

A photograph of a paved path with white markings. In the foreground, there is a large white arrow pointing up, a white silhouette of a pedestrian, and a white silhouette of a bicycle. Further down the path, there are more white markings, including a bicycle silhouette and a bird silhouette. The path is bordered by green grass on both sides.

Bellingen Shire Council
**Bellingen Shire Pedestrian Access and Mobility Plan and
Bike Plan**

January 2016

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1. Introduction

1.1 Background

Walking and cycling are fundamental and direct means of access to most places and to the goods, services and information available at those places. Those creating public and private space or facilities must give priority to 'walk in' access which is attractive, safe, convenient and accessible for everyone. All responsible agencies should respect the pedestrians' inalienable right-of-way on footpaths and recognise the importance of constructing and maintaining them for transport, health, safety, leisure and social purposes.

This Pedestrian Access and Mobility Plan (PAMP) and Bike Plan has been prepared for Bellinghen Shire Council to provide a framework for existing pedestrian and cyclist needs, future management, use and enhancement for pedestrians of all ages and mobility.

A PAMP and Bike Plan is a strategic document that identifies the pedestrian and cyclist network hierarchy and associated action plan for management. The strategic, high-level goals of a PAMP and Bike Plan are based around:

- Integrating consistent and continuous pedestrian and cyclist networks into the land use and transport system to facilitate and encourage more walking and cycling.
- Linking pedestrian and cyclist concentrations to networks to facilitate and encourage safe and convenient accessibility and mobility.
- Identifying clusters and patterns of pedestrian/ cyclist crashes to highlight areas that restrict safe and convenient accessibility and mobility.
- Developing and integrating intra and inter pedestrian/ cyclist routes that form part of a connected network.
- Linking to and between Planning Instruments (e.g. Local Environment Plans [LEPs] and Development Control Plans [DCPs]).

An important function of the PAMP and Bike Plan is to identify pedestrian and cyclist needs and clearly indicate to the community, Council's direction with respect to the management and improvement of pedestrian and cyclist needs within the Bellinghen Shire.

Different land uses require pedestrian and cyclist facilities for a range of users. Pedestrians and cyclists including commuters and recreational users, need to be catered for as well as the elderly, the mobility and visually impaired, residents, school children and tourists.

The Roads and Maritime Services (RMS) guidance document *"How to Prepare a Pedestrian Access and Mobility Plan"* (March, 2002) states that:

"A PAMP is a comprehensive strategic and action plan to develop pedestrian policies and build pedestrian facilities. PAMP's aim to co-ordinate investment in safe, convenient and connected pedestrian routes. A PAMP provides a framework for developing pedestrian routes or areas identified by the community as important for enhanced, sustainable safety, convenience and mobility."

1.1.1 Definition of pedestrian

The RMS PAMP Guide states that a pedestrian includes:

- A person driving in a motorised wheelchair that cannot travel over 10 kilometres per hour (on level ground).
- A person in a non-motorised wheelchair.

- A person pushing a motorised or non-motorised wheelchair.
- A person in or on a wheeled recreational device or wheeled toy.

This report also considers persons driving mobility scooters, which have different needs due to their longer wheelbase, and are another significant user group in the Bellingen Shire.

1.2 Purpose and scope

The purpose of this PAMP was to review the current and future pedestrian needs in the Bellingen Shire to provide a consistent standard of facilities for pedestrians within the study area. The PAMP provides a list of prioritised pedestrian infrastructure improvements for safer, more attractive transport choices for residents and visitors, to increase pedestrian activity and to improve the amenity for all local residents and visitors to the Shire.

This PAMP has been prepared in accordance with the RMS guidance document *“How to Prepare a Pedestrian Access and Mobility Plan”* (March, 2002).

1.2.1 Objectives

According to the RMS PAMP Guide, the objectives of a PAMP are:

1. To facilitate improvements in level of pedestrian access and priority, particularly in areas of pedestrian concentration.
2. To reduce pedestrian access severance and enhance safe and convenient crossing opportunities on major roads.
3. To identify and resolve pedestrian crash clusters.
4. To facilitate improvements in the level of personal mobility and safety for pedestrians with disabilities and older persons through the provision of pedestrian infrastructure and facilities which cater to the needs of all pedestrians.
5. To provide links with other transport services to achieve an integrated land use and transport network of facilities that comply with best technical standards.
6. To ensure pedestrian facilities are employed in a consistent and appropriate manner throughout NSW.
7. To link existing vulnerable road users plans in a co-ordinated manner (e.g. maintenance programs, accessible public transport, etc).
8. To ensure that pedestrian facilities remain appropriate and relevant to the surrounding land use and pedestrian user groups.
9. To accommodate special event needs of pedestrians.
10. To meet obligations under the Commonwealth Disability Discrimination Act (1996).

These objectives are just as relevant for cyclists. The RTA guidelines from *How to Prepare a Bicycle Plan* (NSW RTA, 2002) indicate that future bicycle routes should be based on a set of priorities, including:

- Safety
- Community needs and expectations
- Council commitment
- Available funding and future planning opportunities
- Rectification / maintenance programs

1.2.2 Study area

The Bellingen Shire is located on the Mid North Coast of New South Wales, halfway between Sydney and Brisbane. The Shire is characterised by some of the finest natural and cultural landscapes in the region and is one of only a few locations on the North Coast to combine river valley and plateau landscapes. It is the combination of these landscapes which gives the Shire such an intrinsic appeal and makes it so attractive to residents and tourists alike.

This PAMP and Bike Plan focusses on the main population centres in the shire being Bellingen, Urunga, Dorrigo and Mylestom/ Repton. These centres are identified in Figure 1-1.



Figure 1-1 Bellingen Shire

These centres were selected by Bellingen Shire Council as they have the highest pedestrian/ cyclist activity. In the future, the methodology used can be extended to other centres as required.

1.3 Consultation

Consultation with key stakeholders and the community has been a crucial part of the development of this PAMP and Bike Plan for Council to ensure that the plan meets the needs of the community now and into the future.

The consultation process included key stakeholders and local community members, as it is important to include the community in the development of a document that seeks to address local issues. Overall, the aims of the consultation process were to:

- Assist in understanding stakeholder and community needs for each of the town centres.
- Provide information about the project process to stakeholders and the community.
- Involve the community in the planning process to increase the sense of ownership of the project outcomes.

Further information on the findings and outcomes of the consultation process can be found in Section 4.1 of this document.

1.4 Report structure

This report comprises the following sections:

- Section 2 – **Background review.** A summary of the previous pedestrian planning and related policies from the Council and the various State Government agencies is provided.
- Section 3 – **Existing pedestrian/ cyclist and mobility audit.** A detailed list of the issues, constraints and opportunities for pedestrian/ cyclist access and movement is given for the main population centres investigated.
- Section 4 – **Consultation.** An outline of the consultation methodology and community concerns is provided.
- Section 5 – **Planning for pedestrians.** Provides an overview of best practice standards that apply to the treatment of pedestrian facilities.
- Section 6 – **Planning for cyclists.** Provides an overview of best practice standards that apply to the treatment of cyclist facilities.
- Section 7 – **Priorities for improvements.** For each of the town centres, a list of potential pedestrian improvements is given with the different types of infrastructure to improve the safety, amenity and access for pedestrians/ cyclists. Also provides an overview of how proposed improvements were prioritised, including community priority projects.
- Section 8 – **Primary pedestrian and cycle network.** Provides maps showing the routes which will form the Primary Pedestrian and Cycle Network for the main town centres and a list of the proposed 12 highest ranked improvement projects.
- Section 9 – **Conclusions and recommendations.** The key findings of the PAMP and Bike Plan are summarised along with a list of the recommendations for improvements.

2. Background review

2.1 Overview

This section includes a review of existing relevant State and Federal Government planning documents, and Council's planning documents, including related open space and community facility strategies, Development Control Plans (DCPs), Local Environmental Plans (LEPs), Council's disability and access policies and reports and other relevant Council policies.

A summary of the demographic and transport characteristics, pedestrian crash statistics and existing land use and transport infrastructure for the Bellingen Shire Council area are provided to show the strategic context of this PAMP and Bike Plan.

2.2 Bellingen Shire context

The Bellingen Shire is a unique and diverse place with great natural and cultural beauty. The Shire covers an area of 160,300 hectares of which 53% (85,510 hectares) is National Park and State Forest.

The Shire includes beaches and coastline along the Seaboard, rainforests and mountains around the Dorrigo Plateau and rural townships, forests and natural areas across the Bellinger Valley. The natural environment and relatively undeveloped character of the place make the Shire a highly diverse and appealing place to live and visit.

However, the relative isolation of some towns within the Shire has constrained the growth of the population which has influenced the past provision and quality of open space and community facilities. In 2006, Bellingen Shire had a relatively small population of 12,445 people which is spread across three geographically large planning areas.

The three distinct Planning Areas are:

- Seaboard
- Bellinger Valley
- Dorrigo Plateau

The Shire includes two main rivers (Bellinger River and Kalang River) which are both prone to flooding. Whilst the rivers add to the diverse natural character of the Shire, they also contribute to the potential isolation of communities. The town of Dorrigo is particularly isolated with one winding road (Waterfall Way) and flooding issues linked to the rivers. Many rural localities also experience isolation due to the roads and flooding.

Whilst there is potential for future growth in Bellingen Shire with a population of around 14,724 anticipated by 2028 the main growth centres in the wider area are likely to be Coffs Harbour, Kempsey and Nambucca (64,910, 27,387 and 17,897 people respectively as at 2006). Coffs Harbour provides an important regional centre for the Shire and surrounding areas.

2.3 Policy review

A review of previous relevant planning policies was conducted:

- To ensure the Bellingen Shire Council PAMP and Bike Plan aligns with National, State Government and Council policy directions in relation to the development of pedestrian access and mobility plans, and the wider context of transport and urban planning.

- To identify any deficiencies within the current network and strategy that will guide the importance of the proposed measures to improve the access, amenity and safety for pedestrians.

These policies provide a strategic framework to improve the pedestrian/ cyclist network so that it encourages and supports walking/ cycling within the Bellingen Shire.

2.3.1 National

At a National level, the Australian Government does not have a specific walking strategy as part of any of the national or regional transport policies. However, Pedestrian Council of Australia promotes pedestrians at a national level through the Australian Pedestrian Charter. This Charter has the following key objectives:

- *Create a physical, social, economic, legal and psychological context in which more Australians will be encouraged to walk more often and to walk further.*
- *Re-assert the rights and freedoms which pedestrians once enjoyed but which are now being usurped and threatened by private motorised traffic and the infrastructure that supports it.*
- *Promote the personal, social and environmental benefits of walking as a safe, healthy, enjoyable and accessible form of transport, exercise and recreation.*
- *Encourage the planning, design and development of neighbourhoods in which safe, attractive and convenient walking conditions are provided as a fundamental right.*
- *Ensure that in the planning of our communities access to basic amenities and services is not dependent on car ownership but is always available to those on foot, bicycle, wheelchair and public transport.*

The Charter's principles cover the topics of:

- **Accessibility** that considers the design of facilities for the most vulnerable pedestrians, such as older people, children and those with disabilities.
- **Sustainability and the environment** with walking as the most environmentally sustainable form of transport to replace short car trips that contribute disproportionately to air pollution.
- **Health and wellbeing** with walking as a low-impact form of exercise to counter the modern sedentary lifestyle. It is highly accessible, available for all age groups, and is a proven method of promoting better health.
- **Safety and personal security** with places for walking designed to maximise personal security with good sightlines and better lighting scaled to pedestrian needs. 'Safety in numbers' will be achieved by encouraging more street activity and the natural surveillance of pedestrian space by other walkers and by neighbours.
- **Equity** with walking as the only transport mode available to almost everybody at any time and without charge.

2.3.2 State

The State Government has prepared two State-wide strategies for road safety and transport that have implications for pedestrian/ cyclist planning and strategies for Bellingen Shire Council.

NSW Road Safety Strategy

Transport for NSW prepared the NSW Road Safety Strategy in 2012. More details are included in the Transport Master Plan relating to the uptake of cycling and development of connected networks and infrastructure for cycling and improved pedestrian access and amenity across the transport network.

The potential to address fatal and serious injury crashes on the road network exists through improved intersection design, eliminating or shielding road users from roadside objects or from opposing vehicles and by considering pedestrians and bicycle riders particularly in urban areas. Following the Safe System approach will bring positive road safety outcomes.

Implement and enhance a NSW Safer Roads program with targeted infrastructure safety works programs including safety barriers, highway route reviews, local roads, pedestrian safety measures, and motorcycle recreational routes.

Pedestrians are considered at risk road users due to the lack of protection provided by the vehicle in the event of a crash, which results in more severe outcomes.

Pedestrians account for 14 per cent of the NSW road toll. At least 33 per cent of pedestrian fatalities between 2008 and 2010 were alcohol impaired and 40 percent of pedestrian fatalities were aged 60 years or more. A strong desire for pedestrian safety exists across the road network. This includes the provision of 40 km/h High Pedestrian Activity Areas which are being progressively rolled out at identified locations and 10 km/h Shared Zones, pedestrian fencing and other infrastructure treatments, along with safer vehicles which are pedestrian friendly. These will all contribute to the achievement of the targets of this strategy.

The key measures in the NSW Roads Strategy to improve pedestrian safety are:

- Improve pedestrian crossing safety, including reviewing signal phasing for pedestrians.
- Work with local government to undertake road safety audits to address the maintenance and upgrade of pedestrian facilities.
- Support the NSW Long Term Transport Master Plan and the walking investment program to address the infrastructure needs of pedestrians.
- Trial innovative technology solutions to address pedestrian safety, including vehicle to person systems and vehicle based pedestrian detection systems.
- Land use planning guidelines to consider pedestrian requirements, especially at transport hubs, new residential developments.
- Research pedestrian distraction devices and the effects within the road environment.
- Develop communications and awareness campaigns to promote safety with pedestrians and other road users.
- Review the application of shared paths and safer interaction between pedestrians and bicycle riders.

A strong need to maintain mobility and access for older road users is required with a large proportion living in suburban locations. Some of the proposed measures are to:

- Work with road authorities to provide facilities for older road users including improved pedestrian access, longer green light phasing and local education campaigns.
- Deliver communication campaigns to target older pedestrian safety.

- Utilise lower speed limit schemes for high pedestrian activity areas and roads with high volume of on-road cyclists.
- Improve the safety of pedestrians and bicycle riders through the utilisation of lower speed limit schemes, including 40km/h high pedestrian activity areas and shared zones.

NSW Long Term Transport Master Plan, Transport for NSW

The NSW Long Term Transport Master Plan that was released by Transport for NSW in December 2012 has objectives for increased walking particularly for short, local trips to achieve improved environmental outcomes, health benefits and to reduce traffic congestion.

Since many transport journeys start and end with a walk trip, walking helps to reduce traffic congestion. When homes and jobs are within walking distance of each other and within easy walking distance of public transport, accessibility to jobs and services increases and commuting is easier. More people walking to catch the train, bus or ferry also means less pressure on town centre streets, busy bus services and commuter car parking.

When planning new developments, the surrounding transport infrastructure should have a network of pedestrian connections that consider:

- Personal safety and security, including adequate lighting and activated public spaces.
- Adequate footpath widths.
- Safe and convenient pedestrian crossings of roads at intersections and mid-block crossings.
- Convenient and legible access to public transport stations or bus stops.
- Good signage and wayfinding to support efficient pedestrian movement.

Other relevant strategies include:

Australian National Cycling Strategy 2011 - 2016

The Australian National Cycling Strategy 2011 - 2016 is a strategic document with a vision to double the number of people cycling over the life of the strategy so that individuals and communities can enjoy the benefits of cycling.

NSW Bike Plan

The NSW Bike Plan acknowledges that well-planned and integrated bicycle networks can contribute to more accessible, sustainable and connected communities. It sets a 10 year target (2006-2016) to double the use of commuter cycling in NSW with an infrastructure plan to invest at least \$5 million every year for local councils across NSW to complete neighbourhood cycleway networks.

NSW Transport Masterplan

The NSW Transport Masterplan and the Mid-north Coast Regional Transport Plan 2013 supports this vision with specific Council funding programs designed to increase rates of cycling.

2020 Ageing Strategy

The NSW Ageing Strategy, released in 2012, identifies people aged over 65 as the fastest growing population group in NSW. An estimated 2 million community transport trips are provided each year to help older people access recreation, shopping, medical care, community services and social activities in NSW. This travel demand will continue to grow with this population group forecast to double by 2050.

As a user group, older pedestrians are over represented in fatal crashes. This is most likely due to frailty and a reduced tolerance from the force of a crash, rather than risk taking behaviour. Therefore, it is critically important to promote safe walking routes that are designed with consideration for the older aged groups.

Waterfall Way (Pacific Highway to Dorrigo) Road Safety Review 2014

The community raised concerns about the impact from increased truck movements due to the Dorrigo Quarry expansion. The quarry expansion is linked to the haulage of materials to the Pacific Highway upgrade between Nambucca Heads and Urunga.

Roads and Maritime subsequently worked with the Centre for Road Safety to complete the review.

The review considered road safety and road user behaviour analysis along Waterfall Way and involved extensive community consultation. Crash data presented in the review relating to pedestrians and cyclists is shown below in Figure 2-1.

(btw Tyringham St Dorrigo to 10 m west of Pacific Hwy, Raleigh), 2008 to 2013p, Class of Road User

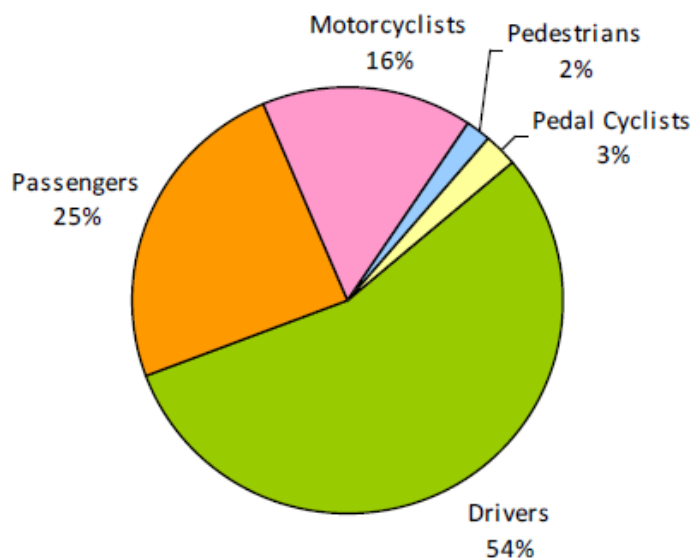


Figure 2-1 Crashes involving pedestrians and cyclists

Issues raised by the community in relation to pedestrian safety included:

Pedestrian safety

- There is some concern that the 40 km/h speed zone through Bellingen is too slow and causes pedestrians to dart in front of traffic and cross the road illegally.
- Some thought the community would benefit if the high volume of pedestrians could be made more visible to motorists. This is particularly an issue when motorists have the sun in their eyes.
- There is a view that the safety of children would be improved with a new pedestrian safety education program.
- A submission suggested the safety of volunteers removing roadside litter needs to be considered.

Active Transport

- Some submissions expressed a desire to see consideration given to other transport modes when considering any upgrade, including facilities for pedestrians, cyclists, public transport and rail options.

The review identified a total of 32 short term and five medium to long term recommendations. Relevant considerations for the PAMP and Bike Plan are outlined below:

2.3.3 Council planning

Bellingen Local Environmental Plan 2010

The Bellingen Local Environmental Plan (LEP) 2010 was gazetted on 6th August 2010. LEP 2010 adopts the Standard Instrument LEP Template required by the NSW Government and implements the majority of the land release recommendations of Council's endorsed Growth Management Strategy.

Bellingen Shire Development Control Plan 2010

The Bellingen Development Control Plan (DCP) contains detailed guidelines that illustrate the controls that apply to a particular type of development or in a particular area. The DCP came into effect on 5 August 2010. The DCP contains particular provisions in relation to new subdivisions that acknowledge the PAMP and Bike Plan as follows:

Footpaths and/or shared footpaths and cycleways

a) New subdivisions shall include a 1.2m wide concrete footpath across the frontage of the development site. Where the development site has frontage to an identified location for a shared bicycle/pedestrian path (pursuant to the BSC Pedestrian Accessibility and Mobility Plan and Bicycle Plan) then the path must be 2.0m wide.

b) A 1.2m wide footpath reservation must be set aside on the opposite side of the road to that upon which the footpath required by item a) is required. This future footpath reservation must not be obstructed by the placement of landscaping or other infrastructure that would prevent the construction of a future footpath, as demonstrated by the submission of a sectional road reserve plan as required by Clause 3.6.6 of this chapter.

It should be acknowledged that any shared paths should now be 2.5 metres wide to meet AUSTROADS *Guide to Road Design Part 6A: Pedestrian and Cyclist Paths*.

Section 94 Development Contributions Plans

Council levies contributions from developers as a condition of consent for the provision of public infrastructure, facilities and services that are required as a result of increased development.

The Bellingen Community Facilities & Open Space Infrastructure Section 94 Developer Contribution Plan 2014 includes a levy for the construction of new dual use off road cycleway at Urunga between the Morgo Reserve and the Urunga Recreation Ground (\$175,000).

The Local Roads and Traffic Infrastructure Section 94 Developer Contribution Plan 2009 is currently under review, but with respect to pedestrian and cyclist facilities, is likely to include a levy for the construction of:

- Continuation of shared pedestrian/cycleway along Hungry Head Road
- Provision of shared cycleway on Deep Creek Bridge, Tyringham Road
- Initiatives under the Bellingen Main Street Plan

Bellingen Shire Bellingen Growth Management Strategy 2007

Key information in the Bellingen Growth Management Strategy that relates to open space and community facilities is as follows:

- A five order hierarchy is recommended which includes:
 - Regional Centre (Coffs Harbour)
 - District Centre (Bellingen)
 - Town (Dorrigo and Urunga)
 - Village (Repton, Mylestom, Fernmount, North Dorrigo)
 - Rural Centre (Kalang, Thora, Darkwood, Gleniffer, Raleigh, Brierfield, Deervale, Megan, Valery, Newry Island)
- Expansion opportunities are limited in each of the main towns due to the natural environment and topography.
- Recommend safe pedestrian footpaths and cycleways are linked to community facilities, open space, schools, shopping areas and employment and residential areas.

Table 2-1 Desired Character of Towns (What the Community Wants)

Bellingen	Urunga	Dorrigo
<ul style="list-style-type: none"> • Country town • Natural ambience • Reflect past era • Essential services of modern society • Support friendly and supportive community • Meeting place • Scenic outlook to river and mountains 	<ul style="list-style-type: none"> • Small • Quiet seaside village • Relaxed and laid back • Convenience services and facilities • Friendly atmosphere • Excellent frontage to Kalang River and estuary 	<ul style="list-style-type: none"> • Small • Picturesque country town • History and tradition • Supports tight knit and friendly community • Most essential services • Popular tourist destination • On the mountain • Scenic outlook across plateau

Table 2-2 Desired Directions for Open Space and Community Facilities (What the Community Wants)

Bellingen	Urunga	Dorrigo
<ul style="list-style-type: none"> • Good footpaths • Good playing fields • Good playgrounds • Promotion of artistic and cultural activities • Greater emphasis on Bellingier River • Preservation of natural environment • Greater accessibility 	<ul style="list-style-type: none"> • More footpaths • More landscaping and public art • Maintain seaside image • Improve existing facilities/infrastructure • Maintain natural beauty and impact of rivers meeting sea • Greater linkages to foreshore 	<ul style="list-style-type: none"> • More landscaping and public art • Retain essential services

Open Space and Community Facilities Study 2010

The Open Space and Community Facilities Study was prepared in 2010 and found that the Bellingen Shire has 384.58 hectares of community land that is owned or managed by Council, including:

- 42.84 hectares owned by Council.
- 341.74 hectares of Crown land that is under the 'care, control and management' of Council.

The Open Space and Community Facilities Study identified that:

- Bellingen Shire is well endowed with natural areas, including bushland and natural foreshore. This highlights the importance of the natural areas but it also suggests that the amount of usable open space will be less, e.g. for recreation activity.
- The Shire has a large provision of sportsgrounds for the size of the population. Recent new development planning by Suter Planners has found there is generally justification for around 1.5 – 2.0 hectares per 1,000 people to cater for local sport.
- The Shire has a good provision of recreation parks which is appropriate, given the visitor and outdoor focus of the area.
- Whilst the amount of developed foreshore park is not overly large, it is quite significant given that it is all located in the Seaboard.
- Land allocated for community facilities such as halls and community centres is relatively small but appropriate given that community facilities do not generally require large areas of land.
- The tourism community land is substantial, although this only relates to two sites, being the Hungry Head Holiday Cabins and the North Beach Caravan Park.

Recent Initiatives

Council and other stakeholders have undertaken planning for a number of specific areas of open space and community facilities. Key relevant planning and proposed projects are summarised below.

- Council, in conjunction with the Roads and Maritime Service is developing the Bellingen Main Street Plan that aims to provide improved pedestrian friendly crossing facilities with alterations to the kerb alignment and location of pedestrian crossings.
- Negotiations have occurred between the Department of Lands and Bellingen Shire Council on the establishment of the Bellinger Heads State Park and planning for the foreshore area and boardwalk has been undertaken. This has resulted in improvements to the Morgo Reserve area and a proposed extension to the Urunga Boardwalk.
- Council has taken a lead role in planning and obtaining grant funding for cycleways. This includes:
 - A proposed staged dedicated cycleway from Urunga to Hungry Head, linking to an existing popular recreation and commuter route. Council has sought grant funding through the NSW Coastline Cycleway Grants Program (and recently achieved funding of \$167,500) for Stage 1 of the cycleway which is 1.3 kms in length.
 - A grant application through the Bicycle Federation of Australia HEAT program to develop a 4.5 km bitumen cycleway from the Rainforest Centre in Dome Road, crossing Rocky Creek into Waterfall Way towards Dorrigo. The cycleway will provide a link to a World Heritage Rainforest Area.

- Council has sought grant funding through the Federal Government \$120 million grant program to contribute to the implementation of the Urunga, Dorrigo and Bellinger CBD Master Concept Plan Stage 2 and Community Space Enlargement Project. The proposal includes a number of initiatives that will enhance open space and recreation facilities linked to the main towns including the development of Jarrett Park to create a significant recreation area with improved youth facilities. The proposals are consistent with the gaps and opportunities identified through the Open Space and Community Facilities Study.
- The Urunga-Mylestom Chamber of Commerce has developed a Business Plan (2009) that includes directions for open space and community facilities. A main emphasis of the Plan is on creating a vibrant village atmosphere with an attractive foreshore and coastal facilities. A number of directions are consistent with the findings in the Open Space and Community Facilities Study.

Potential Open Space Connections

The Open Space and Community Facilities Study identified a number of opportunities for integrated open space connections to be considered as part of the PAMP and Bike Plan. The main connection opportunities include:

- Along the foreshore in Urunga and particularly the Atherton Drive land through to Urunga Recreation Ground.
- Along the Kalang River in Urunga (particularly eastern side).
- Along the foreshore and Bellinger River in Mylestom.
- Along Bellinger River in Bellinger.
- Along the Cemetery Creek open space through to Connell Park in Bellinger.
- Along Bielsdown Creek in Dorrigo.
- From the Showgrounds through to the Dorrigo Recreation Reserve and Heritage Gardens in Dorrigo.

Issues raised by Community during Study

Some of the issues raised by the community during the preparation of the Open Space and Community Facilities Study in relation to pedestrian access and mobility and cyclist facilities included:

- A lack of footpaths, cycleways and walking trails (with signposting).
- Bushwalk opportunities.
- Exercise stations.
- Better access to Bellinger River (waterfront areas, viewing platforms).

Disability Access and Inclusion Plan 2014 – 17

The Disability Access and Inclusion Plan is an action plan to ensure people with a disability have equitable access to infrastructure and services provided by Council, in accordance with the *Disability Discrimination Act 1992* and in keeping with the Shire of Bellinger 2030 Community Strategic Plan.

Across the next five years, and within the scope of available resources, Council will work to progress the following outcomes:

Outcome 1: Identify and remove barriers

Outcome 2: Information and services in a range of formats

Outcome 3: Accessible buildings and facilities

Outcome 4: Participation in public consultations, advisory boards and committees

Outcome 5: Employment participation

Outcome 6: Influence in the Bellingen community

Outcome 7: Specialist and adapted services

Actions relevant to the PAMP and Bike Plan are listed below:

- 1.6 Footpaths and ramps
 - The Bellingen Shire Council Road Asset Management Plan June 2012 documents in point 5.3 the need to develop a program to reconstruct substandard footpath facilities to bring them up to current standards. As this program is developed, target footpaths near education, health, hospitality, entertainment and commercial venues.
 - Review roadside furniture (signage) to ensure that disabled toilets and disabled parking is large enough to be seen from a distance and in consistent contrasting colour.
 - Where steep sections of pavement exist, for example the footpath from Church Street to Lavenders Bridge, install sections to slow the speed of wheelchairs.
- 3.6 Pedestrian Crossings at Bowra Street and Bonville Street intersection
 - Addition of bollards to indicate impending crossing and verge.
- 3.12 Coronation Park, 81 Hickory Street, Dorrigo
 - Widen footpaths within the park.
- 3.13 Dorrigo Library, Corner of Hickory and Pine Street
 - Widen footpath in areas approaching Library.
- 3.20 Bellingen town centre toilet block behind the Memorial Hall, Haplins Lane
 - Smooth pathway with audible pavement to warn users about change in gradient
 - Add a railing to increase safe use of pathway.
- 3.22 Walkway from Church Street to Lavenders Bridge
 - Add audible pavement warning to indicate steep change in gradient. Install hand-rail along sections of the walkway.
- 3.23 Bellingen Youth Space, 6 Church Street
 - Build-up ground to complete ramp access.
- 3.26 Bellingen Bus Stop, Church Street
 - If practical (and does not block pedestrian pathway access) install a wheelchair access, platform to ease access to board all buses.

2.4 Existing travel characteristics and demographics

Travel within the Bellingen Shire is currently dominated by the use of private cars. This may be as a result of limited public transport coverage, adverse topography and large distances between origins and destinations within the Shire.

2.4.1 Population density in Bellinghen Shire

A map showing the population density within Bellinghen is provided in

Figure 2-2 (Bellinghen shown in inset). It is clear that the town centres of Bellinghen, Dorrigo, Urunga and Mylestom/ Repton have significantly higher population density than outlying areas.

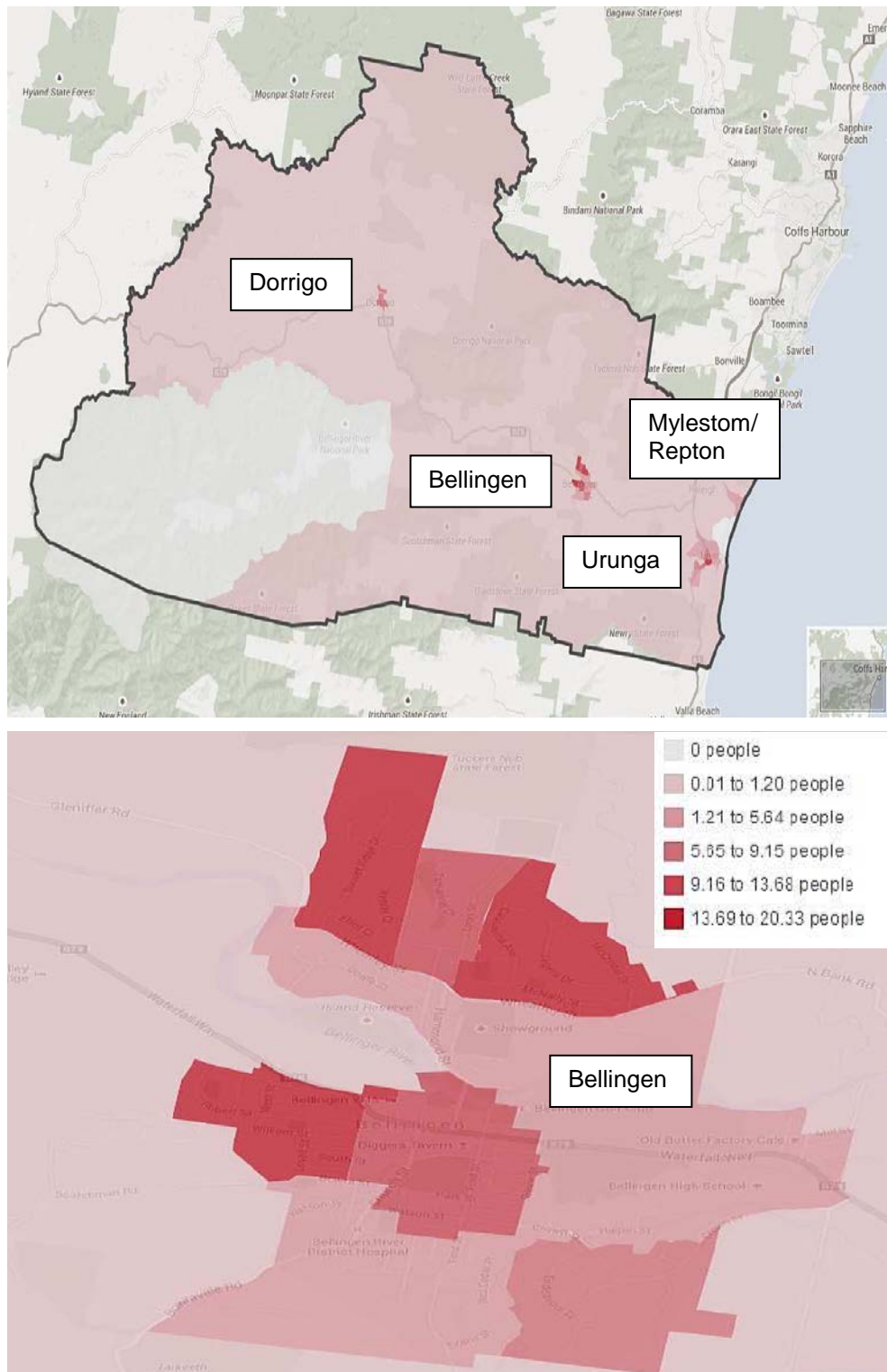


Figure 2-2 Bellinghen Shire population density

Population density shown as persons per hectare

Image source: <http://atlas.id.com.au/Bellinghen/>

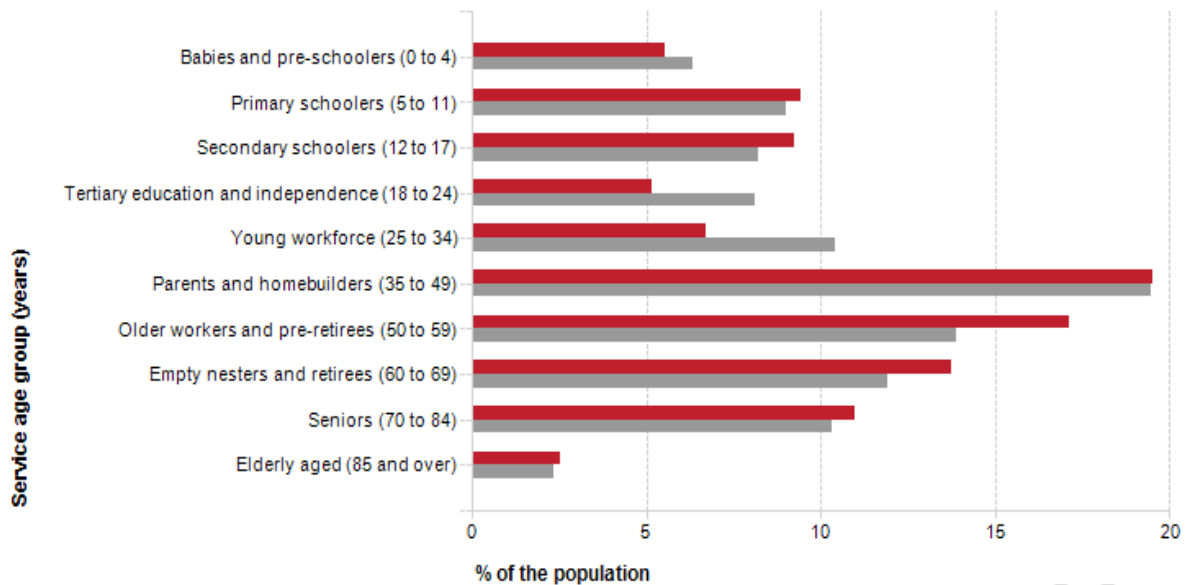
2.4.2 Demographics for age groups in Bellingen Shire

The age group profile for the Bellingen Shire and the average age profile for Regional NSW, based on data from the 2011 census, are shown in Figure 2-3.

Age structure - service age groups, 2011

Total persons

■ Bellingen Shire ■ Regional NSW



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)
Compiled and presented in profile.id by .id, the population experts.



Figure 2-3 Age profile in Bellingen and NSW (2011)

Source: Australian Bureau of Statistics (ABS, 2011)

The statistics show that:

- The proportion of age groups between 5 and 17 years old is similar in the Bellingen Shire compared to the Regional NSW average indicating a reasonably high proportion of school children who are potentially walking to and from school during weekday mornings and afternoons.
- There is a significantly lower proportion of people aged between 18 and 34 years old in the Bellingen Shire compared to the Regional NSW average.
- The proportion of people aged 50 and above is higher in the Bellingen Shire compared to the NSW average with the difference increasing with increasing age. This indicates a higher proportion of retirees in Bellingen who are more likely to make short, non-work based pedestrian trips.

The age profile in each of the study areas identified in the PAMP can also be examined as shown in Table 2-3.

Table 2-3 Service Age Group Profile by Area

Service age group (years)	Bellingen		Dorrigo		Urunga	
	No.	%	No.	%	No.	%
Babies and pre-schoolers (0 to 4)	249	6.7	79	6.1	120	4.0
Primary schoolers (5 to 11)	396	10.7	108	8.3	215	7.1
Secondary schoolers (12 to 17)	395	10.7	99	7.5	249	8.3
Tertiary education and independence (18 to 24)	179	4.8	68	5.2	158	5.2
Young workforce (25 to 34)	277	7.5	67	5.1	228	7.5
Parents and homebuilders (35 to 49)	781	21.1	227	17.3	485	16.1
Older workers and pre-retirees (50 to 59)	572	15.5	235	17.9	459	15.2
Empty nesters and retirees (60 to 69)	421	11.4	180	13.8	498	16.5
Seniors (70 to 84)	293	7.9	198	15.1	521	17.3
Elderly aged (85 and over)	136	3.7	49	3.8	87	2.9
Total population	3,699	100.0	1,310	100.0	3,019	100.0

Source: Australian Bureau of Statistics (ABS, 2011)

It can be seen that Bellingen has a higher proportion of young people aged 0 to 17 years than Dorrigo and Urunga. In contrast, there are significantly more older people aged 60 and above in Dorrigo and Urunga.

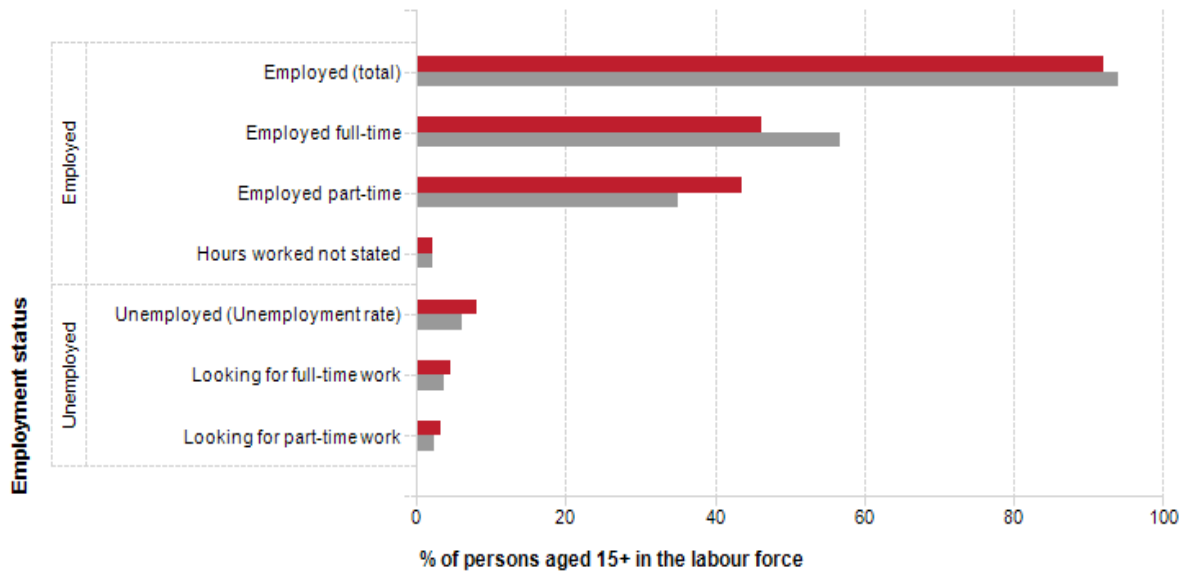
2.4.3 Employment in Bellingen

A comparison of employment rates for the workers resident in the Bellingen Shire and the average for Regional NSW is provided in Figure 2-4. These statistics show that 4,775 people living in the Bellingen Shire are employed, of which 46.3% are working full time and 43.6% part time. This results in an employment rate of 92% for the Shire, which is lower than the 93.9% employment rate for Regional NSW. It is noted that the employment rates for part-time work are higher in Bellingen compared to Regional NSW.

Employment status, 2011

Total persons in the labour force

■ Bellingen Shire ■ Regional NSW



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)
Compiled and presented in profile.id by .id, the population experts.



Figure 2-4 Employment status in Bellingen

Source: Australian Bureau of Statistics (ABS, 2011)

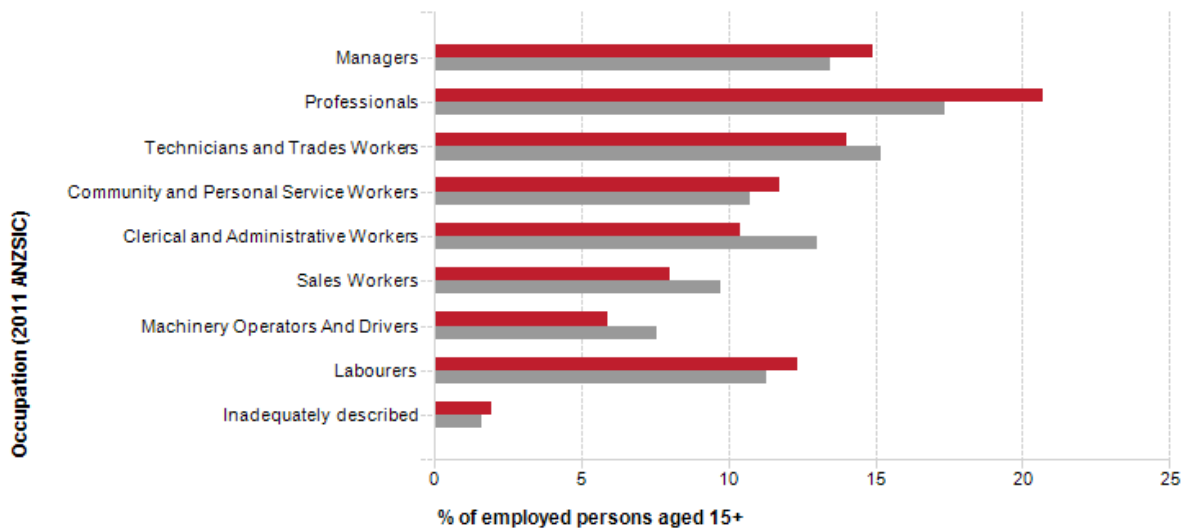
Occupations in Bellingen

A comparison of the proportion of employment occupations between Regional NSW and the Bellingen Shire is shown in Figure 2-5. These statistics show a much higher proportion of managers and professionals and labourers compared with Regional NSW.

Occupation of employment, 2011

Total employed persons

■ Bellingen Shire ■ Regional NSW



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)
Compiled and presented in profile.id by .id, the population experts.



Figure 2-5 Occupation types in Bellingen

Source: Australian Bureau of Statistics (ABS, 2011)

2.4.4 Journey to work data

Journey to work data for the Bellingen Shire compared to Regional NSW shows a high mode share for private vehicle travel. “Hot-spot” maps showing proportion of trips made to work by driving, walking and cycling are shown in Figure 2-6, Figure 2-7 and Figure 2-8 respectively. Walking and cycling accounted for only modest mode share.

The areas with the highest proportion of employees who walk and cycle to work are generally within close proximity to the main town centres including Bellingen, Dorrigo and Urunga. For the outlying areas of the shire, the very small proportion of people making walk only trips to travel to or from work are likely to be farmers working on their own property.

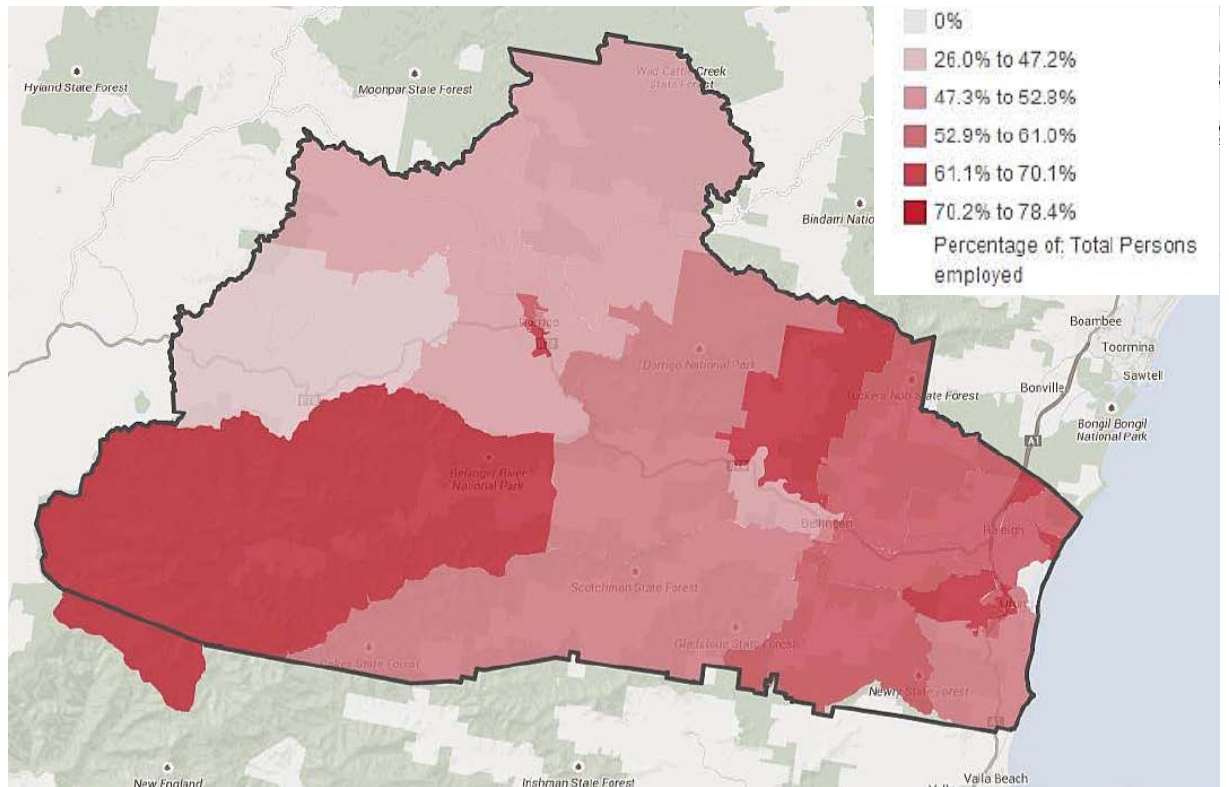


Figure 2-6 Drove to work data for Bellingen

Source: Australian Bureau of Statistics (ABS, 2011)

Employees who walk to work

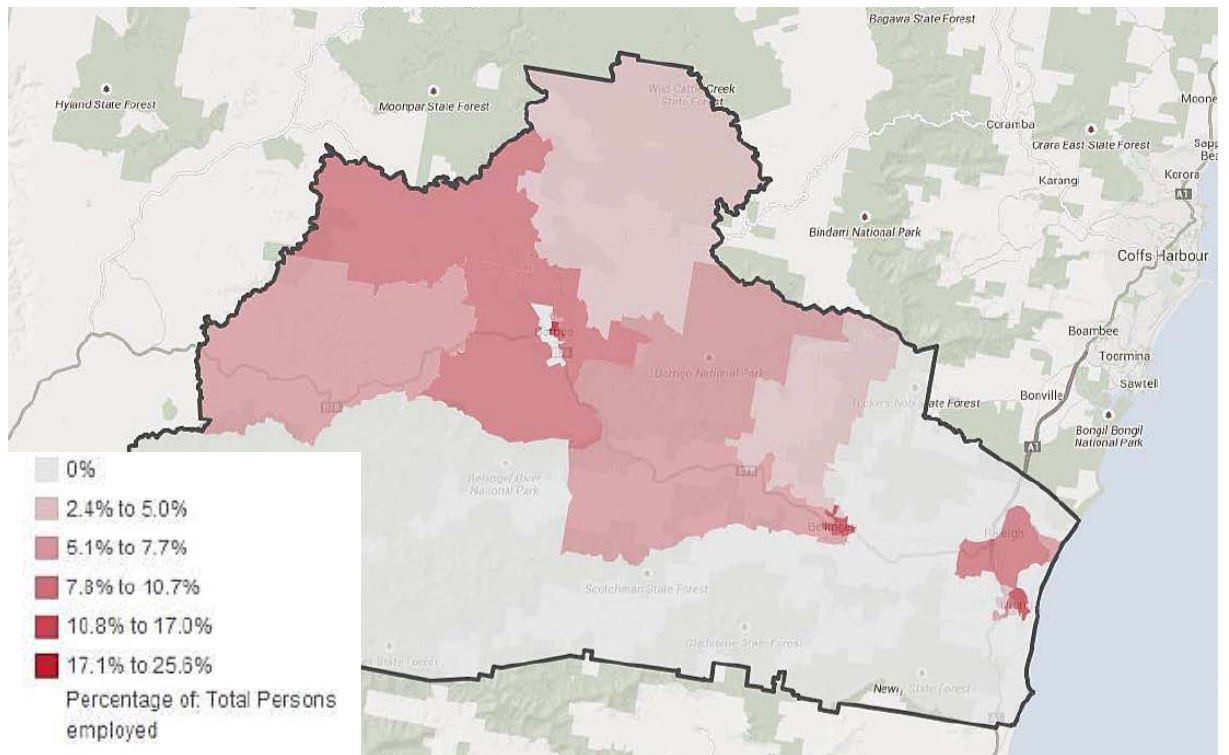


Figure 2-7 Walk to work data in Bellingen

Image source: <http://atlas.id.com.au/Bellingen/>

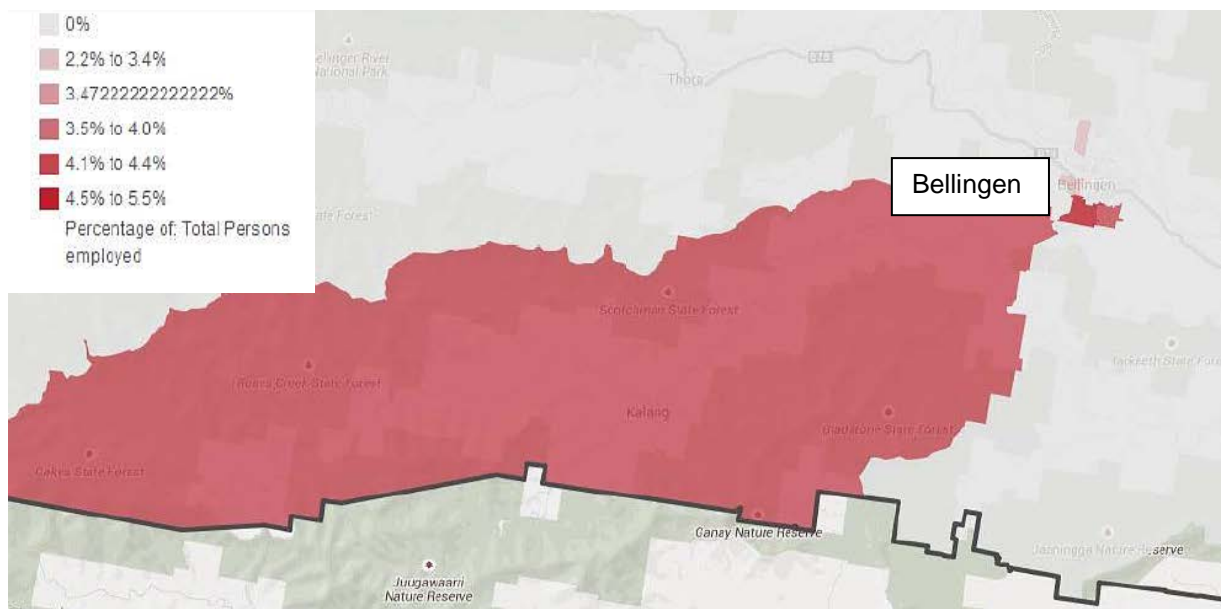


Figure 2-8 Cycling to work data for Bellingen

Source: Australian Bureau of Statistics (ABS, 2011)

2.5 Existing land use and infrastructure

2.5.1 Land use

Land use and walkable catchment plans for each of the main population centres are provided in Appendix A.

2.5.2 Transport network

Road hierarchy

State roads perform an important strategic function and are fully funded and managed by RMS. The Pacific Highway and Waterfall Way are the only state roads within the Bellingen Shire. All other roads in the Bellingen Shire function as either collector roads or local roads and are managed by Council.

Pedestrian/ cyclist infrastructure

Appendix B provides plans showing an inventory of existing pedestrian/ cyclist infrastructure in each of the main population centres. This includes existing footpaths less than 2 metres, shared paths greater than 2 metres, pedestrian crossings, pram ramps, refuge islands.

2.5.3 Key pedestrian generators

The key pedestrian generators within each population centre are also shown on the plans contained in Appendix B.

2.6 Pedestrian/ cyclist crash statistics

Pedestrian/ cyclist crash data was obtained for each population centre for the years 2009 to 2013 inclusive. The data is summarised as follows:

- A total of 12 pedestrian/ cyclist related crashes were recorded during this time. 10 of these crashes resulted in injury, whilst 2 resulted in fatalities.
- The majority of the pedestrian crashes involved pedestrians crossing the road, however there was also a driveway and emerging crash recorded.
- Crashes were predominantly in the afternoon, with the vast majority of crashes occurring during daylight hours between 8:00 am and 8:00 pm.
- The locations of pedestrian crashes are included on the maps in Appendix A.

No crash clusters were identified in the shire.

3. Existing pedestrian/ cyclist and mobility audit

This section builds on the investigations undertaken up to this point in order to define a set of user and function requirements in terms of the issues to be addressed through the improvements to pedestrian and cyclist infrastructure. The outputs of this section constitute the brief for the development of pedestrian infrastructure improvement options.

An audit of existing conditions was undertaken for each of the main population centres included in the study area. The audits focussed on identifying existing facilities, land uses, any shortcomings in the pedestrian/ cyclist environment and potential safety issues. The audit has been developed through:

- Site inspections, which were conducted from 15 - 19 September 2014
- Community survey (online and hardcopy) as summarised in Section 4.2
- Community information sessions as summarised in Section 4.3
- Emails and hard copy correspondence as summarised in Section 4.3

A significant amount of anecdotal or qualitative feedback was received via both the open questions on the survey and the exercises and group discussions undertaken at the community workshop. Valuable quantitative data was also obtained from the survey.

Additionally, GHD conducted a focus group with the Dorrigo Urunga Bellingen Bicycle Users Group (DUBBUG), at which facilitators were on hand to discuss the PAMP and Bike Plan with participants and valuable anecdotal input was received.

3.1 Existing pedestrian issues and constraints audit

Issues and constraints for pedestrian access and mobility were determined in a series of field surveys conducted from 15- 19 September 2014 for each population centre.

A full summary for each population centre based on the findings of the site inspections is provided in Table 3-1. The following sections provide a summary of the conditions in each area and the various issues and constraints.

3.1.1 General

Several issues were identified that were common to all town centres. These are summarised in Table 3-1.

Table 3-1 Common issues to all population centres

ID	Issue	Comment
ML	Missing links	Several locations were identified over the course of the footpath audits where an obvious pedestrian connection or link was missing. These were typically “gaps” in the network or between closely spaced, major pedestrian generators. Larger scale missing links were not recorded as they will be identified during the wider pedestrian network planning process.

ID	Issue	Comment
E	Footpath ends with no connections	Footpaths often end with no connection to the remainder of the pedestrian network. While able bodied pedestrians would typically continue along the verge or the road shoulder (desire lines often evidenced by the presence of a worn track), ending footpaths have a significant impact on mobility impaired pedestrians.
R	Poor or missing kerb ramps	Kerb ramps should be provided where a pedestrian needs to descend to the road level to cross the road (at intersections or mid-block crossings) or when entering a shared area. In many locations missing or non-compliant kerb ramps can cause an access issue for mobility impaired pedestrians, have a poor surface quality (steep incline or decline), or are a tripping hazard.
C	Poor or missing crossing opportunity	Crossings opportunities should be provided where there is a significant demand for pedestrians to cross the road. Depending on the demand, crossings can be in the form of kerb ramps on either side of the road, a median refuge island, pedestrian zebra crossing or a signalised pedestrian crossing. Some locations were identified during the audit where there was demand for a new crossing or where an existing crossing presented access or safety issues.

3.1.2 Bellingin

The Bellingin central business district is generally well serviced by pedestrian infrastructure. Existing pedestrian infrastructure includes wide footpaths along the entire length of Hyde Street on both sides and several pedestrian (zebra) crossings on Hyde Street (between Prince Street and Oak Street). There are also shared paths fronting Connell and Bellingin Parks.

While there are two off street car parks and a business car park (Federal Hotel) within the Bellingin CBD, on-street parking in the area is somewhat limited which increases the frequency and length of pedestrian trips within the town centre. A large amount of pedestrian activity was observed in Hyde Street between Church Street and Oak Street. The Bellingin Main Street Plan is addressing the connectivity of pedestrians with designated car parking areas.

Moderate pedestrian activity was observed on Hyde Street between Church and Prince Street. Outside of these areas, pedestrian activity was relatively light.

3.1.3 Dorriggo

The vast majority of pedestrian activity in the Dorriggo was concentrated around Hickory Street near the supermarket and Cudgery Street.

Higher traffic volumes on Cudgery Street form a barrier to pedestrian movements in this area. Pedestrian crossings are available at the Cudgery/ Hickory Street intersection.

Pedestrians were noted crossing Karabin Street where it turns into Cudgery Street to access the hospital and beyond. This appears to be a dangerous corner given the speed of traffic at this location. Pedestrian traffic was also noted at Dorriggo High School with school children crossing Waterfall Way to access the existing footpath heading towards town.

Outside of these areas, pedestrian activity was relatively light.

Off street shared use paths are available alongside the Bielsdown River. However, these paths require some maintenance.

3.1.4 Urunga

The main commercial strip along Morgo Street, Bowra Street and Bonville Street is subject to heavy pedestrian activity and subject to a 40-km/h speed limit.

Another area of high pedestrian activity was between the caravan park and the golf club and beyond along Atherton Drive. Some light to moderate pedestrian movement was also observed at Russell Park and the Urunga Lions Park.

Outside of these areas, pedestrian activity was relatively light.

At the time of the survey the first stage (1.3 kms in length) of the cycleway from Urunga to Hungry Head, an important link to an existing popular recreation and commuter route, had been constructed.

3.1.5 Mylestom

Little pedestrian activity was observed in Mylestom at the time of the survey. Most activity was between Alma Doepel Reserve and the North Beach Surf Club. There was also some pedestrian activity along River Street between the reserve and the North Beach Recreation and Bowling Club. Very limited pedestrian and cyclist infrastructure exists in Mylestom with the only footpath in the hamlet connecting Alma Doepel Reserve and the North Beach Surf Club.

Like many small coastal hamlets, Mylestom's population during holiday periods increases significantly with the local caravan parks and many rental properties in the hamlet being fully occupied. At these times the deficiencies in pedestrian and cyclist facilities is exacerbated with many users relying on the local road network for access.

3.2 Existing cyclist issues and constraints audit

The existing cycle network in Bellingen relies heavily on the existing road network with limited dedicated infrastructure for cyclists. The Pacific Highway and Waterfall Way act as the primary regional arterial routes and form the spine of the network as they link the main population centres with each other and beyond to other regional centres in Coffs Harbour and Nambucca Heads. Both roads cater for cyclists 'on a mission', such as commuters, and touring cyclists, taking the most direct route alignment.

Primary minor arterial roads, such as Northbank Road, South Arm Road, Bowraville Road, Keevers Drive, Mylestom Drive and Pine Creek Way all form the supporting, parallel framework.

Local routes and links form strategic connections with the regional route, connecting the local street systems. These minor arterial, local and scenic routes link locals and visitors to trip generators such as beaches, reserves, shops, schools and sporting facilities and utilise the shared path network shown in Appendix B.

4. Consultation

4.1 Community engagement

The success of the PAMP and Bike Plan relies on community and key stakeholder input to the planning process. As part of its methodology in developing the PAMP and Bike Plan, GHD and Council completed a Community Engagement Plan and identified a two staged engagement process. A copy of the plan is contained in Appendix C. A summary of the methodology and results of community engagement to date are outlined below.

4.1.1 Methodology

Stage 1: Seek targeted stakeholder input to the PAMP planning process

- Seek input from key stakeholders and user groups (i.e. Community Wellbeing Advisory Committee, seniors, people with disabilities, school communities, young people and recreational user groups) to inform the Draft PAMP and Bike Plan.
- Interviews, information sessions, focus group and surveys to ascertain needs, concerns and preferences in relation to pedestrian/ cyclist infrastructure.

Stage 1 involved a range of activities aimed at obtaining valuable input from pedestrian/ cyclist users around their concerns with current infrastructure and routes as well ideas for future improvements. These activities are discussed further in Section 3 of Appendix C.

Activities in Stage 1 included:

- A focus group meeting with DUBBUG.
- Information sessions at Bellingen, Dorrigo and Urunga with the general public.
- A community survey available online.
- A media release announcing PAMP and Bike Plan consultation and providing a link to the online survey.
- Notification of the project on Council's website with links to the on-line survey.
- Newspaper advertisement (placed in Bellingen Courier Sun).
- Emails to key stakeholders including Council's Community Wellbeing Advisory Committee, business chambers, seniors, people with disabilities, school communities, young people and recreational user groups with information and survey link.

The rationale behind this approach was to ensure that targeted, informed stakeholder input contributes to the Draft PAMP and Bike Plan. It aimed to incorporate the specific needs of each key group, without overwhelming the masses with a completely blank canvas. The information collected in Stage 1 paved the way for a considered Draft PAMP and Bike Plan, which was presented to the wider community for feedback in Stage 2.

Stage 2: Engage with the wider community through exhibition of the Draft PAMP and Bike Plan (yet to be undertaken)

Stage 2 would involve presenting the Draft PAMP and Bike Plan to the wider community and seeking feedback on its contents.

4.2 Summary of findings of the community survey

- When asked in which area they spend most of their time, identified respondents broadly represented all study areas. As expected Bellinggen was most represented with 65.15%, whilst Dorrigo was least represented with 12.88%.
- The most common reason for using pedestrian and cyclist facilities was for recreational purposes including fitness or leisure.
- Bellinggen CBD was most commonly identified as a location regularly visited, followed by Urunga CBD and Dorrigo CBD.
- 78.95% of respondents said they used a private vehicle to access key locations and 59.4% said they used pedestrian routes.
- The most commonly identified reason for not using pedestrian/ cyclist routes more frequently to access key locations was 'the road has no marked or dedicated footpath' (65.83%) followed by 'the routes don't feel safe' (55.0%) and 'the paths are poorly maintained' (51.67%).
- Only 14.17% of respondents said it was easy or always easy to move around key locations using pedestrian routes, while 49.61% said it was difficult or always difficult.
- 'Access for prams and/or families with young children' was the most commonly identified priority for improvement to the pedestrian/ cyclist network, followed by, 'access for wheelchairs/mobility scooters', 'access for cyclists' and 'footpath condition and width'.

4.3 Specific areas of concern

Analysis of the anecdotal feedback reveals some areas of particular concern, raised by multiple respondents (i.e. more than one) as shown in Table 4-1. A full list of comments, by study area, is attached in Appendix C (Appendix C2).

Table 4-1 Anecdotal comments relating to study areas

Location	Comment	No. of mentions
Bellinggen	Access to Bellinggen Public School was considered poor particularly at the front of school with no ramp and no permanent pedestrian crossing.	10
	Shared path between Bellinggen River and Butter Factory	5
	Concrete path from Jarrett Park to link with other footpaths	4
Dorrigo	Shared path between Dorrigo, the Rainforest Centre and Dangar Falls	278 (petition)
Urunga	Shared path to be completed to Hungry Head	3
Mylestom	Lack of footpath/ cycleway between Mylestom and Repton	4

5. Planning for pedestrians

The analysis of the demographic and transport characteristics, pedestrian crash statistics and existing land use and transport infrastructure in the Bellingen Shire presented in Chapter 2 highlights that travel within the Shire is currently dominated by the use of private cars. This is typical of small regional towns and is generally as a result of limited public transport coverage, adverse topography and large distances between origins and destinations. Despite these constraints, the community stated that there are a lack of footpaths, cycleways and walking trails (with signposting) in the Shire.

In order to address this need for improvement, it is necessary to understand the desired requirements for pedestrian infrastructure. Appendix D provides an outline of strategies and standards relevant to the provision of contemporary pedestrian facilities.

5.1 Methodology for identifying pedestrian needs

5.1.1 Identification of activity generators and primary routes

The following approach was adopted from the RTA publication 'How to Prepare a Pedestrian Access and Mobility Plan' (2002) in developing a hierarchy of pedestrian needs:

Primary pedestrian activity zone

This is typically the main commercial area. Throughout the day, pedestrians are attracted to this zone from surrounding residential areas: therefore it is an important trip attractor. Also, there are high levels of pedestrian activity occurring within this zone, making it an important area for internal pedestrian movements (between shops and to and from car parking).

Secondary pedestrian activity generators

This includes shops, schools, sporting facilities, clubs, hospitals and community facilities such as churches that are not located within the Primary Pedestrian Activity Zone. These land uses will attract activity, but possibly only at certain times of the day or week.

Tertiary pedestrian activity generators

These include the above land uses from the Secondary Activity Generators, but differentiate them based on a lower level of activity. Again, these are not located within the Primary Pedestrian Activity Zone.

Primary pedestrian routes

These are routes from residential areas to the Primary, Secondary and Tertiary Activity Zones and Generators. They are trunk or collector level routes, which do not reach every property but instead form a network of routes that are accessible to a significant catchment of population. These routes take account the existing street network and topographical constraints, aiming to provide a direct and convenient route to the major trip generators. The demographic use of connecting generators is considered when defining the routes (i.e. schools and playing fields, aged care facilities and RSL clubs).

5.1.2 Identification of infrastructure provision goals

The hierarchy above provides a basis for applying standard treatments as outlined in Appendix D, in each township, ensuring the development of a comprehensive and well structured pedestrian network. Specific treatments may be required in some of these areas to accommodate the user needs or where other community suggestions are made.

These treatments form the basis of the proposed improvements. While this standard may not be achievable in the short-term due to the capital investment required, it is nevertheless a useful guide to work towards.

Scenarios for potential infrastructure responses are outlined in Table 5-1. These do not directly correlate to the Development Design Specifications, as pedestrian activity is not always consistent with the road hierarchy, i.e, an arterial road is not necessarily a primary pedestrian activity zone.

Table 5-1 Infrastructure provision goals for urban areas in Bellingen Shire

Hierarchy Feature	Route Infrastructure
Primary Pedestrian Activity Zone	Footpaths on both sides of road adjacent to the Primary Pedestrian Activity Zone of 2.5 m width. Assisted road crossings where required by high traffic volumes.
Secondary Pedestrian Activity Generators	Footpath on the side of the road adjacent to the Activity Generator of 2.5 m width. 1.2 m with in other locations. Assisted road crossings where required by high traffic volumes and/or pedestrian types.
Tertiary Pedestrian Activity Generators	Footpath on the side of the road adjacent to the Activity Generator of 1.2 m width. Assisted road crossings where required by high traffic volumes and/or pedestrian types.
Primary Pedestrian Routes	Footpath on one side of the road of 1.2 m width. Assisted road crossings at major cross streets with high traffic volumes. Wayfinding signage to Primary Pedestrian Activity Zones for pedestrians.

6. Planning for cyclists

As with pedestrians, the analysis of the demographic and transport characteristics, cyclist crash statistics and existing land use and transport infrastructure in the Bellingen Shire presented in Chapter 2 highlights adverse topography and large distances between origins and destinations within the Shire as constraints to cycling. Despite these constraints the community stated that there are a lack of cycleways in the Shire.

Appendix D provides an outline of strategies and standards relevant to the provision of contemporary cyclist facilities which can be used to address the desired needs.

6.1 Methodology for identifying cyclist needs

6.1.1 Identification of activity generators and primary routes

The following approach was adopted in developing a hierarchy of cyclist needs.

Primary activity zone

This is typically the main commercial street in the town centre. Throughout the day, pedestrians and cyclists are attracted to this zone from surrounding residential areas. It is therefore an important trip attractor. Also, there are high levels of activity occurring within this zone, making it an important area for short trips. The provision of bicycle parking should also be considered in primary activity zones.

Secondary activity generators

These include shops, schools, sporting facilities, clubs, hospitals and community facilities such as churches that are not located within the Primary Activity Zone. These land uses will attract people, but possibly only at certain times of the day or week.

Tertiary activity generators

These include the above land uses from the Secondary Activity Generators, but differentiate them based on a lower level of activity. Again, these are not located within the Primary Pedestrian Activity Zone.

Primary cyclist routes

These are routes from residential areas to the Primary, Secondary and Tertiary Activity Zones and Generators. They are trunk or collector level routes, which do not reach every property but instead form a network of routes that are accessible to a significant catchment of population. These routes take account the existing street network and topographical constraints, aiming to provide a direct and convenient route to the major trip generators. The demographic use of connecting generators is considered when defining the routes (i.e. schools and playing fields, aged care facilities and return service league clubs).

6.1.2 Identification of infrastructure provision goals

The hierarchy above provides a basis for applying standard treatments as outlined in Appendix E, in each township, ensuring the development of a comprehensive and well structured cyclist network. Specific treatments may be required in some of these areas to accommodate the user needs or where other community suggestions are made.

As for planning for pedestrians, these treatments form the basis of the proposed improvements and while these standards may not be achievable in the short-term due to the capital investment required, it is nevertheless a useful guide to work towards.

7. Priorities for improvements

A number of pedestrian and cyclist improvements have been identified following a detailed assessment of the background information presented in the earlier sections of this plan.

This section identifies these improvements and outlines the methodology used to prioritise the improvements for projects in the main town centres.

7.1 Methodology to prioritise improvements

7.1.1 Aims in the development of infrastructure recommendations

Major aims of the proposed improvement works, in decreasing order of priority, are to:

- Fill any shortcomings in the Primary Pedestrian Activity Zone areas of each town through new footpaths and crossing points, particularly if safety issues have been raised.
- Establish a network of key pedestrian and cycle routes in the town centres and between major trip generators including schools. Prioritised routes are those that serve a wide range of community users and can remove pedestrians and cyclists from unsafe environments.
- Broaden the extent of the network to areas outside of the Primary Pedestrian Activity Zones.
- Provide additional pedestrian and cycle routes for primarily recreational or tourism purposes.

7.1.2 PAMP Prioritisation methodology

The RMS document *“How to Prepare a Pedestrian Access and Mobility Plan”* (March, 2002) provides guidance on which factors are important in providing footpaths. These factors were used to determine the prioritisation of the proposed pedestrian infrastructure improvements.

Scores were derived for each of the recommended pedestrian improvements for the purpose of prioritising projects. The Weighted Criteria Scoring System from the RMS PAMP Guide was used to prioritise each proposed improvement as shown in Table 7-1.

Table 7-1 RMS weighted criteria scoring system

Category	Criteria	Performance Conditions ¹ .	Score
Land Use	Number of attractors/ generators (locations)	more than 5 locations	10
		3-5 locations	8
		1-2 locations	5
		0 locations	0
	Land use type	schools	10
		commercial/retail	8
		residential	5
		other	0
	Proximity to generators/ attractors	less than 250 metres	10
>250-500 metres		8	
>500-1000 metres		5	
>1000 metres		0	

Category	Criteria	Performance Conditions ¹ .	Score
	Future development with attractors/generators	high medium low	5 3 1
Traffic Impact	Road hierarchy	State road Regional road local road special use other	15 10 8 5 0
Safety	Identified hazardous area (from audit or consultation)	high medium low none	10 8 5 0
	Identified pedestrian crashes	>3 reported crashes per year 3 reported crashes per year 2 reported crashes per year 1 reported crash per year 0 reported crashes per year	15 10 8 5 0
Facility Benefits	Demonstrated path	high usage medium usage low usage not demonstrated	10 8 5 0
Continuity of routes	Addition to existing facility	link up footpath extension of footpath add to devices other	10 8 5 0
Priority	Pedestrian route hierarchy	high medium low	5 3 1

The overall priority of the works is determined by summing the score of each criterion where:

- High (100 – 70)
- Medium (<70 – 40)
- Low (<40)

For the purposes of costing the prioritised pedestrian improvement works and to help with the prioritised ranking, the following classifications were used:

- Low with costs less than \$30,000
- Medium with costs between \$30,000 and \$100,000
- High with costs greater than \$100,000

It should be noted that the cost estimates are preliminary and only consider the type of facility and the length by unit cost. No consideration was given to detailed site issues, such as formation costs and costs to adjust public utilities, as the resources required to undertake this level of assessment for all projects is not warranted.

Limitations of RMS methodology

It should be noted that there are limitations to the RMS based methodology for prioritising each proposed improvement. For example, the Weighted Criteria Scoring System does not include the presence of existing footpaths on the opposite side of the street. This may result in the proposed improvement having a higher priority using the RMS method (as it is assumed there is no footpath on the route) than maybe actually warranted.

Also, at some key generators, pedestrian facilities may be urgently required (outside an aged care facility for example) however the weighting system may not provide a score that is significantly higher than for the same facility at a less critical location.

In this regard, the Weighted Criteria Scoring System only provides a raw, first cut ranking of projects and this ranked list must then be used to further assess and adjust priorities using specific knowledge and particularities of projects.

7.1.3 Bicycle plan prioritisation & methodology

The RTA guidelines from *How to Prepare a Bicycle Plan* (RTA, 2002) indicate that future bicycle routes should be based on a set of priorities, including:

- Safety
- Community needs and expectations
- Council commitment
- Available funding and future planning opportunities
- Rectification / maintenance programs

Overall, this set of priorities is considered to be rather general in nature and does not provide specific guidance on prioritising one route above another. However, specific guidance does exist from the related RTA publication *How to Prepare a Pedestrian Access and Mobility Plan* (PAMP) (NSW RTA, 2002) and consequently the same methodology was adopted as a prioritisation methodology for bicycle improvements.

7.2 Proposed improvements and priorities

This section provides the identified improvement projects and priorities.

7.2.1 Reference system

The recommended infrastructure works use a referencing system as follows:

- Categorisation numbers of infrastructure works within each local centre are preceded with the name of the town centre or local centre, ie B (Bellingen), U (Urunga), D (Dorrigo) and M (Mylestom).
- The various routes or other facilities proposed in each precinct or local centre are classified by numbers and in some cases include a lower case letter suffix, eg. B1a, B2a, B2b, B2c.

7.2.2 Ranked priority projects

The recommended high priority projects are intended to guide the development of the improvements for pedestrian and cyclist infrastructure within the local centres, but they are also intended to fit within the wider context of Council's aims and objectives and planning for anticipated future development.

A full list of the proposed improvements for each of the population centres of Bellingin, Dorrigo, Urunga and Mylestom is provided in Appendix F.

Appendix G presents these projects in overall prioritised order irrespective of town or location.

7.2.3 Community priority projects

This PAMP and Bike Plan has been subject to extensive consultation. However priorities for the community may not always be reflected in the priorities identified by the RMS Weighted Criteria Scoring System presented above. To this end, a number of community priority projects have been identified which could be developed as and when funding becomes available. These include:

Dorrigo to Dangar Falls (D12 and D13)

The project is in two stages providing a shared pedestrian/cycle path between the Dorrigo Town Centre and Dangar Falls recreation area. The proposal links existing paths in Dorrigo to a popular tourist and local recreation area.

- *Stage 1:* From Pine Street to Bielsdown River and includes planning and design for stages one and two and construction of Stage 1 (2.5 m wide concrete off road shared pathway and a 25 m span bridge over Bielsdown River).
- *Stage 2:* From Bielsdown River to Dangar Falls recreation area and includes construction of a 2.5 m wide concrete off road shared pathway.

The strategic cost estimate for the project is \$442,230 with a contingency of \$73,704.87.

Dorrigo to Rainforest Centre (D14 and D15)

The project would be developed in three stages providing a shared pedestrian/cycle path between Dorrigo and the National Parks Rainforest Centre. The proposal links an existing path in Dorrigo near the public school to a tourist recreation and educational centre operated by National Parks and Wildlife.

- *Stage 1* includes planning and design for the total length and construction of an off-road shared path along Waterfall Way between Hollibone Street and Dome Road connecting to the school.
- *Stage 2* includes construction of an off-road shared path along Dome Road between the intersection of Waterfall Way and Rocky Creek including the construction of a 15 m span bridge over Rocky Creek.
- *Stage 3* includes construction of an off-road shared path along Dome Road between Rocky Creek and the Rainforest Centre.

The strategic cost estimate for the project is \$876,579 with a contingency of \$87,658.

Urunga to Hungry Head (remaining sections)(U8)

- *Stage 3:* The project is a continuation of the Urunga to Hungry Head shared pedestrian/cycle path. The proposal is for the stage 3 section which links the completed stage 1 section along Hungry Head Road north from the sports fields to the boardwalk at Urunga. The project includes planning, design and construction to deliver a 2.5 m wide concrete off road shared pathway the project also includes a 24 m span bridge over Station Creek.

The strategic cost estimate for the project is \$385,740 with a contingency of \$32,840.

- Stage 4: The project is a continuation of the Urunga to Hungry Head shared pedestrian/cycle path. The proposal is for the stage four section which links the stage two section along Hungry Head Road south from Pipe Clay Creek to Hungry Head Beach Road and the recreation reserve beach access. The project includes planning, design and construction to deliver a 2.5 m wide concrete off road shared pathway the project.

The strategic cost estimate for the project is \$328,401 with a contingency of \$32,840.

Repton to Mylestom (M1 and M2)

The proposed Repton to Mylestom route travels along the Bellinger River on Mylestom Drive and River Street. The length of the route, from the surf club at Mylestom to Repton Public School is approximately 2.4km. Although this route is a relatively low stress on-road route, the community feels that a link to the Repton Public School would be beneficial. It would also provide a scenic recreational route for cyclists of all ages and abilities.

As the intended primary user group for this route is school children and recreational users, a 2.5m wide concrete shared path would be the most appropriate facility. This is based on the assumed availability of land adjacent to Mylestom Drive without significant earthworks. Based on this cost, it is unlikely that Council could fund this project alone. Therefore, it is recommended that over the medium to long term Council monitor opportunities to form a partnership funding of this link, as it has been deemed desirable by the community.

The strategic cost estimate for the project is \$638,819 with a contingency of \$106,470.

Other Routes

In addition to consideration of urban pedestrian and bicycle routes, the community has identified a number of inter-town routes within the shire.

There is potential to link smaller towns/ localities in the shire via a future network of paths and cycle lanes, as appropriate. These routes have the potential to encourage longer distance cycle trips for recreation, sport, transportation and tourism. At this stage, however, it is generally recommended that Council focus on the higher priority routes identified. These routes are likely to provide greater benefit to the community in terms of usage and safety benefits in relation to the available funding. Potential to link other towns in the future should be investigated as opportunities for funding arise.

Inter-town routes would primarily use existing state and regional road corridors. Roads and Maritime Services (RMS) would therefore be a key partner in the provision of future inter-town pedestrian and bicycle routes. It is recommended that Council play a role as advocate for such facilities in ongoing discussions with the RMS, taking advantage of opportunities as they arise, including during planning of road maintenance works.

As a minimum, a sealed shoulder seal is recommended for the use of cyclists on upgraded rural roads with a likely cyclist demand. The appropriate width of the shoulder is determined by the speed limit for vehicles, and ranges from 1.5m (60km/h) to 3m (100km/h) (see Austroads Part 14).

In particular, one route was nominated by the community as having potential for pedestrian and cyclist infrastructure.

Bellingen to Urunga

The route between Bellingen to Urunga is approximately 16km in length and travels via the Waterfall Way, Short Cut Road and the Pacific Highway via the towns of Fernmount and Raleigh. The road reserve along the route is narrow in locations with additional issues including a number of creek crossings and road cuttings.

While this route would represent a welcome addition to cycling infrastructure for the residents of Bellingen Shire, it is considered that it would be cost prohibitive to provide a cycle path at this time. For example, even without significant earthworks or structures, a path of this length could cost in the order of \$4 million.

Therefore, it is recommended that as the roads along this route are upgraded, Council and the RMS work together to assess the best way to accommodate cyclists. This may lead to road widening and paving of road shoulders for use by cyclists.

It is noted that some sections of the Waterfall Way have been upgraded in recent times and these upgrades have allowed for a wider road shoulder. However most of these shoulders still do not comply with Austroads Part 14.

7.3 Future expansion

The recommended routes reflect the identified existing environment in terms of trip generators, traffic conditions, and the extent of urban development. Changes to these factors cannot be easily forecast. Therefore, when assessing future development proposals within the Bellingen Shire, Council should require proponents to address the potential need for pedestrian and cycling infrastructure. The potential for developer contributions, as outlined in Section 2.3.3, should be investigated when considering the connection of new development areas or trip generators to the existing or planned pedestrian and bicycle network.

8. Primary pedestrian and cycle network

Appendix H provides maps showing the proposed routes as well as the existing routes (as identified in Appendix B) which will form the Primary Pedestrian and Cycle Network for the main town centres.

Council has limited resources that can be allocated to the implementation of the list of potential improvement projects presented in Section 7. Consequently it will be necessary to use the prioritised ranking of projects to develop a short list of high priority projects. Council can then focus its resources on undertaking more detailed investigations for these higher ranked projects to facilitate the pursuit of potential funding sources.

Consequently the list of prioritised projects provided in Section 7 has been assessed and examined, both in the information elicited through community consultation and by taking account of local knowledge and understanding of the existing network, to develop a list of the highest priority improvement projects.

This list is provided in Table 8-1.

Table 8-1 Ranked projects

Rank	Reference Number	Location	Description	Treatment
1	B16	Bridge Street	At Hyde Street	Alter pram ramp layout
2	B15b	Lovell Street	Bowra Lane to William Street	Widen Path (2.5m)
3	B1a	Hyde Street	Doepel Street west to existing footpath	Shared Path (1.2m)
4	D5	Cudgery Street	High School front entrance to Bielsdown River	Shared Path (2.5m)
5	D6	Cudgery Street	Opposite High School near Rosewood Street	Pedestrian Refuge
6	B12a	William Street	Oak Street to Church Street	Shared Path (2.5m)
7	B12b	William Street	Lovell Street to Oak Street	Shared Path (2.5m)
8	B12c	Lovell Street	South William Street	Pedestrian Refuge
9	B17b	Bridge Street	Bridge	Widen Bridge with shared path (2.5m)
10	U1b	Pacific Hwy	Ranger Street to Hillside Drive	Shared Path (2.5m)
11	U2	Pacific Hwy	North of Ranger Street	Pedestrian Refuge
12	B18a	Hammond Street	Bridge to Dowle St	Shared Path (2.5m)

9. Conclusions and recommendations

9.1 Findings of the investigations

Consultation was undertaken with key stakeholders and the wider community as part of the development of this PAMP and Bike Plan for Bellingen Shire, to ensure that the plan meets the needs of the community now and into the future. The consultation involved community surveys and information sessions. Specific areas of concern that were raised by multiple people included:

- Lack of footpaths/ shared paths
- School crossings and footpaths, particularly at Bellingen Public School
- Poor pedestrian and cycle linkages
- Footpath obstructions

An audit of existing issues and constraints for pedestrians/ cyclists was undertaken for each of the main centres in the study area. The audit focussed on identifying the existing facilities, land uses, any shortcomings in the pedestrian/ cyclist environment and potential safety issues. The key issues and constraints included:

- Poor quality footpath surfaces
- Missing pedestrian links and crossings
- Obstructions within the footpath

9.2 Recommendations

A number of pedestrian and cyclist improvements were recommended as part of this plan. The plan includes treatments such as:

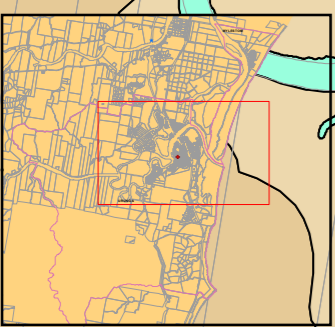
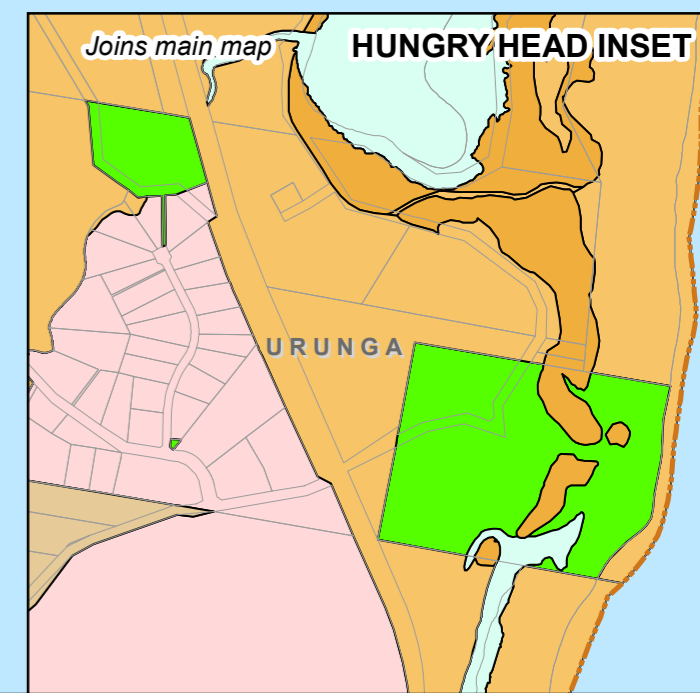
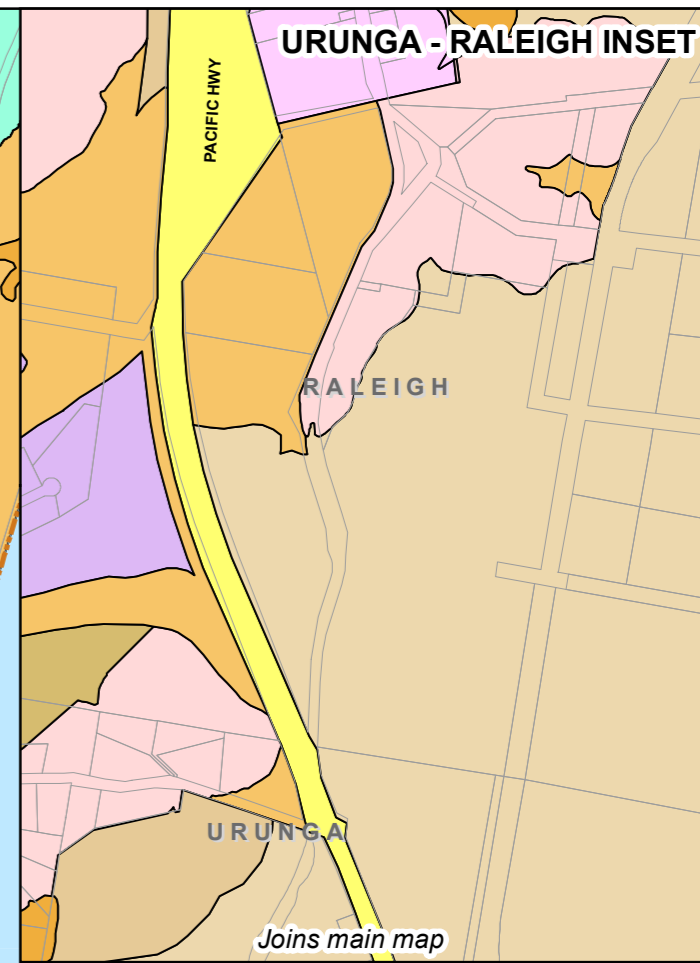
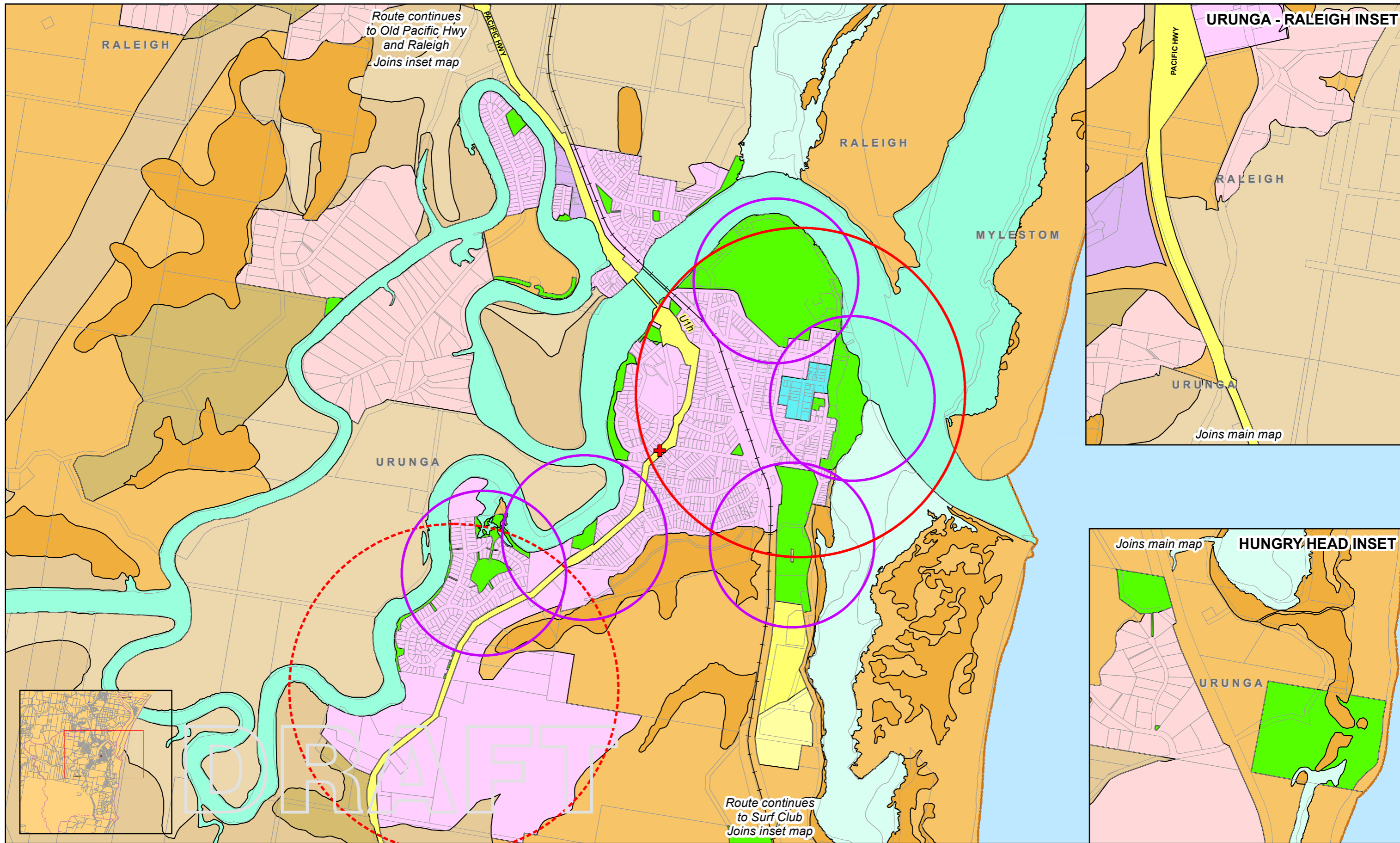
- Construction of new footpaths and connection of existing footpaths to create a complete and coherent pedestrian/ cyclist network.
- Provision of new pedestrian facilities at areas of high pedestrian demand or vehicular traffic volumes, eg. Bellingen high pedestrian activity zone.
- Upgrade of existing intersections to improve pedestrian access particularly for crossing movements at busy streets with provision of adequate kerb ramps and alterations to the layout and location of kerb ramps.

In summary, it is recommended that:

- For the improvement projects listed in Table 8-1.
 - Detailed survey, investigation and designs be undertaken.
 - Funding from all available sources be pursued.
 - When funding has been secured for a project the project be scheduled on Council's works program.
- Grant funding be sought for the community priority projects provided in Section 7.2.3 of the report.
- Liaison with RMS regarding sealed shoulder upgrades be pursued at every opportunity.
- Linking of small rural towns and localities with shared pedestrian/ cycle paths be investigated as opportunities for funding arise.

Appendices

Appendix A – Maps showing land use and walkable catchments plans with crash data



Paper Size A3
 0 80 160 320 480 640
 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



LEGEND		
B2 Local Centre	R5 Large Lot Residential	SP1 Special Activities
E2 Environmental Conservation	RE1 Public Recreation	SP2 Infrastructure
E3 Environmental Management	RU1 Primary Production	W1 Natural Waterways
IN1 General Industrial	RU2 Rural Landscape	W2 Recreational Waterways
R1 General Residential	RU4 Rural Small Holdings	
		Walkable catchment
		400m radius
		800m radius
		Proposed 800m radius
		Fatal



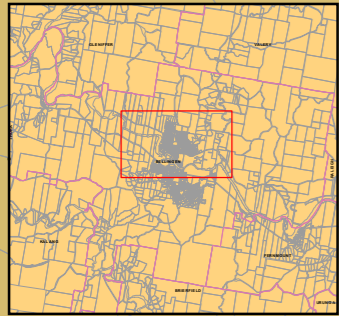
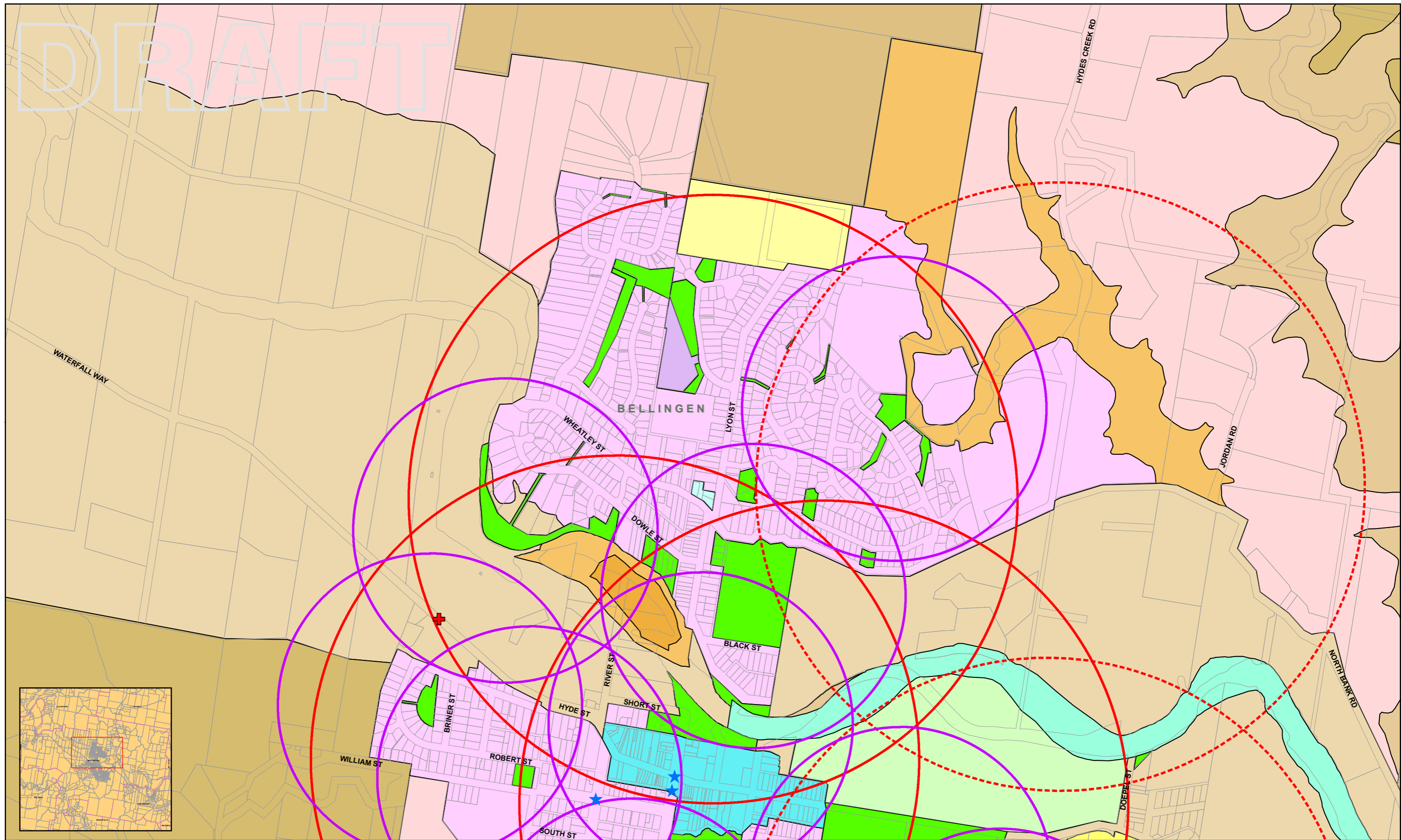
Bellingen Shire Council
 Pedestrian Access and Mobility Plan

Job Number | 22-17328
 Revision | A
 Date | 11 Dec 2014

Urunga Land Use and Walkable Catchments Figure

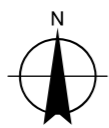
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 Level 3, GHD Tower, 24 Honeysuckle Drive, Newcastle NSW 2300 T 61 2 4979 9999 F 61 2 4979 9988 E ntmail@ghd.com W www.ghd.com.au
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 Data source: LPI - DTDB/DCDB, 2012. DoPI - LEP data, 2014. RMS - Crash data, 2014. Created by: tmorton

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



LEGEND

- | | | | |
|-------------------------------|--------------------------|---------------------------|----------------------|
| B1 Neighbourhood Centre | R5 Large Lot Residential | RU4 Rural Small Holdings | Walkable catchment |
| B2 Local Centre | RE1 Public Recreation | SP1 Special Activities | 400m radius |
| E2 Environmental Conservation | RE2 Private Recreation | SP2 Infrastructure | 800m radius |
| E3 Environmental Management | RU1 Primary Production | W2 Recreational Waterways | Proposed 800m radius |
| IN1 General Industrial | RU2 Rural Landscape | Fatal | |
| R1 General Residential | RU3 Forestry | Injury | |

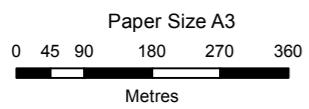
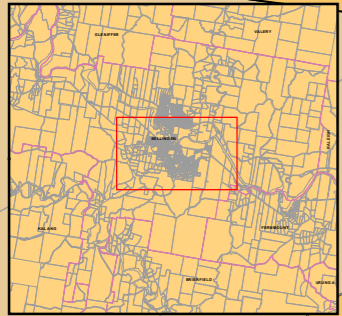
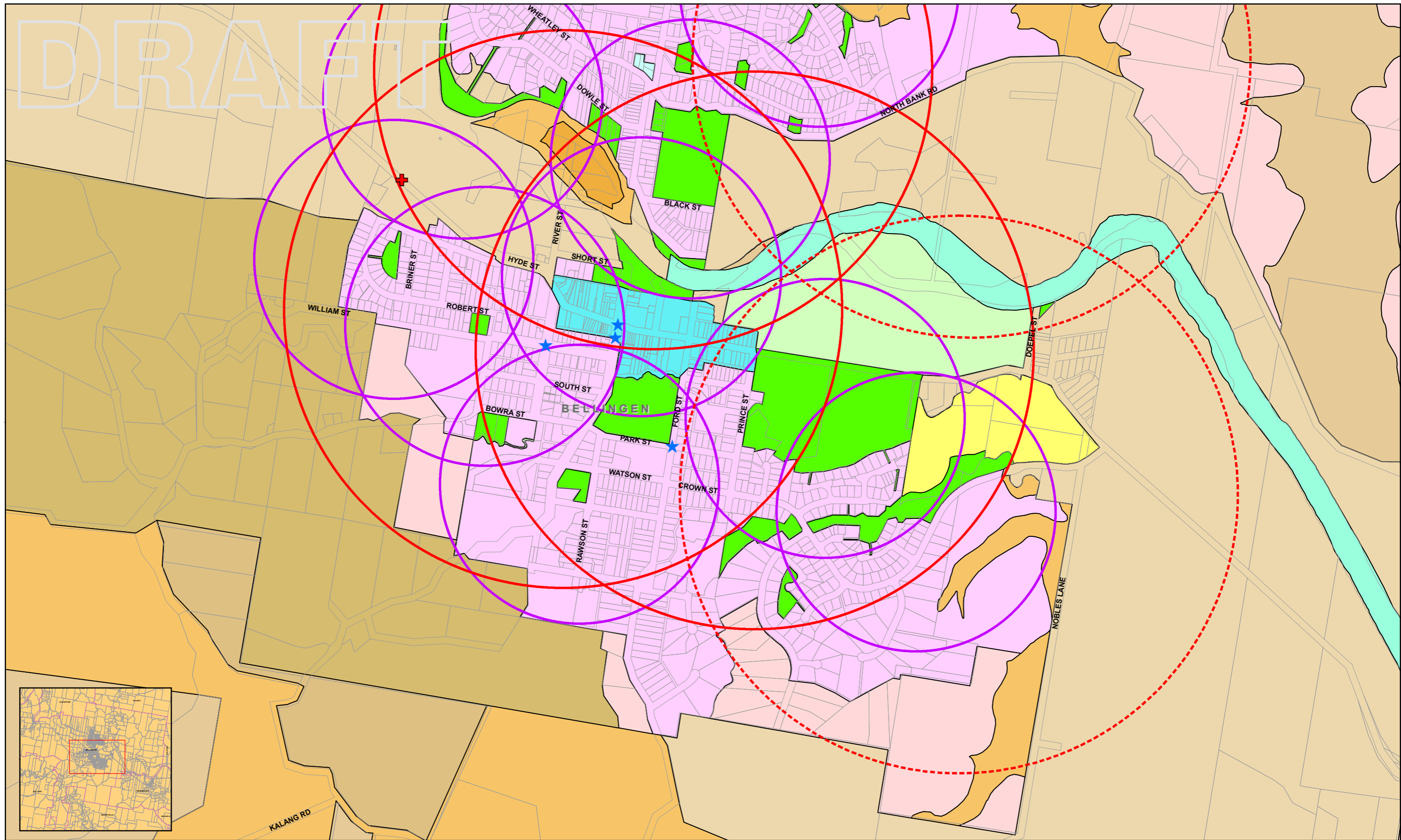


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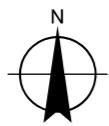
Job Number | 22-17328
Revision | A
Date | 11 Dec 2014

Bellingen North Land Use and Walkable Catchments Figure

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



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|-------------------------------|--------------------------|---------------------------|
| B1 Neighbourhood Centre | R5 Large Lot Residential | RU3 Forestry |
| B2 Local Centre | RE1 Public Recreation | RU4 Rural Small Holdings |
| E2 Environmental Conservation | RE2 Private Recreation | SP2 Infrastructure |
| E3 Environmental Management | RU1 Primary Production | W2 Recreational Waterways |
| R1 General Residential | RU2 Rural Landscape | |

Walkable catchment

- 400m radius
- 800m radius
- Proposed 800m radius
- Fatal
- Injury

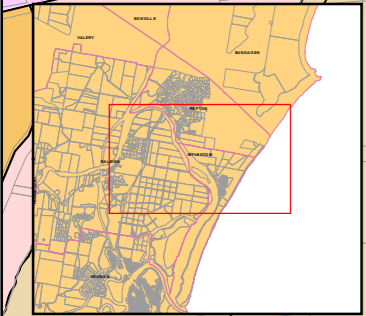
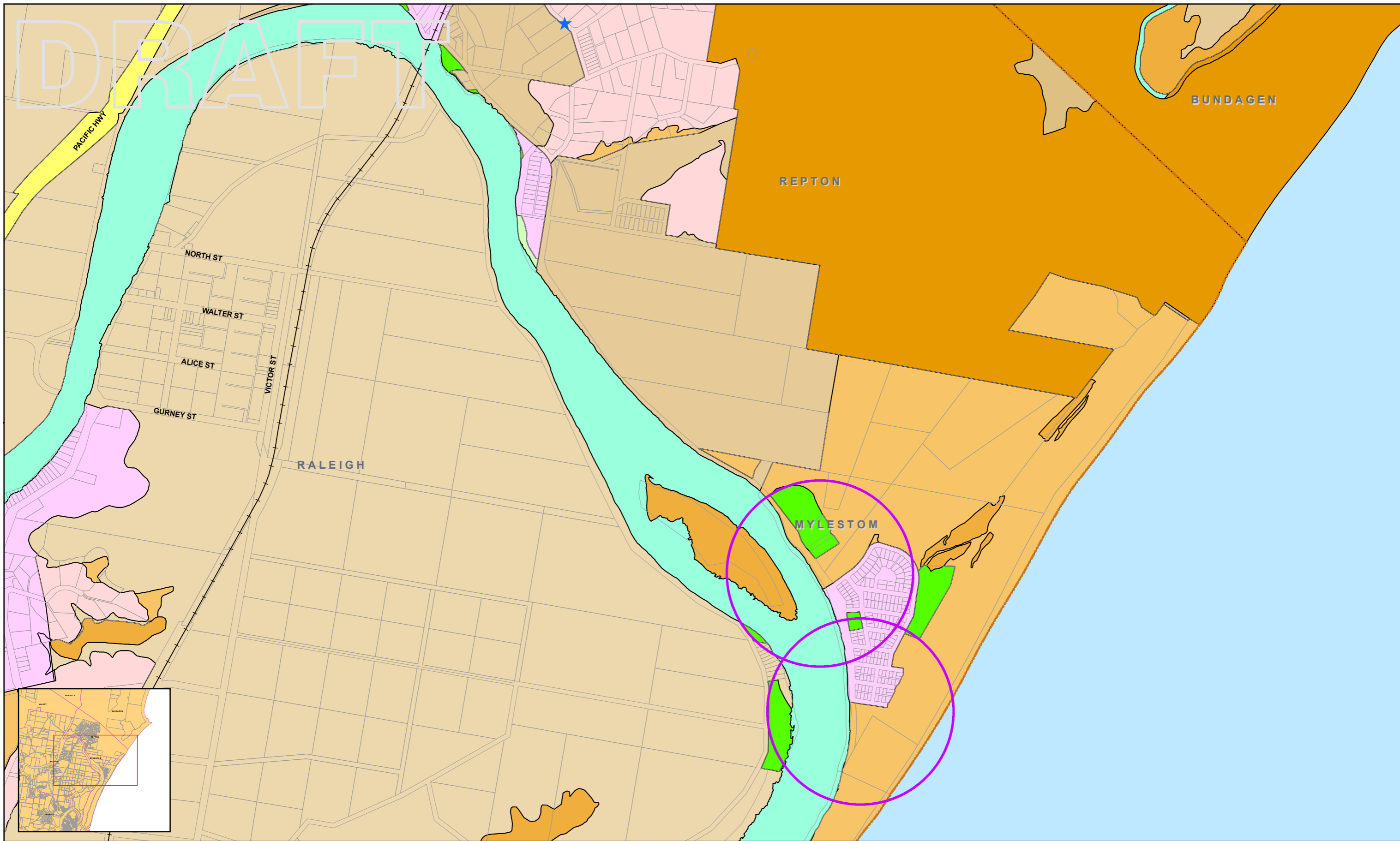


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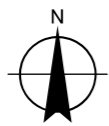
Bellinggen South
Land Use and Walkable Catchments Figure

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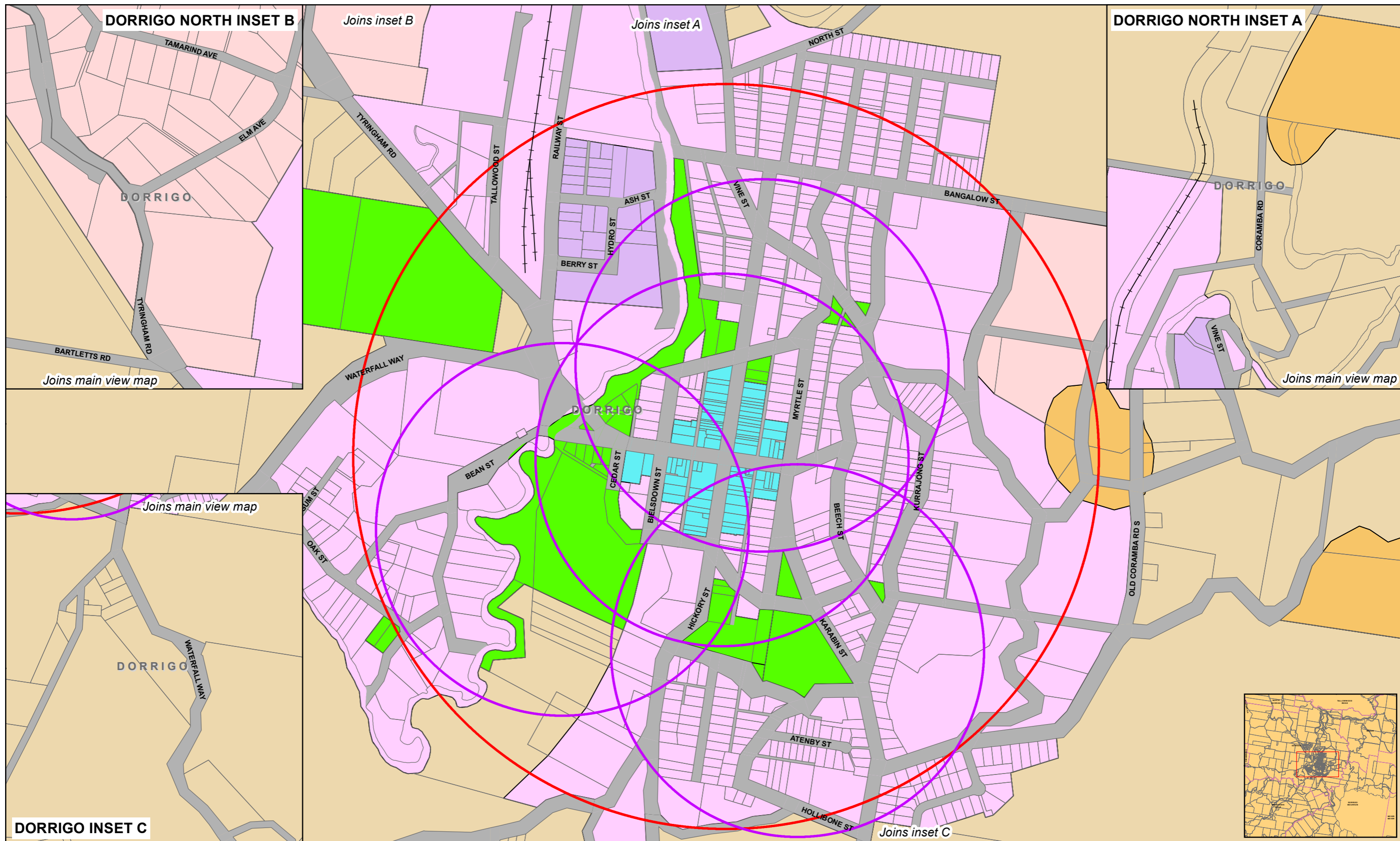
- | | | |
|---------------------------------------|---------------------------|--------------------|
| E1 National Parks and Nature Reserves | RE2 Private Recreation | Walkable catchment |
| E2 Environmental Conservation | RU1 Primary Production | 400m radius |
| E3 Environmental Management | RU2 Rural Landscape | Injury |
| R1 General Residential | RU3 Forestry | |
| R5 Large Lot Residential | SP2 Infrastructure | |
| RE1 Public Recreation | W2 Recreational Waterways | |



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Mylestom
Land Use and Walkable Catchments Figure



DORRIGO NORTH INSET B

Joins inset B

Joins inset A

DORRIGO NORTH INSET A

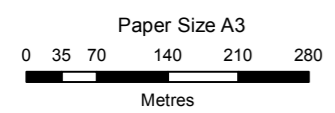
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DORRIGO INSET C



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- B2 Local Centre
- E3 Environmental Management
- IN1 General Industrial
- R1 General Residential

- R5 Large Lot Residential
- RE1 Public Recreation
- RU1 Primary Production

- Walkable catchment**
- 400m radius
 - 800m radius



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Pedestrian Access and Mobility Plan

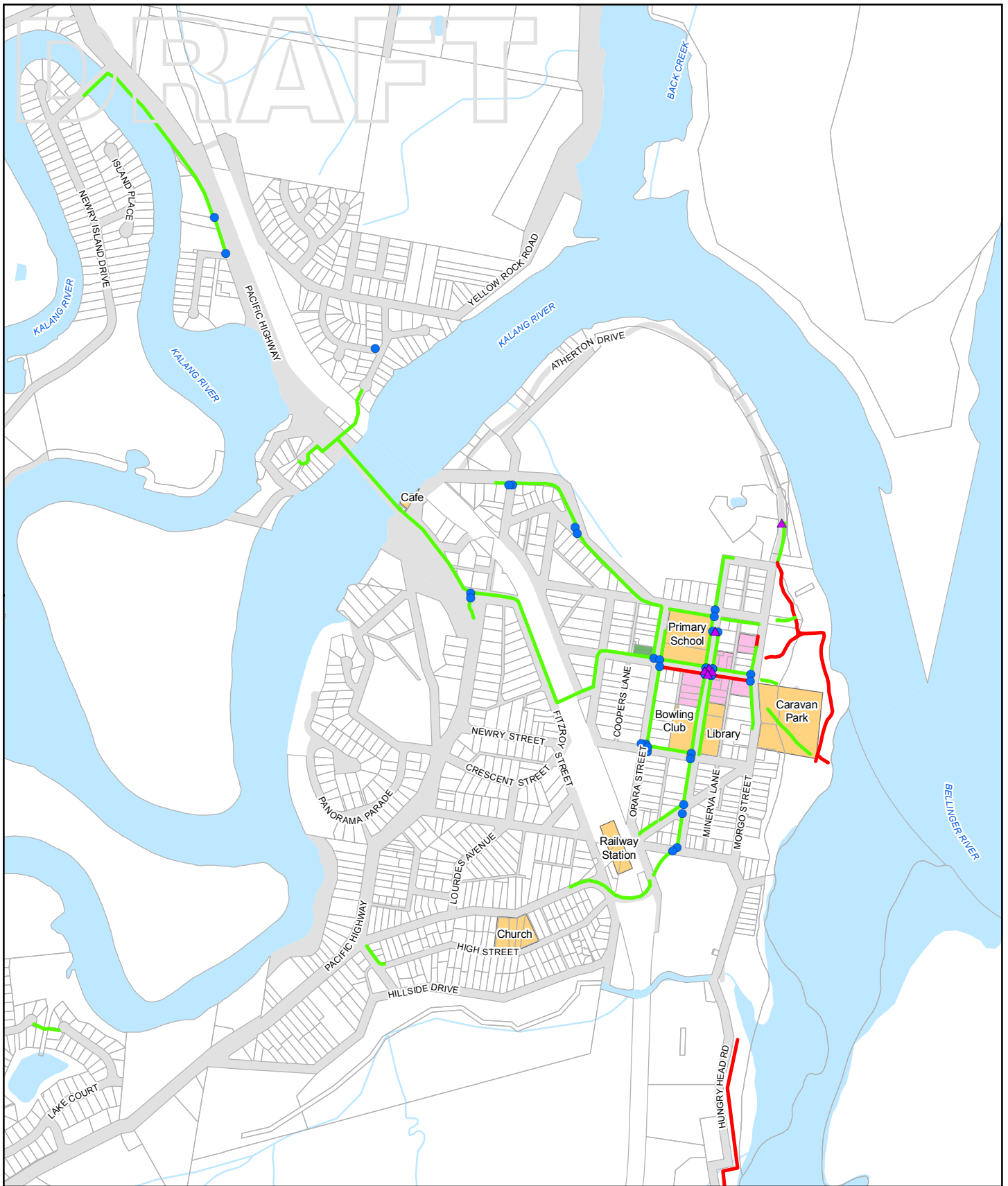
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Revision | A
Date | 12 Jan 2015

**Dorrigo
Land Use and Walkable Catchments** Figure

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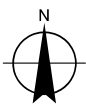
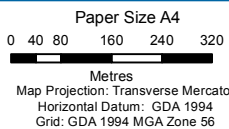
Level 3, GHD Tower, 24 Honeysuckle Drive, Newcastle NSW 2300 T 61 2 4979 9999 F 61 2 4979 9988 E ntlmail@ghd.com W www.ghd.com.au
r otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being

Appendix B – Maps showing existing pedestrian/ cyclist infrastructure



LEGEND

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|---------------|--------------------------------|----------------------------|---------------------|
| Cadastre | Pedestrian Generator Primary | Existing Shared Path (>2m) | Pedestrian Crossing |
| Waterbody | Pedestrian Generator Secondary | Existing Footpath (<2m) | Pram Ramp |
| Road corridor | | | Refuge Island |
| State Forest | | | |

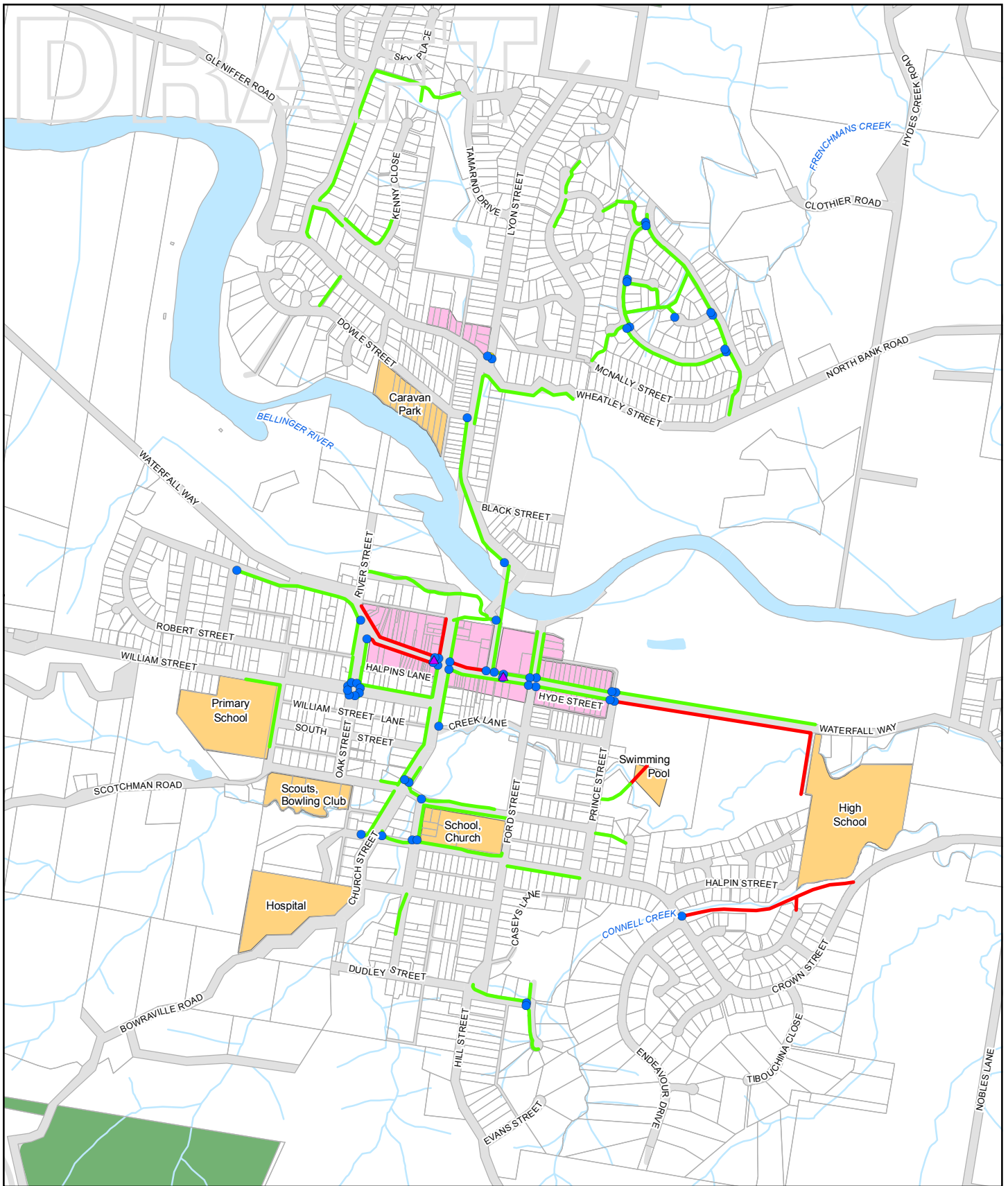


Bellingen Shire Council
Pedestrian Access and Mobility Plan

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Urunga - Existing Pedestrian and Cyclist Infrastructure

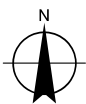
Figure 1



LEGEND

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|---------------|--------------------------------|----------------------------|---------------------|
| Cadastre | Pedestrian Generator Primary | Existing Shared Path (>2m) | Pedestrian Crossing |
| Waterbody | Pedestrian Generator Secondary | Existing Footpath (<2m) | Pram Ramp |
| Road corridor | | | Refuge Island |
| State Forest | | | |

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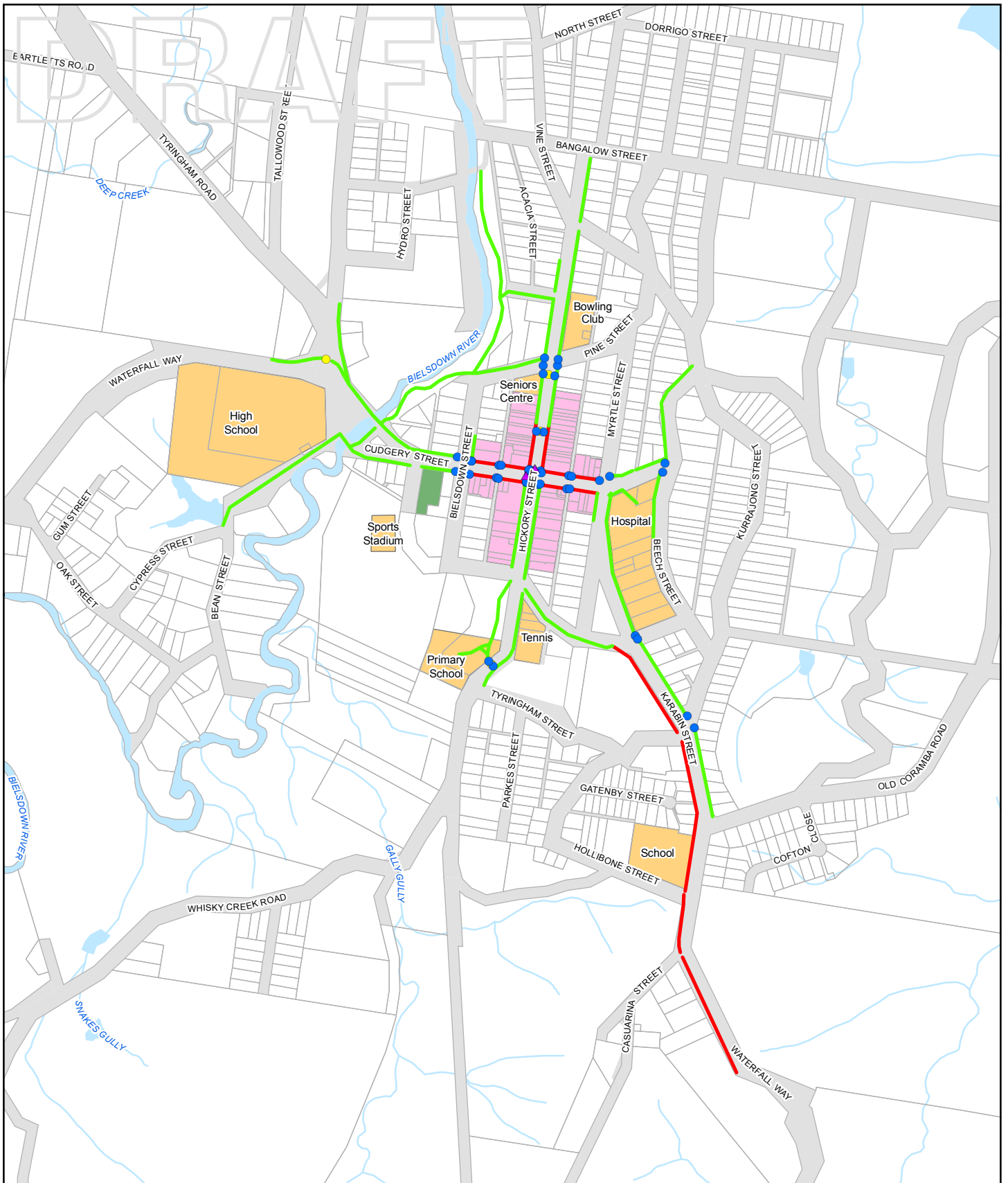


Bellingen Shire Council
 Pedestrian Access and Mobility Plan

Job Number | 22-17328
 Revision | B
 Date | 19 Dec 2014

Bellingen - Existing Pedestrian and Cyclist Infrastructure

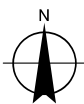
Figure 2



LEGEND

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|---------------|-----------|----------------------------|---------------------|
| Cadastrate | Primary | Existing Shared Path (>2m) | Pedestrian Crossing |
| Waterbody | Secondary | Existing Footpath (<2m) | Pram Ramp |
| Road corridor | | | Refuge Island |
| State Forest | | | |

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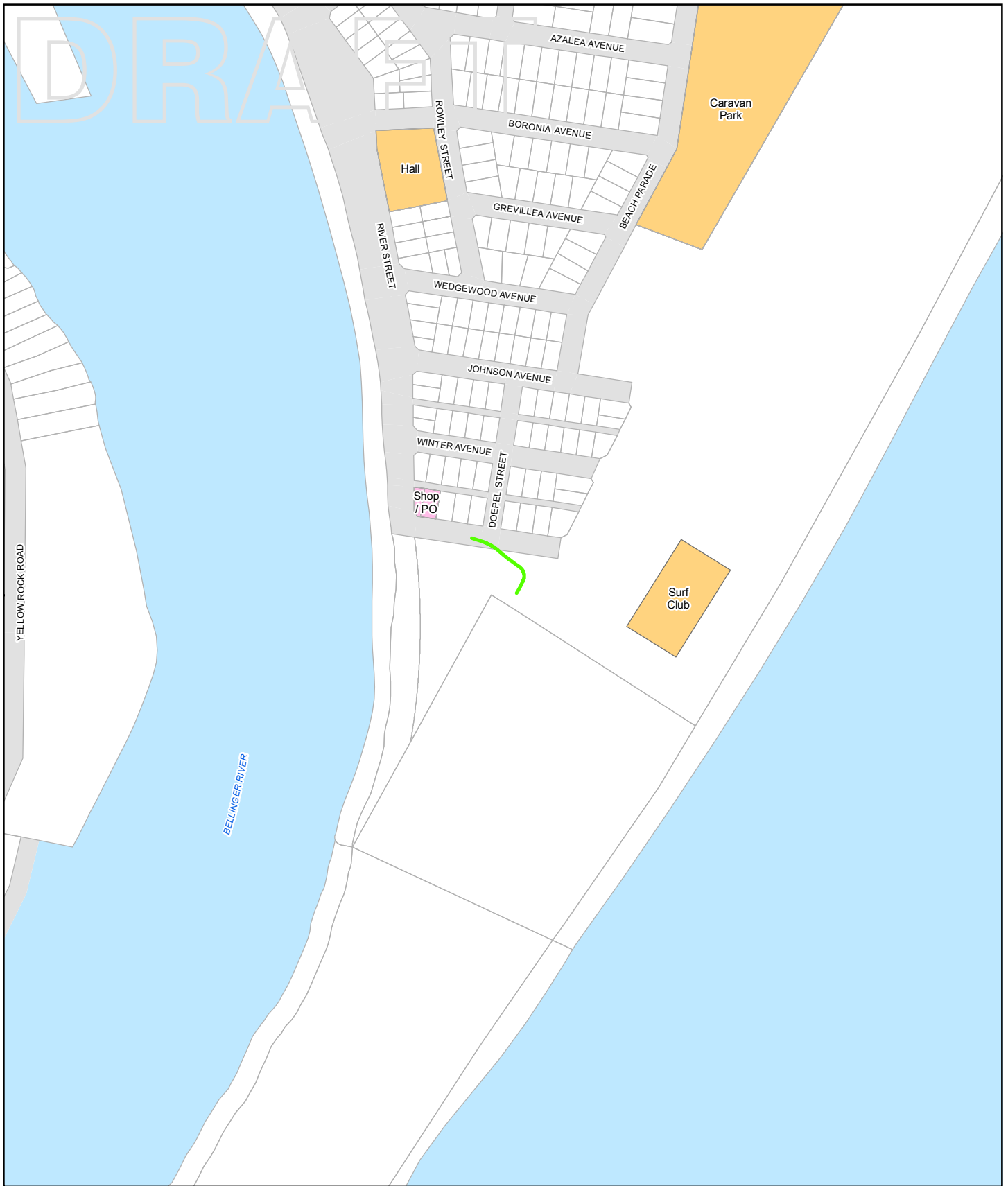


Bellingen Shire Council
 Pedestrian Access and Mobility Plan

Job Number 22-17328
 Revision B
 Date 19 Dec 2014

**Dorrigo - Existing Pedestrian
 and Cyclist Infrastructure**

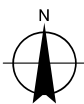
Figure 3



LEGEND

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|---------------|--------------------------------|-------------------------|
| Cadastre | Pedestrian Generator Primary | Existing Footpath (<2m) |
| Waterbody | Pedestrian Generator Secondary | |
| Road corridor | | |

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 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



Bellingen Shire Council
 Pedestrian Access and Mobility Plan

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 Revision | B
 Date | 19 Dec 2014

Mylestom - Existing Pedestrian and Cyclist Infrastructure

Figure 4

Appendix C – Community engagement plan



Bellingen Shire Council Pedestrian Access and Mobility Plan (PAMP) and Bike Plan Community Engagement Report

October 2015

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1. Introduction

1.1 Purpose of this report

This Community Engagement Report relates to the Community Engagement Plan for Bellingen Shire Council's Pedestrian Access and Mobility Plan (PAMP) and Bike Plan. The report outlines the community engagement activities undertaken for the PAMP and Bike Plan and summarises community feedback for the purpose of informing the PAMP and Bike Plan.

1.2 Background

Bellingen Shire Council is developing a PAMP and Bike Plan to meet the present and future needs of its residents by enhancing pedestrian safety, mobility and access with infrastructure catering to the needs of older persons, people who have mobility or vision impairment, school children, tourists, cyclists and recreational pedestrians.

The PAMP and Bike Plan study area comprises the main population centres in the Bellingen Shire. These are:

- Bellingen
- Urunga
- Dorrigo
- Mylestom/ Repton

The PAMP and Bike Plan identifies pedestrian/ cyclist networks within each of these areas as well as linkages between town centres. It details concentration, centres of activity, identifiable accident clusters, walking patterns and links between land use, pedestrian/ cyclist facilities (existing and proposed), pedestrian accessibility and mobility issues within a radius of 1.5 km to 2 km from the above key areas.

The study also considers areas where future development is planned. This ensures inclusion of the PAMP and Bike Plan process in planning instruments covering developing areas.

The concerns, ideas and feedback from the community and key stakeholders (provided in this report) will be included in a draft PAMP and Bike Plan which will be made available to the public for feedback.

2. Consultation approach

2.1 Goals and objectives

To ensure a meaningful and successful consultation program, all of our activities were designed to achieve the overarching project goal, which was to:

Deliver safe, convenient and connected pedestrian/ cyclist infrastructure catering to the needs of all pedestrians/ cyclists including older persons, pedestrians with mobility and vision impairments, residents, youth, school children, tourists and recreational pedestrians.

To drive this goal, the team set out to achieve the following communication goals and objectives:

Communication goals

1. Leverage this project to continue to enhance positive stakeholder relationships and build corporate reputation capital
2. Mitigate the possibility of stakeholder related impacts throughout the duration of the project, and minimise reputational risks caused by project activity.

Communication objectives

1. Engage with targeted stakeholders to ascertain needs, concerns and preferences to inform the PAMP and Bike Plan
2. Provide clear, coordinated, consistent and transparent information throughout the entire project
3. Motivate stakeholders to actively seek information and participate in providing ideas through the established feedback mechanisms
4. Ensure views expressed throughout the engagement process are recorded and reported accurately.

2.2 Key messages

Key messages were developed and pre-approved to provide a clear, consistent approach to communication throughout the project. These messages were used in all written and verbal communication produced for the project.

Project Specific

- The Bellingen Shire PAMP and Bike Plan is being developed as part of Council's investment in safe, convenient and connected pedestrian and cyclist infrastructure that will encourage people to walk/ ride rather than use their cars.
- The PAMP and Bike Plan is a comprehensive strategic action plan to develop pedestrian/cyclist policies and build pedestrian/cyclist facilities.
- The PAMP and Bike Plan study area focuses on the main population centres in the Bellingen Shire identified as high priority and high pedestrian/ cyclist activity areas. These are Bellingen, Dorrigo, Urunga and Mylestom/ Repton.
- The PAMP and Bike Plan will provide a framework for developing pedestrian/ cyclist routes and infrastructure identified by the community as important for enhanced safety, convenience and mobility.

- The PAMP and Bike Plan aims to provide wide transportation, environmental and social benefits to the community, including improved access for people with mobility impairment, safe crossing opportunities on major roads, reduced injuries to pedestrians/ cyclists and improved links with other transport services.
- The draft PAMP and Bike Plan will be completed in December 2014 and exhibited to the public, before the Final PAMP and Bike Plan is delivered in February 2014.

Community Engagement

- GHD and Bellingen Shire Council is consulting with representatives of key pedestrian/ cyclist user groups to ascertain needs, concerns and preferences, which will inform the draft PAMP and Bike Plan.
- The draft PAMP and Bike Plan will be made available to the public for feedback, which will inform the Final PAMP and Bike Plan.
- An online survey will be available on Council's website www.bellingen.nsw.gov.au and Council encourages all members of the public to provide their input to the draft PAMP and Bike Plan via this channel.

2.3 Stakeholders

While this is not an exhaustive list, the following stakeholder groups and organisations were considered to be either interested in the consultation or would have a role to play in the dissemination of the community survey.

Residents

- Residents within key study areas: Bellingen, Dorrigo, Urunga and Mylestom/ Repton.
- Community, resident and rate payer associations

Pedestrian groups

- Council's Community Wellbeing Advisory Committee
- Aged community
 - Community Centres
 - Senior Citizens Clubs
- Schools
 - Primary
 - Secondary
- Youth
 - Bellingen Youth Hub
- Recreational users
 - DUBBUG Bicycle Users Group

Government, business and industry

- Bellingen Chamber of Commerce
- Urunga Chamber of Commerce
- Dorrigo Chamber of Commerce
- Roads and Maritime Services

2.4 Consultation phases

Council has indicated that the success of the PAMP and Bike Plan relies on community and key stakeholder input to the planning process. As part of its methodology in developing the PAMP and Bike Plan, GHD and Council completed community engagement in two stages:

Stage 1: Seek targeted stakeholder input to the PAMP planning process

- Seek input from key stakeholders and user groups (i.e. Community Wellbeing Advisory Committee, seniors, people with disabilities, school communities, young people and recreational user groups) to inform the Draft PAMP and Bike Plan
- Interviews, information sessions, focus group and surveys to ascertain needs, concerns and preferences in relation to pedestrian/ cyclist infrastructure.

Stage 1 involved a range of activities aimed at obtaining valuable input from pedestrian/ cyclist users around their concerns with current infrastructure and routes as well ideas for future improvements. These activities are discussed further in Section 3.

Activities in Stage 1 included:

- A focus group meeting with DUBBUG
- Liaison with Council's Community Wellbeing Advisory Committee
- Information sessions at Bellinghen, Dorrigo and Urunga with the general public.
- A community survey available online
- A media release announcing PAMP and Bike Plan consultation and providing link to survey
- Notification of the project on Council's website with links to the on-line survey
- Newspaper advertisement (placed in Bellinghen Courier Sun)
- Emails to key stakeholders including Council's Community Wellbeing Advisory Committee, business chambers, seniors, people with disabilities, school communities, young people and recreational user groups with information and survey link.

The rationale behind this approach was to ensure that targeted, informed stakeholder input contributes to the Draft PAMP and Bike Plan. It aimed to incorporate the specific needs of each key group, without overwhelming the masses with a completely blank canvas. The information collected in Stage 1 paved the way for a considered Draft PAMP and Bike Plan, which was presented to the wider community for feedback in Stage 2.

Stage 2: Engage with the wider community through exhibition of the Draft PAMP and Bike Plan (to be undertaken)

Stage 2 would involve presenting the Draft PAMP and Bike Plan to the wider community and seeking feedback on its contents.

3. Consultation methodology

3.1 Lead-up awareness raising activities

To encourage community-wide interest and participation, the team undertook a range of activities in the lead-up to Stage 1 of community engagement, specifically to provide details of the focus group, information sessions and community survey. Activities included:

- Media relations announcing the PAMP and Bike Plan project and encouraging people to attend the information sessions and complete the community survey
- Notification of the project on Council’s website
- Information sessions were held at Bellingen, Urunga and Dorrigo
- Phone calls and emails to key stakeholder groups to encourage further spread of information and survey links.

For Stage 2 there would be numerous adverts in local media, on websites and information provided to Councillors and the Council’s customer contact centre, including:

- Bellingen Courier Sun advertisement announcing that the draft PAMP and Bike Plan has been prepared,
- Website copy for the Council website
 - On Exhibition page: new content to advise exhibition period
 - PAMP and Bike Plan page: update content to advise exhibition period
- Customer Contact Centre
 - copies of draft PAMP and Bike Plan available at Council offices and Council libraries
- A media release advising that the Draft PAMP is on exhibition and inviting comment
- A direct email to key government and industry stakeholders advising the draft PAMP and Bike Plan is on exhibition and encouraging them to disseminate to their networks

3.2 Communication materials and channels

A range of project communication materials were developed for community engagement, including:

Table 3-1 Communication materials

Item	Distribution channel
Fact sheet	Hard copies: <ul style="list-style-type: none"> • DUBBUG Focus Group • Council offices Electronic: <ul style="list-style-type: none"> • Council website • Stakeholder emails
Community survey	As above
Advertisements	Bellingen Courier Sun

Item	Distribution channel
A0 maps	Community Information sessions
Stakeholder emails	Full stakeholder list
Website copy	Council website

3.3 Community survey

3.3.1 Survey design

The questionnaire concept was adopted to help the community quickly and easily provide their ideas without the need for a formal written submission. The questionnaire was designed to enable the GHD team to analyse data that was both quantitative and qualitative in nature.

We also wished to capture which of the key study areas respondents spent most of their time and whether they had any special needs as a pedestrian or cyclist. The last question encouraged people to note any other comments, concerns, ideas and feedback they wanted to share. The timeframe for feedback on the community survey was extended to allow additional time for the community to respond given the poor attendance at the community information sessions (see Section 4.1).

3.3.2 Survey questions

See Appendix A for a copy of the survey.

3.4 Community Information Sessions

Information sessions were conducted at three community information sessions on Monday (8/09), Tuesday (9/09) and Wednesday (10/9) at Dorrigo, Urunga and Bellingen respectively. Participants were interested community members. The purpose of the information sessions was to seek input on key needs, concerns and preferences of the groups these people represent and encourage further distribution of information within the community.

The information sessions was facilitated by Shaun Lawer from GHD and Stephen Taylor and Cliff Toms from Council.

The atmosphere was open, informative, engaging and relaxed, and the intimate group size allowed people to access project information and provide feedback through one-on-one discussions as well as group discussions and visual materials available around the room.

3.4.1 Participants

A total of 15 people attended the information sessions. This was a disappointing participation rate and suggested people were not adequately informed about the information sessions or were disinterested in the project. Efforts were subsequently made to increase the opportunity for community feedback through a series of emails encouraging people to complete the online survey.

3.4.2 Information session format

Overview

GHD provided an overview of the project – what a PAMP and Bike Plan is, why Council is developing the PAMP and Bike Plan, the key study areas, what the audit found, and what we hoped to gain from the information sessions.

Group discussion 1 – To the future

A facilitator led an open discussion on the requirements of pedestrian/ cyclist infrastructure to meet the future needs of all users. Discussion topics included particular journeys becoming more popular, areas becoming busier and requiring more attention, forecasted changes to the way each group may use pedestrian/ cyclist facilities in the future and other planned infrastructure/facilities/programs that might affect the requirements of each group.

Group discussion 2 – Blue sky thinking

This exercise asked participants think outside the box and share a 'wish list' of pedestrian/ cyclist infrastructure, facilities and programs to better facilitate pedestrian movement around the Bellingen Shire, assuming unlimited resources and technology.

Individual Exercise 1 – identify concerns and ideas by location

- Each participant was encouraged to view study area maps placed around the room, showing the existing path network and audit results, including missing links.
- Participants were asked to write their concerns or ideas on the corresponding coloured post-it notes or complete feedback forms in relation to their specific idea/concern.
- A range of ideas and concerns were identified by the end of this exercise.

3.4.3 Feedback Forms

Participants at the information sessions were encouraged to completed feedback forms where they could articulate any issues or concerns that they wanted to raise without having to complete the online survey or submit a formal written submission. A full list of comments, by study area, is attached as Appendix B.

4. Findings and outcomes

The team offered four main ways for people to provide their input to the PAMP and Bike Plan process:

- Community survey (online)
- Information Sessions at Dorriggo, Bellingen and Urunga
- Face to face meetings with Council staff
- Emails or posted submissions.

Significant anecdotal or qualitative feedback was received via both the open question on the survey, and the information sessions, as well as from written submissions. Valuable quantitative data was also obtained from the survey.

4.1 Quantitative findings from community survey

4.1.1 Surveys completed

A total of 135 surveys were completed by residents and stakeholders during Stage 1 of the consultation.

4.1.2 Overview of key findings from community survey

- When asked in which area they spend most of their time respondents identified broadly represented all identified study areas. As expected Bellingen was most represented with 65.15%, whilst Dorriggo was least represented with 12.88%.
- The most common reason for using pedestrian and cyclist facilities was for recreational purposes including fitness or leisure.
- Bellingen CBD was most commonly identified as a location regularly visited, followed by Urunga CBD and Dorriggo CBD.
- 78.95% of respondents said they used a private vehicle to access key locations and 59.4% said they used pedestrian routes.
- The most commonly identified reason for not using pedestrian/ cyclist routes more frequently to access key locations was 'the road has no marked or dedicated footpath' (65.83%) followed by 'the routes don't feel safe' (55.0%) and 'the paths are poorly maintained' (51.67%).
- Only 14.17% of respondents said it was easy or always easy to move around key locations using pedestrian routes, while 49.61% said it was difficult or always difficult.
- 'Access for prams and/or families with young children' was the most commonly identified priority for improvement to the pedestrian/ cyclist network, followed by, 'access for wheelchairs/mobility scooters', 'access for cyclists' and 'footpath condition and width'.

4.1.3 Key survey findings, by question

Q1 In which area do you spend the most time? Please tick only one.

Answered: 132 Skipped: 3

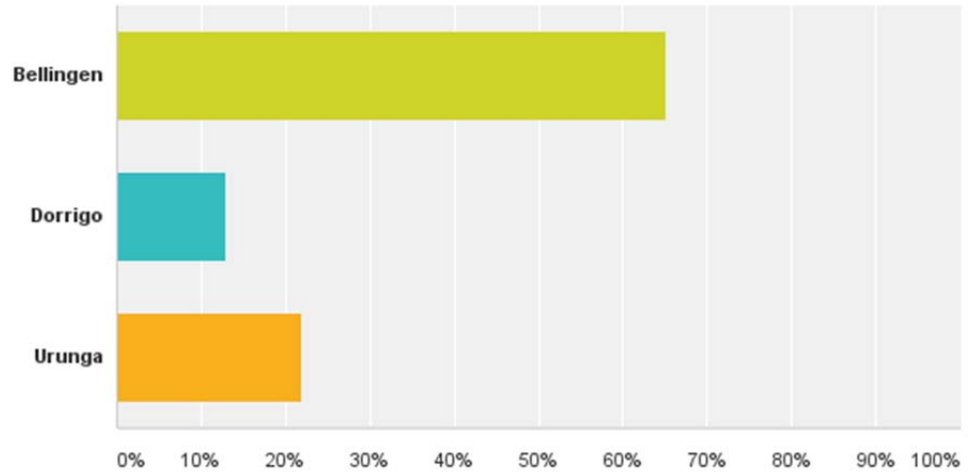


Figure 4-1 Question 1

Q2 If you have a disability or care for someone with a disability, please specify what type of disability you have or the person you care for has:

Answered: 23 Skipped: 112

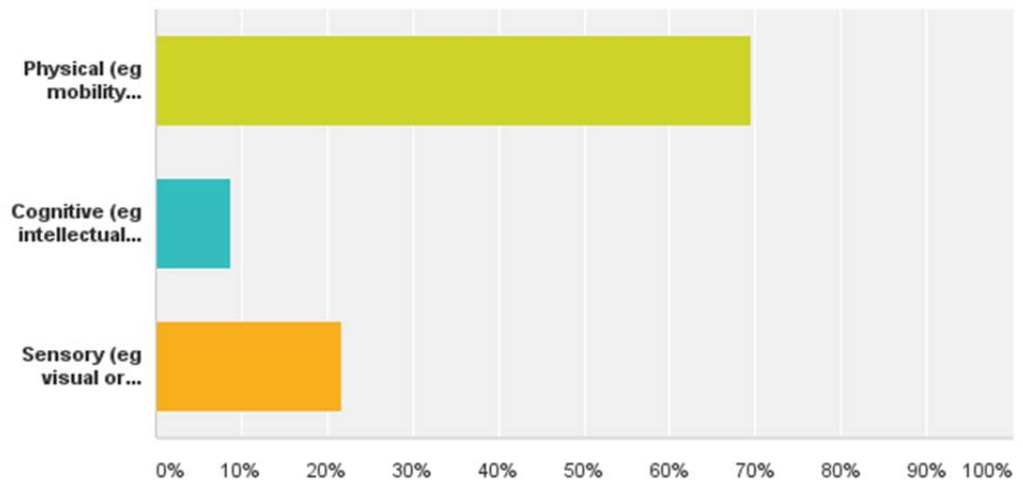


Figure 4-2 Question 2

Q3 For what reasons do you typically use pedestrian / cyclist routes? Please tick all that apply.

Answered: 132 Skipped: 3

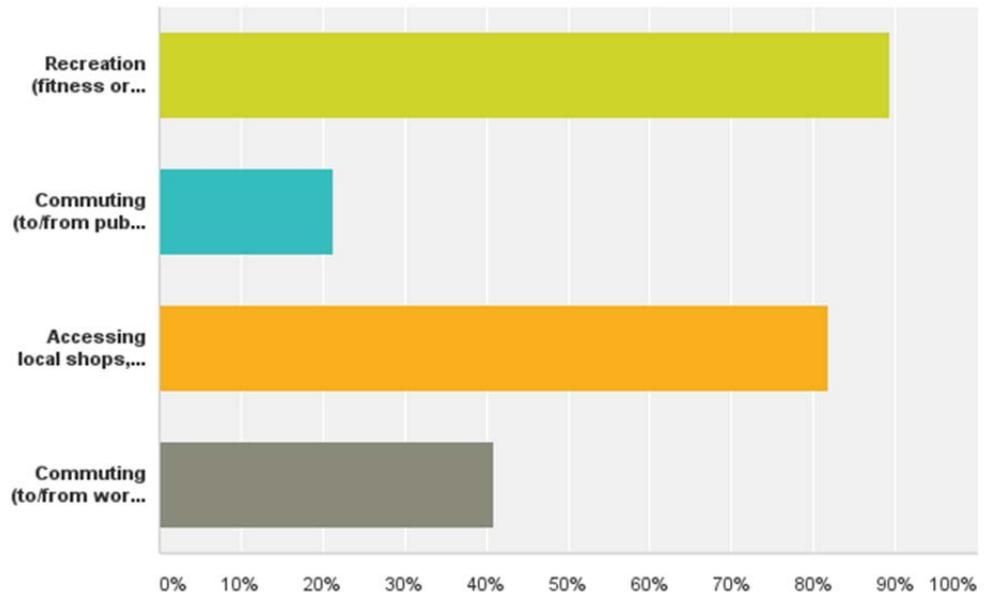


Figure 4-3 Question 3

Q4 Do you or anyone in your primary care use any of the following when visiting your local facilities such as shops and neighbourhoods? Please tick all that apply.

Answered: 106 Skipped: 29

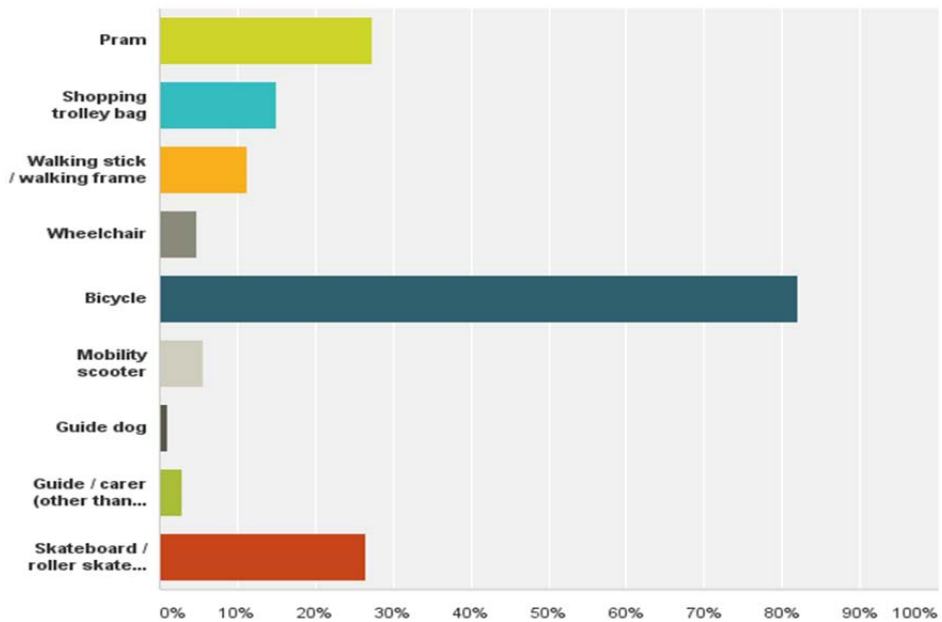


Figure 4-4 Question 4

Q5 Which of the following locations do you visit regularly? Please tick all that apply.

Answered: 129 Skipped: 6

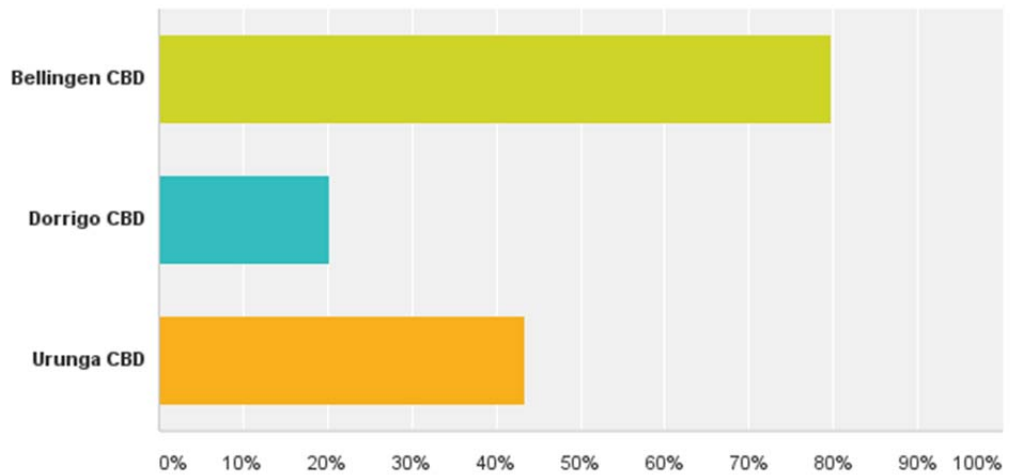


Figure 4-5 Question 5

Q6 Following on from Question 5, what method of transport do you generally use to travel to these locations?

Answered: 133 Skipped: 2

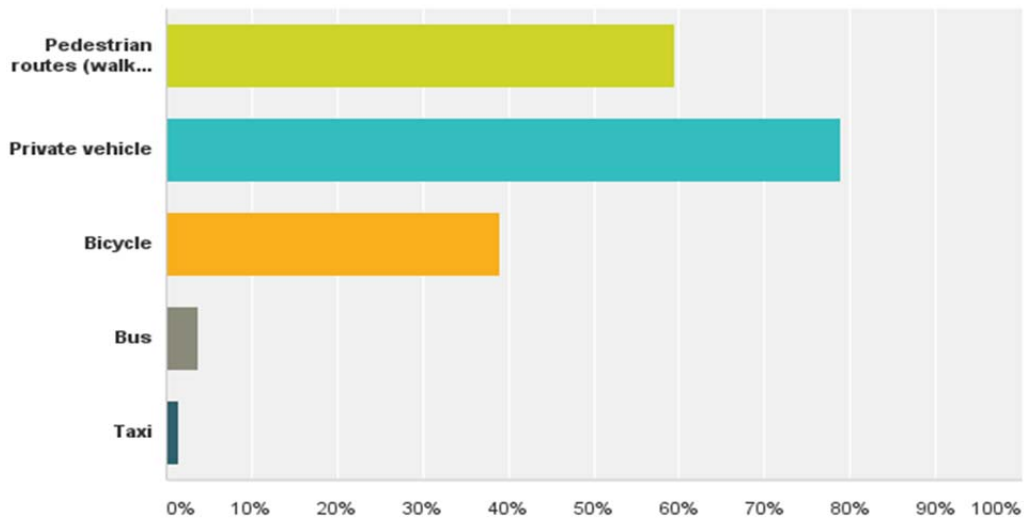


Figure 4-6 Question 6

Q7 Again, relative to Question 5, what are the reasons you don't use pedestrian / cyclist routes more often to access these locations? Please tick all that apply.

Answered: 120 Skipped: 15

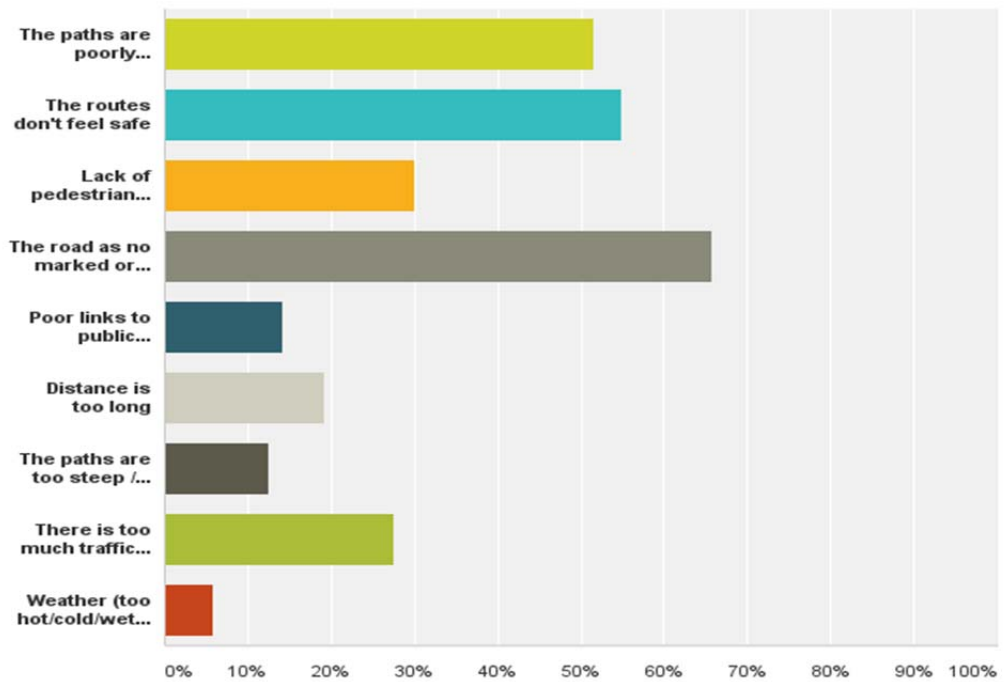


Figure 4-7 Question 7

Q8 Referring to Question 5, when using the pedestrian/cyclist routes, how easy is it to move around this area?

Answered: 127 Skipped: 8

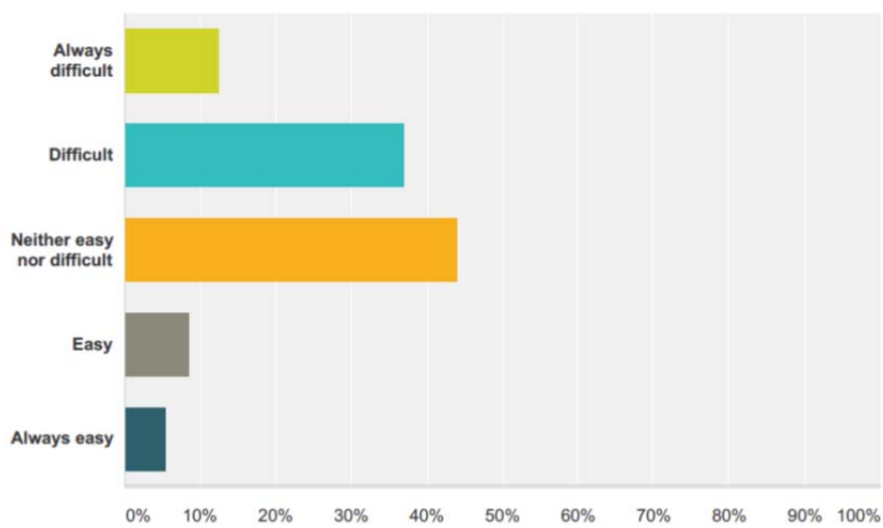


Figure 4-8 Question 8

Q9 How important do you think the following improvements are to ensuring a better pedestrian / cyclist network? Please rank your top 5 priorities, with 1 being the highest priority.

Answered: 132 Skipped: 3

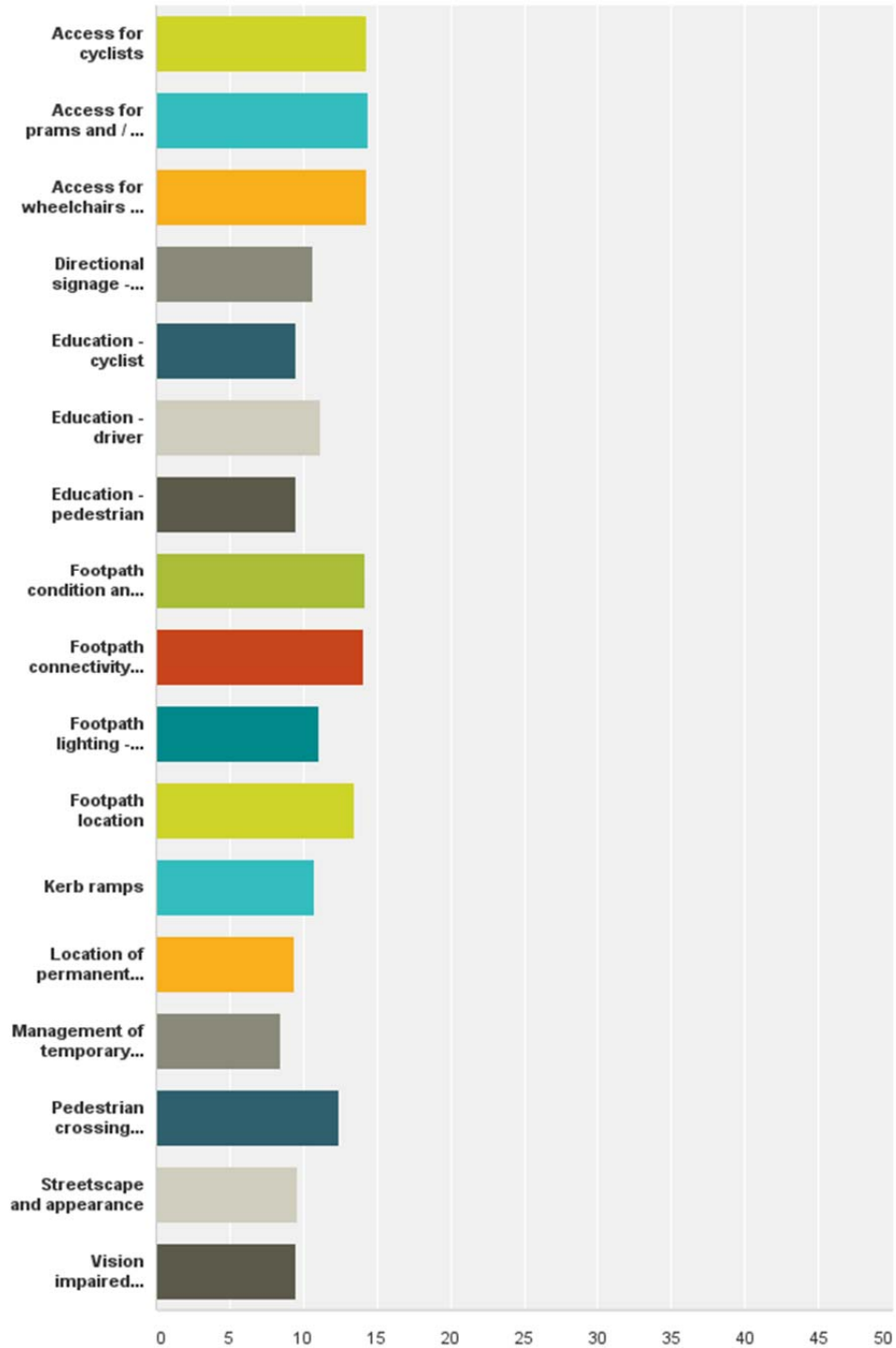


Figure 4-9 Question 9

4.1.4 Key issues raised

Information sessions were not designed to receive location-specific feedback, but rather encourage broader thinking around pedestrian/ cyclist networks throughout the shire (though it is noted some comments did reference a particular location).

A petition was also received from the Dorrigo community for the construction of a shared path between Dorrigo and Dangar Falls with 272 signatures. These have been included in the analysis.

Analysis of the anecdotal feedback reveals some areas of particular concern, raised by multiple respondents (i.e. more than one) as shown in Table 4-1. A full list of comments, by study area, is attached as Appendix B.

Table 4-1 Anecdotal comments relating to study areas

	Comment	No. of mentions
Bellingen	Access to Bellingen Public School was considered poor particularly at the front of school with no ramp and no permanent pedestrian crossing.	10
	Shared path between Bellingen River and Butter Factory	5
	Concrete path from Jarrett Park to link with other footpaths	4
Dorrigo	Shared path between Dorrigo, the Rainforest Centre and Dangar Falls	278
Urunga	Shared path to be completed to Hungry Head	3
Mylestom	Lack of footpath/ cycleway between Mylestom and Repton	4

5. Key recommendations

5.1 Recommendations for consideration in the PAMP and Bike Plan

Based on GHD's analysis of findings from the survey, written submissions and anecdotal feedback and responses at the focus group and information sessions, the community raised the following key areas for improvement to the pedestrian network, which should be considered when developing the PAMP and Bike Plan:

- **Enhanced connectivity** with new links between streets and land uses and filling in 'missing links'.
- **Improved school access/ crossings** to decrease the risk to children in busy school drop-off/pick-up hours and allow children to safely walk to and around school zones.
- **Safety improvements** along the routes, including improved lighting, crossing locations and footpath obstructions.
- **Better kerb ramp or access ramps** along the routes, including additional kerb ramps.
- **Increased footpath widths** to allow room for safe shared use between pedestrians (including those with mobility aids) and cyclists.
- **Additional crossings** to ensure safe passageway for pedestrians across busy roads.
- **Additional shade and seating** along the routes to allow more comfortable pedestrian movement.

5.2 Other recommendations moving forward

Based on GHD's close involvement in the consultation program, and its review of the community feedback and wishes, the GHD team recommends the following:

- Keep the community regularly updated about the project's progress following the completion of consultation, to ensure the team 'closes the loop' and reports back on the outcomes
- Ensure those who participated in the information sessions receive swift notification of the improvements that Council is taking forward
- Widely promote and communicate the improvements, including details of the reasons for making those choices, and consider outlining suggestions that were discounted and why
- Promptly respond to any ongoing community and stakeholder questions raised via the email address
- Communicate the next steps to achieve funding support and any further engineering assessments required to progress and confirm the PAMP and Bike Plan.

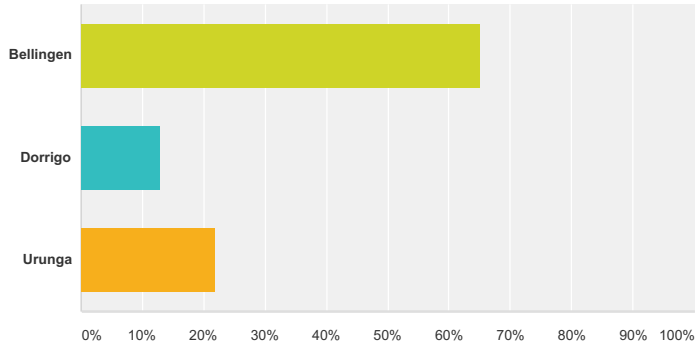
Appendices

Appendix **C1** – Survey results

Bellingen PAMP and Bike Plan Community Feedback

Q1 In which area do you spend the most time? Please tick only one.

Answered: 132 Skipped: 3

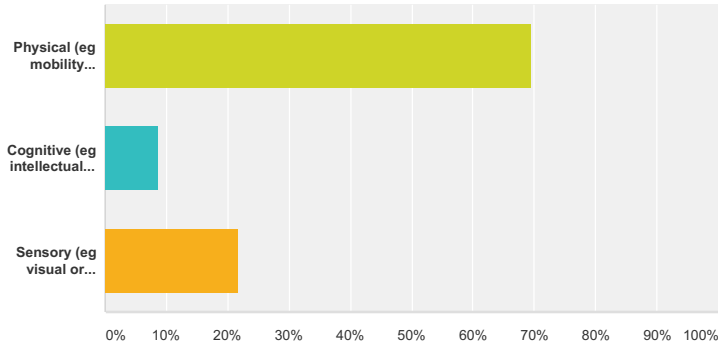


Answer Choices	Responses	
Bellingen	65.15%	86
Dorrigo	12.88%	17
Urunga	21.97%	29
Total		132

Bellingham PAMP and Bike Plan Community Feedback

Q2 If you have a disability or care for someone with a disability, please specify what type of disability you have or the person you care for has:

Answered: 23 Skipped: 112

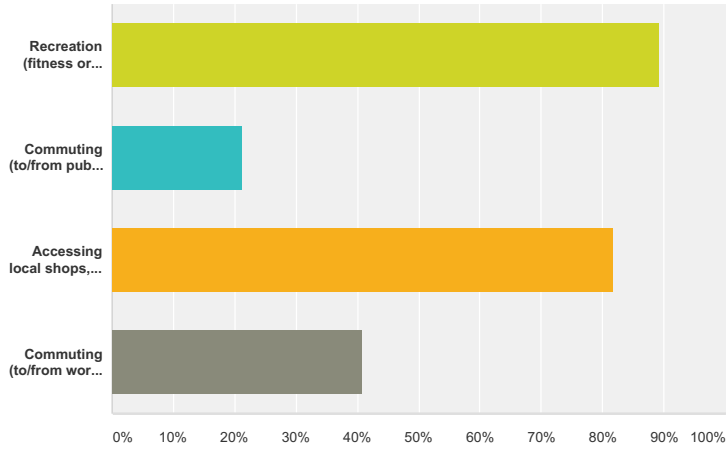


Answer Choices	Responses
Physical (eg mobility issues)	69.57% 16
Cognitive (eg intellectual impairment or brain injury)	8.70% 2
Sensory (eg visual or auditory impairment)	21.74% 5
Total Respondents: 23	

Bellingham PAMP and Bike Plan Community Feedback

Q3 For what reasons do you typically use pedestrian / cyclist routes? Please tick all that apply.

Answered: 132 Skipped: 3

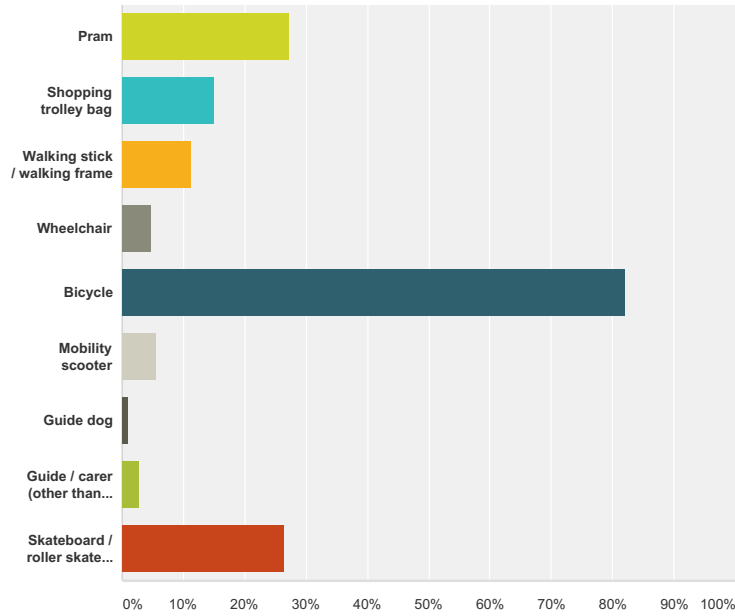


Answer Choices	Responses	
Recreation (fitness or leisure)	89.39%	118
Commuting (to/from public transport)	21.21%	28
Accessing local shops, facilities and amenities	81.82%	108
Commuting (to/from work or school)	40.91%	54
Total Respondents: 132		

Bellingham PAMP and Bike Plan Community Feedback

Q4 Do you or anyone in your primary care use any of the following when visiting your local facilities such as shops and neighbourhoods? Please tick all that apply.

Answered: 106 Skipped: 29

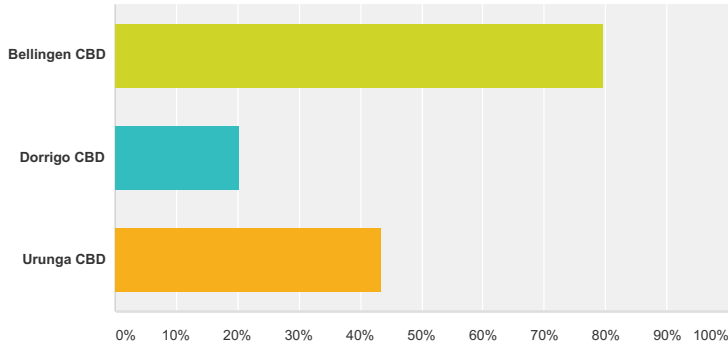


Answer Choices	Responses
Pram	27.36% 29
Shopping trolley bag	15.09% 16
Walking stick / walking frame	11.32% 12
Wheelchair	4.72% 5
Bicycle	82.08% 87
Mobility scooter	5.66% 6
Guide dog	0.94% 1
Guide / carer (other than parent/guardian for young children)	2.83% 3
Skateboard / roller skates / recreational scooters	26.42% 28
Total Respondents: 106	

Bellingen PAMP and Bike Plan Community Feedback

Q5 Which of the following locations do you visit regularly? Please tick all that apply.

Answered: 129 Skipped: 6

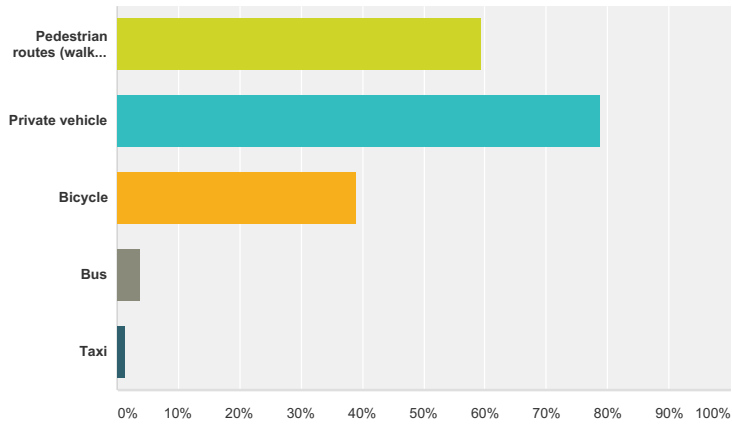


Answer Choices	Responses	
Bellingin CBD	79.84%	103
Dorrigo CBD	20.16%	26
Urunga CBD	43.41%	56
Total Respondents: 129		

Bellingham PAMP and Bike Plan Community Feedback

Q6 Following on from Question 5, what method of transport do you generally use to travel to these locations?

Answered: 133 Skipped: 2

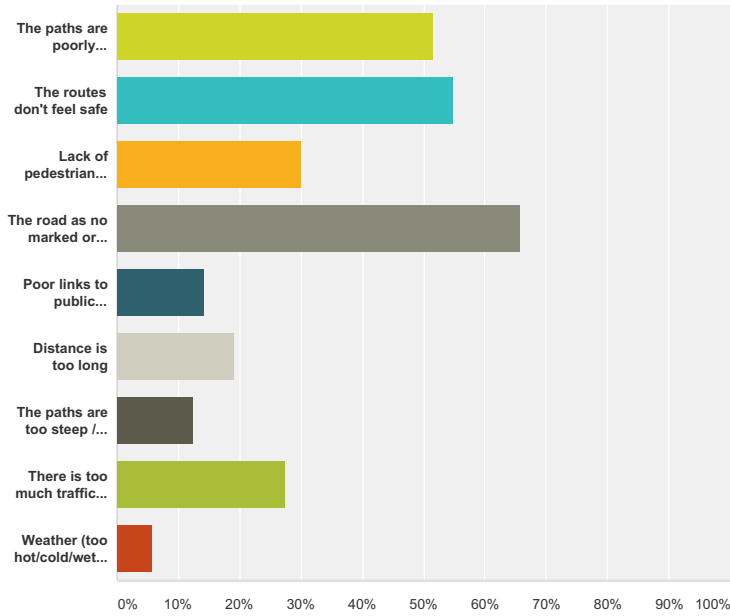


Answer Choices	Responses
Pedestrian routes (walk, mobility, scooter, wheelchair)	59.40% 79
Private vehicle	78.95% 105
Bicycle	39.10% 52
Bus	3.76% 5
Taxi	1.50% 2
Total Respondents: 133	

Bellingham PAMP and Bike Plan Community Feedback

Q7 Again, relative to Question 5, what are the reasons you don't use pedestrian / cyclist routes more often to access these locations? Please tick all that apply.

Answered: 120 Skipped: 15

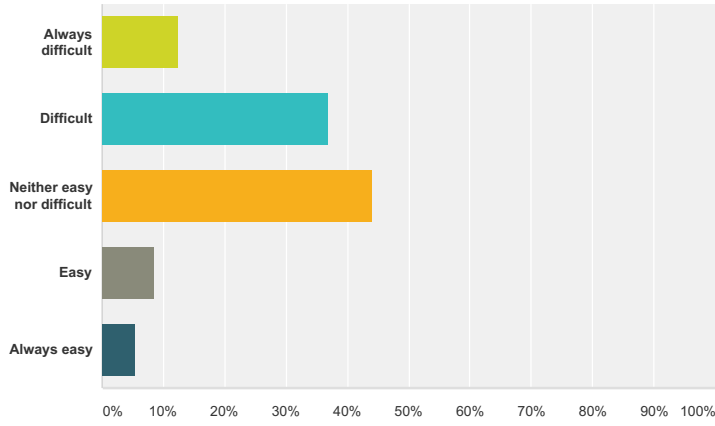


Answer Choices	Responses
The paths are poorly maintained	51.67% 62
The routes don't feel safe	55.00% 66
Lack of pedestrian crossings	30.00% 36
The road as no marked or dedicated footpath	65.83% 79
Poor links to public transport	14.17% 17
Distance is too long	19.17% 23
The paths are too steep / hilly	12.50% 15
There is too much traffic along the roads	27.50% 33
Weather (too hot/cold/wet etc)	5.83% 7
Total Respondents: 120	

Bellingham PAMP and Bike Plan Community Feedback

Q8 Referring to Question 5, when using the pedestrian/cyclist routes, how easy is it to move around this area?

Answered: 127 Skipped: 8

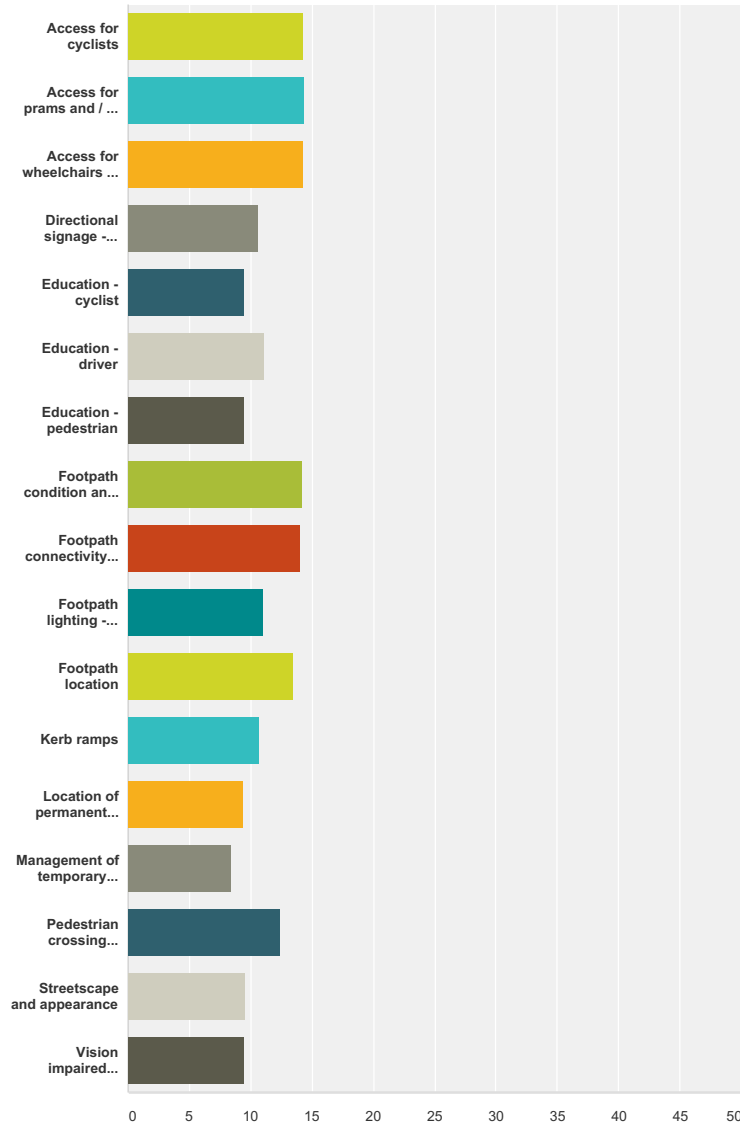


Answer Choices	Responses	Count
Always difficult	12.60%	16
Difficult	37.01%	47
Neither easy nor difficult	44.09%	56
Easy	8.66%	11
Always easy	5.51%	7
Total Respondents: 127		

Bellingham PAMP and Bike Plan Community Feedback

Q9 How important do you think the following improvements are to ensuring a better pedestrian / cyclist network? Please rank your top 5 priorities, with 1 being the highest priority.

Answered: 132 Skipped: 3



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total	Score
Access for cyclists	28.57% 28	18.37% 18	13.27% 13	16.33% 16	8.16% 8	3.06% 3	2.04% 2	2.04% 2	2.04% 2	0.00% 0	0.00% 0	1.02% 1	0.00% 0	0.00% 0	1.02% 1	2.04% 2	2.04% 2	98	14.4
Access for prams and / or families with young children	19.51% 16	21.95% 18	19.51% 16	17.07% 14	8.54% 7	3.66% 3	1.22% 1	4.88% 4	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1.22% 1	0.00% 0	1.22% 1	1.22% 1	0.00% 0	82	14.4
Access for wheelchairs and other mobility devices	25.00% 22	18.18% 16	14.77% 13	11.36% 10	17.05% 15	0.00% 0	5.68% 5	2.27% 2	0.00% 0	1.14% 1	1.14% 1	0.00% 0	1.14% 1	2.27% 2	0.00% 0	0.00% 0	0.00% 0	88	14.4
Directional signage - location and amount	0.00% 0	5.41% 2	2.70% 1	10.81% 4	24.32% 9	16.22% 6	5.41% 2	2.70% 1	8.11% 3	5.41% 2	5.41% 2	2.70% 1	0.00% 0	0.00% 0	2.70% 1	5.41% 2	2.70% 1	37	10.6

Bellingham PAMP and Bike Plan Community Feedback

Education - cyclist	0.00% 0	12.12% 4	12.12% 4	0.00% 0	3.03% 1	15.15% 5	6.06% 2	9.09% 3	3.03% 1	3.03% 1	6.06% 2	3.03% 1	6.06% 2	0.00% 0	12.12% 4	3.03% 1	6.06% 2	33	9.4
Education - driver	10.00% 4	17.50% 7	2.50% 1	15.00% 6	10.00% 4	0.00% 0	5.00% 2	5.00% 2	7.50% 3	2.50% 1	2.50% 1	7.50% 3	0.00% 0	5.00% 2	2.50% 1	2.50% 1	5.00% 2	40	11.2
Education - pedestrian	9.38% 3	0.00% 0	12.50% 4	9.38% 3	3.13% 1	3.13% 1	0.00% 0	6.25% 2	12.50% 4	9.38% 3	6.25% 2	3.13% 1	9.38% 3	3.13% 1	0.00% 0	6.25% 2	6.25% 2	32	9.4
Footpath condition and width	17.71% 17	19.79% 19	20.83% 20	13.54% 13	11.46% 11	4.17% 4	0.00% 0	0.00% 0	3.13% 3	6.25% 6	2.08% 2	1.04% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	96	14.7
Footpath connectivity (links to public transport, car parks and other facilities and amenities etc)	24.36% 19	12.82% 10	15.38% 12	17.95% 14	11.54% 9	2.56% 2	5.13% 4	0.00% 0	3.85% 3	1.28% 1	1.28% 1	1.28% 1	1.28% 1	1.28% 1	0.00% 0	0.00% 0	0.00% 0	78	14.7
Footpath lighting - location and effectiveness	0.00% 0	5.13% 2	12.82% 5	15.38% 6	15.38% 6	5.13% 2	10.26% 4	2.56% 1	2.56% 1	7.69% 3	10.26% 4	5.13% 2	2.56% 1	2.56% 1	0.00% 0	0.00% 0	2.56% 1	39	11.0
Footpath location	12.68% 9	21.13% 15	11.27% 8	14.08% 10	22.54% 16	1.41% 1	1.41% 1	1.41% 1	2.82% 2	0.00% 0	2.82% 2	5.63% 4	1.41% 1	1.41% 1	0.00% 0	0.00% 0	0.00% 0	71	13.2
Kerb ramps	0.00% 0	6.82% 3	15.91% 7	18.18% 8	13.64% 6	4.55% 2	2.27% 1	4.55% 2	0.00% 0	2.27% 1	2.27% 1	6.82% 3	13.64% 6	6.82% 3	0.00% 0	0.00% 0	2.27% 1	44	10.1
Location of permanent furniture and signage (bins, bench seats etc)	6.67% 2	3.33% 1	6.67% 2	10.00% 3	16.67% 5	3.33% 1	0.00% 0	6.67% 2	0.00% 0	3.33% 1	0.00% 0	6.67% 2	10.00% 3	16.67% 5	10.00% 3	0.00% 0	0.00% 0	30	9.4
Management of temporary footpath furniture (cafe tables, chairs, stalls)	0.00% 0	6.45% 2	12.90% 4	9.68% 3	9.68% 3	3.23% 1	0.00% 0	3.23% 1	0.00% 0	0.00% 0	6.45% 2	0.00% 0	9.68% 3	16.13% 5	16.13% 5	6.45% 2	0.00% 0	31	8.4
Pedestrian crossing location	12.28% 7	10.53% 6	19.30% 11	19.30% 11	15.79% 9	0.00% 0	0.00% 0	1.75% 1	1.75% 1	1.75% 1	1.75% 1	0.00% 0	0.00% 0	0.00% 0	7.02% 4	8.77% 5	0.00% 0	57	12.4
Streetscape and appearance	5.13% 2	5.13% 2	15.38% 6	10.26% 4	17.95% 7	0.00% 0	0.00% 0	0.00% 0	5.13% 2	7.69% 3	0.00% 0	5.13% 2	0.00% 0	0.00% 0	2.56% 1	12.82% 5	12.82% 5	39	9.6
Vision impaired facilities	3.23% 1	12.90% 4	3.23% 1	3.23% 1	19.35% 6	9.68% 3	6.45% 2	3.23% 1	0.00% 0	0.00% 0	6.45% 2	3.23% 1	3.23% 1	3.23% 1	0.00% 0	3.23% 1	19.35% 6	31	9.4

Bellingen PAMP and Bike Plan Community Feedback

Q10 Do you have any further comments regarding pedestrian / cyclist access and mobility or specific locations in the Bellingen Shire where access could be improved?

Answered: 90 Skipped: 45

#	Responses	Date
1	I am a cyclist and I feel unsafe riding between Bellingen and Urunga because there are inadequate shoulders and no cyclist signage.	10/16/2014 7:12 PM
2	It would not be difficult to link dedicated cycle paths with cycle lanes on roads and also to re-mark roads to provide significantly more obvious cycling lanes. At the moment, when the road shoulder narrows, or the cycle path ends, there is no cycling lane which leads to driver annoyance/aggression. Drivers can think that cyclists are "blocking their roads".	10/16/2014 7:02 PM
3	The Bellingen Environment Centre has on several occasions submitted to a Bike Plan for the Town. Please see the BSC for the documentation. We hope, once again, that this will lead to some action on the ground. Regards Leif lemke thordale39@gmail.com 66558770 Bellingen Environment Centre Inc.	10/16/2014 10:50 AM
4	Need continuous bike paths on Waterfall Way to Bellingen. This would encourage green commuting, tourism and our towns status as at the forefront of new ways of living.	10/15/2014 8:06 PM
5	Many walkers and less ambulatory people would appreciate the extension of the footpath which runs alongside Waterfall Way and the Bellingen Golf Club grounds. It currently terminates less than half a kilometre short of the Old Butter Factory. Extending the footpath would provide a pleasant walk for locals and tourists, access for prams, mobility scooters and wheelchairs with the opportunity for refreshments and shopping at the end. And you could leave your car at home and have a glass of wine with lunch.	10/14/2014 11:05 AM
6	A dedicated cycle path or cycle lane along Waterfall Way would encourage cyclists by increasing safety. This would bring many cycle tourists to Bellingen and increase cycling by locals.	10/14/2014 7:58 AM
7	Don't cut down all the trees when you are adding to the existing bike path . Far to many trees came down building the first section	10/13/2014 5:16 PM
8	Some of the best rides in the area include Bellingen. The 3 routes are Waterfallway, Northbank Road and SouthArm. The condition of the surfaces and lack of Cycleways prevent many many from riding and others from riding them more often.	10/13/2014 4:46 PM
9	be grand to have a dedicated shoulder or cycle path from Raleigh to Bellingen along Waterfall Way because it will be much safer, encourage cycling, and bring more money to the town	10/11/2014 7:17 PM
10	Accessibility is important for all disability types therefore wheelchair access, kerb ramps, facilities for the blind and visually impaired are equally important, one does not rank over the other. This also includes access for prams. My personal wish is for a cycle path between Bellingen, Fernmount and Urunga as the only access is by road which is currently quite dangerous.	10/10/2014 8:57 AM
11	I would love to be able to feel safe riding a bike on Waterfall Way and Hyde Street	10/9/2014 10:20 PM
12	We need a pedestrian crossing near the War Memorial	10/9/2014 9:53 PM
13	North Bellingen residences need footpaths to be maintained regularly. We also need to be able to walk or cycle from residential housing on footpaths that are wide and safe enough to the town centre. We need footpaths to link up mostly on one side.	10/9/2014 9:29 PM
14	Street lighting along Sunset Ridge Drive Nth Bellingen very poor, virtually non-existent for long stretches	10/9/2014 8:22 PM
15	See above comment	10/9/2014 3:53 PM
16	This survey is pathetic.	10/9/2014 3:20 PM
17	Access to BELLINGEN primary school via Lovell Street needs URGENT attention.	10/9/2014 3:16 PM

Bellingen PAMP and Bike Plan Community Feedback

18	Need improved footpaths and easy access to Bellingen Public School	10/9/2014 12:29 PM
19	Bellingen desperately needs bike paths for recreation and access. Annex some of the golf course, which (disproportionately to use) occupies the best riverside location in Bellingen and create a bike path along the river! It would be a tourism boon.	10/9/2014 8:24 AM
20	A bicycle path or continuous shoulder separated by an unbroken line is required from Raleigh to Bellingen along Waterfall Way. This would create a continuous cycle path from Coffs Harbour to Bellingen. It would extend cycling tourism to the Bellingen area.	10/8/2014 10:08 PM
21	Being an avid cyclist I would not dare to ride waterfall way to Urunga or Thora. I either have to ride to the Pacific Highway via North Bank road or Put my bicycle on the car rack and drive to the Pacific Highway where I can ride my bicycle in reasonable road safety conditions either north towards Coffs or South to Urunga. Bellingen misses out on major tourist trade who would be prepared to ride Bicycles from Coffs via the ashvelt cycle and pedestrian trails that run alongside the Pacific Highway all the way to Bonville and they are the mobile empty nest Baby Boomers and mobile backpackers.	10/8/2014 6:52 PM
22	It would be nice to have the Hungry Head cycleway completed.	10/8/2014 3:27 PM
23	Would like to have more recreational foot/bike paths. Perhaps a river path in Bellingen and/or a path between Urunga and Bellingen.	10/8/2014 11:56 AM
24	existing walkways/cycle ways need to be finished off so they don't just end in the middle of nowhere.	10/7/2014 2:47 PM
25	Encourage visitors to stay overnight in Dorrigo by offering cycleway/footpath to Dorrigo Rainforest Centre and Dangar Falls.	10/7/2014 12:53 PM
26	This survey has been completed in regards to the Lovell St access point to Bellingen Public School specifically. The pathway which peters out at the school crossing renders the students and parents unsafe as they try to negotiate leaving the school and moving to their cars parked in Lovell St	10/6/2014 5:44 PM
27	Both entrances of Bellingen Primary school, but most urgently the Lovel street entrance need significant review and overhaul. Invest in safety, invest in our future, invest in our local amenities. Please address this entrance as an urgent number one of the shire, our kids deserve safety, our elderly volunteers deserve safety and accessibility, as do the many users of the hall. The benefits of this move are both direct and also indirect in increasing community access and participation in the school. Please address this as a matter of urgency.	10/4/2014 9:49 PM
28	Crossing Bridge Street between the library and the Post Office is a major hazard and access to the Bellingen Public School Hall area concerns me greatly.	10/4/2014 9:28 PM
29	The access to the public school on Lovell St is in desperate need of work. It is dangerous and completely unacceptable, and there are regularly incidents of children falling down the stairs, and it is impossible to get a pram up there. This is an essential area that needs immediate attention. The school hall is often used for community events, and it is only a matter of time before a serious accident occurs. It is very dangerous.	10/4/2014 7:50 PM
30	Access to Bellingen Public School huge issue for us particularly at the front of school. Elderly and families with prams have no ramp and no permanent pedestrian crossing.	10/4/2014 7:25 PM
31	Once tried to ride from bello to fullers to shop. Terrifying. Live further out now. Would ride in maybe if a good shower facility	10/4/2014 6:38 PM
32	the area outside the school is appalling on more than one occasion I have seen elderly men and women trip and stumble when trying to access the hall by the shorts route.	10/4/2014 4:08 PM
33	Lack of any facility being footpaths for both pedestrian traffic & cyclists from Mylestom to Repton including to and from the local school is a definite disadvantage to the local community and visitors alike. Repton & mylestom have 2 Caravan parks and beautiful beach and river pool which is visited by all within the community and only access is via main road in & out. People from all over the coast come to Mylestom to cycle and its very dangerous for both vehicle traffic and pedestrians.	10/2/2014 12:34 PM
34	We need a walkway between repton and mylestom - too many near misses with cars driving more than 100kph and no kids can walk to school	10/2/2014 6:29 AM

Bellingen PAMP and Bike Plan Community Feedback

35	Travelling in other Australian regions (almost anywhere in Victoria, Tasmania, but also in small shires on the New England Tableland - and not to mention European countries), most are ahead of Bellingen Shire in terms of cycle paths. Seeing the Shire as a tourist destination and promoting more physical activity for an aging population, it is hard to believe that we don't have a shared walking/cycling path along the river the length of the valley to the ocean. Whenever cycle paths are discussed, they are planned right along the highway or major roads like the Waterfall Way - a serious lack of vision. And we actually developed a brochure for a number of walks in and around town which only needed some minor upgrades and signage - this was put forward to council by then Tourism Bellinger about 10 years ago with zero result. So I guess many others who attended a similar meeting like the recent ones 8 years ago didn't bother this time around, like me.	9/29/2014 4:57 PM
36	A pedestrian/cyclist pathway linking the Dorrigo Rainforest to CBD and onto Dangar Falls would be an invaluable resource to residents and tourists alike, encouraging healthy lifestyles and enjoyment of our natural environment	9/28/2014 5:55 PM
37	Waterfall Way walking/cycle access to town from rural sector (e.g. Boggy Creek) and defined walk paths along all residential streets of Bellingen	9/27/2014 8:57 PM
38	This is a big question - in my experience there aren't any specific cyclist access provisions or routes, road tend to be narrow for one. Pedestrian access is not much better - it is minimal and often poor - for example the very unsafe access across Lavenders bridge and the requirements to cross the road without a crossing either side to use it.	9/27/2014 11:08 AM
39	A riverside path connecting the main town with the Butterfactory would be really fantastic.	9/27/2014 10:12 AM
40	There should be a cycle/pedestrian path between Bellingen and the Butterfactory.	9/27/2014 8:41 AM
41	It is almost impossible to ride a bike safely in the shire!	9/27/2014 8:25 AM
42	The concrete path to nowhere at Jarrett park....please extend it past the lodge so people can actually go for a ride or walk ..maybe it could join up to the access road to the old telephone/power/water building on the river .	9/27/2014 12:21 AM
43	Access to the Bellingen Primary School coming from the crossing is dangerous and not easily accessible for prams/wheelchairs/mobility scooters. Lack of any footpaths/cycleways for the school children/carers/parents. Also access to the hospital is very dangerous by foot with or without a pram/bike/mobility scooter etc road is steep and unstable (due to holes and loose gravel) and there is no footpathbefore or after Bellorana.	9/27/2014 12:00 AM
44	Cycle path to hungry head. Its a no-brainer. Plus cycle lanes need physical separation from roadways. Walkway from bellingen bridge along river to golf course and beyond	9/26/2014 11:27 PM
45	A cycle way/ footpath along the river from the bridge to the utter factory would be a great start. People could park at the skatepark area and cycle with their children to the butter factory. Wonderful.	9/26/2014 11:13 PM
46	In Bellingen I don't have a problem with pedestrian access but bike lanes would be great, particularly with children who often only have the option of riding on the roads and drivers just aren't aware enough.	9/26/2014 10:20 PM
47	I am not aware of there being any cyclist access in the Bellingen area at the moment	9/26/2014 9:49 PM
48	The footpath and pram access around Bellingen public school is disgraceful. There is hardly any ways to access the school from the road. There are a few places with cement you can push a pram up but these are generally blocked by school buses. Where is the kerb and guttering in northcote st?. Sick of people almost parking in my front door every time there is a special event or market day.	9/26/2014 4:22 PM
49	Yes. Bellingen Public School is in need of at least 2 more crossings, one across west William Street, one more, leading to the official school gate/office block entrance. & one from William St corner to the opposite William Street corner. (I actually recently crossed William St, with 6 children, was halfway across, when a car started being impatient to wait for a Mum & lots of children. There needs to be safe crossings for all.	9/26/2014 3:46 PM
50	To promote a healthy and active lifestyle improvements and addition of cycle ways and footpaths is of high importance.	9/26/2014 3:35 PM
51	bellingen council have had this item in the plan for many years and done nothing, time to act and plan our towns properly, with pedestrian and cycle paths as well as green space eg kids playgrounds built into DA approval for subdivisions	9/26/2014 2:25 PM
52	The public school. Crossing over from post office to library -scary with kids!	9/26/2014 2:12 PM
53	Living in Repton for 14 years, The lack of a footpath for children who live in Repton to access the skate Park and other recreational amenities has always been extremely worrisome for parents as children have had to share a road with cars traveling in an 80km zone	9/26/2014 2:09 PM

Bellingen PAMP and Bike Plan Community Feedback

54	Paths linking up skate park to schools, butter factory and town and Connell park. A circuit idea to act as a fitness and activity walk as well as showing off what Bellingen has to offer.	9/26/2014 1:59 PM
55	Would be great if Bellingen was more bicycle friendly especially for kids and families.	9/26/2014 1:55 PM
56	It would be good if there was a path from the end of Elliot close through to Wheatley street. It's also very annoying that the path on Hammond street from the roundabout south, starts on the eastern side, then crosses to the west side, then back to the eastern side to go across the bridge, the gap on the eastern side needs a path to connect the two that are already there. There's already a well worn dirt track in that section so it's obvious it needs a proper path there.	9/26/2014 1:43 PM
57	A path around the perimeter of Connell park would be fantastic!!	9/26/2014 1:35 PM
58	YES - I would like cycle way from Urunga to Bellingen township - RMS should fund it !!!	9/26/2014 1:27 PM
59	I believe that footpaths can be progressively implemented and subsidised as part of a work-for-the dole scheme. They don't need to be installed at once, but I believe that all urban streets in Bellingen, Dorrigo and Urunga should all progressively have at least one side of the street with a gravel minimum and concrete preferred shared cycle/footpath. Even a dedicated 20 year plan with so much allocated per year would be a big improvement.	9/26/2014 1:12 PM
60	provision for cyclists is almost nil so these questions dont apply	9/25/2014 4:47 PM
61	More pedestrian crossings and generally a more pedestrian friendly set up. And better cycling paths.	9/25/2014 3:19 PM
62	Pedestrian crossing on south side of Church St, Bellingen	9/25/2014 3:19 PM
63	Roads coming to Bellingen need a decent shoulder to allow for safer cycling	9/25/2014 2:59 PM
64	There are no pedestrian crossings in North Bellingen. Many people walk between North and South Bellingen every day (including lots of school children) but there is no safe place to cross between the footpathed western side of Hammond St and the footpathed eastern side of the bridge crossing.	9/25/2014 2:53 PM
65	There is a need for a ring route of footpaths around the Bellingen area of North and South. Use the wonderful river with more footpath areas to take in the entire river length from the Masonic Lodge to the Butter Factory. Better footpaths around the North Bellingen area to link the entire area from the river to Sunset Ridge, Planet factory area and to the cemetery also the Jaegar Road area	9/25/2014 2:50 PM
66	In an area where environment and physical health are of high importance, we believe that encouraging the use and accessibility to use bicycle as a mode of both transport and exercise is a key message to pass onto the next generations. How can we do this if accessibility to safe cycleways are not available. We need to encourage less use of vehicles and more use of bikes, walk ways, scooters, etc.	9/25/2014 10:58 AM
67	waterfall way is too narrow to cycle on	9/24/2014 8:43 PM
68	It would be great if there was another Hyde Street pedestrian crossing at the western end of town. It is very important for young children going to school especially now that there is a huge increase in truck movements due to the quarry decision.	9/24/2014 5:41 PM
69	Lighting the path in Jarrett Park. Crossing or shared traffic for access from bridge footpath - to footpath to cbd and Jarrett Park. Traffic conditions on Bridge Street to be altered & speed reduction on bridge to 40 or 25 km p/hr.	9/23/2014 11:07 AM
70	With so many tourists (including young families) to the Myleston - a Myleston to Repton shared bike track walking track would be a great asset to the community.	9/19/2014 2:25 PM
71	There needs to be a dedicated cycleway on waterfall way. Inside town there should also be uniform footpaths and a shared cycle/walk way. Right now it's life threatening, trying to ride on waterfall way. Especially with the ridiculous approval of the extra trucks which only benefits the owner of the quarry.	9/19/2014 10:36 AM
72	Bellingen Markets paths for the elderly and physically frail, as well as for prams.	9/19/2014 10:11 AM
73	Routes wide enough for pedestrian and people on wheels between Dorrigo and the Rainforest Centre and also Dorrigo and Dangar Falls.	9/18/2014 12:24 PM
74	Safer pedestrian / cyclist access from Newry Island to the bus stop / BP service station is required along the highway. Grass strip pedestrian walk on the verge along Stan Miles Reserve on Newry Island has large concealed holes which are dangerous for people accessing the new Newry Island Bridge.	9/18/2014 11:40 AM
75	Provide safe bike/pedestrian path between fernmount and Bellingen	9/18/2014 10:52 AM

Bellinghen PAMP and Bike Plan Community Feedback

76	from Dorrigo National Park Glade area have a pathway for pedestrians & cyclists beside DNP and Waterfall Way down to parking area so people can then cross Waterfall way to get to Lookout Motor Inn and Maynards Plain Road & Mountain Top Road to Griffith's Lookout.	9/18/2014 8:45 AM
77	Cycle track for Hungry Head residents incomplete. Speed limit on the road currently too high. Should be 50 or 60 kph.	9/17/2014 9:12 PM
78	Connectivity to carpark in Morgo street	9/17/2014 6:48 PM
79	The footpath from the Bellinghen cbd to the Old Butter Factory is dangerous with uneven surfaces, trip hazards. It also needs to go all the way to the OBF. The last unpaved section forces pedestrians onto the roadway and is very dangerous. Footpaths should be installed all the way to the Norco building.	9/17/2014 6:00 PM
80	Dorrigo to Rainforest Centre	9/17/2014 5:16 PM
81	Cycling should be made safer between the main population centres, as well. In addition to providing a viable alternative to scarce public transport, cycling offers a healthy recreation for locals and has the potential to attract tourism for a comparatively small investment.	9/17/2014 4:00 PM
82	If there is ever sufficient funds a pathway leading from town to the skywalk in Dorrigo linking the two as one.	9/17/2014 3:54 PM
83	NEED A CROSSING NEXT TO POST OFFICE TO GET TO COUNCIL CHAMBERS NO TRAFFIC LIGHTS (EVER PLEASE!) HAVE BYPASS FOR TRUCKS	9/17/2014 3:44 PM
84	A cycle/pedestrian path from in Dorrigo township out to Dangar Falls would be welcomed and would encourage exercise.	9/17/2014 3:01 PM
85	Link Dorrigo Rainforest Centre to Dorrigo and on to Dangar Falls with pedestrian cycleway	9/17/2014 2:34 PM
86	The only cycleway is from Urunga Recreation Grounds past the Sewageworks to Pipeclay creek. With a very poor surface, that goes nowhere.	9/17/2014 2:33 PM
87	Really need a cycle path on Lavenders Bridge - many people cycle on the footpath so as not to hold up traffic on the bridge. Clear and safe cycleways to schools are required.	9/17/2014 9:10 AM
88	The new highway bypass will provide new opportunities for the installation of pedestrian/cyclist access and mobility as traffic is diverted away from the Old Pacific Highway and hence it becomes a safer place for all users	9/16/2014 8:49 PM
89	Lyon st bellingen has people on the road with mobility scooters, prams and walking as there is no path or space to walk. very difficult for walking riding and driving. I have seen a mobility scooter overturned and driver injured falling off it on uneven steep grassy surface on Lyon st (west side just up from Providore) Man was injured due to lack of path.	9/16/2014 6:18 PM
90	While access to the CBD and essential services is paramount, it would be good to see pedestrian access for tourist scenic routes - eg connecting Old Pacific Hwy with Urunga CBD with footpath/bikepath alongside hwy (more possible when hwy moves) and finishing the footpath/bikepath to Hungry Head and then out to hwy to then travel down to Valla Beach/Nambucca Heads (again more feasible when hwy moves).	9/16/2014 4:22 PM

Appendix **C2** – All comments by area

Bellingen

This survey has been completed in regards to the Lovell St access point to Bellingen Public School specifically. The pathway which peters out at the school crossing renders the students and parents unsafe as they try to negotiate leaving the school and moving to their cars parked in Lovell St.

Both entrances of Bellingen Primary school, but most urgently the Lovell Street entrance need significant review and overhaul. Invest in safety, invest in our future, invest in our local amenities. Please address this entrance as an urgent number one of the shire, our kids deserve safety, our elderly volunteers deserve safety and accessibility, as do the many users of the hall. The benefits of this move are both direct and also indirect in increasing community access and participation in the school. Please address this as a matter of urgency.

Crossing Bridge Street between the library and the Post Office is a major hazard and access to the Bellingen Public School Hall area concerns me greatly.

The access to the public school on Lovell St is in desperate need of work. It is dangerous and completely unacceptable, and there are regularly incidents of children falling down the stairs, and it is impossible to get a pram up there. This is an essential area that needs immediate attention. The school hall is often used for community events, and it is only a matter of time before a serious accident occurs. It is very dangerous.

Need improved footpaths and easy access to Bellingen Public School.

Access to BELLINGEN primary school via Lovell Street needs URGENT attention.

Bellingen desperately needs bike paths for recreation and access. Annex some of the golf course, which (disproportionately to use) occupies the best riverside location in Bellingen and create a bike path along the river! It would be a tourism boon.

Street lighting along Sunset Ridge Drive Nth Bellingen very poor, virtually non-existent for long stretches.

North Bellingen residences need footpaths to be maintained regularly. We also need to be able to walk or cycle from residential housing on footpaths that are wide and safe enough to the town centre. We need footpaths to link up mostly on one side.

We need a pedestrian crossing near the War Memorial.

I would love to be able to feel safe riding a bike on Waterfall Way and Hyde Street.

Many walkers and less ambulatory people would appreciate the extension of the footpath which runs alongside Waterfall Way and the Bellingen Golf Club grounds. It currently terminates less than half a kilometre short of the Old Butter Factory.

Extending the footpath would provide a pleasant walk for locals and tourists, access for prams, mobility scooters and wheelchairs with the opportunity for refreshments and shopping at the end. And you could leave your car at home and have a glass of wine with lunch.

Access to Bellingen Public School huge issue for us particularly at the front of school. Elderly and families with prams have no ramp and no permanent pedestrian crossing.

The area outside the school is appalling on more than one occasion I have seen elderly men and women trip and stumble when trying to access the hall by the shorts route.

This is a big question - in my experience there aren't any specific cyclist access provisions or routes, road tend to be narrow for one. Pedestrian access is not much better - it is minimal and often poor - for example the very unsafe access across Lavenders bridge and the requirements to cross the road without a crossing either side to use it.

A riverside path connecting the main town with the Butterfactory would be really fantastic.

There should be a cycle/pedestrian path between Bellingen and the Butterfactory.

It is almost impossible to ride a bike safely in the shire!

The concrete path to nowhere at Jarrett park....please extend it past the lodge so people can actually go for a ride or walk ..maybe it could join up to the access road to the old telephone/power/water building on the river.

Access to the Bellingen Primary School coming from the crossing is dangerous and not easily accessible for prams/wheelchairs/mobility scooters. Lack of any footpaths/cycleways for the school children/carers/parents. Also access to the hospital is very dangerous by foot with or without a pram/bike/mobility scooter etc road is steep and unstable (due to holes and loose gravel) and there is no footpath before or after Bellorana.

Walkway from Bellingen bridge along river to golf course and beyond.

A cycle way/ footpath along the river from the bridge to the butter factory would be a great start. People could park at the skatepark area and cycle with their children to the butter factory. Wonderful.

In Bellingen I don't have a problem with pedestrian access but bike lanes would be great, particularly with children who often only have the option of riding on the roads and drivers just aren't aware enough.

I am not aware of there being any cyclist access in the Bellingen area at the moment.

The footpath and pram access around Bellingen public school is disgraceful. There is hardly any ways to access the school from the road. There are a few places with cement you can push a pram up but these are generally blocked by school buses. Where is the kerb and guttering in northcote st?. Sick of people almost parking in my front door every time there is a special event or market day.

Yes. Bellingen Public School is in need of at least 2 more crossings, one across west William Street, one more, leading to the official school gate/office block entrance.& one from William St corner to the opposite William Street corner. (I actually recently crossed William St, with 6 children, was halfway across, when a car started being impatient to wait for a Mum & lots of children. There needs to be safe crossings for all.

To promote a healthy and active lifestyle improvements and addition of cycle ways and footpaths is of high importance.

Bellingen Council have had this item in the plan for many years and done nothing, time to act and plan our towns properly, with pedestrian and cycle paths as well as green space eg kids playgrounds built into DA approval for subdivisions.

The public school. Crossing over from post office to library -scary with kids!

Paths linking up skate park to schools, butter factory and town and Connell park. A circuit idea to act as a fitness and activity walk as well as showing off what Bellingen has to offer.

Would be great if Bellingen was more bicycle friendly especially for kids and families.

It would be good if there was a path from the end of Elliot close through to Wheatley street. It's also very annoying that the path on Hammond street from the roundabout south, starts on the eastern side, then crosses to the west side, then back to the eastern side to go across the bridge, the gap on the eastern side needs a path to connect the two that are already there. There's already a well worn dirt track in that section so it's obvious it needs a proper path there.

A path around the perimeter of Connell park would be fantastic!!

I believe that footpaths can be progressively implemented and subsidised as part of a work-for-the-dole scheme. They don't need to be installed at once, but I believe that all urban streets in Bellingin, Dorriggo and Urunga should all progressively have at least one side of the street with a gravel minimum and concrete preferred shared cycle/footpath. Even a dedicated 20 year plan with so much allocated per year would be a big improvement. provision for cyclists is almost nil so these questions don't apply.

More pedestrian crossings and generally a more pedestrian friendly set up. And better cycling paths.

Pedestrian crossing on south side of Church St, Bellingin.

There are no pedestrian crossings in North Bellingin. Many people walk between North and South Bellingin every day (including lots of school children) but there is no safe place to cross between the footpathed western side of Hammond St and the footpathed eastern side of the bridge crossing.

There is a need for a ring route of footpaths around the Bellingin area of North and South. Use the wonderful river with more footpath areas to take in the entire river length from the Masonic Lodge to the Butter Factory.

Better footpaths around the North Bellingin area to link the entire area from the river to Sunset Ridge, Planet factory area and to the cemetery also the Jaegar Road area.

In an area where environment and physical health are of high importance, we believe that encouraging the use and accessibility to use bicycle as a mode of both transport and exercise is a key message to pass onto the next generations. How can we do this if accessibility to safe cycleways are not available. We need to encourage less use of vehicles and more use of bikes, walk ways, scooters, etc.

It would be great if there was another Hyde Street pedestrian crossing at the western end of town. It is very important for young children going to school especially now that there is a huge increase in truck movements due to the quarry decision.

Lighting the path in Jarrett Park. Crossing or shared traffic for access from bridge footpath - to footpath to CBD and Jarrett Park. Traffic conditions on Bridge Street to be altered & speed reduction on bridge to 40 or 25 km p/hr.

Bellingin Markets paths for the elderly and physically frail, as well as for prams.

The footpath from the Bellingin CBD to the Old Butter Factory is dangerous with uneven surfaces, trip hazards. It also needs to go all the way to the OBF. The last unpaved section forces pedestrians onto the roadway and is very dangerous. Footpaths should be installed all the way to the Norco building.

Need a crossing next to post office to get to council chambers no traffic lights (ever please!) have bypass for trucks.

Really need a cycle path on Lavenders Bridge - many people cycle on the footpath so as not to hold up traffic on the bridge. Clear and safe cycleways to schools are required.

Lyon St Bellingin has people on the road with mobility scooters, prams and walking as there is no path or space to walk. very difficult for walking riding and driving. I have seen a mobility scooter overturned and driver injured falling off it on uneven steep grassy surface on Lyon St (west side just up from Providore) Man was injured due to lack of path.

Mylestom

Lack of any facility being footpaths for both pedestrian traffic & cyclists from Mylestom to Repton including to and from the local school is a definite disadvantage to the local community and visitors alike. Repton & Mylestom have 2 Caravan parks and beautiful beach and river pool which is visited by all within the community and only access is via main road in & out. People from all over the coast come to Mylestom to cycle and its very dangerous for both vehicle traffic and pedestrians.

We need a walkway between Repton and Mylestom - too many near misses with cars driving more than 100kph and no kids can walk to school.

Living in Repton for 14 years, The lack of a footpath for children who live in Repton to access the skate Park and other recreational amenities has always been extremely worrisome for parents as children have had to share a road with cars traveling in an 80km zone.

With so many tourists (including young families) to the Mylestom - a Mylestom to Repton shared bike track walking track would be a great asset to the community.

Dorrigo

Path from Glade to Maynard Plains.

Hospital pathway to town and safety zones near site.

Improvement required to footpath and driveway in front of SPAR shopping area.

Roundabout required at monument.

Encourage visitors to stay overnight in Dorrigo by offering cycleway/footpath to Dorrigo Rainforest Centre and Dangar Falls.

A pedestrian/cyclist pathway linking the Dorrigo Rainforest to CBD and onto Dangar Falls would be an invaluable resource to residents and tourists alike, encouraging healthy lifestyles and enjoyment of our natural environment.

Routes wide enough for pedestrian and people on wheels between Dorrigo and the Rainforest Centre and also Dorrigo and Dangar Falls.

Link Dorrigo Rainforest Centre to Dorrigo and on to Dangar Falls with pedestrian cycleway

A cycle/pedestrian path from in Dorrigo township out to Dangar Falls would be welcomed and would encourage exercise.

Dorrigo to Rainforest Centre.

From Dorrigo National Park Glade area have a pathway for pedestrians & cyclists beside DNP and Waterfall Way down to parking area so people can then cross Waterfall way to get to Lookout Motor Inn and Maynards Plain Road & Mountain Top Road to Griffith's Lookout.

Urunga

It would be nice to have the Hungry Head cycleway completed.

Safer pedestrian / cyclist access from Newry Island to the bus stop / BP service station is required along the highway. Grass strip pedestrian walk on the verge along Stan Miles Reserve on Newry Island has large concealed holes which are dangerous for people accessing the new Newry Island Bridge.

While access to the CBD and essential services is paramount, it would be good to see pedestrian access for tourist scenic routes - eg connecting Old Pacific Hwy with Urunga CBD with footpath/bikepath alongside Hwy (more possible when Hwy moves) and finishing the footpath/bikepath to Hungry Head and then out to Hwy to then travel down to Valla Beach/Nambucca Heads (again more feasible when Hwy moves).

The new highway bypass will provide new opportunities for the installation of pedestrian/cyclist access and mobility as traffic is diverted away from the Old Pacific Highway and hence it becomes a safer place for all users.

Cycle path to hungry head. Its a no-brainer. Plus cycle lanes need physical separation from roadways.

The only cycleway is from Urunga Recreation Grounds past the sewage works to Pipeclay creek. With a very poor surface, that goes nowhere.

Cycle track for Hungry Head residents incomplete. Speed limit on the road currently too high. Should be 50 or 60 kph.

Connectivity to carpark in Morgo Street.

Shire wide

Existing walkways/cycle ways need to be finished off so they don't just end in the middle of nowhere.

Would like to have more recreational foot/bike paths. Perhaps a river path in Bellingen and/or a path between Urunga and Bellingen.

Being an avid cyclist I would not dare to ride waterfall way to Urunga or Thora. I either have to ride to the Pacific Highway via North Bank road or Put my bicycle on the car rack and drive to the Pacific Highway where I can ride my bicycle in reasonable road safety conditions either north towards Coffs or South to Urunga.

Bellingen misses out on major tourist trade who would be prepared to ride Bicycles from Coffs via the asphalt cycle and pedestrian trails that run alongside the Pacific Highway all the way to Bonville and they are the mobile empty nest Baby Boomers and mobile backpackers.

A bicycle path or continuous shoulder separated by an unbroken line is required from Raleigh to Bellingen along Waterfall Way. This would create a continuous cycle path from Coffs Harbour to Bellingen. It would extend cycling tourism to the Bellingen area.

Accessibility is important for all disability types therefore wheelchair access, kerb ramps, facilities for the blind and visually impaired are equally important, one does not rank over the other. This also includes access for prams. My personal wish is for a cycle path between Bellingen, Fernmount and Urunga as the only access is by road which is currently quite dangerous.

Be grand to have a dedicated shoulder or cycle path from Raleigh to Bellingen along Waterfall Way because it will be much safer, encourage cycling, and bring more money to the town.

Some of the best rides in the area include Bellingen. The 3 routes are Waterfall way, Northbank Road and South Arm. The condition of the surfaces and lack of Cycleways prevent many from riding and others from riding them more often.

Don't cut down all the trees when you are adding to the existing bike path . Far to many trees came down building the first section.

A dedicated cycle path or cycle lane along Waterfall Way would encourage cyclists by increasing safety. This would bring many cycle tourists to Bellingen and increase cycling by locals.

The Bellingen Environment Centre has on several occasions submitted to a Bike Plan for the Town. Please see the BSC for the documentation. We hope, once again, that this will lead to some action on the ground.

Need continuous bike paths on Waterfall Way to Bellingen. This would encourage green commuting, tourism and our towns status as at the forefront of new ways of living.

I am a cyclist and I feel unsafe riding between Bellingen and Urunga because there are inadequate shoulders and no cyclist signage.

It would not be difficult to link dedicated cycle paths with cycle lanes on roads and also to re-mark roads to provide significantly more obvious cycling lanes. At the moment, when the road shoulder narrows, or the cycle path ends, there is no cycling lane which leads to driver annoyance/aggression. Drivers can think that cyclists are "blocking their roads".

Waterfall Way is too narrow to cycle on.

Once tried to ride from bello to fullers to shop. Terrifying. Live further out now. Would ride in maybe if a good shower facility.

YES - I would like cycle way from Urunga to Bellingen township - RMS should fund it.

Roads coming to Bellingen need a decent shoulder to allow for safer cycling.

There needs to be a dedicated cycleway on waterfall way. Inside town there should also be uniform footpaths and a shared cycle/walk way. Right now it's life threatening, trying to ride on waterfall way. Especially with the ridiculous approval of the extra trucks which only benefits the owner of the quarry.

Provide safe bike/pedestrian path between Fernmount and Bellingen.

Cycling should be made safer between the main population centres, as well. In addition to providing a viable alternative to scarce public transport, cycling offers a healthy recreation for locals and has the potential to attract tourism for a comparatively small investment. If there is ever sufficient funds a pathway leading from town to the skywalk in Dorrigo linking the two as one.

Travelling in other Australian regions (almost anywhere in Victoria, Tasmania, but also in small shires on the New England Tableland - and not to mention European countries), most are ahead of Bellingen Shire in terms of cycle paths. Seeing the Shire as a tourist destination and promoting more physical activity for an aging population, it is hard to believe that we don't have a shared walking/cycling path along the river the length of the valley to the ocean. Whenever cycle paths are discussed, they are planned right along the highway or major roads like the Waterfall Way - a serious lack of vision. And we actually developed a brochure for a number of walks in and around town which only needed some minor upgrades and signage - this was put forward to council by then Tourism Bellinger about 10 years ago with zero result. So I guess many others who attended a similar meeting like the recent ones 8 years ago didn't bother this time around, like me.

Waterfall Way walking/cycle access to town from rural sector (e.g. Boggy Creek) and defined walk paths along all residential streets of Bellingen.

GHD

230 Harbour Drive
Coffs Harbour NSW 2450
T: (02) 6650 5600 F: (02) 6650 5601 E: cfsmail@ghd.com

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		Name	Signature	Name	Signature	Date
0	S Lawer	B Luffman		S Lawer		09 Oct 15

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Appendix D – Planning for pedestrians

Creating a safe and attractive environment for walking

Walking is the simplest form of transportation. It is available to most people, including those who use mobility aids, is free and has insignificant environmental cost. Furthermore, all trips involve some walking component, if only from the car park to the end destination. Therefore, planning for safe and convenient pedestrian access is very important in transportation planning.

Pedestrians use every part of the public domain, including roads, footpaths, nature strips, shopping centres and other public spaces. Some planners and engineers incorrectly assume that planning for pedestrians will follow the same logic as traffic planning:

- Car → 'trips' → 'routes' → 'traffic network'.

The planning scale for pedestrians is detailed to accommodate the local nature of the trips. Pedestrian movement can be better conceptualised in terms of:

- Pedestrian → 'activity' → 'areas of activity' → 'pedestrian environment'.

Whilst traditional traffic engineering concepts like width, crossfall, longitudinal grade and horizontal alignment are important, pedestrians are attuned to the environment in which they are moving. Therefore, planners need to consider the needs of pedestrians with regards to design, amenity and personal security. Pedestrians are particularly vulnerable to cars and other motorised traffic.

Pedestrian needs

The provision of pedestrian infrastructure should not only aim to fulfil the requirements of existing users or to comply with relevant standards, but should also promote walking for transport, recreation and health and increase the number of trips taken by foot. Such an outcome would result in fewer car trips, healthier residents and a more active (and safe) public domain. A number of elements are required in order to provide a high quality pedestrian environment.

Safety

Perceived and actual safety is very important to pedestrians. Road crossings present the greatest danger to pedestrians. Therefore, safe crossing locations must be provided at regular intervals along major streets or at the location where key desire lines cross major streets. Pedestrians will rarely walk along an indirect route to access safe crossing points, so frequent crossing points must be provided.

Lighting and open space is important for security. Pedestrians of all ages and genders need to feel that it is safe to walk whenever they choose to do so.

Directness

As noted above, pedestrians do not like to walk out of their way to reach a destination. This is a natural response to avoid the extra effort involved in walking extra distance. Pedestrian facilities serving desire lines between major centres of activity need to be direct and legible in order to provide for and encourage walking trips.

Wherever possible, barriers should be overcome with additional crossing points such as grade separated or signalised crossings, although grade separation does not always provide the most direct access.

Engineering solutions to direct pedestrians for safety reasons (such as fencing) should only be used when no other solution is possible.

Amenity

Pedestrians are particularly sensitive of the quality of the urban environment. Areas with high volumes of traffic, excessive noise, and poor pavements will discourage walking. Additionally, urban areas should be maintained at a human scale that provides an attractive walking environment.

While it would be extremely costly to improve the amenity of all pedestrian areas, targeted works can achieve a great improvement in areas of high pedestrian activity (such as shopping streets, areas around commercial, employment and public buildings, and recreation areas). Spot improvement programs can also target localised areas of high need.

Suitable for all users

Quality pedestrian environments must be available to all who choose to use them. This includes compliance with Austroads Guidelines and Australian Standards where appropriate. Paths must be of a suitable width to accommodate the number of pedestrians (and other users, such as mobility scooters) expected and be of an appropriate gradient, including ramps. The path should be continuous and free of obstructions such as signage and other street furniture. The needs of hearing and vision-impaired users must be considered and provided for, especially where user safety is an issue.

Pedestrian strategies

Council should support and encourage walking in Bellingen through the following actions:

- Provide an environment where the personal, social and environmental benefits of walking are recognised as paramount and that the needs of pedestrians are considered as a primary element in any projects affecting the urban landscape.
- Ensure that all planning and redevelopment includes walking as a safe, healthy and accessible form of transport.
- Incorporate the needs of people with a disability into all levels of planning and implementation of the transportation network and public domain improvements.

Types of improvements

Pedestrian infrastructure initiatives are classified under the following categories:

- **Amenity** which is the attractiveness of an area for pedestrians. Improvements could involve upgrading an existing footpath surface or introducing landscaping or art feature along walkways.
- **Safety** along the route to address safety issues for pedestrians from traffic or other physical hazards including trip hazards. This also includes perceived safety issues for pedestrians such as walking along or crossing busy roads.
- **Information** that includes wayfinding signage, maps, brochures and pamphlets.
- **Security** including lighting, wayfinding signage and information.
- **Disabled/pram access** along the routes that do not comply with the Disability Discrimination Act (DDA) standards and other issues including steep gradients and access via steps.
- **Connectivity** with new links between streets and land uses.

- **Severance** for pedestrians to cross busy roads, railway lines or waterways.
- **Access to adjacent land uses** with new pedestrian access to land uses being blocked by fences or walls.

These pedestrian improvements can include the types of projects shown in Table D-1, which also indicates the benefits of each pedestrian improvement.

Table D-1 Potential pedestrian/cyclist infrastructure initiatives

Initiative	Amenity	Safety along the Route	Information	Security	Accessibility	Connectivity	Severance	Access to Adjacent Land Use
Footpath Resurfacing	✓	✓			✓			
Footpath Replacement	✓	✓			✓			
New Footpath	✓	✓			✓		✓	✓
Bridge Crossing		✓			✓	✓	✓	✓
Underpass Crossing		✓			✓	✓	✓	✓
Lighting	✓	✓		✓				
Ramps					✓	✓		
Lifts					✓	✓		
Stairs						✓		
Pedestrian Actuated Signal Crossing		✓			✓	✓	✓	
Zebra Crossing		✓			✓			
Wombat Crossing		✓			✓			
Shared Zone	✓	✓			✓			
Reduced Traffic Speed Limit		✓						
Traffic Calming	✓	✓						
Wayfinding/ Signage			✓	✓				
Information			✓	✓				
Investigations								

Best practice standards

This section provides a brief overview of best practice standards that apply to the treatment of pedestrian facilities.

Minimum footpath widths

The Austroads publication, *Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths*, 2009, states that:

“The width of the footpath is dependent on its location, purpose and the anticipated demand on the facility... As a guide, the desirable minimum width of a footpath that has very low demand is 1.2 m with an absolute minimum of 1.0 m. These widths should be increased at locations where high pedestrian volumes are anticipated, a footpath is adjacent to a traffic or parking lane, a footpath is combined with bicycle facilities, or the footpath is to cater for people with disabilities.

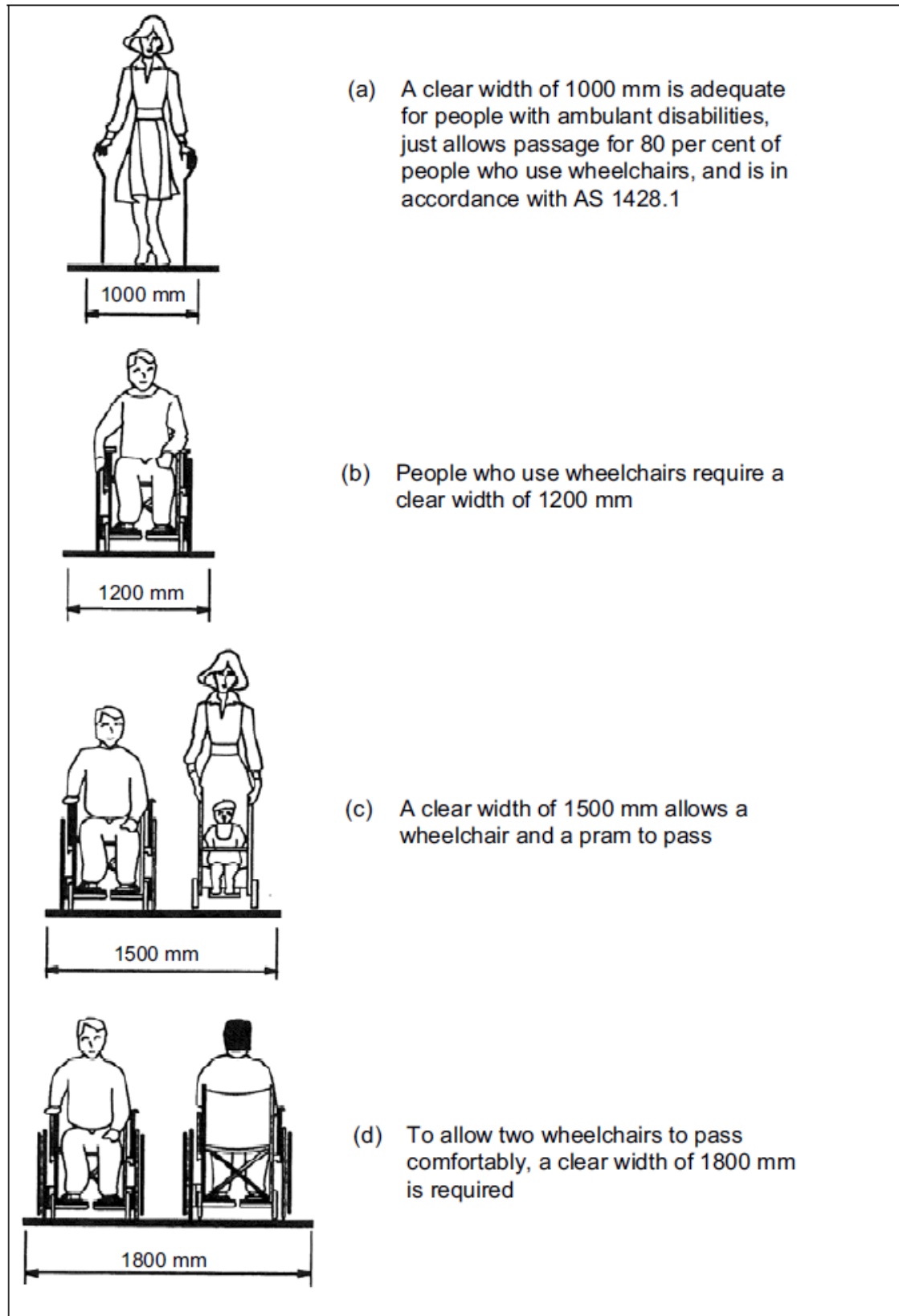
Table D-2 and Figure D-1 show the minimum widths for various types of footpath users.

Table D-2 Width requirements for footpaths

Situation	Desired width (m)	Comments
General low demand	1.2 to 1.0 (absolute minimum)	General minimum is 1.2 m for most roads and streets. Clear width required for one wheelchair. Not adequate for commercial or shopping environments.
High pedestrian volumes	2.4 m (or higher based on demand)	Generally commercial and shopping areas.
For wheelchairs to pass	1.8 to 1.5 (desired minimum)	Allow for two wheelchairs to pass (1.8 m comfortable, 1.5 m minimum). Narrower width (1.2 m) can be tolerated for short distances.
For people with other disabilities	1.8 to 1.0	

Source: *Austroads Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths*, 2009

Figure D-1 Footpath width requirements for various users



Source: Austroads Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths, 2009

Maximum grades

Grades of footpaths and drop kerbs are important as they affect the usability and safety of pedestrian facilities. Long sections of steeply graded footpath can be extremely difficult for mobility impaired users to negotiate.

Steeply graded drop kerbs can also cause safety issues for mobility impaired users. Users can become vulnerable to general traffic as they attempt to leave the carriageway and proceed up steep ramps. Table D-3 shows the maximum grades for footpaths and drop kerb treatments.

It is noted that in some circumstances, the location of a road reserve on land of steep topography does not allow scope to provide a footpath with a suitable longitudinal grade.

Table D-3 Maximum grades

Footpaths	Grade	Comment
Recommended maximum gradient	1:33	Grades steeper than 1:33 require level rest areas at regular intervals.
Absolute maximum gradient	1:20	Grades steeper than 1:20 should be considered as ramps for design purposes.
Drop kerbs	Grade	Comment
Recommended maximum gradient	1:10	Grades steeper than 1:10 may cause wheelchairs to tip backwards.
Absolute maximum gradient	1:8	Should only be used in extenuating circumstances.

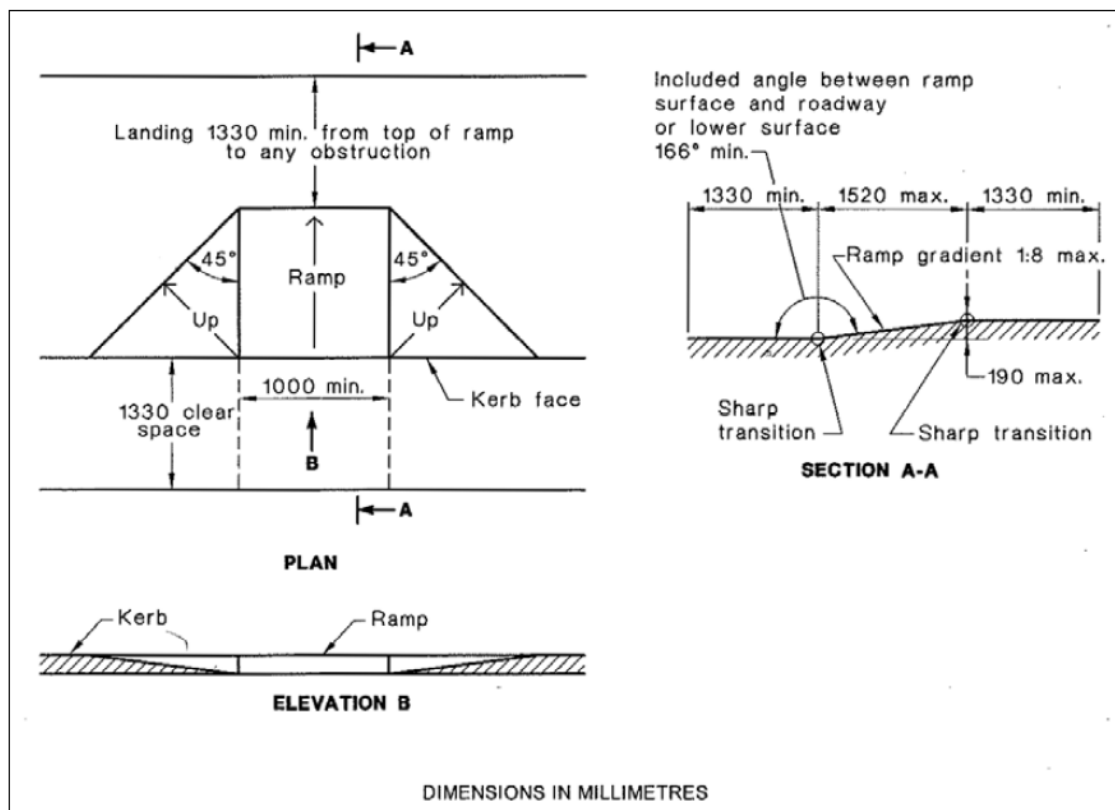
Source: *Austroads Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths, 2009*

Kerb ramps

The difference in the level between the footpath and the roadway is a common situation that poses difficulties for pedestrians, particularly with mobility and vision impairments. A kerb ramp provides a smooth change in the level between the footpath and the roadway.

The general dimensions of a kerb ramp are illustrated in Figure D-2. The *Austroads Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths, 2009*, states that: “A minimum footpath width of 1330 mm should be provided beyond the top of the ramp.”

Figure D-2 An example of kerb ramp design



Source: *Austrroads Guide to Road Design – Part 4: Intersections and Crossings – General, 2009*

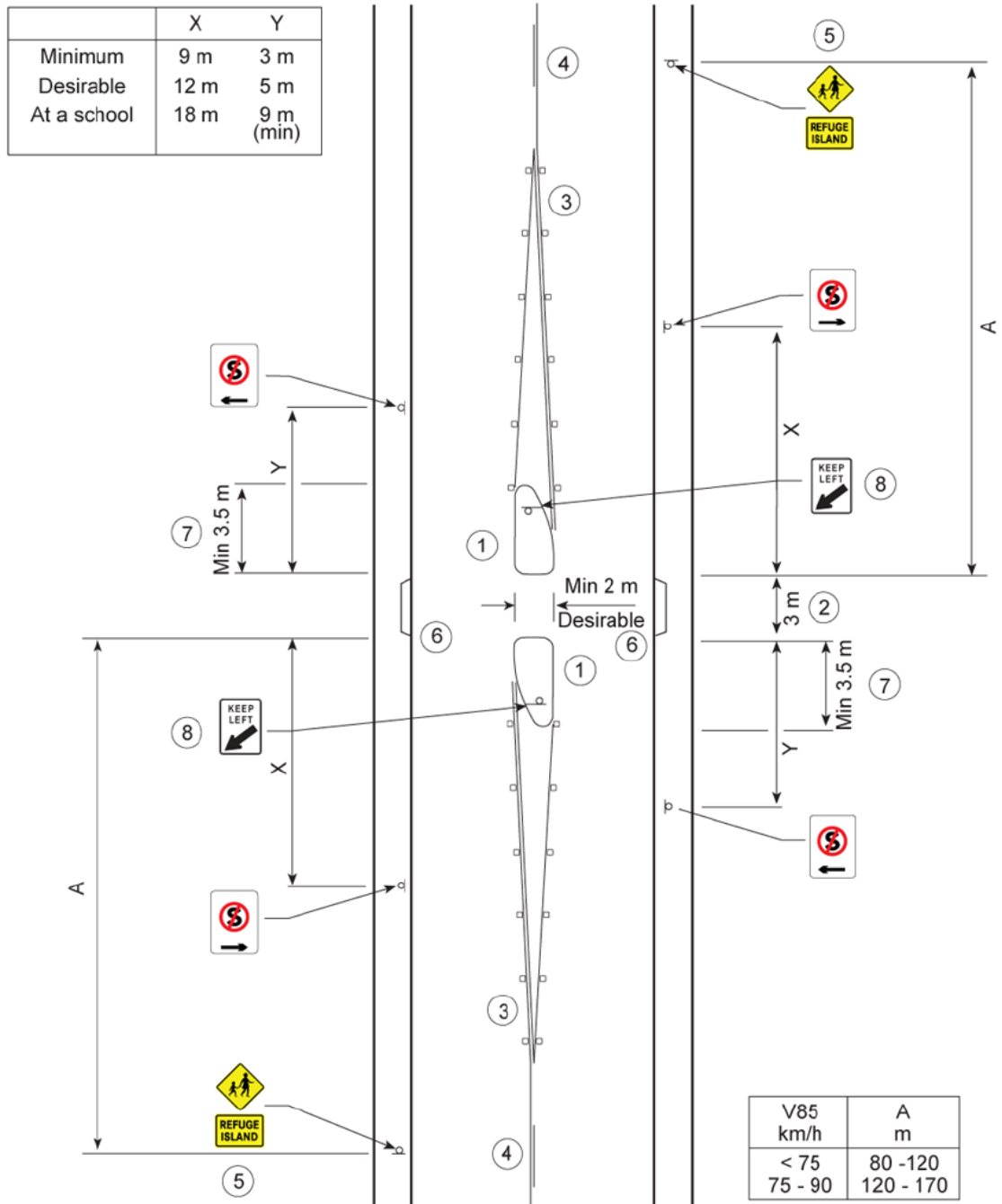
Pedestrian refuges

Pedestrian refuges allow a safe point for pedestrians undertaking a staged crossing of a wide or busy road. It is noted that many people do not feel safe when using refuges and, should the funds be available, kerb extensions should be considered to reduce the total width of the road at the crossings points rather than using refuges.

The general layout of a pedestrian refuge is provided in Figure D-3. The *Austrroads Guide to Road Design – Part 4: Intersections and Crossings - General, 2009*, also states that:

- *“Where the refuge connects significant shared use paths the minimum width of refuge of 2.0 m is likely to be inadequate and a greater width should be provided, and warning signs should include a bicycle.*
- *Street lighting should be provided in accordance with AS/NZS 1158.1.*
- *Pedestrian assist handrails may be provided where space is available in the island. If provided, they should be frangible.”*

Figure D-3 An example of a pedestrian refuge



Source: Austroads Guide to Road Design – Part 4: Intersections and Crossings - General

Tactile paving

Tactile paving should also be provided to indicate the edge of the roadway to sight impaired pedestrians.

Appendix E – Planning for cyclists

Creating a safe and attractive environment for cycling

Background

Cycling is a highly efficient, environmentally benign form of transport. As with walking, cyclists are improving their health and contributing to an active environment at a human scale.

Cyclists move around the public domain in various ways, largely depending on the trip purpose and rider characteristics. For example, children will tend to use the footpath and cycle at low speeds, while an adult on the way to work will ride along the fastest and most direct route available (on- or off-road).

Cyclists therefore move through an “environment” in a similar way to pedestrians, although the speed and distance which they travel mean that they identify more with the concept of a network. Attention to cycling facilities should not be confined to one or two “routes” or “links” in an area, as trip origins and destinations are diverse. Every street must be a safe route for cyclists and be designed in accordance with the function, traffic volume and width of the street.

Infrastructure for cycling can be designed in a similar way to other vehicles, through consideration of speed, sight distance, priority at intersections etc. However, bicycles have a degree of manoeuvrability that makes them somewhat unpredictable to motorists and pedestrians. Therefore, the design of both on- and off-road facilities should aim to encourage predictability and clear priority at all conflict points.

Cyclist needs

As for pedestrians, the provision of cyclist infrastructure should not only aim to fulfil the requirements of existing users, but to increase the number of cycling trips in the area. Such an outcome would likely result in fewer car trips (particularly for shorter travel distances), healthier residents and a more active (and safe) streetscape.

A number of elements are required in order to provide a high quality cycling environment. These include:

Coherence

Coherence refers to the extent of coverage and completeness of the bicycle facilities. Within built-up areas, coherence can be characterised by the completeness of the network. Outside built-up areas, it is characterised by the completeness of connecting routes.

Coherence also can refer to how the bicycle routes and network matches with the need to travel, offering a consistent quality across individual paths, continuity of paths and routes, and the ability to provide users with freedom of route choice.

Safety

Cyclists are particularly vulnerable road users. They are slower and smaller than the dominant vehicles in traffic, making them less likely to be seen. Furthermore, cyclists have little protection at times of collisions.

When approaching an intersection, cyclists are rarely in a position that motorists expect. Cyclists are positioned close to cars and are not often in view of drivers. This can lead to conflict.

Intersections present a danger for cyclists due to the many movements from different directions. Clear guidance is needed on the approach, through and exit from the intersection for both cyclists and motorised traffic.

Off-road paths reduce the risk of collision with vehicles, but still endanger cyclists at intersections with roads. Also, cyclists can collide with pedestrians with potentially fatal outcomes. The general principles of predictability and clear priority remain important for off-road paths, including directional segregation and high visibility for all users.

Personal security for cyclists is perhaps less critical than for pedestrians. However, narrow and dark areas remain dangerous for cyclists and should be avoided.

Directness

As for pedestrians, cyclists dislike significant deviations to their route. However, some flexibility can be expected where a better cycling environment is provided on a minor deviation from the most direct route. A careful balance must be found between providing a direct route and also one free of delays or safety concerns.

Amenity

People will more be likely to cycle in a pleasant environment. The route should be scenic, quiet, and free of heavy traffic and traffic travelling at high speeds. The best cycling environment is often found in areas that have been traffic calmed.

Suitable for all users

Cyclists cover a large range of user skill levels and trip purposes. While skill level often depends on age, other factors such as frequency of cycling and carrying heavy loads can affect a user's actions. Trip purposes often dictate the preferred cycling facility.

Best practice aims to provide for all users on a particular cycle route, ensuring that no users are excluded from using the facility. If one type of bicycle facility is unable to provide for all users of that route, a duplicate (both on and off-road facilities) facility should be provided.

End of trip facilities

As noted above, bicycle users need to know that their bike is safe from theft while it is not attended. This can be achieved through the provision of bike racks and lockers in areas that are well lit, in view of the public and protected from the weather. Where possible, Council should also encourage the provision of shower and change rooms in new buildings such as offices through planning controls.

Cycling strategies

Council should support and encourage cycling through the following actions:

- Actively promote cycling through the provision of quality cycling facilities and the establishment of an attractive and amenable cycling environment.
- Build a network of primary cycle routes within the Shire. These should serve key local and regional cycling demand and provide direct and convenient links between commuting, social and recreational destinations.
- Bicycle access to this network should be promoted through the establishment of an ambient traffic environment that makes local roads bicycle-friendly.
- Provide secure parking and 'end-of-trip' facilities for cyclists.
- Utilise traffic calming and reduction of speed limits (to 40-50 km/h) where necessary to lower the speed environment on local roads.

- Develop policies, guidelines, training and assessment measures to ensure that the needs of cyclists are considered when planning and designing traffic facilities and other elements of the urban environment.

User types

Cycling attracts a large variety of participants, a selection of which is outlined in Figure E-1, many of which have very different motivations for participating. It is particularly important to recognise the needs of each user type to ensure facilities cater and encourage use of current, new and proposed routes.

Many non-cyclists lack the self-efficacy to cycle, even if they are willing to try it. There is a substantial body of evidence which reveals that there is also a difference in what non-cyclists and cyclists consider as the necessary “enablers” for cyclists, particularly where infrastructure is concerned. For example, non-cyclists place more importance on segregated bicycle lanes, whereas regular cyclists, particularly males, are more willing to share the road with motorists (even if motorists do not share the same view).

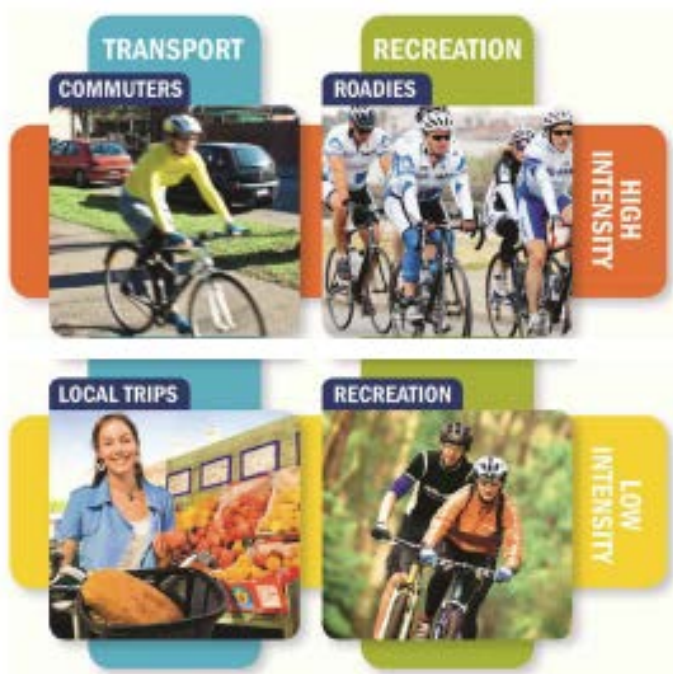


Figure E-1 Different bicycle user types

Recreational cyclists

Recreational cyclists ride mainly for leisure and place a high value on enjoying the experience. They are usually less constrained by time and vary widely in skill and experience.

Popular recreation cycling destinations include routes along rivers, natural corridors and reserves, as well as attractive routes with low traffic volume and speed.

Recreational cyclists prefer:

- Comfort
- Good surfaces
- Minimal gradients
- A high degree of safety and personal security
- Routes that are pleasant, attractive and interesting

- Circuitous routes with multiple route options
- Screening from weather and wind
- Parking facilities where they dismount to use facilities or visit attractions along the journey

Commuter cyclists

Commuter cyclists ride mainly as a mode of transport for journeys to and from a workplace, school or university. They prefer the fastest safe route between their origin and destination and are generally more skilled and experienced.

Commuter cyclists prefer:

- Directness
- Minimal delays
- Good surfaces
- All-weather routes
- Well lit routes for after-hours journeys
- Parking facilities and end of trip facilities at their destination

Sport cyclists

Sport cyclists ride mainly for fitness and leisure, but like recreational cyclists also place a value on enjoying the experience. They are also less constrained by time and have a high skill and experience.

Sport cycling destinations include off-road mountain bike trails in addition to areas which provide continuous on or off-road routes.

Sport cyclists prefer:

- Comfort
- Good surfaces or off-road trails
- Minimal conflict with other road users
- A reasonable degree of safety and personal security
- Routes that are pleasant, attractive and interesting
- Circuitous routes

Local trip cyclists

Local trip cyclists ride mainly as a mode of transport for running errands, but may also include short commute cyclists. They may be constrained by time and vary widely in skill and experience.

Popular local trip cycling destinations include shops, shopping, schools and town centres.

Local trip cyclists prefer:

- Comfort
- Good surfaces
- Minimal gradients

- A high degree of safety and personal security
- Parking facilities at their destination

Selecting the appropriate path type

Types of cycle paths

A number of path types have been described in various technical guidelines to assist decision-makers in selecting the appropriate treatment to suit local conditions. Bicycle paths can either be on-road, which are essentially “bicycle lanes” alongside motor vehicle traffic on a roadway within the road corridor, or off-road paths, which are separated from the road corridor.

The selection of the appropriate path type treatment depends on a combination of factors, which may include the level of demand for the cycle path, the conditions present in the surrounding environment, the availability of space in which to provide the path, and whether path usage is for exclusive cycle use or shared use with pedestrians.

Separation treatment

A key concern in the design of bicycle facilities following the alignment of roads is whether warrants exist for providing bicycle paths separated from vehicular traffic, or whether a mix of bicycle and vehicular traffic may be acceptable.

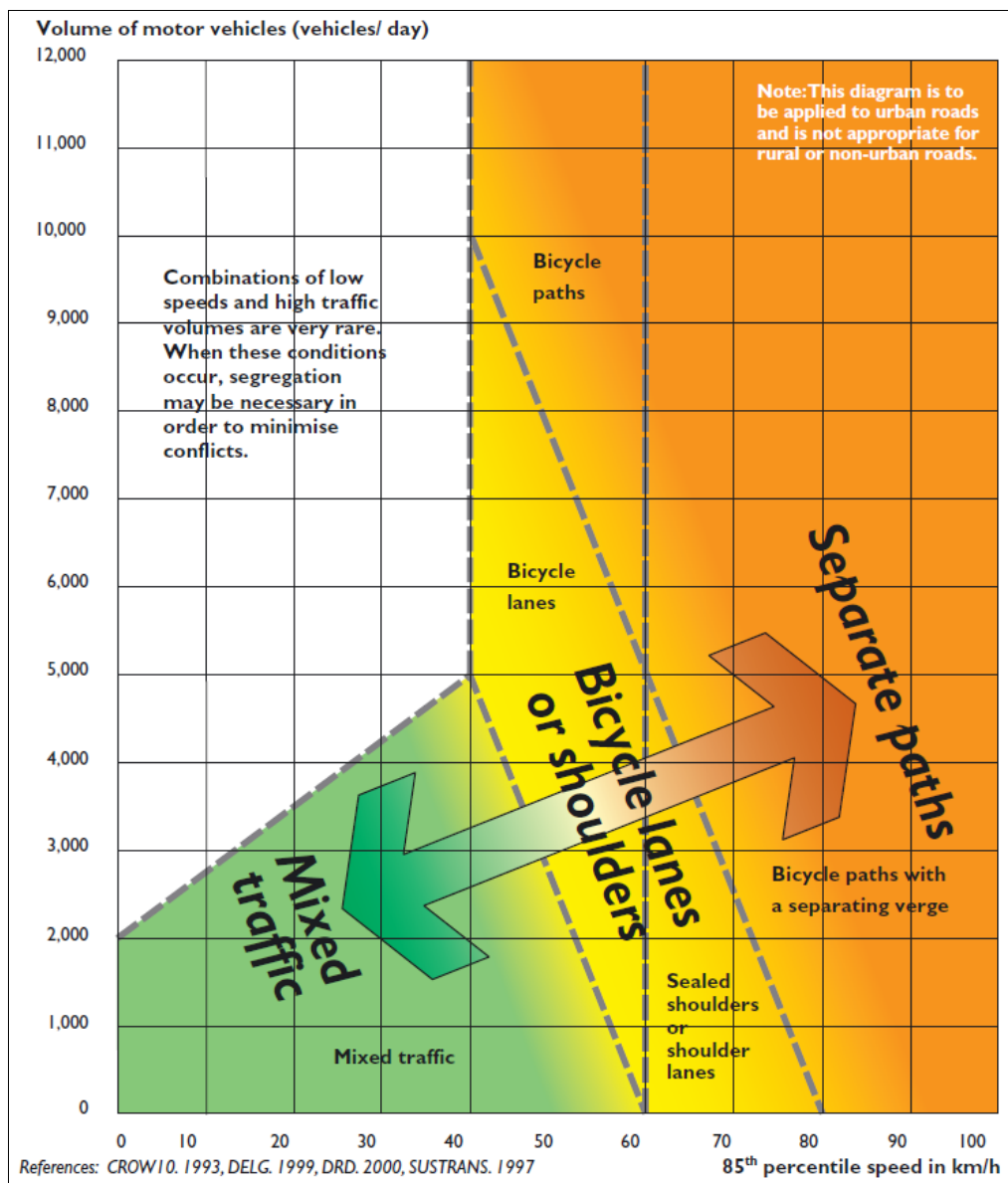
The *NSW Bicycle Guidelines*¹ provide for conditions when a separated cycle facility may be required, or when cycles operating in mixed traffic conditions may be acceptable. These are based on bicycle research in the Netherlands and other studies.

The traffic separation treatment will depend on the volume of vehicles on the road, and the vehicle speed environment.

Figure E-2 provides a general guide in determining traffic separation treatment. In essence, separated paths are needed when the vehicle speed environment is 80 km/hour or faster, or when vehicle volumes are high enough even at lower vehicle speeds (e.g. 10,000 vehicles per day, even at 40 km/hour, will require separated facilities).

¹NSW *Bicycle Guidelines*, Roads and Traffic Authority (2005)

Figure E-2 Guide for Determining Separation of Bicycles and Motor Vehicles



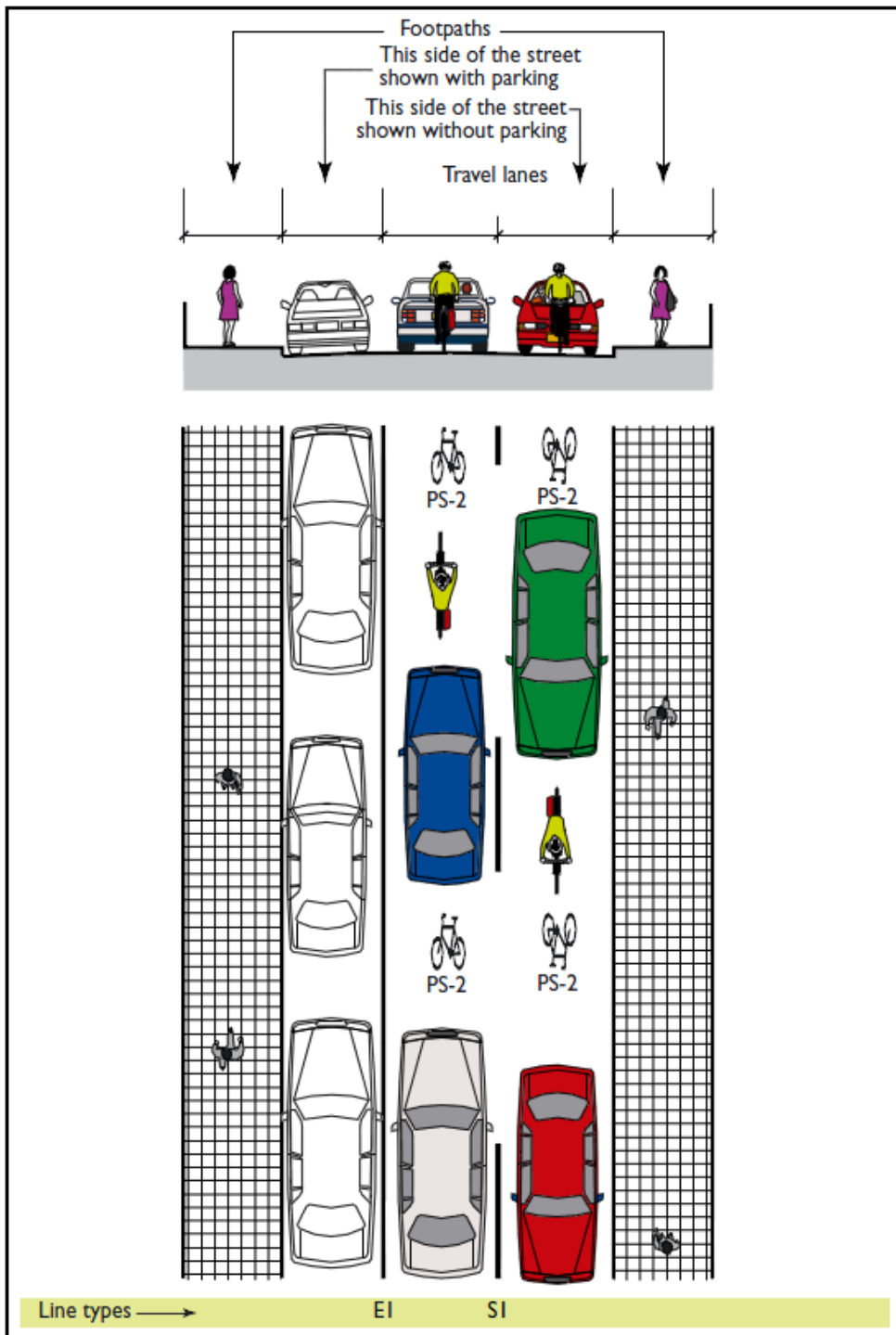
Source: NSW Bicycle Guidelines, Roads and Traffic Authority (2005).

On-Road path types

A number of different path treatments can be applied for on-road cycle facilities. These are presented and discussed in the *NSW Bicycle Guidelines* (RTA, 2005). The different on-road path types may provide physical or visual separation from the adjacent roadway, or allow for mixed bicycle-motor vehicle traffic.

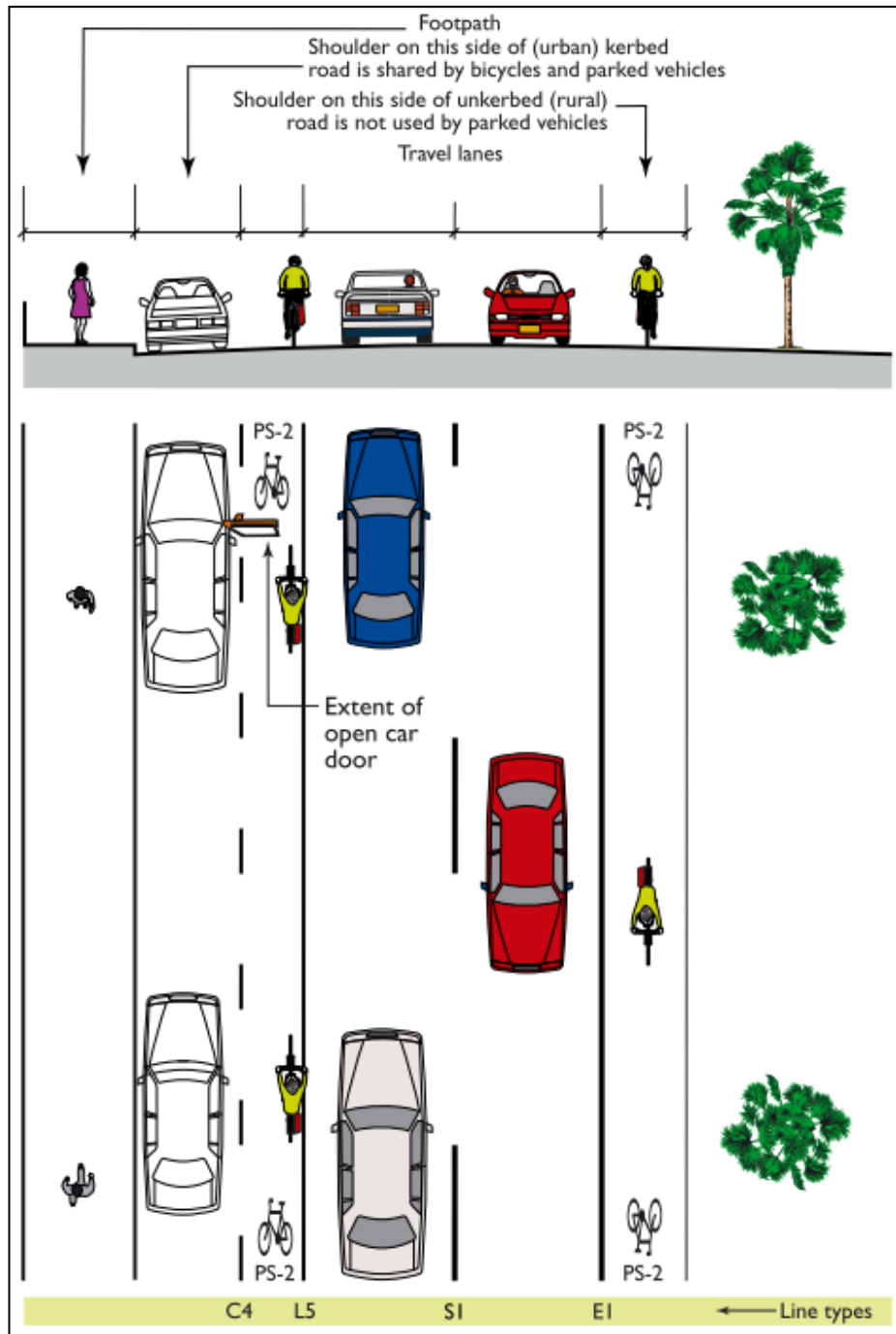
In the context of the PAMP and Bike Plan, on-road bicycle paths would typically be provided with some form of physical or visual separation from the adjacent traffic lane or by providing mixed traffic routes where bicycles and traffic share the road space. The on-road paths considered in this Plan are typically of the layout and cross section as shown in Figure E-3 and E-4.

Figure E-3 Typical Plan and Cross-Section for On-Road Mixed Traffic Bicycle Routes



Source: NSW Bicycle Guidelines, RTA 2005.

Figure E-4 Typical Plan and Cross-Section for On-Road Bicycle Paths



Source: NSW Bicycle Guidelines, RTA 2005.

On-Road bicycle lane widths

The width for bicycle lanes will vary depending on the number of cyclists, the speed of motor vehicles, the volume of large vehicles and the space available given the needs of other road user groups, physical constraints and budgetary constraints (AUSTROADS, *Part 14 – Bicycles*, 1999). Recommended widths are summarised below and shown in Table E-1.

Overall, the following widths are recommended:

- 3.0 metres is the preferred width and is desirable where the motor traffic is moving at high speeds (100 km/h).
- At least 2.0 metres is desirable where the motor traffic is moving at high speeds (100 km/h) or where speeds are moderate (80 km/h).

- 1.5 metres is the desirable width to be used in 60 km/h speed zones.
- 1.2 metres is the minimum recommended width which should be used along the length of the lane and should only be used where the provision of a wider lane is impractical.

Table E-1 Recommended on-road bicycle lane widths

	Lane Width (m)		
Road Speed	60 km/h	80 km/h	100 km/h
Desirable	1.5 m	2.0 m	2.5 m
Accepted Range	1.2 – 2.5 m	1.8 – 2.7 m	2.0 – 3.0 m

Source: *Guide to Traffic Engineering Practice, Part 14 – Bicycles* (AUSTROADS, 1999).

A 1.0 metre width may also be acceptable where the speed environment is less than 60 km/h and space is severely restricted.

Off-road cycle paths

Off-road cycle paths are typically physically separated from adjacent parking or traffic lanes.

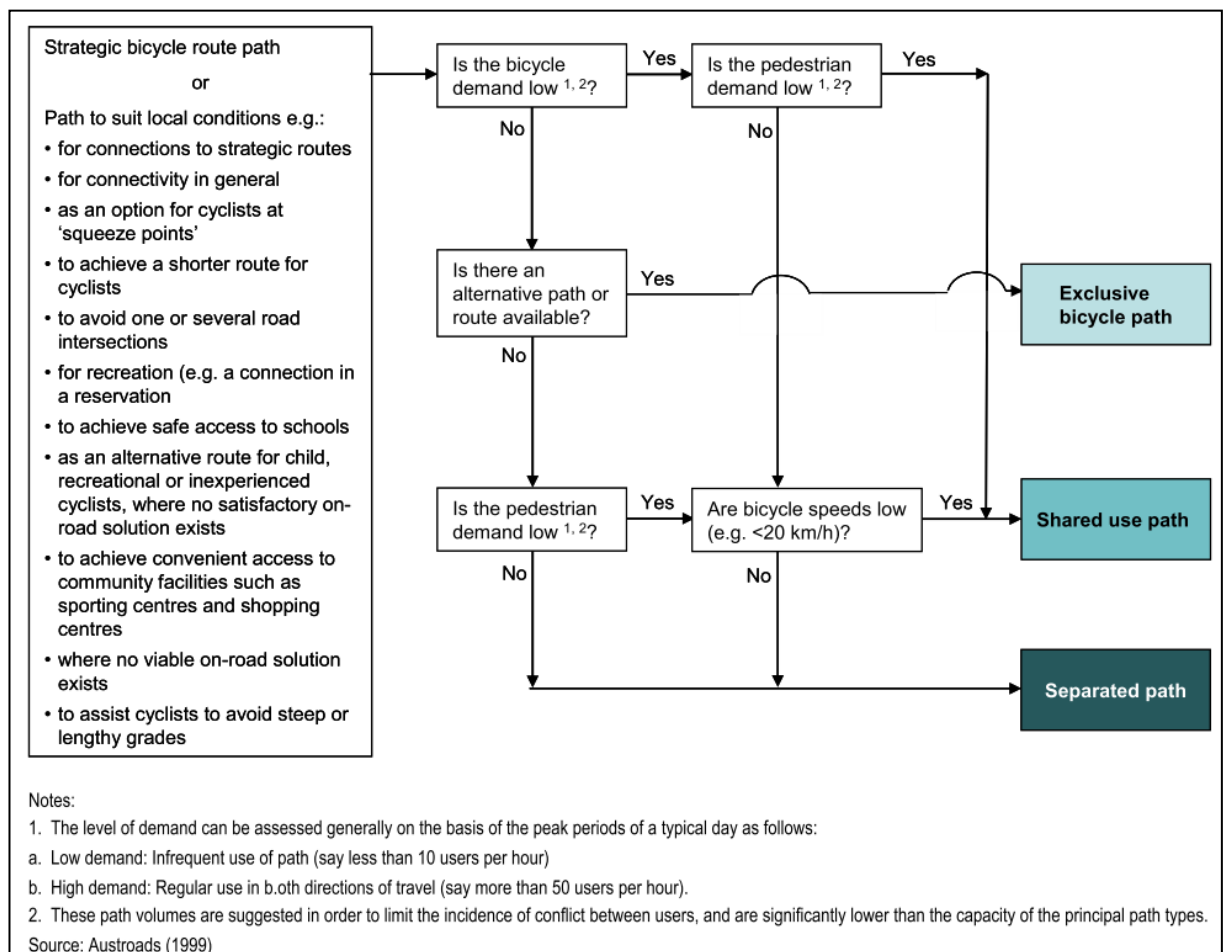
Off-road paths can be of three basic types:

- Exclusively for bicycle use
- Shared cyclist and pedestrian use
- Separate paths provided for cyclists and for pedestrians

The *Guide to Road Design Part 6A: Pedestrian and Cyclist Paths* (AUSTROADS 2009)

presents a guide on selecting the treatment type for off-road paths. This is shown in Figure E-5.

Figure E-5 Selection Guide for Off-Road Path Types



Source: *Figure 2.1, Guide to Road Design Part 6A: Pedestrian and Cyclist Path* (AUSTROADS 2009).

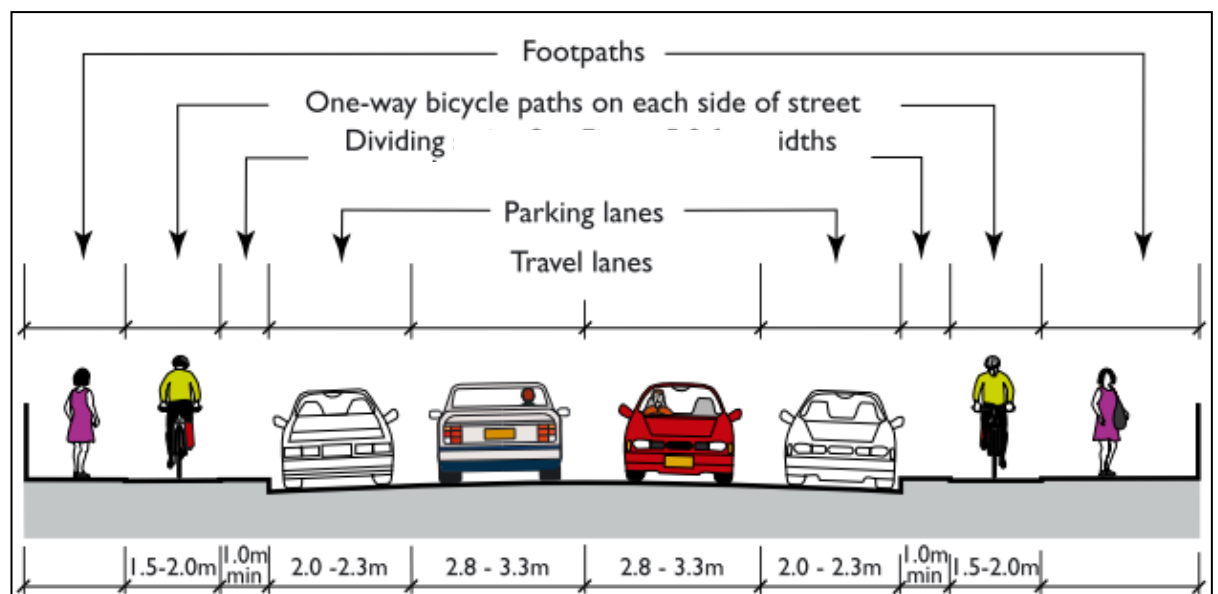
Exclusive cycle paths

According to the AUSTRROADS Guide, exclusive bicycle paths are most appropriate under the following conditions:

- *There is a significant cycling demand and very few pedestrians desire to use the path or a separate footpath is provided*
- *There is very limited motor vehicle access across the path*
- *It is possible to achieve an alignment that generally allows cyclists uninterrupted and safe travel at a relatively high constant speed (say 30 km/h)*

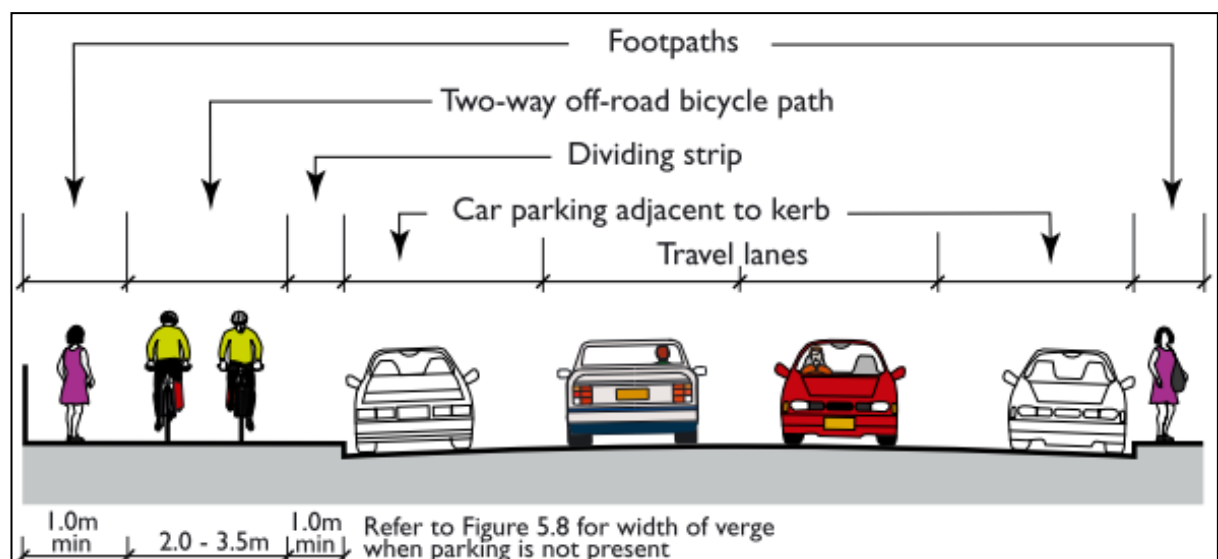
Figure E-6 presents a typical road cross section for a one-way pair of off-road cycle paths, while Figure E-7 shows the same for a two-way off-road exclusive cycle path on one side of the road. For local conditions where kerbside parking is not present, the dividing strip or separating verge would not be required.

Figure E-6 Typical Cross-Section - One-Way Pair of Off-Road Bicycle Paths



Source: NSW Bicycle Guidelines, RTA 2005.

Figure E-7 Typical Cross-Section - Two-Way Off-Road Bicycle Path on One Side of Road



Source: NSW Bicycle Guidelines, RTA 2005.

The AUSTRROADS Guide also prescribes the design widths for exclusive cycle paths. These are shown in Table E-2.

Table E-2 Path widths – exclusive bicycle paths

	Path Width	
	Local Access Path	Major Path
Desirable Minimum Width	2.5 m	3.0 m
Minimum width – typical maximum	2.5 – 3.0 m a	2.5 – 4.0 m b

a: A lesser width should only be adopted where cyclist volumes and operations speeds will remain low.
b: A greater width may be required where the number of cyclists is very high.

Source: *Guide to Road Design Part 6A: Pedestrian and Cyclist Path (AUSTRROADS, 2009)*.

Shared use paths

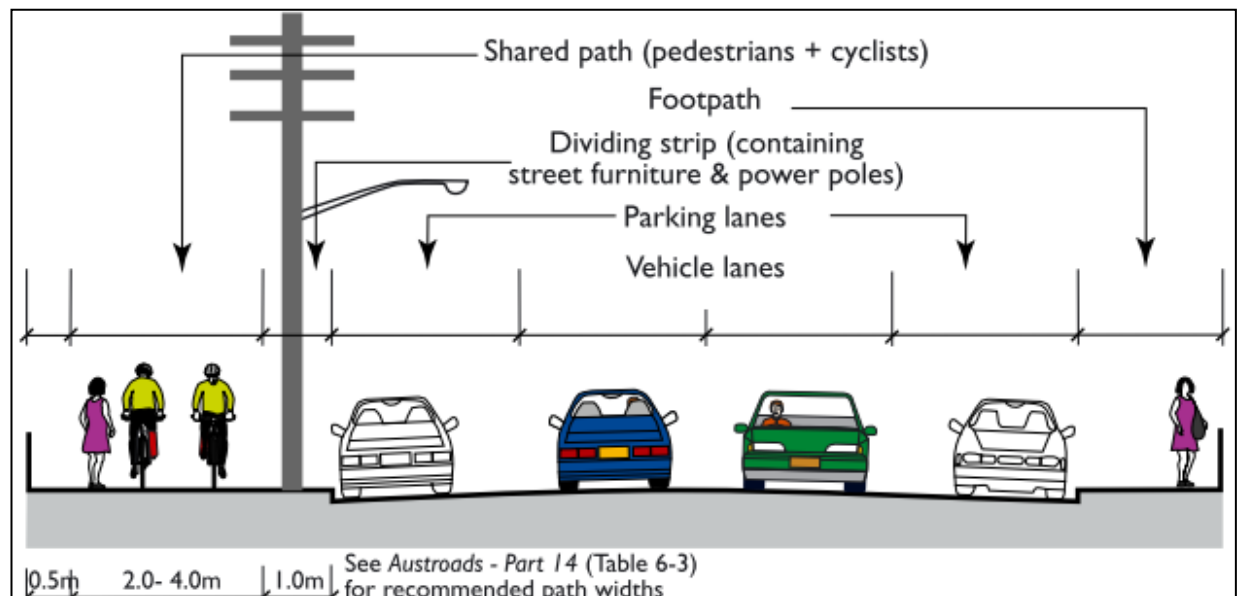
Shared use paths, or shared paths, are a type of off-road facility that allows common use of the facility by both cyclists and pedestrians.

According to the AUSTRROADS Guide, a shared use path may be appropriate where:

- Demand exists for both a pedestrian path and a bicycle path but where the intensity of use is not expected to be sufficiently great to provide separate facilities
- An existing low-use footpath can be modified to provide for cyclists by satisfying legal requirements and as necessary upgrading the surface, width and kerb ramps
- There is an existing road nearby which caters well for faster cyclists (e.g. has on-road bicycle lanes), to limit the extent of user conflict on the shared path.

A typical cross section of a shared path (two-way) is shown in Figure E-8 (left hand portion of drawing).

Figure E-8 Typical Cross-Section for a Two-Way Off-Road Shared Path



Source: *NSW Bicycle Guidelines, RTA 2005*.

Table E-3 provides an indication of widths for shared paths.

Table E-3 Shared path widths

	Path Width		
	Local Access Path	Commuter Path	Recreational Path
Desirable Minimum Width	2.5 m	3.0	3.5
Minimum width – typical maximum	2.5a – 3.0 mb	2.5a – 4.0 mb	3.0a – 4.0 mb
a: A lesser width should only be adopted where cyclist volumes and operations speeds will remain low.			
b: A greater width may be required where the number of cyclists and pedestrians are very high or there is a high probability of conflict between users.			

Source: *Guide to Road Design Part 6A: Pedestrian and Cyclist Path (AUSTROADS, 2009)*.

Separate paths

Where there are significant volumes of both pedestrians and cyclists, separate paths for each may need to be provided to minimise conflict issues associated with shared use of paths. Typically, separate paths would require a minimum of 3.0 metres on each side of the road for one-way paths, and 4.5-metre wide off-road paths for separated two-way paths.

The AUSTROADS *Guide to Road Design Part 6A: Pedestrian and Cyclist Paths* notes that such separated paths are rarely provided.

Appendix F – Priority rankings of proposed improvements by town area

Bellingen Priority Ranking																	
Ref No.	Road	Location	Initiative	Length	Cost Ranking	Attractors/generators	Land use type	Proximity	Future development	Road hierarchy	Hazardous area	Crashes	Demonstrated path	Addition	Route hierarchy	Score	Priority
B16	Bridge St	Hyde St to Bridge St	Alter pram ramp layout	20.92	Low	10	8	10	3	15	10	0	10	10	5	81	High
B15b	Lovell Street	Bowra Lane to William St	Widen Path (2.5m)	139.89	Medium	10	10	10	5	8	10	0	10	10	5	78	High
B1a	Hyde Street	Golf Course	Shared Path (2.5m)	286.00	Medium	8	8	8	5	15	8	0	10	10	5	77	High
B9	Ford Street	South of Hyde Street	Alter pram ramp layout	20.17	Low	10	8	10	3	10	10	0	10	10	5	76	High
B10	Hyde Street	Intersection with Oak St	Informal Pedestrian Refuge	20.11	Low	10	8	10	3	15	10	0	10	5	5	76	High
B14	Bowra Street	Church Street to Lovell Street	Shared Path (2.5m)	284.43	Medium	8	10	10	5	8	10	0	10	10	5	76	High
B14c	Park Street	Rawson St to Ford St	Widen Path (2.5m)	187.20	Low	10	10	10	3	8	10	0	10	10	5	76	High
B1	Hyde St / Waterfall Wy	High School to Crown St	Shared Path (2.5m)	630.31	High	5	10	10	3	15	8	0	8	10	5	74	High
B5c	Church Street	South St to William Lane	Shared Path (2.5m)	66.08	Low	10	8	10	5	8	8	0	10	10	5	74	High
B5d	Church Street	William Lane to Hyde St	Widen Path (2.5m)	130.11	Medium	10	8	10	5	8	8	0	10	10	5	74	High
B12c	William Street	South William Street adjoining Lovell St	Pedestrian Refuge	20.00	Medium	10	8	10	5	8	8	0	10	10	5	74	High
B17b	Bridge St	Bridge	Widen Bridge (2m)	48.59	High	10	5	10	5	8	10	0	10	10	5	73	High
B5a	Church Street	Watson St to Park St	Shared Path (2.5m)	105.64	Low	8	10	10	3	8	8	0	10	10	5	72	High
B5b	Church Street	Park St to South St	Shared Path (2.5m)	89.14	Low	8	10	10	3	8	8	0	10	10	5	72	High
B8a	Ford Street	Park St to Watson St	Shared Path (2.5m)	79.39	Low	8	10	10	3	8	8	0	10	10	5	72	High
B8b	Ford Street	Hyde St to Park St	Shared Path (2.5m)	295.36	Medium	8	10	10	3	8	8	0	10	10	5	72	High
B12a	William Street	Oak St to Church St	Shared Path (2.5m)	159.50	Medium	8	8	10	5	8	8	0	10	10	5	72	High
B12b	William Street	Lovell St to Oak St	Shared Path (2.5m)	138.64	Medium	8	8	10	5	8	8	0	10	10	5	72	High
B14b	Park Street	Church Street to Rawson Street	Shared Path (2.5m)	26.56	Low	8	10	10	3	8	8	0	10	10	5	72	High
B13a	William Street	Widened path to edge of primary school	Widen Path (2.5m)	77.71	Low	8	10	10	5	8	10	0	5	10	5	71	High
B13b	William Street	New path to edge of primary school	Shared Path (2.5m)	60.41	Low	8	10	10	5	8	10	0	5	10	5	71	High

B15a	Lovell Street	Adjacent to School at William St	Shared Path (2.5m)	220.00	Medium	8	10	10	5	8	5	0	10	10	5	71	High
B6	Church Street	South of Hyde St	Alter pram ramp layout	30.59	Low	10	8	8	3	10	8	0	8	8	5	68	Medium
B17a	Bridge St	Hyde St to bridge	Widen Path (2.5m)	143.18	Medium	10	8	10	3	8	10	0	10	5	5	69	Medium
B17c	Hammond St	Bridge to Hammond St	Widen Path (2.5m)	24.91	Low	10	5	10	5	8	8	0	10	10	3	69	Medium
B17d	Hammond St	Dowle St to Wheatley St	Shared Path (2.5m)	122.09	Low	10	5	10	5	8	8	0	10	10	3	69	Medium
B31	Creek Lane	Ford St to Church St and Markets	Footpath (1.2m)	178.61	Low	10	8	10	5	5	8	0	10	10	3	69	Medium
B11	Hyde Street and Coronation St	Oak St to West Street	Widen Path (2.5m)	332.00	Low	10	8	10	3	15	5	0	0	10	5	66	Medium
B2e	Crown Street	B3 to Sara Place	Shared Path (2.5m)	50.21	Low	5	10	10	3	8	5	0	10	10	5	66	Medium
B2f	Crown Street	Sara Place to Raymond Close	Shared Path (2.5m)	306.03	Medium	5	10	10	3	8	5	0	10	10	5	66	Medium
B2g	Crown Street	Raymond Close to High School	Shared Path (2.5m)	419.58	High	5	10	10	3	8	5	0	10	10	5	66	Medium
B2h	Crown Street	High School to Waterfall Way	Shared Path (2.5m)	251.86	Medium	5	10	10	3	8	5	0	10	10	5	66	Medium
B18a	Hammond St	Bridge to Dowle St	Shared Path (2.5m)	380.85	Medium	5	5	10	5	8	8	0	10	10	3	64	Medium
B18b	Wheatley Street	Existing footpath to Hammond St	Widen Path (2.5m)	119.20	Low	5	5	10	5	8	8	0	10	10	3	64	Medium
B19a	Wheatley Street	Extent of existing footpath on southern side of Wheatley St	Widen Path (2.5m)	238.15	Medium	5	5	10	5	8	8	0	10	10	3	64	Medium
B19b	Wheatley Street	Existing southern footpath to northern side of Wheatley St	Pedestrian Refuge	21.00	Medium	5	5	10	5	8	8	0	10	10	3	64	Medium
B20	Wheatley Street	East of B19a to McCristal Drive on northern side of Wheatley St	Shared Path (2.5m)	357.19	Medium	5	5	10	5	8	8	0	10	10	3	64	Medium
B21	Wheatley Street	McNally St to Wheatley St	Shared Path (2.5m)	39.15	Low	5	5	10	5	8	8	0	10	10	3	64	Medium
B22	Wheatley Street	Hammond St to Sunset Ridge	Shared Path (2.5m)	501.89	High	5	5	10	5	8	8	0	10	10	3	64	Medium
B23	Hammond Street	Both sides of Hammond intersection	Cycle Refuge	24.10	Low	5	5	10	5	8	8	0	10	10	3	64	Medium
B2a	Crown Street	Ford St to Prince St	Shared Path (2.5m)	162.81	Medium	5	5	10	3	8	5	0	10	10	5	61	Medium
B2b	Crown Street	Prince St to Connell Place	Shared Path (2.5m)	67.97	Low	5	5	10	3	8	5	0	10	10	5	61	Medium
B2c	Crown Street	Connell Place to Halpin Street	Shared Path (2.5m)	91.37	Low	5	5	10	3	8	5	0	10	10	5	61	Medium

B2d	Crown Street	Halpin St to B3	Shared Path (2.5m)	34.91	Low	5	5	10	3	8	5	0	10	10	5	61	Medium
B3	Watson Street	Church St to Hospital	Shared Path (2.5m)	175.30	Medium	5	8	10	3	8	5	0	8	10	3	60	Medium
B4	Watson Street	Unnamed Road at Hospital to Nursing Home	Shared Path (2.5m)	190.49	Medium	5	8	10	3	8	5	0	8	10	3	60	Medium
B7	Prince Street	Hyde St to Crown St	Shared Path (2.5m)	390.62	Medium	5	5	10	1	8	5	0	8	10	3	55	Medium
B25	Lyon Street	Wheatley St to Tamarind Dr	Shared Path (2.5m)	321.88	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B26	Tamarind Dr	Lyon St to Ringwood Pl	Shared Path (2.5m)	286.25	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B27	Elliott Cl	Sunset Ridge Dve to existing footpath	Footpath (1.2m)	75.85	Low	0	5	5	1	8	8	0	8	8	3	46	Medium
B28	Dowle Street	Vale Street to Hammond	Shared Path (2.5m)	268.17	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B29a	Sunset Ridge Drive	Wheatley St to Elliot Cl	Shared Path (2.5m)	53.21	Low	0	5	5	1	8	8	0	8	8	3	46	Medium
B29b	Sunset Ridge Drive	Elliot Cl to Hobson Cl	Shared Path (2.5m)	324.07	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B30	Kenny Close	Existing footpath to Ringwood Res.	Footpath (1.2m)	290.46	Low	0	5	5	1	8	8	0	8	8	3	46	Medium
B24	North Bank Rd and Hydes Creek Rd	McCristal Drive to Clothier Rd	Shared Path (2.5m)	638.64	High	0	5	5	3	8	0	0	0	0	1	22	Low

Dorrigo Priority Ranking

Ref No.	Road	Location	Initiative	Length	Cost Ranking	Attractors/generators	Land use type	Proximity	Future dev't	Road hierarchy	Hazardous area	Crashes	Demonstrated path	Addition	Route hierarchy	Score	Priority
D5	Cudgery Street	High School to River	Shared Path (2.5m)	385.32	Medium	5	10	10	3	15	8	0	10	10	5	76	High
D6	Cudgery Street	Opposite High School near Rosewood St	Pedestrian Refuge	30.82	Low	5	10	10	3	15	8	0	10	10	5	76	High
D16	Cudgery Street	Intersection with Hickory St	Pedestrian Refuge	30.40	Low	10	8	10	3	15	5	0	8	5	3	67	Medium
D9	Karabin St and Myrtle Street	Cedar St to Cudgery St	Shared Path (2.5m)	300.42	Medium	8	8	8	3	15	8	0	5	8	3	66	Medium
D3	Cedar St	Hickory St to River	Shared Path (2.5m)	324.99	Medium	8	10	8	3	5	5	0	8	10	5	62	Medium
D1	Hickory Street	Approach from Cedar St	Shared Path (2.5m)	23.87	Low	8	5	10	3	8	5	0	8	10	3	60	Medium
D2	Hickory Street	Cudgery to Cedar St	Cycle Refuge	36.96	Low	8	5	10	3	8	5	0	8	10	3	60	Medium
D11	Hollibone Street	Mount St John Primary School frontage to Karabin St	Shared Path (2.5m)	147.59	Medium	5	10	10	1	8	5	0	8	8	3	58	Medium
D17	Town Centre	Shopping centre Cudgery St / Hickory St	Bicycle parking rails	1.00	Low	10	8	10	3	8	5	0	8	5	1	58	Medium
D10	Tyringham St	Hickory St to Karrabin St	Shared Path (2.5m)	406.06	Medium	5	10	10	3	8	5	0	5	8	3	57	Medium
D7	Rosewood St	Cudgery St to Bartletts Rd	Shared Path (2.5m)	592.67	High	0	5	8	3	8	8	0	8	8	3	51	Medium
D8	Tyringham Road	Bartletts Rd to Summit Close	Shared Path (2.5m)	786.98	High	0	5	8	3	8	8	0	8	8	3	51	Medium
D14	Waterfall Way	Caravan Park to Dome Rd	Shared Path (2.5m)	709.17	High	0	0	5	5	15	8	0	8	8	1	50	Medium
D12	Vine Street	Hickory St to Coramba Rd	Shared Path (2.5m)	521.42	High	0	0	5	5	8	8	0	8	8	1	43	Medium
D13	Coramba Road	Vine St to Dangar Falls	Shared Path (2.5m)	1147.63	High	0	0	5	5	8	8	0	8	8	1	43	Medium
D15	Dome Road	Waterfall Way to Rainforest Centre	Bike Lane (2x1.5m)	1568.90	High	0	0	5	5	8	8	0	8	8	1	43	Medium

D18	Waterfall Way	Old Coramba Road	Cycle Refuge	31.48	Low	0	5	8	3	8	5	0	5	8	1	43	Medium
D19	Old Coramba Road	Waterfall Way to Wheatons Rd	Shared Path (2m)	646.46	High	0	5	8	3	8	5	0	5	8	1	43	Medium
D20	Cudgery Street	Cnr Karabin Street	Alter pram ramp layout	20	Low	5	8	10	1	8	0	0	0	5	5	42	Medium
D4	Bangalow Street	Hickory St to Kurrajong St	Shared Path (2.5m)	224.35	Medium	0	5	0	1	8	0	0	0	8	1	23	Low

Urunga Priority Ranking

Ref No.	Road	Location	Initiative	Length	Cost Ranking	Attractors/generators	Land use type	Proximity	Future dev't	Road hierarchy	Hazardous area	Crashes	Demonstrated path	Addition	Route hierarchy	Score	Priority
U1b	Pacific Hwy	Ranger St to Hillside Drive	Shared Path (2.5m)	383.72	Medium	10	5	5	5	15	10	0	10	8	5	73	High
U2	Pacific Hwy	North of Ranger Street	Pedestrian Refuge	34.50	Medium	10	5	5	5	15	10	0	10	8	5	73	High
U6c	Bowra Street	Comlarol St to Bonville St	Widen Path (2.5m)	104.30	Low	10	10	10	1	8	5	0	8	8	3	63	Medium
U1d	Pacific Hwy	Pilot St to South St	Shared Path (2.5m)	321.89	Medium	0	5	8	5	15	10	0	8	8	3	62	Medium
U1e	Pacific Hwy	South St to Crescent St	Shared Path (2.5m)	113.53	Low	0	5	8	5	15	10	0	8	8	3	62	Medium
U1f	Pacific Hwy	Crescent St to Newry St	Shared Path (2.5m)	53.60	Low	0	5	8	5	15	10	0	8	8	3	62	Medium
U1g	Pacific Hwy	Newry St to Ferry St	Shared Path (2.5m)	274.89	Medium	0	5	8	5	15	10	0	8	8	3	62	Medium
U1h	Pacific Hwy	Ferry St to Bridge	Widen Path (2.5m)	278.52	Medium	0	5	8	5	15	10	0	8	8	3	62	Medium
U1i	Pacific Hwy	Bridge	Widen Bridge (to 2m)	228.49	High	0	5	8	5	15	10	0	8	8	3	62	Medium
U3	Pacific Hwy	South of Crescent Street	Pedestrian Refuge	28.95	Low	0	5	8	5	15	10	0	8	8	3	62	Medium
U6b	Comlarol Street	Railway Bridge to Bowra St	Widen Path (2.5m)	255.14	Medium	8	10	10	1	8	5	0	8	8	3	61	Medium
U1a	Pacific Hwy	Pacific Hwy (Caravan Park) to Hillside Drive	Shared Path (2.5m)	1044.19	High	0	5	5	5	15	10	0	8	8	3	59	Medium
U1c	Pacific Hwy	Hillside Drive to Pilot Street	Shared Path (2.5m)	387.99	Medium	0	5	5	5	15	10	0	8	8	3	59	Medium
U1j	Pacific Hwy	Bridge to Old Punt Rd	Shared Path (2.5m)	64.90	Low	0	5	5	5	15	10	0	8	8	3	59	Medium
U1k	Pacific Hwy	Old Punt Rd to Marina Crescent	Shared Path (2.5m)	423.59	High	0	5	5	3	15	10	0	8	8	3	57	Medium
U1l	Pacific Hwy	Marina Crescent to Newry Island Drive	Widen Path (2.5m)	495.80	High	0	5	5	3	15	10	0	8	8	3	57	Medium
U1m	Pacific Hwy	Newry Island Drive to Short Cut Rd	Shared Path (2.5m)	471.76	High	0	5	5	3	15	10	0	8	8	3	57	Medium

U1n	Pacific Hwy	Short Cut Rd to Old Pacific Hwy	Shared Path (2.5m)	226.92	Medium	0	5	5	3	15	10	0	8	8	3	57	Medium
U7	Morgo Street	South St to North St	Shared Path (2.5m)	695.20	High	5	5	10	3	8	5	0	8	10	3	57	Medium
U4	Pilot Street	Pacific Hwy to railway bridge	Shared Path (2.5m)	577.13	High	5	5	8	3	8	5	0	5	10	3	52	Medium
U5	South Street	Orara Street to Morgo St	Shared Path (2.5m)	134.61	Medium	5	5	8	3	8	5	0	5	10	3	52	Medium
U12	Town Centre	Shopping centre along Bonville St / Bowra St	Bicycle parking rails	1.00	Low	10	8	10	3	8	5	0	0	5	1	50	Medium
U6a	Newry Street West	Pacific Hwy to Fitzroy St	Shared Path (2.5m)	365.99	Medium	0	5	8	1	8	5	0	8	10	3	48	Medium
U10	Bellingin Street	Morgo St to Pacific Hwy	Shared Path (2.5m)	1096.71	High	5	5	5	1	8	5	0	5	10	1	45	Medium
U13	Morgo Street Reserve	Path along River	Shared Path (2.5m)	1303.07	High	5	5	5	1	8	5	0	5	10	1	45	Medium
U9	Vernon Cres	Vernon Pl to Yellow Rock Road	Shared Path (2.5m)	204.96	Medium	0	5	5	1	8	5	0	5	8	1	38	Low
U8	Hungry Head Road	Morgo Street to Surf Club	Shared Path (2.5m)	1800.00	High	5	0	0	3	8	5	0	5	8	1	35	Low
U11	Old Pacific Hwy	Short Cut Rd to North Street, Raleigh	Bike Lanes (2x2.0m)	1888.71	High	0	0	0	1	8	0	0	0	0	1	10	Low

Mylestom / Repton Priority Ranking

Ref No.	Road	Location	Initiative	Length	Cost Ranking	Attractors/generators	Land use type	Proximity	Future dev't	Road hierarchy	Hazardous area	Crashes	Demonstrated path	Addition	Route hierarchy	Score	Priority
M1	River St and George St	Christian Parade to George St on river side	Shared Path (2.5m)	609.00	High	5	5	8	1	8	8	0	5	8	1	49	Medium
M2	Mylestom Dr	Christian Parade to River St	Shared Path (2.5m)	2411	High	5	5	8	1	8	8	0	5	8	1	49	Medium
M3	Boronia Ave	Between Beach Pde and River St	Footpath	266	Medium	5	5	5	1	8	5	0	5	5	1	40	Medium

Appendix G – Overall priority ranking of proposed improvements

Overall Priority Rankings

Ref No.	Road	Location	Intiative	Intiative	Cost Ranking	Attractors/ generators	Land use type	Proximity	Future development	Road hierarchy	Hazardous area	Crashes	Demonstrated path	Addition	Route hierarchy	Score	Priority
B16	Bridge St	At Hyde St	Alter pram ramp layout	20.92	Low	10	8	10	3	15	10	0	10	10	5	81	High
B15b	Lovell Street	Bowra Lane to William St	Widen Path (2.5m)	139.89	Medium	10	10	10	5	8	10	0	10	10	5	78	High
B1a	Hyde Street	Doepel St west to existing footpath	Shared Path (1.2m)	286.00	Medium	8	8	8	5	15	8	0	10	10	5	77	High
D5	Cudgery Street	High School front entrance to Bielsdown River	Shared Path (2.5m)	173.00	Medium	5	10	10	3	15	8	0	10	10	5	76	High
D6	Cudgery Street	Opposite High School near Rosewood St	Pedestrian Refuge	30.82	Low	5	10	10	3	15	8	0	10	10	5	76	High
B12a	William Street	Oak St to Church St	Shared Path (2.5m)	159.50	Medium	10	10	10	5	8	8	0	10	10	5	76	High
B12b	William Street		Shared Path (2.5m)	138.64	Medium	10	10	10	5	8	8	0	10	10	5	76	High
B12c	Lovell Street	South William Street	Pedestrian Refuge	20.00	Medium	10	8	10	5	8	8	0	10	10	5	74	High
B17b	Bridge St	Bridge	Widen Bridge with shared path (2.5m)	48.59	High	10	5	10	5	8	10	0	10	10	5	73	High
U1b	Pacific Hwy	Ranger St to Hillside Drive	Shared Path (2.5m)	383.72	Medium	8	5	5	5	15	10	0	10	10	5	73	High
U2	Pacific Hwy	North of Ranger Street	Pedestrian Refuge	34.50	Medium	8	5	5	5	15	10	0	10	10	5	73	High
B18a	Hammond St	Bridge to Dowle St	Shared Path (2.5m)	380.85	Medium	8	8	10	8	8	8	0	10	10	3	73	High
B5a	Church Street	Watson St to Park St	Shared Path (2.5m)	105.64	Low	8	10	10	3	8	8	0	10	10	5	72	High
B5b	Church Street	Park St to South St	Shared Path (2.5m)	89.14	Low	8	10	10	3	8	8	0	10	10	5	72	High

B8a	Ford Street	Park St to Watson St	Shared Path (2.5m)	79.39	Low	8	10	10	3	8	8	0	10	10	5	72	High
B8b	Ford Street	Hyde St to Park St	Shared Path (2.5m)	295.36	Medium	8	10	10	3	8	8	0	10	10	5	72	High
B14b	Park Street	Church Street to Rawson Street	Shared Path (2.5m)	26.56	Low	8	10	10	3	8	8	0	10	10	5	72	High
B13a	William Street	Widened path to edge of primary school	Widen Path (2.5m)	77.71	Low	8	10	10	5	8	10	0	5	10	5	71	High
B13b	William Street	New path to edge of primary school	Shared Path (2.5m)	60.41	Low	8	10	10	5	8	10	0	5	10	5	71	High
B15a	Lovell Street	Adjacent to School at William St	Shared Path (2.5m)	220.00	Medium	8	10	10	5	8	5	0	10	10	5	71	High
B1b	Hyde St / Waterfall Wy	High School to Crown St	Shared Path (2.5m)	630.31	High	5	8	10	3	15	8	0	8	8	5	70	High
B5c	Church Street	South St to William Lane	Shared Path (2.5m)	66.08	Low	10	8	10	5	8	8	0	8	8	5	70	High
B5d	Church Street	William Lane to Hyde St	Widen Path (2.5m)	130.11	Medium	10	8	10	5	8	8	0	8	8	5	70	High
B17a	Bridge St	Hyde St to bridge	Widen Path (2.5m)	143.18	Medium	10	8	10	3	8	10	0	10	5	5	69	Medium
B17c	Hammond St	Bridge to Hammond St	Widen Path (2.5m)	24.91	Low	10	5	10	5	8	8	0	10	10	3	69	Medium
B17d	Hammond St	Dowle St to Wheatley St	Shared Path (2.5m)	122.09	Low	10	5	10	5	8	8	0	10	10	3	69	Medium
B31	Creek Lane	Ford St to Church St and Markets	Footpath (1.2m)	178.61	Low	10	8	10	5	5	8	0	10	10	3	69	Medium
B10	Hyde Street	Intersection with Oak St	Informal Pedestrian Refuge	20.11	Low	8	8	8	3	15	8	0	8	5	5	68	Medium
B6	Church Street	South of Hyde St	Alter pram ramp layout	30.59	Low	10	8	8	3	10	8	0	8	8	5	68	Medium
B9	Ford Street	South of Hyde Street	Alter pram ramp layout	20.17	Low	10	8	8	3	10	8	0	8	8	5	68	Medium
D16	Cudgery Street	Intersection with Hickory St	Pedestrian Refuge	30.40	Low	10	8	10	3	15	5	0	8	5	3	67	Medium
B11	Hyde Street and Coronation St	Oak St to West Street	Widen Path (2.5m)	332.00	Low	10	8	10	3	15	5	0	0	10	5	66	Medium
B2e	Crown Street	B3 to Sara Place	Shared Path (2.5m)	50.21	Low	5	10	10	3	8	5	0	10	10	5	66	Medium
B2f	Crown Street	Sara Place to Raymond Close	Shared Path (2.5m)	306.03	Medium	5	10	10	3	8	5	0	10	10	5	66	Medium

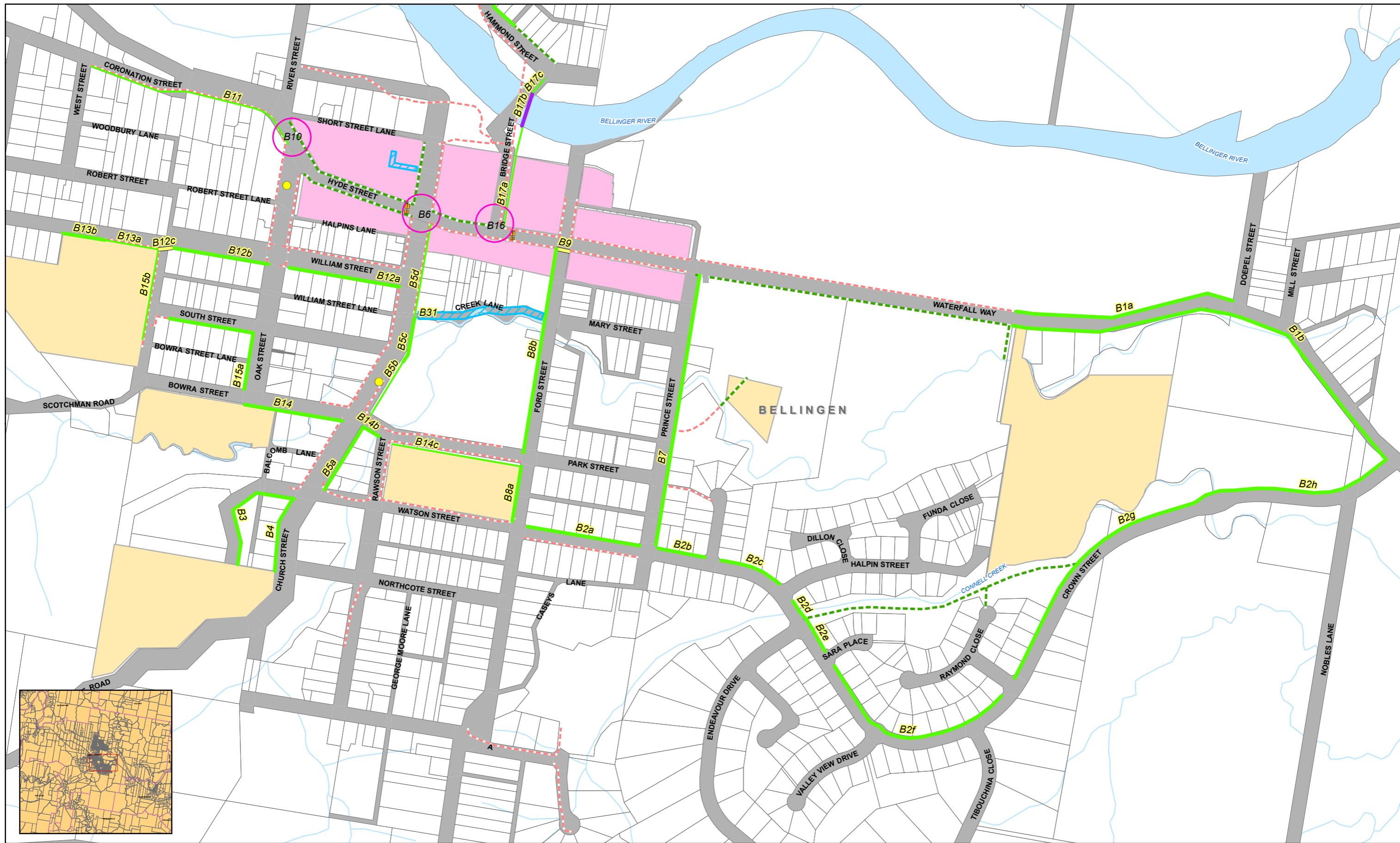
B2g	Crown Street	Raymond Close to High School	Shared Path (2.5m)	419.58	High	5	10	10	3	8	5	0	10	10	5	66	Medium
B2h	Crown Street	High School to Waterfall Way	Shared Path (2.5m)	251.86	Medium	5	10	10	3	8	5	0	10	10	5	66	Medium
D9	Karabin St and Myrtle Street	Cedar St to Cudgery St	Shared Path (2.5m)	300.42	Medium	8	8	8	3	15	8	0	5	8	3	66	Medium
B14c	Park Street	Rawson St to Ford St	Widen Path (2.5m)	187.20	Low	8	8	8	3	8	8	0	8	8	5	64	Medium
B18b	Wheatley Street	Existing footpath to Hammond St	Widen Path (2.5m)	119.20	Low	5	5	10	5	8	8	0	10	10	3	64	Medium
B19a	Wheatley Street	Extent of existing footpath on southern side of Wheatley St	Widen Path (2.5m)	238.15	Medium	5	5	10	5	8	8	0	10	10	3	64	Medium
B19b	Wheatley Street	Existing southern footpath to northern side of Wheatley St	Pedestrian Refuge	21.00	Medium	5	5	10	5	8	8	0	10	10	3	64	Medium
B20	Wheatley Street	East of B19a to McCristal Drive on northern side of Wheatley St	Shared Path (2.5m)	357.19	Medium	5	5	10	5	8	8	0	10	10	3	64	Medium
B21	Wheatley Street	McNally St to Wheatley St	Shared Path (2.5m)	39.15	Low	5	5	10	5	8	8	0	10	10	3	64	Medium
B22	Wheatley Street	Hammond St to Sunset Ridge	Shared Path (2.5m)	501.89	High	5	5	10	5	8	8	0	10	10	3	64	Medium
B23	Hammond Street	Both sides of Hammond intersection	Cycle Refuge	24.10	Low	5	5	10	5	8	8	0	10	10	3	64	Medium
U6c	Bowra Street	Comlarol St to Bonville St	Widen Path (2.5m)	104.30	Low	10	10	10	1	8	5	0	8	8	3	63	Medium
D3	Cedar St	Hickory St to River	Shared Path (2.5m)	324.99	Medium	8	10	8	3	5	5	0	8	10	5	62	Medium
U1d	Pacific Hwy	Pilot St to South St	Shared Path (2.5m)	321.89	Medium	0	5	8	5	15	10	0	8	8	3	62	Medium
U1e	Pacific Hwy	South St to Crescent St	Shared Path (2.5m)	113.53	Low	0	5	8	5	15	10	0	8	8	3	62	Medium
U1f	Pacific Hwy	Crescent St to Newry St	Shared Path (2.5m)	53.60	Low	0	5	8	5	15	10	0	8	8	3	62	Medium
U1g	Pacific Hwy	Newry St to Ferry St	Shared Path (2.5m)	274.89	Medium	0	5	8	5	15	10	0	8	8	3	62	Medium

U1h	Pacific Hwy	Ferry St to Bridge	Widen Path (2.5m)	278.52	Medium	0	5	8	5	15	10	0	8	8	3	62	Medium
U1i	Pacific Hwy	Bridge	Widen Bridge (to 2m)	228.49	High	0	5	8	5	15	10	0	8	8	3	62	Medium
U3	Pacific Hwy	South of Crescent Street	Pedestrian Refuge	28.95	Low	0	5	8	5	15	10	0	8	8	3	62	Medium
B2a	Crown Street	Ford St to Prince St	Shared Path (2.5m)	162.81	Medium	5	5	10	3	8	5	0	10	10	5	61	Medium
B2b	Crown Street	Prince St to Connell Place	Shared Path (2.5m)	67.97	Low	5	5	10	3	8	5	0	10	10	5	61	Medium
B2c	Crown Street	Connell Place to Halpin Street	Shared Path (2.5m)	91.37	Low	5	5	10	3	8	5	0	10	10	5	61	Medium
B2d	Crown Street	Halpin St to B3	Shared Path (2.5m)	34.91	Low	5	5	10	3	8	5	0	10	10	5	61	Medium
U6b	Comlarol Street	Railway Bridge to Bowra St	Widen Path (2.5m)	255.14	Medium	8	10	10	1	8	5	0	8	8	3	61	Medium
B3	Watson Street	Church St to Hospital	Shared Path (2.5m)	175.30	Medium	5	8	10	3	8	5	0	8	10	3	60	Medium
B4	Watson Street	Unnamed Road at Hospital to Nursing Home	Shared Path (2.5m)	190.49	Medium	5	8	10	3	8	5	0	8	10	3	60	Medium
D1	Hickory Street	Approach from Cedar St	Shared Path (2.5m)	23.87	Low	8	5	10	3	8	5	0	8	10	3	60	Medium
D2	Hickory Street	Cudgery to Cedar St	Cycle Refuge	36.96	Low	8	5	10	3	8	5	0	8	10	3	60	Medium
U1a	Pacific Hwy	Pacific Hwy (Caravan Park) to Hillside Drive	Shared Path (2.5m)	1044.19	High	0	5	5	5	15	10	0	8	8	3	59	Medium
U1c	Pacific Hwy	Hillside Drive to Pilot Street	Shared Path (2.5m)	387.99	Medium	0	5	5	5	15	10	0	8	8	3	59	Medium
U1j	Pacific Hwy	Bridge to Old Punt Rd	Shared Path (2.5m)	64.90	Low	0	5	5	5	15	10	0	8	8	3	59	Medium
D11	Hollibone Street	Mount St John Primary School frontage to Karabin St	Shared Path (2.5m)	147.59	Medium	5	10	10	1	8	5	0	8	8	3	58	Medium
D17	Town Centre	Shopping centre Cudgery St / Hickory St	Bicycle parking rails	1.00	Low	10	8	10	3	8	5	0	8	5	1	58	Medium
B14	Bowra Street	Church Street to Oak Street	Shared Path (2.5m)	143.00	Low	8	10	10	5	8	0	0	5	8	3	57	Medium
D10	Tyringham St	Hickory St to Karrabin St	Shared Path (2.5m)	406.06	Medium	5	10	10	3	8	5	0	5	8	3	57	Medium

U1k	Pacific Hwy	Old Punt Rd to Marina Crescent	Shared Path (2.5m)	423.59	High	0	5	5	3	15	10	0	8	8	3	57	Medium
U1l	Pacific Hwy	Marina Crescent to Newry Island Drive	Widen Path (2.5m)	495.80	High	0	5	5	3	15	10	0	8	8	3	57	Medium
U1m	Pacific Hwy	Newry Island Drive to Short Cut Rd	Shared Path (2.5m)	471.76	High	0	5	5	3	15	10	0	8	8	3	57	Medium
U1n	Pacific Hwy	Short Cut Rd to Old Pacific Hwy	Shared Path (2.5m)	226.92	Medium	0	5	5	3	15	10	0	8	8	3	57	Medium
U7	Morgo Street	South St to North St	Shared Path (2.5m)	695.20	High	5	5	10	3	8	5	0	8	10	3	57	Medium
B7	Prince Street	Hyde St to Crown St	Shared Path (2.5m)	390.62	Medium	5	5	10	1	8	5	0	8	10	3	55	Medium
U4	Pilot Street	Pacific Hwy to railway bridge	Shared Path (2.5m)	577.13	High	5	5	8	3	8	5	0	5	10	3	52	Medium
U5	South Street	Orara Street to Morgo St	Shared Path (2.5m)	134.61	Medium	5	5	8	3	8	5	0	5	10	3	52	Medium
D7	Rosewood St	Cudgery St to Bartletts Rd	Shared Path (2.5m)	592.67	High	0	5	8	3	8	8	0	8	8	3	51	Medium
D8	Tyringham Road	Bartletts Rd to Summit Close	Shared Path (2.5m)	786.98	High	0	5	8	3	8	8	0	8	8	3	51	Medium
D14	Waterfall Way	Caravan Park to Dome Rd	Shared Path (2.5m)	709.17	High	0	0	5	5	15	8	0	8	8	1	50	Medium
U12	Town Centre	Shopping centre along Bonville St / Bowra St	Bicycle parking rails	1.00	Low	10	8	10	3	8	5	0	0	5	1	50	Medium
U6a	Newry Street West	Pacific Hwy to Fitzroy St	Shared Path (2.5m)	365.99	Medium	0	5	8	1	8	5	0	8	10	3	48	Medium
B25	Lyon Street	Wheatley St to Tamarind Dr	Shared Path (2.5m)	321.88	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B26	Tamarind Dr	Lyon St to Ringwood Pl	Shared Path (2.5m)	286.25	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B27	Elliott Cl	Sunset Ridge Dve to existing footpath	Footpath (1.2m)	75.85	Low	0	5	5	1	8	8	0	8	8	3	46	Medium
B28	Dowle Street	Vale Street to Hammond	Shared Path (2.5m)	268.17	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B29a	Sunset Ridge Drive	Wheatley St to Elliot Cl	Shared Path (2.5m)	53.21	Low	0	5	5	1	8	8	0	8	8	3	46	Medium
B29b	Sunset Ridge Drive	Elliot Cl to Hobson Cl	Shared Path (2.5m)	324.07	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium
B30	Braithwaite Ave	Wheatley St to Lyon St	Shared Path (2.5m)	353.00	Medium	0	5	5	1	8	8	0	8	8	3	46	Medium

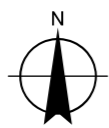
U10	Bellingin Street	Morgo St to Pacific Hwy	Shared Path (2.5m)	1096.71	High	5	5	5	1	8	5	0	5	10	1	45	Medium
U13	Morgo Street Reserve	Path along River	Shared Path (2.5m)	1303.07	High	5	5	5	1	8	5	0	5	10	1	45	Medium
D12	Vine Street	Hickory St to Coramba Rd	Shared Path (2.5m)	521.42	High	0	0	5	5	8	8	0	8	8	1	43	Medium
D13	Coramba Road	Vine St to Dangar Falls	Shared Path (2.5m)	1147.63	High	0	0	5	5	8	8	0	8	8	1	43	Medium
D15	Dome Road	Waterfall Way to Rainforest Centre	Bike Lane (2x1.5m)	1568.90	High	0	0	5	5	8	8	0	8	8	1	43	Medium
D18	Waterfall Way	Old Coramba Road	Cycle Refuge	31.48	Low	0	5	8	3	8	5	0	5	8	1	43	Medium
D19	Old Coramba Road	Waterfall Way to Wheatons Rd	Shared Path (2m)	646.46	High	0	5	8	3	8	5	0	5	8	1	43	Medium
D20	Cudgery Street	Cnr Karabin Street	Alter pram ramp layout	20	Low	5	8	10	1	8	0	0	0	5	5	42	Medium
U9	Vernon Cres	Vernon Pl to Yellow Rock Road	Shared Path (2.5m)	204.96	Medium	0	5	5	1	8	5	0	5	8	1	38	Low
U8	Hungry Head Road	Morgo Street to Surf Club	Shared Path (2.5m)	1800.00	High	5	0	0	3	8	5	0	5	8	1	35	Low
D4	Bangalow Street	Hickory St to Kurrajong St	Shared Path (2.5m)	224.35	Medium	0	5	0	1	8	0	0	0	8	1	23	Low
B24	North Bank Rd and Hydes Creek Rd	McCristal Drive to Clothier Rd	Shared Path (2.5m)	638.64	High	0	5	5	3	8	0	0	0	0	1	22	Low
U11	Old Pacific Hwy	Short Cut Rd to North Street, Raleigh	Bike Lanes (2x2.0m)	1888.71	High	0	0	0	1	8	0	0	0	0	1	10	Low

Appendix H – Maps showing proposed improvements and the existing network



Paper Size A3
 0 20 40 80 120 160
 Metres

Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



LEGEND

Proposed Improvements

- Facility Type**
- Footpath (1.2m)
 - Shared Path (2.5m)
 - Widen Path (2.5m)

- Widen Bridge (2m)
- Pedestrian Refuge
- Shared zone
- Alter pram ramp alignment (Main Street Program)

Existing Network

- Path Type**
- Existing Footpath (<2m)
 - Existing Shared Path (>2m)
 - Crossing

- Refuge Island
- Core Trip Generator
- Other Trip Generator



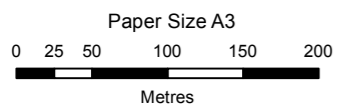
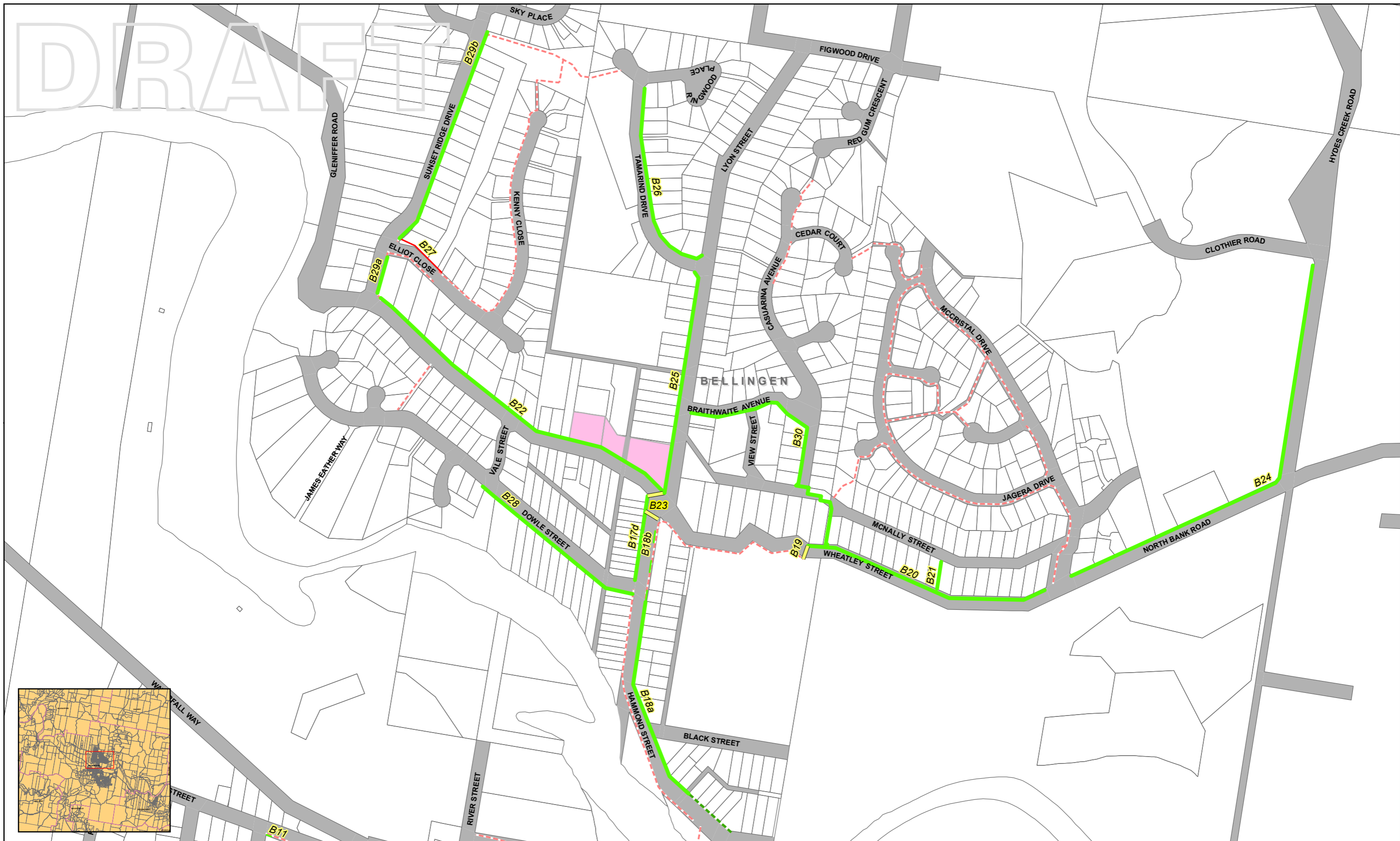
Bellingen Shire Council
 Pedestrian Access and Mobility Plan

Job Number 22-17328
 Revision E
 Date 24 Nov 2015

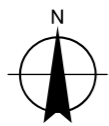
**Bellingen South
 Proposed Improvements**

Figure 1

DRAFT



Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



LEGEND

Proposed Improvements Facility Type

- Footpath (1.2m)
- Shared Path (2.5m)
- Widen Path (2.5m)
- Pedestrian Refuge

Existing Network Path Type

- - - Existing Footpath (<2m)
- - - Existing Shared Path (>2m)
- Core Trip Generator

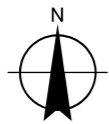
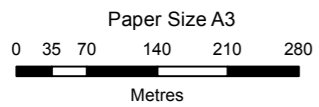
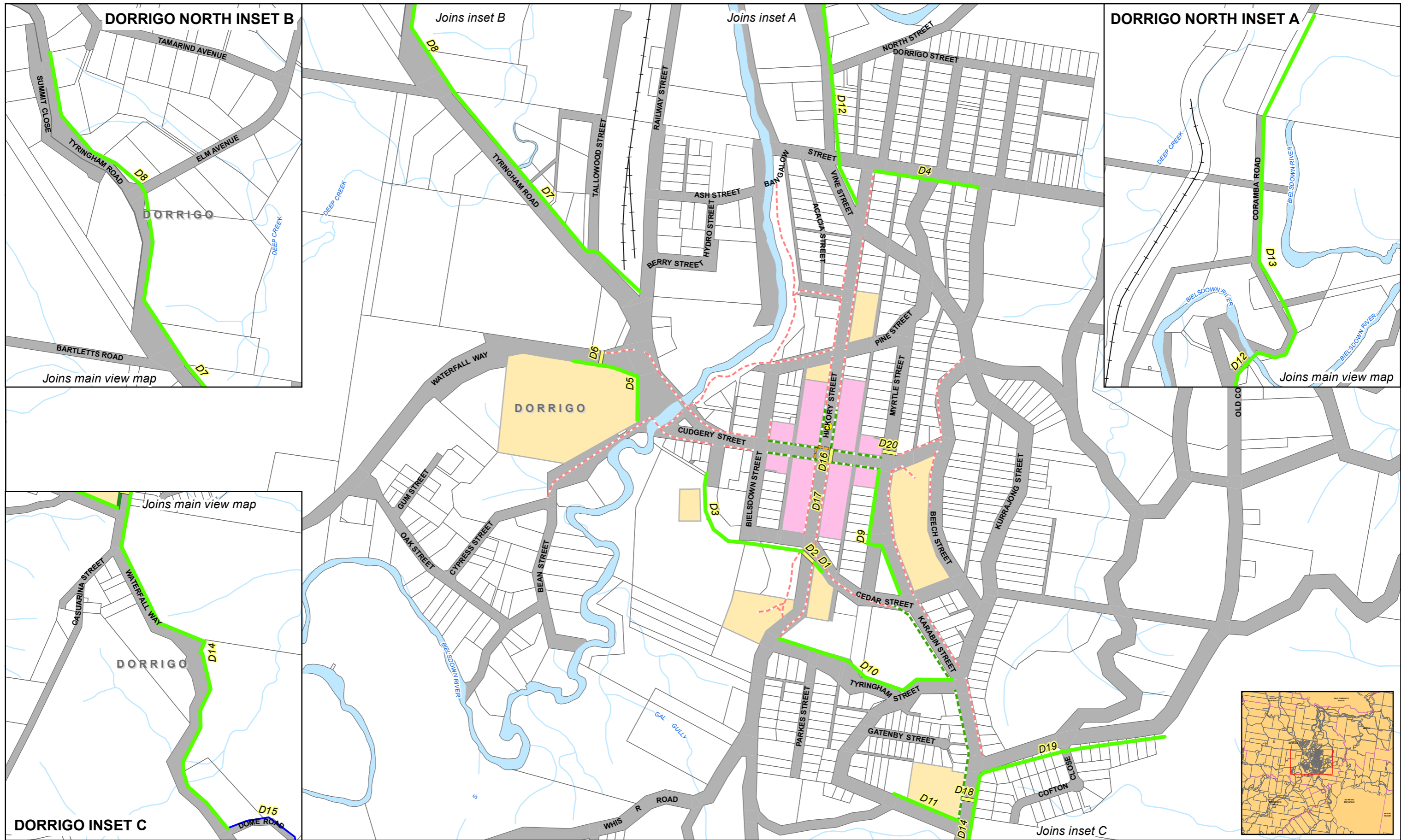


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**Bellingen North
Proposed Improvements**

Figure 2



LEGEND

Proposed Improvements Facility Type

- Bike Lane (2x1.5m)
- Bike Lanes (2x2.0m)
- Footpath (1.2m)

- Shared Path (2.5m)
- Widen Path (2.5m)
- Widen Bridge (to 2m)
- Widen Bridge (2m)
- Pedestrian Refuge

Existing Network Path Type

- Existing Footpath (<2m)
- Existing Shared Path (>2m)
- Crossing
- Refuge Island

- Core Trip Generator
- Other Trip Generator

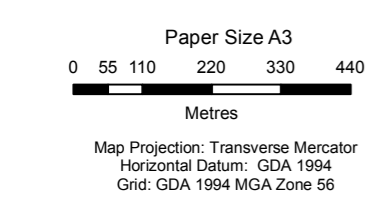
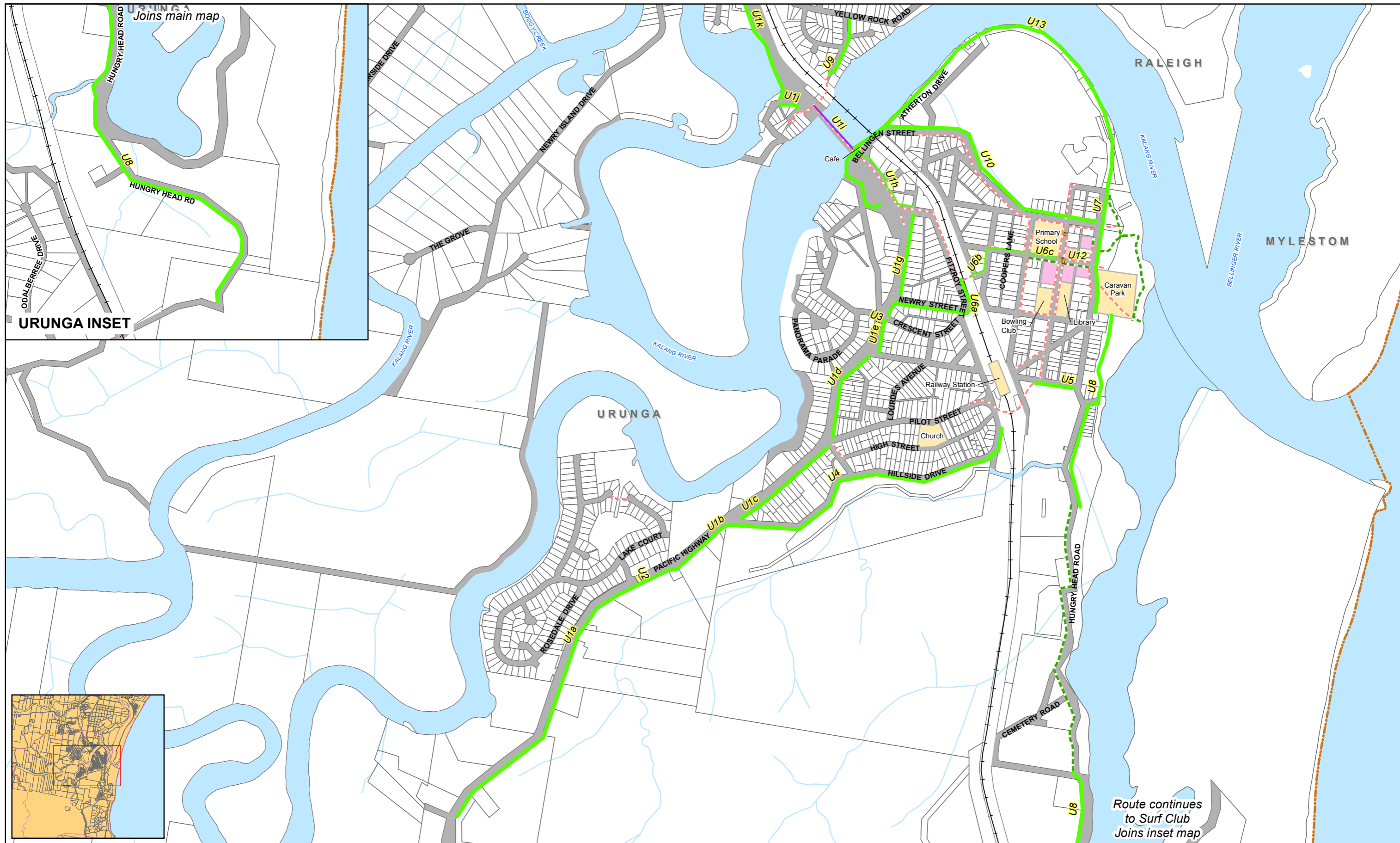


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Dorrigo Proposed Improvements

Figure 3



LEGEND	
Proposed Improvements	Existing Network
Facility Type	Path Type
— Shared Path (2.5m)	--- Existing Footpath (<2m)
— Widen Path (2.5m)	--- Existing Shared Path (>2m)
— Widen Bridge (to 2m)	--- Crossing
— Pedestrian Refuge	
	 Core Trip Generator
	 Other Trip Generator

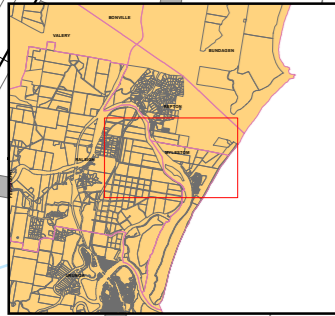
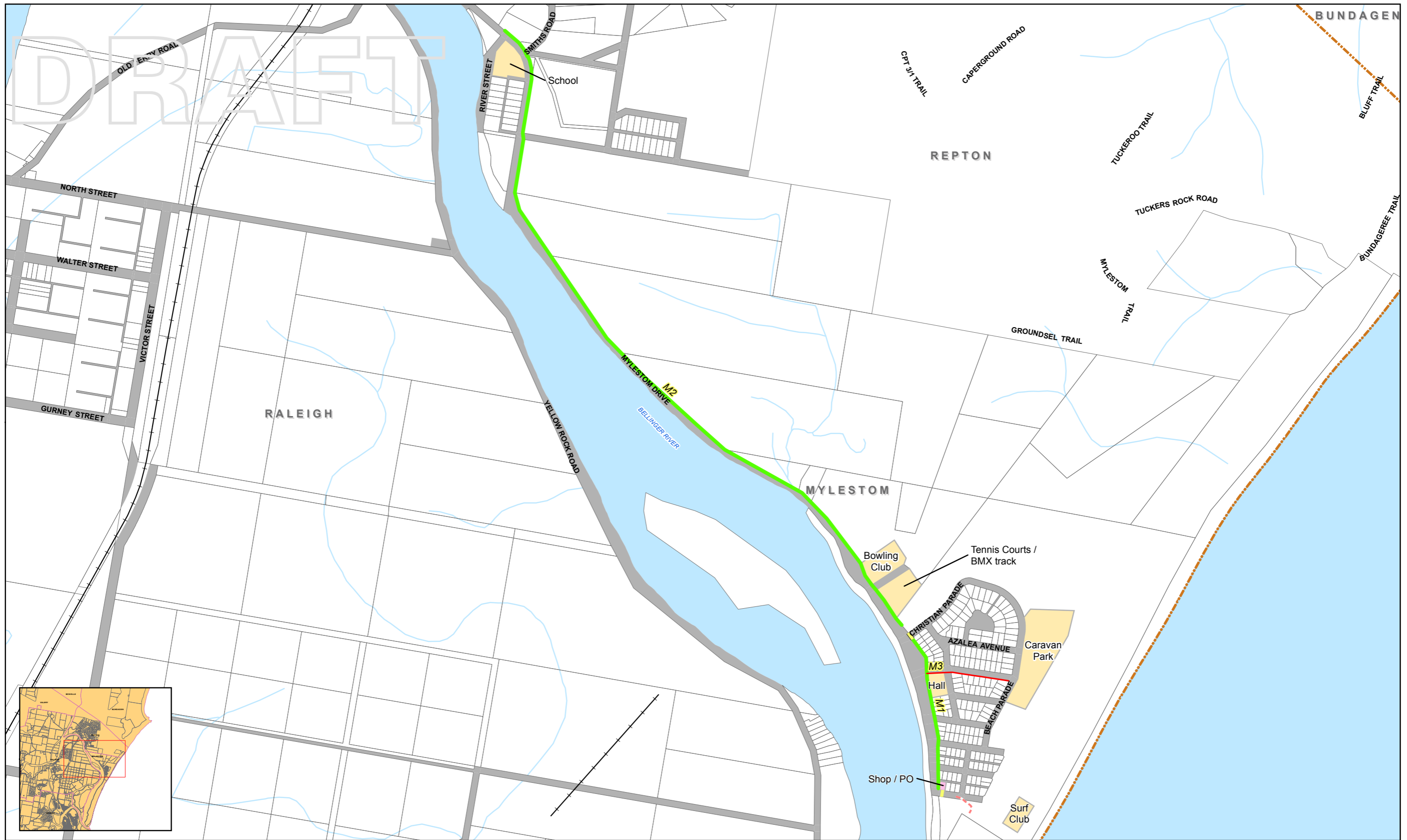


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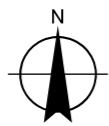
**Urunga South
Proposed Improvements**

Figure 4



Paper Size A3
 0 50 100 200 300 400
 Metres

Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56



LEGEND

Proposed Improvements
Facility Type
 Footpath (1.2m)
 Shared Path (2.5m)
 Pedestrian Refuge

Existing Network
Path Type
 Existing Footpath (<2m)
 Refuge Island

Core Trip Generator
 Other Trip Generator



Bellingen Shire Council
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**Mylestom
 Proposed Improvements**

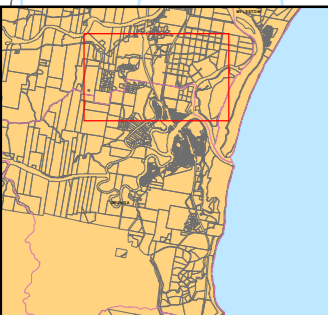
Figure 6



Joins main map

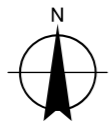
Route continues to Old Pacific Hwy and Raleigh
Joins inset map

RALEIGH INSET



Paper Size A3
0 55 110 220 330 440
Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



LEGEND

- Facility Type**
- Bike Lanes (2x2.0m)
 - Shared Path (2.5m)
 - Widen Path (2.5m)

- Existing Network**
- Path Type**
- - - Existing Footpath (<2m)



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Urunga North
Proposed Improvements

Figure 10a

GHD



230 Harbour Drive
Coffs Harbour NSW 2450
T: (02) 6650 5600 F: (02) 6650 5601 E: cfsmail@ghd.com

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Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	S Martin	S Lawer		S Lawer		13/01/2016

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