



Shire of Wongan-Ballidu Bike Plan

Prepared for



Shire of Wongan-Ballidu



TRANSPAN PTY LTD

Planning and Design

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Shire of Wongan-Ballidu Bike Plan

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Executive Summary

This Bike Plan has been prepared with the overall aim of making cycling (and walking) safer and more convenient within the townsites of Wongan Hills and Ballidu – the two main towns of the Shire of Wongan-Ballidu. The Plan is predominantly focussed on the (off-road) cycling/walking path network as the Shire of Wongan-Ballidu believes this is the most effective means of improving cycling conditions for the population of the towns. Therefore improving the existing path network have been the principal aim of the Plan.

The Plan also identifies hazards, barriers and obstacles to cycling, and proposes the means by which these can be reduced or eliminated. It is anticipated that, when implemented, the upgraded cycling network will result in a significant increase in the number of local trips by bicycle (as well as improved pedestrian facilities).

It is also expected that 'new' cyclists will be attracted to the use of a bicycle for short trips within Wongan Hills and Ballidu, to such places as the local shops and recreation destinations.

The townsite of Wongan Hills already has a road and path network very conducive to cycling. The town is compact and most destinations are easily accessed by a short bicycle ride. The town is reasonably flat with gentle gradients. Many of the roads are wide, and some divided with wide medians. These attributes, coupled with the generally low traffic volumes, means the roads are already very suitable for cycling with little or no improvements warranted.

The existing path network is already extensive in both towns as the Council and staff has evidently made this a priority over the years.

Despite these obvious advantages, more can and should be done to encourage more local trips to be made by bicycle.

Less than 10% of school children ride bikes to the schools in each town, although many more do walk or use scooters. An improved path network, and improved bicycle parking at the schools, would encourage more students (possibly with their parents) to ride.

Although there are several locations in Wongan Hills where bicycle parking rails have been installed, there are many more locations where new parking rails should be installed. The lack of secure bicycle parking facilities is often quoted as one reason why people don't cycle more often to local destinations. Fabrication and installation of bike parking is a relatively cheap and effective means of encouraging more cycling – especially for short trips to local shops and recreation areas.

The focus of the Plan, as reflected in the scope of works, is to prioritise the path development program. This is where it is expected that greater levels of cycling and walking will be achieved.

Provision of additional paths will serve a wide range of users (including cyclists, pedestrians, small wheeled vehicles such as gophers and scooters and parents pushing prams etc).

This Bike Plan sets out a number of ways for improving the local bicycle network to make Wongan Hills and Ballidu safer and more convenient places to ride a bicycle.



A bike plan focussing on extensions to the existing path network will benefit many residents, not just cyclists. As noted in this Bike Plan, there are many groups that will benefit: parents pushing prams (above right), those who have to use the road surface in the absence of any path (above left), gopher users (below left) and students riding to school (below right).



It is not a footpath plan, nor is it a trails plan. It does not set out a comprehensive footpath development program for every street in each town, as that is not the purpose of this plan. Instead, it proposes a carefully selected program of improvements that will do the most for upgrading the cycling network, and therefore the level of cycling, over a ten-year schedule.

In a traditional 'bike plan', an examination is made of the 4 "E's" and the ways in which these combine to increase the use of bicycles:

- **E**ngineering – physical improvements to create a safer cycling environment;
- **E**ducation – programs designed to improve the road sense and behaviour of cyclists and to improve motorist behaviour towards cyclists;
- **E**nforcement – programs directed at both cyclists and other road users to create a safer integration of motor vehicles and cyclists; and
- **E**ncouragement – programs to create greater community awareness of cyclists' needs and stimulate greater use of bicycles.

This Bike Plan mainly focuses on **E**ngineering (or *infrastructure*) improvements, although it does give consideration to the other E's.

Bicycles are widely recognised as the quickest and most efficient mode of transport over short distances in urban areas and in country towns. Bicycles are widely regarded as one of the solutions to reducing traffic congestion and car parking problems. Cycling also provides health benefits. There is substantial evidence that regular aerobic exercise such as cycling is beneficial to general physical and psychological health. In this age when much media attention is on the sedentary lifestyles many people live, and the growing obesity levels of our children, cycling to school and other local destinations can help achieve satisfactory amounts of exercise.

The focus then of this Bike Plan is to make cycling safer and more convenient for the residents of Wongan Hills and Ballidu (enabling cycling to become the preferred choice of travel mode within the towns) and for visitors.

There are several underlying objectives taken into account in the preparation of this Bike Plan for Wongan Hills and Ballidu. It is anticipated that the Bike Plan will:

- Make cycling (and walking) safer within the two townsites (by eliminating hazards, barriers and obstacles);
- Increase the number of cycling trips made by local residents of the two towns;
- Make cycling more convenient for the residents of Wongan Hills and Ballidu (enabling cycling to become a more popular travel mode within the towns);
- Increase public awareness of the needs of cyclists (and therefore a greater empathy for those riding bicycles); and
- Encourage cycling for health, fitness and recreation.

As with any urban area or town, the needs of existing and potential cyclists can be accomplished by:

- Enhancing and upgrading, where necessary, the existing bicycle facility network;
- Establishing new paths (and on-road facilities where appropriate);
- Providing links or connections to existing paths;
- Removing barriers, obstacles and deterrents to cycling;
- Providing end-of-trip facilities (ie. bicycle parking rails); and
- Establishing recreational cycling opportunities.

Methodology

In preparing this Bike Plan the following tasks have been undertaken:

1. A review of background reports that may influence the future provision of bicycle facilities in Wongan Hills and Ballidu.
2. Determination of places in Wongan Hills and Ballidu likely to attract cyclists (ie. trip attractors).
3. A saddle survey of all roads and paths in Wongan Hills and Ballidu, assessing the extent of the existing cycling network (ie. paths and on-road facilities) as well as determining where new paths (and 'spot improvements') are required.
4. Consultation with key stakeholders.

5. Examination of crash data (of crashes involving cyclists, pedestrians and small wheeled vehicles in Wongan Hills and Ballidu) held by Main Roads WA.
6. Mapping of existing bicycle facilities and proposed new bicycle facilities.
7. The hosting of an "Open House" (or 'drop-in' session) at which members of the community could provide comment on existing and proposed new bicycle facilities.
8. Preparation of this Bike Plan, which comprises an analysis of existing bicycle (and pedestrian) facilities, recommendations for future facilities and recommendations for other strategies to increase and promote cycling in Wongan Hills and Ballidu.

The Existing Situation

This Bike Plan has examined the opportunities for increasing cycling within Wongan Hills and Ballidu through a range of improvements.

A major objective of this Bike Plan has been to identify key origins and destinations within the two towns. Generally, the major *origin* of bicycle trips are the residential streets of a town. The usual *destinations* (trip attractors) of any town are educational institutions (primary and high schools), recreation centres and recreation reserves, major public transport termini (eg. train stations), commercial areas (shops) and work places.

The plans associated with this Bike Plan highlight the major bicycle trip attractors (ie. destinations) of Wongan Hills and Ballidu: yellow shading for schools, institutions and government places; green shading for recreation centres and ovals; and blue shading for commercial centres and shops. The plans identify existing facilities and trip attractors in the town. The

recommended new bicycle facilities are designed to provide an enhanced network linking residential areas and these destinations.

As well as the off-road (path) environment, an assessment was made of the potential and need for improving the on-road bicycle network, by the provision of bike lanes where appropriate, sealing of shoulders of major roads, or some other treatment.

Given the low traffic volumes on most roads throughout Wongan Hills and Ballidu, the comparatively wide roads that exist and the current and expected future cycling numbers, it was considered inappropriate to modify roads to install typical on-road cycling facilities such as bike lanes. Most roads are wide, and have low traffic volumes (and therefore exclusive bike lanes would not be warranted).



New shared paths leading directly to the Wongan Hills Sports Centre will improve cyclist and pedestrian access to the facilities.

Enhancing the bicycle network and improving the safety and convenience of cycling involves more than building new facilities. It is often small and inexpensive improvements to existing facilities, and attention to detail, that can make a significant difference.

Providing quality bicycle parking rails (in appropriate locations), making the crossing of roads easier (by upgrading and/or installing kerb ramps or installing breaks in median islands) and making the roads safer are items that make cycling more pleasurable, and provide a better environment for other roadway users.

Priorities should focus on facilities that will do the most to encourage cycling and reduce the number and severity of crashes involving cyclists. In other words, bicycle facilities should be built where there is the greatest potential for increasing use and reducing the number of crashes.

In Wongan Hills and Ballidu the greatest potential for increasing the level of cycling (and walking) appears to be by connecting existing residential areas and new residential areas to all major destinations throughout the town centres.

Wongan Hills already has an excellent path network, with numerous in-situ concrete paths throughout the town. These paths vary in width, most being 2.0 – 2.1m wide. Extensive areas of wide brick paving (in the order of 3.0m wide) are common throughout the commercial centre.



As well as developing an impressive path network, the Shire of Wongan-Ballidu has also installed some bicycle parking rails in an effort to encourage cycling to shops along Fenton St.

The most notable deficiency in the cycling network of Wongan Hills is the lack of continuity of the path network. There are several small 'missing links' and several major missing segments of path. Consequently, this Bike Plan has focussed on eliminating the missing links in the path network.

As observed during fieldwork for this Bike Plan, the existing path network is used for walking, cycling, jogging, pushing prams/strollers and people using gophers.

This Bike Plan has mainly focussed on "off-road" (ie. path) improvements in locations where there is the greatest likelihood of increased use by a range of users.

Recommended Projects

In summary, the main projects recommended in this Bike Plan are:

1. The development of a several new shared paths throughout Wongan Hills and Ballidu.
2. Improvements to the existing path network, primarily through the installation of kerb ramps, by the installation of numerous short pieces of paths ("missing links"), and by some general maintenance issues.

3. Provision of bike parking rails at various destinations within each town encouraging more people to use a bicycle for local trips (instead of a car).
4. Encouragement, education and enforcement strategies – to complement the ever-increasing cycling network.

The estimated cost of the bicycle network improvements is **\$660,650**.

The projects highlighted in this Bike Plan have been prioritised, costed and the recommended works will need to be spread over a (minimum) 10-year timeframe (depending on the capacity of the Council to dedicate funds to the works program and/or to attract grants from other sources such as the WA Department of Transport).

1.0 Objectives of the Bike Plan (Scope of Works)

The Shire of Wongan-Ballidu has commissioned the preparation of this Bike Plan for the Wongan Hills and Ballidu townsites. The principal aim of this project is to provide advice on priority shared path projects in each of the two townsites.

The Bike Plan generally provides strategic direction on ways to encourage and improve cycling within the two townsites. The overall intention is to provide a prioritised list of projects to assist Council in its decision making and to enable applications to be made to other funding sources.

The Scope of Works for this Bike Plan focuses on these six key elements:

- The local bicycle route network;
- Schedule of works (new priority projects);
- Maintenance schedule (existing facilities);
- On-going process to ensure a cycle friendly path and road network; and
- Encouragement of cycling.

In considering improvements to the local cycling situation consideration needs to be given to:

- Safe Routes to Schools – including “off-road” routes and safe crossing locations;
- Identification of trip attractors such as the shopping areas, schools, parks, recreation facilities, etc;
- Travel demand – consideration of routes that are the most convenient and safest; and
- End of Trip facilities (e.g. bicycle parking).

The Bike Plan has examined the following matters:

- The existing path network;
- Opportunities to improve and extend the path network;
- Opportunities (and need) for improving the on-road cycling situation; and the
- Development of a schedule of works.

The methodology used to prepare this Bike Plan included the following tasks:

1. Undertaking a review of the bicycle network to determine where improvement works are necessary, including signage, line marking, holding rails, kerb ramps, etc.
2. Liaising with the Shire staff to determine initiatives and strategies that are likely to influence the further development of the bicycle network.
3. Undertaking a saddle survey to identify safe routes and facility gaps.
4. Identifying key cycling trip generators.
5. Identifying missing links, such as small lengths of shared path / bicycle lanes that would improve access on the existing network.
6. Identifying the need for new larger links or routes to be added to existing bicycle networks.
7. Consideration given to the Shire’s Forward Capital Works Plan.

8. Recommending a prioritised future program of works with cost estimates.
9. Mapping cycling network and facilities for each town.
 - a. Maps identifying trip attractors in the area.
 - b. Maps identifying existing infrastructure, including end of trip, on-road and off-road facilities.
 - c. Maps with suggested local bicycle route network, identifying end of trip, on-road and off-road facilities.
10. Consulting stakeholders.
11. Providing recommendations for increased cycle education, awareness and encouragement.
12. Proposing policies that can be undertaken to:
 - Encourage the implementation of end of trip facilities at new developments.
 - Ensure appropriate cycling facilities are incorporated into new subdivisions and ensure integration with existing / planned bicycle facilities external to the subdivision.

The objective of this Bike Plan is to focus attention on issues within each townsite which impact on cyclists, or activities, which could encourage the level of cycling activity.

The intent of this plan is to provide some strategic directions to the Shire of Wongan-Ballidu to allow it (and other relevant authorities) to provide facilities and conditions, which enhance the cycling (and walking) environment. Implementation of the Bike Plan should result in greater numbers of residents of Wongan Hills and Ballidu riding (with greater safety) for recreation, fitness, tourism and, importantly, functional tasks such as trips to work, school, or other destinations within the town.

Consultation undertaken in the preparation of this Bike Plan has informed the recommendations contained herein.



A new shared path on the 'southern' side of Johnston Street, between Parker Street and the school, will help alleviate a potentially dangerous crossing of Johnston St nearer the school where a mix of cars and students on bikes and scooters occurs.

2.0 Methodology

In preparing this Bike Plan for the Shire of Wongan-Ballidu, the following tasks were undertaken as a means of gathering information, evaluating needs and determining priorities:

Task 1 – Review of Background Information – This task included examining relevant reports prepared for or by the Shire of Wongan Hills and Ballidu and other key stakeholders (both at State and Federal Government level) which might have an influence on the future provision of bicycle facilities in Wongan Hills and Ballidu.

Task 2 – Prepare Inventory of Existing Facilities – This task included examining the extent of the existing bicycle network in each town, in particular the extent of the existing path network and bicycle parking facilities. A comprehensive assessment of existing facilities was necessary to be able to determine where new bicycle facilities are required.

Task 3 – Prepare Information on Existing Facilities – This task involved collating the information obtained during Tasks 1 and 2 to enable the preparation of plans depicting existing facilities within Wongan Hills and Ballidu. The plans include shared paths, footpaths, informal bicycle routes and 'on-road' facilities (such as bike lanes and/or sealed shoulders). Depicting the location of all existing facilities on a plan provides a valuable visual representation to be made, a record or snap shot of facilities available at the time.

Task 4 – Determine Location of Major Trip Attractors – This task included a review of places within Wongan Hills and Ballidu likely to be major trip attractors for cyclists. Locating these attractors ensures the bicycle network adequately provides access to the attractions, as well as the determination of appropriate bicycle parking facilities. Trip attractors include schools, shops, recreation grounds, work places and various community facilities.

The provision of appropriate facilities to and around land uses likely to attract cyclists is one of the surest ways of encouraging a shift in journeys from cars to bicycles. Importantly, it also provides a safer infrastructure for those who already choose to use a bicycle for their trip to school, the shops, workplaces and other destinations.

Each road and every path within Wongan Hills and Ballidu was assessed in order to ascertain conditions as they impact on cyclists.

Task 5 – Consultation – This task includes consultation with major stakeholders and representatives of groups within the community to gain information on a range of cycling issues, including safety concerns, barriers or obstacles and suggestions for new facilities or improvements.

An "Open House" was conducted, whereby people from the community could drop by and discuss the Bike Plan. A survey of residents was also conducted.

Comments and suggestions on improving the bicycle network emanating from the community is vital in achieving a network that meets demands, needs and expectations of the community. Facilities need to serve the community, they need to be located where they will be used and where safety and health benefits will accrue because of their construction.

Task 6 – Preparation of Recommendations for New Facilities and Improvements – This task included collating all relevant information to enable the preparation of plans which depict locations where improvements are required, or facilities and links which need to be

established (ie. constructed), to ensure the provision of a comprehensive network of bicycle facilities which caters for the range of bicycle users within Wongan Hills and Ballidu.

The fieldwork undertaken in the preparation of this Bike Plan resulted in a considerable quantity of information needing to be mapped. The preparation of plans enables the various proposals and recommended facilities to be quickly identified.

Task 7 – Preparation of an Engineering Works Schedule – This task included the preparation of a schedule of works for the construction of additional components of the bicycle network and all recommended improvements. The schedule includes details of the works required, with recommended priorities.

Though some preliminary cost estimates are provided, it is expected that the Shire of Wongan-Ballidu will undertake detailed costings of the works at the time of the planned construction of the facility.

It is important that staff and Council of the Shire of Wongan-Ballidu be presented with a detailed, itemised schedule of all the improvements and new facilities required, with a clear indication of which of the proposed projects are the most important. This task enables the preparation of a detailed account of all recommended improvements and the level of importance or priority.

Task 8 – Prepare and Submit Draft Bike Plan Report – This task included the preparation of a 'draft' report outlining the recommended improvements to the network, including the Engineering Works Schedule.

The Bike Plan report provides amongst other matters information on the importance of planning and providing for cyclists, a rationale for determining priorities, a detailed account of all recommended improvements, a schedule of engineering works and priorities.

Task 9 – Community Review of Draft Plans – To be completed after submission of Draft Bike Plan.

Task 10 – Modification and Final Report – To be completed after the submission of the Draft Bike Plan and receipt of comments from the community and key stakeholders.

3.0 Literature Review and Background Reports

3.1 Previous Studies

Various background documents were reviewed during the preparation of this Bike Plan. Each was examined to determine relevance to the development of cycling facilities and to gather information that illustrates Council's prevailing attitude and policy towards the provision of paths and other cycling (and walking) facilities. The following pages contain extracts from relevant background documents, with a summary from each of the most relevant.

The studies reviewed were:

National Level

- Austroads – Guide to Road Design Part 6A: Pedestrian and Cyclist Paths (2009)
- Austroads – Cycling Aspects of Austroads Guides (2nd Edition, April 2014)
- Austroads – National Cycling Participation Survey 2015: National Results (July 2105)
- Austroads – National Cycling Participation Survey 2015: Western Australia (July 2015)
- Austroads – The Australian National Cycling Strategy 2005-2010 (2005)
- Australian Government – Department of the Environment and Heritage – Bikeability Toolkit
- Heart Foundation – Blueprint for an Active Australia (2014)

State Level

- WA Department of Transport – Guideline for Developing a Bicycle Plan (May 2015)
- WA Department of Transport – Western Australian Bicycle Network Plan 2014-2031
- WA Department of Transport – Western Australian Bike Network Plan – Brief Overview Of Consultation Results
- WA Department of Transport – Regional Bicycle Network Grants 2014-15
- WA Department of Transport – Connecting Schools Grant (Information leaflet 2015)
- Main Roads WA and WA Department of Transport – Planning and Designing for Pedestrians: Guidelines (2011)
- Main Roads WA – Crash Analysis Reporting System (CARS) Walkthrough Manual
- Main Roads WA – Motorised Wheelchairs Users Guide (July 2010)
- Bikewest – Local Government Bicycle Plans – Guidelines for Preparing Bicycle Plan (December 2008)
- Bikewest – Shared Path Guidelines
- Bikewest – Signage, Pavement and Linemarking Guidelines

Local Level

- Shire of Wongan-Ballidu – Strategic Community Plan 2012 – 2021
- Shire of Wongan-Ballidu – Community Profile
- Shire of Wongan-Ballidu Trails Master Plan (Transplan Pty Ltd, March 2005)
- Shire of Wongan-Ballidu Ten Year Footpath Program

3.2 Department of Transport Guideline for Developing a Bicycle Plan (May 2015)

The DoT Guideline provides general information on the preparation of bike plans for metropolitan region local governments, regional city local governments and regional townships.

It provides checklists to ensure that the bike plan considers all relevant matters.

In relation to the reason for preparing a bike plan, the Guideline states that it should focus on:

- providing a safe and convenient cycling environment within the local government area
- ways to encourage more people to cycle more often
- improving connections to schools, stations and activity centres
- initiatives which generate cycle tourism (particularly in regional areas).

3.3 Australian Bicycle Council National Cycling Strategy 2011 – 2016

The priorities and objectives set out in this document are:

Cycling Promotion: Promote cycling as both a viable and safe mode of transport and an enjoyable recreational activity.

Infrastructure and Facilities: Create a comprehensive network of safe and attractive routes to cycle and end-of-trip facilities.

Integrated planning: Consider and address cycling needs in all relevant transport and land use planning activities.

Safety: Enable people to cycle safely.

Monitoring and Evaluation: Improve monitoring and evaluation of cycling programs and develop a national decision making process for investment in cycling.

Guidance and Best Practice: Develop nationally consistent technical guidance for stakeholders to use.

3.4 Shire of Wongan-Ballidu Strategic Community Plan 2012 – 2021

Vision: Wongan-Ballidu – a caring and supportive community driving sustainability of agriculture, services and the environment.

The Strategic Community Plan sets out a number of goals, including:

Goal 1: A healthy, supportive and safe community

- Promote sport, recreation and leisure facilities and programs

Goal 3: A strong and sustainable local economy

- A strong tourism industry
- Work with community to develop and promote tourism products including heritage walks, and wildflower routes

Goal 4: Shire infrastructure and a built environment that supports growth of the community and economy

- Shire assets and infrastructure that meet current and future needs.
- Develop and implement a long-term Asset Management Plan, incorporating the review of future infrastructure plans for plant and equipment, drainage, transport, roads and parking, water, community facilities and buildings

- An efficient and safe road network
- Undertake ongoing maintenance and further develop the road network
- Attractive streetscapes, open spaces, parks and gardens
- Manage and maintain the Council's parks, gardens and open spaces at appropriate standards
- Develop, maintain and enhance town streetscapes and public spaces

3.5 Extract from Shire of Wongan-Ballidu Ten Year Footpath Program

The Shire provided a copy of its Ten Year Footpath Program (2014/2015 – 2024/2025). It identifies the following priority path projects:

- Wongan Hills – Sadler Road (Sadler Road to Sports Council via Pool)
- Wongan Hills – Wongan Road (Wongan Road to Bowling Club south side)
- Wongan Hills – Wandoo Crescent (between Johnston Street and Wilding Street, south side)
- Wongan Hills – Wandoo Crescent (between Wilding Street and Nugent Street, south side)
- Wongan Hills – Wandoo Crescent (between Nugent Street and Wongan Road, south side)
- Wongan Hills – Parker Street (between Parker Street and Quinlan Street, west side)
- Wongan Hills – Manmanning Road (between Wongan Road and Danubin Street, north side)
- Wongan Hills – Manmanning Road (between Danubin Street and Ackland Street, north side)
- Ballidu – Wallis Street (between Bunyip Street and #32, west side)
- Ballidu – Wallis Street (between Fairbanks Street and Wallis Street)
- Ballidu – Wallis Street (from Fairbanks Street up Bunyip Street to Wallis Street)

3.6 Local Government Bicycle Plans – Guidelines for Preparing Bicycle Plan (December 2008) Bikewest

These guidelines provide guidance on matters that should be considered and investigated when preparing a Local Bike Plan:

- What is needed in a Local Bicycle Plan
- Local Bicycle Route Network (Route Plan)
 - Bicycle Network routes
 - Safe Routes to Schools
 - Identification of Trip Attractors
 - Signage
 - Travel Demand
 - Analysis of Crash Statistics
 - End-of-Trip Facilities
- Community Involvement in the Plan
- Design and Standards
- Ensuring an Ongoing Bicycle Friendly Road Network
- Encouragement of Cycling

3.7 Shared Path Guidelines (Bikewest)

These guidelines provide information pertaining to standards for shared paths:

- Introduction
- Description of a Shared Use Path
- Appropriate Applications for a Shared Path
- Factors Affecting Shared Path Location
- Standards Required for Shared Paths
 - Shared Path Width
 - Shared Path Clearances
 - Shared Path Gradient
 - Shared Path Sight Lines
 - Shared Path Signage and Pavement Marking

3.8 Signage, Pavement and Linemarking Guidelines (Bikewest)

These guidelines provide advice on the following matters:

- Exclusive Bicycle Lanes
 - Bicycle Lane Plate
 - Bicycle Lane Supplementary Plates
 - Bicycle Lane Pavement Markings
 - Bicycle Provisions Mid-Block
- Sealed Shoulders
- Paths
 - Shared Path Plate
 - Separated Path Plate
 - Pavement Markings
- Appendix 1 – Signage
- Appendix 2 – Pavement and Linemarking

3.9 Western Australian Bicycle Network Plan (2012)

Though prepared primarily to improve cycling in Perth, the WA Bicycle Network Plan does have some relevance to cycling in regional Western Australia.

The plan provides a succinct outline of the many benefits of cycling, being:

Economic Benefits

- Reduced traffic congestion
- Reduced infrastructure costs
- Reduced health costs
- Affordable

Environmental Benefits

- Reduced air and noise pollution
- Greenhouse gas abatement
- Land use efficiency

Social benefits

- Time saving
- Access for all
- Safety

The Aims and Objectives of the plan are:

Objective 1: Provide a coordinated approach to implement a high-quality and connected bicycle network

Objective 2: Plan for maintaining and safeguarding the existing and future bicycle network

Objective 3: Integrate network development in planning strategies with other developments, projects and programs

Objective 4: Guide professionals implementing the WABN

Objective 5: Encourage and promote cycling as a legitimate transport mode

Objective 6: Encourage a whole-of-government approach to cycling

Specially relating to cycling in regional areas, the WABN sets out several ways in which cycling can be improved:

- Major Shared Paths
- Recreational Shared Paths
- Local Bicycle Routes
- Cycle Touring Routes
- On-road via the distributor road network
- On-road via access roads

The WABN sets out the key components of a local bicycle plan, being:

- Route Plan – These routes should give specific consideration to the WABN plan, connections with neighbouring local authorities, trip attractors and end-of-trip facilities.
- Connecting Rail/Bus Stations – A renewed focus of the grants program is partnering with local government to develop a safe network of bike routes to public transport and these shared path projects will also be prioritised.
- Connecting Schools – A renewed focus of the grants program is partnering with local government to develop a safe network of bike routes to schools and these shared path projects will also be prioritised.
- Design and Standards – The design of all bicycle facilities should be to Austroads standards and where projects form part of a PBN route they should meet necessary standards.
- Schedule of Works – Established priorities for network implementation.
- Maintenance Schedule – A plan and budget estimate to ensure that all facilities are satisfactorily maintained.
- Ongoing Process to Ensure a Cycle-Friendly Road Network – Protection of PBN routes, provision for cycling in Town Planning Schemes and new developments, and consideration for cyclists in traffic calming and management projects.

3.10 Austroads' Guide to Road Design Part 6A: Pedestrian and Cyclist Paths (2009)

The *Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths* provides guidance for road designers and other practitioners on the design of paths for safe and efficient walking and cycling. The guide provides a brief introduction to planning and the need for a path, describes the types of path and covers the requirements of path users. However, the main focus of Part 6A is the geometric design of paths and related facilities such as intersections between paths, and terminal treatments. Detailed guidance is provided on path location, alignment, width, clearances, crossfall, drainage and sight distance requirements.

Of particular relevance to the proposals contained within this Bike Plan is Table 7.3 (Bicycle Path Widths – page 43) which sets out the desirable minimum width of a path as being 2.5m.

However, it also states (page 43) that an exception (to the lowest value of the acceptable range) is the local access path that is provided to connect a local area to a community facility (e.g. shopping centre) and it is expected that the volume of cyclists and operating speeds will remain low throughout the life of the path. In such cases a width no less than 2.0m may be considered.

Given that all recommended new shared paths in Wongan Hills and Ballidu are proposed in locations that provide improved cyclist (and pedestrian) access to community facilities (including the shopping centre, medical centre, District High School and connections to the recreation centre), a minimum path width of not less than 2.0m would appear to comply with the Austroads' Guidelines.

4.0 The Current Situation in Wongan-Ballidu

4.1 Population

The total shire population is approximately 1586 (ABS, April 2013). Wongan Hills townsite has 1,130. Ballidu has less than 100 people.

The population of the Shire has risen slightly over the last 5 years from 1,439 in 2009 to 1,586 in 2013.

In the 2011 Census three people stated that they used a bicycle to travel to work, while 82 walked to work.

4.2 School Numbers

The number of students at the school currently is 258, a number that remains fairly static. Of these, approximately 15-20 students ride a bike most days (but that number is weather dependent). Hot/inclement weather deters some from riding.

Other students ride scooters or walk to school, with some students being driven (even though they live locally within town and only a few blocks away).

There are two locations within the school grounds where bicycles can be parked.

4.3 Residential Growth

Wongan Hills appears to be a town experiencing growth, as farm sizes generally increase and people move from farms to the town.

New residential areas have been created in recent years, with several recently constructed houses. The ABS indicates that new private sector houses developed in recent years: 5 in 2009; 4 in 2010; 4 in 2011; and 0 in 2012 and 2013. Figures for 2014 and 2015 are not available.

Smallholding (rural-residential) blocks are being created on the outskirts of town.

4.4 Existing Path Network and Other Cycling Facilities

Wongan Hills and Ballidu both have a well developed existing path network. Wongan Hills in particular has an extensive path network serving the majority of the residential and commercial areas, as well as excellent (new) paths to the recreation centre on the south side of the railway.

There are however some areas of Wongan Hills still to be connected to the existing path network, and this plan will help achieve an extended network to provide connection of these areas to major destinations within the town.

Many of the roads in Wongan Hills are wide, and often divided, and provide a comparatively safe cycling environment because of the low motor vehicle speeds, width of traffic lanes, low volumes of traffic and good visibility.

Bike parking rails were observed in several locations in Wongan Hills: at the District High School, at two locations along the main shopping street (Fenton Street) and at the swimming pool.

Plan 1 shows the existing path network of Wongan Hills and Plan 3 shows the existing path network of Ballidu.

4.5 Crash Statistics

An analysis of crashes involving cyclists and pedestrians in the Shire of Wongan-Ballidu was undertaken, using the Crash Data Analysis system available through Main Roads WA (CARS).

Of the 77 reported crashes between 1/1/2010 and 31/12/2014 only one involved a bicycle. This crash involved a cyclist colliding with a 4WD reversing out of a driveway. The cyclist required medical attention, but not hospitalisation.

The Crash Analysis for the years 2010 to 2014 revealed there were no crashes involving pedestrians, scooter riders, motorised wheelchairs or skateboards. The absence of crash data involving cyclists in Wongan Hills and Ballidu probably reflects the (current) low levels of cycling.

Based on the extremely low level of crashes (i.e one), it is not possible to recommend any remedial actions or specific modifications to roads and/or intersections within Wongan Hills and Ballidu.

4.6 Trails Master Plan

The Wongan-Ballidu Trails Master Plan prepared in 2005 recommended a number of actions for development of a trails network throughout the Shire. Many of these recommendations have been implemented, including upgrading and installation of interpretation on the Christmas Rock Walk Trail (on the outskirts of Wongan Hills, not far from the caravan park) and the development of the Wongan Hills Heritage Trail (with new interpretation). Both these walk trails provide an added incentive for visitors (and local people) to walk throughout the built-up and natural areas of Wongan Hills.

Proposals contained within this Bike Plan will help encourage people to make better use of these two excellent walk trails.

4.7 Path Usage and Path Connectivity

During fieldwork associated with the preparation of this Bike Plan a range of different users of the path network were noted. This included gopher users, and parents pushing prams on the paths (and on roads where there are no paths). It was also noted that some pedestrians were forced to walk on roads where there were no paths.

Of special interest was the existing path network in the vicinity of the District High School in Wongan Hills. As depicted on Plan 1, the school in Wongan Hills is reasonably well connected by paths on two sides (the two sides where there are residences). Given the location of the school with regard to the residential areas, and the existing path network, this would be regarded as a good level of connectivity. Although the school is remote from the town's recreation centre, a good path network exists between the two activity centres (with the exception of a quality path connection across Fenton Street and Wongan Road).

Relatively small numbers of bicycles were observed parked at the schools during the periods of fieldwork (October 2015). Increasing the number of students cycling to school is obviously one of the main focuses of this Bike Plan.

In general, the existing level of bicycle usage would be considered low even though many bikes were observed parked in garages at residences or on verandas.

The terrain/gradient of both towns is reasonably flat and this provides comparatively easy and comfortable cycling conditions. As noted elsewhere, the wide (and often divided) roads does provide a good on-road cycling environment. Even though many of the roads are wide, the absence of centrelining on most streets of the towns indicates that traffic flow and management is not an issue. The need for 'bike lanes' cannot be justified.

The almost total absence of on-street car parking (except in commercial areas) also contributes to a safe on-road cycling environment.

4.8 Bike to Ballidu

Bike it to Ballidu is an annual community event, raising funds for the Ballidu P&C. The community relay ride involves teams of four cycling 35 kilometres, commencing in Wongan Hills and finishing at the Ballidu townsite. There are various categories including veterans, mixed, corporate and primary school children.

Bike it to Ballidu is also the biggest community event for the small town of Ballidu. The event attracts locals as well as people from surrounding towns and districts. The event has been held 16 times.

In terms of raising the profile of cycling for transport, recreation and health reasons this is an outstanding opportunity.

5.0 Community Consultation

5.1 Introduction

As with all plans impacting on a community, it is beneficial to involve local people in the development of a Bike Plan. In order to attract local interest in the Bike Plan and the community consultation process, a photo story was run in the local newspaper. The story invited attendance at the 'open house' and invited contributions to the development of the Plan.

In addition to cyclist input in the development of Bike Plans, it is important to seek the input of other users of these facilities: pedestrians, people with a vision impairment or mobility disability, skaters and others who share off road facilities with cyclists.

Rather than preparing a plan that caters exclusively for the existing cycling community, the primary purpose of this plan has been to develop facilities that will help to encourage cycling (to schools, shops and other local destinations). The plan also seeks to encourage other non-motorised modes of transport, by focusing on the development of facilities that will do most to satisfy the needs of all (path) users (eg. gopher and wheelchair users, pedestrians, scooter and skateboard riders).

5.2 Shire of Wongan-Ballidu Staff

A Project Inception meeting was held on Tuesday 8th September 2015 to discuss the proposed Bike Plan. In attendance were: Tanya Greenwood (Manager Community Services), Karl Mickle (Manager Works and Services) and the consultant (Mike Maher – Transplan Pty Ltd).

The following matters were discussed:

- The primary purpose of the Bike Plan is to devise a series of priority projects, to enable Council to apply for funding assistance from external sources.
- The main focus of the plan will be the proposed shared path network as this is where most benefits to people in each of the two towns is to be gained.
- Staff have prepared a path development plan that will guide construction over the next 10 years. There is a need to review the priorities set out in this schedule.
- Project should give some consideration to the needs of gopher users, including the possible use of gophers on roads, as there are several gopher users in Wongan Hills. Installation of bike lanes for gopher users was mentioned as a possible option as it would be cheaper than building paths (ie. shared car parking/bike lanes).
- There is a need for some missing links to be completed.
- It was confirmed that Wongan Hills and Ballidu were to be included in the plan.
- Bike parking facilities are to be considered.
- Shared paths are to be developed to a minimum width of 2.5m (to accord with DoT guidelines).
- Bike parking at the District High School in Wongan Hills moves around the grounds and is in no set location. It is now located in full view of the office staff.
- A path connection to Christmas Rock Walk Trail is desirable.

5.3 Community 'Open House'

An 'Open House' (or 'drop-in' session) was held on Wednesday October 7th between 11.00am and 2.00pm in the Function and Training Centre at The Station in Wongan Hills to receive input from interested members of the community.

This was an opportunity for the community to provide feedback, suggestions and recommendations on existing and proposed facilities in Wongan Hills and Ballidu. The 'Open House' was advertised in the local newspaper, through various emails and by direct invitations. 6 members of the community attended and comments included:

- Should be an emphasis on creating better paths leading to and around the school in Wongan Hills.
- Need for path along Wandoo Cr (lots of traffic, high speed). (Mentioned by 3 attendees).
- Path needed on north side of caravan park (on Wandoo Cr) to enable visitors to walk to Christmas Rock Trail.
- Question over what side of Parker Street to install a new path (less obstructions on NE side; two driveways on SW side but probably more interesting).
- Need for mechanism for reporting matters that require attention (such as an on-line link)
- Focus of bike plan should be the path network, to cater for a wide range of potential users (new cyclists, pedestrians, gophers).
- Experienced cyclists in town don't use paths. Roads are good for cycling as there are few cars, travelling at low speeds.
- Better ramps needed on medians along Fenton St at Quinlan St and Mitchell St.
- Need better access across Fenton St and main road, from shopping centre strip to tourist centre/arts centre/CRC – especially opposite Harvest Pl.
- New residential area at Shields Cr needs path connections into town as there are none at present. Residents are forced to walk on roads.
- Clarification of purpose of plan required: to prioritise path development to encourage 'new' cyclists and to provide for as many other users as possible (including pedestrians and gopher users).

Another resident could not attend the 'open house' but submitted an email requesting that any new paths be wide enough to be gopher friendly, and suitable for parents with prams. Shared paths also need to be properly signed / marked and located on the side of the road that has street lighting.

5.4 Community Survey

A survey of the community was conducted, which asked a number of questions regarding the adequacy of the cycling network in Wongan Hills and Ballidu, and factors that would encourage more cycling. The survey was included in the locally circulating newsletter (*Wonga-Balli Boomer*). A copy of the survey, and a summary of the results, is contained in Appendix 3.

Generally, as expected, there was a wide range of responses to each of the questions. Of particular note is a comment from several people about the need for more paths, including Wandoo Cr.

Some issues, such as the compulsory helmet wearing legislation and the need for upgrading the road between Wongan Hills and Ballidu, are outside the scope of this Bike Plan.

Most of the feedback received via the survey answers are matters that have been incorporated into this Bike Plan.

5.5 Department of Transport

A telephone conversation was held with Melody Lynn, Cycling Infrastructure Grants Project Officer, Integrated Transport Planning in the Department of Transport. The following matters were discussed:

- Minimum shared path width – it was confirmed that 2.5m (as set out in Austroads' *Guide to Road Design Part 6A: Pedestrian and Cyclist Paths 2009*) was regarded as the acceptable minimum width of path that would be funded. However, a case for a lesser width could be put forward with any funding application based on type/location/purpose of path being proposed, likely user numbers, typical cyclists speeds and prevailing path widths).
- Connecting Schools Grant Program – is a grant program aimed at improving bicycle access and end of trip facilities for schools. Funding is available on a matched funding basis to fund school end-of-trip facilities and innovative cycling infrastructure projects. To be eligible for the grant, schools must also engage complementary behaviour change techniques, through the TravelSmart to School program, to facilitate increasing cycling to school. Program is likely to continue beyond the current year (with applications being required by COB 30 November 2015).

5.6 Wongan Hills District High School

A telephone conversation was held with Pam Boase, Deputy Principal. The following matters were discussed:

- Usual travel modes of students getting to school. Approximately 15-20 ride on most days, but this number falls when it gets hot and when it rains. Some come by scooter, many walk and others are driven by car.
- Two sets of bike parking racks are located within the school grounds. One set is accessed from Johnston St and the other from Quinlan St. There have been issues with interference to the bikes and/or helmets, and the location where the bikes are parked has been relocated so they are not easily visible from the streets and are in clear vision of the school offices.
- There are conflicts between students arriving by bike and cars being driven to the school. A new path on the school side of Johnston St, east of Parker St, would eliminate most of this conflict as it would enable students to cross Johnston St well away from the conflict zone nearer the school.
- Improved bike parking facilities (including a shelter from sun and rain) would likely result in more students cycling to school. School could not afford to contribute to the project, but has authority to approve of such infrastructure improvements on the school grounds. Would be looking to Shire Council to contribute funds to this project if an application was made to the Department of Transport for a grant.

6.0 Planning for Cyclists

6.1 The Benefits of Cycling

Cycling is a cheap and convenient transport option in an urban area, an activity that provides substantial health benefits.

The Australian Bicycle Council's report "National Cycling Strategy 2011 – 2016" sets out a compelling case for increasing cycling rates. The Strategy succinctly states that *increased cycling offers a host of benefits to both society and individuals, not least because it is a fun and enjoyable activity, as well as a form of exercise and a sustainable mode of transport*. It summarises the benefits of cycling as being:

- Increasing cycling can reduce traffic congestion and improve the quality of life in Australia's cities.
- Switching from motor vehicles to bicycles can dramatically reduce our carbon footprint.
- By increasing people's physical activity, cycling can help to reduce pressure on health services.
- Cycling can save people time.
- Cycling can save people money.
- Cycling can provide an opportunity to meet new people and help build a community's social capital.

The World Health Organisation advises that regular physical activity:

- reduces the risk of dying prematurely.
- reduces the risk of dying from heart disease or stroke, which are responsible for one-third of all deaths.
- reduces the risk of developing heart disease, colon cancer and type 2 diabetes.
- helps to prevent/reduce hypertension, which affects one-fifth of the world's adult population.
- helps control weight and lower the risk of becoming obese.
- helps to prevent/reduce osteoporosis, reducing the risk of hip fracture in women.
- reduces the risk of developing lower back pain can help in the management of painful conditions, like back pain or knee pain.
- helps build and maintain healthy bones, muscles, and joints and makes people with chronic, disabling conditions improve their stamina.
- promotes psychological well-being, reduces stress, anxiety and depression.
- helps prevent or control risky behaviours, especially among children and young people, like tobacco, alcohol or other substance use, unhealthy diet or violence.

The significant benefits accruing from the activity should not be underestimated. A recent report prepared for the Commonwealth Department of Health and Aged Care and the Australian Sports Commission's 'Active Australia' program has stated that:

- In 1997 44% of all Australian adults were 'insufficiently active'.

- Physical inactivity contributes to the risk of 8,600 deaths p.a. in Australia. Of these deaths, 1531 occur in people under the age of 70 years and contribute to an estimated 77,603 potential years of life lost because of inactivity.
- The annual direct health care cost attributable to physical inactivity is conservatively estimated at around \$377 million, while indirect costs are much higher.

The bicycle is recognised as being one of the most efficient forms of human transport. It is a transport mode that is available to a wide cross-section of the community.

In comparison to motor vehicles, bicycle travel provides substantial savings for all levels of society. Bicycles do not contribute to noise or air pollution and do not draw on fossil fuel reserves that produce greenhouse gases.

Bicycles are probably the quickest and most efficient mode of transport over short distances in urban areas and in country towns. Bicycles are widely regarded as one of the solutions to reducing traffic congestion and car parking problems. Cycling also provides health benefits. There is substantial evidence that regular aerobic exercise such as cycling is beneficial to general physical and psychological health.

Various studies in Australia have demonstrated that the majority of bicycle trips are for transport purposes, with the average length of a bicycle trip being just over 2 kilometres. Considering that in many cities of Australia around 33% of ALL trips are 3 km or less, the potential for increasing the level of bicycle use for these short trips is enormous. In towns the size of Wongan Hills or Ballidu, it is reasonable to assume that this percentage would be much higher – all residential areas and trip attractors within the townsites are within 1 – 3 km of each other. The transference of many of these short distance (car) trips to a bicycle would have significant benefits to the community in terms of improved health, enhanced social contacts, greater independence and health benefits for children riding to the schools or other destinations.

Planning for cyclists attempts to provide for their safe and convenient movement. It seeks to increase mobility for people without access to a car, and to encourage a transfer of journeys from private cars to bicycles. A major aim of this Bike Plan is to increase the level of bicycle use by making all destinations more easily accessible and bicycle travel safer. This can be achieved in a number of ways including the removal of barriers and hazards, the provision of new or improved facilities and by providing suitable end-of-trip facilities such as bicycle parking. Improved safety for cyclists and better connectivity are also important factors.

Surveys undertaken in various local government bike plans (prepared by Transplan Pty Ltd – eg. Melville Bike Plan; Fremantle Bike Plan; Western Suburbs Bike Plan – all in WA) show more people would ride a bicycle if more (and better) facilities were provided, if on-road cycling conditions were improved, if traffic conditions were better, if motor vehicle speeds were reduced, and if 'end-of-trip facilities' (such as bike parking) were commonplace.

6.2 Typical Off-Road Bicycle Facilities

6.2.1 Shared Use Paths

The Bikewest Shared Path Guidelines define a shared path as:

"... a facility that provides access for a variety of users, including people who cycle, pedestrians, people with wheelchairs or gophers and various other forms of recreational transport."

- A shared path (formerly termed dual use path) is an area of pavement open to the public that can be used by people on bicycles and pedestrians.
- A path is only designated as a shared path by means of a sign panel on a pole or symbols stencilled on the pavement (refer to signage section).
- Signage to designate shared path status is mandatory and all new shared paths must be signed for the project application to be valid.

6.2.2 Appropriate Applications for a Shared Path

It may be appropriate to install a shared path where:

- There is sufficient demand from both pedestrians and cyclists, but the frequency of use is not high enough to warrant providing separated facilities.
- The adjacent road conditions are such that it could be hazardous for children and inexperienced cyclists.
- There is not going to be a great risk to pedestrians from fast travelling cyclists. This can be avoided by ensuring the adjacent on-road environment is made as safe as possible by the use of bicycle lanes. Where the potential interaction hazard risk is high, a separated path for cyclists is recommended.

6.2.3 Factors Affecting Shared Path Location

The following factors affect the location of a shared path:

- The need to achieve the best alignment possible, to allow cyclists to travel safely at their chosen speed.
- The need to avoid sharp horizontal curves, particularly at the bottom of steep downward grades.
- The need to achieve adequate sight distance across the inside of curves and over vertical crests.
- The need to achieve adequate clearances between obstacles, including trees, fences, posts and roads.
- The need to ensure the personal security of users is not compromised on paths located in relatively isolated areas.
- The need to accommodate Emergency Service vehicles at path entrances or other strategic points.
- The need to consider landscaping and planting.
- The need to consider property owners abutting the reservation and sight distance from possible front boundary walls.
- The need to obtain possible advantages from incidental lighting from fixed sources or motor vehicles.

6.2.4 Standards Required for Shared Paths

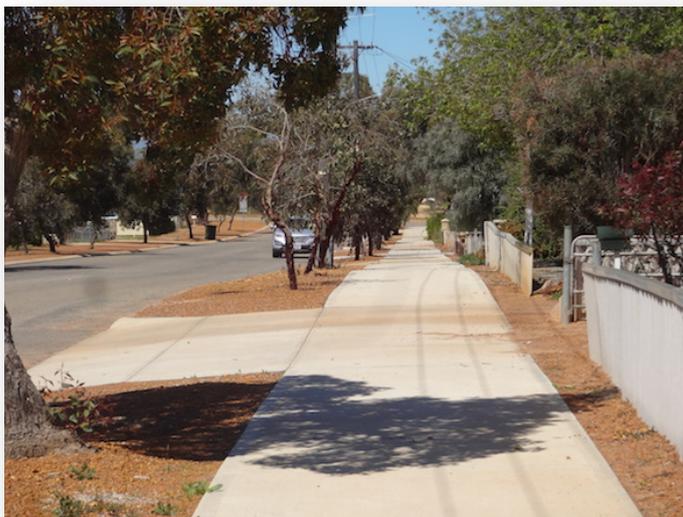
6.2.4.1 Shared Path Width

Until 2009 (when the new *Austrroads' Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths* was published) 2.0m was considered an acceptable minimum width for a shared path with very low use at all times on all days.

Austrroads' Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths now lists the absolute minimum width of a shared path as 2.5m.

However, this new Guide also states that where a shared path is providing a connection between a local (residential) area and a community facility, a 2.0m wide path may be considered.

In the case of Wongan Hills and Ballidu, with low usage levels on paths, and because all the proposed new paths recommended in this Bike Plan are designed to improve connectivity from local (residential) areas with various community facilities (such as schools, shopping areas and the recreation centre), it is reasonable to assume that a 2.0m wide path may be considered acceptable. 2.0m wide paths are already common throughout Wongan Hills and Ballidu, including recently constructed paths.



Most recently constructed paths in Wongan Hills are 2.0m wide, eminently suitable for the existing and future usage levels.

6.2.4.2 Shared Path Clearances

- A minimum lateral clearance of 0.5m needs to be provided between the edges of shared path and any obstacle.
- Where extenuating circumstances exist, a lesser clearance of 0.3m may be suitable for obstacles with smooth features (eg – fences).
- Austroads recommends a distance of 1.0m lateral clearances from the edge of road where there is the possibility of cars parking.
- Where there is no car parking expected a 0.5m lateral clearance is recommended (absolute minimum 0.3m).
- The minimum vertical clearance required by cyclists on a shared path is 2.4m above the riding surface.

6.2.4.3 Shared Path Gradient

- The maximum gradient for use on shared paths is 0.03.
- In cases where this cannot be achieved, limit the gradient to a maximum of 0.05 and provide flat sections (landings) at 20m intervals.

6.2.5 Shared Path Signage and Pavement Marking

Australian Standards (AS 1742.9, Manual of uniform traffic control devices, Part 9: Bicycle facilities) require the appropriate signage, pavement and line marking on shared paths for people to legally cycle on them.

All pavement marking should be jade green in colour on concrete surfaces, or white on asphalt surfaces.

Bicycle and pedestrian symbols must be marked on all shared paths at the beginning and end, road crossings and, when uninterrupted, at 200m intervals.

Separation lines are recommended in the following situations:

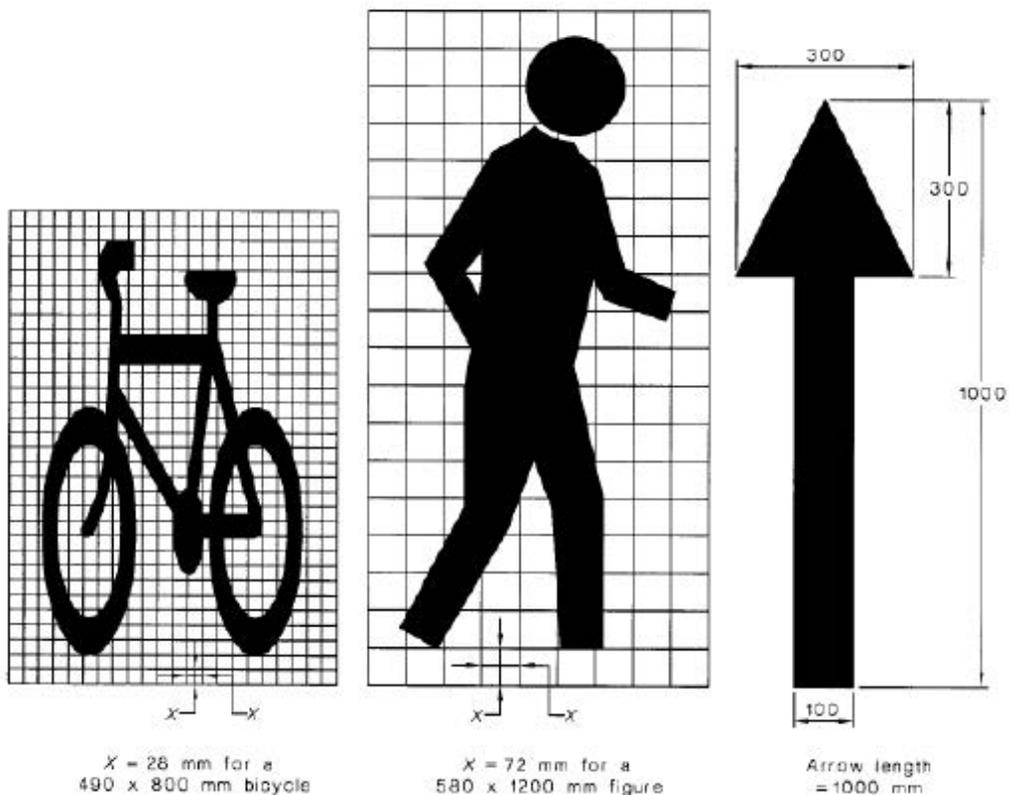
- On curves where sight distance is poor.
- In high volume locations or where there is potential for interaction between users.
- On approaches to intersections.

Pavement arrows are recommended in the following situations:

- Busy sections where there is a need to keep users left.
- Directing cyclists around approaching hazards or obstacles.



A centre line along with pavement symbols advises path users to keep left



NOTE - Recommended logo and size is for use on shared paths, not bicycle lanes or sealed shoulders.

6.2.6 Cycling on Shared Paths

Shared paths provide cyclists and pedestrians with a safe travel environment that reduces the potential for interaction with motor vehicles. They have their own set of rules and code of behaviour

Shared path rules:

- *Children under 12 years of age may ride on any footpath unless a "no bicycles" sign has been erected. Riders 12 years of age and over are not permitted to ride on a footpath.*
- *Riders must keep left on shared paths and footpaths unless overtaking.*
- *Riders must give way to pedestrians at all times.*
- *At path intersections you must signal your intention to turn, and give way to motor vehicles entering or exiting an intersection road.*
- *Riders must only travel in single file on all paths, though they can travel two abreast on a road.*
- *Animals must not be tied to a moving bike.*
- *A power-assisted bicycle must not use a path when the power assistance is engaged.*

Under the Road Traffic Code, it is an offence to speed. The Code also requires that you do not ride carelessly or recklessly. Cyclists on paths are restricted to the speed limit on adjacent roads.

Observation of the character of Wongan Hills and Ballidu, the facilities available to residents, the existing street system and the volumes and speeds of traffic indicate that the greatest potential for increasing the level of cycling is by the provision of additional and better shared paths.

Providing improved facilities to and around the school, and encouragement of school children to use these facilities, will have the greatest impact on the amount of cycling undertaken in Wongan Hills and Ballidu. Providing better facilities (ie. shared paths) will also have the added benefit of improving dramatically the facilities for other non-motorised groups including pedestrians, people in wheelchairs and those using gophers. Parents pushing prams and strollers will also benefit.

The path network improvements suggested in this Bike Plan recommend shared paths be constructed to a minimum width of 2.0 metres. This width complies with the minimum set out in various documents, including Austroads' *Guide to Traffic Management*, Austroads' *Guide to Road Design** and in Bikewest's *Shared Path Guidelines*. 2.0m wide paths should be satisfactory for both towns, given the current level of usage and the expected future use (which are not anticipated as being comparable to major city volumes where wider paths would be required).

2.0m wide paths are wide enough to accommodate cyclists passing each other in opposing directions, as well as cyclists passing pedestrians, and wheelchairs (and gophers) passing each other.

(Note – as mentioned earlier. Where paths are proposed to connect local residential areas with community facilities, a 2.0m wide minimum width may be considered).*

6.3 Typical On-Road Bicycle Facilities

Few cyclists were observed in Wongan Hills and Ballidu during the periods in which fieldwork was being undertaken for this Bike Plan. This could be for any number of reasons: lack of facilities in the places where the cyclists want to ride, comparative ease of walking to destinations, lack of bike parking facilities at destinations, condition of roads, time of observations, etc.

The fieldwork revealed the total absence of any on-road cycling facilities in both towns. There are no bike lanes, although the roads are wide, often divided and mostly without centrelining.

Austrroads' Guide to Road Design Part 3: Geometric Design provides design guidelines and drawings for all aspects of the design and configuration of on-road bicycle facilities.

7.0 The Potential for Cycling in the Shire of Wongan-Ballidu

7.1 Origins and Destinations of Cyclists

Generally, shopping areas, schools, recreation centres and recreation facilities are the most popular destinations for walkers and cyclists in towns such as Wongan Hills and Ballidu. Recreational walking, and walking for exercise, occurs on the footpaths and quiet roads of each town. The use of gophers by local residents was also observed.

There are a number of destinations within Wongan Hills that would attract cyclists, pedestrians and gopher users including:

- District High School
- Shops along Fenton St
- IGA
- Post Office
- Wongan Hills Sports Centre
- Wongan Hills Community Park (including the skate park)
- various cafes along Fenton St

There are several destinations within Ballidu that would attract cyclists, pedestrians and gopher users including:

- Ballidu School
- Ballidu Trading Post
- Alpha Park

7.2 Cycling to School

Observations made in the preparation of this Bike Plan revealed the usual habits of students and their mode of transport to school. Apart from those few who ride, others walk to and from school (often with a parent), and many catch a school bus from outlying areas. However, there are also a number who are delivered to school in a car, though it is expected that many of these students are from outlying farming properties (from where cycling is not an option).

An objective of this Bike Plan is to encourage many more of the students from within Wongan Hills and Ballidu to cycle or walk to school (on most days of the year – except during times of inclement weather). (Children under 10 years of age should be accompanied by an adult/parent).

The TravelSmart and Cycle Instead initiatives of the Department of Transport have produced a brochure outlining the many benefits of encouraging children to cycle (or walk) to school, pointing to the alarming decline in the numbers of children who do ride/walk to school in the last 15 years. Titled “*Do you need to drive your children to school?*” the brochure states that in 1986 more than 60% of children walked, cycled or used public transport to travel to school. Twelve years later, children were still travelling the same distance to school but less than half used transport alternatives to get there.

The brochure provides compelling evidence to indicate the need for children to be active (such as by cycling or walking to school). It states that the growing dependency on our cars

is leading to children becoming less physically active. Young Australians are choosing to take part in sedentary activities such as watching television, playing video games or using the computer instead. For many, the trip to school is one of the few opportunities they have to exercise.

The Active Travel to School 2012 Survey Findings (Cycling Promotion Fund and Heart Foundation) states that forty years ago most children walked, rode a bike or caught a bus to get to and from school. These days, children are more likely to be "chauffeured".

The study found that, despite most parents (90 per cent) agreeing that cycling is a good way to get fit and that it is important for children to learn to ride a bike, close to 60 per cent still drive their children to school.

Those results were compared with a 1970 study by the Australian Bureau of Statistics that found quite the reverse: just 16 per cent of children were driven to school with the vast majority walking, cycling or catching public transport.

Another recent study by the University of South Australia has found that the percentage of South Australian children walking or cycling to school has halved in a single generation. UniSA researchers compared a random sample of 300 school students aged 9-13 years in 1985 and 2013. They found two-thirds of current students never cycled or walked to school, compared with one-third in 1985. Cycling to school has almost vanished, down from two in every five students in 1985, to only one in 20 in 2013.

The authors blamed the "alarming" findings on society's exaggerated fears of crime and overcautious attitude to road safety and the pervading perception among parents of the risks (walking and cycling to school) but that is not borne out by objective crime statistics.

The authors claim that cycling has almost disappeared, and there are not even many schools encouraging it with bike parking any more.

(See Trends in different contexts of physical activity among South Australian school children between 1985 and 2013 - Proceedings of the 28th ACHPER International Conference, Melbourne 2013)

7.3 What Can be Done?

Improving the path network, especially by putting in place 'missing links', removing barriers, and making road crossings safer and more convenient will help significantly in encouraging children (and their parents) to opt for cycling and walking as their mode of transport to school. Adults should be encouraged to ride with their children to and from school – rather than driving them.

Apart from school children, there are many other (potential) cyclists and path users within both towns that need to be catered for. The extension and promotion of the path network (and bicycle parking facilities when they are in place) will help stimulate and encourage adults to make additional local trips by bike or by walking. (An improved path network will service other groups, such as gopher and wheelchair users, and parents with prams and strollers).

The upgrading and extensions to the path network in Wongan Hills and Ballidu, along with suitable marketing and promotion of the facilities (such as via a Bike Map), will help ensure that many more residents and visitors are encouraged to use them, with consequent health benefits.



Many roads of Wongan Hills are wide and divided and coupled with the low volumes of traffic present a relatively safe cycling environment.



The town centres of both Ballidu (above) and Wongan Hills are characterised by wide brick paved pathways.



Although Wongan Hills has a very good path network, numerous streets still remain without a path on one side of the road or the other.



Recent construction activity and network improvements in Wongan Hills includes new paths and breaks in the median islands.



Smooth kerb ramps ensure a good transition from path to road for cyclists, gopher users, parents pushing prams and for those in wheelchairs.



Wandoo Cr in Wongan Hills has emerged in consultation as the #1 priority street needing a shared path.

8.0 Criteria For Setting Priorities for Bike Plan

Bicycle facilities should be built where there is the greatest potential for increasing bicycle use and reducing the potential for crashes. Priority should be given to facilities that serve children travelling to and from the school, where there is high current bicycle use or where there is the greatest potential for attracting new users and serving residents or tourists.

In this Bike Plan for Wongan Hills and Ballidu, priorities have focussed on facilities that will do the most to:

- a) Encourage cycling (especially to destinations likely to attract cyclists – such as the schools, the shopping areas and the recreation centre in Wongan Hills);
- b) Improve the safety and convenience of cyclists using (and crossing) roads;
- c) Serve a range of users (including pedestrians, gopher users, parents with prams, wheelchairs, etc); and
- d) Provide recreational opportunities for visitors and local people.

A number of factors have been used to determine which projects should be implemented sooner than others, including:

1. The extent to which the safety of cyclists is improved – priority has been given to actions that seek to reduce (or eliminate) the potential for cyclist crashes in the future (noting that only one crash in the last 5 years has involved a cyclist);
2. Contribution to the completed bicycle network – actions that provide a ‘missing link’ will be given a high priority; as well as those that will eventually enable ‘circuits’ to be completed;
3. Developing facilities that connect to cyclist destinations (such as schools, shops);
4. Project cost/benefit and likely funding sources (including Department of Transport); and
5. Projects that will benefit as wide a range of potential users as possible, and their ability to access local destinations including the Medical Centre, hospital, recreation centre and shops.

Priority therefore has been given to projects that serve local destinations such as the schools, shops, recreation venues and commercial establishments. In particular, priority has been given to establishing paths on streets where currently there are no paths.

Attention has been paid to streets where there are residential dwellings and especially those streets that have no existing path. Streets with no dwellings have not been included in the list of priority projects.

Other low cost improvements, that could potentially significantly increase the safety and convenience of path users, have also received attention. Making repairs to paths, eliminating hazards, and providing more and improved kerb ramps can make a substantial difference to people’s willingness to cycle or walk to a destination. This Bike Plan has identified a number of ‘spot improvements’ in Wongan Hills.

As is the case with making ‘spot improvements’, the provision of appropriately designed and located bicycle parking rails is often regarded as a cost effective technique for encouraging cycling. Locations where rails should be installed are suggested.

9.0 Priorities of this Bike Plan

9.1 Improvements to the Bicycle Network of Wongan Hills

The key issues determining the provision of bicycle facilities (and cycling levels) in Wongan Hills are:

- The (already) extensive existing network of paths throughout the town centre.
- The extent of the existing path network.
- The grid pattern and therefore 'legibility' of the road (and path) network.
- The compactness of the town.
- The location of trip attractors (such as the shopping area and the District High School).
- The width of many of the roads of the town (and including the fact that many roads are divided).
- The relatively low volumes of motor vehicle traffic on these wide roads.
- The short distances from all residential areas to bicycle trip attractors in the town.
- The recent construction of several new paths of high quality, adding significantly to the existing path network.
- The need to improve access to the existing path network, particularly for people using bicycles and small-wheeled vehicles (prams, gophers, wheelchairs, etc).
- Need for bicycle parking facilities at destinations where cyclists would go.

9.2 Path Improvements and Additions

Several shared path improvements are recommended for the Wongan Hills townsite, as detailed in the table below:

<i>Road name</i>	<i>Segment</i>	<i>Distance</i>
Wandoo Cr	Johnston St to Wilding St	200m
Wandoo Cr	Wilding St to Reynoldson St	90m
Wandoo Cr	Reynoldson St to Nugent St	220m
Wandoo Cr	Nugent St to Strickland St	280m
Wandoo Cr	Strickland St to Fenton St	215m
Johnston St	Parker St to school	190m
Wilding St	Wandoo Cr to Johnston St	145m
Booth St	Shields Cr to Wandoo Cr	100m
Patterson St	Nugent St to Reynoldson St	260m
Strickland St	Wandoo Cr to Banksia Cr	95m
Strickland St	Banksia Cr to Patterson St	95m
Banksia Cr	Strickland St to Patterson St	205m
Parker St	Johnston St to Quinlan St	195m
Ellis St	Quinlan St to Mitchell St	245m

Mitchell St	Ellis St to Rogers St	100m
Ackland St	Wilson St to Mitchell St	90m
Broadbent St	Camm St to Ackland St	165m
Koralling Way	Mocardy St to Camm St	85m

In addition to these recommended new shared paths, other improvements are warranted namely:

- A number of 'spot improvements' (see below) including construction of new kerb ramps where currently there are none; and
- The provision of bike parking throughout the town (at cyclist destinations).

9.3 Improvements to the Bicycle Network of Ballidu

The key issues determining the provision of bicycle facilities (and cycling levels) in Ballidu are:

- The compactness of the town and the ease of accessing all destinations easily by foot or bicycle.
- An already good network of paths throughout the town centre.
- The width of many of the roads of the town.
- The low volumes of motor vehicle traffic on these wide roads.
- The short distances from all residential areas to bicycle trip attractors in the town.
- Need for bicycle parking facilities at destinations where cyclists would go.

9.4 Path Improvements and Additions

Several shared path improvements are recommended for the Ballidu townsite, as detailed in the table below:

<i>Road name</i>	<i>Segment</i>	<i>Distance</i>
Wallis St	Alpha St to Bunyip St	170m
Wallis St	Bunyip St to SE end of Wallis	140m
Bunyip St	Wallis St to Fairbanks St	100m

In addition to these recommended new shared paths, other improvements are warranted namely:

- A 'spot improvement' (see below); and
- The provision of bike parking throughout the town (at cyclist destinations).

9.5 On-Road Facilities

The on-road cycling environment in Wongan Hills and Ballidu was assessed.

Several factors dominate the thinking when considering the merit of installing on-road facilities (such as bike lanes or shared car parking and bike lanes):

- Traffic volumes on most roads in Wongan Hills and Ballidu are low;
- The relatively low speed of traffic on the roads of Wongan Hills and Ballidu;
- The width of roads; and
- The existing and anticipated cyclist numbers.

Generally speaking, bike lanes should only be installed where there is a strong case for such a treatment. Austroads states that it may be appropriate where:

- Bicycle traffic is concentrated (e.g. near schools or along major routes near city or town centres)
- An existing or potential significant demand for bicycle travel can be demonstrated e.g. where traffic volumes and speeds deter cyclists from using an otherwise favourable route;
- It is needed to provide continuity within a bicycle route network; and
- A road is carrying or likely to carry more than 3000 vehicles per day and/or a significant percentage of heavy vehicles.

None of the above conditions apply to roads within Wongan Hills and Ballidu.

The possible need for the installation of 'edge lines' can be considered in the same way as 'bike lanes' i.e. there are not enough reasons for them to be installed.

The existing conditions, where the roads are very wide, provide an already safe cycling environment without the need for painting lines on roads (and maintaining the lines).

9.6 Motorised Wheelchairs (Gophers) Use on Roads

In determining the best and most effective facilities to improve cyclist safety and increase cycle use in Wongan Hills and Ballidu, the project scope of works also requires that consideration be given to improving conditions for gopher users. During the preparation of this bike plan it was suggested that 'edge lines' (or shared car parking / bike lanes) be painted on roads within the towns (particularly Wongan Hills) to facilitate use by gopher users. This was suggested on the basis that painting edge lines is cheaper than building concrete shared paths. There are certainly benefits for gopher users by creating spaces where they could be used on the road surface, but there are also disadvantages in this approach.

According to the Road Safety Commission of Western Australia, users of motorised wheelchairs and gophers are classed as pedestrians under current traffic laws, provided the maximum speed of the equipment is 10 km/h.

Some motorised chairs are capable of travelling faster than 10 km/h and these must be registered as vehicles.

These low powered chairs are allowed to travel on:

- footpaths
- shared paths
- the sides of roads **if there is no footpath.**

As a 'pedestrian' a gopher user can travel on the road provided:

- There is no footpath or nature strip adjacent to the road that is in a condition that is fit to use.
- Keep as far as practical to the right hand side of the road (facing the oncoming traffic)

There is no doubt that if gopher users were to use roads where there are no existing paths it would save money (and Council would not have to build new paths)

However, edge lines (shared car parking / bike lanes) do not serve all potential users. They would only serve gopher users and cyclists who are comfortable with travelling along a road and sharing the space with motor vehicles.

Edge lines (shared car parking / bike lanes) do not provide for able-bodied pedestrians, parents pushing prams, skateboards and scooters and people in (un-motorised) wheelchairs. Consequently, the recommended course of action is to provide facilities (i.e. shared paths) that provide for the widest range of possible users – cyclists included.

9.7 Spot Improvement Program

In addition to the construction of additional lengths of paths to the existing path network of Wongan Hills and Ballidu, a number of 'spot improvements' are required to ensure existing facilities are safe and convenient to use.

Perhaps the most significant 'spot improvement' that could be undertaken in Wongan Hills is improving the access/connection across the main streets. That is, from the commercial strip along Fenton St, across Fenton St and Wongan St, to the attractions on the west side of the main road (Tourist Centre, Arts Centre, Community Resource Centre and the recreation centre). Currently, ease of movement for cyclists, pedestrians and gopher users is restricted, with poor (or no) kerb ramps in locations where people might want to cross these roads. Three new designated crossing points are recommended.

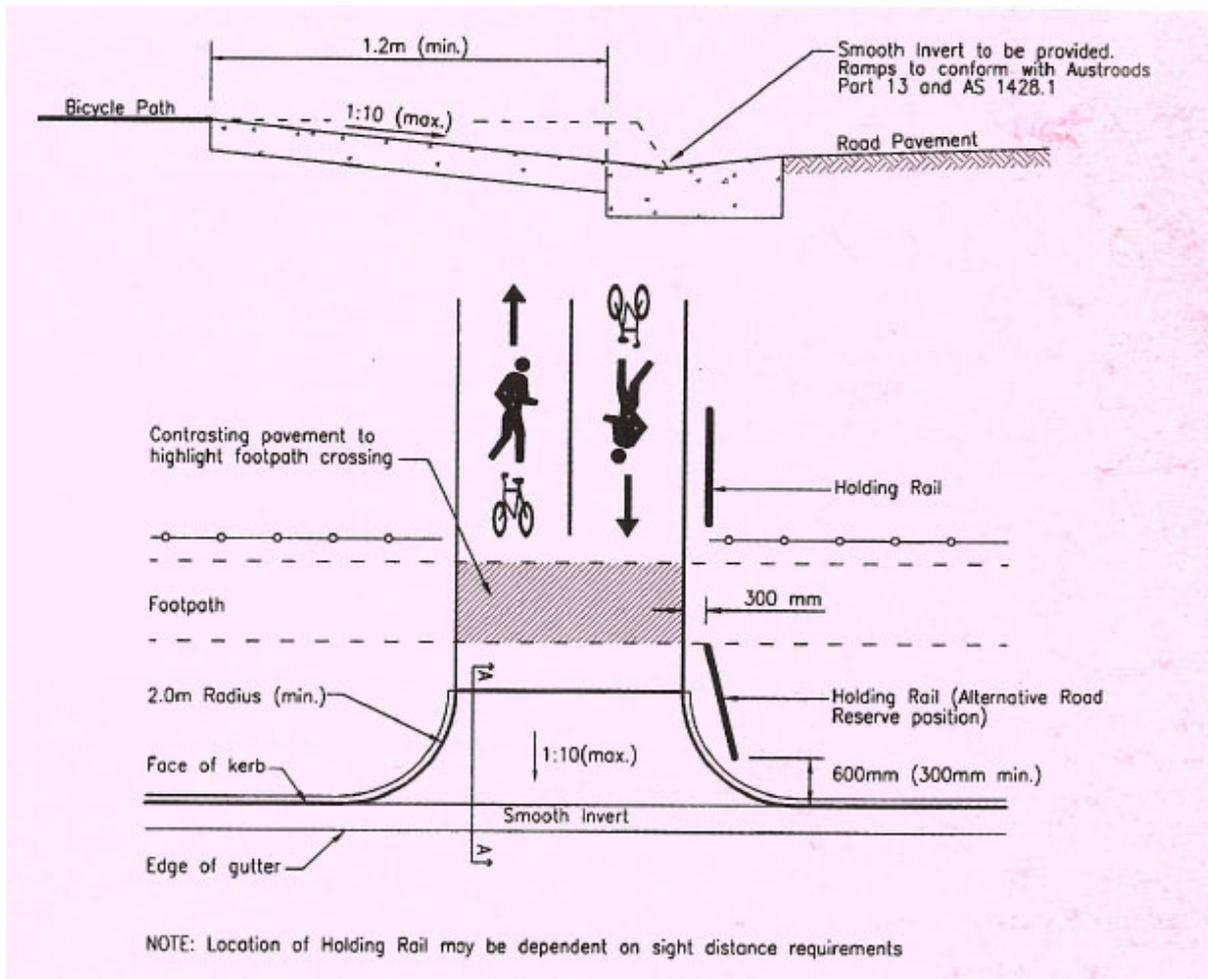
The recommended spot improvements in Wongan Hills are as follows:

- Construct bicycle-friendly connection across Fenton Street and Wongan Road, opposite Harvest Place (allowance for 20m path and 4x bicycle-friendly kerb ramps);
- Construct bicycle-friendly connection across Fenton Street and Wongan Road, opposite Quinlan Street (allowance for 21m path and 4x bicycle-friendly kerb ramps);
- Construct bicycle-friendly connection across Fenton Street and Wongan Road, opposite Wilson Street (allowance for 10m path, 4x bicycle-friendly kerb ramps and break in median);
- Affixing reflective tape (and painting) light/power poles that intrude into shared path (along Patterson St);
- Cutting back branches that overhang path (along Johnston St);
- Installing new kerb ramps where there are none (including at corner Moore St and Wongan Rd, and along Koralling Way);
- Make repairs to kerb ramp (cnr Johnston St and Reynoldson St);
- Cutting a break in a median island (in Moore St) to facilitate crossing from one path to another;
- Installing kerb ramps in the mountable kerbing in islands at intersection of Fenton St and Quinlan St and Fenton St and Wilson St;
- Affixing reflective tape to (grey) steel holding rails (various locations);
- Constructing new at-grade crossings of Fenton St and Wongan Rd to facilitate access to paths to Wongan Hills Sports Centre;
- Sweep sand from kerb ramps (various locations);
- Install new kerb ramp (on Ackland St near Wilson St); and
- Making repairs to existing holding rails (footings) at railway crossing.

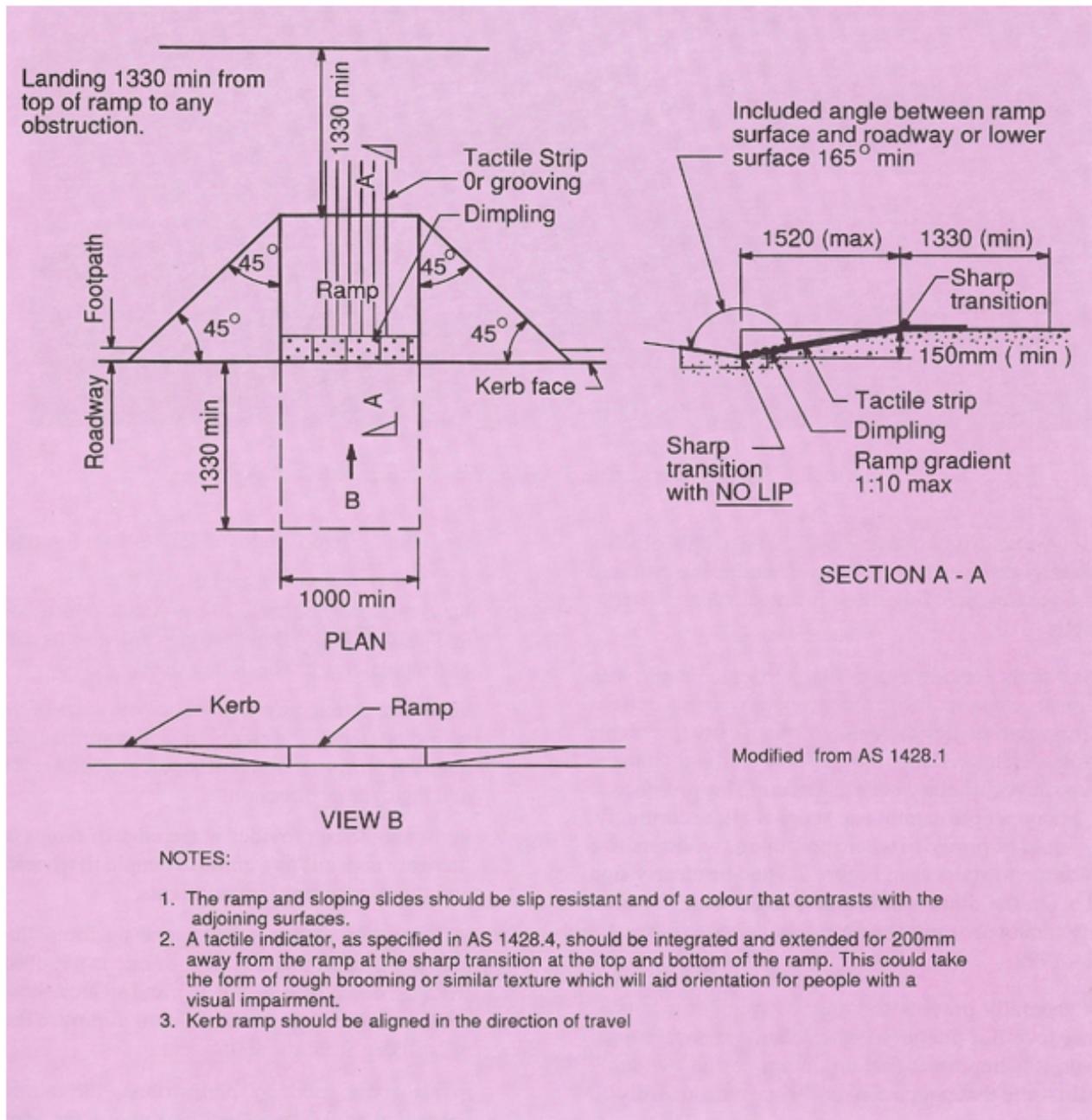
The recommended spot improvement in Ballidu is as follows:

- Installing new kerb ramp at corner Bunyip St and Fairbanks St.

The designs below are typical of ramp designs advocated by Austroads in its various publications.



Above: Austroads' kerb ramp detail for shared paths. *Source: Austroads Guidelines to Traffic Engineering Practice – Part 14, Bicycles (1999)*. Next page: Austroads' kerb ramp detail for use on pedestrian paths. *Source: Austroads Guidelines to Traffic Engineering Practice – Part 13, Pedestrians*. (Note: both documents now superseded but design remains relevant).



9.8 Bike Parking Program

The installation of bicycle parking rails at various locations around the Wongan Hills and Ballidu townsite is recommended.

As stated elsewhere in this Bike Plan, bicycle parking is a relatively low cost item that can significantly enhance the cycling environment and encourage more people to opt for a bicycle for a short trip within towns such as Wongan Hills and Ballidu.



Bike parking rails need not be plain and simple: they can be an interesting part of the streetscape. Above: In High Street, Northcote, Melbourne, sculptured bike parking rails have been installed along the street. Artistically designed bicycle parking rails would be most appropriate in any town centre. Below left: a dragonfly image on a parking rail in the Sellwood District, Portland, Oregon, USA. Below right: "Bike Vancouver" slogan used on parking rails in Robson St, downtown Vancouver, British Columbia, Canada.



10.0 Cost Estimates – Proposed New Facilities and Improvements

The following tables summarise the shared path improvements recommended for Wongan Hills and Ballidu investigated during this project. An implementation priority ranking is also suggested. These projects could be spread out over any number of years, in the order recommended. The prioritisation of the projects should be determined each year by staff and will be dependent on available resources, funding opportunities and how they link with other shire projects (or projects being undertaken by developers), etc.

New Paths – Wongan Hills (see Plan 2)						
Priority	Street	From	To	Works Required	Length	Cost*
1	Wandoo Cr	Johnston St	Wilding St	Construct new concrete shared path	200m	35,000
1	Wandoo Cr	Wilding St	Reynoldson St	Construct new concrete shared path	90m	15,750
2	Wandoo Cr	Reynoldson St	Nugent St	Construct new concrete shared path	220m	38,500
3	Wandoo Cr	Nugent St	Strickland St	Construct new concrete shared path	280m	49,000
3	Johnston St	Parker St	to school	Construct new concrete shared path	190m	33,250
4	Wandoo Cr	Strickland St	Fenton St	Construct new concrete shared path	215m	37,625
4	Wilding St	Wandoo C	Johnston St	Construct new concrete shared path	145m	25,375
5	Parker St	Johnston St	Quinlan St	Construct new concrete shared path	195m	34,125
5	Strickland St	Wandoo Cr	Banksia Cr	Construct new concrete shared path	95m	16,625
6	Strickland St	Banksia Cr	Patterson St	Construct new concrete shared path	95m	16,625
6	Ellis St	Quinlan St	Mitchell St	Construct new concrete shared path	245m	42,875
7	Mitchell St	Ellis St	Rogers St	Construct new concrete shared path	100m	17,500
7	Broadbent St	Camm St	Ackland St	Construct new concrete shared path	165m	28,875
8	Patterson St	Nugent St	Reynoldson St	Construct new concrete shared path	260m	45,500

9	Booth St	Shields Cr	Wandoo Cr	Construct new concrete shared path	100m	17,500
9	Ackland St	Wilson St	Mitchell St	Construct new concrete shared path	90m	15,750
10	Banksia Cr	Strickland St	Patterson St	Construct new concrete shared path	205m	35,875
10	Koralling Way	Mocardy St	Camm St	Construct new concrete shared path	85m	14,875
Total						\$520,625

- Note 1: rate for construction of path is estimated at \$175/m

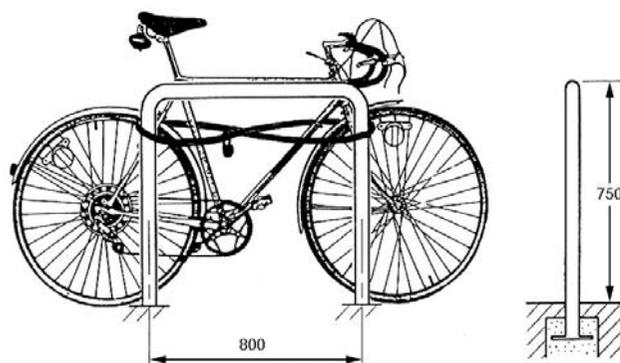
New Paths – Ballidu (see Plan 4)						
<i>Priority</i>	<i>Street</i>	<i>From</i>	<i>To</i>	<i>Works Required</i>	<i>Length</i>	<i>Cost*</i>
2	Wallis St	Alpha St	Bunyip St	Construct new concrete shared path	170m	29,750
6	Wallis St	Bunyip St	SE end of Wallis	Construct new concrete shared path	140m	24,500
9	Bunyip St	Wallis St	Fairbanks St	Construct new concrete shared path	100m	17,500
Total						\$71,750

Path Repairs and other Spot Improvements – Wongan Hills (see Plan 3)			
Priority	Location Number	Location and Recommended Works	Cost
1	1	Construct bicycle-friendly connection across Fenton Street and Wongan Road, opposite Harvest Place (allowance for 20m path and 4x bicycle-friendly kerb ramps)	5,900
1	2	Construct bicycle-friendly connection across Fenton Street and Wongan Road, opposite Quinlan Street (allowance for 21m path and 4x bicycle-friendly kerb ramps)	6,075
1	3	Construct bicycle-friendly connection across Fenton Street and Wongan Road, opposite Wilson Street (allowance for 10m path, 4x bicycle-friendly kerb ramps and break in median)	6,150
1	4	Install 2x kerb ramps and 5m path in median island of Moore Street at intersection with Camm Street	2,075
1	5	Construct kerb ramp and relocate holding rail (and add reflective tape) on west side of Wongan Road	650
1	6	Construct kerb ramp and install 5m path on east side of Wongan Road	1,475
1	7	Install kerb ramp in 'mountable kerbing', and make smooth the 10m driveway across entrance to layby (in path alongside Wongan Road)	2,600
1	8	Construct 2x kerb ramps and 4m path at proposed new crossing of Ackland Street near intersection with Wilson Street	1,900
1	9	Install 2x kerb ramps (replacing 'mountable kerbing') in median island at intersection of Fenton Street and Quinlan Street	1,400
1	10	Install 2x kerb ramps (replacing 'mountable kerbing') in median island at intersection of Fenton Street and Wilson Street	1,400
1	11	Make repairs to holding rails at railway crossing (and add reflective tape to holding rails)	300

1	12	Construct 2x kerb ramps and 1m path at corner Mocardy Street and Koralling Way	1,375
1	13	Repair holding rail at intersection of Moore Street and Wongan Road (and add reflective tape)	100
1	14	Cut back overhanging branch	50
1	15	Add reflective tape, and paint in bright colour, the power pole which intrudes into path	150
1	16	Construct kerb ramp and 1m path at corner Camm Street and Koralling Way	775
1	17	Make repairs to rough edge of kerb ramp at corner Reynoldson Street and Johnston Street	300
1	18	Paint "Give Way" (or "Stop") signs on paths at ramps on each side of road crossings	5,000
Total			\$37,675

Path Repairs and other Spot Improvements – Ballidu (see Plan 3)			
<i>Priority</i>	<i>Location Number</i>	<i>Location and Recommended Works</i>	<i>Cost</i>
1	1	Installing new kerb ramp at corner Bunyip St and Fairbanks St	600
1	2	Paint "Give Way" (or "Stop") signs on paths at ramps on each side of road crossings	2,000
Total			\$2,600

Bike Parking in Wongan Hills and Ballidu				
Priority				
1	32 bicycle parking rails (see section 11.0 for locations)	\$500 ea	16,000	
			<i>Total</i>	\$16,000



The recommended (and Australian Standard approved) bicycle parking facility is the simple but effective "hitching rail" or "U-rail", as illustrated in this diagram.



The standard bicycle parking U-rail – this example is on Albany Highway in East Victoria Park. There are several locations in Wongan Hills and a few in Ballidu where parking rails should be installed.



Installation of smooth kerb ramps in the mountable kerbing in the median islands will benefit people pushing prams and in gophers.



Minor repairs to the shared path near The Station and the installation of a kerb ramp will benefit all path users.



Regular maintenance of paths is required to ensure such things as overhanging branches do not constitute a hazard for path users.



Kerb ramps, and short sections of new path, are required in some locations to ensure a smooth transition from path to road surface.



This Bike Plan identifies several locations where improved access across Fenton St and Wongan St are required to provide better connectivity.



There are several locations where a break in the median island (complete with kerb ramps and path) is required.

10.1 Summary of Costs

The following table is a summary of the likely costs involved in the implementation of the projects recommended in this Bike Plan:

<i>Costs Per Project (not including GST)</i>	
New Paths	\$592,375
Path Repairs and other Spot Improvements	\$40,275
Bike Parking (Wongan Hills and Ballidu)	\$16,000
Bike Parking (Wongan Hills District High School)	\$12,000
<i>Total</i>	\$660,650

10.2 Implementation Schedule

The following table sets out a suggested budgeting program, assuming a 10-year program, for the projects recommended in this Bike Plan:

Priority 1 Projects (ie. Year 1)	\$115,025
Priority 2 Projects (ie. Year 2)	\$68,250
Priority 3 Projects (ie. Year 3)	\$82,250
Priority 4 Projects (ie. Year 4)	\$63,000
Priority 5 Projects (ie. Year 5)	\$50,750
Priority 6 Projects (ie. Year 6)	\$84,000
Priority 7 Projects (ie. Year 7)	\$46,375
Priority 8 Projects (ie. Year 8)	\$45,500
Priority 9 Projects (ie. Year 9)	\$50,750
Priority 10 Projects (ie. Year 10)	\$50,750
<i>Total</i>	\$660,650

11.0 Bicycle Parking

11.1 The Existing Situation

Research indicates that the lack of secure bicycle parking facilities at the destination deters many 'would-be' cyclists from making some trips by bicycle. In towns such as Wongan Hills and Ballidu, one of the most effective and low cost improvements to the cycling environment is the provision of bicycle parking. However, the bike parking facilities must be appropriately located, and of a suitable design. All too often local government staff bemoan the fact that bicycle parking is not used – without realising that the facility provided may be a poor design, and probably not located where cyclists want it.

Good, secure bicycle parking encourages bicycle use.

Cyclists' needs for bicycle parking range from simply a convenient piece of street furniture, to storage in a bicycle locker that affords weather, theft and vandalism protection, gear storage space, and 24-hour personal access. Where a cyclists' need falls in this range is determined by several factors:

- Type of trip being made: whether or not the bicycle will be left unattended all day or just for a few minutes.
- Weather conditions: covered bicycle parking is more important during winter.
- Value of the bicycle: the more a cyclist has invested in a bicycle, the more the concern the cyclist will show for theft protection.

Bicycle parking facilities were observed at only 4 locations within Wongan Hills – at the District High School, outside the newsagency on Fenton Street, outside the video store on Fenton Street and at the swimming pool.

The preferred style of bicycle parking facility for casual use is a simple rail bent from steel pipe (ie. an inverted "U" shape – see illustration on page 48). This style of bicycle parking rail allows use of all common types of locks. Because the parking rail supports the frame of the bicycle, there is no risk of damage to the wheels.

To encourage additional local trips to be made by bicycle, the installation of parking rails at numerous destinations within the commercial area, sporting venues and other community facilities is recommended.

The following list provides an indication of where bicycle parking facilities should be provided within Wongan Hills and Ballidu.

11.2 Bicycle Parking Locations in Wongan Hills

	<i>Place</i>	<i>Parking Required</i>
1	Medical Centre (Mitchell St)	2
2	Wongan Hills Sports Centre	10
3	Christmas Rock Walk Trail Trailhead	1
4	Tourist Centre	2
5	Arts Centre	1

6	Library/Resource Centre	2
7	Community Park	2
8	IGA	2
9	Pharmacy/café complex	1
10	Bakery/café	1
11	Post Office	1
12	Shire Administration Offices	1
13	Fenton St, between Quinlan and Harvest	1
Total		27

11.3 Bicycle Parking Locations in Ballidu

	Place	Parking Required
1	Ballidu Hall	1
2	Ballidu Trading Post	1
3	War Memorial	1
4	Alpha Park	2
Total		5

11.4 Bicycle Parking at Wongan Hills District High School

Improved bicycle parking at the District High School will, it is expected, encourage more students to cycle to school.

In recent years the Department of Transport has provided grants to schools specifically for improving end of trip facilities, notably bike parking facilities on school grounds.

As indicated earlier, the Connecting Schools Grant (which provides funding for projects such as bike parking) is likely to continue beyond the current funding round (NB. Applications for funding close on 30 November 2015 – see Appendix 4 for details).

An allowance of \$12,000 has been made to cover the acquisition of a shelter with as many as 20 parking rails.

	Place	Parking Required
1	Bike parking rails at Wongan Hills District High School	~ 20
Allowance		\$12,000

11.5 Bicycle Parking Costs

In addition to the bike parking requirements at the District High School in Wongan Hills, an additional 32 bicycle parking racks (at approx. \$500 each, installed) have been recommended. This is an estimated cost of \$16,000

Should it be preferred, parking rails of a more artistic design could be designed and installed. These may be more expensive, but could be produced locally (and could be sponsored by local businesses).

The existing sets of bicycle parking rails on Fenton St have an image of a cyclist on a penny-farthing – something that is innovative and eye-catching.

A very innovative style of bicycle parking can be observed outside the Five Roads Café in Calingiri (see photo below).

Should a local manufacturer be involved in the design of the new bicycle parking rails, it is recommended that an image easily identifiable with Wongan-Ballidu be used.



A local metal fabricator has created this very innovative bike parking facility which is located outside the Five Roads Café in Calingiri. 'One-off' installations, as long as they provide the necessary support for the bicycle frame and places for bike locks to be affixed, would be ideal for several situations around Wongan Hills and Ballidu.

12.0 Complementary Programs

12.1 Objectives

Engineering improvements are just one of a range of factors which affect the propensity of people to cycle within Wongan Hills and Ballidu.

Experience from other cities and towns around the world indicate that there are a number of other initiatives that have a significant impact on the cycling environment. These initiatives include:

- **Encouragement** factors – such as: web pages on cycling; Council staff setting an example; end of trip facilities (such as showers and change rooms, as well as parking); promotional brochures; production of local bike map for residents.
- **Enforcement** factors – such as: ensuring errant motorists and cyclists receive due attention; reinforcing courteous behaviour between all modes of transport within the town.
- **Education** factors – such as: ensuring cyclists and non-cyclists are well informed about the extent of the cycling network; the position of end-of-trip facilities (parking, showers, etc) through such means as promotional brochures; informing cyclists, motorists and pedestrians of their rights and responsibilities; child and adult bicycle use education (techniques; rules and responsibilities).

Many of the initiatives that could be developed in the encouragement, enforcement and education elements of a Bike Plan can have just as dramatic effect on bicycle user levels and safety as can the development of a path network or on-road improvements.

Many of the current deterrents to cycling will be removed as a result of remedial action recommended within the Engineering Works Program. The actions set out in this section also will remove some of the current 'behavioural' barriers and deterrents to cycling.

This section identifies programs which complement the facility-oriented components of this Bike Plan. These programs help to increase awareness of cycling facilities and opportunities, encourage people to travel by bicycle rather than drive, and improve safety through cyclists and motorist education.

12.2 Education Strategy

Aim: promote safe behaviour and use of all bicycle facilities and activities in the Shire.

Education programs inform and educate both cyclists and motorists as to how to safely share the road. Education programs also help to create an environment where motorists and cyclists mutually respect the rights of each other, and ensure that cyclists are aware of their responsibilities.

Education can promote safe behaviour regarding the use of bicycle facilities. It can concentrate on teaching children to cycle safely by ensuring they know and practice the road rules and etiquette for using shared use paths. It can also target adults with similar information as well as educate other road users about sharing the road with cyclists.

An issue often raised is the need to educate motorists to share the road with cyclists. Motorists need to be educated that cyclists have a right to be on the road and that they need to treat them with respect and practice safe user behaviour towards cyclists. Similarly it is important for cyclists to obey the road rules and practise safe riding practices.

Education plays an important role in ensuring that cycling is safe and enjoyable for all users whether it is on or off road. Below is a list of focus areas for the Education Strategy aspect of this Bike Plan:

- educate and promote to schools (students, teachers and parents) on safe walking/cycling practices and the benefits of walking/cycling to school;
- educate parents on being role models for children with a focus on helmet wearing and safe bicycle practice;
- educate drivers to be aware of pedestrian and cyclist needs and behaviours;
- educate pedestrians and cyclists to be more aware of vehicles and be more 'defensive' in their actions; and
- educate users on safe use of shared bicycle and walking facilities.

The highest priority for education is school students. They are a vulnerable user group but also have the potential to walk and cycle more than they do at present. Despite this, educational resources still need to target and reach all residents and visitors to Wongan Hills and Ballidu.

There are a number of cycling related brochures and fact sheets published by Bikewest (Department of Transport) that could be promoted in the Shire of Wongan-Ballidu as follows:

- Choosing a Bike and Accessories
- Cycling for Health, Pleasure or to Work
- Cycling on Roads and Shared paths
- Basic Bicycle Maintenance
- Cycling for all Ages
- Cycling and the Law
- Shopping by Bike
- Walking Safely on Shared Paths
- Riding Safely on Shared Paths
- Bicycle skills for children – home activity sheets
- Set your children on the right path – a guide to promoting walking and cycling to school
- Cycling has many benefits for seniors
- Riding to work is a great option
- Treat pedestrians with care and avoid problems
- Teaching a child to ride should be done in steps
- Motorists and cyclists can live in harmony
- Children really benefit from riding to school

The Department of Transport's "TravelSmart to School" program is an excellent initiative, encouraging schools to promote cycling and walking to school as an alternative to being driven to school in a car.

The "TravelSmart to School" initiative involves surveying all students on the way in which they travel to school (the "Hands Up" Travel Survey). It also includes undertaking a detailed audit of the roads and paths around a school, with students, parents and teachers participating.

Information is available at tsts.com.au

Actions

The following actions are proposed for education of cyclists and pedestrians.

Strategy 1	Educate the local community and other users of walk and cycle facilities regarding responsible and safe behaviour whilst walking and cycling.
Action 1.1	Provide relevant brochures and promotional material produced by Bikewest at key community information locations in Wongan Hills. The brochures should also be sent to targeted community groups in Wongan Hills and Ballidu.
Action 1.2	Send relevant brochures and promotional material to the District High School to reinforce and promote walk and cycle safe and responsible behaviour.
Action 1.3	Incorporate education material on road rules, sharing pathways and sharing the road on any path map (showing existing facilities) for the town. This information could also be included on Council's web site.
Action 1.4	Investigate and implement a '100% Helmet Wearing' campaign at the school.
Action 1.5	Develop a specific education program targeted at safety and awareness of pedestrians and cyclists. This should be developed in association with relevant state government and community groups.
Action 1.6	Participate in the TravelSmart to School program, as set out in the Department of Transport's Active Transport web site (see http://www.transport.wa.gov.au/activetransport/24611.asp)
Action 1.7	Involve the school in a "Hands Up" Travel Survey, and audit of paths/roads surrounding the school (see tsts.com.au)

12.3 Enforcement Strategy

Aim: to provide support to the education strategies and actions.

Enforcement programs help to ensure that the rules of the road are followed by both cyclists and motorists. Enforcement programs should only be employed following widespread implementation of awareness, encouragement and particularly education programs.

Enforcement can be used to support the education strategies so that the need for safe behaviour can be reinforced if necessary. Enforcement should generally only be used in locations where there are significant conflicts and safety concerns.

Enforcement encourages responsible cyclist, pedestrian and motorist behaviour as well as reinforcing education programs. Enforcement is primarily the responsibility of the WA Police Service. There is a need to occasionally reinforce the rules. For example, helmet wearing is something that could be reinforced to improve safety in the Shire.

The Australian Road Rules require all cyclists to wear a helmet. Increased enforcement of helmet wearing can be balanced with campaigns on increased awareness and education of the safety benefits of helmet wearing, as discussed in the previous section.

Actions

The following strategies and actions are proposed:

Strategy 2	Provide a level of enforcement to ensure safety and enjoyment for users of the walk and cycle network is maintained.
Action 2.1	Consider targeted enforcement of helmet wearing and road rules for cyclists and pedestrians in Wongan Hills and Ballidu as well as motorists behaviour to cyclists sharing the road (approximately once a year).
Action 2.2	Form partnerships with the WA Police Service to undertake enforcement programs related to pedestrians and cyclists in Wongan Hills and Ballidu.

12.4 Encouragement Strategy

Aim: to effectively market, promote and raise awareness of the bicycle facilities and programs available to everyone within the Shire.

Encouragement is essentially the marketing of cycling (and walking). Council should be marketing all of the services it provides to residents and visitors, including walking and cycling facilities. People need to know where facilities are located to be able to use them. Encouragement can also raise awareness about the economic, social, environment and health benefits of walking and cycling. Such programs can encourage additional tourists to the area therefore also contributing to the economy of the Shire.

Within the Shire there are four main target groups for marketing and encouragement:

- school students as a particular user group which has potential to walk and cycle more;
- elderly residents as a significant and growing proportion of the population who have the potential to walk and cycle more due to time and inclination;
- general residents of Wongan Hills and Ballidu; and
- visitors to Wongan Hills and Ballidu, including tourists.

The following strategies are ones that could be suitable for implementation in the Shire of Wongan-Ballidu. The goal is to promote the benefits of cycling (and walking) by providing information on existing walk and cycle facilities in Wongan Hills and Ballidu and undertaking community events which encourage people to walk and cycle (e.g. Bike Week or Fun Runs):

- production and distribution of a walk and cycle facilities map to residents and tourists in Wongan Hills. The map should promote the extensive path network through the town as well as provide information on places of interest for visitors to the area e.g. the *Wongan Hills Heritage Walk Trail*. Clear designation of circuits (by use of colour coding) works well.
- involvement in Bike Week in the Shire (including events in Wongan Hills and Ballidu). This event could include organised activities such as:
 - Ride2Work Day with a free breakfast for participants;
 - Cycle to School Day (usually in March);
 - recreational rides on the weekend;
 - corporate and school challenges to cycle; continuation of the *Bike it to Ballidu* event; and
 - organised talks or workshops such as bicycle maintenance clinics, etc.;

National Ride2Work Day is the largest celebration of commuter riding in Australia. Held annually in October, the day celebrates the benefits of riding to work and brings together the communities that support it.

The main objective of the day is to normalise the idea of riding to work and encourage more Australians to ride to work on a regular basis. It encourages people who have never ridden to work before to give it a go, and it allows frequent riders to stay motivated and encourage their workmates to get involved. National Ride2Work Day 2015 was held on Wednesday 14th October.

Actions

The following strategies and actions are proposed:

Strategy 3	Encourage and promote increased walking and cycling by delivering targeted encouragement programs. These programs should coordinate with existing marketing and community programs already delivered by Council and other agencies.
Action 3.1	Obtain and distribute to the community, cycling publications, brochures and booklets from cycling organisations, in Western Australia and other states, which will promote cycling more effectively. Collate and distribute existing walk and cycle facilities map (ie. a Bike Map) to residents and tourists in Wongan Hills and Ballidu. The maps should include information on rules, destinations, cycle circuits and trails and places of interest. The map should also be made available on Council's web site. The map should be distributed to residents via the rates notices and be available at various outlets within Wongan Hills as well as be distributed to targeted community groups (e.g. senior citizen clubs, schools, etc). Council should also investigate opportunities for advertising by local businesses on the map to assist with the costs of production. Information boards at key locations in the Shire could also include these maps.
Action 3.2	Organise and publicise major cycling events and cycling activities during the annual Bike Week (organised by the Department of Transport), as a means of encouraging non-cyclists to experience cycling, and as a means of rewarding those who currently ride a bike. A "Bike to Breakfast" would be appropriate. Council's role could be to assist with financial or human resources to organise the events. (Bike Week 2016 is 12-20 March).
Action 3.3	Council to continue to arrange and promote the <i>Bike It to Ballidu</i> ride.
Action 3.4	Promote the "Wongan Hills Heritage Walk Trail" as a circuit for fitness purposes.
Action 3.5	Implement a program for the progressive installation of bicycle parking rails at the locations listed in the Bike Plan to encourage users to cycle to the shops and public reserves and to provide added security to parked bicycles.
Action 3.6	Following installation of the bicycle parking rails (as recommended in this Bike Plan), prepare and distribute a promotional brochure/leaflet illustrating the location of all these bicycle parking facilities.
Action 3.7	Arrange for a local service club (ie. Rotary, Lions, Apex) to conduct bike engraving days, to greatly enhance the chances of recovery of a stolen bike.
Action 3.8	Participate in the National Ride2Work Day 2016 (and into the future)
Action 3.9	Develop a BMX track to encourage more youths to use bikes in a controlled situation – an area where they can develop bike skills.

13.0 Provision of Bicycle Facilities by Developers

13.1 Introduction

The Western Australian Planning Commission's *Development Control Policy 1.5 Bicycle Planning* (July 1998) sets out a range of matters relating to the provision of facilities for cyclists by developers of land.

This policy describes the planning considerations that should be taken into account in order to improve the safety and convenience of cycling. The objectives of DC Policy 1.5 are:

- To make cycling safer and more convenient through the provision of end-of-trip facilities and by the provision of better cycle route networks.
- To ensure that the needs of cyclists, are recognised and provided for by planning and road construction authorities.
- To encourage more work, school and shopping trips to be made by bicycle through the provision of more (and better) cycling facilities.
- To increase the general awareness of the benefits of cycling.
- To ensure adequate consideration is given to the provision of cycling facilities in planning studies and in the implementation of statutory planning controls.

Paragraph 3.2, dealing with Cycling Facilities in New Subdivisions, sets out the responsibilities of developers/subdividers in providing for an appropriate cycling (and walking) network. The details of that paragraph are set out on the following page.

13.2 Bicycle Parking Provisions in Town Planning Schemes

It is now common practice for local governments to include provisions within their Town Planning Schemes requiring the supply of parking for cyclists in much the same way as on-site car parking is required. Long term bicycle parking facilities should be designed in accordance with the requirements of Australian Standard AS2890.3.

The provision of appropriate bicycle facilities through the imposition of development conditions dealing with such matters as the type, number and location of bicycle parking facilities, and the installation of showers and change rooms is supported for locations such as: shopping centres, factories, offices, educational establishments, sport, leisure and entertainment centres, health centres and hospitals, libraries and other public buildings, major places of employment, parks, recreation venues and tourist attractions.

The Shire of Wongan-Ballidu can ensure the provision of cycling facilities (such as paths and bicycle parking) through conditions of approval applied to development applications and subdivision proposals.

3.2 Cycling Facilities in New Subdivisions

3.2.1 Account should be taken of the Residential Road Planning Policy (DC 2.6) to ensure that most roads within the residential cell or precinct are safe for cyclists and pedestrians.

3.2.2 In the planning of a new subdivision, two fundamental issues relevant to cycling need to be considered:

- the provision of safe cycle routes to and through the subdivision (i.e. accessibility to facilities outside the subdivision such as regional recreation centres, suburban shopping centres, public transport stations, employment centres); and
- provision of safe cycling conditions within the new subdivision itself (i.e. local area bicycle movements to schools, shops, local parks and other community facilities).

3.2.3 Cyclists should be encouraged to use routes other than busy distributor roads by the adequate provision of suitable alternative routes which are both direct and continuous as they pass from one residential cell to another.

As district and local distributors will often be used by adult and secondary school age cyclists regardless of the provision of dual-use paths, they should be designed to accommodate cyclists.

3.2.4 The following matters should be taken into account in subdivision design:

- Where regional or local bike plans have been prepared, the proposals of the bike plans should be incorporated into the design.
- Within a new subdivision (particularly in residential areas) the emphasis should be on on-road facilities linked by segregated paths where necessary to ensure continuity of the cycle route system.
- Segregated dual-use paths or cyclepaths may be required along one side of district distributor roads, providing access to bus stops, grade separated crossings, or regional community facilities. Use could be made of the carriageway of subdivisional roads which run parallel with the district distributor.
- Segregated dual-use paths or cyclepaths may be required along one side of those local distributor roads without frontage access, where strong demand exists such as near schools and shops where inexperienced/novice cyclists may be expected. These paths should form part of an overall cycle route network.
- Subdivision design should provide for bicycle access along river and coastal foreshores, and across artificial obstacles such as major roads, and other transport facilities.
- Dual-use paths or cyclepaths (utilising well-designed public access ways or other reservations) between culs-de-sac heads, and between long sections of parallel roads, provide an important element of the network.

3.2.5 A cycle route network plan for a residential precinct should be based on the principles set out in Figure 1, which depicts the ideal provision of on-road and off-road facilities in a new subdivision.

Source: Western Australian Planning Commission's Development Control Policy 1.5 Bicycle Planning (July 1998)

14.0 Maintenance Issues

The goals of a Maintenance Plan are to:

1. Ensure that cyclists using shared pathways (and roads) continue to experience safe and enjoyable conditions;
2. Guard against the deterioration of infrastructure, thereby maintaining the investment made in the pathways (and on-road facilities) on behalf of the community;
3. Minimise exposure to potential public liability claims arising from incidents which may occur at the site; and
4. Set in place a management process to cover most foreseeable risks.

Regular inspection of pathways is required. In particular, close inspection of the pathway surface will determine locations where remedial action is required to eliminate dangerous conditions. Sweeping sand and debris off paths and ramps, replacing broken (and missing) pavers and repairing paths as required, pruning overhanging vegetation, and repairing damage to signage are likely to be among the primary maintenance activities.

Council staff should keep clear records of each activity/inspection.

In general, the optimum maintenance regime is based upon regular inspections, at which time simple maintenance activities should take place. The capacity to respond immediately to random incoming reports of hazards or major infrastructure failures is required.

General Maintenance Activities

1. Check concrete and asphalt surfacing of paths for erosion (or other) damage (such as potholes) and arrange repairs or sweeping if necessary - Two-monthly (or when required)
2. Check concrete and brick paved surfaces of paths for breakages and arrange repairs if necessary - Two-monthly (or when required)
3. Check and prune overhanging or intruding vegetation - Quarterly
4. Check, repair or replace all signage, and directional signage – Quarterly

In urban areas, it has been practice in some local governments (here in WA and elsewhere in the world) for a "Hazard Report Form" to be made available at various locations within the local government area (or electronically, via the internet), for cyclists (and/or pedestrians) to complete and submit to Council for action. See dpi.wa.gov.au/cycling/2345.asp for an example of the system currently operating in Western Australia. It is recommended that the Shire of Wongan-Ballidu adopt a similar system, and create a web-based hazard reporting system.

Appendix 1 - Funding Opportunities

The major funding opportunity that will assist the implementation of the Shire of Wongan-Ballidu Bike Plan is the Department of Transport's Regional Bicycle Network fund.

Regional Bicycle Network Grants Program (2016 - 2017 and 2017 -2018)

The opportunity for up to two-years of funding for bicycle planning or infrastructure projects is available from the Department of Transport. The grants program is the mechanism to plan and implement bicycle infrastructure projects in regional towns.

There are some changes to the structure of the grants program from 2015 onwards to "improve efficiency of assessment and the quality of the projects implemented".

1. Removal of end of trip and innovative category – just a bike plan, and an infrastructure category remain.
2. A one-page short form proposal is to be submitted rather than detailed plans. Bike plans will be considered and recommended on the basis of the one-page proposal. Infrastructure submissions will be shortlisted based on their compliance with objectives of the WABN, and detailed submissions will be assessed according to specific criteria.
3. Up to three infrastructure short form submissions can be made per Council, but only one will be shortlisted if at all (the shortlisted projects will be discussed with the applicant) and considered in the detailed assessment.
4. For regional infrastructure projects the minimum project cost for applications is:
 - a) \$200k and grant requested amount of \$100k (for cities and large centres in the regions)
 - b) \$100k and grant requested amount of \$50k for medium towns (2000 – 10,000 people)
 - c) \$60k and grant requested amount of \$30k for small towns
5. Bike plans applications are not expected to be considered if less than \$30k in grant funding is requested (\$60k project cost)

The intention is to award bike plan projects by the end of 2015 to allow 18 month period to June 2017 for completion of the plan with a two-year option being available for larger local governments.

Infrastructure Applications

The purpose of infrastructure projects being sought for funding must be to promote the replacement of car trips with bike trips, with strategic destinations clearly identified.

<http://www.transport.wa.gov.au/activetransport/25728.asp>

Further Information:

Melody Lynn

Melody.Lynn@transport.wa.gov.au

Ph: 6551 6116

Connecting Schools Grant

The Connecting Schools Grant Program, administered by the WA Department of Transport, is a grant program aimed at improving bicycle access and end of trip facilities for schools. Funding is available on a matched funding basis to fund school end-of-trip facilities and innovative cycling infrastructure projects. To be eligible for the grant, schools must also engage complementary behaviour change techniques, through the TravelSmart to School program, to facilitate increasing cycling to school. Program is likely to continue beyond the current year (with applications being required by COB 30 November 2015).

See details in Appendix 4.

Further Information:

Melody Lynn

Melody.Lynn@transport.wa.gov.au

Ph: 6551 6116

Appendix 2: References

Austrroads **Guide to Traffic Management**

Austrroads **Guide to Road Design**

Bauman, A. (1999), **Physical Activity Levels of Australians. Results of the 'Active Australia' Baseline Survey** Australian Sports Commission, Canberra ACT, November 1997)

Bikewest **Local Government Bicycle Plans – Guidelines for Preparing Bicycle Plans** (December 2008)

Bikewest **Shared Path Guidelines**

Bikewest **Signage, Pavement and Linemarking Guidelines**

Bull, F., Milligan, R., Rosenberg, M., and MacGowan, H. (2000) **Physical Activity Levels of Western Australian Adults 1999** (Published by the Health Department of Western Australia and the Sport and Recreation Way2Go, Western Australian Government, Perth: Western Australia).

Cycling Promotion Fund and Heart Foundation **Active Travel to School 2012 Survey Findings**

Department of Transport **Western Australia Bicycle Network Plan 2012 – 2021** (Draft for Consultation)

Main Roads WA **MRWA Policy for Cycling Infrastructure**, (Main Roads WA. Doc 37/09/01, 2000)

Proceedings of the 28th ACHPER International Conference, Melbourne 2013, **Trends in different contexts of physical activity among South Australian school children between 1985 and 2013** (Verity Booth, Alex Rowlands and James Dollman, School of Health Sciences, University of South Australia)

Strategic Services – South Australian Tourism Commission **Cycling Tourism – A Background Research Paper** (June 1999)

Transport WA **Bike Ahead: Bicycle Strategy for the 21st Century** (1996 Department of Transport, Western Australian Government, Perth Western Australia)

Transport WA **Perth Bicycle Network Plan** (1996 Department of Transport, Western Australian Government, Perth Western Australia)

Transport WA **Bicycle Directional Signage Guideline** (1996 Department of Transport, Western Australian Government, Perth Western Australia, 2001-04-23)

Appendix 3: Survey of Residents – Summary of Responses

Q1: What prevents you from cycling more often in Wongan Hills or Ballidu?

- Dogs that roam free and attack.
- No BMX track.
- Trucks and speed through town.
- No path on my street, plus inconsistent network of paths throughout the town.
- Intermittent routes of dubious quality and slope.
- Roads are narrow and uneven not safe.
- Too many trucks on the roads heading out of town that suck you in and through gravel/stones up.
- Having to wear a helmet.

Q2: Do you think the path network in Wongan Hills (and Ballidu) is adequate? If no, please give reasons.

- Yes.
- No, the footpaths are never maintained and are uneven which can easily cause falls and trips.
- No the speed of vehicles and drivers.
- No there definitely should be a path down Wandoo Cres to connect to the path down the Main Street.
- No, there is no paths on Wandoo Cres, and Manmanning Rd that most people use to walk and ride as they are the outer limits of town (in Wongan).
- I would like to see a more defined path that is consistent and safe.
- No, not all streets have a footpath and our roads are uneven.
- Pathways going out to the 5 acre blocks or heading out of town for 5 or so kilometres would be great.
- Adequate.

Q3: How do you think the path network throughout the towns could be improved?

- Could do with some washaways being fixed.
- They have been set up well.
- More paved areas which are regularly maintained.
- Make cycle dome around the sporting complex area.
- Path as many of the residential streets that current don't have footpaths, improve road crossings along Fenton place (smooth transition from road to median strip), a safe crossing for Wongan Rd to get to tourism centre and sports pavilion.
- Have a footpath in every street including roads leading out of town so we could walk or cycle even just make the road wider and have lines that vehicles can not cross.
- More pathways where there is no traffic throwing stones and gravel and driving fast on roads leading out of town.
- Adequate.

Q4: Can you nominate a street where a new shared path is needed?

- Mitchel Street.
- Broadbent St.
- Wandoo Cr, Ackland St, Mitchell St.
- Fenton Street (speed of trucks).
- Wandoo Cres.
- Wilding street, Ellis street, Hospital road going out to tip, the road to the five acres and coming back down Manmanning back to Wongan road would be a great path for walkers.
- Manmanning Rd.
- Adequate.

Q5: What would encourage you to ride a bike more often?

- Get rid of the free roaming dogs.
- Bike paths.
- Having a cycle dome.
- Consistent surface clear uninterrupted path, would use for rollerblading and biking.
- Even roads and single bike or walker lanes.
- Biking with no traffic interference , perhaps even then not having to wear a helmet if not on the actual roads, so we can have the wind in the hair feeling.
- Not having to wear a helmet.

Q6: What would you like to see done to make cycling in Wongan Hills and/or Ballidu safer and more convenient?

- Get rid of the free roaming dogs.
- Bicycle road rule teaching.
- More bike paths, bike stands in the main street.
- Have all trucks bypass around the town.
- Consistency and clearly defined routes safe for all.
- Fix the roads.
- Advertise the benefits of cycling (healthwise). It's safe and convenient already.

Q7: Can you nominate a location where an improvement is needed in the bicycle facilities in town?

- Fenton Place.
- Sporting complex.
- Road from Wongan to Ballidu.Perhaps an area through the bush that connects the town to the Avon Rd area, where school kids go through the bush to get to school from 5 acres.

Appendix 4: Connecting Schools Grant Program

Connecting Schools Grant

What is it?

- Connecting Schools is a grant program aimed at improving bicycle access and end of trip facilities for schools.
- A total of \$100,000 is available on a matched funding basis to fund school end-of-trip facilities and innovative cycling infrastructure projects.
- To be eligible for the grant, schools must also engage complementary behaviour change techniques, through the TravelSmart to School program, to facilitate increasing cycling to school

Who is eligible to apply?

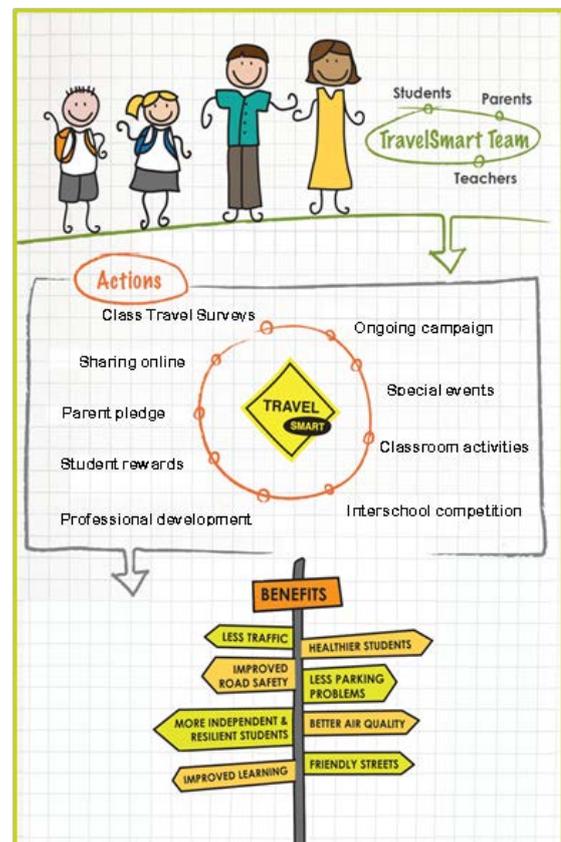
- Local governments (LGAs) are to be the applicants, with schools agreeing to the proposal. If the project is outside of school boundaries.
- Schools directly, if the project is on school property.
- The grants are on a 50:50 matched funding basis. The 50% matching funding may come from the LGA, school or any other source (except other state government sources).

What can it be used for?

- The definition of infrastructure eligible for the grant is flexible. It may include traditional infrastructure such as shared paths or on road cycle lanes; or less traditional infrastructure such as on-site bicycle parking and other end of trip facilities, way finding, or placemaking installations (see examples at travelsmart-to-school.ning.com/page/infrastructure-ideas).
- If the infrastructure is to be within school grounds, the schools are responsible for any liaison required with the Department of Education or any other third party.
- Applicants must demonstrate how the infrastructure proposed is expected to have a positive impact on the number of students cycling to school

What is TravelSmart to School?

- TravelSmart to School (TSTS) is a behaviour change program helping students become more healthy & active by increasing walking & cycling to school. Student-centred “TravelSmart Teams” are supported by a teacher or parent to foster leadership skills and achieve change.
- For a grant application to be eligible the relevant school must as a minimum:-
 - Sign up to the TSTS Online Community, www.travelsmart-to-school.ning.com (prior to grant application)
 - Have a nominated “TravelSmart Champion”, e.g. a teacher or parent, who is prepared to facilitate the school’s TravelSmart Team
 - Conduct a baseline ‘handsup survey’ (by 17 May 2013, prior to grant being approved). See travelsmart-to-school.ning.com/page/gather-information for the survey form and details
 - Agree to conduct a minimum of three TSTS actions during 2013. Example



actions include participation in one off events such as Ride to School Day or Cycle to School Day, conducting on-going campaigns such as Walk on Wednesday or Fume Free Fridays, running classroom activities. See travelsmart-to-school.ning.com/page/howto-sheets for more examples of potential actions.

- Agree to conduct further 'hands up surveys' at following milestones:-
 - End of 2013 school year
 - 3 months after infrastructure installation
 - 15 months after infrastructure installation

What are the key dates for the grant?

- Applications close 30 November 2015
- Applications will be determined as soon as possible
- Infrastructure is to be installed in the 2016/2017 financial year

Any questions?

Should you have any queries about your grant application please contact one of the following:-

<p>Queries about the grant process or about infrastructure</p>	<p>Melody Lynn Cycling Infrastructure Grants Project Officer Integrated Transport Planning 6551 6116 Melody.Lynn@transport.wa.gov.au</p>
<p>Queries about TravelSmart to School</p>	<p>Emma Jack Alliance Program Officer - State Government Alliances and Sponsorship 65516219 Emma.Jack@transport.wa.gov.au</p> <p>Zarin Salter Alliance Program Officer - State Government Alliances and Sponsorship 6551 6548 Zarin.Salter@transport.wa.gov.au</p>

Submitting your application

Please submit your application by close of business on 30 November 2015 to Melody.Lynn@transport.wa.gov.au

Appendix 5: Plans