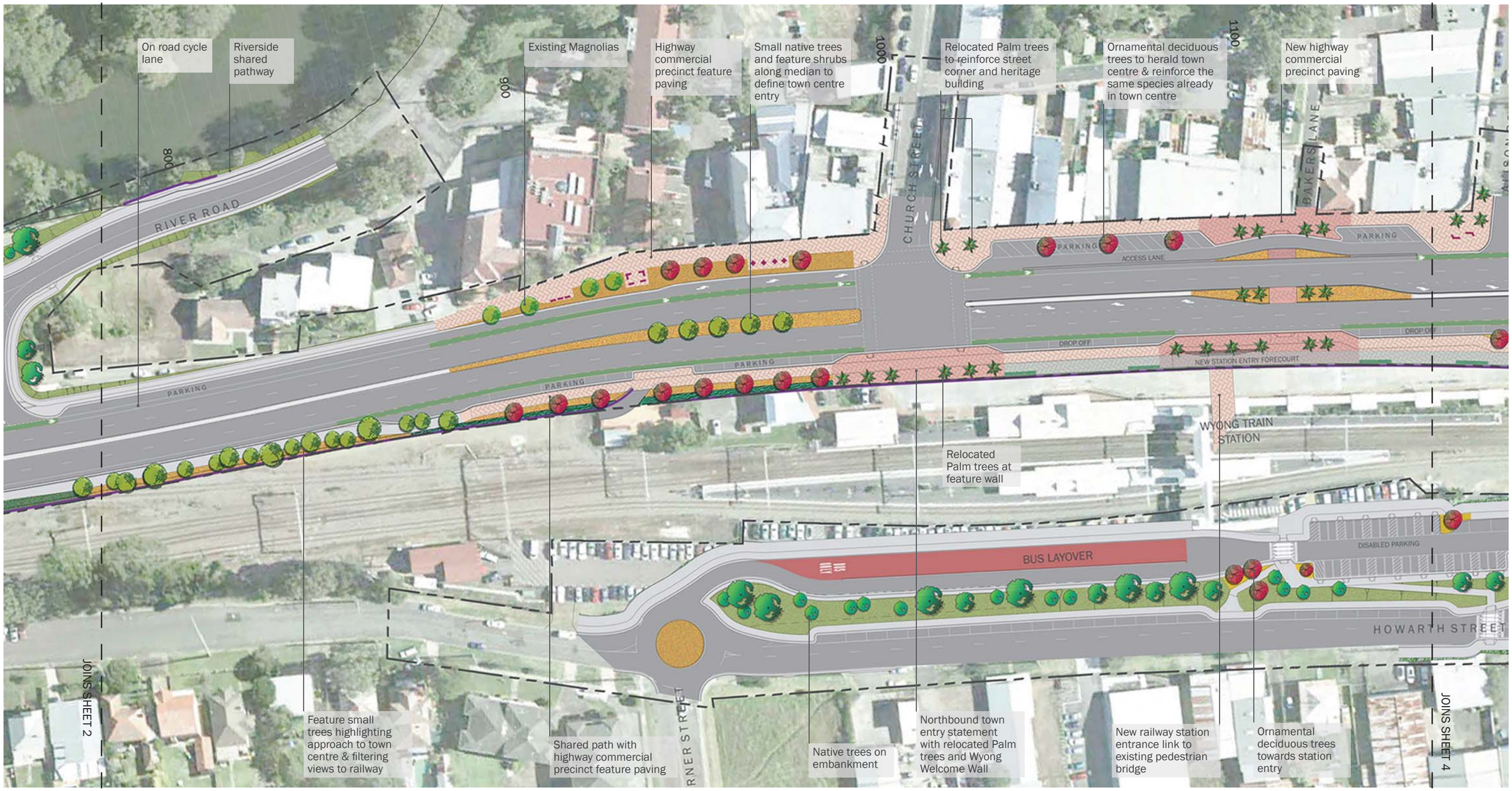


Fig. 5.6: Concept Master Plan (Sheet 3; Scale 1:1000 @ A3)

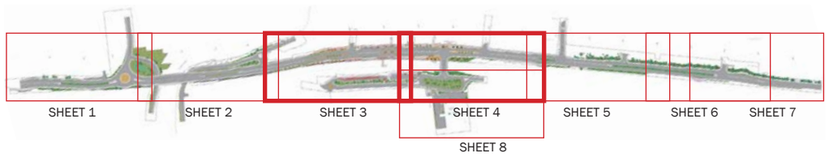


Fig. 5.7: Concept Master Plan (Sheet 4; Scale 1:1000 @ A3)

Key

- Project boundary
- Retaining wall
- Natural drainage channel
- Palms
- Proposed Medium Deciduous Feature Tree ('Ornamental Pear')
- Proposed Large Street Tree
- Proposed Magnolia Grandiflora 'Little Gem'
- Existing Magnolia Grandiflora 'Little Gem'
- Large Native Trees
- Small to Medium Native Trees
- Native Trees near Drainage Areas
- Feature Native Shrubs
- Narrow Native Shrubs
- Native Screen Planting
- Low Native Shrubs-ground cover
- Feature Ornamental Shrubs
- Ornamental Informal Hedge
- Macrophyte Planting
- Street furniture
- Views

0 5 10 20 30m

Fig. 5.8: Concept Master Plan (Sheet 5; Scale 1:1000 @ A3)

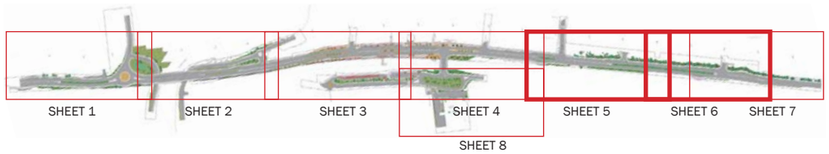


Fig. 5.9: Concept Master Plan (Sheet 6; Scale 1:1000 @ A3)

Key

- Project boundary
- Retaining wall
- Natural drainage channel
- Palms
- Proposed Medium Deciduous Feature Tree ('Ornamental Pear')
- Proposed Large Street Tree
- Proposed Magnolia Grandiflora 'Little Gem'
- Existing Magnolia Grandiflora 'Little Gem'
- Large Native Trees
- Small to Medium Native Trees
- Native Trees near Drainage Areas
- Feature Native Shrubs
- Narrow Native Shrubs
- Native Screen Planting
- Low Native Shrubs-ground cover
- Feature Ornamental Shrubs
- Ornamental Informal Hedge
- Macrophyte Planting
- Street furniture
- Views

0 5 10 20 30m

Fig. 5.10: Concept Master Plan (Sheet 7; Scale 1:1000 @ A3)

Fig. 5.11: Concept Master Plan (Sheet 8; Scale 1:1000 @ A3)

Key

- Project boundary
- Retaining wall
- Natural drainage channel
- Palms
- Proposed Medium Deciduous Feature Tree ('Ornamental Pear')
- Proposed Large Street Tree
- Proposed Magnolia Grandiflora 'Little Gem'
- Existing Magnolia Grandiflora 'Little Gem'
- Large Native Trees
- Small to Medium Native Trees
- Native Trees near Drainage Areas
- Feature Native Shrubs
- Narrow Native Shrubs
- Native Screen Planting
- Low Native Shrubs-ground cover
- Feature Ornamental Shrubs
- Ornamental Informal Hedge
- Macrophyte Planting
- Street furniture
- Views

0 5 10 20 30m

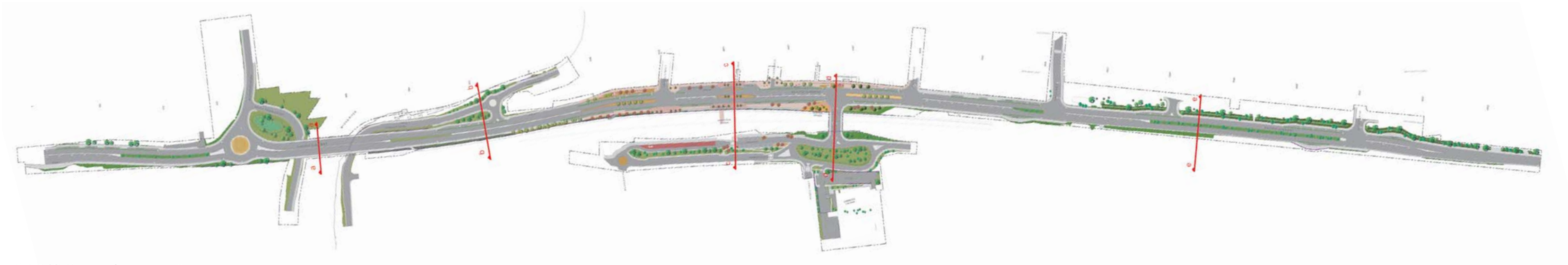


Fig. 5.12: Key map for cross sections

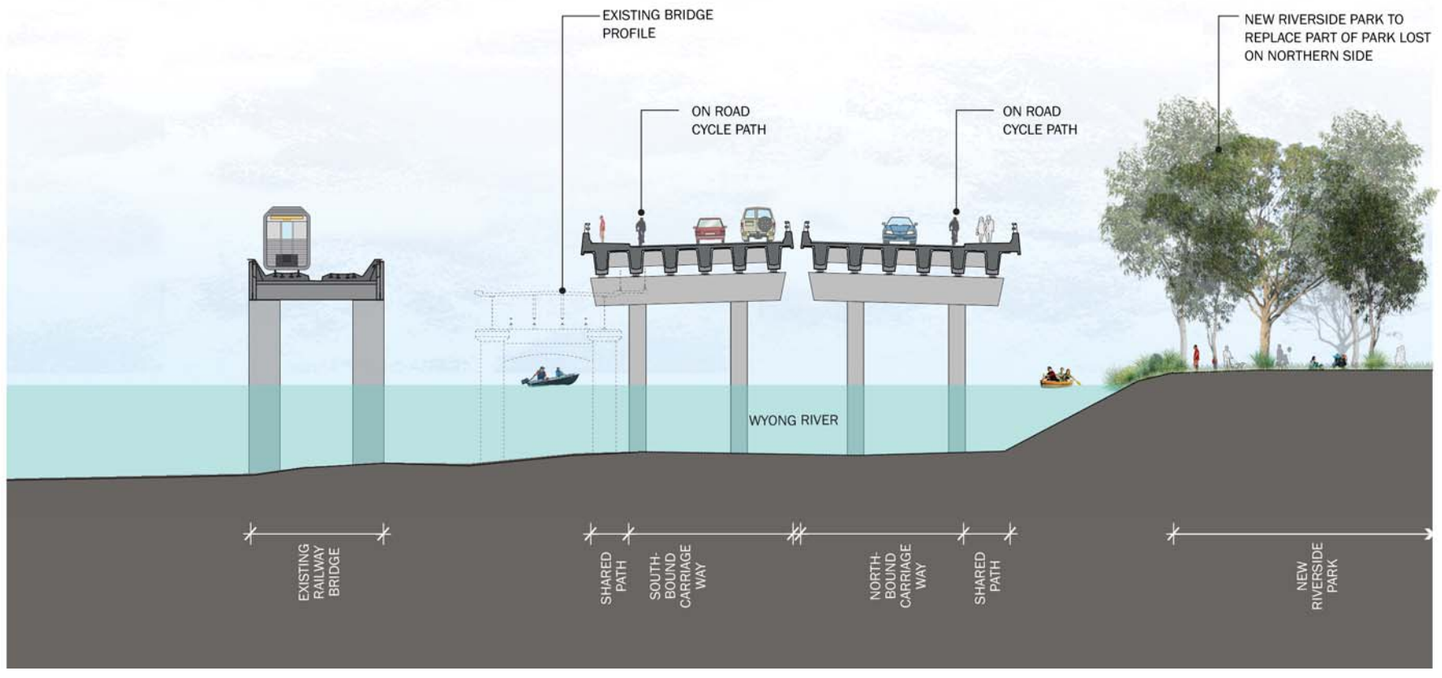


Fig. 5.13: Proposed road cross section A at Ch.460 (Scale 1:400 @ A3)

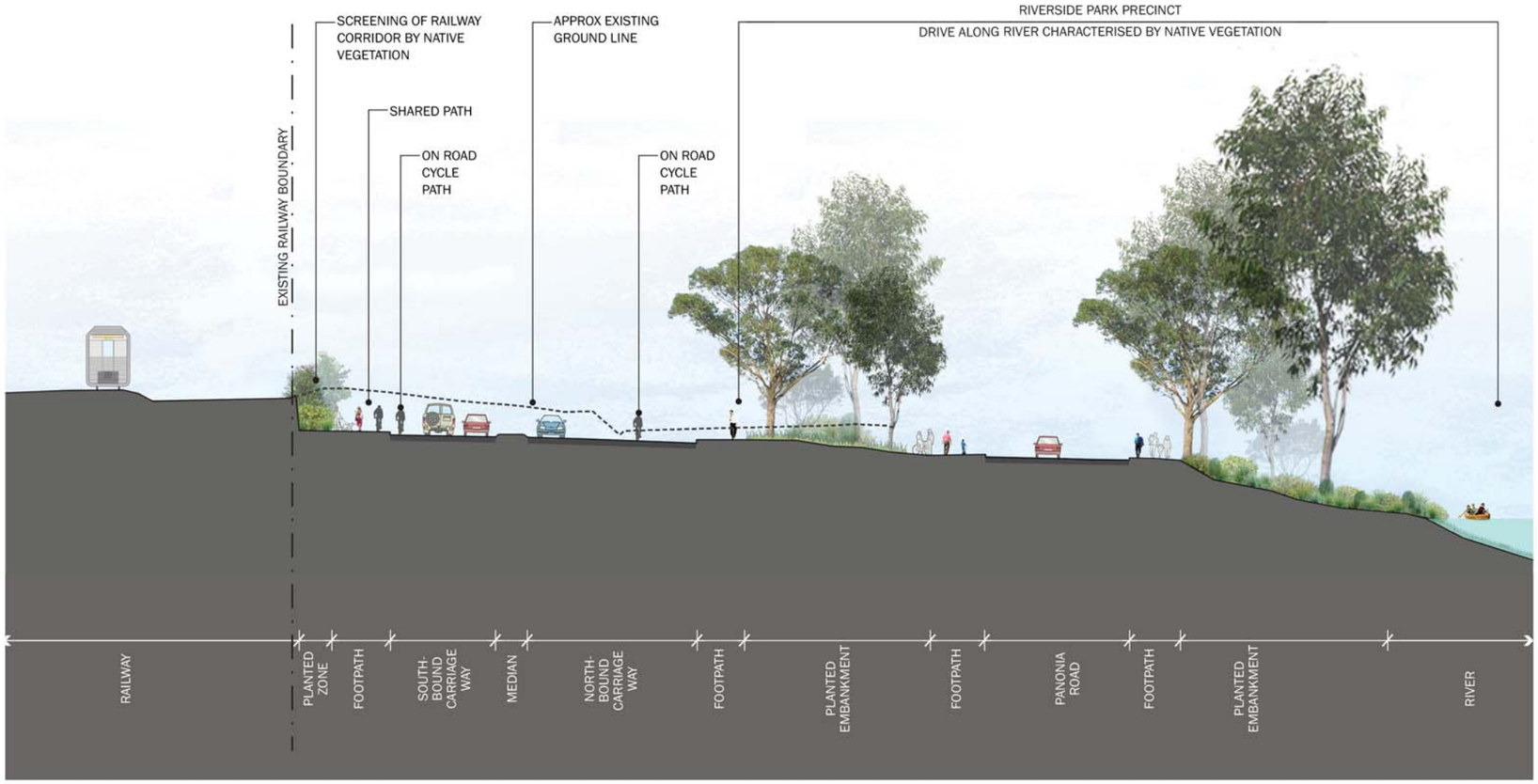


Fig. 5.14: Proposed road cross section B at Ch.710 (Scale 1:400 @ A3)

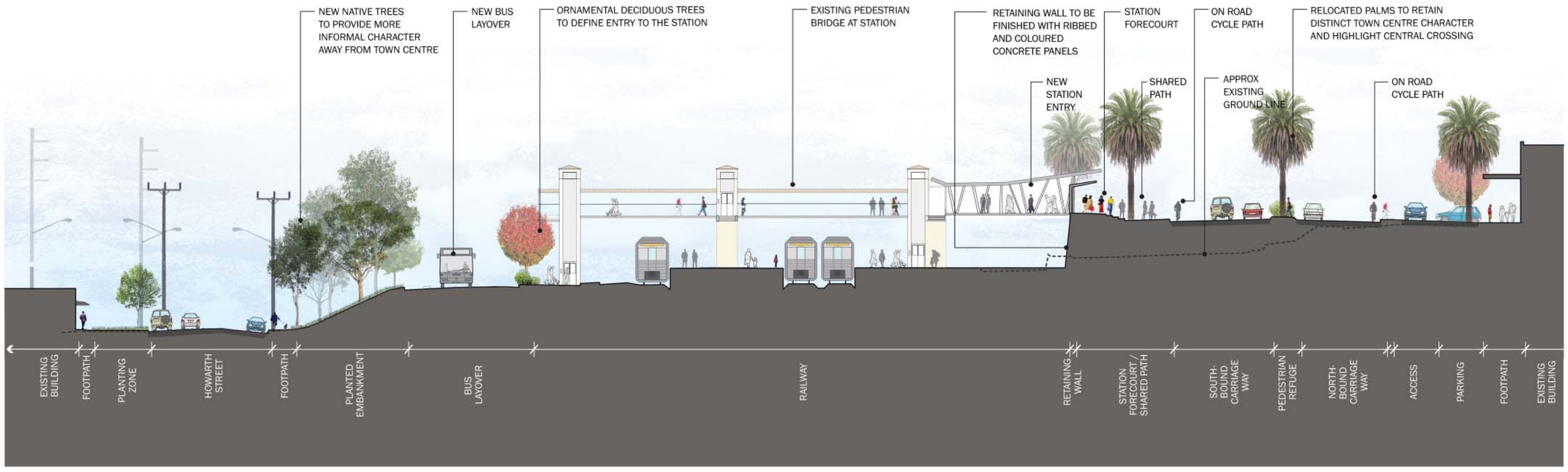


Fig. 5.15: Proposed road cross section C at Ch.1120 (Scale 1:400 @ A3)

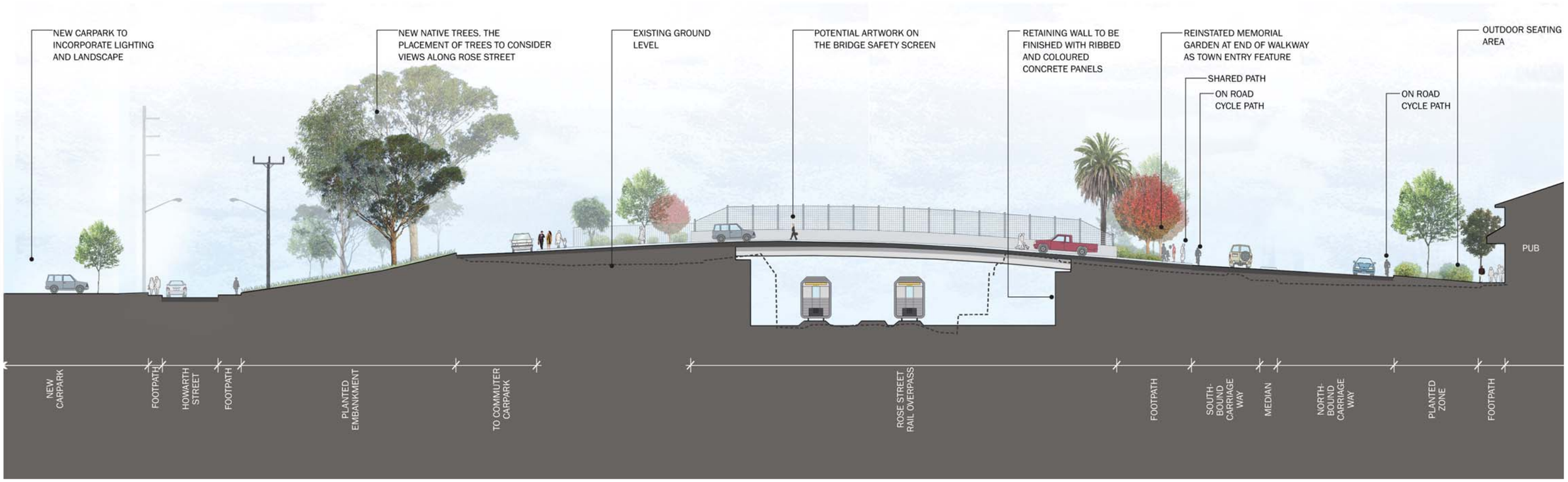


Fig. 5.16: Proposed road cross section D at Ch. 1280 (Scale 1:400 @ A3)

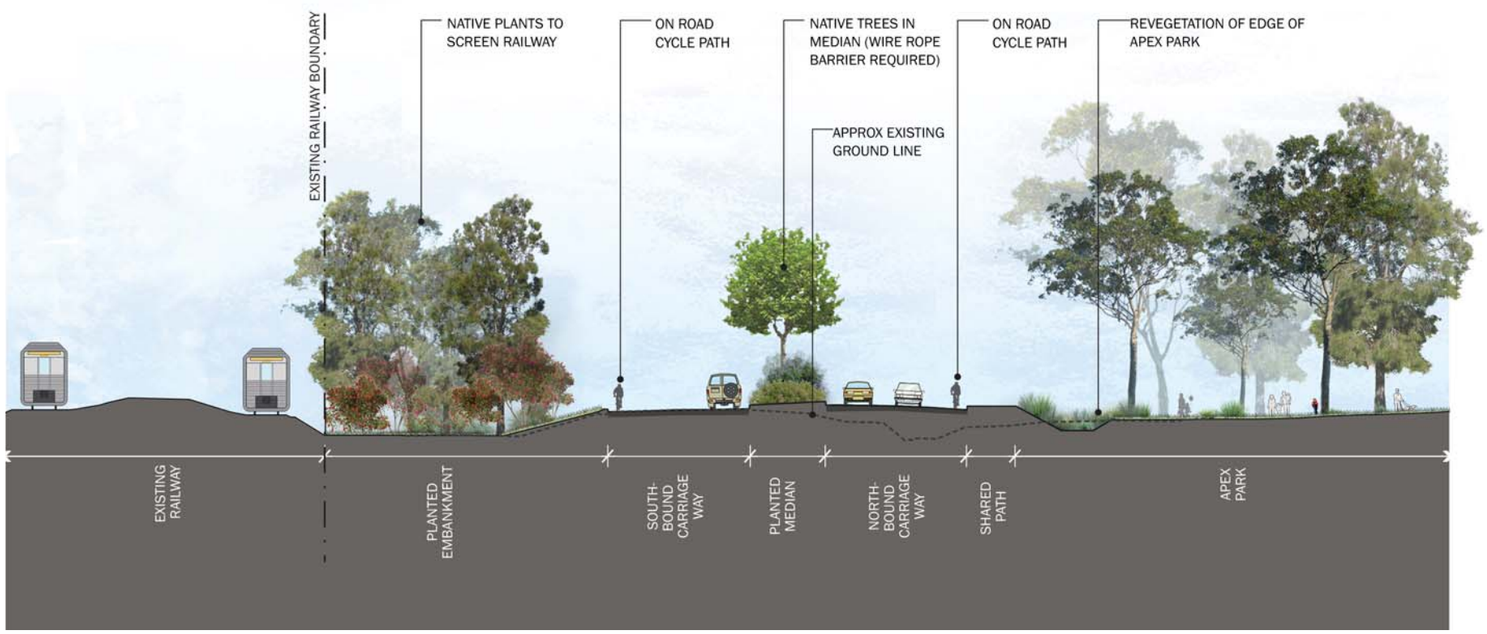


Fig. 5.17: Proposed road cross section E at Ch. 1860 (Scale 1:400 @ A3)


Wyong

5.2 THE HIGHWAY COMMERCIAL PRECINCT AND THE PUBLIC REALM

The character of the Wyong town centre along the highway commercial precinct at present is defined predominantly by the topography; the architecture including the heritage buildings along Pacific Highway; and the Palm trees – as positive influences, and the high volumes of traffic and congestion on the highway; the railway line and bus layover which are barriers to connectivity; large areas of surface car parking; and little pedestrian comfort and safety – as negative influences.

This proposal would dramatically transform the existing character and identity of Wyong. Notable changes in summary are:

1) The natural topography along the highway commercial precinct is impacted with the raising of the ground level at the railway station entrance (Fig. 5.19). This influences the character of the town centre along this precinct and its relationship with the railway.

2) Access to the railway station is changed by the new entrance provided directly off the eastern footpath at a higher level than present, connecting directly to the railway station footway. The relocation of the car park and the bus layover to the east of the railway (Fig. 5.18) also dramatically changes the view of the railway station and usage patterns. The combined effect of these changes results in a more direct and safe pedestrian access with increased legibility and identity through a station entry forecourt and entrance feature.

3) Removal of the heritage listed Warner's buildings (and Station Master's Cottage) near the station to the east of highway (Fig.5.36). It is suggested that new public structures should make references to these buildings that are currently perceived as heralding the entry into Wyong town core from the highway when northbound. In addition, it is our suggestion that Council may encourage the refurbishment and restoration of other heritage elements along the highway to reinforce the heritage legacy of the town.

4) A covered walkway structure is provided along the eastern edge of the highway extending approximately from the Church Street intersection to Rose Street. This provides a response to the removal of a built edge to the east of the highway due to the demolition of the Warner's Shops and change in topography. It would provide active and functional public spaces including a station entry forecourt, bus shelter and shelter at the station drop off facilities. This structure would also act as an effective fence and throw screen to the railway line and shield pedestrians from other impacts from the railway, to an extent. This element is described in more detail in following sections.

5) Relocation of the Date Palm trees. The new proposed locations of the Palm trees retain the current role of the Palms and their significance as a marker of the town centre, railway station entry and town centre entrance statements along the highway (Fig. 5.37).

6) A new highly legible station entry structure, linked to the covered walkway structure is proposed. This new link would connect to the existing railway pedestrian footbridge. This together with the new station forecourt is envisaged to become a landmark for the town centre and the highway commercial precinct, whilst at the same time enhancing legibility and identity.

7) New town entry entrance statements are provided in the form of landscape treatments and other physical elements to the northern and southern approaches to town. These include the Wyong Welcome Wall and the reinstated Memorial Garden.

8) Reduced traffic congestion on the highway would create a more amenable pedestrian environment in the town centre. However at the same time the highway would be wider, creating a more visually and physically dominant barrier between the eastern and western sides of town. Measures to address this include: the non-signalised central pedestrian crossing: the walkway alongside the railway to complement the western side as an active edge: and, landscape treatments to visually reduce the impact of the widened highway.

9) Easy to access parking has been located to support the highway commercial precinct and the overall town centre, including both kerbside parking alongside the eastern and western sides of the highway and angled parking along the main shopping area on the western side. Street trees are integrated within the parking bays to soften the overall look and provide amenity.

Some of the key design elements within the highway commercial precinct as outlined above are described in greater detail in the following sections.

Fig. 5.18: Town centre concept Master Plan (scale 1:1000)

5.2.1 THE STATION WALKWAY

A covered walkway structure is provided along the eastern edge of the highway extending approximately from the Church Street intersection to Rose Street. It begins at the northern end flagged by the new Welcome Wall, and incorporates a covered area for drop offs and pickups, the new station entry forecourt, an Art Walk, and ends with a bus shelter (See Figure 5.20). At the northern end it is flagged by the improved Memorial Garden.

This structure has many purposes:

- It would be linked to the station entrance structure and incorporates the station entry forecourt.
- It provides a sheltered walkway on the eastern edge to complement the footpath with awnings on the western edge of the highway retail strip. It would complement the scale and architecture of Wyong Town Centre and help revitalise the image of the town.
- Visually it provides a built edge to define the highway commercial strip of the Wyong Town Centre, performing the role previously provided by the Warner's Shops and the row of Date Palm trees. The need for this is brought into focus with the raising of the ground level at this point of the proposal corridor.
- It performs the function of a fence, handrail and throw screen from the highway to the railway lines below. At the same time it would shield pedestrians from the noise impacts from the railway line.
- Provides a north - south circulation route for pedestrians and cyclists by allowing space for a shared, non-delineated path with access to the railway station.
- The walkway element could provide active and functional public spaces providing, amenity and promoting social interaction. Amenity is provided in the form terms of shelter, seating, water bubblers and cycle racks. It also potentially includes space for mobile kiosks; a public place for the Wyong Arts Precinct to display various artwork; and various elements of the walkway could also incorporate elements of play and amusement.
- Incorporates a bus shelter with seating.
- Allows framed through-views at strategic viewpoints such Alison Road, looking east, to enhance visual connectivity.
- The design may reference the heritage and cultural values of Wyong through, for example, the incorporation of bush poetry on the walls.

Design Principles

- The design of the walkway should help aim to create the desired future character for the Wyong town centre along the pacific highway commercial precinct.
- The design should also complement and be sympathetic with the varied character of the western side of the highway commercial precinct. This may be in terms of scale, use of materials and colour, incorporation of landscape, heritage interpretation and activities provided for within the walkway.
- The walkway performs the function of an anti-throw screen and safety barrier to the railway lines on the other side of the retaining wall. The anti- throw screen and safety requirements need to be incorporated in the design of the walkway.
- Whilst visual connectivity between east and west Wyong should be maintained along the entire walkway, clear views to the east Wyong hinterland should be provided at strategic locations such as at the intersection of the Pacific Highway and Alison Road.
- The walkway structure connects with, and is part of, the new railway station entry and the forecourt area, including the pedestrian crossing. The detailed design of this node should explore its potential to become a key landmark for Wyong town centre contributing to its new identity.
- The choice of materials should consider climate appropriate responses.

Fig. 5.19: The proposed walkway as a new built edge to the highway commercial precinct.

Fig. 5.20: Potential activities along the walkway providing an active built edge to the east of the highway

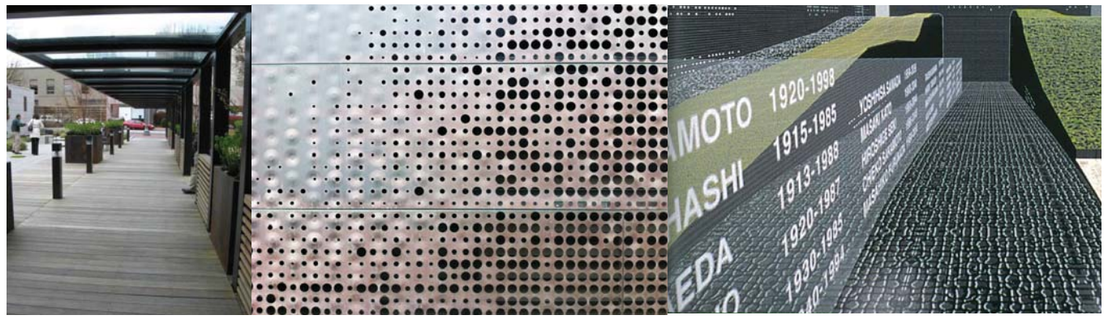


Fig. 5.21: Due to the length of the walkway a combination of different materials could be explored such as perforated metal screens, glass or acrylic, timber and masonary.

Fig. 5.23: Proposed view looking south showing (left to right) the covered walkway, railway station entrance, non-signalised pedestrian crossing and Alison Road entry from the Pacific Highway. The image also shows the relocated Date Palms at this location.

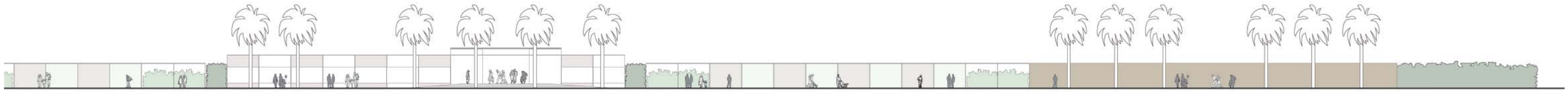


Fig. 5.22: Interactive artwork and follies

Fig. 5.24: Railway station information

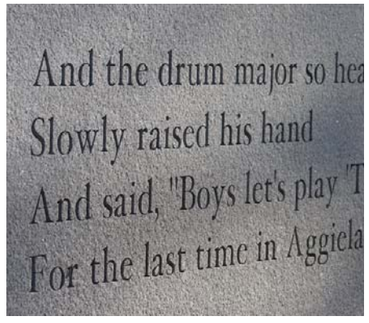


Fig. 5.25: Wyong heritage interpretation

Fig. 5.26: Seating and other amenities

Fig. 5.27: Pedestrian and cyclists facilities

5.2.2 STATION ENTRY FORECOURT AND NON-SIGNALISED CROSSING

STATION ENTRANCE LINK

A new Station entrance is created (at a higher level to the existing) from the new eastern footpath linking directly to the existing railway station footway. This link structure should be architecturally designed to be a landmark element providing a high level of legibility and identity to the town. It should also seamlessly relate to, and connect with, the walkway element.

STATION ENTRY FORECOURT AND NON-SIGNALISED CROSSING

An unsignalised pedestrian crossing of the highway is provided centrally in the block between Church Street and Alison Road connecting pedestrians from the eastern commercial strip to the railway station. The crossing connects to a generous station forecourt area. Both the crossing and the station entrance are marked by the relocation of fourteen Date Palm trees on both footpaths and the median.

The wide station forecourt area may comprise:

- An extended entrance awning to the station which would be an architectural statement and landmark for the town (discussed above).
- Pedestrian and cyclist amenities such as seating, cycle racks, water bubblers.
- A distinct paving treatment marking the station forecourt and non-signalised crossing area.
- Feature artwork.
- It is proposed that the cycle path is not delineated within the forecourt zone and instead identified as a slow or set-down area to minimise conflicts between commuters and passing cyclists.

Part of the landscape treatment of the median at the non-signalised crossing of the highway may include a raised planter bed to confine pedestrians to the crossing (See Figure 5.30). This may be used in combination with Elsholtz kerb treatments as required.

Design Principles

- The design of the railway entry forecourt area, the walkway, and the new structures should be considered as a whole in relation to the desired future character of Wyong town centre.
- The station entry forecourt area and structure should be designed as a new architectural landmark which together with the relocated Palms marking the new crossing would help create a new identity and urban node.
- The paving of the forecourt area may be differentiated from the new highway commercial precinct paving to highlight the railway station entry.
- The shared path that runs north-south along the walkway may require a cyclists set down area to ensure minimal conflicts between cyclists and commuters entering and leaving the railway station.
- The link between the exiting footbridge of the railway station and footpath should ideally be at the same level, i.e. no level difference that requires steps or ramps. If steps are required, these should be integrated with the forecourt design including circulation paths and landscape.
- Artwork may be incorporated as appropriate to enhance the public realm.

Fig. 5.28: Example of an entry forecourt area defined by shelter structures and artwork

Fig. 5.29: Raised planter beds designed to add amenity to the public realm, define pedestrian travel paths and buffer pedestrians from traffic

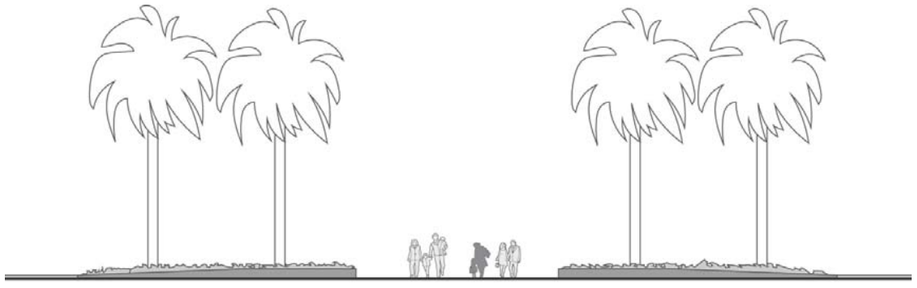


Fig. 5.30: Cross section of the raised planter beds at the non-signalised pedestrian crossing

Fig. 5.31: Proposed view looking north showing (left to right) the existing retail shops along the highway commercial precinct, non-signalised pedestrian crossing and railway station entrance. The image also shows the relocated Date Palms at this location.

Fig. 5.32: Plan of the highway commercial precinct showing the new railway entrance link, non-signalised crossing and the relocation of Date Palms.

5.2.3 RESPONSES TO THE CULTURAL HERITAGE OF WYONG

Wyong has a rich cultural heritage which should be a source of inspiration in the design development of the public realm and its various elements. Also the heritage buildings in the town centre may be referenced in the selection of materials and fixtures.

New built elements such as the walkway and the Welcome Wall may also contain references to the Warner's Shops that would be demolished as part of the proposal.

Whilst the existing Date Palms are not a listed heritage item, there is mythology behind the origins of the trees that is valued by the community. Therefore it is considered important to retain their cultural role in the relocation of the trees, which is integrated into the design.

The concept design of the Welcome Wall would be developed during the detailed design phase of the project. It would be expanded to identify and interpret Wyong to visitors, both car-borne and pedestrian.

Wyong has a lengthy and interesting history and it is desirable that this be appropriately interpreted through the range of heritage items spread through the town. There are several locations along the proposal for potential heritage interpretation. These include the new riverfront park, the new bridge over Wyong River, the corner of Pacific Highway and River Road, and either end of the new walkway.

The proposed Welcome Wall can be the key locater for this interpretation strategy.

The heritage-listed building on which the existing 'Welcome' sign is painted would be demolished to make way for the upgrade of the highway. This fact of progress can be explained through well-considered interpretation.

We consider reuse of bricks salvaged from the demolished building to construct a different wall in a different location to be contrary to the objectives of best-practice heritage conservation. Instead, we suggest a more effective reuse for the bricks might be as markers for a Heritage Trail through the town. Examples of such use are the Convict Heritage Trail at Campbell Town Tasmania and the commemorative bricks built into the walls of the Wawel in Cracow Poland.

Design Principles

- Develop a heritage interpretation strategy during detailed design of the proposal.

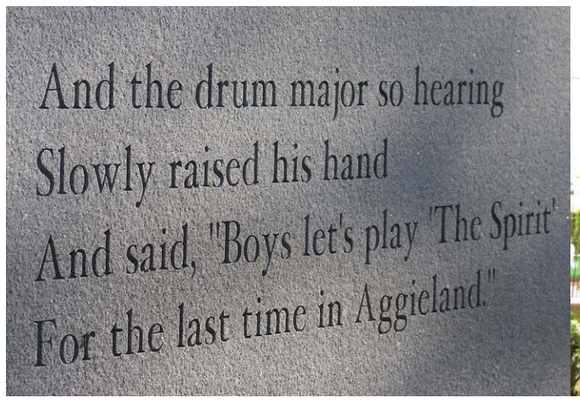
Fig. 5.33: Historical photo showing the buildings around the Church Street intersection, the row of Date Palms and the Railway Station (source: http://www.slideshare.net/metropoll/wyong-history)

Fig. 5.36: A town centre rich with heritage buildings and other culturally important items.

Fig. 5.34: The rich cultural heritage of the Wyong region provides ample inspiration and opportunities for cultural heritage interpretation

Fig. 5.35: The existing Warner's shops that are proposed to be demolished. The south facing wall currently display a 'Welcome to Wyong' sign. Whilst this sign may not be significant from a heritage point of view, the sign currently heralds visitors to the town centre on the north bound. The building and the sign offers opportunities for heritage interpretation in the proposal.

Fig. 5.37: Proposed relocation of the transplanted Date Palms (approximately 30 trees are assumed to be usable)



Example of cultural heritage writings in public spaces

Example of the use of bricks as an artwork and heritage interpretation

Fig. 5.38: Examples of heritage and cultural interpretation in public spaces

5.3 TOWN ENTRY STATEMENTS

The concept design provides a suite of town entry treatments comprised of the following:

NORTHBOUND ENTRANCE STATEMENT

- Wyong Bridge crossing: The crossing of the Wyong River is a natural visual marker for the departure of Tuggerah Straight and the entry in to Wyong. There is potential to incorporate a town entry statement in the design of the bridge structure.
- Distinctive planting treatments: The proposed design is described in Section 5.6 below and illustrated in Figure 5.39.
- "Welcome to Wyong" Wall: A welcome statement is proposed at the Church Street – Pacific Highway intersection at the end of, and linking with, the covered walkway. This wall may also make references to the heritage listed Warner's shops building façade which had in informal "Welcome to Wyong" sign painted on its façade. This statement is further visually reinforced by the relocation of six Date Palms flanking the sign.
- Road signage as per Roads and Maritime design requirements.

SOUTHBOUND ENTRANCE STATEMENT

- Distinctive planting treatments: The proposed design is described in Section 5.6 below and illustrated in Figure 5.41.
- Reinstated Memorial Garden: The existing Memorial Garden would be reinstated and incorporated into the design to create an entrance statement from the south. Two Date Palm trees are proposed for this location.
- Road signage as per Roads and Maritime design requirements.

Design Principles

- Landscape design should take in to consideration the need to create an entrance experience on the entry in to town from the north and south.
- Maintain long distance views to the town centre, and if applicable to landmark buildings, from the north and south.
- Ensure that views to the river from the bridge on the northbound; and views to Apex Park on the southbound are maintained so that visual connectivity to the exiting landscape context from the highway is facilitated.

Fig. 5.39: View from northbound entrance looking the highway commercial precinct

Fig. 5.40: Northbound town entry statement - the 'Welcome to Wyong' Wall in front of the Church Street intersection. The wall also provides an end to the covered walkway element.

Fig. 5.41: Southbound town entry statement - the reinstated Memorial Garden at the corner of Rose Street and the Pacific Highway (at the existing Memorial Garden). The garden also provides and end to the covered walkway element.

5.4 IMPROVED CONNECTIVITY

PEDESTRIAN AND CYCLIST CONNECTIVITY

Pedestrian connectivity and accessibility has been improved between the northern and southern ends of the Wyong highway commercial precinct, and between the western and eastern sides of the highway. Footpaths and shared paths designed to accessible gradients are situated along the length of the proposal with signalised and non- signalised crossings of the highway. In addition, access to the east of the railway line is improved through widened footpaths at Rose Street Bridge and a direct link to the pedestrian footbridge at the railway station. Disabled access to the lower level is provided through existing lifts.

The proposal retains the signalised crossing points at Church Street and removes the single east-west crossing at Alison Road; provides new signalised crossings at Rose Street, Anzac Avenue and North Avenue. A non-signalised pedestrian crossing between Church Street and Alison Road is also provided. The pedestrian environment at the highway commercial precinct would have a focus on the public realm and pedestrian and cyclist amenity including planting design, and parking with improved proximity.

The new shared path along the length of the proposal provides a link through the town centre from Tuggerah Straight to Cutler Drive with provision for further extension to the north in the future.

Design Principles

- Ensure all pedestrian and shared paths gradients are designed for disabled and frail access in accordance with Australian Standards.
- Connect new paths to existing footpaths in a safe and convenient manner. Where pedestrian paths extend to areas with no existing footpaths, ensure the pedestrian paths are terminated in a logical and safe manner.
- Where possible consider the provision of shade to pedestrians on shared paths. The provision of a covered walk way is suggested in the highway commercial precinct.
- Where possible and appropriate, incorporate planting along paths to provide shade, improve visual amenity and where relevant act as a buffer to traffic.
- Avoid or minimise conflicts between different transport modes including pedestrians.

PUBLIC TRANSPORT CONNECTIVITY

The railway is a dominant mode of public transport in the Wyong region. The design provides improved and safe access to the railway station. Drop off zones are provided alongside the Pacific Highway on the southbound during peak periods only, allowing them to service shops during the day. Dedicated pick up and drop off areas are provided on the east side of Howarth Street, between Warner Avenue and Rose Street with the pick-up parking area (30 minutes) being located between Warner Avenue and the existing stairs; and the drop off parking area (5 minutes) between existing stairs and Rose Street roundabout.

Bus stops are provided at regular intervals. The bus stop opposite Alison Road is accessible via the covered walkway from the railway station.

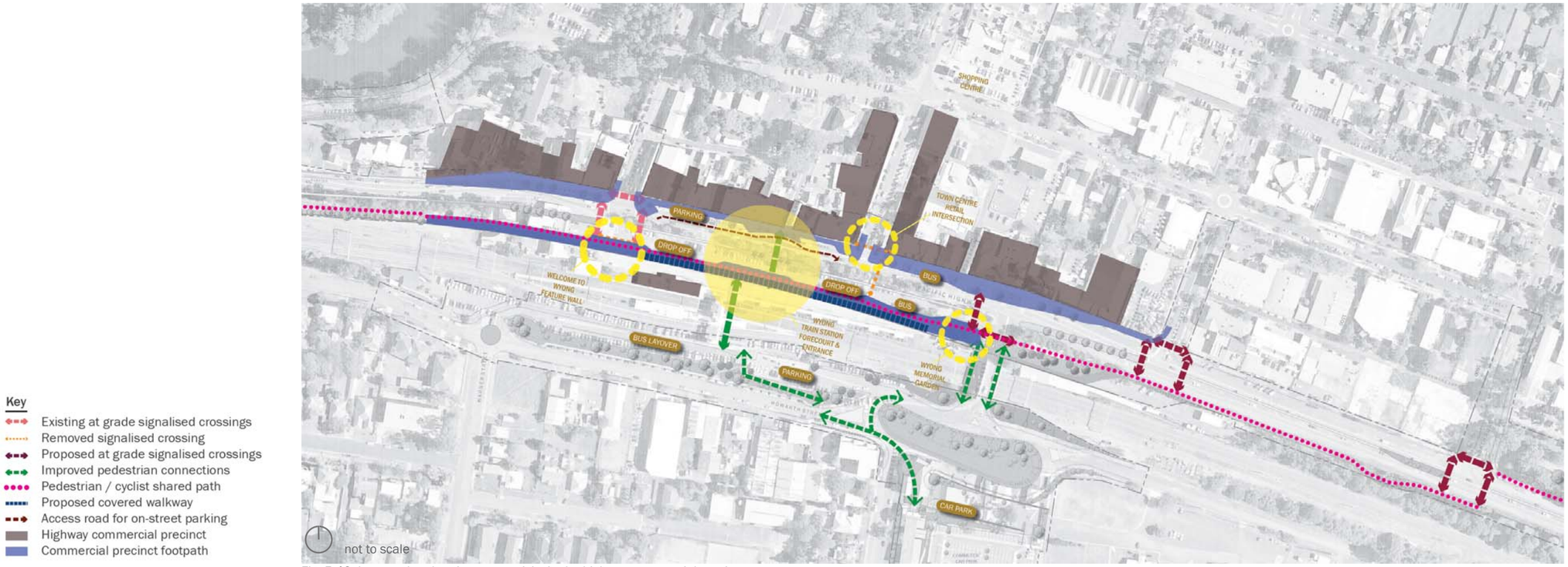


Fig. 5.42: Improved pedestrian connectivity in the highway commercial precinct area

A bus layover is provided to the east of the railway line, easily accessible from the town and the railway station.

Design Principles

- Consider ease of access to public transport from key land uses and destinations including commuter car parking facilities.
- Consider CPTED (Crime Prevention through Environmental Design) principles in the design of all associated facilities.

VEHICULAR CONNECTIVITY

Vehicular connectivity between the eastern and western parts of the Wyong town centre (on either side of the rail line) is improved through the provision of crossings with a 1:100 year flood immunity at Wyong River (South Tacoma Road and Panonia Road), and a wider bridge at Rose Street over the railway.

Fig. 5.43: View looking south east showing the new Pacific Highway and covered walkway

5.5 PARKING

TOWN CENTRE RETAIL PARKING

Easily accessible parking is provided to support the highway commercial precinct and the town centre in general, including both kerbside parking alongside parts of the eastern and western sides of the highway and angled parking between Church Street and Bakers Lane to maximise parking in the main highway commercial precinct. Street trees would be integrated between the parking to soften the overall look and increase amenity.

PARKING TO THE EAST OF THE RAILWAY

The commuter car park on the eastern side of the station has been re-designed to include disabled car parking and taxi facilities within a short distance of the station lifts and stairs. Facilities for bus layover have also been located here for driver breaks and operational needs during rail shut down periods when buses replace trains.

Kerbside parking on the western side of Howarth Street has been dedicated to commuter pick up and passenger set down allowing for convenient public access to the station away from the highway. The existing stairs are retained and complemented by a ramp along the western embankment up to the station stairway.

ROSE STREET COMMUTER CAR PARK

The existing commuter car park at Rose Street is underutilised due to its isolated positioning behind a block of buildings and low visibility. As part of the proposals' commitment to replace commuter car parking lost due to the widening of the Pacific Highway, the Rose Street car park is expanded by the acquisition of the properties surrounding the car park. This would open up the car park to the surrounding streets enabling legibility and passive surveillance, encouraging it to be used by commuters. The car park would follow the form of the topography and would be built in three tiers, with an upper storey above the lowest level.

Adequate lighting should be provided within the car park as well as along the links back to the railways station to ensure the safe usage of the car park. Way finding signage should also be provided to enable legibility of the car park from the highway and railway station. This may be enhanced by a strategically placed transit information shelter for the use of commuters at the corner of Rose Street and the car park entry.

Design Principles

General

- Maintain and enhance the amenity of the on-street parking along the Pacific Highway, particularly on the western side through integrated street tree planting.
- Avoid long and continuous parking bays without a break for planting. Planting should be used to mitigate the visual impact of car parks, improve the microclimate and sense of place.
- Organise vehicular movements to minimise impact on pedestrian movement, safety and crossings, particularly alongside the western retail strip.

Rose Street Commuter Car Park

- Ensure finishes and colours of the car park structure are sympathetic and complementary to its surrounds, visually non-intrusive in the landscape and discourage graffiti.
- Use screen planting in front of the wall along Rose Street to soften the visual impact.
- Maximise passive surveillance to enable the safe use of the car park. It should be well lit at night to ensure the safety of commuters, without compromising amenity to surrounding neighbours. The pathway links from the car park to the railway station should also be well lit and designed for safety in use to encourage usage of the car park in the evenings.
- Improve the connectivity and wayfinding between the eastern side of the station and the Rose Street car park to encourage use of the parking facility on the eastern side.


Fig. 5.44: Existing Rose Street car park to be expanded

Fig. 5.45: Parking to be provided in front of the highway retail strip


Fig. 5.46: Parking in front of the railway station to be removed


Fig. 5.47: Parking to the east of the railway line to be adjusted

Fig. 5.48: Example of a potential transit information shelter at the Rose Street commuter car park providing shade, seating and train and bus information to commuters

Fig. 5.49: Proposed parking

Fig. 5.50: View looking west showing the new Rose Street commuter car park to the right

Fig. 5.51: View looking north from the stairs of the railway station pedestrian bridge

5.6 LANDSCAPE DESIGN AND PLANT SELECTION

The selected landscape design reflects the existing surrounding natural and cultural environment, building upon its natural characteristics particularly where near existing native vegetation, the river and parkland areas, and highlighting dominant cultural plantings within the main town centre.

Overall, the plant selection creates a cohesive visual pallette that transitions from the more outlying parts of the town, along the southern and northern approaches, to the more urban environment of the town centre. To achieve this transition, and highlight the journey through the town centre, the following planting precincts have been proposed:

- Southern approach – continuation of the native tree dominated theme along the Tuggerah Straight.
- Wyong River – reinforcement of existing native trees alongside the river and near it, with dense native shrubs to screen railway.
- Southern highway commercial precinct – memorable ornamental deciduous trees (such as the Ornamental Pears prevalent in the town centre) to frame highway, and some smaller evergreen trees along the central spine to instil a visual cue that one is moving closer to the town centre.
- Main highway commercial precinct – the central landscape feature would be the re-established Date Palms; a distinct element of the town's character and a visual marker. Complementing the Palms would be other street trees. Feature mass shrub planting would also be at select locations to reinforce the more pedestrian scale environment.
- Northern highway commercial precinct – would be treated in a similar way to the southern highway commercial precinct, with ornamental deciduous trees framing views, and some other street trees.
- Northern approach – similar to the southern approach, this precinct would continue the native tree dominated theme of Tuggerah Straight.

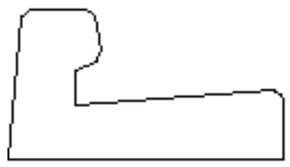


Fig. 5.52: Elsholz concrete kerb profile

Fig. 5.53: Planting to screen undesirable views of the railway

Areas that involve native planting and rehabilitation to achieve landscape and ecological benefits include the proposed new riverbank park along South Tacoma Road, the existing Riverside Park, the riverbanks and Apex Park, including the creation of a natural-like drainage channel.

The existing Date Palms in the town centre are all proposed for re-location within the new town centre environment. Palms, when compared to similar-sized broadleaf trees, are relatively easy to transplant into the landscape due to their root morphology.

Design Principles

- Plant street trees at mature sizes to soften the look of the new highway as soon as possible. At opening it is estimated that new trees should be a minimum of 3 - 5m high.
- Include design measures such as wire rope or 'Elsholtz' kerbs where tree planting is within medians, with the latter used for the town centre.
- Consider ease of long term maintenance in the overall decision making. The Council should be consulted in the determination of species mix.
- Maximise discharge water quality to an extent that is reasonably practical, and implement Water Sensitive Urban Design solutions where possible.
- Planting should be used to screen unattractive and frame attractive views. The railway should be screened, particularly along the town approach areas.
- Use vegetation to stabilise cut and fill embankments at all locations possible.
- Undertake a complete analysis, during the detailed design stage, to identify mature trees within the proposed road corridor can be retained. Develop a Work Method Statement to protect any vegetation to be retained during the construction stage.
- Identify areas of important native habitation and river embankments and avoid or minimise disturbance to these areas.
- Rehabilitate any disturbed areas adjacent to Wyong River edge, and other bushland and park areas, with ppropriate treatments and plant species.

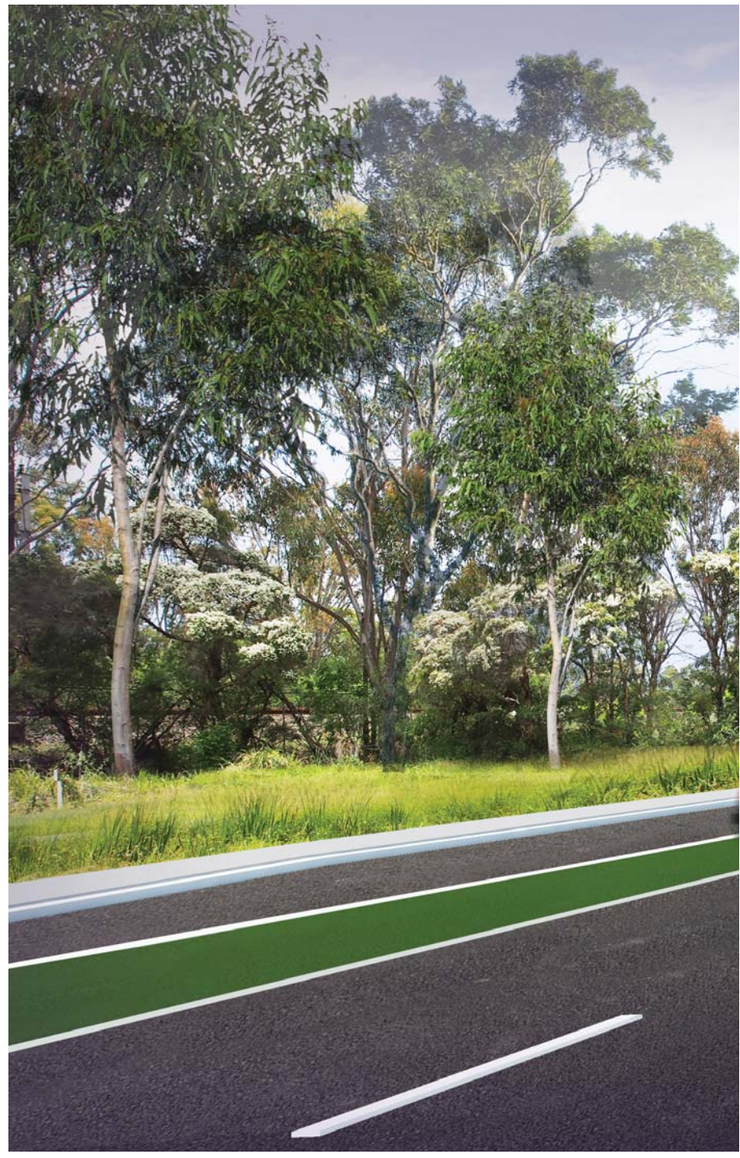


Fig. 5.54: View looking south showing the railway line to the east and Apex Park to the west

New planting to screen views to the railway

Median planting to reduce the scale of the road and enhance the streetscape heralding entry into the town centre from the southbound lanes

New planting to the edge of Apex Park

ARTIST IMPRESSION OF PROPOSAL. DESIGN IS AT CONCEPT STAGE AND IS INDICATIVE ONLY

5.7 APEX PARK

Apex Park would be affected by the highway widening with approximately 20 metres, or nearly half the width of the existing park, being lost to a combination of the new highway and a new drainage channel required along the highway edge. Existing mature trees within this area would require removal.

A new central access drive is currently proposed that would link to the existing park road along the western side. A new pedestrian pathway would also be built along the highway edge. The existing amenities building would remain and be screened from the highway.

Design Principles

- Establish new native tree planting along the disturbed edge to provide a visual boundary to the park and replace some of the lost trees where suitable.
- Consider the rehabilitation of the existing internal park road with new planting. If new access is required (which would depend on Council requirements), it should be sited in a way that minimises tree loss.
- Design the new drainage channel to have a natural appearance, with native trees and macrophyte plants, suitable for the drainage conditions, used to re-establish an attractive edge to the park and filter views to properties further to the west.

Fig. 5.55: Impacted mature trees at Apex Park

5.8 EXISTING RIVERSIDE PARK AND RIVER EMBANKMENT TREATMENTS

Riverside Park is a linear park that traces the northern Wyong River edge to the west of the existing highway, with facilities such as picnic tables and pathways. There would be a relatively minor direct impact on this park due to the need to remove a small number of trees, and the loss of trees in the area between the new highway and Panonia Road. A new shared pathway is proposed along the river edge, which would be integrated with the existing facilities of Riverside Park.

There are also areas on both sides of the riverbank that would be disturbed, including around the existing and proposed bridge abutments and along the local roads beside them. These areas would be rehabilitated with native grasses and groundcovers to stabilise the ground surface and return the area to as natural a state as possible. There are also likely be some select locations along the riverbank for new native trees to provide additional amenity and habitat values, as well as new trees to reinstate those lost between the highway and Panonia Road. The final treatment of the river embankment and other park areas would be undertaken in consultation with Ecologists and subject to consultation with Wyong Shire Council.

Design Principles

- Maintain the existing public facilities along the riverfront and integrate with the proposed landscape.
- Maintain and improve the view corridors along the Pacific Highway to the riverfront.
- Improve pedestrian access from Pacific Highway to the riverfront.

Fig. 5.56: Existing Riverside Park facilities are to be retained

Fig. 5.57: Impacted mature trees along the Wyong River

Fig. 5.58: Potential to incorporate fishing / viewing platforms along the shared path where the path encroaches on the riverbank

5.9 NEW RIVERSIDE PICNIC AREA

A new riverside park area on the southern side is proposed in the land acquired by Roads and Maritime as part of the highway upgrade. The new park would draw inspiration from the river side location and be designed to be sympathetic to the surrounding natural environment providing accessible parkland and facilities for the local community and visitors.

Design Principles

- Create a new park area designed to fit sensitively with the riverside setting, through the use of native plants and natural materials.
- Provide amenity for park users with pathways, seating, picnic tables and views to the river.
- Provide convenient access to the park including footpaths from employment areas and parking.
- Consider the reuse or relocation of the existing, weatherboard cottage in the park or elsewhere in the shire as a café, community facility or other suitable adaptive reuse opportunity, subject to it being reasonable and feasible to achieve.

Fig. 5.60: New riverside park and picnic area

Fig. 5.59: View looking east towards the new bridge over Wyong River from South Tacoma Road

Fig. 5.61: Potential amenities for families to enjoy the river front

Fig. 5.62: Potential riverside park uses

Fig. 5.63: Potential riverside park amenities

5.10 PLANTING SCHEDULE

Indicative Plant Schedule			Town centre	Other streets	Medians over 1.5m wide	Town approaches	Park & drainage areas	Native screen planting	Narrow native screen planting	Embankment planting
Indicative plants										
Botanical name	Common name	Approx hgt x width								
Acmena smithii	Lilly Pilly	10m x 6m					■			
Callistemon 'Endeavour'	Endeavour Bottlebrush	3m x 1.5m						■		
Callistemon viminalis 'Slim'	Slim Bottlebrush	3m x 1.3m							■	
Carpobrotus spp	Pigface	0.3m x 0.5m	■	■	■					
Carex appressa	Carex	0.5m x 0.5m					■			
Casuarina glauca	Swamp Oak	8m x 3m					■	■		
Convolvulus cneorum	Silverbush	0.6m x 0.5m	■		■					
Corymbia maculata	Spotted Gum	20m x 8m				■	■			
Cupaniopsis anacardioides	Tuckeroo	8m x 5m		■		■	■			
Dianella caerulea	Blue flax-lily	0.7m x 0.3m	■		■	■				■
Doryanthes excelsa	Gymea Lilly	1.5m x 1.5m				■				
Elaeocarpus eumundi	Eumundi Quandong	10m x 4m				*				
Eucalyptus saligna	Sydney Blue Gum	25m x 8m					■			
Eucalyptus pilularis	Blackbutt	25m x 8m					■			
Eucalyptus tereticornis	Forest red Gum	20m x 8m				■	■			
Gazania species	Gazania	0.3m x 0.3m	■	■	■					
Grevillea 'Royal Mantle'	'Royal Mantle' Grevillea	0.3m x 1m				■				■
Hardenbergia violacea	Lilac Vine	0.3m x 1m				■				■
Kunzea ambigua	White Kunzea	1m x 1m								■
Lomandra 'Tanika'	Tanika Mat Rush	0.7m x 0.7m	■	■	■	■	■			■
Lomandra longifolia	Tanika Mat Rush	1m x 1m	■	■		■	■	■		■
Magnolia grandiflora 'Little Gem'	Little Gem Magnolia	6m x 3m	*							
Melaleuca styphelioides	Prickly-leaved Paper Bark	10m x 6m					■			
Murraya paniculata	Orange Jessamine	4m x 2m	■							
Phoenix canariensis	Canary Island Date Palm	Transplanted mature trees	*							
Platanus x acerifolia	London Plane Tree	18m x 8m	■							
Pyrus calleryana	Ornamental Pear	7m x 4m	■	■						
Syzygium 'Cascade'	Cascade Lilly Pilly	2.5m x 1.5m					■	■		
Trachelospermum jasminoides	Star Jasmine	0.3m x 1m	■							
Tristaniopsis laurina 'Luscious'	Water Gum	6m x 3m		■		■	■	■		

Note: * Where species proposed in medians crash-barriers would be required

Table 5.1: Planting schedule

Callistemon viminalis 'Slim' (Bottlebrush)

Casuarina glauca (Swamp She-oak)

Cupaniopsis anacardioides (Tuckeroo)

Gazania species (Gazania)

Fig. 5.64: Proposed plant images

Corymbia maculata (Spotted Gum)

Elaeocarpus eumundi (Eumundi Quandong)

Magnolia grandiflora 'Little Gem' (Little Gem Magnolia)

Phoenix canariensis Canary Island (Date Palm)

Lomandra 'Tanika' (Tanika Lomandra)

Dianella caerulea (Blue Flax-lilly)

Platanus x acerifolia (Plane Tree)

Pyrus calleryana (Ornamental Pear) in autumn

Tristaniopsis laurina (Water Gum)

Grevillea 'Royal Mantle'

Hardenbergia violacea (Lilac Vine)

5.11 BRIDGE DESIGN

STATION ENTRANCE LINK STRUCTURE

This structure is described above in Section 5.2.2. The new railway station entrance link structure should be architecturally designed to be a landmark within the town centre area and provide legibility to the new railway entrance. The design should relate to the covered walkway in terms of language and style.

Design Principles

- Provide a station entrance with a minimum width of 6m (clear of structure and handrails) for efficient pedestrian flow.
- Aim to achieve a connection between the exiting footbridge and new station forecourt via a link structure that meets the station forecourt at the same grade (explore opportunities to avoid level differences).
- Connect the new structure seamlessly with the existing pedestrian bridge to allow for improved pedestrian flow and avoid conflicts with existing lifts and stairs.
- Design the roof of the structure to be higher than the walkway to architecturally signify the station entrance and contribute to enhanced legibility and identity.
- Design the structure to allow daylight penetration during the day and be well lit during the night with consideration to safety and comfort.

ROSE STREET OVERBRIDGE

The Rose Street Bridge is being reconstructed to maintain access between the eastern and the western sides of the railway line. The new bridge would have new railings and safety screens to meet current safety requirements.

The 3.5 m high safety screens of the bridge have the potential to carry motifs to add visual relief and connect with the covered walkway theme.

Design Principles

- Incorporate wide footpaths (3m) in the new bridge design that link with the surrounding new footpaths.
- Provide an integrated finish to the abutment walls as a continuation of the long retaining wall facing the railway station.
- Consider the potential to incorporate artwork on the safety screen as a continuation of the new walkway at this visually prominent location.

BRIDGES OVER THE WYONG RIVER

The new twin bridges over Wyong River would be constructed to the west of the existing rail bridge over Wyong River. The bridge barriers should be double rail metal barriers (and not full height concrete barriers) to ensure that through-views are maintained from the carriageways to the surrounding river and distant views of the Wyong hinterland.

The bridge abutments are likely to be subject to a high level of graffiti and therefore the design of the abutments should include measures to discourage graffiti (and not simply focus on the removal of graffiti). Such measures include the provision of a ribbed and textured finish to the abutment wall panels; and the provision of landscape screening along the abutment return walls to inhibit access to the wall. However, the plant selection and landscape design needs to ensure that bridge maintenance access is provided.

Design Principles

The design of the bridge should be well considered and detailed due to its high visibility from the two roadways below and the riverside parkland. It is particularly important that the detailing of the superstructure and its elements are refined and elegant due to the low level of the bridge in relation to Wyong River.

- Consider the incorporation of a town entry gateway design statement in the design of the bridge.
- Design the bridge with a minimum structural depth consistent with their spans and method of construction.
- Enhance the views to Wyong River with the design of the bridge elements. Double rail metal barriers should be used to allow views to the river and beyond for the motorists.
- Integrate the piers and headstocks in the bridge design. Stepping of headstocks beyond the width of the pier should be avoided.
- Allow for the maintenance of riparian corridors including the movement of terrestrial fauna.
- Finish the bridge abutments with precast concrete panels with a ribbed finish to discourage graffiti. In addition, screen planting should be included wherever possible along the abutment return walls on either side to ensure that access to the walls is discouraged.
- Consider the transition of barriers at either end of the bridge, with a transition panel that enables a refined connection between the bridge barrier and road barrier on the approach roads.
- Integrate, early in the design, the drainage pipes, services, lighting and future provisions for services with the structure.
- Blend the landform associated with the bridge approaches with the surrounding landscape through the easing of batter slopes and adopt a grading solution which considers slope geometry as part of the bridge design.

Fig. 5.65: Rose Street bridge

Fig. 5.67: View of road bridge over Panonia Road

Fig. 5.68: Proposed treatment for bridge abutments - a ribbed profile to discourage graffiti

Fig. 5.66: Example of artwork incorporated to bridge safety screen - to be considered for Rose Street Bridge

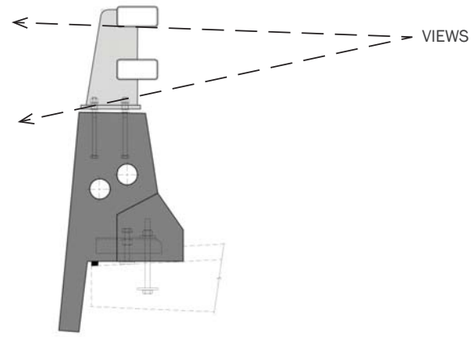


Fig. 5.69: Double rail barrier detail allowing for through views

5.12 EMBANKMENT TREATMENTS

All new embankments would be stabilised by either grasses or low plants. Embankments close to the town centre and public parkland would be planted with native shrubs and groundcovers that would create an attractive garden appearance appropriate to these public areas.

Design Principles

- Flatten cut and fills, where there are no restrictions on the footprint, to create embankments that allow stabilisation and establishment of planting and ease of maintenance.
- Round the top and bottom edges of batters, where possible, to integrate new earthworks into surrounding land and avoid visible transitions between new and existing landforms.
- Plant native trees, shrubs and groundcovers to rehabilitate disturbed areas where new embankments are adjacent to bushland areas such as near Wyong River. Ecologists should be consulted in the design.
- Select vegetation on embankments to maintain desirable views.
- Do not use shotcrete as a final finish on any cuttings or large fills. If shotcrete is required to be used, those areas should be faced with concrete facia panels with an appropriate finish.

5.13 RETAINING WALLS

There are a number of retaining walls to be constructed as part of the proposal. Whilst the majority are minor walls, the prominent retaining wall of the proposal is along the railway line boundary from approximately chainage 550 to 1350. This wall is around 4.5 metres high at the new railway station entry area.

Whilst it is facing away from the highway and the highway commercial precinct, the wall would be visible from the existing station platforms. Although the land area reserved for the future railway tracks would be fenced, the wall is considered to have a high potential to be vandalised with graffiti. It is proposed that the finish of this wall is precast concrete panels (whether built as a Reinforced Soil Wall or as a piled structure with facia concrete panels) with a ribbed profile to discourage graffiti. A dark colour additive is also proposed to reduce the visual scale of the wall and reflected glare from the western sun.

It is to be noted that the 'walkway' element described in Chapter 5.1 would act as the fence above the retaining wall, physically and visually shielding pedestrians from the railway below, whilst at the same time acting as a safety screen for the railway.

Design Principles

- Design retaining walls to minimise opportunities for graffiti, as well as minimising the perceived height through appropriate design, material selection and planting (refer Noise Wall Design Guideline, RTA 2007).
- Consider the materials and finish to each retaining wall based on their visibility, vulnerability to vandalism and graffiti, height and context.
- Provide a textured (ribbed) and coloured finish to the retaining wall at the railway station to discourage graffiti, reduce the visual scale, and avoid the reflection of glare from the western sun.
- Provide a minimum 2.0m wide planting area at the base of the railway station retaining wall to soften the appearance.

Fig. 5.70: A dark finish to the retaining wall facing the railway to reduce scale visually and avoid glare - example shown

Fig. 5.72: A ribbed profile to precast concrete panel to discourage graffiti and coloured concrete to avoid reflected glare

Fig. 5.73: Planting at the base of retaining walls to improve amenity and discourage graffiti

Fig. 5.71: Use of sandstone for smaller retaining walls where appropriate- particularly adjacent to the riverbank

5.14 HIGHWAY ROAD FURNITURE AND OTHER ELEMENTS

DRAINAGE

The main drainage structures that would be visible would be the water quality basin detention basin north-west of the roundabout at McPherson Road and the drainage channel along the edge of Apex Park. Native tree planting and embankment planting is proposed around the detention basin for stabilisation and visual amenity, with macophytes within the wetter zone for infiltration and other environmental benefits.

Native tree planting is also proposed along the new channel in Apex Park to stabilise it and improve the final look. It is recommended that the channel be designed as a natural-like swale with a base of macrophytes to maximise infiltration and create the opportunity for habitat. Culvert structures that are visible to park users should be treated with design measures such as rocks attached to the surface and/or larger boulders placed to conceal the concrete.

Design Principles

- Avoid open concrete drains at all locations possible, with swales and naturalised drains preferred. If concrete drains are required, they should be coloured with an oxide additive.
- Design drainage culvert openings to ensure they are visually recessive (coloured dark if concrete) and use natural materials such as stone where possible.

Fig. 5.74: Naturalised treatment to culvert headwalls

Fig. 5.75: Tree grates and other street furniture elements to be used within the highway commercial precinct should complement the overall design vision

Fig. 5.76: The design of tree grates could vary within the highway commercial precinct

Fig. 5.77: Naturalised drainage swales

Fig. 5.78: Coloured concrete drains

MEDIAN TREATMENTS

Fencing in the medians within the highway commercial precinct should be avoided by the use of Elsholz kerb where practical to address safety concerns with regard to roadside and median tree planting. Such kerbs are suitable for low speed environments as would occur in the commercial centre. Where trees are proposed in the town approach areas to the north and south, then wire rope could be used similar to that in place along Tuggerah Straight. Plants suitable for medians are indicated in the Indicative Plant Schedule, with final plant selection and placement to be in accordance relevant Roads and Maritime Services guidelines and requirements.

The extent of concrete barriers should be rationalised in the detailed design.

Design Principles

- Minimise the use of concrete barriers within the highway commercial precinct.
- Select low maintenance planting for the median landscape treatments.
- Consider the use of other materials in place of concrete, feature paving or coloured concrete for the median treatments within the highway commercial precinct.

Fig. 5.79: Use of artwork as barriers to stop pedestrians

STREET LIGHTING

The concept design proposes street lighting in the median. This is considered the most appropriate means of achieving adequate lighting due to the heavily constrained road corridor. Council has existing 'heritage' type pedestrian lighting that is used within the Wyong town centre (See Figure 5.81). This lighting would be maintained or similar lighting provided within the highway commercial precinct. LED lighting would be considered wherever possible due to their clear white light and the low consumption of energy. Lighting should take account of proposed landscape and be selected so as not to restrict the proposed placement of trees and other planting, including in response to safe and sufficient lighting for traffic and pedestrians.

Design Principles

- Ensure the design of lighting and the placement of light posts avoid impacts to adjacent properties through light spill, glare and reflection.
- Ensure Council is consulted on the design and placement of lighting.
- Maximise the use of energy efficient lighting such as LED lighting, wherever possible in pedestrian areas to provide clear white light and conserve energy.

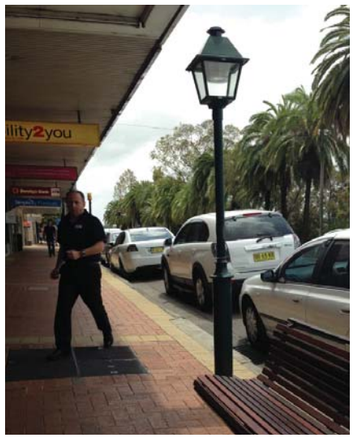


Fig. 5.81: Existing pedestrian lighting in the town centre


Fig. 5.80: Discrete light fittings to be incorporated to structures where possible and appropriate to enhance safety and night time visual amenity

FENCING AND HANDRAILS

The provision of fencing and handrails within the highway commercial precinct should be minimised in the detailed design. Alternative means of providing barricades and the incorporation of handrails in to structures should be considered. These include median planting.

Design Principles

- Use wire rope barriers where crash barriers are required (in highway commercial centre), in conjunction with suitable planting if possible.
- Ensure required fencing is painted charcoal grey (mesh and posts) to recede visibility. In addition, use planting to screen fences where possible.
- The placement of fencing should consider means of minimising visual impacts while allowing access for maintenance.
- Ensure required handrails are simple in design and dark in colour as appropriate.

SIGNAGE

The location of road and destination signage should be considered in relation to the planting design in the development of the detailed design of the proposal. In addition, it is suggested that Council consider wayfinding signage to be provided within the highway commercial precinct for the railway and bus stations.

Design Principles

- Minimise road signage and consider impacts on views and sightlines in their placement.
- Ensure the design and placement of way finding signage in and around the railway station and the Rose Street commuter car park.
- Provide key town entry and tourism signage from the northern and southern approaches.

6. LANDSCAPE CHARACTER AND VISUAL IMPACT ASSESSMENT

6.1 INTRODUCTION

This section of the report provides an assessment of the potential impact of the proposal on the existing landscape character and visual environment of the surrounding area.

The need and requirements for the impact assessment is established by the *Environmental Impact Assessment Practice Note: Guidelines for Landscape Character and Visual Impact Assessment* ("EIA No. 4 Guidelines", March 2013, Roads and Maritime Services), which sets out two main purposes of the landscape character and visual impact assessment:

1) *"To inform the development of the preferred route and concept design so that the proposal can avoid and minimise impacts up front."*

2) *"To inform Roads and Maritime Services, other agencies and the community about the landscape character and visual impact of the proposal and what avoidance, management and mitigation strategies would be implemented."*

The EIA No.4 Guidelines describe landscape character assessment and visual impact assessment as follows:

"Landscape character and visual assessment are equally important. Landscape character assessment helps determine the overall impact of a project on an area's character and sense of place. Visual impact assessment helps define the day to day visual effects of a project on people's views.

This dual assessment helps differentiate options, improve route alignment decisions and improve design outcomes.

Landscape character assessment sums up an area's sense of place including all built, natural and cultural aspects, covering towns, countryside and all shades between. Visual assessment addresses people's views of an area from their homes or other places of value in the community."

6.2 METHODOLOGY

The methodology used for the two assessments is described below.

6.2.1 LANDSCAPE CHARACTER ASSESSMENT

The assessment of the landscape character involves a number of tasks. This analysis is undertaken to obtain an understanding of the character of the context and the sensitivity of the area's landscape character.

Landscape character is defined by Roads and Maritime Services as:

"The combined quality of built, natural and cultural aspects that make up an area and provide its unique sense of place."

According to the Roads and Maritime Services guideline the landscape character assessment should have the following three components (EIA No.4 Guidelines, 2013, Roads and Maritime Services):

- Landscape character zones – divide study area into zones categorised by spatial or character properties, described as "an area of landscape with similar properties or strongly defined spatial qualities, distinct from areas immediately adjacent."
- Sensitivity of the areas landscape character - a discussion of sensitivity of the areas landscape character, i.e. the inherent capability of the area to absorb change caused by the proposal, and the rationale for the rating of sensitivity given.
- Landscape character impact - the impact of the proposal on each character zone should be assessed. Impacts should be based on both the sensitivity of the character zone and magnitude of the proposal in that zone.

6.2.2 VISUAL IMPACT ASSESSMENT

The Visual Impact Assessment of the proposal involves three main components:

- Visibility of the proposal – identification of the extent of the area that the proposal would be visible from should be generally defined.
- Identification of key viewpoints - a schedule of representative viewpoints within reasonable distance of the proposal and within the visual catchment should be developed. The viewpoints should be rated as to their sensitivity to change by the proposal.
- Assessment of visual impact - The impact of the proposal on each viewpoint or group of viewpoints should be assessed. Impacts should be based on a composite of the sensitivity of the view and magnitude of the proposal in that view.

6.2.3 DETERMINATION OF LANDSCAPE CHARACTER AND VISUAL IMPACTS

The determination of the impacts is based on two criteria – the sensitivity and the magnitude, defined by Roads and Maritime Services (EIA No4 Guidelines, 2013) as:

- Sensitivity - *"The sensitivity of a landscape character zone or view and its capacity to absorb change. In the case of visual impact this also relates to the type of viewer and number of viewers".*
- Magnitude - *"The measurement of the scale, form and character of a development proposal when compared to the existing condition. In the case of visual assessment this also relates to how far the proposal is from the viewer".*

The combined assessment of the sensitivity and magnitude provides the rating for the visual impact as per the table below :

SENSITIVITY \ MAGNITUDE	High	Moderate	Low	Negligible
High	High	High - Moderate	Moderate	Negligible
Moderate	High - Moderate	Moderate	Moderate - Low	Negligible
Low	Moderate	Moderate -Low	Low	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

Table 6.1: Landscape character and visual impact grading matrix (Source: EIA No. 4 Guidelines, 2013)

6.3 LANDSCAPE CHARACTER ASSESSMENT

The proposal context is divided in to the following Character Zones (Fig. 6.1):

- Character Zone 1: Southern Approach
- Character Zone 2: Riverside
- Character Zone 3: Highway Commercial
- Character Zone 4: Eastern Railway and Commuter Carpark
- Character Zone 5: Northern Approach.

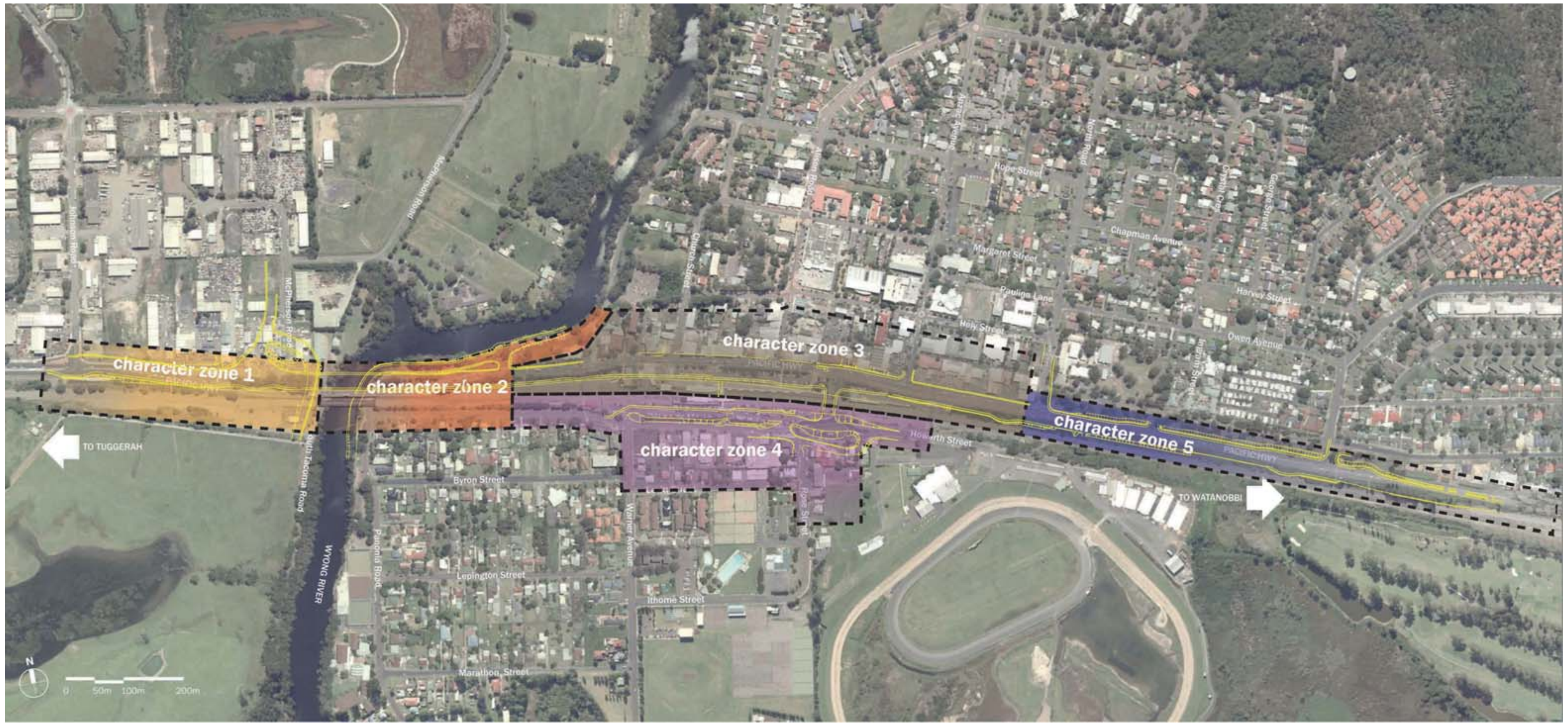


Fig. 6.1: Character Zones

Key

- Proposed alignment
- Character Zone boundaries
- Character Zone 1: Southern Approach
- Character zone 2: Riverside
- Character Zone 3: Highway Commercial
- Character Zone 4: Eastern Railway and Commuter Carpark
- Character Zone 5: Northern Approach

6.3.1 CHARACTER ZONE 1: SOUTHERN APPROACH

The landscape character of the southern approach has changed substantially in the last few years due to the amplification of the Pacific Highway along Tuggerah Straight immediately to the south. This section of the highway is currently four lanes wide and extends from the roundabout at Wyong Road, north towards Johnson Road. The landform is generally flat in all directions, with long distance views terminated by the forested hillsides (contained mostly within a number of state forests) from the south-west around to the north-west.

The character is defined by the wide roadway that is bounded to the east by the railway and to the west by an active strip of commercial and light industrial businesses such as car yards, furniture showrooms, trade centres and fast food outlets. The new planting that was implemented as part of the upgrade is still to mature, yet many of the trees are beginning to reach a moderate height.

Where this new section of highway meets the southern edge of the proposal site there is an obvious narrowing of the road and an increase in larger trees closer to the river crossing. In particular, there is a prominent group of tall, very large Eucalypts and other trees on the western side of the highway just south of the river.

Sensitivity: This zone is largely characterised by the strip commercial development along the western edge of the highway, with that land use, the flat landform, flanking railway corridor and relatively low vegetation cover contributing to a commercial/industrial character of low scenic quality. The sensitivity of the existing landscape character can be described as moderate reflecting the already substantially disturbed nature of this zone, yet its high visibility as a transport corridor.

MAGNITUDE OF CHANGE:

The main changes to this character zone would be:

- Extension of a dual-carriageway highway, similar to that just to the south along the Tuggerah Straight, joining that section near Johnson Road and extending north across the Wyong River.
- Construction of a large, two-lane roundabout at McPherson Road that would require the acquisition of parts of a number of commercial business properties, including a car sales business on the southern side and demolition of two large buildings on the northern side.
- The removal of the existing cluster of mostly large Eucalypts on the southern side of the river and a small wetland just north of these trees.
- Re-alignment of South Tacoma Road further to the west and some widening of this road to the west and under the road and rail bridges, creating a cutting up to 2m deep on the western part of this road (note that the part of South Tacoma Road within approximately 100m of Wyong River is within Character Zone 2).
- Construction of a new shared path along the eastern side to connect with the existing shared path to the south.
- Construction of a footpath along the western side of the highway.
- Establishment of a sedimentation pond on the north-western side of the roundabout, surrounded by some wetland planting and new native trees.
- New landscape treatment similar to that along Tuggerah Straight to the south , including new native trees in the central median where it widens north of Johnson Road, and new street trees along each side where possible.
- Low level landscape planting within the roundabout and in verge areas.

The character of the new highway would blend with the existing recently constructed section along Tuggerah Straight, being similar in design. The increase in highway width, and the necessary removal of the dominant cluster of large native trees near the river and the buildings near the roundabout, would mean that the widened road would feel starker than the existing environment. The planned small trees in the central median would spatially break-up the overall width to some degree as increasingly soften what would otherwise be a hard environment as they mature.

The magnitude of change to this section in the short term would be moderate.

Over time a number of changes would occur - the proposed vegetation would begin to mature, the removed buildings north of the roundabout are likely to be replaced and viewers would become more familiar with the look of the new highway. Together these aspects mean that the magnitude of change in the medium term would be low.

ASSESSMENT OF IMPACT:

Based on the relationship between the sensitivity of this character zone (moderate), and the magnitude of change described above, the overall probable landscape character impact level is assessed as being moderate - low.

Fig. 6.2: View of Johnson Road intersection with Pacific Highway looking south

6.3.2 CHARACTER ZONE 2: RIVERSIDE

There is a distinct change in landscape character between Character Zone 2, which is centred around Wyong River, and the more industrialised zone to the south (Character Zone 1), and the urban town centre core zone to the north (Character Zone 3). This zone is dominated by the riparian corridor vegetation and views to the Wyong River, albeit in an urbanised context. Vegetation is prevalent, with native trees such as Casuarinas and Eucalypts lining the riverside on each side near the existing road bridge. A linear parkland traces the river's edge on the northern side to the west of the existing highway, forming what is known as the Riverside Park, and offering facilities such as picnic tables and pathways.

On the eastern boundary is the railway corridor that includes a parallel railway bridge over Wyong River, with that bridge preventing views of the river landscape to the east. The railway bridge, and the existing road bridge, together have an infrastructure character that dominates this area of the river. To the north there is a narrow strip of land that separates the highway carriageway and railway corridor to the east, with patches of dense vegetation such as Casuarinas creating a green boundary to the railway.

On the southern side of the river is the riverbank and the narrow South Tacoma Road which provides access to communities to the east. Views of the river are prevented by existing vegetation on the western side of the existing bridges, with intermittent views through trees possible on the eastern side. There is an older style weatherboard cottage on the western side closest to the river that sits in an attractive setting.

Fig. 6.3: Existing large trees to be removed (on left)

Sensitivity: The landscape character of this zone is semi-natural, with the area north of the Wyong River and Riverside Park forming a pleasant natural corridor to the west, and the railway corridor partially screened by native vegetation to the east. On the southern bank, closest to the river, is more a mix of disturbed land and patches of vegetation. The overall dominance of the natural environmental character, albeit within a wider urban setting, and the visibility from the highway and railway corridor, means that the sensitivity can be described as high.

MAGNITUDE OF CHANGE:

The main changes within this unit would be:

- Extension of a dual-carriageway highway across the Wyong River on two new road bridges, with the western side of the bridges approximately 30m further west than the edge of the existing road bridge (which would be removed) and approximately 2m higher.
- Construction of a roundabout at Panonia Road to provide access along the river.
- The retention of the main picnic area section of Riverside Park, with some trees removed along the park section to the north, and loss of the existing trees along the immediate western side of the existing highway.
- Loss of existing screening vegetation along the eastern side, between the railway and new highway.
- Construction of a new shared path along the eastern side of the highway and road bridge.
- Widening of Panonia Road under the bridge and the provision of a shared path.
- Lowering of South Tacoma Road under the new bridges with a new footpath proposed along the river side.
- A new shared pathway is also proposed along the river edge within Riverside Park, yet the final design of such a pathway, and other proposed changes to the park, would be subject to consultation with Wyong Shire Council.
- Tall native shrub planting alongside the railway to screen it when approaching the town centre.
- Some native tree planting between the western edge of the highway and Panonia Road.
- Native tree planting within Riverside Park near roundabout.
- Other native planting and potential pathways within the remaining area of Riverside Park.
- Rehabilitation of the river foreshore on both the northern and southern banks.
- The magnitude of change to this section would be moderate, largely due to the loss of some existing vegetation near the river, the closer proximity of the highway to Riverside Park and widening of the highway footprint. The proposed vegetation would eventually soften the change to the landscape character, in particular, the native shrub screen along the railway and native trees along the western side and nearby riverbank.

ASSESSMENT OF IMPACT:

Based on the relationship between the sensitivity of this landscape character zone (high), and the magnitude of change described above, the overall probable impact level is assessed as being high - moderate.

Fig. 6.4: View of Panonia Road intersection with Pacific Highway looking south

Fig. 6.5: Existing road bridge over Wyong River looking south

Fig. 6.6: Riverside Park alongside Wyong River

6.3.3 CHARACTER ZONE 3: HIGHWAY COMMERCIAL PRECINCT

This precinct is defined for the purposes of this proposal as the main commercial centre and bounding residential areas, extending from just north of Wyong River, east to the Pacific Highway, west to Margaret Street and north to North Road.

This zone incorporates the main shopping and business centre which lies mostly on the western side of the highway. Along the immediate highway edge is a shopping strip of small retail shops and businesses such as cafes, chemists, banks, real estate agencies and hotels. The buildings along this edge are mostly two storeys, with a feature provided by the terracotta - tiled turret that rises above the building at the corner of Church Street. Along the far western side, just north of Anzac Avenue, are a variety of larger scale businesses such as car yards, service stations and tyre retailers, interspersed with a short section of some smaller shops and vacant land (soon to be the site of an Aldi supermarket).

The dominant building height of the town centre is two – three storeys, with few taller buildings and the Wyong Shire Council administration centre in Hely Street being the tallest at six storeys. The landform strongly influences the character of the town centre, with the Wyong Town Park situated on a local highpoint along Alison Road. From the park the landform falls away in all directions, with the town centre sloping downwards towards the Pacific Highway and the railway.

There are few trees along the highway through this zone, with some Bull Bay Magnolia 'Little Gem' trees recently planted by Council yet to mature. The most dominant vegetation are the tall Date Palms that form a strong landscape feature along the western highway edge, visually distinguishing the shopping area from the railway station. Coordinated paving and some street furniture have been installed throughout the town centre, however, overall the retail area displays a character with signs of economic downturn and a lack of activity outside peak commute times.

There is also a small cluster of retail and heritage buildings on the eastern side of the highway just south of the station, which includes the Warners shops and the historic Station Master's Cottage. The Warners shops are a group of single storey brick buildings which wrap around the southern side of the station car park. Further south, facing the highway, is the brick Station Master's Cottage with its corrugated iron roof.

Wyong Railway Station has a character similar to that of many town stations, with the main buildings identified as having both State and Local heritage importance and consisting of older single storey dark - brick station buildings with pitched grey colourbond roofs. A high pedestrian bridge connects both sides of the railway. Other elements include the various car parks that fill the majority of the space between the highway and railway, and the bus interchange which is comprised of a dedicated bus travel/parking lane to the north of the main station building.

The station, and in particular the pedestrian bridge, dominate this central part of Wyong, with the bridge height, overall bareness and quite cluttered built elements combining to emphasise the station and present a landscape character that is dominated by structures, car parks, roads and the railway line.

Sensitivity: The sensitivity of this zone is related to the important social and business role of this regional town centre. It is an urban environment that is exposed to views by a high number of users of the town centre and those that travel through it. Its urban character and built environment means that it has the capacity to absorb additional urban change to a degree, yet any such change would be viewed by a high number of people. The sensitivity is described as high in the context of the proposal.

MAGNITUDE OF CHANGE:

The new highway would effectively replace most of the existing roadway, railway parking areas and pedestrian areas including the footpath on the western side and Wyong Railway Station. A new dual-carriageway highway would be constructed, with further widening to provide angled parking and an associated side lane along the western side, as well as dedicated turning lanes into Church Street (both from the northbound and southbound directions) and a northbound right turning lane over the Rose Street bridge and railway.

The present fall in level that occurs down to the station would be removed, with the new landform leading to a similar ground level between the western shops and railway. This landform change is necessary to allow for a future railway line along the western side of the existing station buildings, with an approximately 4.5m high retaining wall closest to the station, required to create a physical barrier to the outer railway line and create an at-grade pedestrian connection to the station.

The other main changes would be:

- Removal of most of the existing trees and other vegetation within this town centre core, with the existing Date Palms proposed for re-location.
- Removal of the existing Warners shops and Station Master's Cottage on the eastern side of the highway.
- Raising of the ground-level so that the present fall in landform towards the station is removed, with the station buildings remaining at a lower level.
- Substantial widening of the footpath (to approximately 9m) south of Church Street on the western side, necessary to meet the challenges of connecting to a higher Rose Street Bridge that can also provide for angled parking immediately north of Church Street.
- Replacement of the existing two-lane Rose Street bridge with a new four-lane bridge.
- Widening of the footpath/nature strip area on the western side north of Alison Road.

Fig. 6.7: Existing Memorial Garden

Fig. 6.8: Existing car park on western side of railway

Fig. 6.9: Existing trees and streetscape treatment in the highway commercial precinct

- Light poles located within the central median between Church and Rose Streets
- Provision for bus stops and peak hour kiss and ride parking on the highway
- Overhead power lines would be relocated underground through the town centre.
- Re-location of some of the existing Palms into the central median and other areas such as the station forecourt to spatially break-up the perceived width of the highway
- Large street tree planting focussed around Rose Street and other street tree planting along the western side north of Church Street
- Small tree and shrub planting in the central median
- Street tree planting between Rose Street and Anzac Avenue, and landscape screening of the railway
- Re-location of the small memorial garden, possibly on the town side just south of the Rose Street bridge, in consultation with Council
- Construction of a covered walkway including bus shelter area associated with the station and bridge entry
- Connection to the existing pedestrian bridge over the railway with a new station entry on the western side of the station at ground-level, and at a level similar to that of the western commercial side of the highway.

The re-located existing Date Palms would form an important landscape marker through the central town centre, including near the station and informal crossing, immediately replacing some of the lost landscape and assisting the highway to integrate.

The existing area of hard surface through the town centre is similar to that which would occur with the new highway, however, this area is currently spatially broken-up by the existing Palms and other vegetation. The new highway would have both the relocated mature Palms and other strategically placed trees to create a new landscape that would also break-up the width of the hard surface of the highway.

The increase in the ground-levels on the railway and station side would open up some views from the town centre over the railway and to the eastern side, substantially altering the character. At this stage it is proposed that a covered walkway element is provided to create a built edge with clear panels at key locations to allow for through views.

The new highway would also widen the existing carriageway to the north of Rose Street and south of Church Street, with new street trees and trees in central median providing amenity as the trees mature.

These changes to the character mean that the magnitude of change in would be moderate.

ASSESSMENT OF IMPACT:

Based on the relationship between the sensitivity of this character zone (high), and the magnitude of change described above, the overall probable landscape character impact level is assessed as being high - moderate.

Fig. 6.10: Main shopping strip with existing Palms on eastern edge

Fig. 6.11: Warner's shops

Fig. 6.12: Town centre travelling from south (turret at corner of Church Street a visual marker)

Fig. 6.13: Wyong Railway Station

6.3.4 CHARACTER ZONE 4: EASTERN RAILWAY PRECINCT

The eastern railway precinct comprises the eastern side of the railway line, including the disabled car parking area, Rose Street bridge, the public car park in Rose Street and the affected area of Howarth Street. The landscape character of this zone is dominated by the linear rail infrastructure along the corridor, and the mostly older style commercial buildings that line the opposite side of Howarth Street and some surrounding residential.

In close proximity to this Zone and seen from it is what is commonly termed the 'recreational precinct' that includes the Wyong Racecourse/Showground, netball courts and the Olympic pool to the east.

Sensitivity: The sensitivity of this zone is generally less than those on the western side, as the level of use is far less and it is not easily visible from the highway, nor to those on trains, although some station users do see and use this area. It is a highly urban environment and one that is currently of a rather poor and bare appearance, with many of the larger commercial buildings along the east side of Howarth Street having an aged appearance. There is relatively low development and general a poor character of the built environment.

The sensitivity is described as low in the context of the proposal.

The main changes within this zone would be:

- A new four-lane Rose Street bridge, approximately higher than the existing bridge, resulting in high fill embankments sloping down to the railway on the Howarth Street side.
- A new 'loop' roundabout on the eastern side of the bridge and associated demolition of some commercial and residential buildings.
- Re-design of the existing Rose Street commuter car park to effectively a one to two storey building.
- Re-configuration of the existing station car park along the eastern side to provide a bus waiting area, taxi stand, disabled parking, other parking and a defined pedestrian entry to the station.
- Construction of a new small roundabout at the intersection of Howarth Street and Warner Avenue.
- There is an opportunity for trees to be established in the 'loop' roundabout and near the road edge of the eastern bridge embankment.
- Street tree planting along the western side of Howarth Street and tree planting around the car park and station entry.
- New pathways to the station from Howarth Street and the re-developed Rose Street car park.

The installation of the new wider and substantially higher Rose Street bridge and the 'loop' on the eastern side, as well as the removal of some commercial and residential buildings, would lead to a noticeable alteration to the landscape character. The loss of some buildings would also further open up views to the east when crossing over the bridge. The proposed plantings would improve the extent of vegetation in this area, and the changes would provide an opportunity to contribute to the public domain through improved footpaths and street tree planting, as well as a more defined entry to the station.

The magnitude of change to the landscape character would be low.

ASSESSMENT OF IMPACT:

Based on the relationship between the sensitivity of this character zone (low), and the magnitude of change described above, the overall probable landscape character impact level is assessed as being low.

Fig. 6.14: Commercial businesses on the eastern side of railway

Fig. 6.15: Eastern side of the railway station

Fig. 6.16: Railway pedestrian bridge viewed from the eastern side

Fig. 6.17: View from end of Rose Street Bridge towards new commuter car park site

Fig. 6.18: Apex Park

Fig. 6.19: Edge of Apex park looking back southwards towards town centre

Fig. 6.20: View from near North Road looking south towards town

6.3.5 CHARACTER ZONE 5: NORTHERN APPROACH

This character zone extends from North Road to the northern end of the proposal site at Cutler Drive. Along the eastern boundary is the elevated railway embankment and substantial amounts of vegetation, which together effectively enclose the zone in that direction.

Along the western side, is the linear Apex Park which provides public amenities, parkland and a car park. On the western side of this park is the currently unoccupied Wyong Grove Public School. A small section of Apex Park extends along the highway on the northern side of Cutler Drive.

The landform of this zone is quite flat, with the land gently rising towards the town centre at the south of the zone. When travelling on the highway views to the south are terminated where the landform rises near the existing Rose Street bridge, and when travelling north by the low hill that occurs not far to the north of Cutler Drive.

The landscape character is one dominated by Apex Park, the linear railway corridor to the east with screening vegetation, the flat landform, creating a semi-natural appearance within the wider urbanised character.

Sensitivity: The sensitivity of this zone is largely defined by the character of the rail/highway corridor of relatively low scenic quality. However, Apex Park along the western edge north of North Road, and the many mature native trees within it, improves the landscape character. The sensitivity of the existing landscape character can be described as moderate due to the semi-natural landscape of Apex Park, railway boundary and its high visibility.

MAGNITUDE OF CHANGE:

The main changes to this character zone would be:

- Extension of a dual-carriageway highway, similar to that along the Tuggerah Straight
- Apex Park, north and south of Cutler Drive, would be affected by the highway widening, with approximately 20m, or nearly half the width of the existing park, required for a combination of the new highway and a drainage channel along its edge
- Existing trees within the affected area of Apex Park would be removed, with the existing amenities building remaining
- A new central vehicular access to the park would be constructed
- The new drainage channel in Apex Park would be designed to have a natural-like appearance, with native trees, shrubs and groundcovers suitable for the drainage conditions used to re-establish an attractive edge to the park and provide landscape screening to properties further to the west
- There would also be other vegetation planting and a new shared pathway along the park/highway edge
- Street tree planting within some of the central median
- Tall native shrub planting alongside the railway to provide a dense screen.

Over time the proposed vegetation would begin to mature, in particular the street trees and planting within Apex Park. Apart from the land loss impacts to Apex Park, the increase in trees along this section of highway, which is currently quite bare, means that arguably there could be an improved overall character once these trees begin to mature.

Taking into account all of these changes, the magnitude of change in the medium term would lessen and become low.

ASSESSMENT OF IMPACT:

Based on the relationship between the sensitivity of this character zone (moderate), and the magnitude of change described above, the overall probable landscape character impact level is assessed as being: moderate - low.

6.3.6 SUMMARY OF CHARACTER ZONE IMPACTS

Character Zone	Character Zone	Sensitivity	Magnitude	Impact Rating
1	Southern approach	moderate	low	moderate - low
2	Riverside	high	moderate	high - moderate
3	Wyong town centre	high	moderate	high - moderate
4	Eastern railway	low	low	low
5	Northern approach	moderate	low	moderate - low

Table 6.2: Summary of Character Zone Impact Ratings

6.4 VISUAL IMPACT ASSESSMENT

6.4.1 VISIBILITY OF THE PROPOSAL

The visibility of the proposal is illustrated in the Visual Envelope Map (VEM) (Figure 6.21).

6.4.2 IDENTIFICATION OF VIEW POINTS

The selection of viewpoints, for discussion, has been based on identifying:

- Views that assess the impact of the proposal at a range of distances (short, medium and long) from the proposal and therefore provide a range of visual detail
- Particular views that address issues specific to a certain viewpoint.

A number of the selected viewpoints are illustrated as photomontages that show the view as it is currently (before proposal) and the view including the proposal (after proposal). Four viewpoints are not illustrated due to the fact that they are from private properties. The visual impact from these viewpoints is, however, discussed in detail below.

- Viewpoint 1: Looking north-east from west of South Tacoma Road
- Viewpoint 2: Looking north from the north of the river
- Viewpoint 3: Looking north from the Church Street intersection
- Viewpoint 4: Looking north-west from the highway in front of the railway station
- Viewpoint 5: Looking south-east from the Alison Road intersection
- Viewpoint 6: Looking south from the south of the Rose Street Rail Overpass
- Viewpoint 7: Looking east along Rose Street from the highway
- Viewpoint 8: Looking north-east from the stairs to the railway station pedestrian bridge
- Viewpoint 9: Looking west from Rose Street adjacent to the car park
- Viewpoint 10: Looking south from the highway at Cutler Drive

Fig. 6.21: Visual Envelope Map and selected view points

6.4.3 ASSESSMENT OF SELECTED VIEWPOINTS

VIEWPOINT 1 - LOOKING NORTH-EAST FROM WEST OF SOUTH TACOMA ROAD

Description: This view is a new viewpoint of the new bridges over the Wyong River taken from where the existing industrial buildings are to be demolished and the South Tacoma Road is to be extended. It is considered that this view is similar to the current view of the bridges from the corner of the existing South Tacoma Road alignment. The existing road alignment is bordered by industrial land to the west and a cluster of large mature trees to the east prior to turning east at the bridge. The views of the existing road and rail bridges are of poor visual quality albeit being set within a riparian corridor and waterway setting of relatively high scenic quality.

Sensitivity: Despite its scenic setting this view is dominated by the road and the existing overbridges. Therefore the sensitivity from this viewpoint to the new structures and changes to the context is considered to be moderate.

Magnitude: The proposal, as seen from this view, would include the following changes:

- New twin bridges with precast concrete Super-T girders, headstocks and circular columns being visible from the local road.
- New landscaped areas where buildings have been demolished and additional planting along the roadway.

The magnitude of the changes based on the proposed works is considered to be high.

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of high-moderate. That impact would be softened over time as the proposed landscape works mature and create a more pleasant approach to the riverfront.

VIEWPOINT 2 - LOOKING NORTH FROM THE NORTH OF THE RIVER

Description: The existing view is one that is of a highly vegetated corridor with mature trees to the west including riparian corridor planting and mature shrubs and trees with part embankment to the east screening the railway corridor. This view would change dramatically with much of the vegetation being lost as a result of the upgrade works. Particularly in the short to medium term, until the new vegetation is established, this view would have introduce new views out to the railway corridor with no substantial trees bordering the highway to the west.

Sensitivity: The view is one of the existing highway corridor. Due to its current single lane configuration, despite being a highway, it has a rural/ suburban character. The sensitivity of this view is considered to be moderate.

Magnitude: The proposal, as seen from this view, would include the following changes:

- Widened dual carriageway highway
- More open views in to the town due to the widening of the highway
- Views to the rail corridor in the short–medium term
- Loss of existing mature vegetation to the west

The magnitude of the changes based on the proposed works is considered to be high.

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of high-moderate. That impact would be softened over time as the proposed landscape works mature and screen planting is established alongside the railway.

VIEWPOINT 3 - LOOKING NORTH FROM THE CHURCH STREET INTERSECTION

Description: This view at present is one of a local town character alongside a single lane highway. Several heritage listed buildings are seen to the west as well as the Railway Station buildings to the east. The closely placed line of Palm trees and the commuter car park can be seen in the near distance. These together create a sense of containment of the highway corridor. At present the view is busy with congested traffic, streetlight and power poles, signage and distant views of the railway station entry lighting.

Sensitivity: The sensitivity of the view to change is considered to be moderate due to the character imparted by the heritage buildings and the line of Palm trees despite it being in a built up area.

Magnitude: The proposal, as seen from this view, would include the following changes:

- Widened dual carriageway highway
- All buildings along the eastern side of the railway corridor would be demolished.
- The Palm trees would be removed from their current position, but relocated within the town centre area.
- Screen planting is proposed at this location, however, it would take time to establish. The new built edge provided by the masonry wall, the Palm trees and the walkway would also help to provide a sense of containment of the corridor.

The magnitude of the changes based on the proposed works is considered to be moderate.

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of moderate. That impact would be softened over time as the proposed landscape works mature and screen planting is established to the east.

VIEWPOINT 4 - LOOKING NORTH-WEST FROM THE HIGHWAY IN FRONT OF THE RAILWAY STATION;

VIEWPOINT 5 - LOOKING SOUTH-EAST FROM THE ALISON ROAD INTERSECTION;

VIEWPOINT 6 - LOOKING SOUTH FROM THE SOUTH OF THE ROSE STREET RAIL OVERPASS

Description: These views are of a local town centre retail strip alongside a single lane (each way) highway. The views are tightly contained by the line of closely placed Palm trees to the east and the single to three storey retail buildings to the west, some of which have a local heritage listing. At present the views are busy with congested traffic on the highway, parking, streetlight and power poles, and signage. There are only limited views of the railway station, pedestrian bridge, bus interchange and car park due to the level change and vegetation buffer.

Sensitivity: The sensitivity of the views to change is considered to be low due to their built up and busy nature.

Magnitude: The proposal, as seen from these views, would include the following changes:

- Widened dual carriageway highway
- A non-signalised crossing would be located near Bakers Lane allowing pedestrians to access the railway station entrance.
- The Palm trees would be removed from their current position, but relocated within the town centre area – some flanking the pedestrian crossing and marking the new railway entry.
- The changes in level to the east would be removed and the ground level raised. A direct entrance to the railway, via the pedestrian bridge, is provided. There would be a forecourt area in front of the railway station and new covered walkway creating an edge to the east.
- The existing ‘town centre’ paving would be removed and updated.
- A row of angled parking is provided in front of the retail strip between Church Street and Alison Road, accessed by a separate service lane.

The magnitude of the changes based on the proposed works is considered to be high.

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of moderate.

VIEWPOINT 7 - LOOKING EAST ALONG ROSE STREET FROM THE HIGHWAY

Description: This view is currently comprised of poor quality views to the railway corridor and its pedestrian bridge, the highway and traffic congestion in the foreground, the existing Memorial Garden in the corner of Pacific Highway and Rose Street, the existing bridge over the railway, and distant views down Rose Street being primarily of power poles, wiring, light posts and signage.

Sensitivity: The sensitivity of the view to change is considered to be low due to its built up and busy nature.

Magnitude: The proposal, as seen from this view, would include the following changes:

- Widened dual carriageway highway
- A new bridge over the railway
- A reinstated Memorial Garden and new tree planting
- New covered walkway ending with the bus stop (and shelter provided as a part of the walkway)
- Distant views down Rose Street of trees on the embankment (in the long term as the trees grow).

The magnitude of the changes based on the proposed works is considered to be high.

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of moderate.

VIEWPOINT 8 - LOOKING NORTH-EAST FROM THE STAIRS OF THE RAILWAY STATION PEDESTRIAN BRIDGE

Description: The current view is of poor quality views to the railway corridor including the commuter car parking area to the east of the railway line. The commercial strip to the east of Howarth Street is also visible. The view is cluttered with power poles, wiring and lighting.

Sensitivity: The sensitivity of the view to change is considered to be low due to its built up and commercial/ light industrial nature.

Magnitude: The proposal, as seen from this view, would include the following changes:

- Reduced area of surface commuter car parking to the east.
- New planting introduced at the embankment at Rose Street bridge; at the entry in to the car park; and the embankment between the bus interchange and Howarth Street.
- New bridge over the railway at Rose Street.
- High retaining wall to the west of the railway line due to the changes to the ground level at the town centre.
- Back view of the new covered walkway with some views available to the Pacific Highway through the walkway screen.
- Views of the canopies of the Palm trees and other vegetation in the distance to the west.

The magnitude of the changes based on the proposed works is considered to be high.

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of moderate.

VIEWPOINT 9 - LOOKING WEST FROM ROSE STREET ADJACENT TO THE CAR PARK

Description: This view is currently of a local semi-residential/ commercial character. There are single storey buildings to the south of Rose Street and larger scale (in mass and height), buildings to the north.

Sensitivity: The sensitivity of the view to change is considered to be moderate due to its more low scale built up nature.

Magnitude: The proposal, as seen from this view, would include the following changes:

- The buildings to the north are to be demolished and a larger scale structure constructed adding to the commuter parking facility that is there currently. New street trees would be planted along Rose Street to screen the façade of this structure
- The large embankment in the distance just before the bridge would be reconstructed to more or less its current expanse but would be vegetated with trees that would grow tall in the long term.

The magnitude of the changes based on the proposed works is considered to be moderate.

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of moderate.

VIEWPOINT 10 - LOOKING SOUTH FROM THE HIGHWAY AT CUTLER DRIVE

Description: This view is presently of the existing highway flanked by the high railway embankment on the eastern side and the linear Apex Park on the western side.

Sensitivity: The sensitivity of the existing landscape character can be described as moderate due to the semi-natural landscape of Apex Park, railway boundary and its high visibility.

Magnitude: The proposal, as seen from this view, would include the following changes:

- Apex Park would be affected by the highway widening, with approximately 20m, or nearly half the width of the existing park required and a drainage channel constructed with new trees along its edge
- Existing screening vegetation alongside the railway would be strengthened
- New trees would be established in central median
- There may be some views of the distant Rose Street bridge.

The changes to Apex Park would be visually obvious in the short term due to the loss of vegetation and part of the park area, leading to a more bare appearance. This would improve over time as the vegetation matures. The magnitude of visual change is considered moderate.

Assessment of Impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of moderate.

Fig. 6.22: View point 1 - existing

Fig. 6.23: View point 1 - proposal

Fig. 6.24: View point 2 - existing

Fig. 6.25: View point 2 - proposal

Fig. 6.26: View point 3 - existing

Fig. 6.27: View point 3 - proposal

Fig. 6.28: View point 4 - existing

Fig. 6.29: View Point 4 - proposal

Fig. 6.30: View point 5 - existing

Fig. 6.31: View point 5 - proposal

Fig. 6.32: View point 6 - existing

Fig. 6.33: View point 6 - proposal

Fig. 6.34: View point 7 - existing

Fig. 6.35: View point 7 - proposal

Fig. 6.36: View point 8 - existing

Fig. 6.37: View point 8 - proposal

Fig. 6.38: View point 9 - existing

Fig. 6.39: View point 9 - proposal

Fig. 6.40: View point 10 - existing

Fig. 6.41: View point 10 - proposal

6.5 SUMMARY

The impact of the proposal based on the selected viewpoints is summarised below:

Viewpoint	Description	Sensitivity	Magnitude	Impact Rating	Comment
1	Looking north-east from west of South Tacoma Road	moderate	high	HIGH - MODERATE	The impact is largely positive in comparison to the existing view due to the new bridge and landscaped areas.
2	Looking north from the north of the River	moderate	high	HIGH - MODERATE	Whilst some existing mature trees are removed to the west, the impact is largely positive due to new roadside planting to the west and new screen planting to the east.
3	Looking north from the Church Street intersection	moderate	high	HIGH - MODERATE	The impact is largely positive due to the opening up of the highway commercial precinct and the definition of the built edges provided by the relocation of the Palm trees; the Welcome Wall and the screening of views to the railway; the removal of the commuter car park and new median planting. The visual clutter in the exiting view is reduced greatly by the removal of lighting columns and the rationalisation of signage.
4	Looking north-west from the highway in front of the railway station	low	high	MODERATE	The impact is largely positive due to the opening up of the highway commercial precinct and the high level of identity and legibility provided by the relocated Palm trees and other street planting; the removal of the car park and the provision of a walkway defining the built edge to the east; and the landmark railway station entrance and forecourt area.
5	Looking south-east from the Alison Road intersection	low	high	MODERATE	The impact involves a change to the existing character.
6	Looking south from the south of the Rose Street Rail Overpass	low	high	MODERATE	The impact is largely positive due to the greater definition of the Wyong town centre with the relocation of the Palm trees in a formal arrangement to identify key pedestrian destinations; the removal of the commuter car park; and the provision of a raised built edge and active frontage to the east whilst allowing through views to the surrounding context.
7	Looking east along Rose Street from the highway	low	high	MODERATE	The impact is largely positive due to the new bridge with better pedestrian access; and the walkway active frontage being book-ended to the north by the reinstated Memorial Garden creating an entry statement to the highway commercial precinct.
8	Looking north-east from the stairs to the railway station pedestrian bridge	low	high	MODERATE	The impact is largely positive due to the greater legibility of pedestrian and vehicular pathways; reduced width of commuter car parking; the introduction of new planting in general including the planting on the embankment adjacent to Howarth Street.
9	Looking west from Rose Street adjacent to the car park	moderate	moderate	MODERATE	The impact involves a change to the existing character. Planted screening and visual mitigation strategies (as shown in the view) to the car park structure will need to be adopted to ensure that visual impact is mitigated.
10	Looking south from the highway at Cutler Drive	moderate	moderate	MODERATE	The negative impact, of the widening of the road corridor, on Apex Park is mitigated by the better defined road corridor; and new median planting.

Table 6.3: Assessment of the visual impact on selected viewpoints

6.6 LANDSCAPE CHARACTER AND VISUAL IMPACT MITIGATION STRATEGIES

The Landscape Character and Visual Impact Assessment highlight the substantial impacts of the proposal on the existing environment. Throughout the development of the concept design for the proposal, the design team identified design measures that could mitigate landscape character and visual impacts as part of the concept design development. As a result, a number of design changes have been incorporated in the concept design. Some of the key design changes and initiatives that especially relate to minimising impacts to the existing landscape character and visual concerns that were incorporated in the current concept design include:

- Sufficient space for landscape screening where required; particularly the screening of views to the railway, retaining wall structures and boundary fences.
- Tree planting within the central median, as well as planter beds of lower plants, has been introduced at all locations possible within the town centre to soften the impact of the widened highway.
- The raising of the ground level and the loss of a built edge to the east, have been addressed by the provision of a covered walkway structure that extends from approximately opposite Church Street to the new bus stop in front of Alison Road. This structure also incorporates access into the railway station.
- The relocation of the mature Date Palms as an integral feature of the town centre, which would have an immediate landscape effect that would relieve the contrast of the new highway and retain a memorable characteristic of Wyong.
- The introduction of a mid-block, central pedestrian informal crossing to reinforce the pedestrian environment, support local businesses, provide choice and convenience to pedestrians and connect the town shopping area directly with the railway.
- The introduction of planting within larger car parks and car parking bays to break the continuity of parking and provide visual relief but also to help ease the micro climate.
- The finish on the retaining walls that is visible to the public. In particular the high retaining wall at the railway station is proposed to be finished with precast concrete panels with a ribbed profile to discourage graffiti and coloured to avoid reflected glare from the western sun. The finish on the car park structure facing Rose Street is textured and coloured to reduce the visual impact. A planting zone is provided at the base of the wall to provide visual screening.
- An alternative location for a riverside picnic area has been identified on the southern side of the river along South Tacoma Road, west of the new bridges. The land also includes a weatherboard cottage which may be retained within the park if feasible or relocated elsewhere in the Shire as a café, community facility or other suitable adaptive reuse opportunity, subject to it being reasonable and feasible to achieve.

The Landscape Character and Visual Impact Assessment undertaken above is based on the current concept design incorporating all of the above changes, yet it still highlights the degree of visual change of the proposal. The detail design would need to ensure that a high degree of attention is paid to the final detailing of the various elements of the proposal including their materials and finishes, and the practicality and convenience of use.

In particular, the following detailed mitigation measures are recommended in regard to addressing visual impacts:

- The design of the pacific highway commercial precinct including the walkway, railway station entry and forecourt, pedestrian crossing, relocation of palms, new town centre paving, road furniture, lighting and signage should be considered as a whole in light of the desired future character of the town. Wyong Shire Council should be involved in the identification of the desired future character and design development of the various town centre components and public realm.
- A heritage interpretation strategy may be undertaken by Council, to assist with the design development of the highway commercial precinct.
- All reasonable measures should be taken to minimise the loss of vegetation along the proposal corridor. In particular, attention should be paid to the mature trees along the Wyong riverbank and trees within Riverside Park and Apex Park. Those measures should include the consideration of pathway treatments and design that minimise impact.
- It is recommended that an arborist's report is undertaken prior to the detailed design of the relocation of Palms to ascertain the condition of the existing trees and the number of trees that are suitable for relocation.
- The design of the bridges over Wyong River should be considered in its detail. The design of the piers and headstocks should be integrated due to their high visibility from the two local roads below and the new riverside park. The road barriers and bridge parapets should be designed to minimise visual impacts.
- The design of the commuter car park and its relationship to the bus and rail station should be more considered in its detail and should aim to achieve a closer integration between the two destinations, and better amenity for commuters.
- Lighting on the Pacific Highway and in the proposal in general should be well considered in its placement and should not detrimentally add to the visual impact.
- The potential visual impact of numerous culverts in Apex Park that would be part of the new drainage channel should be minimised through the specific treatments of the structures, including: minimising the extent the headwall protrudes above and beside the pipe, covering the top with soil and establishing planting, colouring the concrete a dark colour and/or attaching rocks and partially screening the view into the pipe and of the headwall through plants and small boulders.
- The large areas of car parking should be reviewed to include more planting where possible, to improve visual amenity, and lighting to ensure user safety.
- During the detailed design phase identify and retain as many mature trees as possible; and explore opportunities for the potential rehabilitation of any lost public parkland.

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7. CONCLUSION

The proposal is for the upgrade of a section of the Pacific Highway through a functioning town centre. Wyong town centre has a distinct character and is rich with heritage buildings. The row of Date Palms provides an added distinction to the town centre, though they are arguably compromised in their current position due to the highway. The town is heavily impacted by the high volumes of traffic and congestion through the centre, which would be relieved with the upgrade of the highway. There is also a heavy reliance on vehicles for access in to town and the railway station resulting in large areas of unrelieved car parking which detrimentally impact the visual amenity and experience of the centre at present.

The design development of the highway and the various related elements through the town centre should be undertaken with the revitalisation effect of the upgrade on the Wyong town in mind. The provision of a high level of pedestrian connectivity, amenity and convenience would help to achieve a result that is sympathetic to the existing built and natural character, aids the successful functioning of public realm and existing land uses, and enhances the general experience of town centre. This is reflected in the urban design vision for this proposal, which is stated as:

"To achieve a functional and attractive highway corridor that fits sensitively within the existing built and natural environment of Wyong, contributing to the connectivity of the community and delivering a high quality public domain".

A number of visual impact mitigation measures have been incorporated in to the design development of the concept design. Design principles have been identified for each of the design areas/ elements, and further mitigation strategies recommended, to guide the detailed design development. These strategies are expected to assist in mitigating many of the identified impacts in the Visual Impact Assessment.

LIST OF FIGURES

LIST OF TABLES

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