Active Transport Plan

Central Darling Shire

2023

DOCUMENT CONTROL

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Disclaimer

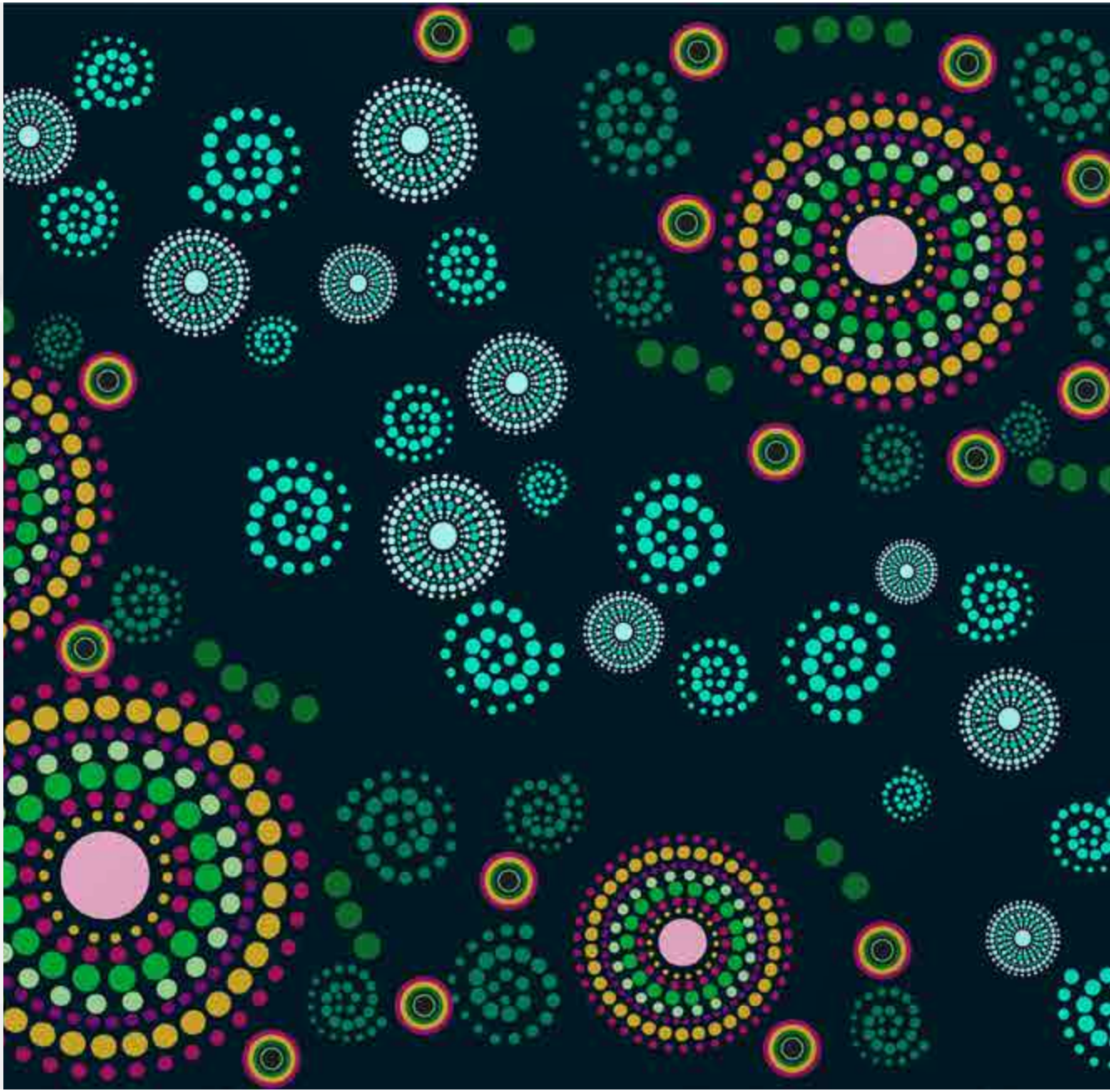
ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the traditional custodians of the Country within the Central Darling Shire and their Elders, past, present and emerging.

Aboriginal people maintain a strong belief that if we care for Country it will care for us. This requires Country to be cared for throughout the process of design and development of projects such as the Central Darling Active Transport Plan.

Many of the transport routes we use today follow the Darling River and creek systems, traditional Songlines, trade routes and ceremonial paths in Country that Aboriginal people followed for thousands of years.

A 'Connecting with Country' approach helps us all meet any statutory requirements to sustainably manage Aboriginal culture and heritage in the built environment.



CONTENTS

01

PROJECT INTRODUCTION

Central Darling Shire Council continues to direct its resources towards improving levels of service and amenity for residents and visitors.

While a major focus of Council's resources continues to be on roads, there is a need to improve the pedestrian and cycling network, otherwise referred to as Active Transport.

The Central Darling Active Transport Plan (Central Darling ATP) aims to replace the Central Darling Shire Pedestrian Access and Mobility Plan 2013 to provide for the needs of pedestrians, cyclists and personal mobility in Central Darling Shire.

The Central Darling ATP draws on the Transport for NSW Future Transport Strategy and Active Transport Strategy, both released in 2022. The aim is to make walking and cycling the preferred way to make short trips, with Transport for NSW encouraging regional councils to assist with achieving the NSW target to double the number of active transport trips within 20 years.

The Central Darling ATP identifies a range of pathway improvements and social initiatives that will enhance pedestrian and cycling opportunities. The operation of public amenities, directional signage, water points, seating, bicycle racks, streetlights and trees as well as other urban facilities that support the active transport network are also being considered.

Given there are limited funds available to improve the active transport network, the Central Darling ATP proposes targeted improvements that are assessed to have the greatest benefits and user support.

Preliminary stakeholder engagement and investigations have already commenced through surveys, workshops and meetings with various agencies, interest groups and residents. Feedback received so far provides valuable insight on active transport behaviour, attitudes and aspirations. It suggests the community is supportive of a more comprehensive and safer active transport network throughout the Central Darling Shire.

Public exhibition of the draft Central Darling ATP is the next step in the process. Following community input on the recommended actions in the Central Darling ATP and final adoption by Council, it is intended the Central Darling ATP will used by Council as a planning tool to assist with the programming of new projects.

02

THE VISION

The State Vision

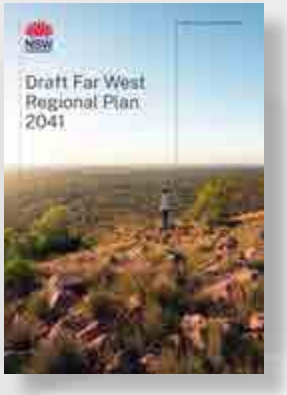
The Transport for NSW Future Transport Strategy 2022 sets out the key actions to connect communities and encourage more people to choose active transport, including:

- Delivering continuous and connected cycling networks.
- Improving the safety and comfort of people walking and riding bikes by providing fit-for-purpose active transport infrastructure and appropriate road speeds.
- Facilitating children's and young people's independent mobility by improving safe walking and bike riding options for travel to and from school.
- Supporting multimodal journeys by integrating active and public transport.
- Encouraging a shift to walking and cycling trips by delivering walking and cycling infrastructure to support mode shift.
- Supporting emerging technology choices such as e-bikes and other micro-mobility devices.

The Transport for NSW Active Transport Strategy 2022 draws on the NSW Future Transport Strategy 2022 and its vision for walking, riding and personal mobility. The NSW Government wants walking and bike riding to be the preferred way to make short trips and a viable, safe and efficient option for longer trips. The vision of the NSW Active Transport Strategy 2022 is to double active transport trips in NSW over the next 20 years by focussing on five areas:

- Enable 15-minute neighbourhoods.
- Deliver continuous and connected cycling networks.
- Provide safer and better precincts and main streets.
- Promote walking and cycling and encourage behaviour change.
- Support our partners and accelerate change.

The NSW Active Transport Strategy provides longer term ambitions accompanied by five-year priority moves to guide planning, investment and priority actions for active transport across NSW, including regional and rural areas.



The Vision for the Region

Central Darling is at the centre of the Far West Region which is the most distinctive and remote rural area in NSW.

Despite its relatively small population, the Far West economy is a significant contributor to the State economy, driven by agriculture and mining.

The Far West Regional Plan 2041 provides the NSW Government's vision for land-uses in the region. While not specifically targeting transport planning, the Far West Regional Plan 2041 aims for strong and connected communities and supports the expansion of transport networks and improved connections between centres and other regions to bolster business and industry growth.

Other recent regional planning work such as the NSW 2040 Economic Blueprint, Transport for NSW Future Transport 2056, NSW Services and Infrastructure Plan, regional economic development strategies and regional water strategies have been incorporated into the regional plan.

Central Darling Community Vision

Central Darling Shire is a unique remote area of Far West NSW. The Shire has a rich Aboriginal, natural and built heritage. World class natural assets include the Darling River, Menindee Lakes, Paroo Darling and Kinchega National Parks and the surreal landscape of White Cliffs.

The vast areas of the Central Darling Shire and the huge distances between towns present significant challenges for communities within the Central Darling Shire. Key issues underpinning the future planning, development and prosperity of Central Darling communities include roads, telecommunications, accommodation, water quality and supply, education, health and other community services.

The Central Darling Community Strategic Plan 2022-32 sets the following long-term vision for Central Darling Shire:

> *'Respecting our country, culture, people, and river by building a better future for all generations.'*

Five focus areas have been agreed upon to achieve the community's aspirations and vision for Central Darling Shire, as follows:

- Community and culture.
- Local and regional governance.
- Natural environment.
- Local economy.
- Rural and urban land use.
- Infrastructure and services.

A key priority for Council is to maintain and improve levels of service and amenity for residents and visitors while looking to expand the economic and employment base.

Town Improvement Plans have been developed by Council for Ivanhoe, Menindee, Sunset Strip, Tilpa, White Cliffs and Wilcannia. These plans provide more detailed guidance on the planning and delivery of services and infrastructure in the medium to long term. Streetscape Improvement Plans have also been prepared for the central business districts of Ivanhoe, Menindee, White Cliffs and Wilcannia. The Central Darling Shire Pedestrian Access Mobility Plan 2013 also contains a list of actions required to improve the active transport network.

Central Darling ATP Vision

Many residents within the main towns of the Central Darling Shire are already active transport participants, with many locals seen walking along streets to access services and facilities and to visit friends and family.

Unfortunately, the existing active transport network falls short of meeting user requirements in some areas, particularly around connections to attractors such as schools, health centres, youth centres, public swimming pools and Mainstreet environments.

The safety of people using the active transport network (particularly at night) is also a strong theme expressed by locals in moving forward in the future planning of the network.

The vision for the Central Darling ATP is:

> *'The active transport network connects important attractors within the main towns of the Central Darling Shire and is safe for everyone to use.'*

03

CHALLENGES + OPPORTUNITIES

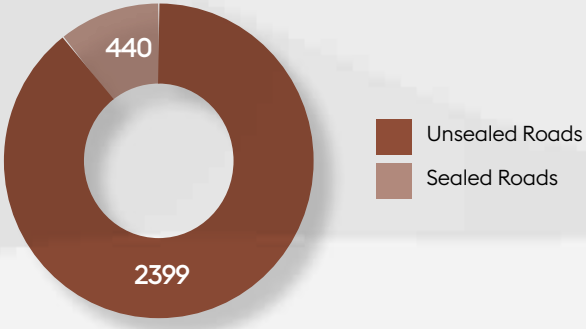
Recent Changes

A lot has changed since the adoption of the Central Darling Shire Pedestrian Access and Mobility Plan 2013, including:

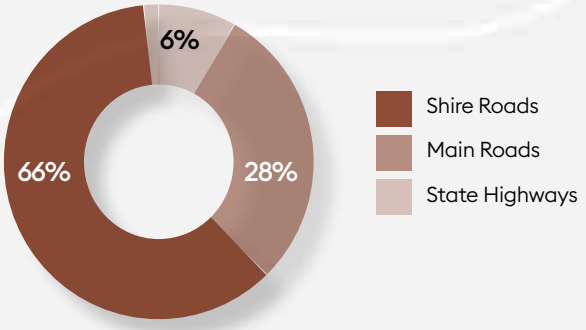
- Floods, bushfires and drought have demonstrated the need to build resilient communities and multi-modal transport systems.
- The COVID-19 pandemic has shown how quickly we can adapt and adopt new habits such as remote working and learning, different transport choices beyond motor vehicles and a rethink of housing supply and demand.
- There is more urgency around reducing greenhouse gas emissions from industry and transport, with a growing demand for electric vehicles and the NSW government making a commitment to Net Zero for transport operations by 2035.
- Connecting with Country now informs the planning, design, and delivery of built environment projects in NSW.
- The 6 Cities Region of the Greater Sydney has supplanted the Metropolis of Three Cities, and there is renewed emphasis on regional planning and development.
- The Movement and Place framework introduced in 2018 is now fully embedded in Transport for NSW policy.
- New targets for '15-minute neighbourhoods' have been adopted by Transport for NSW policy under the NSW Active Transport Strategy 2022.
- Other Important policies that support active transport infrastructure were released, including the NSW Road User Space Allocation, Providing for Walking and Cycling in Transport Projects, the Walking Space Guide and the Cycleway Design Toolbox.
- Improvements in taxi, Uber and rideshare services and public transport ticketing technology is empowering customers to be more comfortable choosing the best mode for a trip and switching between modes.
- Micro-mobility in the form of mobility scooters, e-bikes and e-scooters is growing strongly, requiring consideration of these new transport modes in the road environment.

Many of the urban streets in the Central Darling Shire were constructed at a time when footpaths and cycleways were not required. Over time, expectations have changed and new standards are required to improve the safety and comfort for all road users.

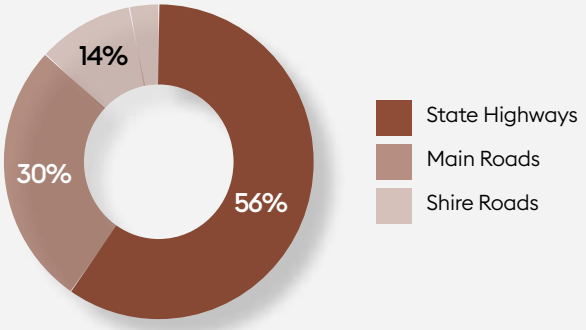
Road Lengths (km)



Unsealed Road Network



Sealed Road Network



Challenges

- The sheer size of the Central Darling Shire and the vast distances between centres.
- Extensive summer heat, with temperatures typically over 40 degrees celcius.
- Social and cultural connections and communication, with over 36% of the population being from Aboriginal or Torres Strait Islander heritage.
- Maintaining the road network is a constant challenge, with over 60% of Council's budget directed towards roads and communications.
- Health, education, animal control and crime prevention.
- Weeds and sediment movements over paths and parkland facilities.

Opportunities

- Unique and beautiful places – riparian areas, National Parks and reserves, with locals and visitors wanting to experience open freedoms and connection to Country.
- Supportive communities, with caring for Country, water management, innovation, resource sharing, health, education and transport being at the forefront of community focus.
- Building even more resilient / connected communities around health, education, sports, natural landscapes and local businesses.
- Providing active transport facilities to attractors such as to commercial precincts, schools, sports facilities and waterways.
- Using active transport initiatives to promote health, safety and environmental goals.

04

APPROACH + METHODOLOGY

Active transport users are far more attuned to the environment in which they are moving than faster moving motorists.

Planning for pedestrians and cyclists does not follow the same logic as motor traffic planning, which normally involves a 'motor vehicle' - 'trips' - 'routes' - 'traffic network'. It places more emphasis on the environment and the conditions along routes and at attractors.

An important aspect of the Central Darling ATP is to build an understanding of the elements that will make a good pedestrian and cycling network in the local context. These include an understanding of the following:

- The types of existing / potential pedestrians and cyclists and their needs.
- The condition of the existing pedestrian and cycling network (including existing paths, gaps and barriers).
- Where pedestrians and cyclists are going and why.
- The traffic environment (speed and volume) that pedestrians and cyclists must deal with.
- The most appropriate design options that meet pedestrian and cyclists needs, including standard and innovative options.
- The views and aspirations of stakeholders.
- The key planning and engineering principles that underpin an effective and usable network.
- Mechanisms to program / fund improvements to the active transport network.

The approach is to develop new active transport plans that build upon existing infrastructure and that address the key issues and aspirations identified from community consultation and audits.

To achieve this approach, the Central Darling ATP is being undertaken in the following stages:

Stage 1 - Asset Review

Central Darling Shire Council has a Combined Strategic Asset Management Plan to guide the management of its active transport assets. The main elements of the existing network of active transport facilities have been recorded on maps in the Central Darling ATP. This local data has been presented to key Council staff and Transport for NSW as the basis for reviewing the long-term management of the active transport network in Central Darling Shire.

Stage 2 - Independent Audit Investigations

Consultant planners and traffic engineers specialising in active transport planning and projects have been engaged by Council to independently investigate the existing active transport network. This audit work was undertaken by:

- Drive-through and walk-through surveys of the study area, with particular focus on settlement areas, primary routes and attractors.
- On-site meetings with community members where specific sites / issues needed to be observed / discussed.

The audits were not meant to gather a comprehensive inventory of pedestrian and cycling assets in the Central Darling Shire. The emphasis of the audits was on identifying gaps in the network as well as the barriers to people using the network.

Stage 3 - Promotion

Information about the Central Darling ATP was published on local media and Council's website and Facebook page to inform community members about the preparation of the new plan. Emails were also sent out to stakeholders known to Council who have an interest in pedestrian and cycling activities.

Stage 4 - Online Survey

An online survey was made available to assist with obtaining more information walking and cycling behaviour and attitudes.

Stage 5 - Preliminary Community Workshops

Informal community meetings and workshops were held in Ivanhoe, Menindee, Sunset Strip, Wilcannia and White Cliffs in October 2022.

These meetings were structured around a series of local area maps. Questions were asked about the pedestrian and cycling network and local conditions that led the conversation to allow for problems, solutions, suggested routes and feedback to be covered within the allocated workshop.

Throughout the meetings / workshops, the responses given had common themes which reiterated the desire for additional paths to popular destinations and routes within the community. Safety was also a recurrent theme.

Stage 6 - Local Data Review and Planning

The audits and stakeholder feedback revealed a variety of pedestrian and cycling facilities provided in Central Darling Shire, in varying conditions. Expectedly, the preliminary investigations and engagement findings identified a number of deficiencies and barriers in the network, which are discussed in Section 5 in more detail. Where these involved minor issues, they were raised with Council staff for addressing. Project planning and development issues were also discussed with relevant staff to assist with the formulation of projects and priorities in the Central Darling ATP.

Stage 7 - Draft Central Darling Active Transport Plan

A draft Central Darling ATP has been prepared (this report) to record the relevant information in one succinct strategy document. Incorporated into the Central Darling ATP are a series of maps dealing with the audit and preliminary engagement findings.

Active transport plans have been prepared for Ivanhoe, Menindee, Sunset Strip, Tilpa, White Cliffs and Wilcania to 'visualise' the additional facilities required to achieve a connected network.

A Matrix Table in Section 10 provides full visibility on how priorities and actions were decided. Concept designs of the top priority projects recommended for action are also shown in the draft Central Darling ATP along with project costings and any notes relating to project implementation.

Stage 8 - Public Exhibition

Formal public exhibition of the draft Central Darling ATP is the next step in the process. Feedback on the draft plan will then be used to develop an action plan and help finalise the plan.

Stage 9 - Review of Submissions and Finalisation of Central Darling ATP

The final task will be the review of any submissions received from public exhibition of the draft plan and recommended programme the infrastructure projects by Council. Final project cost estimates for each priority project will also be shown in the finalised ATP.

05

LOCAL CONTEXT

Central Darling Shire

Central Darling Shire, situated in the Far West Region of NSW, has an area of 53,511 square kilometres, making it the largest Local Government Area (LGA) in the NSW. The climate is semi-arid, with very hot summer periods and average rainfall around 330mm per annum.

The Shire has a population of approximately 2,000 people, living in the main settlements of Ivanhoe, Menindee, White Cliffs and Wilcannia and on pastoral properties and the smaller localities of Darnick, Mossgiel, Sunset Strip and Tilpa.

The principal economic activities within the Shire include agriculture, mining, services and retail and tourism. Pastoral grazing properties represent the largest land-use within the Shire, accounting for 97% of the entire LGA.

The Darling River and the wetlands encompassing the Menindee Lakes are major attractions in the Central Darling Shire. Other attractors are the historic town centres, national parks, White Cliffs. Health and aged care facilities, schools and other education services, transport facilities, open space and recreational facilities are also important attractors. All these attractors need to be considered in the new Central Darling ATP, and against the backdrop of infrastructure upgrades being planned in the Shire.

Travel patterns are dispersed across the Central Darling LGA, with most inter-town trips being undertaken by private vehicle or Countrylink bus service. Within towns, walking is very popular and would be on par with car trips. Use of public transport is much lower and generally limited to school bus trips and Countrylink services between towns.

Access to private vehicle transport and public transport contributes to social disadvantage and accessibility issues in some sections of the wider community. Town centres, schools, sports and recreational centres tend to have higher levels of active transport participation, particularly walking between attractors. Active transport trips between the homes of friends and relatives are also prevalent in towns.

In 2021, Central Darling Shire had a higher proportion of children and a lower proportion of persons aged 60 or older than Regional NSW. Over half of households manage on low incomes. Access to education and support services and a long-term focus on improving health and well-being are important issues to cater to the needs of existing and future residents.

Ivanhoe

Overview

Ivanhoe is located approximately 200 kilometres east of Menindee along the Cobb Highway, between the Lachlan and Darling Rivers. The town is an important service centre and railhead for the surrounding rural district, with reticulated water supply and sewerage, railway station, Ivanhoe Central School, Ivanhoe Hospital, community hall, police station, general store / café and post office, hotel, RSL, youth centre, 'homebase' childcare centre, service stations, caravan park, motel, tennis courts, parks and sportsground. Around 200 people currently live in Ivanhoe. The Ivanhoe Heritage Trail provides a brief snapshot of the town's history and an introduction to the Outback experience.

Preliminary consultation and audit findings

The audit and consultation work in Ivanhoe revealed a relatively extensive footpath network in fair to good condition and a less extensive shared path network in good condition.

A number of opportunities and constraints (deficiencies, gaps and barriers) were identified in the Ivanhoe active transport network, which are discussed in this section.

A map summarising the audit / consultation findings of the Ivanhoe investigations is also presented.

Footpaths

The blue lines on the map show the existing network of concrete footpaths in Ivanhoe. There is a general need to extend footpaths to connect to the Ivanhoe Sportsground and Ivanhoe Hospital. There is also a need to review road crossing points to ensure paths join to the edge of the bitumen sealed carriageway and provide a continuous all-weather pathway.

Shared Paths

There are no shared paths in Ivanhoe. All community members consulted are supportive of more shared paths.

Kerb Ramps

There are kerb ramps along constructed footpaths with varying levels of compliance. There is a need to fix some kerb ramps along existing paths to ensure compliance. New kerb ramps should form part of any new footpath / shared path treatments.

School Zones

Ivanhoe Central School has an established school zone and there are existing footpaths along some adjoining streets. There is a need to extend the footpath / shared path network around the Cook Street side of the school. There is a need for lighting of the crossing at Columbus Street.

Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in Ivanhoe, nor are they warranted at this stage.

Road crossings

The Columbus Street crossing in front of the Ivanhoe Central School needs to be upgraded.

Barriers

No major barriers observed.

Obstacles

No major obstacles observed.

Trip hazards

Some kerb ramps and grassed footpaths where drainage has created washouts and erosion present as trip hazards. Provision of concrete footpaths and new kerb ramps along main walkways would help address potential trips and falls.

Lighting

No major issues were raised / noted, other than the Columbus Street crossing in front of the Ivanhoe Central School needs to be upgraded.

Tactile indicators

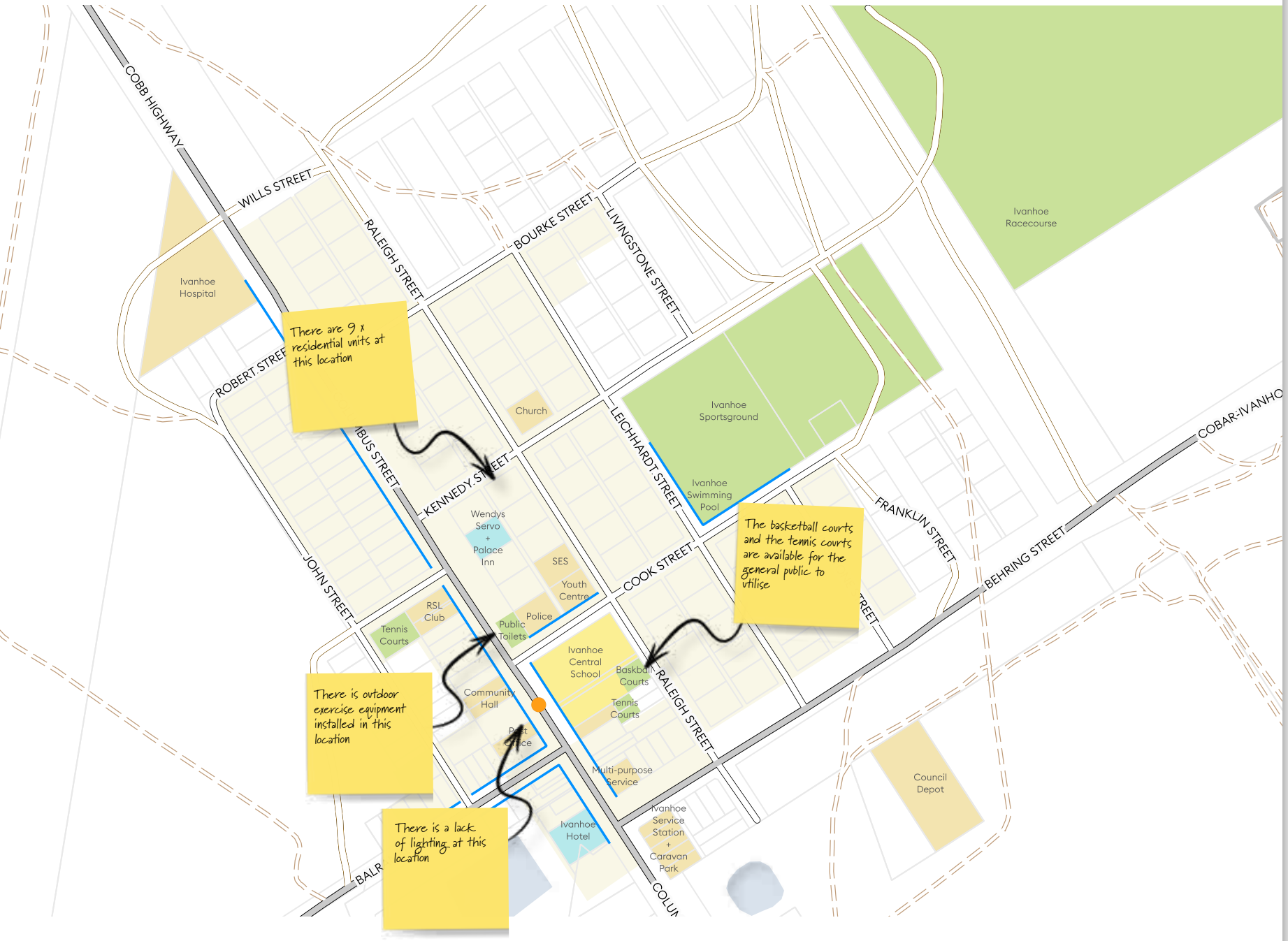
Generally absent in Ivanhoe and not required at this stage.

End of trip facilities

There is a rotunda, exercise station and public toilets situated near the police station in Columbus Street which provides end of trip facilities.

Signage

Generally absent at main visitor attractors.



Community Comments

Footpaths in Ivanhoe are too rough and existing kerb ramps generally present a problem for accessibility when walking and cycling around town.

Consider the Gaol track owned by Tronox Mine when planning the new active transport network.

Project

Central Darling Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

Ivanhoe

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Existing Footpath
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 m

Menindee

Overview

Located on the banks of the Darling River, Menindee has a rich Indigenous and European settlement history. The Darling River, Menindee Lakes and township is of great significance to the Barkandji people. It was also a base for Burke and Will's historic expedition across Australia.

Menindee is an important service centre, with reticulated water supply and sewerage, Menindee Central School, Menindee Health Centre, parks, recreational ground and a central business district with a hotel, motel, caravan parks, police station, civic hall, general store / café and post office.

Menindee is located close to the unique Menindee Lakes, Kinchega National Park and the Darling River, which provide opportunities for the visitor economy.

Water is central to the prosperity of the Menindee community, with water in the Menindee Lakes storage scheme dependent on inflows from the Northern Murray-Darling Basin and the manner in which water is stored and released.

Preliminary consultation and audit findings

The audit and consultation work in Menindee revealed a relatively extensive footpath network in fair to good condition and a less extensive shared path network in good condition. A number of opportunities and constraints (deficiencies, gaps and barriers) were identified in the Menindee active transport network, which are discussed in this section. A map summarising the audit / consultation findings of the Ivanhoe investigations is also presented.

Footpaths

The blue lines on the map show the existing network of concrete footpaths in Menindee. There are also a series of river walks that require track maintenance and signposting.

Shared Paths

The purple lines on the map show the existing shared paths in Menindee. There are also a series of river walks that require track maintenance and signposting. All community members consulted are supportive of more shared paths.

Kerb Ramps

There are kerb ramps along constructed footpaths with varying levels of compliance. In general, there is a need to review all existing kerb ramps along existing paths and undertake repairs to achieve compliance. New kerb ramps should form part of any new footpath / shared path treatments.

School Zones

Menindee Central School has an established school zone. The extent of the existing footpaths at the school is minimal and there is a need to ensure the footpath / shared path assets are adequate, including provision of a safe crossing of Menindee Street.

Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in Menindee, nor are they warranted at this stage.

Road crossings

A new road crossing of Menindee Street at the historic Menindee Post Office is considered important by all locals consulted. Road crossing points are also required on Menindee Street near the Menindee Central School and Perry Street near the Menindee Recreation Oval.

Barriers

The riparian areas of town along the Darling River act as a barrier at some locations.

Obstacles

The entrance to the historic Menindee Post Office is difficult to access due to its elevation above Menindee Street. There is a need to improve access to the Post Office as part of any road crossing improvements along Menindee Street. No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

Trip hazards

Some kerb ramps and grassed footpaths where drainage has created washouts and erosion present as trip hazards. Provision of concrete footpaths and new kerb ramps along main walkways would help address potential trips and falls.

Lighting

No major issues were raised / noted.

Tactile indicators

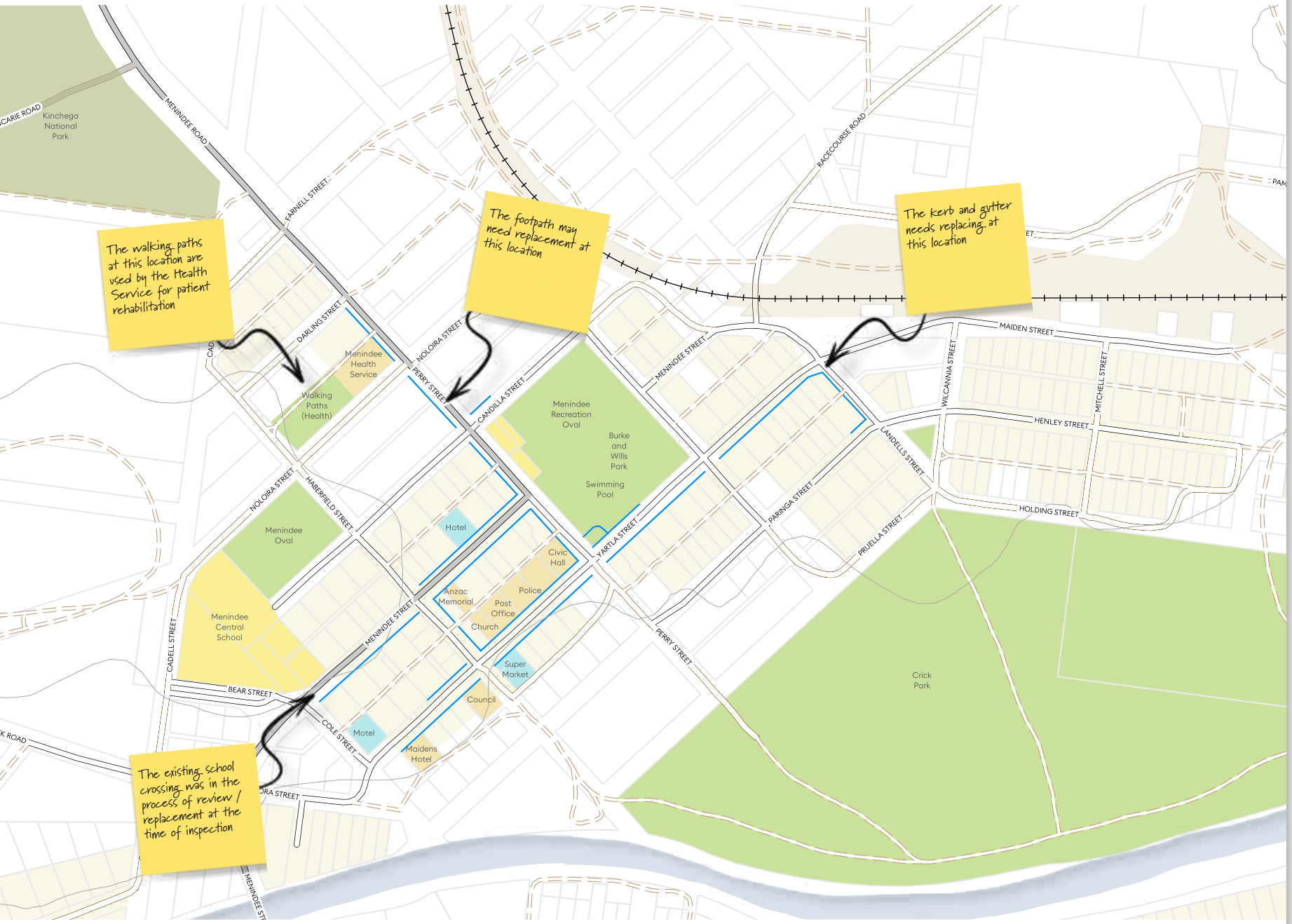
Generally absent in Menindee and not required at this stage.

End of trip facilities

There are end of trip facilities at the Menindee Recreational Oval precinct.

Signage

There is a well-established heritage walk and many interpretive signs within Menindee township. There is merit in extending way-finding and interpretive signage along the main river walks outside of town.



Community Comments

Some members of the community question the need for upgrades to the active transport network when vehicle access to the Menindee public tip is not constructed to an all-weather standard.

There is an existing Heritage Trail for Menindee which should be considered as part of the planning of the active transport network.

End of trip facilities (tables, chairs and signage) to be properly considered as part of active transport planning.

Mobility scooter awareness and training would be of benefit to the community.

Need to review / link to Heritage Trail and Old Town Weir.

Project

Central Darling Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

Menindee

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Existing Footpath
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 300 m

Sunset Strip

Overview

Sunset Strip was gazetted in 1965 as a village within the Central Darling Shire. The residential village is located 20 kilometres north-west of Menindee, situated on the northern shore of Lake Menindee. Many Central Darling Shire and Broken Hill City residents use Sunset Strip as an 'off-shift' / weekend escape. Sunset Strip has a Post Office, Community Hall, Hotel and caters to recreational boating, fishing, golf and tennis activities.

Preliminary consultation and audit findings

The audit and consultation work in Sunset Strip revealed a general absence of constructed paths and facilities. People were observed walking along the road network. A number of opportunities and constraints (deficiencies, gaps and barriers) were identified in the Sunset Strip active transport network, which are discussed in this section. A map summarising the audit / consultation findings of the Sunset Strip investigations is also presented.

Footpaths

There are no constructed footpaths in Sunset Strip. Residents and visitors walk along the road to access services and the lake. There is a need to improve walking and cycling conditions along Lakeview and Kingfisher Avenues. Any new footpaths should also aim to improve drainage along these roads.

Shared Paths

There are no constructed shared paths in Sunset Strip. Conditions along Lakeview and Kingfisher Avenues are too narrow to consider shared paths.

Kerb Ramps

There are no kerb ramps as there are generally no footpaths / shared paths in Sunset Strip. New kerb ramps should form part of any new footpath treatments.

School Zones

There are no schools at Sunset Strip. A school bus service is available to take students to school at Menindee.

Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in Sunset Strip, nor are they warranted at this stage.

Road crossings

No urban streets within Sunset Strip were observed to present major crossing issues. The need for road crossings was not identified.

Barriers

No barriers were identified at Sunset Strip.

Obstacles

No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

Trip hazards

Some grassed footpaths where drainage has created washouts and erosion present as trip hazards. Provision of concrete footpaths and new kerb ramps along main walkways would help address potential trips and falls.

Lighting

No major issues were raised / noted.

Tactile indicators

Generally absent in Sunset Strip and not required at this stage.

End of trip facilities

There are no end of trip facilities, other than what is provided at commercial premises.

Signage

Generally absent.

General Comments

Drainage along the public roads above the lake is an issue for some residents. Drainage should be considered in any new pathways.

Project

Central Darling Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

Sunset Strip

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Existing Footpath
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 300 m

Tilpa

Overview

Tilpa is a small town of around 50 people located on the Darling River, approximately 917 kilometres north-west of Sydney. Tilpa was once an important river port and river crossing up until the 1960's when a bridge was constructed across the Darling. Tilpa today is a small rural service centre for surrounding farms. There is the Tilpa Pub, the Tilpa Trading Post and accommodation in the village and at several "farm stay" facilities.

Preliminary consultation and audit findings

The desk top audit of Tilpa was undertaken with Council staff, which revealed a general absence of constructed paths and facilities. A map summarising Tilpa investigations is presented in this section.

Footpaths

There are no constructed footpaths in Tilpa.

Shared Paths

There are no shared paths in Tilpa, nor are they warranted at this stage.

Kerb Ramps

There are no kerb ramps as there are generally no footpaths. New kerb ramps should form part of any new footpath treatments.

School Zones

There are no schools in Tilpa. There is a school bus stop for pick-up and drop off of school age children.

Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in Tilpa, nor are they warranted at this stage.

Road crossings

There are no road crossings, nor are they warranted at this stage.

Barriers

There are no major barriers to active transport movement.

Obstacles

No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

Trip hazards

Some grassed footpaths where drainage has created washouts and erosion present as trip hazards. Regular maintenance of footpath areas is required to address potential trips and falls.

Lighting

No major issues were raised / noted.

Tactile indicators

Generally absent in Tilpa, and not required at this stage.

End of trip facilities

There are end of trip facilities at the Tilpa Pub and Trading Post.

Signage

There is a short heritage walk with interpretive signs.

General Comments

No comments or issues raised.

Project

Central Darling Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

Tilpa

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Existing Footpath
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 50 100 150 m

White Cliffs

Overview

Precious seam opal was discovered in White Cliffs in the 1890's, which led to extensive mining of the area, which still continues today. To escape the high summer temperatures, many residents live underground in 'dugouts'.

White Cliffs is the gateway to the Paroo Darling National Park which has a rich cultural and environmental history. The community hosts many annual events, including the White Cliffs Underground Arts Festival, Australia outback Rally and the Rodeo. These events allow visitors to experience a unique part of Far West NSW.

Located approximately 650 kilometres north-west of Dubbo, White Cliffs is a fully serviced town with reticulated water and sewer, Wilcannia Public School, White Cliffs Health Services, post office / general store, hotel, National Parks and Wildlife Service offices and visitor centre and hall as well as recreational facilities with sportsgrounds, swimming pool and parklands. The Opal Pioneer Caravan Park and the White Cliffs Underground Motel also provide for visitor accommodation.

Preliminary consultation and audit findings

The audit and consultation work in White Cliffs revealed a general lack of constructed footpaths and active transport facilities. Many people were observed walking along the road network. A summary of the audit / consultation findings of the White Cliffs investigations is presented in this section.

Footpaths

There are generally no constructed footpaths in White Cliffs.

Shared Paths

There are no constructed shared paths.

Kerb Ramps

There are generally no kerb ramps as there are no constructed footpaths / shared paths. New kerb ramps should form part of any new footpath / shared path treatments.

School Zones

White Cliffs Public School has established school zones and there are minimal constructed paths along most streets. There is a need to ensure a connected active transport network around the school.

Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in White Cliffs, nor are they warranted at this stage.

Road crossings

There are no constructed road crossings in White Cliffs and there is no need for crossings.

Barriers

There are no major barriers to active transport movement.

Obstacles

No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

Trip hazards

Grassed / gravel footpaths and poor road drainage results in periodic washouts and erosion.

Lighting

No major issues were raised / noted.

Tactile indicators

Generally absent in White Cliffs and not required at this stage.

End of trip facilities

The Post Office / General Store and public recreational facilities provide end of trip facilities. The owner of the Post Office was open to the idea of bike racks at this attractor.

Signage

Generally absent.

Other

The Post Office / General Store is a central destination. Lack of paths and drainage presents issues for pedestrians.

General Comments

There is a need to include funding for drainage management within White Cliffs generally.

The community has questioned the need for the white guideposts in town as they are perceived to be out-of-town requirements.

Project

Central Darling Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

White Cliffs

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Existing Footpath
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 50 100 150 m

Wilcania

Overview

Located approximately 550 kilometres west of Dubbo, Wilcannia is a fully serviced town with facilities that are at the forefront of regional health, education and community development.

In the 1880s Wilcannia was the third largest shipping port in Australia, with paddle steamers from South Australia transversing the Darling River. Many iconic heritage buildings remain, including the Wilcannia police station, courthouse, post office, London Standard Chartered Bank and the Wilcannia Bridge.

Wilcannia has a large Aboriginal community, being the traditional home of the Barkandji people, who have a long-standing history, connection and association to Country and the Darling River as well as Wilcannia township.

Attractors in Wilcannia include St Therese's Community Parish School, Wilcannia Central School, Gloria King Youth Centre, Wilcannia Multi-Purpose Service, Wilcannia Shire Council Administration Centre, a central business district area as well as recreational facilities with sportsgrounds, swimming pool and parklands.

There are several accommodation options for visitors, including Victory Park Caravan Park situated on the banks of the Darling River.

Preliminary consultation and audit findings

The audit and consultation work in Wilcannia revealed a relatively extensive footpath network in fair to good condition and a less extensive shared path network in good condition. Many people were observed walking along the road network. A number of opportunities and constraints (deficiencies, gaps and barriers) were identified in the Wilcannia active transport network, which are discussed in this section. A map summarising the audit / consultation findings of the Wilcannia investigations is also presented.

Footpaths

The blue lines on the map show the existing network of concrete footpaths in Wilcannia. There is a need to connect the Gloria King Youth Centre to the Wilcannia Central School and the Wilcannia Mainstreet. There is also a need to connect residences and urban facilities both sides of the Darling River.

Shared Paths

There is an existing shared path that links St Therese's Community Parish School to Wilcannia Mainstreet, shown as a purple line on the map. All community members consulted are supportive of more shared paths.

Kerb Ramps

There are kerb ramps along constructed footpaths with varying levels of compliance. There is a need to fix kerb ramps along existing paths. New kerb ramps should form part of any new footpath treatments.

School Zones

Wilcannia Central School and St Therese's Community Parish School have established school zones and there are existing footpaths along most streets. Most students use the bus services available to travel to and from school. However, there are many situations where school students need to use the footpaths around schools and there is a need to ensure a connected active transport network around schools.

Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in Wilcannia, nor are they warranted at this stage.

Road crossings

No urban streets within Wilcannia were observed to present major crossing issues. The need for road crossings was not identified at this stage.

Barriers

The Darling River acts as a barrier to active transport movement either side of the river. The lack of lighting at the Wilcannia Bridge presents a safety issue for active transport movement at night.

Obstacles

No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

Trip hazards

Some kerb ramps, grassed footpaths and degraded concrete / bitumen sealed footpaths presented as trip hazards. The footpath area directly west of Wilcannia Bridge is an area requiring attention. Provision of concrete footpaths and new kerb ramps along main walkways would help address potential trips and falls.

Lighting

The existing solar powered lights along the existing shared path to St Therese's Community Parish School do not work and need replacing. The bridge crossing is unlit and presents as an issue for safe crossing of the Darling River at night.

Tactile indicators

Generally absent in Wilcannia and not required at this stage.

End of trip facilities

The garden parkland near the Wilcannia Bridge provides end of trip facilities.

Signage

There is a short heritage walk with interpretive signs.

General Comments

There is a need to provide more active transport facilities along the Darling River.

End of trip facilities (tables, chairs and signage) to be properly considered as part of active transport planning.

There is a need to provide lighting of the bridge across the Darling River.

Project

Central Darling Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

Wilcannia

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Existing Footpath
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 50 100 150 200 m

Riparian and other iconic rural areas

There are no formal pedestrian or cycle routes connecting towns and villages in the Central Darling Shire.

Cycling along rural roads is undertaken infrequently by individuals and small bunch rides via a number of well-established routes known to local cyclists and tour groups.

Road touring events are not regular occurrences in the Central Darling Shire, and perhaps this is due to more favourable road conditions and more active cycling clubs and groups in Dubbo and other regions.

The preferred mode of choice for local cyclists appears to be all-terrain bicycles, such as flat bar touring bikes and mountain bikes. Locals tend to ride these more sturdy bikes due to the existing road conditions and the freedom they provide in accessing quieter gravel roads and rural attractions.

06

STRATEGIC CONTEXT

Planning decisions at a local level are influenced by broader global, National, State and regional issues, trends, needs and planning priorities.

The review of supportive documents serves the following purposes:

- To ensure the strategy aligns with regional, State and national policy directions.
- To ensure the strategy aligns with the wider context of transport and land-use planning policy directions.
- To understand the projects, links and network connections being planned in adjoining local government areas that might benefit the strategy.
- To help understand the correct methodology and approach when preparing the strategy.
- To help identify any deficiencies within the current network and existing policies that may hinder ongoing success.

The following documents are particularly important.

Movement and Place Practitioner's Guide

Explains how built environment practitioners can apply a Movement and Places approach to projects and plans.

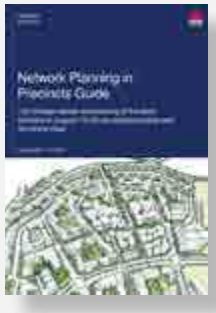
Walking Space Guide

Provides a set of standards and tools to ensure that sufficient space is provided on streets to achieve comfortable environments which encourage people to walk.

Cycleway Design Toolbox

Provides guidance on desired outcomes for cycling and micromobility. It establishes design principles for cycleways in specific contexts, including temporary initiatives and public bicycle parking facilities.

Network Planning in Precincts Guide



Provides best practice principles, tools, examples and case studies of a transport network that facilitates the efficient movement of people and goods while supporting 15 minute neighbourhoods.

NSW Public Spaces Charter

The NSW Public Spaces Charter has been developed to support the planning, design, management and activation of public spaces in NSW. It identifies 10 principles for quality public space.

NSW Guide to Walkable Public Space

Outlines why walkable public spaces are needed. It includes ideas and opportunities for how they can be created and methods for trialling and evaluating improvements.

07

BENEFITS OF ACTIVE TRANSPORT PLANNING

Healthy Lifestyle

Leading an active lifestyle brings many benefits for the general health and well-being of Central Darling Shire residents. Using footpaths, bicycle lanes and shared paths provide a cheap means of incorporating exercise into our daily routine. As a regular activity, walking, running, bike riding and rolling can aid the prevention of:

- Heart disease.
- Stroke.
- Type 2 diabetes.
- Falls, fractures and injuries (through improved strength and coordination).
- Hypertension.

Active transport activity can also improve psychological well-being, metabolism, muscle strength and flexibility, endurance, respiratory function, energy levels and weight management. All this aids in a speedy return to good health in the event of illness or recovery from trauma / surgery.

Children's health should include regular physical activity, with at least 60 minutes of moderate to vigorous physical activity being recommended for children 5 to 18 years of age to keep healthy. Outdoor activity, such as playing, walking, running, rolling and bike riding can contribute to children's health, as well as their development of physical, practical, emotional and social skills.

The presence of footpaths, shared paths and cycleways are associated with active travel across all age groups.

Creating a comprehensive movement network

Comprehensive road environments are ones that incorporate efficient transport options (roads, public transport, footpaths and cycleways) as well as aesthetic presentation and general walkability. Quality footpaths and shared paths are particularly influential in encouraging people across all ages to lead more active lifestyles.

The transport network in the Central Darling Shire is largely based around private motor vehicles on roads. Continued lack of public transport options in the Central Darling Shire are key reasons for improving the active transport network in the urban areas of the shire.

As the centres with the most activity and growth in the shire, Ivanhoe, Menindee, Sunset Strip, Tilpa, White Cliffs and Wilcannia all need their own active transport plan to cater for the growing needs of residents and visitors.

Achieving Safer Conditions

Pedestrians and cyclists are considered 'at risk road users' due to their lack of protection against motor vehicles in the event of a crash. It is important for road safety reasons that facilities are available for active transport users that minimise their exposure to potential conflict with motor vehicles.

Connected active transport networks have been shown to be associated with more walking in older adults and children, but only when traffic-related issues are managed, and the local streets are perceived to be safe. Connected street networks that are perceived as safe by users tend to encourage greater levels of active transport across all age groups. Older adults, particularly women, are more fearful and more vulnerable to crime thus the design and location of active transport facilities to achieve good levels of perceived / actual safety is important to avoid people constraining their behaviour.

Evidence indicates that Crime Prevention Through Environmental Design (CPTED) elements, such as good street lighting, neighbourhood upkeep, and less physical incivilities (e.g. litter, graffiti and vandalism) can encourage active transport. The design of commercial buildings and their relation to the street also has the potential to increase natural surveillance which improves safety and feelings of safety. Providing safe, well-lit building entrances that face the street and are directly accessible from the street footpath and car parks has been shown to encourage active modes of transport to and from buildings.

Economic Benefits

For the wider community, leading a healthier lifestyle reduces the impacts on our health care system. It also reduces costs of living and boosts industry productivity from fit and healthy workers. Active transport creates more footfall for local businesses and caters to the burgeoning visitor market interested in exploring Mainstreet environments, heritage walking trails, riparian areas and bushland trails, either on foot or on a bike.

Social Benefits

Active transport, particularly walking is one of the most socially inclusive modes of transport. It provides opportunities to socialise with friends and neighbours and creates a safer, friendlier and more connected community. Benefits include:

- Encouraging family and community connectedness.
- Improving social skills and networks.
- Reducing isolation and loneliness.
- Enhancing self-esteem and confidence.
- Prolonging independent living for older people in the community.

Evidence suggests that active transport infrastructure, particularly footpaths around local shops and community facilities, are important for encouraging social interaction and social capital. Such facilities provide casual and chance interactions with other members of the community as well as providing places for people to meet friends and family and engage in social activities.

Great Places

The way we design and build our streets and neighbourhoods has an effect on many residents' social connections, sense of community and social capital, and thus their use of active transport facilities. Neighbourhood 'walkability' (a combination of residential density, mixed-use planning and street connectivity) is particularly associated with walking for transport and general walking.

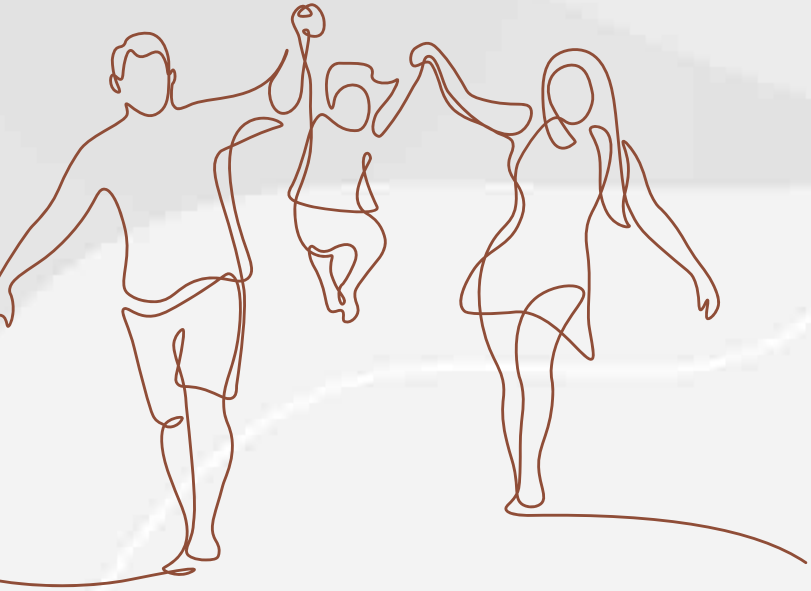
Land-use decisions affect social connection by determining the places available for people to interact and spend time, and how far people have to travel to get to places where they can interact with others. A connected street network that is legible and permeable enables more movement choices around town. This encourages more walking and cycling, allowing for more interactions between neighbours and residents, which in turn increases the sense of community in residents.

Shorter travel distances between land-uses can enable easy access to facilities and services for all people, including the very young, older persons and people with a disability, which can reduce social isolation for these groups. For example, living within close proximity (400-800m) of a mix of destinations is associated with higher levels of active travel across all age groups.

In terms of active transport behaviours, increased connectivity reduces the distances between origins and destinations and provides a range of routes to choose from, increasing the likelihood of walking and cycling between locations.

Traditionally designed neighbourhoods tend to have a grid-style street layout, which create few barriers to direct travel, resulting in high levels of connectivity and a choice of routes. In contrast, more modern neighbourhoods are developed around a network of hierarchical roads, which often result in creating low levels of connectivity. Residents have little or no choice of route, as often there is only one road in and out of the development, and the indirect curvilinear streets increase active transport distances between destinations.

A review of the walking and cycling conditions in urban areas is therefore important and may provide opportunities for the review of other land-use / transport policies, particularly the overuse of cul-de-sacs that can result in a disconnected street system and general lack of active travel facilities in new residential estates.



08

NETWORK PLANNING

Pedestrian Types + Needs

Everyone is a pedestrian, be it walking 30 metres from the car to a place of work, walking to school or the shops, using wheeled devices on footpaths or walking and running for fitness.

Pedestrians are considered 'at risk road users' due to the severe outcomes that can occur when they come into conflict with motor vehicles. In the five years from 2015 to 2019, about one in six people killed on our roads was a pedestrian.

In the Central Darling Shire context, the main pedestrian groups are as follows:

Older pedestrians

Are generally less mobile than other pedestrians and prefer footpaths and shared paths with minimal gradients / steps and a high degree of safety and personal security.

Commuters

This group comprises adults and secondary age students who use the footpath network mainly as a mode of transport for journeys to and from a workplace, school or TAFE. They prefer the fastest safe route between their origin and destination and are generally more skilled and experienced. On-road lanes and footpaths are suitable for commuters.

Utility / shopping

Trips are generated for specific purposes, such as running errands, shopping, visiting friends and relatives and points of interest. Local trips are often short length trips and can be unpredictable. Users may be constrained by time and vary widely in skill and experience. They prefer footpaths, shared paths, low volume roads, minimal gradients and a high degree of safety and personal security.

Secondary / tertiary school students

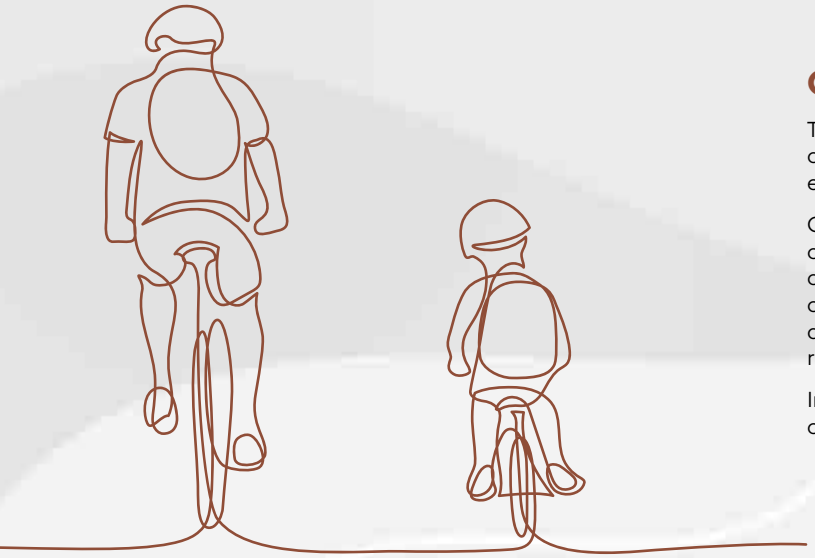
Older students have similar characteristics as commuters and utility / shopping users. Footpaths, on-road lanes and shared paths are suitable for older students.

Infants / primary school students

Infant and primary school aged pedestrians have undeveloped cognitive skills, lack good peripheral vision, and have little knowledge of road traffic rules. They require adult supervision and / or off-road paths and facilities. Road crossing points must be carefully designed to give greater visibility / priority to children.

Fitness

Sports people use the road environment for fitness and training purposes and to access sporting events. They often travel alone or in small groups - seeking long distances for training purposes which can take them onto busier roads. Fitness pedestrians prefer footpaths and shared paths but will use any path or the road / road shoulder if necessary.



Cyclist Types + Needs

There are a range of cyclists who access different parts of the Central Darling Shire on their bike for recreational, educational, shopping, commuting and other purposes.

Cyclists are considered 'at risk road users' due to the severe outcomes that can occur when a rider crashes their bike or when they come into conflict with motor vehicles. Most cyclists are aware of their vulnerability on the road network and use safety lights, helmets and high visibility gear when riding.

In the Central Darling Shire context, there are different cyclist groups as follows:

Older bike riders

Older people in the local context are tending to avoid using bicycles.

Commuters

This group comprises predominantly adults who use the road to cycle to work. They prefer the fastest safe route between their origin and destination and are generally more skilled and experienced. On-road lanes and shared paths are suitable for commuter cyclists. Commuters ride reasonable distances, typically less than 20km. They prefer flat, direct routes, but may tolerate up to 10% gradients, or 15% with e-bikes. Bike commuters desire all day secure parking, showers and change facilities.

Utility / shopping

A small percentage of people use a bicycle to run errands and do the shopping as well as visit friends, local destinations and points of interest.

Local trips may be 'spare-of-the-moment' decisions, where a bicycle is used to visit the shops for last minute supplies. Users may be constrained by time and vary widely in skill and experience. They may use footpaths, shared paths and roads to access their destination, and sometimes may forget to take appropriate safety precautions.

Secondary / tertiary school students

Older students in the local context are tending to avoid using bicycles, other than to access weekend sports, skate parks and friends.

Infants / primary school students

Infant and primary school aged cyclists have undeveloped cognitive skills, lack good peripheral vision, and have little knowledge of road traffic rules. Fear of traffic and bike theft appear to be factors limiting those in this age group riding their bikes regularly.

Fitness

Adult riders are more confident mixing with traffic. If riding for training purposes, may ride very long distances, sometimes more than 100km. A number of adults use road bikes, touring bikes and MTB bikes for fitness and recreation. Road and touring cyclists often travel in small groups or larger bunch rides seeking long distances for training and recreational purposes, which can take them onto busier roads. MTB and other off-road riders travel individually or in small groups and seek quieter roads and off-road trails.

Families with children

Prefer separation from traffic. Ride shorter distances. Prefer flat routes with less than 5% gradient. Adults / guardians may be walking alongside young children on bicycles.

Access Impaired Needs

Disability is an issue that affects a significant proportion of the population. The 2018 ABS Survey of Disability, Ageing and Carers reported that 17.7% of Australians had a long-term disability that restricted their everyday activities.

Planning for the transport needs of disabled persons presents its own unique challenges, with a person in a wheelchair requiring different assistance to negotiate the active transport network than a person who is sight impaired. Navigation to end of trip facilities, such as parking facilities, water points and toilets also requires special consideration.

Motorized scooter usage is a growth industry and there is a need to review current and future innovations in these mobility devices to ensure infrastructure improvements are aligned with technology.

A key focus of the Central Darling ATP should be to provide mobility and access facilities for disabled and older persons in our community, particularly in high activity areas such as commercial precincts, health care facilities, public buildings and parklands.

Aged Access Needs

Age is related to a variety of characteristics and skills that influence the risk of traffic injury. These age-related characteristics can also affect the way in which people of different ages interact with the movement network. In the 2010 NSW Health Falls Prevention Baseline Survey, 26.7% of people aged 65 and older, reported limiting their walking because of fear of falling whilst walking over rough or uneven surfaces, steps or stairs. The main needs of aged persons are for level walking surfaces that are free of hazards. Aged persons also appreciate end of trip facilities, such as seating, water points and toilets.

Older people continue to be over presented in pedestrian crashes. As shown by Job RFS, Pedestrians at Traffic Light Controlled Intersections: Crossing Behaviour in the Elderly and Non-elderly, several factors work together to increase the risk of older people:

- Deterioration in visual acuity may have a negative impact on an older person's ability to cross the road safely.
- Reduced mobility can render older people unable to react quickly in imminent danger to avoid a crash.
- Underlying health conditions or frailty can result in greater injury severity when a crash occurs.
- Reduced speed when crossing the road can be an issue at automated signals that do not allow sufficient time for slower pedestrians to cross safely.

A key focus of the Central Darling ATP should be to provide mobility and access facilities for disabled and older persons in the community, particularly in high activity areas such as commercial precincts, health care facilities, public buildings, parklands and town swimming pools. The following measures have been adapted from the WHO Pedestrian Safety Manual 2013 and the NSW Centre for Road Safety to improve the safety, comfort and amenity of elderly pedestrians:

- Increase the time allocated to pedestrians at signalized pedestrian crossings.
- Install high-visibility crossings and advance stop bars.
- Repair broken kerbs and pedestrian ramps.
- Replace missing and / or upgrade existing signs.
- Install pedestrian refuge islands or, preferably, raised medians.
- Narrow roadways with traffic-calming techniques.
- Raise public awareness about the safety needs of elderly pedestrians.
- Reduce legal speed limits to where necessary.
- Strengthen enforcement of laws on speed limits, and drink–driving.

Need of Young Children

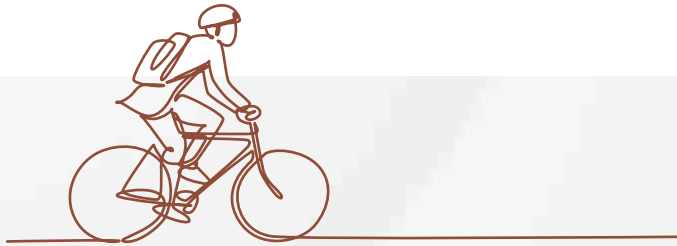
Children are highly vulnerable road users. Infant and primary school aged children need their parents or other adult supervision when they ride along the road network, but they also need our confidence to explore their environment and learn how to do things independently.

Children can use the same facilities as adults however they are at risk from traffic for many reasons. Preschool, infant and primary school aged bike and scooter riders have undeveloped cognitive skills, lack good peripheral vision, and have little knowledge of road traffic rules. Although children may think they can handle the road network, Kidsafe NSW advises they are:

- Easily distracted and focus only on one aspect of what is happening.
- They are smaller and harder for drivers to see, and less predictable than other road users.
- Cannot accurately judge the speed and distance of moving vehicles.
- Cannot accurately predict the direction that sounds are coming from.
- Unable to cope with sudden changes in traffic conditions.
- Do not understand abstract ideas, such as road safety.
- They may lack the ability to distinguish between safe and unsafe crossing gaps and sites, putting them at risk as they cross the road.
- They may lack understanding of the dangers presented under different conditions, such as wet weather or darkness.

An extensive network of structured sporting activities is available for children in Central Darling Shire that helps to keep them active and engaged. There are also a number of areas where children can go 'off-road' and explore the environment and practice skills on their own or with friends. Some of these areas have become obscured and there are inadequate cues to invite children and their parents / guardians to use these spaces as part of the active transport network.

Key objectives of the Central Darling ATP should be to highlight areas that provide opportunities for off-road play and to link these areas to residential neighbourhoods and the wider network.



Network Planning Principles

The planning focus of the new active travel network is to make pedestrian and cycling activities a safe, healthy and attractive travel option throughout the Central Darling Shire. To achieve this over such a vast area requires a targeted and systematic approach, based on a number of principles which are explored further in this section.

Coherence

Coherence can be characterised by the completeness of the network or the completeness of connecting routes. A cohesive network should be continuous and it should be clear to the user where the path leads. Sign-posting and line-marking should indicate major destinations as well as the 'serious transport intent' of sections of road routes. The quality of network facilities should be consistent throughout the length of the route regardless of whether the facility uses a separate or shared road profile. End of trip facilities, such as seating, watering stations, toilets, change room facilities, bicycle racks and storage facilities should also be integrated into the cohesive network.

15 minute neighbourhoods

People will generally walk or use assisted mobility for 10-15 minutes to access local shops and services, depending on their age, health, the walking environment and the weather. Active transport networks are based on active transport trip distances of 15 minutes.

Suitability for all users

Quality environments must be available to all who choose to use them. Paths and facilities must have appropriate gradients and be continuous and free of obstructions such as signage, street furniture and overhanging tree branches. The needs of hearing and vision-impaired users should be considered at primary attractors, especially where user safety is an issue.

Safety

Perceived and actual safety is very important to pedestrians and cyclists. Pedestrians of all ages and genders need to feel that it is safe to walk, whenever they choose to do so. Route safety and security is important to pedestrians, who desire well-lit pathways and open-to-viewer routes. Road crossings present the greatest danger to pedestrians. Therefore, safe crossing locations need to be provided at regular intervals along major streets or where there are key desire lines to cross major streets. Pedestrians will rarely walk along an indirect route to access safe crossing points, so frequent crossing points must be provided.

Cyclists travel faster than pedestrians and therefore are less concerned about personal security. However, cyclists are still slower and smaller than motor cars and trucks, making them less likely to be seen. When they do come into conflict, cyclists have little protection in a collision. On-road paths and off-road paths reduce the risk of collision with motor vehicles, but still endanger cyclists at squeeze points and intersections with roads. They can also involve potential conflict with pedestrians where the off-road facility is a shared path. The general principles of predictability and clear priority remain important for off-road paths, including directional segregation and high visibility for all users.

Directness

Pedestrians and cyclists do not like to travel out of their way to reach a destination. This is a natural response to avoid the extra effort involved in walking or riding extra distances. Paths serving desire lines between activity areas need to be direct and legible in order to provide for and encourage walking and riding trips. Wherever possible, barriers should be overcome, with slight deviations or additional safe crossing points. A careful balance must be found between providing a direct route and also one free of delays, excessive energy expenditure, or safety concerns.

Amenity

People are more likely to walk or cycle in an attractive environment because it is enjoyable. Areas with high volumes of vehicular traffic, excessive noise and poor pavements may discourage walking and cycling. Urban areas should be maintained at a human scale that provides an attractive and safe environment. Pedestrian and cycling facilities should be designed to fit into the surrounding environment so that the enjoyment of the experience is enhanced. The route should be scenic, quiet, and free of heavy traffic and traffic travelling at high speeds. The best walking and cycling environments are often found along quiet rural roads, in urban parklands or residential areas that have been traffic calmed.

Identifying Activity Generators

There are certain areas of the Central Darling Shire that generate significantly more pedestrian and cycling activity than other areas. Identifying activity generators is particularly important to consider in the preparation of new active travel plans. The different activity generators have been divided into four main groups and are presented in this section. A series of maps showing the generators in Central Darling Shire are also presented in the Central Darling ATP.

Primary Activity Areas

Primary activity areas include commercial precincts, large schools and hospitals as well as other areas that attract large concentrations of people. Safety, connected / wide footpaths, road crossing points, disability access infrastructure, secure bike parking and end of trip facilities are important design goals for primary activity areas.

Secondary Activity Areas

These include neighbourhood shops, smaller schools, popular sporting and recreational facilities, clubs, hospitals and community facilities such as the larger congregation churches that are not centrally located within primary activity areas. These land-uses are busy places at certain times of the day or week. Safety, connected footpath networks and end of trip facilities are important design goals for secondary activity generators.

Primary Routes

These are routes from residential areas to the primary activity areas and secondary activity generators. They are collector level routes, which do not reach every property but instead form a network of routes that are accessible to a significant catchment of population.

Hazard Areas

Through the analysis of crash data and consultation undertaken, there are a number of areas / routes that have been noted from accident reports or from road users as being potentially dangerous or particularly stressful places for pedestrian and cyclists.

Identifying Appropriate Paths

The selection of the appropriate path type treatment depends on a combination of factors, including the level of demand for the path, the conditions present in the surrounding environment (traffic speed and volume), the availability of space in which to provide the path, and whether path usage is for exclusive pedestrian or cycle use or shared use. The overall goal is to install facilities that are safe, practical and that respond to local conditions. A number of different path treatments can be applied, which are covered in this section:

Footpaths

Footpaths are suitable for a wide range of pedestrian situations. Footpaths are required to be designed and built to meet minimum dimension requirements. Design elements of footpaths include width, gradient, pavement materials that are slip resistant, type of kerb and adequate setback distance of the footpath from the roadway.

According to the Austroads Guide and other guidelines referred to in Section 6, a minimum footpath width of 1.0m is adequate, with 1.2m preferred for most road and street situations, and pathway up to 1.5m being necessary where pedestrians gather such as at the entrance to schools and associated crossings, at recreation facilities and at important bus stops.

Shared paths

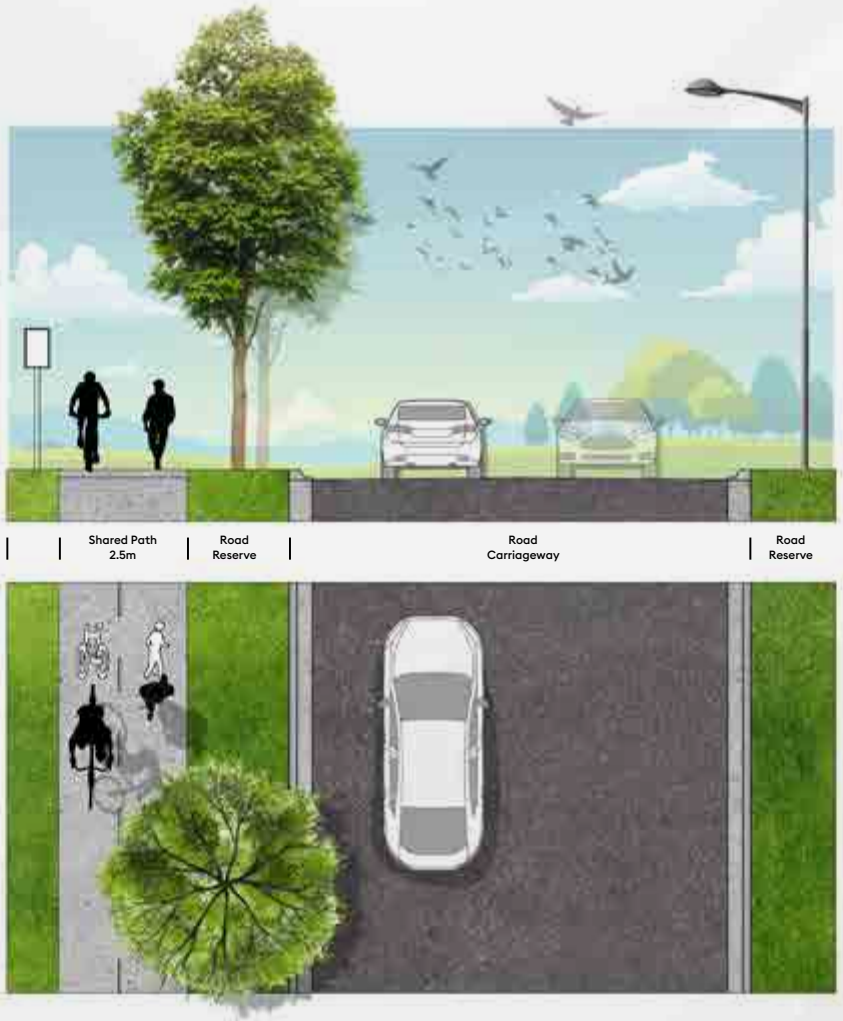
Shared use paths are a type of off-road facility that are generally wider than footpaths (minimum 2.4m) and allow common use of the facility by both cyclists and pedestrians.

According to the Austroads Guide and other guidelines referred to in Section 6, a shared use path may be appropriate where demand exists for both a pedestrian path and a bicycle path but where the intensity of use is not expected to be sufficiently great to provide separate facilities. Shared paths are a popular response to connecting attractors and as paths in large parklands.

In some situations shared paths may cause friction between pedestrians and cyclists. Displaying highly visible signs and rules applying to the proper use of share paths are important considerations when planning these paths.

Shared streets

Shared local streets are safer streets with 'design speeds' of no more than 40km/h that enable more people of all ages and abilities to cycle.



Exclusive off-road cycle paths

According to the Austroads Guide and other guidelines referred to in Section 6, exclusive bicycle paths are most appropriate when there is a significant cycling demand and very few pedestrians desire to use the path or a separate footpath is provided, and there is very limited motor vehicle access across the path.

On-road cycle paths

On-road cycle paths are 'bicycle lanes' located alongside the motor vehicle traffic lane on a road. Recommended laneway widths vary depending on road conditions, clearances, physical or visual separations, and are generally delineated by line-marking and / or green colour. They are generally located on the far left of the road and often on the bitumen sealed road shoulder. Where considered necessary / feasible in regional settings, on-road cycle paths should comply with current design standards and undergo periodic monitoring to ensure painted line-marking remains clear and legible.

Pavement Surfaces

There are a variety of pavement materials commonly used as part of the construction of new active transport infrastructure. These are described as follows:

Concrete and Asphalt

This provides a hard surface and is generally functionally appropriate. This material is ideal where footpaths are on a gradient and exposed to water, as the texture of these surface materials are slip resistant. Most footpaths in Central Darling Shire are of these construction types. Some main street beautification works use a combination of asphalt, concrete and brick paver to provide variety and interest.

Pavers and Bricks

For aesthetic reasons and to add interest and variety, pavers and brick paving are often used. Pavers have been used extensively in commercial areas and at tourist destinations. When used for pedestrian paths, glazed surfaces should be avoided as they are slippery when wet. Stone path surfaces should also be avoided as they can fail flatness tests. Pavers are ideal for sight impaired pedestrians as a guidance using different pavement colours, however overuse of colours can also be confusing.

Spray seal emulsion

Generally less hard wearing than concrete, asphalt or pavers. It is often used as a cheaper option in low trafficked areas where drainage is not an issue. It may also be considered where a new path is being trialled to determine its longer-term material type.

Loose surface material

These materials such as exposed aggregate, gravel, soil, sand, grass and tanbark should be avoided along heavily used routes. They can be very difficult to walk on and make it difficult for people in wheelchairs. However, gravel surfaces may be suitable for fitness walkers, runners and mountain bike riders.

Ideally paths should be free of obstructions and therefore should not include steps, stairways or obstacles that affect safety.

Lighting

Night time outdoor lighting has most often been designed for the vehicle driver, rather than for pedestrians and cyclists.

Where footpaths, bicycle lanes and shared pathways carry a substantial number of pedestrians and cyclists during periods of darkness, consideration should be given to the provision of path lighting. Lighting will increase both actual and perceived safety along the network and should be targeted along key pedestrian routes and activity zones (Austroads, 2009).

The main objectives of pedestrian lighting are to ensure adequate lighting is provided to identify pedestrian routes and signage, illuminate pedestrians to other road users and to achieve facial recognition of another pedestrian at a reasonable distance.

The main objective of cycleways lighting is to ensure adequate lighting is provided so that cyclists, travelling at reasonable speed are able to avoid potholes and any other traffic hazards.

Generally provision for public lighting for bicycles may occur where:

- Paths for cycling associated with promenades or a centre for night-time activity.
- Paths for cycling used for commuting by workers or students.

Lighting should be placed along key routes, key crossing points, intersections and places where people congregate. Direction and height of illumination, background land illumination levels are key considerations that should be addressed within the design.

End of Trip Facilities

Public amenities can be important mid-way or end of trip resources for pedestrians and cyclists. They include a range of supporting infrastructure such as bicycle parking, seating / rest stops, water points, toilets, shade and signage.

Exercise equipment is also being used / provided in some parks to facilitate more intensive fitness training. These facilities are the 'outdoor' equivalent of a gym, and may include weights and resistance benches, step-up and pull-up devices and the like.

Landscape Design

Landscape works which are poorly planned and designed can have negative impact on pathway use. It is important that landscaping is designed, constructed and managed to:

- Provide clear sightlines.
- Promote good visibility.
- Provide safe side clearances.
- Prevents intrusion into pedestrian / cycling operating space.
- Manages tree root damage to pathways.
- Provide passive surveillance and promotes an open easy – supervised environment.
- Manage weeds, especially catheads.

Technical advice on key considerations for landscape design are provided in the Austroads Guide and other guidelines referred to in Section 6.

Signage and Line Marking

Signage and or markings should be provided throughout the entire network to guide pedestrians and cyclists use of the bicycle and shared path network.

Signage and / or markings should include both directional and informative information and be designed to be easily identifiable and consistent across both on-road and off-road networks. They will inform users of the direction and distance to key destinations, provide warning of changing conditions (e.g. intersection) and of approaching hazards and provide clear travel pattern advice, which is particularly important at intersections.

Signage and / or markings should be provided as new on-road bicycle and shared pathways are constructed and should be progressively retro-fitted across the existing network.

The use of a green surface for bicycle lanes which draws motorists' attention to the presence of bicycles is recommended at busy or higher-speed locations and areas where the road layout is complex.

Technical advice on signage and marking treatments is provided in the Austroads Guide and other guidelines referred to in Section 6.

09

ACTIVE TRANSPORT PLANS

Active Transport Project Plans have been prepared for Ivanhoe, Menindee, Sunset Strip, Tilpa, White Cliffs and Wilcannia, and typically include the following detail:

- Public Roads (sealed, unsealed, tracks-in-use).
- Railway Infrastructure.
- Primary Activity Areas.
- Secondary Activity Generators.
- Primary Routes.
- Hazard Areas.
- Other key land-uses and / or landmarks.
- Existing and proposed footpath locations.
- Existing and proposed shared path locations.
- Existing and proposed off-road path locations.
- Existing and proposed end of trip facilities.

Guiding Principles

Focusing efforts in areas of highest importance

Effective and useful planning relies on focusing effort and resources in areas that it is most needed. Central Darling Shire Council has limited funds for improvements and these funds need to be carefully directed towards achieving optimal outcomes. The Central Darling ATP needs to focus efforts on areas with high levels of pedestrian and cyclist activity as well as the desire lines of high potential and demand. Consideration should also be given to locations which may merit a review of road conditions based on a poor safety record.

Focusing on potential pedestrian and cyclists

It is important to consider existing pedestrians and cyclists, however, the biggest advantage in terms of increasing patronage is to target people who currently are not active pedestrians or cyclists, but who are likely to become so if conditions improve. The Central Darling ATP needs to consider ways to promote behaviour-changes that encourages new users.

Developing effective infrastructure to improve conditions

The Central Darling ATP aims to develop innovative infrastructure interventions, based on the NSW guidelines and other applicable guidelines and standards.

Setting achievable targets

Funds are limited and there is a need to focus on specific actions that are achievable by Council. There is no sense in developing active transport project plans that propose excessive expenditure beyond the means of the community. It is better to set targets that can be realistically achieved over the intended 10 year implementation period. Should extra funding become available and targets are met earlier, it is a relatively simple task of reviewing the project plans to set more goals and targets.

Project

Central Darling Active Transport Plan

Map Title

Active Transport Project Plan

Map Location

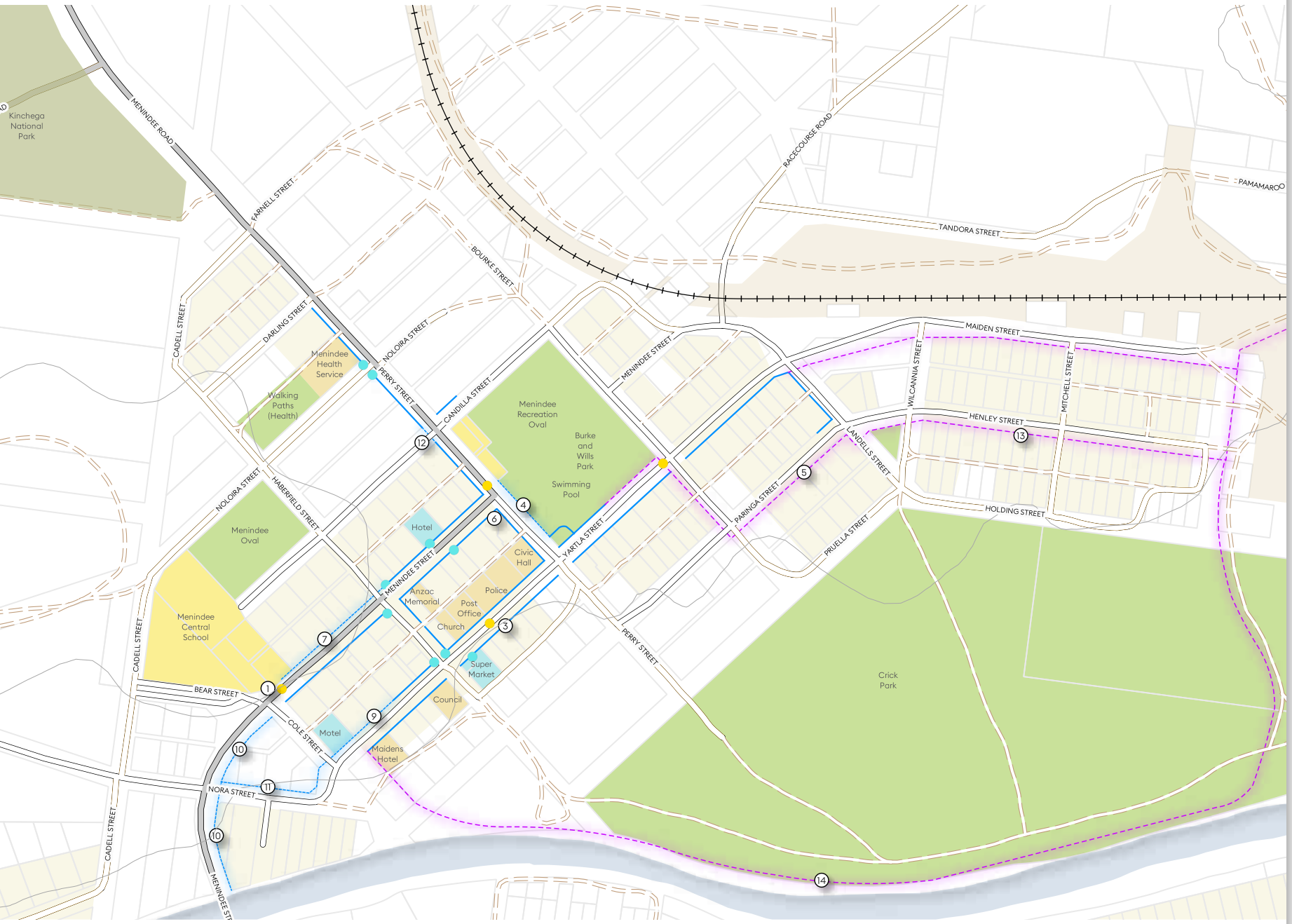
Ivanhoe

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
- Proposed End of Trip Facilities
- Proposed Lighting Improvements
- Accessibility Improvement
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 m



Project

Central Darling Active Transport Plan

Map Title

Active Transport Project Plan

Map Location

Menindee

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
- Proposed End of Trip Facilities
- Proposed Lighting Improvements
- Accessibility Improvement
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 300 m

Project

Central Darling Active Transport Plan

Map Title

Active Transport Project Plan

Map Location

Sunset Strip

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
- Proposed End of Trip Facilities
- Proposed Lighting Improvements
- Accessibility Improvement
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 300 m

Project

Central Darling Active Transport Plan

Map Title

Active Transport Project Plan

Map Location

Tilpa

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
- Proposed End of Trip Facilities
- Proposed Lighting Improvements
- Accessibility Improvement
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 300 m

Project

Central Darling Active Transport Plan

Map Title

Active Transport Project Plan

Map Location

Wilcannia

Map Legend

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
- Proposed End of Trip Facilities
- Proposed Lighting Improvements
- Accessibility Improvement
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 300 m

Project

Central Darling Active Transport Plan

Map Title

Active Transport Project Plan

Map Location

Wilcannia

Map Legend

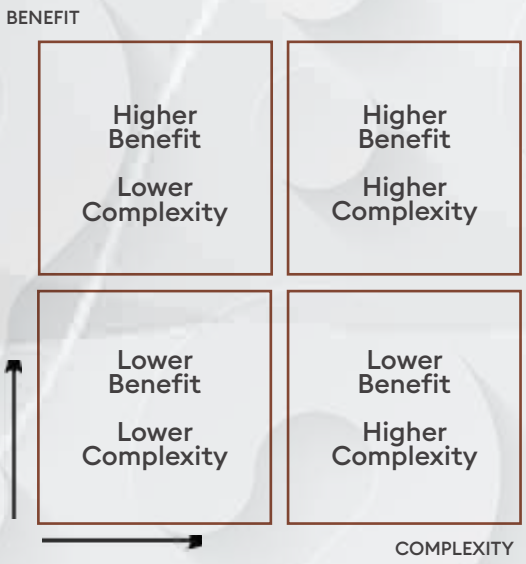
- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
- Proposed End of Trip Facilities
- Proposed Lighting Improvements
- Accessibility Improvement
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Map Scale

0 100 200 300 m

10

PRIORITIES + ACTIONS



The facilities and treatments required to create a more cohesive, safe, direct and attractive network forms the basis of the new Active Transport Project Plans developed for Ivanhoe, Menindee Sunset Strip, Tilpa, White Cliffs and Wilcania.

The Active Transport Project Plans are the result of the consideration of a number of variables that have been examined in previous sections. A series of questions were asked and given a ranking score to reflect their importance in pedestrian and bicycle planning outcomes and these are listed below:

- Does it fill a gap in the network?
- Has it been identified in consultation, audits and inspections?
- Will it be suitable for all users? (safe, direct, comfortable, coherent)?
- Will it benefit more than one user type? (recreation, commuter, fitness, shopping / short trips, student)?
- Is it located in a high activity area? (primary activity area, secondary activity generator, primary routes)?
- Is it located in a hazard area? (In a black spot, or near miss area, arterial or collector road, school zone, a place visited at night, or place where alcohol is available)?
- Does it improve pedestrian / cyclist separation from motor vehicles?
- Is it an iconic link that inspires greater uptake of walking and cycling?
- Will it lead to greater active transport trips, user support and general awareness?
- Is is practical / cost effective?

Project Description		From	To	Does it fill a network gap?	Has it been identified in consultation?	Is it suitable for all users?	Are there user type benefits?	Is it located in a high activity area?	Is it located in a hazard area?	Does it improve separation of from motor vehicles?	Is it an iconic route that inspires greater activity?	Will it increase active transport trips and support?	Is it practical and cost effectively?	Total
Place	**Project Description**	**Street Name**	**Street Name**											
Ivanhoe Projects														
Project # 1	Columbus St footpath extension (Ivanhoe Central School)	Columbus Street	Raleigh Street	10	10	10	10	9	8	9	7	9	10	92
Project # 2	Kerb ramp replacement program	Various Streets	Various Streets	10	8	10	10	9	8	8	7	9	10	89
Project # 3	Ivanhoe Hospital footpath extension	Columbus Street	Columbus Street	10	8	10	9	8	8	8	7	8	9	85
Project # 4	Columbus St footpath extension with kerb ramps (War Memorial to RSL)	Columbus Street	Columbus Street	9	9	8	8	9	8	8	8	7	8	82
Project # 5	Cook St footpath extension	Raleigh Street	Leichhardt Street	8	8	8	8	8	7	8	7	7	7	76
Project # 6	Kennedy St footpath extension	Columbus Street	Leichhardt Street	8	8	8	8	8	7	8	7	7	7	76
Project # 7	Columbus St footpath extension with kerb ramps (Service Station and Caravan Park)	Columbus Street	Columbus Street	8	8	8	7	7	7	8	7	6	6	72
Project # 8	Footpath widening and extension to Ivanhoe Hospital	Robert Street	Columbus Street	8	8	8	7	7	7	7	7	6	6	71
Project # 9	Balranald Rd footpath extension (between existing road seal and existing footpath)	Balranald Street	John Street	7	7	7	7	7	7	7	7	6	7	69
Menindee Projects														
Project # 1	Menindee Central School street crossing	Menindee Street	Menindee Street	10	10	10	10	10	8	9	7	8	8	90
Project # 2	Kerb ramp replacement program	Various Streets	Various Streets	10	8	10	10	9	8	8	7	9	10	89
Project # 3	Yartla Street crossing and Post Office access upgrade	Yartla Street	Yartla Street	10	10	10	9	9	7	7	8	7	8	85
Project # 4	Perry Street footpath extension	Candilla Street	Yartla Street	8	8	8	8	8	7	8	7	7	7	76
Project # 5	Bourke and Henley Streets shared path	Landells Street	Bourke Street	8	8	8	7	7	7	7	7	6	6	71
Project # 6	Perry Street crossing	Perry Street	Menindee Street	8	8	8	7	6	6	7	6	6	7	70

Project Description		From	To	Does it fill a network gap?	Has it been identified in consultation?	Is it suitable for all users?	Are there user type benefits?	Is it located in a high activity area?	Is it located in a hazard area?	Does it improve separation of from motor vehicles?	Is it an iconic route that inspires greater activity?	Will it increase active transport trips and support?	Is it practical and cost effectively?	Total
Place	**Project Description**	**Street Name**	**Street Name**											
Project # 7	Menindee Street footpath extension	Menindee Central School	Haberfield Street	8	8	8	7	6	6	7	6	7	7	70
Project # 8	Yartla Street footpath extension	Perry Street	Swimming Pool	8	8	8	7	6	6	7	6	7	6	69
Project # 9	Yartla Street footpath extension (to motel)	Yartla Street	Cole Street	8	8	8	7	6	6	7	6	6	6	68
Project # 10	Menindee Street footpath extension	Menindee Central School	Darling River Bridge	8	8	8	7	6	6	7	6	6	6	68
Project # 11	Nora Street footpath extension	Menindee Street	Cole Street	8	8	8	7	6	6	7	6	6	6	68
Project # 12	Candilla Street footpath extension (between existing road seal and existing footpath)	Candilla Street	Perry Street	8	6	6	6	6	6	5	5	5	8	61
Project # 13	Henley Street shared path	Landells Street	Rail Bridge	7	6	7	7	5	5	5	6	6	5	59
Project # 14	Darling River shared path	Yartla Street	Rail Bridge	7	6	7	7	5	5	5	6	6	5	59
Sunset Strip Projects														
Project # 1	40km/hr signage	Kingfisher Avenue	Lakeview Avenue	7	9	9	8	7	7	6	7	7	10	77
Project # 2	Lakeview Avenue footpath (Icon Lake Design)	Lakeview Avenue	Lakeview Avenue	7	8	7	7	6	6	7	6	6	7	67
Project # 3	Kingfisher Avenue footpath (Iconic Fish Design)	Kingfisher Avenue	Kingfisher Avenue	7	8	7	7	6	6	7	6	6	7	67
Tilpa Projects														
Project # 1	Mainstreet footpath (Iconic Outback Design)	Mainstreet	Mainstreet	5	5	6	6	5	5	5	6	5	5	53
White Cliffs Projects														
Project # 1	Johnston Street (east side) footpath (Iconic Iron Work Theme Design)	Keraro Road	White Cliffs Central School	9	9	7	7	5	5	7	7	7	7	70
Project # 2	Johnston Street (west side) footpath (Iconic Opal Material and Wildlife Design)	Keraro Road	Opal Pioneer Tourist Park	7	7	6	6	5	5	6	7	6	6	61

Project Description		From	To	Does it fill a network gap?	Has it been identified in consultation?	Is it suitable for all users?	Are there user type benefits?	Is it located in a high activity area?	Is it located in a hazard area?	Does it improve separation of from motor vehicles?	Is it an iconic route that inspires greater activity?	Will it increase active transport trips and support?	Is it practical and cost effectively?	Total
Place	**Project Description**	**Street Name**	**Street Name**											
Project # 3	Ethel Street footpath (Iconic Opal Material Design)	Keraro Road	White Cliffs Sporting Club	7	7	6	5	5	6	7	6	5	5	60
Project # 4	General Store bicycle racks	Keraro Road	Johnston Street	5	8	5	5	5	5	5	6	6	6	56
Wilcannia Projects														
Project # 1	Barrier Highway shared path lighting upgrade, including solar battery upgrade and installation of switching to turn lights on and off where they extend to St Therese's Parish School	Darling River Bridge	St Therese's Parish School	10	10	10	9	9	9	9	7	9	10	92
Project # 2	Darling River Bridge shared path and lighting upgrade	Darling River Old Bridge	Reid Street	10	10	10	10	9	10	10	10	10	9	88
Project # 3	Kerb ramp replacement program	Various Streets	Various Streets	10	7	10	10	9	7	8	7	9	10	87
Project # 4	Gloria King Youth Centre shared path	Cleaton Street	Gloria King Youth Centre	10	10	10	9	9	7	9	7	8	7	86
Project # 5	Barkindji Drive shared path	Parundji Drive	Field Street	10	8	9	10	8	7	10	6	8	7	84
Project # 6	Meyers Street shared path extension	Darling River New Bridge	Reid Street	8	8	9	10	7	7	10	6	6	6	77
Project # 7	Wayfinding and interpretive signage (contemporary signage for iconic attractors, cultural heritage and river themes)	Various locations	Various locations	6	8	7	7	6	6	5	8	7	8	68
Project # 8	Cleaton Street footpath extension	Woore Street	Reid Street	7	7	6	6	5	5	6	5	5	5	57
Project # 9	Ross Street footpath extension	Wilcania Multi Purpose Service	Public WC	7	7	6	6	5	5	6	5	5	5	57
Project # 10	Bourke Street footpath extension	Ross Street	Tennis Courts	7	7	6	6	5	5	5	5	5	5	56
Project # 11	Myers Street footpath extension	Hood Street	James Street	7	7	6	6	5	5	5	5	5	5	56

Project Description		From	To	Does it fill a network gap?	Has it been identified in consultation?	Is it suitable for all users?	Are there user type benefits?	Is it located in a high activity area?	Is it located in a hazard area?	Does it improve separation of from motor vehicles?	Is it an iconic route that inspires greater activity?	Will it increase active transport trips and support?	Is it practical and cost effectively?	Total
Place	**Project Description**	**Street Name**	**Street Name**											
Project # 12	Byrnes Street to Field Street footpath connection	Byrnes Street	Field Street	7	6	6	6	5	5	5	5	5	5	55t

11

ONGOING RESPONSIBILITIES

Supporting a Culture of Active Transport

Even a locally tailored evidence-based plan of action is not a guarantee of lasting results once completed and implemented. According to the WHO Pedestrian Safety Manual 2013, safe road-user behaviour and increasing user support depends on a number of factors, including:

- Knowledge and skills.
- Leaders.
- Community support.
- Perception of vulnerability and risk.
- Social acceptance to norms and change models
- Engineering measures
- Law enforcement

As this is a strategic document, detailed behaviour-change interventions and road safety programs have not been considered comprehensively. These issues need to be addressed over a longer period and with greater community input.

The following community awareness, education and activation strategies are suggested for further consideration by Central Darling Shire Council and the wider local community over the life of the Central Darling ATP.

Actions	Time frame
Create a cycling routes guide and / or way-finding map.	1-5 years
Review active transport path signage and investigate opportunities for improvements.	1-5 years
Encourage shared path etiquette, including signage and use of social media.	1-5 years
Investigate community crowd funding models that ensure delivery of priority projects for Central Darling Shire.	1-5 years
Install bicycle parking facilities, and encourage the inclusion of change room facilities in new employment generating developments.	5-10 years
Investigate / implement street tree plantings in appropriate locations along walking and cycling routes.	5-10 years
Partner with the NSW government and community organisations to deliver skills development and road safety awareness initiatives.	Ongoing

Maintaining the Active Transport Network

The development of a comprehensive maintenance program which identifies key tasks and frequency of works is an important part of a quality network.

Monitoring Progress

Implementing the priorities of the Central Darling ATP will require on-going review of progress and regular feedback to key stakeholders and the wider community. Council will monitor, review and report on its progress under the Central Darling ATP using the existing Integrated Planning and Reporting (4-Year Delivery Program) Framework under the Local Government Act 1993 to ensure that its planning priorities are being achieved.

Funding Programs, Initiatives + Infrastructure

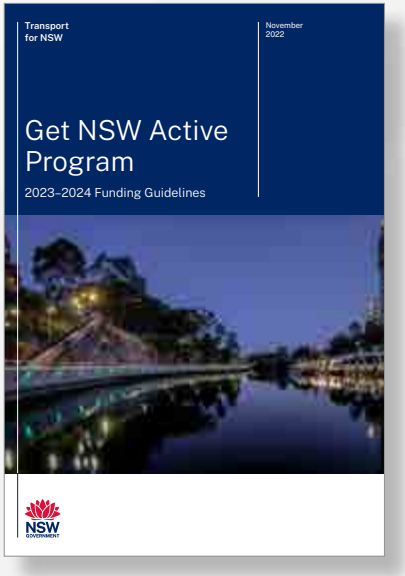
Moving forward, Council has the opportunity to make significant upgrades to walking and cycling infrastructure across the Central Darling Shire with support from other government authorities.

Options for funding the actions outlined within the Active Transport Action Plan include:

- Section 7.11 contributions – collected from new development in the relevant areas. However, these contributions will not be able to fund all of the actions in this Plan;
- Grants and contributions (operational and capital) – Council will actively pursue grant funding and other contributions to assist in the delivery of new infrastructure; and
- Delivery partnerships – where Council and key partners (such as State Government agencies or private developers) collaborate to deliver a new infrastructure.

The following grant programs are currently available for active transport in NSW:

- Transport, through the Get NSW Active grant program - funds grants to local and State governments for walking and cycling infrastructure as well as the development of strategies that support walking and cycling in local communities. To fund the development and delivery of the 15-minute neighbourhoods, the Get NSW Active grant program will fund the delivery of links and networks that support 15-minute neighbourhoods, including the local links and networks that integrate with strategic cycleways.
- The Liveable and Safe Urban Communities Initiative - funds targeted, area-based actions and treatments to improve safety. In busy urban places, the Safer Roads Program will deliver traffic calming, pedestrian facilities, and the expansion of safer speed settings.
- The Streets as Shared Spaces Program - provides grants for NSW Councils to deliver temporary and demonstration projects that test and pilot innovative ideas for streets as safe, shared public spaces. The program tests possible permanent changes that can strengthen the amenity, accessibility and economic vitality of a high street and surrounding areas.



12

PROJECT SHEETS

A number of project sheets have been developed for some of the priority projects in Ivanhoe, Menindee, Sunset Strip, Tilpa, White Cliffs and Wilcannia. These project sheets are presented in the following section of the Central Darling ATP. Permission was obtained from all people in photos and recording of their views and ideas on projects.

Wilcannia Project # 1

Scope of works

The existing solar lights along the shared path linking Warrali Avenue and St Therese's Parish School to the Darling River Bridge were not operational during site inspection. There is a need to repair solar lighting system or replace with a hard wired electrical supply, along with the ability to turn off lighting to St Therese's Parish School. Improved lighting will provide a well lit path from Warrali Avenue and St Therese's Parish School to Reid Street (Wilcannia Main Street). Ability to light different sections of the route will provide the Principal of St Therese's Parish School (who resides on school grounds) with the ability to turn off the section of path to the school outside school zone hours.

Estimated cost

Subject to quotation from a suitably qualified solar / electricity provider.

Specifications

Existing pedestrian light repairs x 8.

Electrical switching at St Therese's Parish School.

Typical Section View

Typical Plan View

St Therese's Parish School Engagement

Site Photograph

Wilcannia Project # 2

Scope of works

The old Darling River Bridge crossing needs to be improved with lighting to provide a clear line of path from Warrali Avenue and St Therese's Parish School to Reid Street (Wilcannia Main Street). Design of lighting will require special consideration of heritage, CPTED, and active transport guidelines as detailed in see Section 6 of the Central Darling ATP. An Inquiry-by-Design process is recommended that involves inputs from NSW Police Force, TfNSW, Heritage NSW, Wilcannia LALC, Central Darling Shire Council and interested community stakeholders.

Estimated cost

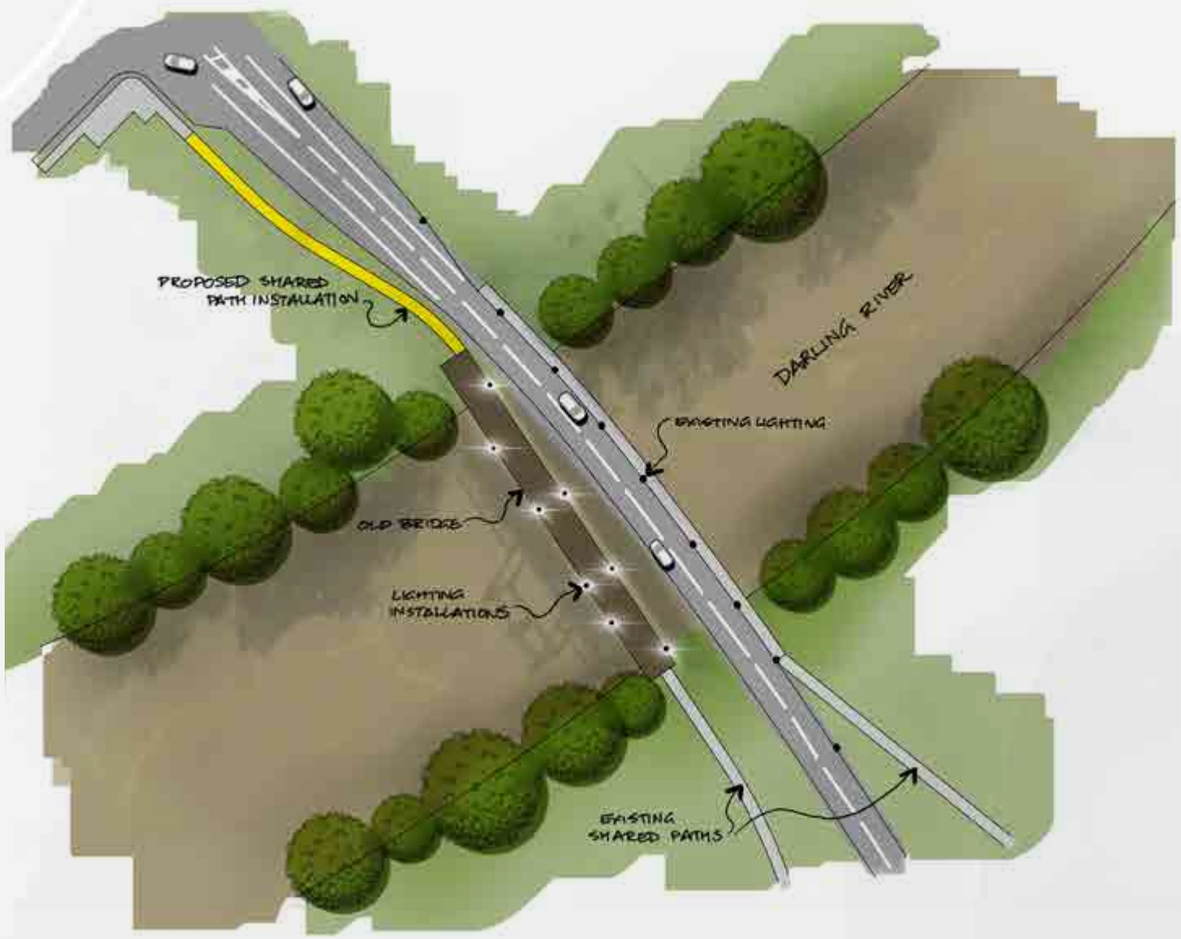
$25,000 + subsequent quotation from a lighting specialist. A total project budget of $50,000 has been estimated.

Specifications

Inquiry-by-Design and Review of Environmental Factors process, with a budget set @ $25,000 for design phase.

Pedestrian solar / hard wired lights x 8.

Bridge deck restoration, including silt and weed removal, tree branch pruning, bitumen seal resurface and protection of timber surfaces.



Historic Wilcannia Bridge

Site Photograph

Wilcannia Project # 3

Scope of works

There is a need to replace existing kerb ramps at various locations in Wilcannia that do not comply with relevant standards. Achievement of compliant kerb ramps throughout town has wide benefits for all users. A project budget to undertake a comprehensive replacement program by either Council or a contracted service provider is recommended to improve active transport conditions throughout the established active transport network at Wilcannia.

Estimated cost

$155,000

Specifications

30 x kerb ramps @ $3,500 each.

Road shoulder and footpath rehabilitation contingency estimated @ $20,000 for silt removal, kerb and gutter, shoulder reseal and weeds spraying.

Traffic control, estimated @ $30,000 for preparation / implementation of Traffic Control Plans over various situations.

Typical Kerb Ramp Photographs

Typical Compliant Kerb Ramp Arrangement

Wilcannia Project # 4

Scope of works

There is a need to connect the Gloria King Youth Centre with other facilities, such as Wilcannia Central School with a shared path along Hood Street. Achievement of a shared path would provide a safe link for school age children to access the youth centre before and after school, which can be in darker conditions during winter months. It is recommended the project also includes lighting at the car park and entrance to the youth centre.

Estimated cost

$63,900 + Street Light cost.

Specifications

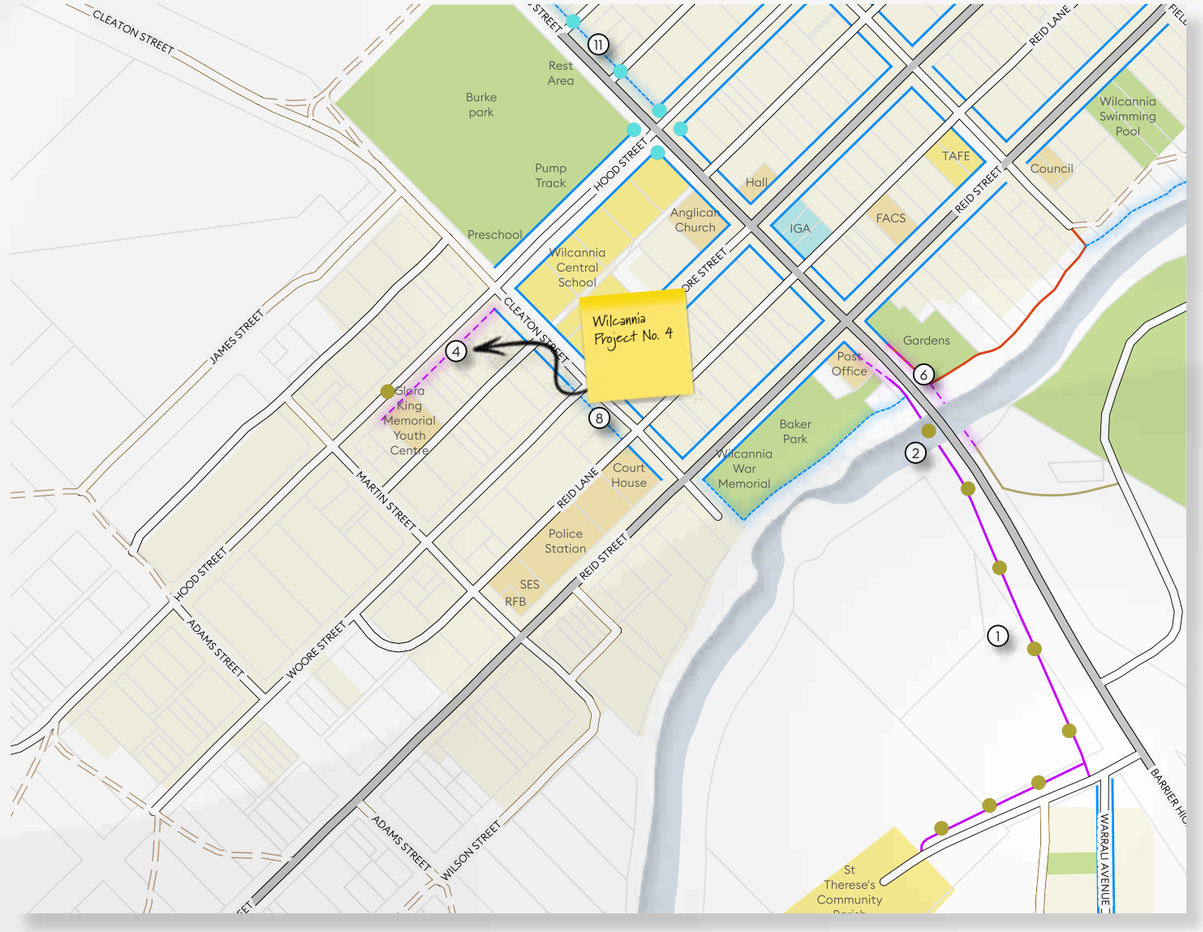
Shared path x 130m @ $430/lm.

Kerb ramps x 2 at Cleaton Street intersection @ $3,500 each.

Installation of a Street light at existing power pole adjacent to Gloria King Youth Centre @ Essential Energy rates.

Road shoulder and footpath rehabilitation contingency estimated @ $750 for silt removal and weeds spraying.

Traffic control, estimated @ $1,000 for preparation / implementation of a Traffic Control Plan.



Gloria King Youth Centre Engagement

Site Photograph

Wilcannia Project # 5

Scope of works

There is a need to connect the outlying residential area to the northwest of town with a shared path along Barkindji Drive, north of Parundji Drive to Field Street. A new concrete shared path will provide opportunity for residents to use a dedicated off-road path. It is recommended that street lighting along the road / pathway be reviewed against relevant standards and new street lights installed where required.

Estimated cost

$381,000 + Street Light costs

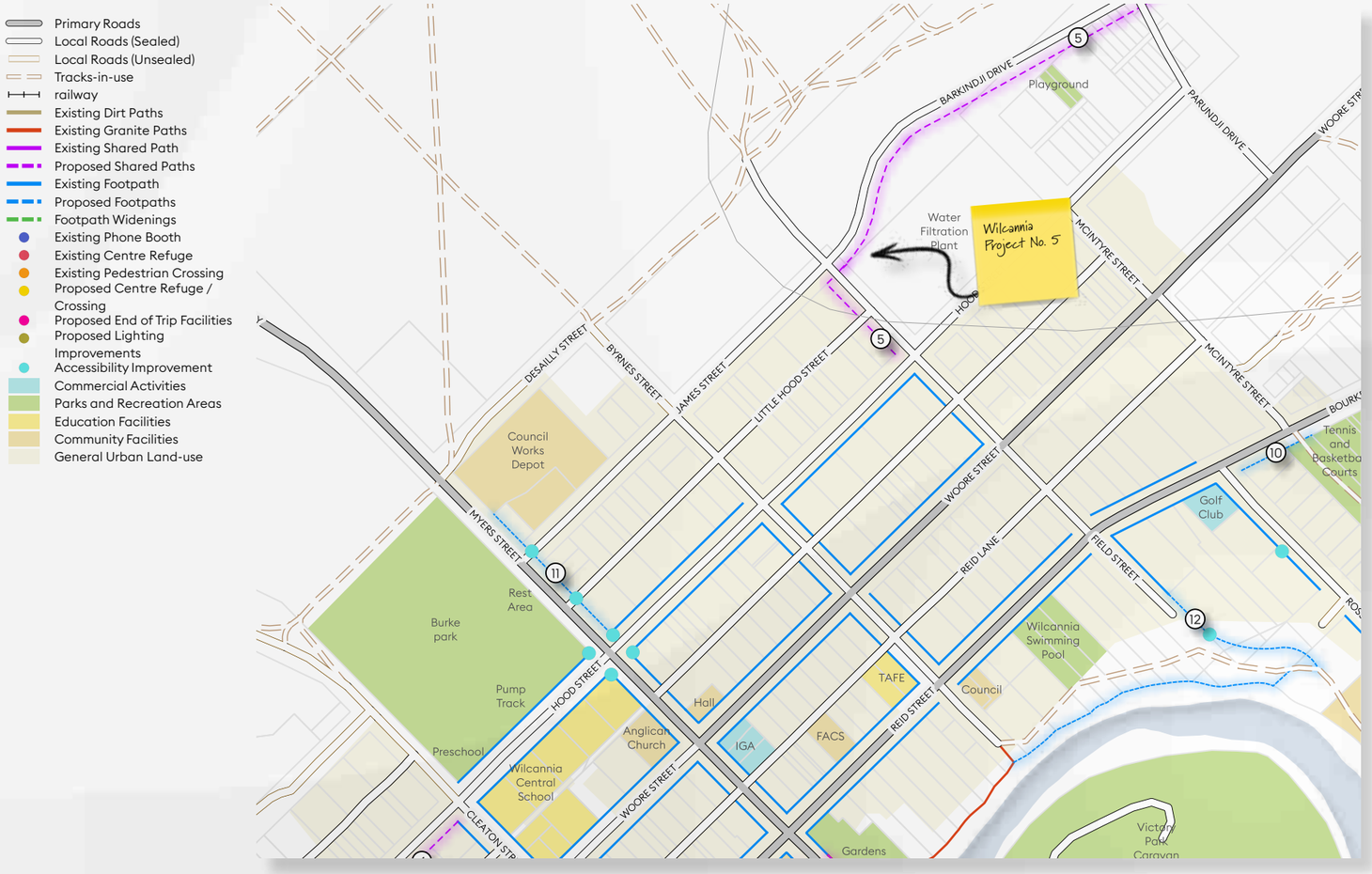
Specifications

Shared path x 850m @ $430/lm.

Installation of street lights at existing power poles to road / path @ Essential Energy rates.

Road shoulder and footpath rehabilitation contingency estimated @ $7,500 for silt removal, imported fill, weeds spraying and grass seeding.

Traffic control, estimated @ $8,000 for preparation / implementation of a Traffic Control Plan.



Site Photograph

Site Photograph

Sunset Strip Project # 1

Scope of works

The road carriageways of Kingfisher Avenue and Lakeview Avenue are being used by motor vehicles and active transport users and there is a need to install a 40km/hr sign-posted speed limit and other 'street sharing' signage along these roads.

Estimated cost

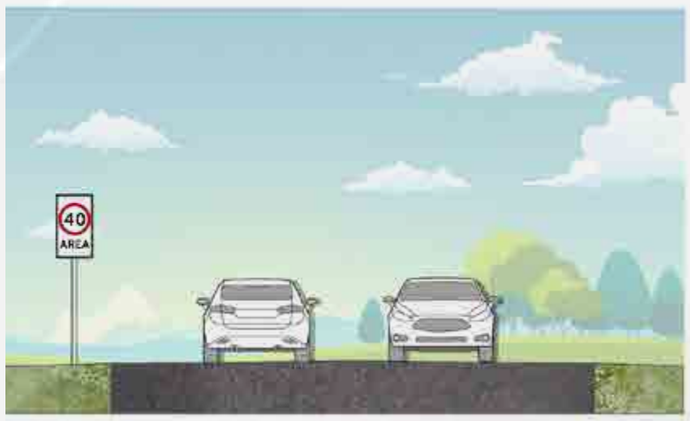
$7,500 for installation of signage and community awareness information.

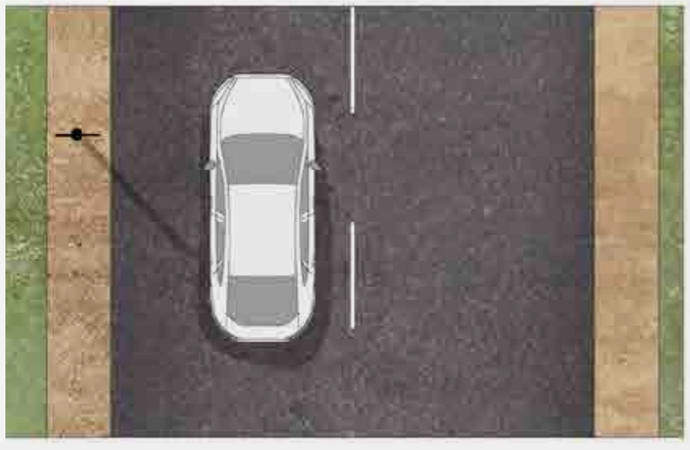
Specifications

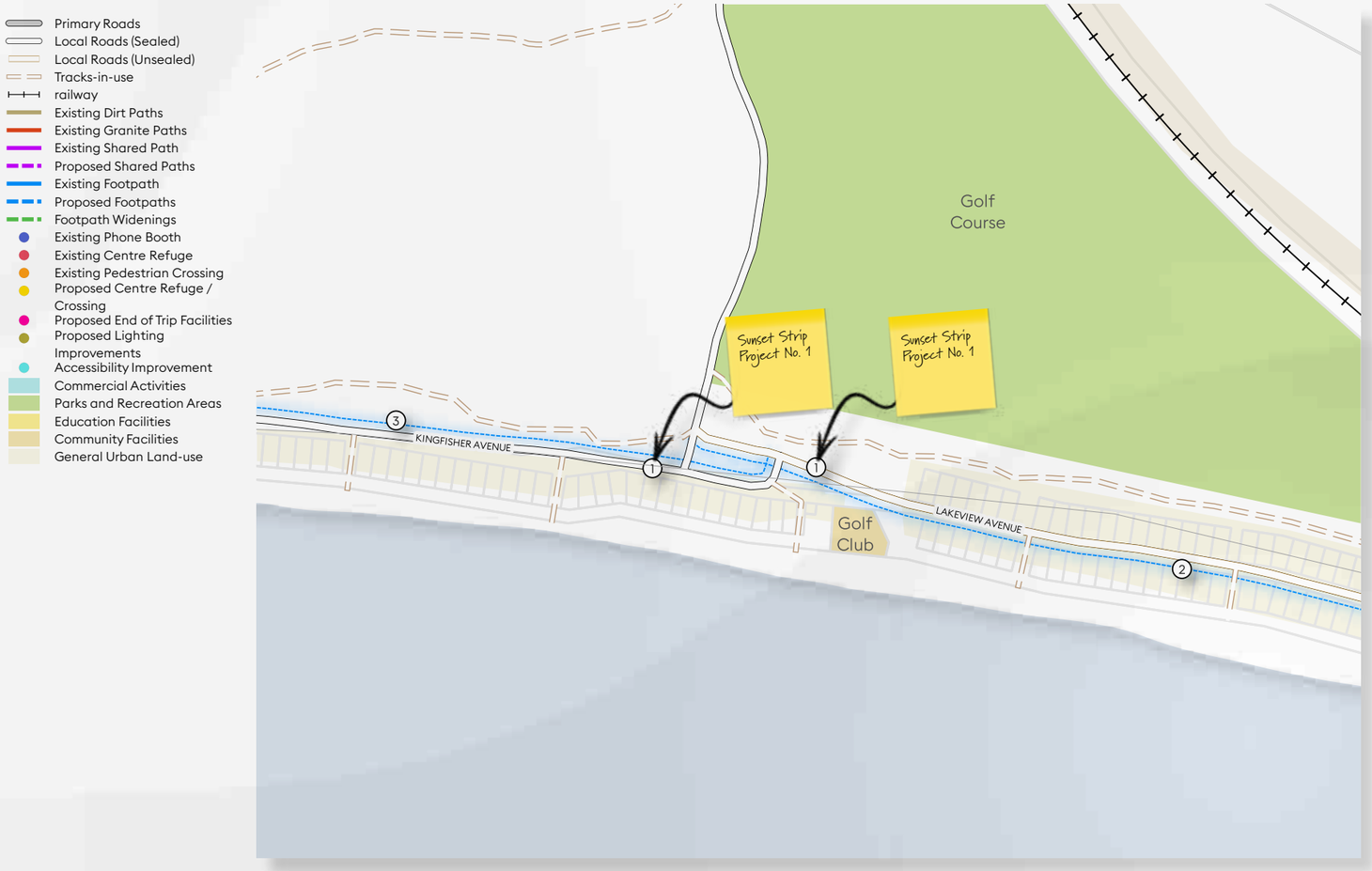
40km/hr signs x 8 @ $500 each for supply and install.

Addition temporary road safety / community awareness signage x 4 @ $500 each for supply and install.

Additional community awareness information on Council website and posters for display at high use public venues in Sunset Strip x 4, estimated @ $1,500.







Site Photograph

Site Photograph

Menindee Project #1

| Scope of works

There is a need to complete a crossing of Menindee Street next to the main pedestrian entrance to Menindee Central School. Completion of a road crossing in front of the main gates to school would provide a safe link for students and teachers and other visitors.

| Estimated cost

$36,500

| Specifications

Road refuge island @ $12,000.

Kerb side blisters x 2 @ $7,000 each.

Road shoulder and footpath rehabilitation contingency estimated @ $2,500 for road shoulder reseal, silt removal, imported fill, weeds spraying and grass seeding.

Traffic control, estimated @ $8,000 for preparation / implementation of a Traffic Control Plan.

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
- Proposed End of Trip Facilities
- Proposed Lighting Improvements
- Accessibility Improvement
- Commercial Activities
- Parks and Recreation Areas
- Education Facilities
- Community Facilities
- General Urban Land-use

Site Photograph

Site Photograph

Menindee Project # 2

| Scope of works

There is a need to replace existing kerb ramps at various locations in Menindee that do not comply with relevant standards. Achievement of compliant kerb ramps throughout town has wide benefits for all users. A project budget to undertake a comprehensive replacement program by either Council or a contracted service provider is recommended to improve active transport conditions throughout the established active transport network at Menindee.

| Estimated cost

$155,000

| Specifications

30 x kerb ramps @ $3,500 each.

Road shoulder and footpath rehabilitation contingency estimated @ $20,000 for silt removal, kerb and gutter, shoulder reseal and weeds spraying.

Traffic control, estimated @ $30,000 for preparation / implementation of Traffic Control Plans over various situations.

Typical Compliant Kerb Ramp Arrangement

Typical Kerb Ramp Photographs

Menindee Project # 3

| Scope of works

There is a need to improve crossing of Yartla Street in proximity of the Menindee Post Office. People access both sides of Yartla Street. Blisters only with no centre island has been suggested by locals to ensure continue movement of wide loads through town. Road crossing, parking and disabled access improvements to the entrance of the historic Post Office are recommended to ensure access for all users.

| Estimated cost

$43,000

| Specifications

Concrete blisters x 2 @ $7,000 each.

Kerb ramps x 2 at Yartla Street @ $3,500 each.

Concrete footpath / ramp upgrade to Yartla Street, including handrails, estimated @ $2,750.

Concrete disability access ramp and handrails (northern side of PO entrance) estimated @ $12,500.

Handrail to existing PO steps and repairs, estimated @ $2,500.

Landscape redesign and embellishment to suit new crossing and access arrangements, estimated @ $5,000.

Australian Road Rules parking signage supply and installation x 8 @ $500 each.

Traffic control, estimated @ $8,000 for preparation / implementation of a Traffic Control Plan.

- Primary Roads
- Local Roads (Sealed)
- Local Roads (Unsealed)
- Tracks-in-use
- railway
- Existing Dirt Paths
- Existing Granite Paths
- Existing Shared Path
- Proposed Shared Paths
- Existing Footpath
- Proposed Footpaths
- Footpath Widenings
- Existing Phone Booth
- Existing Centre Refuge
- Existing Pedestrian Crossing
- Proposed Centre Refuge / Crossing
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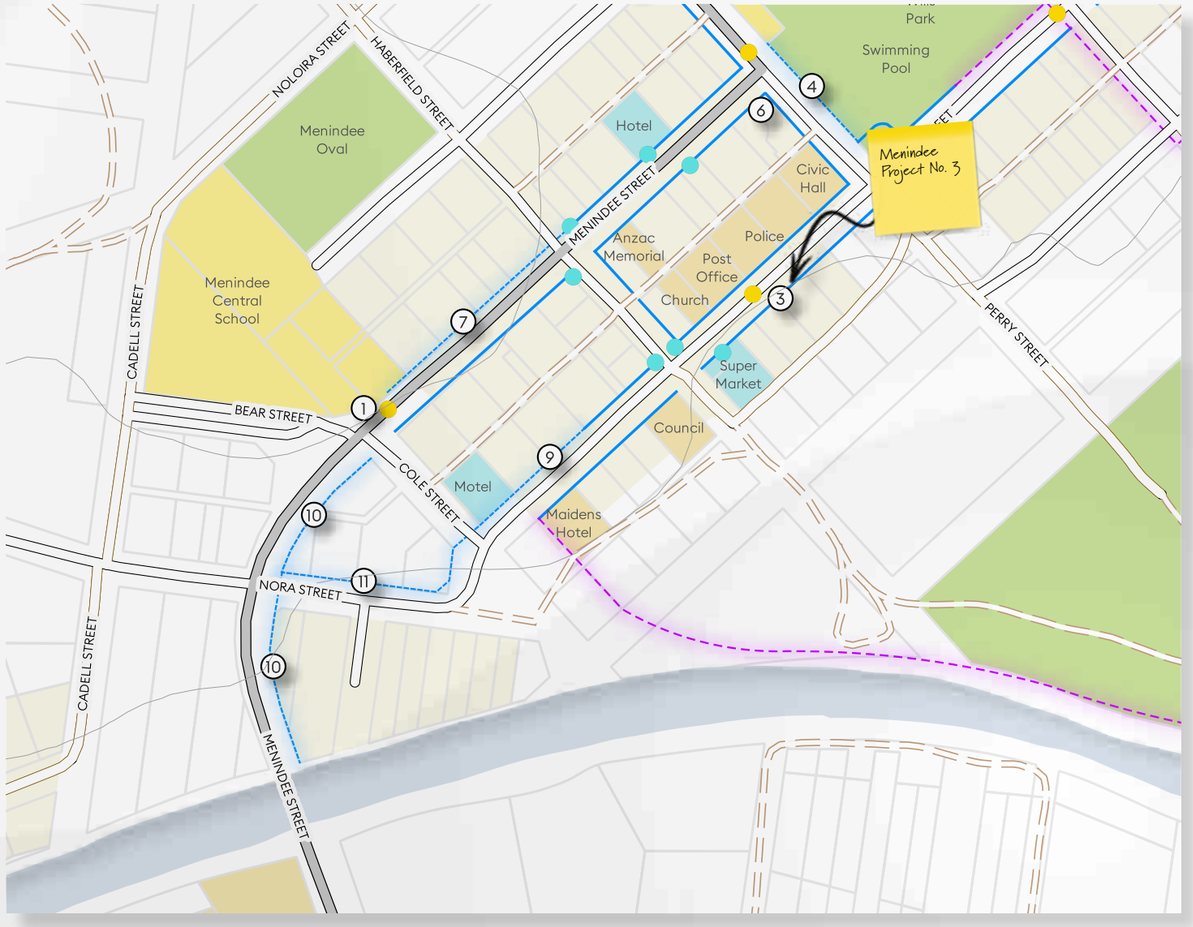
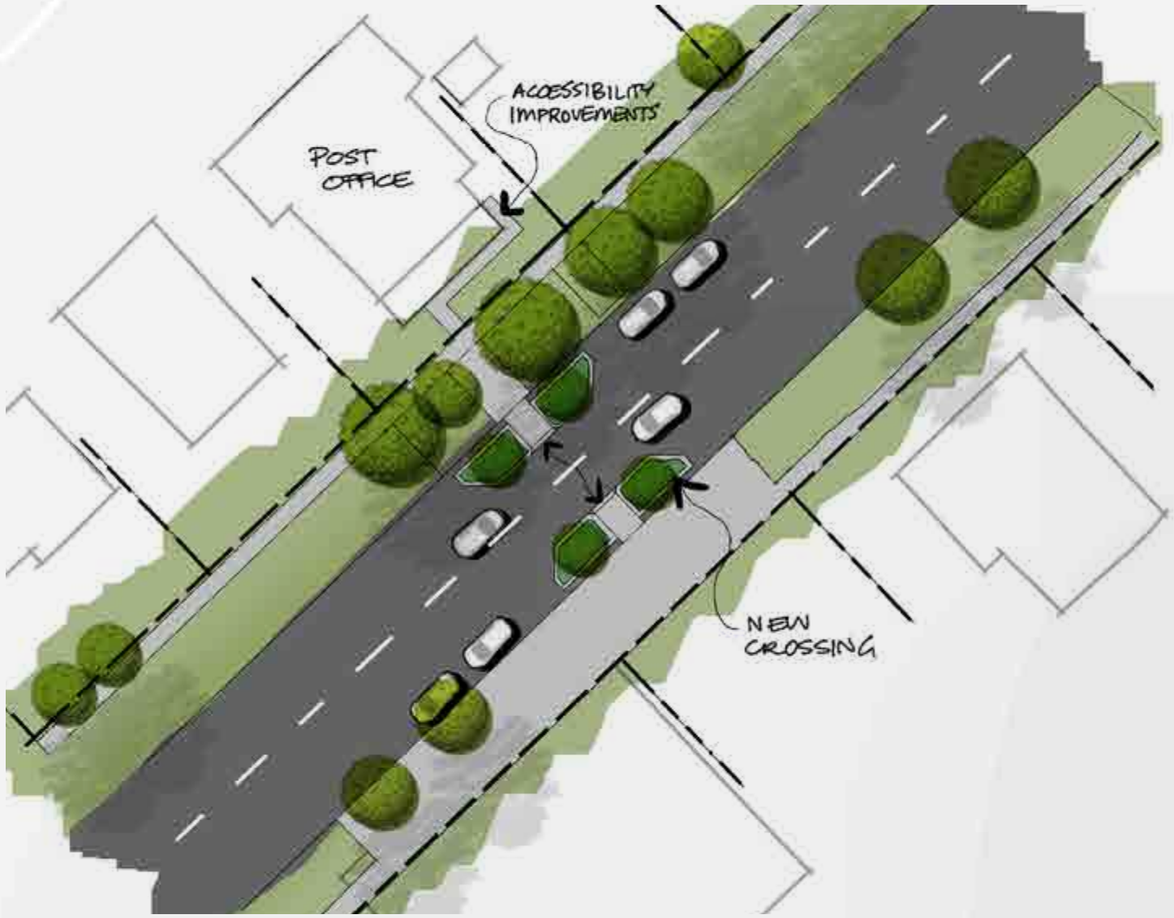
- Community Facilities
- General Urban Land-use





Site Photograph

Site Photograph

Menindee Project # 6

| Scope of works

There is a need to improve crossing of Perry Street in proximity of the Redsands Takeaway and Burke and Wills Park. Improvements in parking and integration of existing street trees and drainage are important design considerations. Establishment of constructed

| Estimated cost

$49,400

| Specifications

Concrete blisters x 2, northmen side of Perry Street, estimated at $7,000 each.

Kerb ramps x 2 at Perry Street intersection @ $3,500 each.

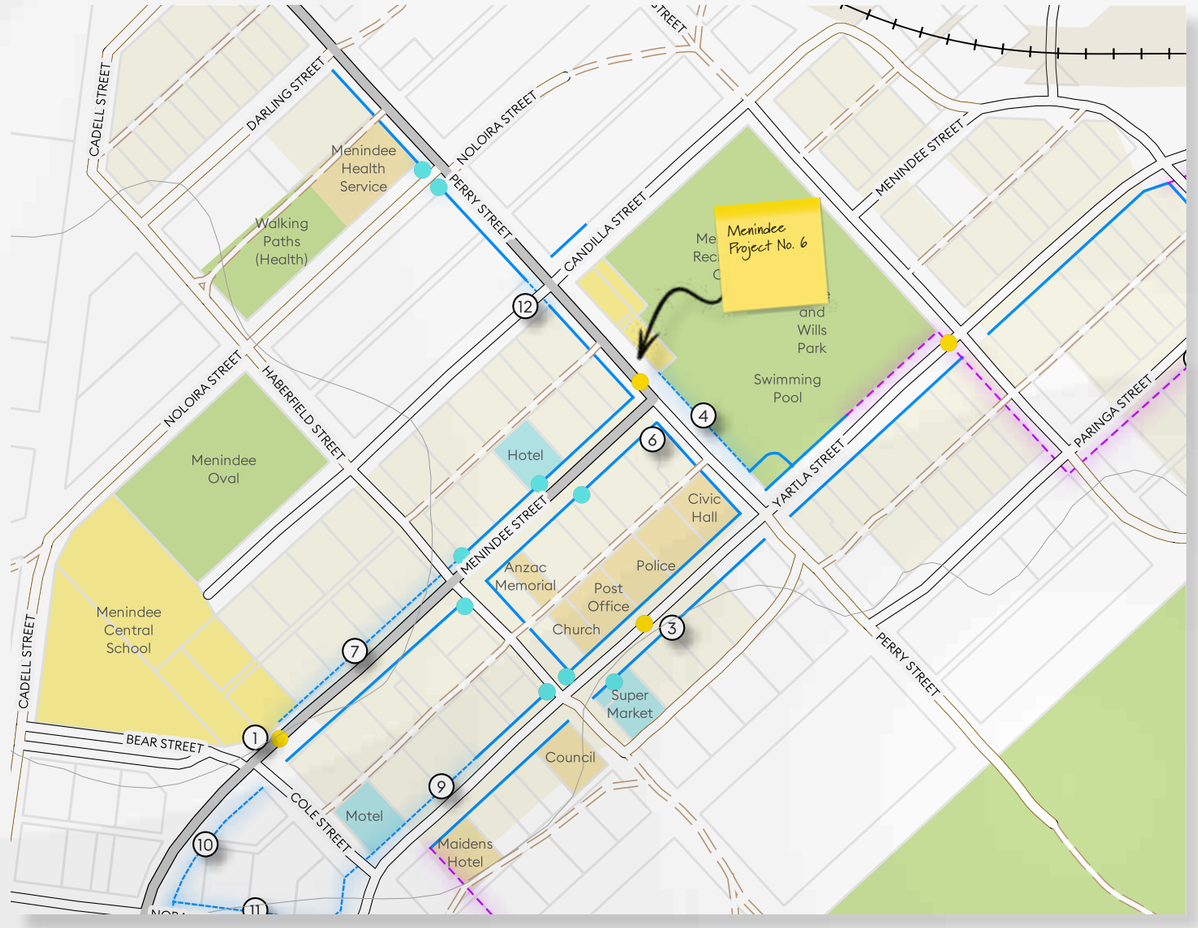
Concrete footpath extension x 20m, northern side of Perry Street, estimated at $270/lm.

Concrete kerb and gutter x 35m (north eastern side of Perry Street adjoining Menindee Recreation Oval) and requisite road shoulder seal to complete crossing works, estimated at $9,000.

Concrete kerb and footpath extension (south western side of Perry Street adjoining Redsands Takeaway Shop), estimated at $9,000.

Australian Road Rules parking signage supply and installation x 8 @ $500 each.

Traffic control, estimated @ $8,000 for preparation / implementation of a Traffic Control Plan.



Site Photograph

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White Cliffs Project # 1

| Scope of works

There is a need to install a new footpath along Johnston Street in White Cliffs from Keraro Road to White Cliffs Central School. Design of 1.5m footpath should include special consideration of iconic place themes, active transport guidelines (see Section 6 of the Central Darling ATP) and site specific engineering of stormwater. The nearby iron sculpture museum may provide local design queues.

| Estimated cost

$77,500

| Specifications

Footpath x 200m @ $270/lm.

Drainage and footpath rehabilitation, estimated @ $15,000.

Traffic control, estimated @ $4,000 for preparation / implementation of a Traffic Control Plan.

Iconic design theme components, with a project budget set @ $4,500.

Site Photograph

Site Photograph

Ivanhoe Project # 2

| Scope of works

There is a need to replace existing kerb ramps at various locations in Ivanhoe that do not comply with relevant standards. Achievement of compliant kerb ramps throughout town has wide benefits for all users. A project budget to undertake a comprehensive replacement program by either Council or a contracted service provider is recommended to improve active transport conditions throughout the established active transport network at Ivanhoe.

| Estimated cost

$155,000'

| Specifications

30 x kerb ramps @ $3,500 each.

Road shoulder and footpath rehabilitation contingency estimated @ $30,000 for silt removal, kerb and gutter, shoulder reseal and weeds spraying.

Traffic control, estimated @ $20,000 for preparation / implementation of Traffic Control Plans over various situations.

Site Photograph

Site Photograph

Ivanhoe Project # 4

Scope of works

There is a need to install a new crossing Columbus Street in proximity of the Ivanhoe Services Club and Ivanhoe Pavilion and Memorial. Shared path extensions are also required to connect existing public toilets, parkland, memorial and outdoor gym facilities on the eastern side of Columbus Street.

Estimated cost

$72,800

Specifications

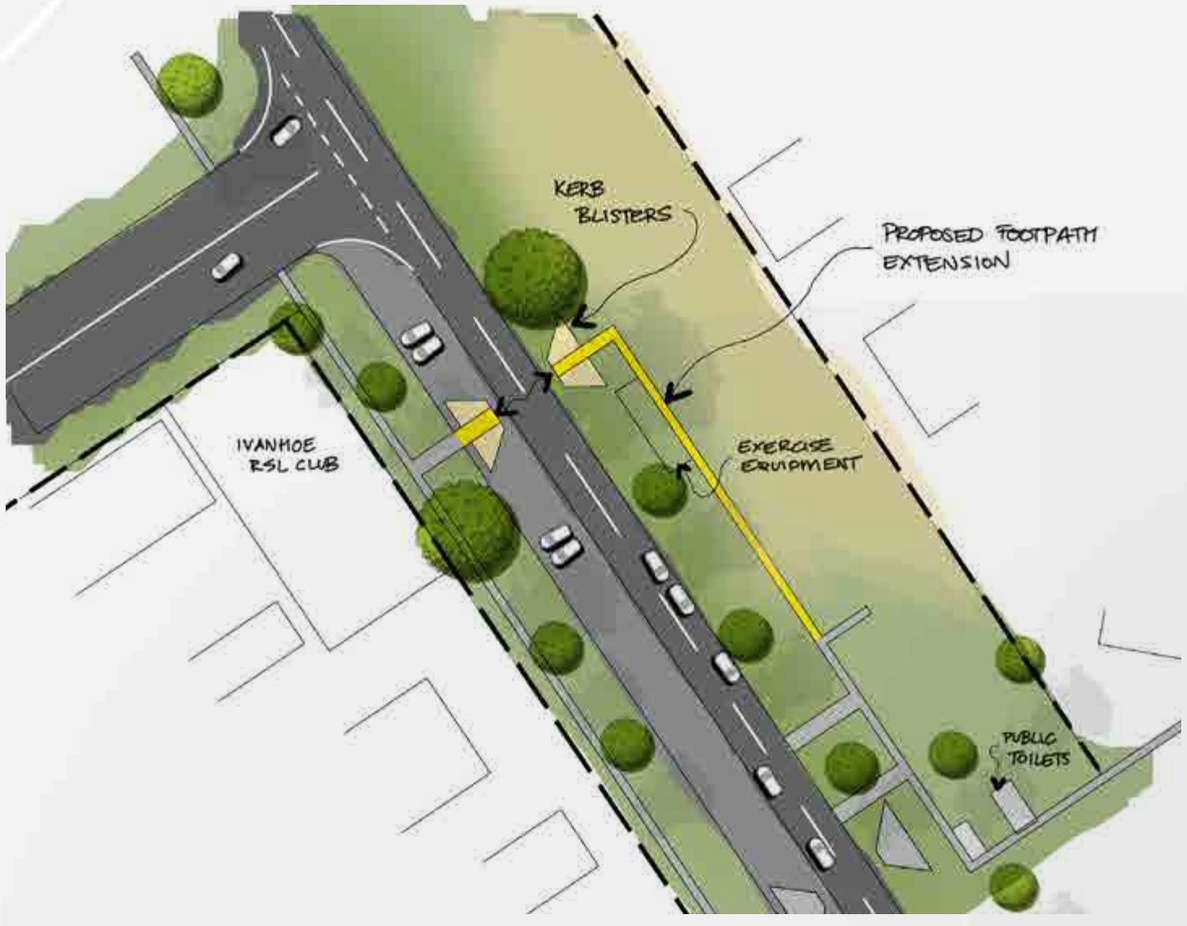
Concrete shared path footpath x 60m @ $430/lm.

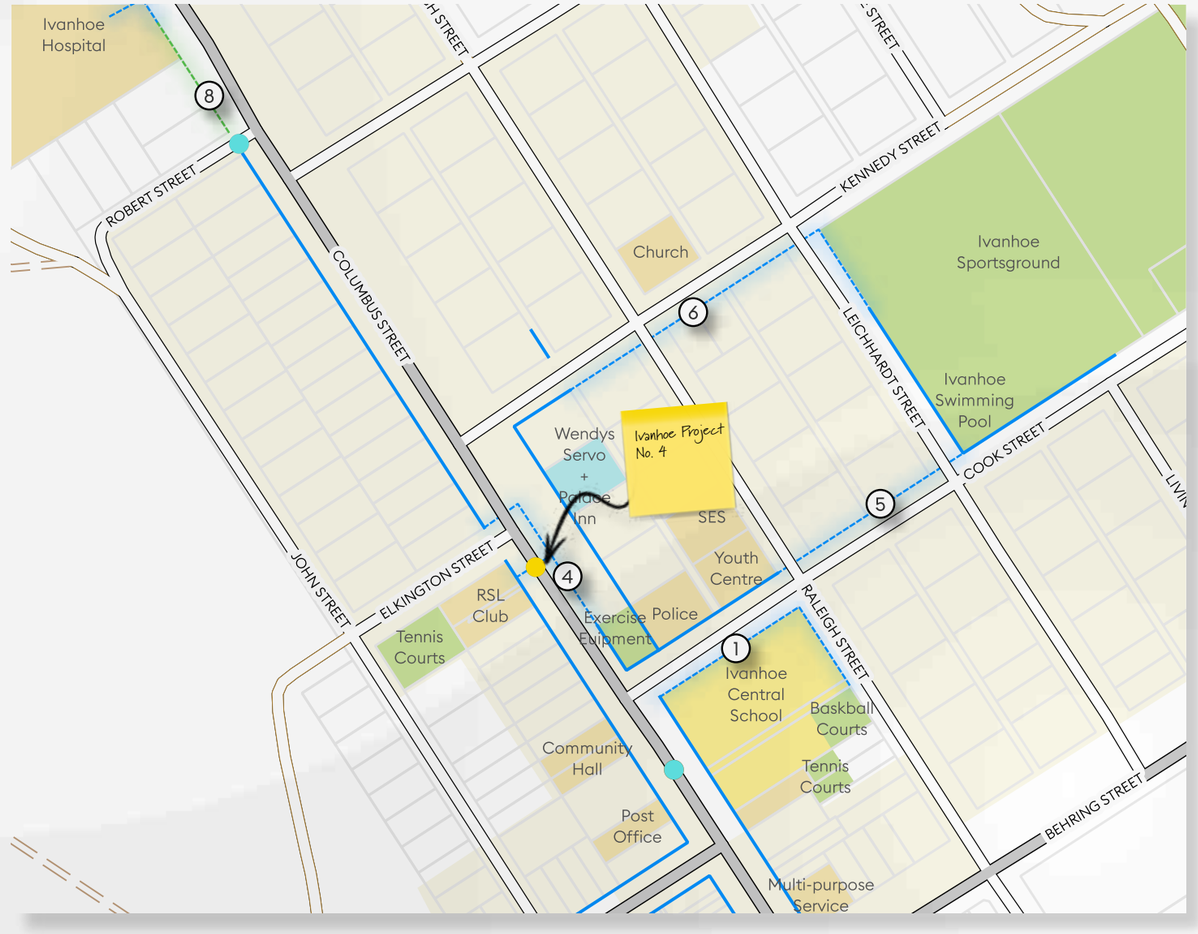
Concrete blisters x 4 @ $7,000 each.

Kerb ramps x 2 @ $3,500 each.

Australian Road Rules parking signage supply and installation x 8 @ $500 each.

Traffic control, estimated @ $8,000 for preparation / implementation of a Traffic Control Plan.





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