



Gilgandra Active Transport Strategy PAMP and Bike Plan

Client // Gilgandra Shire Council
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Gilgandra Active Transport Strategy

PAMP and Bike Plan

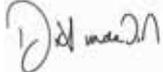
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Executive Summary

Gilgandra Shire Council requires an Active Transport Strategy to foster a strong walking and cycling culture in both the town of Gilgandra and within the township of Tooraweenah.

The Active Transport Strategy should cater and provide for the needs of all pedestrians and cyclists throughout the demographic spectrum from school children to older persons. Currently, the footpath network within Gilgandra is limited, and this disincentives walking for a range of purposes.

The direction and strategy contained within the Active Transport Strategy is largely guided by, and aims to reinforce goals set forth in the existing Gilgandra Shire Council Community Strategic Plan 2013-14 to 2022-23. The document outlines future directions and strategic outcomes for Gilgandra supporting:

- **An active community with a focus on physical and mental wellbeing** (1.1)
- **A community with access to quality** health, welfare, education, early childhood, sporting, **recreational**, cultural and technological **services and facilities** (1.3)
- **A community with a reputation as a great place to live**, stop, stay or just spend time where visitors are welcomed and embraced (2.2)
- **A council that focuses on strategic planning** and financial sustainability (3.2)
- **A community with well-constructed, maintained and managed** public infrastructure including water and sewer infrastructure, **public buildings and facilities**, plant and equipment (4.1)
- **A community serviced by a safe, reliable and efficient transport network** (4.2)

A vision for the community of Gilgandra and the surrounding communities was developed for the Active Transport Strategy:

- The vision for Gilgandra is for walking and cycling to become the preferred mode for short trips within Gilgandra. Walking and cycling are to be safe, easy and accessible for everyone.

In developing this vision, four principles were identified:

- A shared path network will be provided that surrounds the town and provides regular links into the town centre
- Major trip generators will have an adequate pathway connection that enables access to all relevant user groups
- Easy access to the shared path network will be provided for mobility impaired users in such way that the crossing of main roads is safe and within reasonable distance from main desire lines
- All user groups will be provided with supporting material to safely engage in active travel as a key element to the success of an increase in active transport mode share.

A number of initiatives and infrastructure projects were identified for the Gilgandra to implement as part of their Active Transport Strategy. Such key projects include:

- The continuing development of a 2.5 metre wide shared path that runs around the perimeter of Gilgandra
- The expansion of the walkway network such that approximately 90% of households will be within 2 blocks to a walkway

- Engaging with organisations such as schools and the New South Wales police to educate and develop a walking and cycling culture within the community
- Remodelling kerb ramps such that user comfort is enhanced, particularly for scooters and prams
- The installation of crossing facilities to enhance safety when crossing roads for all pedestrians
- The provision of walkway links within Tooraweenah to enhance safety.

Various funding streams have been outlined such that Gilgandra can engage these opportunities to gain extra funding leverage to achieve active transport mode shift. Such funding streams are currently present through both the state and federal government, as well as the private sector.

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1. Introduction

1.1 Preamble

GTA Consultants has been engaged by Gilgandra Shire Council to prepare an Active Transport Strategy to foster a strong walking and cycling culture in both the town of Gilgandra and within the township of Tooraweenah.

The Active Transport Strategy should cater for the needs of all pedestrians and cyclists throughout the demographic spectrum from school children to older persons. Currently, the footpath network within Gilgandra is limited, and this disincentives walking for a range of purposes.

The Active Transport Strategy will, in the first instance, cover a two kilometre walking catchment from Miller Street and a five kilometre cycling catchment from the town centre. In the longer term, enhancing links to surrounding townships such as Tooraweenah should be considered.

This Active Transport Strategy has been co-funded by the Roads and Maritime Services (RMS) to deliver investment in safe, convenient and coherent pedestrian and cycling infrastructure on key routes to attract trips away from private motor vehicle use. The Active Transport Strategy will provide a strategic and coordinated approach to guide future investment.

1.2 Direction and Strategy

The direction and strategy contained within this report is largely guided by, and aims to reinforce goals set forth in the existing Gilgandra Shire Council Community Strategic Plan 2013-14 to 2022-23. The document outlines future directions and strategic outcomes for Gilgandra supporting:

- **An active community with a focus on physical and mental wellbeing** (1.1)
- **A community with access to quality health, welfare, education, early childhood, sporting, recreational, cultural and technological services and facilities** (1.3)
- A community with a reputation as a great place to live, stop, stay or just spend time where visitors are welcomed and embraced (2.2)
- **A council that focuses on strategic planning** and financial sustainability (3.2)
- **A community with well-constructed, maintained and managed** public infrastructure including water and sewer infrastructure, **public buildings and facilities**, plant and equipment (4.1)
- **A community serviced by a safe, reliable and efficient transport network** (4.2)

In addition to the Gilgandra specific documents we have also taken into account regional and federal guidelines and strategies. Amongst the others, notably the following:

- **Sydney's Cycling Future** – Integrating bike riding into the way communities are designed to make cycling journeys safer and more connected. Working in partnership with Councils. Working in partnership with business to develop travel plans to encourage employees to ride to work or part of the way.
- **Sydney's Walking Future** – Meeting customer needs, including the needs of older people and people who have a disability who have greater safety and mobility needs. Integrating walking into the way communities are designed to make walking journeys safer and more connected. Working with Councils and other partners to deliver local walking initiatives that make the greatest difference to most people. Promoting the

boost that walking gives health and wellbeing as a great reason for leaving the car at home.

- **Central West Regional Transport Plan** – Making walking and cycling easier and safer and giving customer’s choice when travelling within their towns. Facilitating access to vital services for an ageing population with increasing rates of disability.

In providing a strategic and coordinated approach to guide future active transport investment, the documents above outline specific active transport goals. The Gilgandra Active Transport Strategy developed by GTA Consultants in consultation with RMS and Gilgandra Shire Council is consistent with achieving these goals. This is represented in the initiatives and infrastructure upgrades recommended in Chapter 6 of this report.

2. Existing Conditions

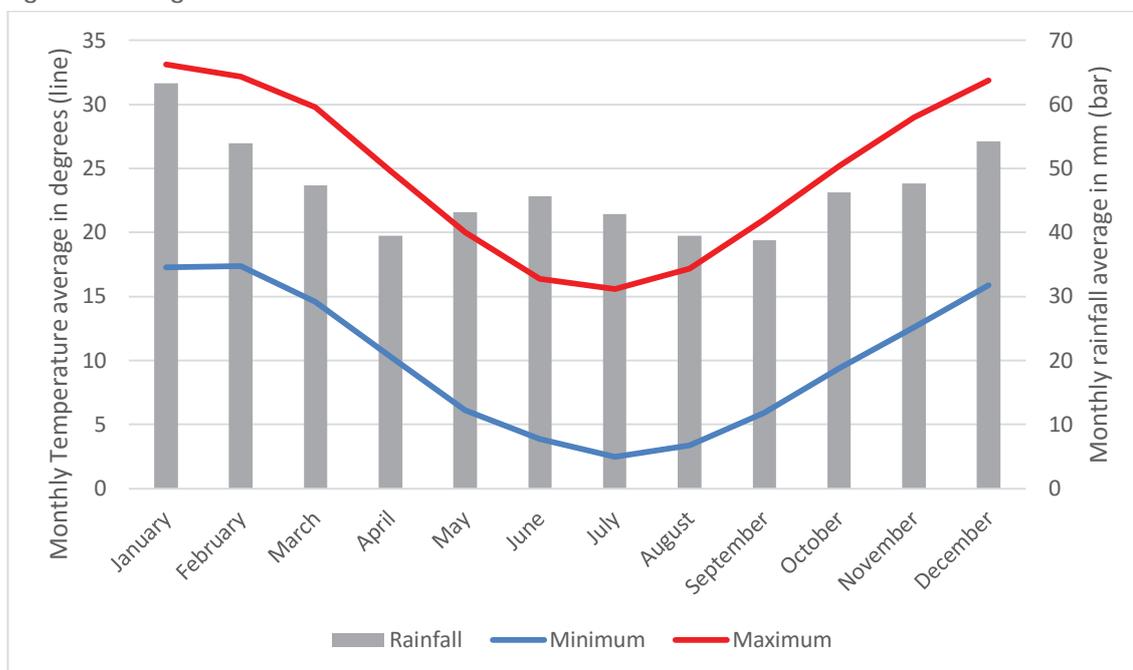
2.1 Overview

The Gilgandra Shire Council Local Government Area is located within the Orana region of New South Wales. The Local Government Area covers an area of 4,832km² and as of September 2015, there were 1,499km of road, of which Council maintained 1,427km. Gilgandra is a sub-regional township located 340km north-west of Sydney. Regionally, Gilgandra is located 57km north of Dubbo. Other surrounding townships include Tooraweenah, Mendooran, Eumungerie and Armatree. The town of Gilgandra has a population of 2,664 based on the results of the 2011 census, the Gilgandra LGA has a population of 4,368.

Gilgandra is the largest township within Gilgandra Shire Council and has a number of points of interest including three schools, a regional hospital, a swimming pool, a shopping district and a number of aged care facilities. Significant employment industries within the town include local government, education, farming, retail and aged care.

Gilgandra has a long term meteorology station based at Chelmsford Avenue. It shows that long term averages dating back as far as 1889 indicate that the area has a broadly temperate climate (hot summer, cool winter and even rainfall distribution), with the mean maximum of 24.7 and the mean minimum of 9.9. On average, there is 562mm of precipitation annually which is spread evenly throughout the year. Mean monthly temperatures and rainfall distribution are illustrated below in Figure 2.1.

Figure 2.1: Gilgandra Climatic Chart



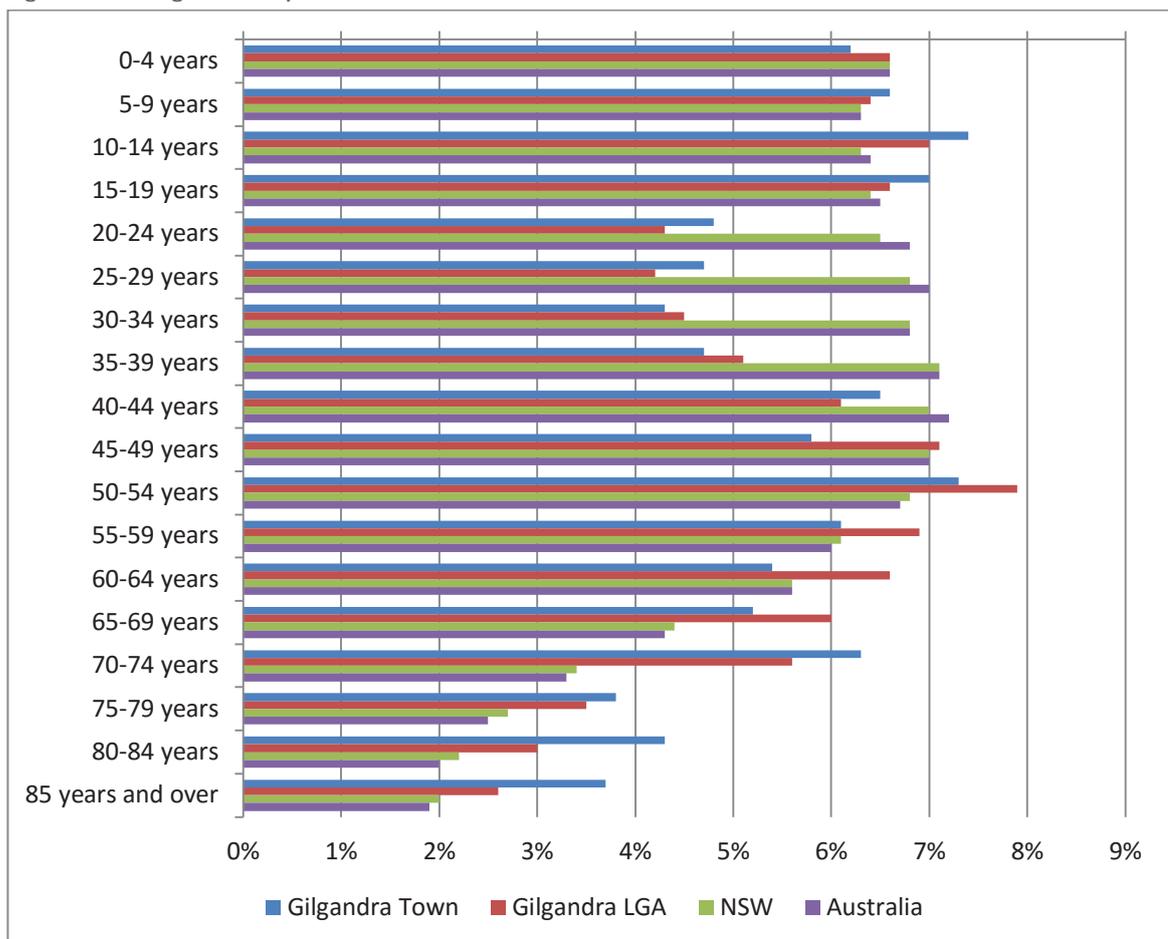
As previously noted, the township of Gilgandra is the primary study area in this report. A secondary target will examine the smaller satellite township of Tooraweenah. The township of Tooraweenah is located 40km north-east of Gilgandra. Black Springs as a state suburb in the 2011 census has a population of 371, but this is not representative of the town as this census suburb

covers an area of 1,080km². Tooraweenah has various sporting facilities, a school, pub and a caravan park.

2.2 Demographics

The population of Gilgandra and its surrounds has a bimodal population distribution. Age structure of Gilgandra both as a town and as an LGA has a distinctively low proportion of people aged 20-40, with a significantly higher proportion of the population aged below 20 and over 60. This is indicative of young adults migrating out of Gilgandra when they finish school for higher education and job opportunities. However, when residents turn about 40, they begin moving back into Gilgandra (presumably with their young families). The strong influence of the aged care facilities in Gilgandra is clearly evidenced by proportions of 80-84 (as an example) which are more than double the national average. To highlight the prevalence of an overall trend, 34.8% of Gilgandra's population reports being over the age of 55, compared to 25.6% of Australia's population more broadly. The population structure of Gilgandra is largely consistent with other centres such as Oberon and Moree. These trends are illustrated in Figure 2.2.

Figure 2.2: Gilgandra Population Distribution



Within Gilgandra as a town, more than 85% of the labour force report being in work. The largest occupational sectors include community and personal service workers (17%), technicians and trade workers (16%), labourers (15%) and professionals and managers (combined 26%). Industries of employment indicate a strong reliance on include local government (8%) and school education (7%).

2.3 Transport Patterns

The 2011 census data shows that out of 781 people who stated that they commuted to work by one mode of travel, a total of 7 rode a bicycle and 75 walked. Interestingly, all 7 people who rode a bicycle to work were males, indicating there is a polarisation in the gender of cycling uptake. Overall, walking and cycling commute rates indicate of an active commute rate of 10.5% compared to a rate of 5.8% for New South Wales more broadly. Given the regional nature of Gilgandra, a 10.5% rate can be considered significant. Further, it should be noted these numbers do not include how school children commute to school, and it does not account for leisure trips.

Figure 2.3 shows the 'Strava heat map', a social media platform for cyclists and runners indicating the use of roads as captured by GPS data. Between January 2014 and May 2015 it reports a low level of cycling and walking surrounding Gilgandra. It is important to note that whilst this can be a valuable tool, it of course only shows people who use the service. For roads heading out of town, the highest volume roads are Bearbong Road and the Castlereagh Highway, with almost no cyclist movement on the Oxley Highway or Newell Highway.

Figure 2.3: Strava Heat Map



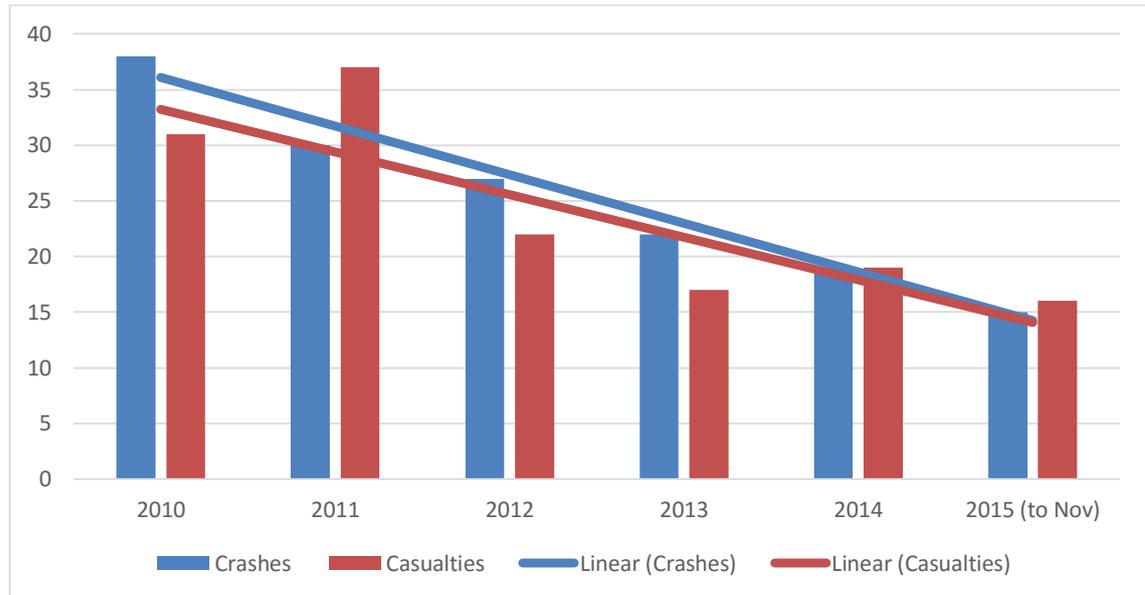
Source: <http://labs.strava.com/heatmap/#13/-211.35301/-31.71754/gray/bike>, accessed 3 November 2015

2.4 RMS Crash Data

GTA Consultants requested crash data from RMS to determine safety patterns on roads within and leading out of Gilgandra. In the five years to 31 December 2014 (plus provisional data to 12 November 2015), there were a total of 151 crashes and 142 casualties within a 40km radius of

Gilgandra resulting in four fatal crashes. With one (1) pedestrian and one (1) bicycle accident, just 1.3% of crashes have involved these groups. Less than 20% of crashes occurred in urbanised areas. Nearly two-thirds of accidents were drivers simply veering off the carriageway indicating there may be a due diligence issue with drivers. Notwithstanding, year-on-year, there has been a significant downtrend since 2010 with regards to the overall number of accidents and casualties with these statistics approximately halving. This downward trend is illustrated in Figure 2.4.

Figure 2.4: 40km Gilgandra Radius Crash and Casualty by Year



The crash map provided by RMS is shown in Appendix D.

2.5 Public Transport, Community Transport and School Bus Services

Gilgandra is presently served by bus services using one stop which is located on the Oxley Highway. The 513 route operates between Dubbo and Lightning Ridge, it is a daily service, but is intended for regional transport rather than local trips. There are no regular local public bus services.

An extensive network of school buses is operated by Langley's and Ogden's to service the surrounding satellite townships.

Gilgandra Community Care offers a community transport bus for the frail and younger people with a disability and is run through the Community Transport Organisation.

2.6 Existing Infrastructure

2.6.1 Roads

There are a number of roads which connect Gilgandra with the surrounding areas. Five major radial routes are leading to Gilgandra including:

- Oxley Highway west (B56) – 36km to Collie, 86km to Warren
- Oxley Highway east (B56) – 43km to Tooraweenah, 95km to Coonabarabran
- Castlereagh Highway east (B55) – 53km to Mendooran

- Castlereagh Highway north (B55) – 41km to Armatree, 96km to Coonamble
- Newell Highway (B56) – 29km to Eumungerie, 65km to Dubbo

In general, road conditions can be largely considered adequate and these routes are under the maintenance auspices of the Federal Government. On these radial roads, there tends not to be narrow shoulders and sight lines can be poor in some instances. This can discourage longer road riding routes on these roads due to a perceived safety hazard.

Roads within the Gilgandra Shire Council LGA are maintained largely by Council. There are 1,499km of roads of which Council are directly responsible for 1,303km.

Figure 2.5: Road maintenance authority

| Ref. | Road Type | Road Classification | Length (km) | Road Authority | Maintained by |
|--|------------------------------|--|------------------|---|----------------------|
| A | Major Arterial Roads | State Highway Rural Area (Newell Highway) | 72 | NSW Roads & Maritime Services (NSW RMS) | NSW RMS |
| B | Major Arterial Roads | State Highway Urban Area (Newell Highway) | 3 | NSW Roads & Maritime Services | GSC |
| C | Arterial Roads – State Roads | State Roads Urban & Rural (Castlereagh & Oxley Highways) | 121 | NSW Roads & Maritime Services | GSC |
| Total length of Arterial Roads | | | 196 | | |
| D | Rural Roads – Sealed | Rural Local Road - Sealed | 277.374 | Gilgandra Shire Council (GSC) | GSC |
| E | Rural Roads – Unsealed | Rural Local Road - Unsealed | 970.423 | Gilgandra Shire Council | GSC |
| F | Urban Roads – Sealed | Local Urban Road - Sealed | 42.275 | Gilgandra Shire Council | GSC |
| G | Urban Roads – Unsealed | Local Urban Road - Unsealed | 3.327 | Gilgandra Shire Council | GSC |
| H | | Urban Rear Lanes | 9.799 | Gilgandra Shire Council | GSC |
| Total length of roads – Rural and Urban | | | 1,303.198 | | |
| Bridges | | | Number | Road Authority | Maintained by |
| Rural Local Road Bridges | | | 63 | Gilgandra Shire Council | GSC |

Source: <http://www.gilgandra.nsw.gov.au/files/dmfile/LocalRuralRoadsHierarchyPlan10.pdf>

Council has a five-tiered process for the audit of all roads. This ranges from 1 (very good – only planned maintenance required) to 5 (very poor – significant renewal/rehabilitation required). Council commits in the local roads hierarchy plan to maintain roads at levels ranging between 2 and 4. Rural primary through roads are to be maintained at level 3 (significant maintenance required) or higher. Given the higher asset conditions required for bicycles, it is likely that if a road is to be at a level of significant maintenance required, cyclists would likely not be attracted to riding.

Road Infrastructure for Cycling

As a key focal point in the regional NSW's highway network, Gilgandra sees high volumes of heavy vehicles (which accelerates the deterioration of roads). Cyclists are generally deterred by heavy vehicle traffic, and this can particularly be the case on the highways surrounding

Gilgandra where there is often only the minimal provision of a road shoulder. Figure 2.6 to Figure 2.9 show examples of difficult on-road cycling conditions in and around Gilgandra.

Figure 2.6: Extensive heavy vehicle traffic in Gilgandra



Figure 2.7: Narrow road shoulder on Newell Highway



As outlined in Section 3.4.3, a shoulder provision of between 0 and 1.5 metres increasing with traffic volumes would be consistent with design guidance. It can reasonably be assumed that no shoulder is expected only where this is no cycling requirement. To appropriately accommodate for cyclists, as noted in the section, a road shoulder of between 2 and 3 metres. *Austrroads Guide to Rural Road Design* (pg. 108) states,

“The safety issues to be addressed for on-road cyclists are very similar to those relating to motor vehicles. It is important for the road surface to be smooth, to minimise conflicts and to provide appropriate delineation. Consideration should be given to the provision of sealed shoulders on major rural roads.”

An issue that was raised by multiple stakeholders was the prevalence of loose gravel on the shoulder. This acts as a deterrent and potential safety hazard for several reasons. Firstly, loose gravel is a puncture hazard, loose gravel can work its way through the tyre. Secondly, loose gravel is a slip hazard, particularly when cornering and braking. Thirdly, loose gravel can be picked up by passing vehicles and become directed towards cyclists.

Figure 2.8: A patch of loose gravel adjacent to the school on Wrigley Street



Figure 2.9: A pothole on Wrigley Street near Morris Street



Route Development

The town of Gilgandra is broadly flat, making it attractive for cycling and walking. Furthermore, more broadly the terrain surrounding Gilgandra is also flat, which should make cycling attractive.

To the north-east, there is the presence of the Warrumbungle Ranges which attracts high levels of recreational cycling associated broadly with cycling clubs in the region.

The Windmill Walk is a long term project which aims to create an 8.5km link around the Gilgandra community. This project will aim to promote casual walking and cycling within the community. Overall, the current extent of the footpath network is limited, and the infrastructure plan which GTA Consultants are proposing create numerous internal loops in the network which are desirable for walking and should resonate with members of the broader community.

2.7 Pedestrian Facilities

During the site visit conducted on 22 and 23 October 2015, a full audit of existing facilities was conducted. A map of footpath and crossing facilities is shown in Figure 2.12. The existing footpath infrastructure largely covers the relevant points of interest in the town including the CBD, schools, hospitals, parks and the RSL. Further, there was evidence of improvement works with regards to smoothing uneven footpaths.

Despite the work to date, a lack of kerb ramps was identified in some instances. The lack of kerb ramps acts as a significant barrier to freedom of movement for users of wheel chairs and mobility scooters and may lead to riding on the road, which is not desirable and a safety concern. In the 5 year period ending December 2010, there were 121 casualty crashes including eight (8) fatal crashes involving motorised wheelchairs. Research conducted by GTA Consultants found that there was extensive lack of knowledge and understanding of rules and regulations of such vehicles.

In its transport asset management plan, Council estimates that it maintains 8.73km of formal footpaths, cycleways and walkways with an asset replacement cost of \$620,415. The condition of footpaths is reviewed on an annual basis and is assumed to have a useful life of 20 years.

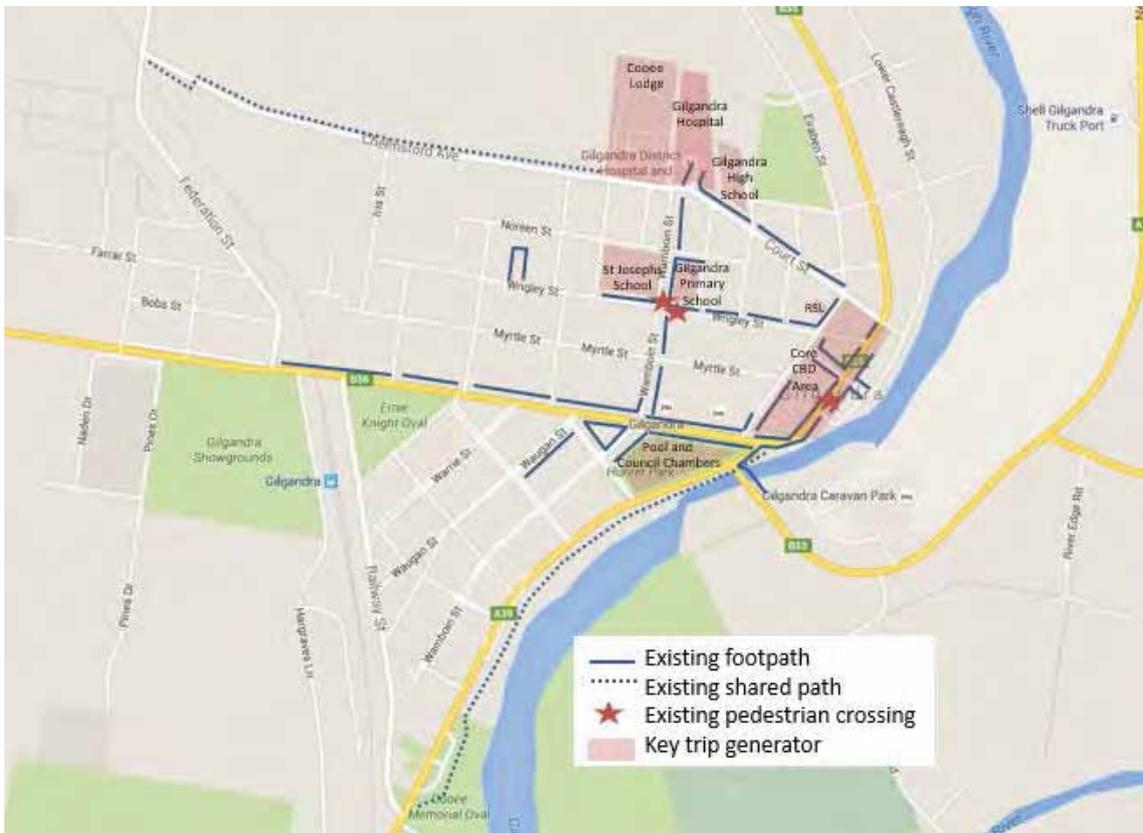
Figure 2.10: Scooter parked on the road on Miller St



Figure 2.11: Scooter user riding on Morris St



Figure 2.12: Existing Pedestrian Facilities



Basemap Source: Google Maps

2.7.1 Existing Shared Paths

Windmill Walk

Gilgandra Shire Council is intermittently completing the 'Windmill Walk'. The Windmill Walk has initially been constructed as a 1.6km shared path trail that runs adjacent to the Newell Highway and Castlereagh River. The path runs from an underpass at the Newell Highway along to the Rural Museum. Its construction is of a hot mix which has been laid directly on the ground and the surface has been described as challenging for bicycle riding. In addition, it has been constructed as a 2.5 metre wide path, but as a shared path, this reportedly leads to occasional user conflict during peak use periods.

Figure 2.13: Windmill Walk in Gilgandra



Figure 2.14: Windmill Walk in Gilgandra



Source: http://s3-ap-southeast-2.amazonaws.com/rvtrips/app_public/photos/type/0/264/1412xlg.jpg and http://www.virtualtourist.com/travel/Australia_and_Oceania/Australia/State_of_New_South_Wales/Gilgandra-1876041/Things_To_Do-Gilgandra-TG-C-1.html

Chelmsford Avenue Shared Path

Council has recently constructed a shared path along Chelmsford Avenue west of Dudley Street to Federation Street. Construction has been to lay hot mix directly onto the ground and the path is approximately 2.5 metres wide. Near the western extent of the path, a crossing point across the road has been constructed.

Figure 2.15: Eastern extent of Chelmsford Path at Cooe Drive



Figure 2.16: Crossing point near western extent of Chelmsford Path



2.8 Cooe Lodge

The Cooe Lodge is located on the northern extent of Gilgandra on Chelmsford Avenue. The facility provides a range of aged care services from self-care through to high care dementia patients. Given the vulnerability of the residents, this area has been designed with ease of access in mind. There is the provision of an internal set of footpaths and crossing points, and speed limits within the boundaries of the facility are reduced to 20km/h. Whilst the majority of the facility is well designed and provides easy access, there are a few selected areas where design principles have been overlooked and might become problematic for those individuals who require the use of the path. For example, in one instance, a path has been provided adjacent to one of the community facilities, but an air conditioning unit encroaches into the way of the path.

This is shown in Figure 2.21. The existing footpath network and proposed new links are illustrated in Figure 2.22.

As the reliance on walking for mobility within the Cooee Lodge is significant, careful consideration should be given to further formalising the pedestrian network by installing internal links at frequent intervals. Given the nature of the residents of the Cooee Lodge, desire lines should be acknowledged wherever possible as any detour incurs a significant time penalty.

Research on pedestrian access within private estates by GTA Consultants for a large private operator indicates that there are broad safety concerns and inconsistent shared zone treatments within such estates. Due to the inconsistencies in treatments and design, there can be safety concerns associated with the design of such estates.

Figure 2.17 to Figure 2.20 illustrate existing conditions within and surrounding the Cooee Lodge.

Figure 2.17: Signage shows that the Cooee Lodge is promoted as a low speed environment



Figure 2.18: Internal footpath links cross the road to the hospital



Figure 2.19: Footpath ramps with no kerb lip are desirable



Figure 2.20: Internal road within Cooee Lodge does not have a footpath but there remains a significant lip



Figure 2.21: An air conditioning unit significantly obstructs the footpath adjacent to one of the communal buildings within the Cooee Lodge



Figure 2.22: Footpath network in the vicinity of the Cooee Lodge



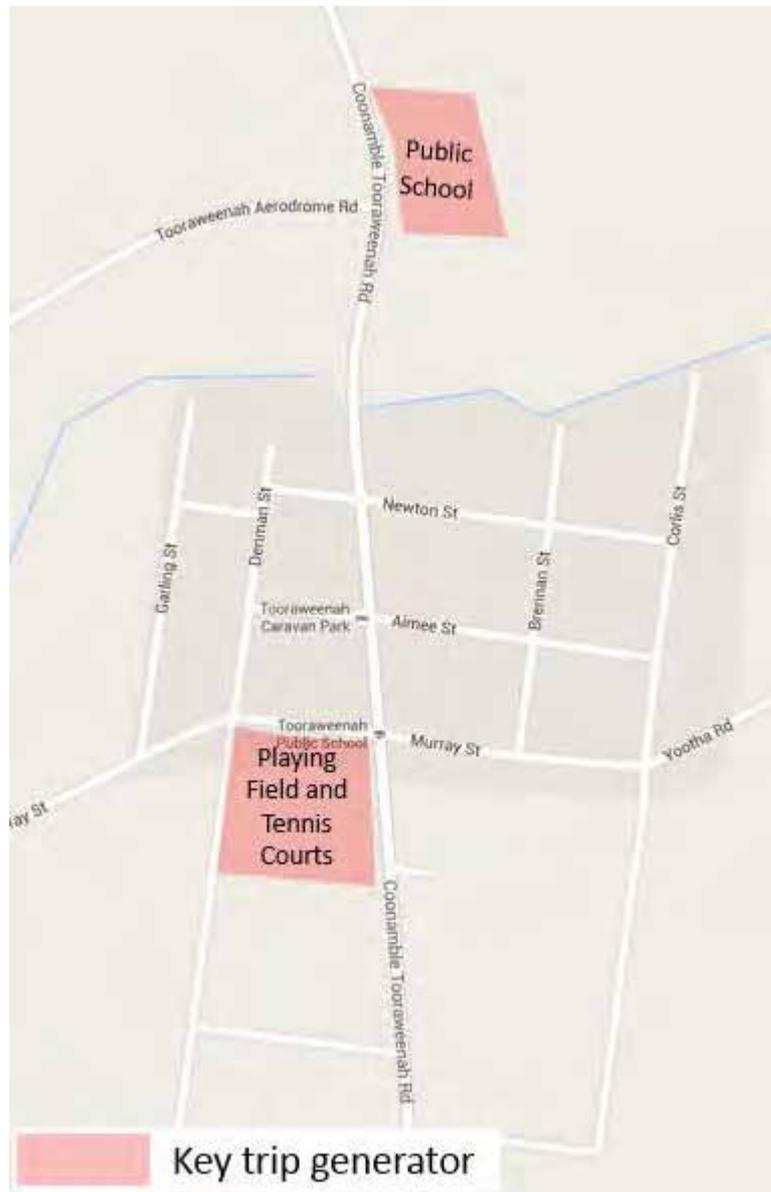
Basemap Source: Provided

2.9 Tooraweenah

Tooraweenah does not presently have any pedestrian infrastructure. Pedestrians are required to walk in the verge or on the road. Either of these can be problematic due to the presence of vehicle traffic and reportedly occasional encounters with snakes respectively. The key trip

generators associated with Tooraweenah are the school and the sporting facilities (tennis courts and oval).

Figure 2.23: Existing Conditions at Tooraweenah



Basemap Source: Google Maps

2.10 Active Transport Observations

During the site visit, it was noted that there was a sound level of active mobility in Gilgandra with regards to both walking and cycling. The weather was clear and in the mid-20s, which would have likely added to the amenity of walking and cycling during the observation period.

Approximately 15 cyclists were sighted throughout 22 September during the day in Gilgandra on the local streets, mostly primary school children after school. A moderate level of walkers was generally noted to be on local residential streets, with peaks during school pick up and drop off times. Mobility scooters were also extensively noted throughout Gilgandra at all times of the day.

Figure 2.24: Moderate levels of walking were observed in the morning



Figure 2.25: Cyclist riding across Oxley Highway



3. Policy Framework

This policy framework section references various documents and planning principles which guide cycling and pedestrian policy. Whilst some of these documents and references may not be directly relevant to Gilgandra, they are useful in shaping how cycling and pedestrian policy can be best managed and approached if funding opportunities arise.

3.1 Local Context

3.1.1 Gilgandra Mobility Report

To date, Gilgandra Shire Council has not commissioned any form of a pedestrian access, mobility or bicycle strategic plan. Whilst a formal report does not exist pertaining to active transport, principles of active transport are more broadly referenced in the strategic and operational plans as outlined in Section 1.2.

3.2 Regional/State Context

3.2.1 Central West Regional Transport Plan 2013

The Central West Regional Transport Plan¹ 2013 document was released in December 2013 and there references to active transport throughout the document. It identified that making walking and cycling safer and easier is a transport challenge. Two funding initiatives outlined in the document include the *Roll Out the Walking Communities Program* and *Roll Out the Cycling Towns Program*, which provides funding to boost rates of walking and cycling respectively.

3.2.2 New South Wales Transport Long Term Master Plan 2012

The New South Wales Transport Long Term Master Plan 2012² was released in December 2012 and there is a section on investment in active transport infrastructure in regional areas. It states 'All new road projects or road network upgrades will be required to examine the feasibility of providing for cycling as an essential component of the project' (pg. 239). Perhaps relevantly to Gilgandra, as part of investing in cycleways in partnerships with local councils, funding will be prioritised towards opportunities for regional tourism (pg. 239).

3.3 National Context

3.3.1 National Cycling Strategy 2011-2016

The national cycling strategy 2011-2016³ shows in 2012-2013, 7.6km of shared paths across the western region was funded. Local government contributed \$1,031,500 and the state government contributed \$1,075,500. The document shows that rates of cycling in regional New South Wales are slightly lower than metropolitan New South Wales. For regional New South Wales, 16.4%, 7.1%

¹ <http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/central-west-regional-transport-plan.pdf>

² <http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/nsw-transport-masterplan-final.pdf>

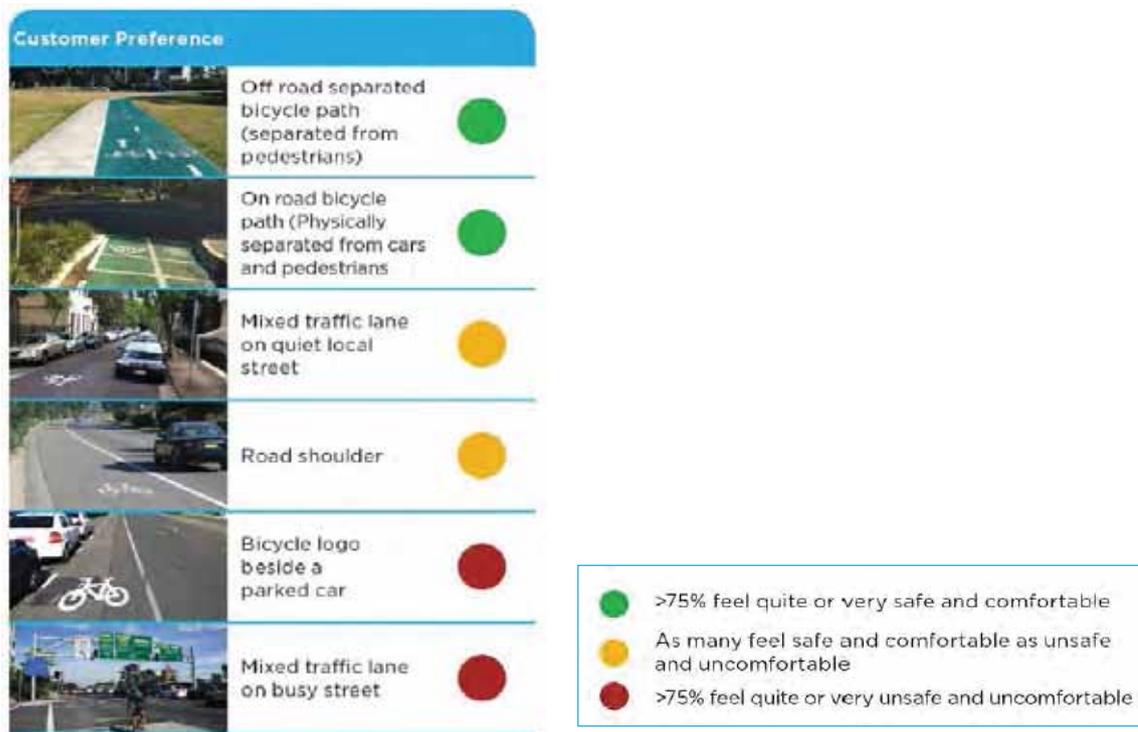
³ http://www.bicyclecouncil.com.au/files/publication/NCS_ImplementationReport2013.pdf

and 12.6% had ridden a bike in the previous week, month and year respectively (therefore 36.1% have ridden a bike in the last year).

3.4 Infrastructure to meet user needs

Different infrastructure types are suited to cyclists differing range of abilities. Figure 3.1 summarises cyclist preferences for different infrastructure types and provides guidance on what proportion of cyclists are comfortable using these different infrastructure types.

Figure 3.1: Bicycle Infrastructure to match customer needs



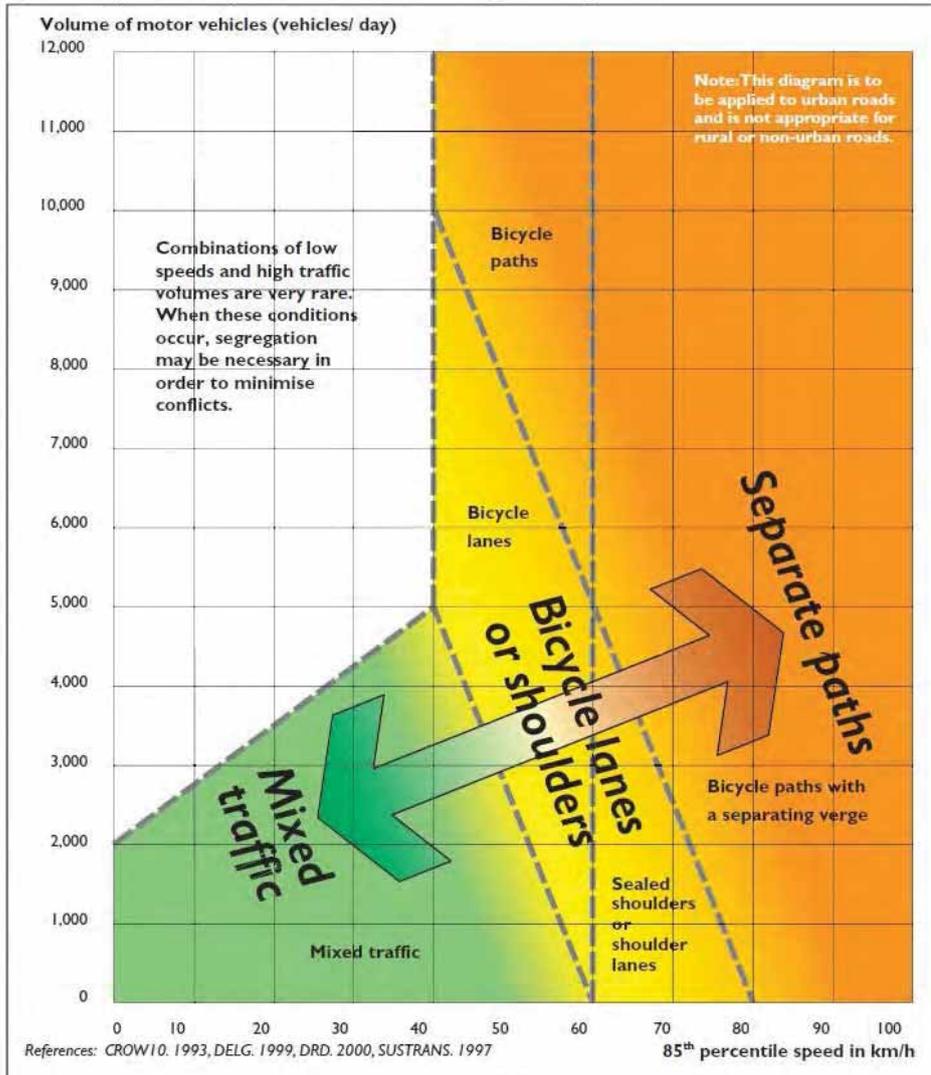
Source: [Sydney's Cycling Future](#), Figure 5, pg. 12 (Transport for NSW, 2013)

3.4.1 When is separation from vehicles recommended?

For on-road, urban bicycle facilities, selection of the appropriate infrastructure treatment is primarily determined by the speed and volume of vehicles on the road. Figure 3.2 provides guidance on the selection of infrastructure types for urban roads based on traffic speed and volumes. This chart should be referred to when planning future urban bicycle routes in Gilgandra Shire Council. For rural roads, such as those outside of the main centres, application of this graph is not entirely appropriate and it is provided for reference purposes only.

RMS guidance (Figure 3.2), and guidance from other jurisdictions in Australia and internationally, almost universally recommend a bicycle path physically separated from vehicles where traffic speeds are 80km/h and above.

Figure 3.2: Separation of bicycles and vehicles according to traffic speed and volume on urban roads



Source: NSW Bicycle Guidelines, Figure 3.2, pg. 13 (RMS, 2003)

3.4.2 High Speed Rural Road Treatments

The Gilgandra Shire LGA includes a number of high speed rural roads (Newell Highway, Oxley Highway). These roads usually have two or four traffic lanes, often without any significant sealed shoulders.

Providing bicycle facilities on rural roads is challenging due to the high vehicle speeds (generally with speed limits of 70km/h or above) and often physical constraints of the road reserve. International guidelines and practice in 'cycling' countries such as the Netherlands and the UK provide cyclists with paths separated from high speed traffic. A summary of international practice is provided in Table 3.1.

Table 3.1: International practice in providing for cyclists on high speed roads

| Country | Practice | Reference |
|---------------------|---|---------------------------|
| UK | Where the 85 th percentile speed is greater than 40 mph (64.4 km/h), segregated bicycle facilities (tracks/paths) should generally be provided. For high speed roads with low traffic volumes (less than 3,000 vehicles per day/less than 300 vehicles in the typical AM peak hour), on-road bicycle lanes may also be considered. | TfL (2005) |
| Germany and Denmark | Provision of fully integrated off-road paths and bicycle lanes along roads and at intersections in cities and surrounding areas. | Pucher and Buehler (2008) |
| The Netherlands | Cyclists should always be separated from high speed traffic by providing a separate path or alternative (cycling) route. Consideration should also be given to lowering traffic speeds. | CROW (2007) |
| New Zealand | On urban roads with a speed limit of 80 km/h or more, cycle paths should be provided. Where speed limits are 70 km/h, sealed shoulders may be acceptable where there are fewer than 2,000 vehicles per day. | LTSA (2004) |

Source: Austroads Research Report – Cycling on Higher Speed Roads (AP-R410-12), Table 2.1, pg. 7 (Austroads, 2012)

In Australia and New Zealand guidelines and practices for higher speed roads vary between jurisdictions. However, the majority of jurisdictions are providing more off-road paths along urban motorways and generally sealed shoulders along high speed rural roads. The NSW Bicycle Guidelines (RMS, 2003) are focused primarily on providing guidance for the design of cycling facilities in urban environments.

High speed roads present an increased safety risk to all road users including cyclists. There are inherent risks where cyclists and high speed vehicles share road space, primarily due to:

- the high differential in operating speeds between cyclists and vehicles
- increase in crash severity
- often large amount of heavy vehicle traffic.

Providing off-road paths as an alternative to on-road facilities on higher speed rural roads as is done in the Netherlands and the UK is often not feasible in NSW due to the high financial cost, long distances of facilities required and land ownership issues.

As cycling is a legitimate transport mode and cyclists are legally permitted to use roads, there is a need to improve facilities and conditions for cyclists riding on-road in higher speed rural roads, such as those outside the main centres of Gilgandra Shire. Techniques for improving space and conditions for cyclists on high speed rural roads can be infrastructure related as well as non-infrastructure related and can include:

- **Providing an alternative route** – such as using a lower speed route
- **Reducing the speed limit**
- **Technology** – such as providing bicycle activated signs to alert drivers to the presence of cyclists
- **Using non-infrastructure solutions** – such as education (advertising campaigns), enforcement (policing) and encouragement programs (behaviour change).

On-road treatments for cyclists on higher speed rural roads include:

- **Exclusive bicycle lanes** – these should be a minimum of 2 metres wide
- **Sealed road shoulders** – similar to bicycle lanes, sealed shoulders should be a minimum of 2 metres wide with additional width provided where there is a large number of heavy vehicles.

Figure 3.3: Typical sealed shoulder treatment (Princes Highway)



Figure 3.4: Gilgandra Road Shoulder



3.4.3 Road Shoulders

Road shoulders are provided to carry out two key functions; traffic and structural. Structurally road shoulders provide lateral support to the road pavement. In terms of traffic, road shoulders serve several key functions by providing:

- operating space for cyclists outside of the vehicle travel lanes
- a refuge for stopped vehicles on a firm surface, a safe distance from the adjacent traffic lanes
- an initial recovery area for an errant vehicle
- clearance to lateral obstructions.

The minimum sealed width requirements for road shoulders are outlined in *Austrroads Guide to Road Design, Part 3 – Geometric Design*. The width requirements vary depending on the intended function and road type as summarised in Table 3.2 and Table 3.3 respectively.

Table 3.2: Minimum Sealed Shoulder Widths (Austrroads Guide to Road Design, 2010)

| Function of shoulder | Minimum sealed width (m) |
|---|--------------------------|
| Lateral support of pavement | 0.5 |
| Control of moisture or on outside of curves | 1.0 |
| Initial recovery area | 0.5 |
| Discretionary stopping | |
| Cars | 2.5 |
| Trucks | 3.0 |
| Bicycle demand | 2.0/3.0 |

Source: Austrroads Guide to Road Design, Part 3 – Geometric Design, Table 4.7, pg. 38 (Austrroads, 2010)

Table 3.3: Minimum Sealed Shoulder Widths (based on information contained in Austroads Guide to Road Design, 2010)

| Road type | Minimum sealed shoulder width |
|----------------------------------|--|
| Urban freeway | Between 2.0 and 3.0 m (3.0 m allows enough room for a truck to pull off clear of the traffic lane) 3.0 m adjacent to a safety barrier or on a freeway with 3 or more lanes |
| Rural road - single carriageway | Between 0 and 1.5 m, increasing with increasing traffic volumes |
| Rural road - divided carriageway | 1.5 m where design AADT < 20,000, or 2.5 m if it is beside safety barriers and on the high side of superelevation 3.0 m where design AADT > 20,000, or 3.0 m if it is beside safety barriers and on the high side of superelevation |
| General | A minimum of 0.5 m where AADT < 1,000 Consideration should be given to sealing the full width of the shoulder under certain conditions (see p. 38 of Austroads AGRD03 2009a for a more extensive list) A minimum of 2.0 to 3.0 m to cater for bicycles |

Source: Austroads Research Report – Cycling on Higher Speed Roads (AP-R410-12), Table 3.5, pg. 17 (Austroads, 2012)

As shown in Table 3.3, for single carriageway, rural roads, *Austroads Guide to Road Design* recommends a minimum sealed shoulder between of 0 and 1.5 metres, increasing with traffic volumes.

As shown in Table 3.3, *Austroads Guide to Road Design* recommends a minimum sealed shoulder width of 2.0 – 3.0 metres, depending on bicycle demand. The Austroads guide also notes that a shoulder width of 2.5 metres is needed for a passenger vehicle to stop clear of the traffic lanes. An example of a typical road shoulder arrangement is shown in Figure 3.5.

Where sealed road shoulders are of sufficient width to permit cycling (i.e. wider than 2.0 metres), signage and PS-2 bicycle logos can be used to designate the shoulder’s shared use for motor traffic and cycling, and to increase driver awareness. An example of such a treatment is shown in Figure 3.5.

While for the purposes of cycling it is desirable to seal road shoulders where a width of 2.0 metres can be achieved, such treatments have high financial cost as all road shoulders need to be constructed to cater for heavy vehicle usage.

Figure 3.5: Typical motorway with sealed shoulder (Hume Highway)



Source: [RMS website](#)

Edge Lines

Where sealed road shoulders are provided edge lines are used at the edge of the traffic lane to distinguish the traffic lane from the shoulder. These markings reduce the likelihood of moving traffic travelling in the road shoulder. The requirements for providing edge lines are contained in the *Australian Standard – Manual of uniform traffic control devices, Part 9: Bicycle Facilities* (2009) and vary depending on the road type as summarised in Table 3.4.

Table 3.4: Requirements for marking edge lines on rural roads (based on information contained in AS1742.9 2009)

| Road type | Divided? | Further description | Requirements regarding edge lines |
|-----------|----------|---|---|
| Rural | No | Sealed pavements less than 5.5m wide | Edge lines shall not be used |
| | | Sealed pavements between 5.5m and 6.8m wide | Edge lines are generally not used unless the conditions are poor (e.g. poor alignment, frequent fog, etc). Edge lines shall not be used unless: a dividing line is also marked and the lane widths within the edge lines are at least 3.0m or if there is a high proportion of heavy vehicle traffic, 3.2m There are some exceptions, for example at localised pavement narrowing. |
| | | Sealed pavements 6.8m wide or greater | Edge lines are normally required |
| | Yes | Including rural expressways | Edge lines shall be marked |

Source: Austroads Research Report – Cycling on Higher Speed Roads (AP-R410-12), Table 3.4, pg. 16 (Austroads, 2012)

3.4.4 Footpath and Shared Path Design

Footpath design is critical in ensuring that objectives are met with regards to their use, including the design dimensions and layouts. *Austrroads Guide to Road Design Part 6A: Pedestrians and Cycling Paths* provides guidance with these issues. Figure 3.6 shows that in all instances in residential areas, footpaths are advised to be installed on both sides of the road.

Figure 3.6: Footpath Provision

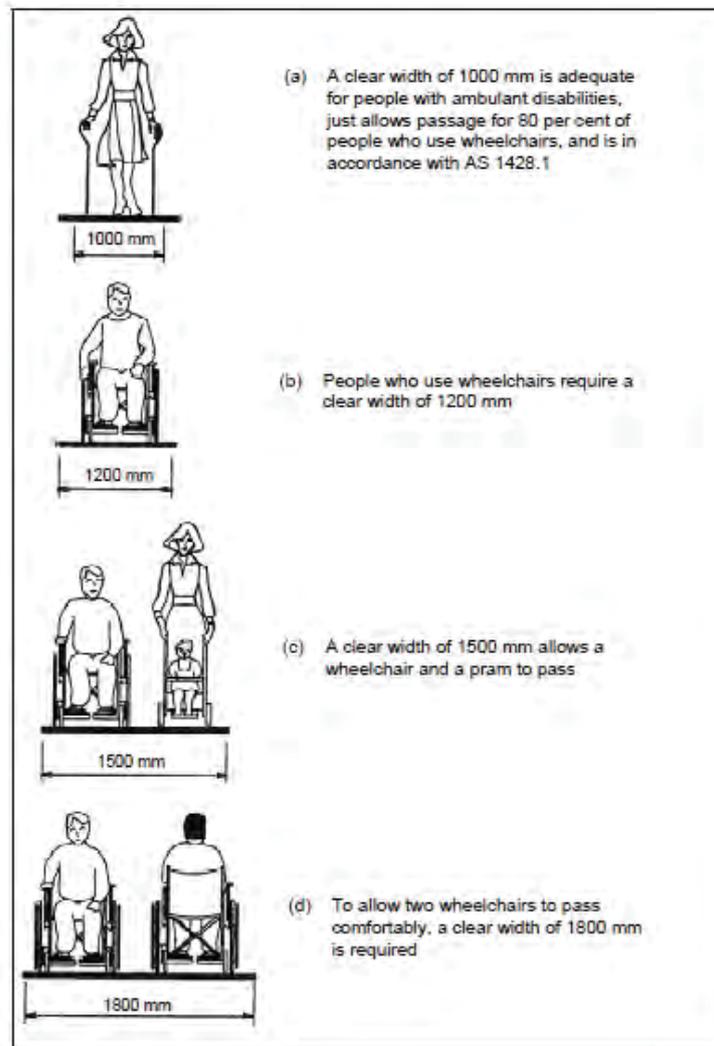
Table 2.1: A New Zealand example of when to provide urban and rural footpaths

| Land use | Footpath provision | | | |
|--|--------------------|-------------------------|----------------|-------------------------|
| | New roads | | Existing roads | |
| | Preferred | Minimum | Preferred | Minimum |
| Commercial and industrial | Both sides | | Both sides | |
| Residential (on arterial roads) | Both sides | | Both sides | |
| Residential (on collector roads) | | | | |
| Residential (on local streets) | | | Both sides | One side |
| Three to ten dwellings per hectare | Both sides | One side | One side | Shoulders on both sides |
| Fewer than three dwellings per hectare | One side | Shoulders on both sides | | |

Source: Land Transport NZ (2007a).

Source: *Austrroads Guide to Road Design 6A*, pg. 6

Figure 3.7: Required Footpath Widths



Source: AS 1428.2: (1992).

Figure 6.1: Footpath width requirements for various users

Source: Austroads Guide to Road Design 6A: pg. 32

Figure 3.8: Shared Path Width

Table 7.4: Shared path widths

| | Path width (m) | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | Local access path | Commuter path | Recreational path |
| Desirable minimum width | 2.5 | 3.0 | 3.5 |
| Minimum width – typical maximum | 2.5 ¹ – 3.0 ² | 2.5 ¹ – 4.0 ² | 3.0 ¹ – 4.0 ² |

1. A lesser width should only be adopted where cyclist volumes and operational speeds will remain low.
2. A greater width may be required where the numbers of cyclists and pedestrians are very high or there is a high probability of conflict between users (e.g. people walking dogs, roller bladders and skaters etc.).

Source: Austroads Guide to Road Design, pg. 44

4. Council, Stakeholder and Public Consultation

4.1 Community and Stakeholder Workshops

GTA Consultants engaged with Council to publically promote the consultation period. A post was made on the Gilgandra Shire Council Facebook page. A number of identified stakeholder groups were also contacted directly and invited to participate in the consultation.

GTA Consultants hosted a meeting on 22 October 2015 at 5:30pm in Gilgandra Shire Council chambers. This was attended by representatives from Gilgandra Shire Council as well as a number of community members. This workshop aimed to inform attendees of existing conditions in Gilgandra and existing strategies/documents. GTA Consultants gained a greater appreciation for barriers to walking and cycling, points of interest and issues at a local and regional level.

Figure 4.1: Attendees of the community workshop



Furthermore, on 22 and 23 October 2015, GTA Consultants had separate meetings with representatives from Gilgandra Public School and Gilgandra High School. These meetings were undertaken to appreciate what issues students face when walking and cycling in the community.

On 22 October 2015, there was also a community meeting held in Tooraweenah which was attended by Gilgandra Shire Council representatives and local community members.

The details of the meetings and consultation are described below with the site visit paper attached in Appendix C.

4.2 Consultation with Schools

The schools were noted to have high active transport rates. The schools largely have sound footpath networks immediately surrounding them which adds to the attraction and amenity of walking and cycling.

Meetings with schools within Gilgandra were conducted on-site, with the following notes summarising comments raised by school representatives.

Gilgandra High School

The school has a total of 262 students of which 126 commute from out of town. This means that there are 136 who live within Gilgandra who may consider walking and cycling. Gilgandra High School has a bicycle rack with capacity for approximately six (6) bicycles and one (1) was observed on Thursday 22 October 2015. School representatives noted that anecdotally, cycling rates have been generally declining over many years, with higher levels of use of skateboards and scooters now taking place.

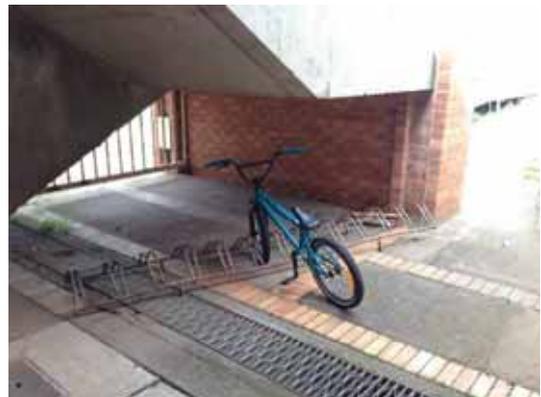
The school stated that they have a positive view towards their students walking and cycling to school and would be open to and interested in partaking in future education initiatives for active transport.

It was outlined that in the warmer months, the students are affected by the heat and consequently, this may be a seasonal deterrent to walking and cycling.

Figure 4.2: Refuge Island signage near Gilgandra High School



Figure 4.3: Bike rack at Gilgandra High School



Gilgandra Public School

A school representative stated that the students' families have high levels of social disadvantage where motor vehicle ownership is low. Consequently, there is a high level of walking and cycling among students. This was reflected in after school observations where there were at least six children seen to cycle out of the school grounds.

The school teaches some elements of road safety to the children as part of the PDHPE curriculum. The representative noted that although road conditions are largely adequate, due to the loose gravel in the road corridor, cyclists are probably forced to cycle closer to the centreline than they would like.

Figure 4.4: Flashing school zone lights enhance safety



Figure 4.5: A desire line on Noreen Street east of Elizabeth Street



Figure 4.6: Several students exit onto Wamboin Street



Figure 4.7: Extensive school bus services



4.3 Active Transport Survey

Gilgandra

A survey was posted online and distributed in a hard copy format for the Gilgandra community to give feedback on what preferences they have for pedestrian and cycling infrastructure linkages, as well as identifying deterrents as to why people do not currently walk and cycle more.

As of 21 December 2015, a total of 66 online responses have been received. The sample population is normally distributed around the 35-44 and 45-54 age bracket. Females make up 75% of the survey responses.

A further 5 hard copies of surveys completed in Gilgandra were received, as well as 39 responses from Tooraweenah. However, these additional hard copy responses have not been counted as part of the analysis below. These responses will be considered in the final report. All the responses combine to represent 2.5% of the Gilgandra LGA population.

It is noted that 70% of respondents already consider themselves to be regular walkers and/or cyclists, and 60% of respondents identify that they walk and/or cycle because of the health benefits. 65% of respondents identified that they last walked/cycled around the community within one week.

Nearly 30% of the surveyed households do not own a bicycle. Of the households with access to a bicycle, 60% of respondents have ownership of a bicycle, and 10% have access to a shared bicycle with a spouse/partner/friend/sibling.

With regards to deterrents, a lack of footpaths was highlighted as a larger deterrent than the poor condition of existing footpaths. Despite seasonal climatic conditions, the climate was not identified as a significant deterrent. Safety concerns with regards to the speeds of vehicles on rural roads were also identified as an important deterrent. Vehicular speeds were highlighted as a larger deterrent than distances, which is significant in a sub-regional centre such as Gilgandra.

The shops on Miller Street were identified as a slightly higher priority than schools as preferred destinations to be linked by infrastructure for walking and cycling. The hospital and the showground were identified with a lower priority for such links by the respondents. The TAFE and the showground were not identified as key linkages for pedestrian and cycling infrastructure by the respondents.

Survey results have been collated in Appendix E.

Tooraweenah

A total of 39 hard copy responses were received from the community in Tooraweenah. Surveys were distributed by Council with responses received up until mid-November counted as part of the survey results.

Responses were primarily undertaken by females (2:1 ratio), and there was a skew towards the older population with the modal age bracket being 55 to 64 (26% of responses).

95% of respondents consider themselves to be regular walkers or cyclists. A vast majority of people either walk or cycle as a mode of transport to get somewhere (47%), or for the health benefits (40%) associated with active transport options (options were not mutually exclusive). Approximately one-third of households do not have a bicycle, which is understandable given broadly poor cycling conditions.

The lack of road shoulders and footpaths, as well as high vehicular speeds were identified as the largest deterrents to walking and cycling. Climatic conditions and lack of wayfinding were not identified as significant deterrents to active transport options. The best-worst format of the survey was not well picked up in the hard copy of the survey, with a high proportion of responses that did not conform to instructions, and as such, were reported as informal.

Additional comments generally related to the risk of walking and cycling on the road corridor without any visual or physical separation. But a number of responses stated that if infrastructure was provided, they would be more likely to consider walking and cycling in the community. Tooraweenah specific deterrents also included the risk of encounters with snakes in the road shoulder.

Survey results have been collated in Appendix E.

5. Active Transport Principles

Gilgandra Shire Council's vision for an Active Transport Strategy is aligned with the fundamental themes of their Community Strategic Plan 2013-14 to 2022-23, in particular the themes:

- *Engaging and supporting the community by strategies associated with providing for an Inclusive Community.*
- *A Strengthened Infrastructure that provides for a well-constructed, maintained and managed public infrastructure, public buildings and facilities.*

Gilgandra Shire Council is already providing the facilities and the environment that enables the Gilgandra community and its visitors to make a significant proportion of their trips choosing active travel modes. To further improve active transport across the LGA, the following principles have been identified as core to the Active Transport Strategy:

The vision for Gilgandra is for walking and cycling to become the preferred mode for short trips within Gilgandra. Walking and cycling are to be safe, easy and accessible for everyone.

To support this vision, the following principles are identified/proposed:

- *A shared path network will be provided that surrounds the town and provides regular links into the town centre.*

- *Major trip generators will have an adequate shared path connection that enables easy access to all relevant user groups.*

- *Easy access to the shared path network will be provided for mobility impaired users in such way that the crossing of main roads is safe and within reasonable distance from main desire lines.*

- *All user groups will be provided with supporting material to safely engage in active travel as a key element to the success of an increase in active transport mode share.*

6. Infrastructure and Initiatives

Walking and cycling can be incentivised broadly through two different streams; infrastructure and initiatives. Infrastructure is assets that are physically constructed whilst initiatives are actions that council/stakeholders impose to incentivise a desirable action.

Infrastructure tends to be costly (especially for regional councils) and is broadly only successful when it is complemented by various initiatives. For example, the Windmill Walk is an infrastructure asset, but without complementary initiatives to promote its use, uptake of the infrastructure may remain low.

It is worth noting that initiatives are often far cheaper and far more cost-effective than infrastructure. In the first instance as detailed below, arranging for a retailer of bicycle tubes will be a nominal cost, but this is often a significant hurdle to the uptake of cycling. Hence by providing opportunities to purchase tubes is a near cost-free exercise, it would likely have the same benefit as constructing thousands of dollars worth of infrastructure.

The initiatives and infrastructure are drafted with a consideration given to a range of existing documents and conditions. These include Gilgandra Shire Council's Community Strategic Plan, the NSW Long Term Transport Master Plan, the Central West Regional Transport Plan and Sydney's Walking and Cycling Future documents. These infrastructure and initiatives should assist in delivering positive outcomes for the Gilgandra Shire community.

6.1 Initiatives

Liaise with bike shops for local supermarket to stock disposable bicycle items such as tubes

There is currently no retailer in Gilgandra that stocks bicycle supplies. Flat tyres are a consequential nuisance of cycling, yet at the moment, if a cyclist gets a flat tyre, there is no local assistance in getting them back on the road. This acts as a significant disincentive to the attraction of new cyclists.

Recommendation: Support and promote private enterprise to stock basic bicycle accessories such as helmets, tubes and tyres, e.g. a supermarket, retail outlet or café. A good example is the Goulburn Green Grocer Café and Cyclery.



Bicycle Hire/Loan Scheme

Despite bicycles being cheaper than motor vehicles, people gain far less utility from a bicycle. People are sometimes apprehensive about buying bicycles because they worry that they will ride

them for a period of time to find out that they do not really like it. A bicycle hire scheme would be a low-cost initiative to expose people to cycling without community members needing to be concerned with the financial cost of a bicycle. Given the flat terrain of Gilgandra, most people would easily be able to move around by bicycle on local streets. Helmets and lights would likely need to be provided as part of such a scheme. Consideration could be given to stock both adult and child bicycles, e-bikes and cargo bikes.

Recommendation: An initiative that could increase cycling in the community would be for Council to purchase bicycles which would be available for hire/loan by members of the community. This initiative could be operated by Council (e.g. the library) or through private enterprise.

Introductory Cycling Rides in Gilgandra

The western region already has a rich cycling pedigree associated with cycling clubs such as the Dubbo Cycling Club and Warrumbungles Cycling Club. Given club members often like the challenge of riding in a new location, an opportunity may exist to liaise with these clubs to provide introductory local rides within the vicinity of the Gilgandra community.

Recommendation: Liaise with local cycling clubs to provide introductory rides within Gilgandra. Such clubs that may be interested include Dubbo Cycling Club and the Warrumbungle Wheelers.

Invite bike shop to conduct maintenance workshops or to act as a bicycle mechanic

Similar to getting a flat tyre, one of the other issues about bicycles is ongoing maintenance concerns. Having an initiative whereby a bicycle mechanic is available periodically in Gilgandra to assist with basic mechanical issues may act as an incentive for community members to adopt cycling. They could also teach attendees how to change or patch a tube.

Recommendation: Consideration should be given to investigate inviting a bike shop representative to give workshops on basic maintenance; such tasks that might be undertaken might include changing a flat tyre, adjusting brakes and adjusting derailleurs. For more complex issues, we would encourage the representative to have a portable work stand that they could undertake any other issues for a period of half a day per month on the weekend. It may be feasible to investigate rotating the representative through different communities on a rotational basis. For example a four week rotation between Gilgandra-Warren-Wellington and Narromine.

Police Education

New South Wales Police is a universally respected organisation that can advise on bicycle and walking safety in the community. Such topics that may be addressed include riding on the footpath, helmets, road control (primary position) and stranger danger.

Recommendation: Quarterly/bi-annual workshops hosted by NSW Police to educate cyclists and walkers of all abilities on rules, regulations and safety should be commenced. These workshops can also be extended to education on safe use of mobility scooters.

Engage with Schools for Active Travel Programs

There are relevant initiatives whereby walking and cycling can be promoted for journeys to and from school. Bicycle network coordinates the Ride2School day Walk Safely to School Day is an independent organisation.

Recommendation: Council should liaise with schools to ensure that resources are provided such that they can participate in these programs.

Change to the Development Control Plan (DCP) and lobby for Section 94 Contributions

The DCP guides requirements for development in the Council area. A modification to the DCP is a growing norm for metropolitan councils and is arguably one of the more effective policies to increase consideration of walking and cycling. Such an implementation might include for shopping centres (supermarkets), pools, schools and commercial/industrial developments. Such requirements are now common within many metropolitan councils.

Section 94 of the Environmental Planning & Assessment Act 1979 permits councils to include as a condition of development consent, the reasonable dedication of land or the payment of monies, or both, for development that is likely to require the provision of, or increase the demand for public amenities and public services within the area.

Recommendation: Council could consider the provision walking and cycling facilities/ infrastructure as part of their DCP such as bike parking facilities. Council should also review their Section 94 Contribution Plan in order to identify potential inclusions for walking and cycling infrastructure.

Council Rebate on Bicycle Purchase

There are currently high level proposals as to whether bicycles (similar to motor vehicles) should be subject to selected tax benefits⁴ (fringe benefits or salary sacrificing). As a major employer within the local government area, an opportunity may exist for Council to arrange for a rebate to be paid back to employees/residents when they provide receipt of purchase for a new bicycle. For example, Council may offer a percentage subsidy up to an agreed dollar value.

Recommendation: Consideration may be given to incentivise the increase cycling participation by providing a rebate towards the cost of a bicycle.

Walking Group

Walking for companionship has been highlighted as one purpose of why people walk and cycle in the community. Companionship adds a social benefit to the generalised health benefits of active mobility. However, some members of the community are unlikely to be aware of walking groups or may want to walk with someone but do not know anyone.

Recommendation: Gilgandra Shire Council would benefit from a formalised weekly walking schedule. This would be published on the Council website and more broadly advertised. Morning and afternoon walks could be scheduled alternately or daily depending on the demand and community interest shown in the initiative.

Fitness Community

There are a number of on-line fitness communities such as Strava and RunTastic-where individuals can record and upload data on fitness activities. One such initiative may be to create a Gilgandra Group within these platforms that people could join, and competitions could be established with regards to distances covered per week etc.

Recommendation: Council may consider commencing an online fitness platform. Members of the community could join the group and there could be friendly competition to see who could walk or cycle the fastest/furthest in a week/month/year. This could be supplemented with prizes to encourage participation.

⁴ http://taxreview.treasury.gov.au/content/submissions/pre_14_november_2008/Australian_Bicycle_Council.pdf

Cooee March

In 2015, there was a 100 year anniversary re-enactment of the Cooee March which was a recruitment march for World War I which commenced in Gilgandra and concluded in Sydney. This was a tremendously successful event and covered extensively in the media. Consideration should be given to doing an annual Cooee March between Gilgandra and Dubbo over the course of a weekend.

Recommendation: An opportunity would arise from liaising with Dubbo City Council and RMS to provide for an annual Cooee March. This could attract walkers from across the state and provide for a regionally significant event.

Gilgandra to Observatory Look Out 'Gran Fondo/Ciclotourismo'

The western region currently hosts a range of events such as the Blayney to Bathurst and the Gunnedah to Tamworth, while the Orana region in the past has hosted Cycling New South Wales' key multi-stage cycle race, the North West tour.

Recommendation: There may be potential to hold an event where cyclists would ride between Gilgandra and Siding Spring Observatory via Tooraweenah. <https://www.strava.com/routes/3642451>. Such an event would require major planning and coordination with authorities but would be a significant tourism event for Gilgandra given that participants would likely need to be returned to Gilgandra after the event.

6.2 Infrastructure

Windmill Walk Shared Path

Council's long term vision is to establish an uninterrupted shared path trail around the town of Gilgandra with regular links into the town centre. The shared path should have a minimum width of 2.5m where possible to provide a safe and amiable walking and cycling environment. A number of extensions have been planned and could be delivered in stages.

The Windmill Walk has reached its southern extent at Rural Museum. From there it needs linking back towards the old railway station and the Oxley Highway.

The Windmill Walk at its northern end requires an extension to link directly into CBD area (priority stage) and Lower Castlereagh Street. Further stages could see an extension northbound along Lower Castlereagh Street towards Court Street and eventually to Byrne Avenue.

In a final stage, a further extension of the Windmill Walk could be considered, linking from Clark Street to the Cooee Lodge.

Recommendation: The ongoing development of the remaining stages of the shared path loop as outlined in the infrastructure program detailed in Appendix A and Appendix F.

Chelmsford Avenue Shared Path

Council's long term vision is to establish an uninterrupted shared path trail around the town of Gilgandra with regular links into the town centre. The shared path should have a minimum width of 2.5m where possible to provide a safe and amiable walking and cycling environment. A number of extensions have been planned and could be delivered in stages.

The Chelmsford Avenue Shared Path at its eastern end requires a better link into Cooee Lodge along Dudley Street. This should also include direct links into the internal road network of the Cooee Lodge development. In a second stage, the Chelmsford Path should link to the high school.

The upgrade of the existing crossing of Chelmsford Avenue (close to the intersection with Federation Street) should be a priority project to provide a safe crossing facility.

The Chelmsford Avenue Shared Path at its western end requires a safe crossing of the railway line. Beyond the railway, different options to connect back to the town centre exist. An initial stage could be the extension of the shared path along Federation Street to the Oxley Highway.

Further extension of the Chelmsford Avenue Shared Path can be considered towards the west around Marshall Street in a later stage.

Recommendation: The ongoing development of the remaining stages of the shared path loop as outlined in the infrastructure program detailed in Appendix A and Appendix F.

Shared Path along Oxley Highway

The development of a shared path along the Oxley Highway is important to provide residents of Gilgandra West with a safe active transport link into the town centre. In a first stage, consideration should be given to a shared path along the northern side of the highway, utilising the existing service road. This could become a low cost project and would link into the existing path that currently ends at Federation Street.

Recommendation: GTA Consultants recommends ongoing development of the remaining stages of the shared path loop as outlined in the infrastructure program detailed in Appendix A and Appendix F.

Walkway Links

Walkways act as a catalyst for enhancing walking in the community. When considering expanding the walkway network, it is a key consideration to evaluate the objectives. In this instance, the target demographic is school student mobility, and mobility scooter movement.

Another key consideration is an appropriate footpath width. Many people walk for companionship, but ideally these people should be able to comfortably walk side-by-side. Standard footpaths are typically 1.2 metres wide, but given the user base of paths relating to scooter user, a width of 1.8 metres along key routes may be justified. Whilst anecdotally this would add 50% to construction costs and be a constraint to further development, there is little merit in installing footpaths which are too narrow for two scooters (as an example) to pass each other.

As a general concept, it was considered that 90% of households should not have to walk more than two (2) blocks to get access to a walkway.

Recommendation: There are a number of proposed links to be installed over a ten year period in Gilgandra. Consideration may be given to widening footpaths to 1.8 metres along selected corridors frequented by scooters in order to allow them to pass. These are highlighted in Appendix A and Appendix F.

Kerb Ramps

Kerb ramps are a necessary infrastructure requirement for the less mobile user groups. Without kerb ramps, users of mobility scooters are forced to ride on the road, placing themselves at a significant risk. RMS has recently released guidance on kerb ramps to assist members of the community (especially noting mobility scooter users) about their daily activities. In this regard, kerb ramps should be redesigned (where existing) and installed (where there is new infrastructure) consistent with RMS [MD.R173.B01.A.1](#). Whilst the focus of kerb redesign should initially be focused on routes that may be consistent with mobility scooter use (for example in the vicinity of the Cooee Lodge), all kerbs should be redesigned in due course; the remodelling also leads to more

amenable experiences for people who ride bicycles and for caregivers with prams as the kerb lip is smoothed out.

Recommendation: Council should give consideration to redesign existing and install new kerb ramps consistent with new RMS guidelines. In the first instance, kerb ramps should be provided on desire lines between the Cooee Lodge and the CBD.

Installation of additional crossing points, kerb stands and median islands

Regional centres often have wide road corridors, and whilst this makes driving easy, it can make crossing a road more challenging, particularly for those slow of movement, or have animals or children.

By providing adequate crossing facilities community members will feel safer about crossing wide road corridors. In the long term, and with appropriate education, this may result in more autonomy and safety of students attending school and add to the amenity of recreational walking throughout the town.

Median islands and kerb extensions are preferred due to planning restrictions surrounding zebra crossings. The

Recommendation: Dedicated crossing points in Gilgandra would include kerb extensions and/or median islands. The location of these is illustrated in Appendix A.

End of trip facilities at workplaces and points of interest on Miller Street and around Gilgandra

End of trip facilities are required at key points of interest in order for cyclists to safely store their bicycles whilst they go about their daily activities.

Recommendation: Provide bicycle parking facilities at key points of interest such as schools and shops, as well as commercial centres.

Tooraweenah

Three (3) preferred infrastructure projects were highlighted in the consultation as desired by the Tooraweenah community.

A priority project for Tooraweenah should be the connection between Murray Street and the oval, linking the tennis courts, the playground and the public toilets.

Consideration should be given to the extension of the walkway across the Tooraweenah Creek linking the school with the village.

In the long term, a new shared pathway could connect to the viewing platform located around 1.5km south of Tooraweenah as a future project.

Recommendation: Consideration should be given to funding the abovementioned projects. Some of the initiatives outlined in Section 6.1 are also applicable to the village of Tooraweenah. These are highlighted in Appendix A and Appendix F.

7. Funding Sources and Implementation

Funding will always remain a contentious issue and there will always be competing projects and services to be provided. Therefore it is important to properly communicate and promote the benefits the projects could provide.

It is important to establish a consistent project assessment framework across all transport projects such that the relative merits of (for example) a small cycling project can be compared to a major construction project.

One common tool used for road projects is cost-benefit analysis. Such analysis seeks to derive a benefit-cost ratio (BCR) through valuing in current terms:

- Capital project cost
- Maintenance and other ongoing costs
- Vehicle operating cost (VOC) savings
- Time cost savings per vehicle hour
- Accident cost savings
- Environmental externalities (costs or benefits).

Such analysis can be applied to active travel projects with additional economic parameters included such as health benefits. Such analysis is dependent on the availability of suitable data which can be difficult, particularly for smaller projects. Due to the wide-ranging benefits, quantification can be difficult where these involve other government sectors and indirect links, such as health benefits.

The recommended bicycle network plan proposes high quality infrastructure in line with contemporary community aspirations for bicycle use. There are a number of funding programs which may provide the additional financial support necessary for implementation of both the physical infrastructure and the related social plan to meet current and future community needs.

Three websites that provide further detail:

- www.cyclingresourcecentre.org.au/section/category/funding
- <http://www.bikeoz.com.au/index.php/cycling-promotion-fund>
- <http://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/active-transport/index.html>

A summary of some potential funding sources is provided below.

7.1 State Government

7.1.1 TfNSW/ Roads and Maritime Services

TfNSW generally improves the bicycle network through the RMS, however TfNSW has an active transport department for the delivery of projects outside of RMS control. TfNSW documentation states a preference to fund strategic links to create a connected bicycle network.

The *New South Wales Transport Long Term Master Plan* outlines funding opportunities for projects which enhance regional tourism. The document also states that all new road projects will be required to examine the feasibility of providing for cyclists as an essential component of the project.

During 2012/13 just under \$6 million was allocated to local government cycleway works in 61 Councils under matched funding arrangements between Council/ NSW government. \$12 million was invested in 112 local bicycle network projects.

The RMS 50/50 funding program is designed to assist councils with the development and implementation of their local bicycle networks. Full details are available in the Memorandum of Understanding available on the RMS website:

http://www.rms.nsw.gov.au/trafficinformation/downloads/mou_0609.pdf. Programs for potential funding include:

- **Regional Roads REPAIR Program (22602)** – the objective of this program is to provide additional assistance to councils to undertake larger works of rehabilitation, and development on Regional Roads to minimise the long-term maintenance costs of these roads commensurate with their function and usage. Walking and cycling infrastructure could potentially be included within this cost. Sealing/widening shoulders falls within the provision of this program.
- **Accident Blackspot Treatments (26301)** – the objective of this program is to reduce the occurrence and severity of crashes at known crash locations by installing cost-effective treatments, ensuring a road safety return. Shoulder treatments and curve reconstructions fall within the funding provision for this program.
- **Cycleways (27304)** – this program is aimed specifically at designing and constructing new on-road and off-road cycleways that increase the level of network availability in NSW. Funding arrangements fall into two broad categories, but only one would likely be relevant to Gilgandra Shire Council:
 - Local bicycle routes identified in a Council's Bike Plan – 50/50 funded and to be maintained by Council following completion.
- **Bicycle Facilities (27305)** – this program is aimed at improving the operation of existing cycleways. Typical projects include upgrades of existing cycleways, retrofitting at existing traffic control signals, installation of kerb ramps and replacement of unsafe drainage grates.
- **Bicycle User Support (27306)** – this program aims to support cycling through research, training and promotion. Typical projects include bicycle promotion, bicycle use surveys, development and production of cycleway maps and cycling related guidelines.
- **Local Government Pedestrian Facilities (27401)** – this program helps to provide facilities on local and regional roads to improve pedestrian safety, mobility and access. Shared zones are eligible for funding under this program.

There is further information regarding RMS funding assistance to local councils with regards to blackspot treatments, road safety audits, local area safety, bicycle and pedestrian facilities, traffic calming, schemes for older and mobility impaired persons as well as maintenance, rehabilitation and enhancement of regional roads. Information can be found at this link <http://www.rms.nsw.gov.au/business-industry/partners-suppliers/traffic-facilities/local-councils/index.html>. There are also other direct opportunities through:

Bike Week Funding

NSW Bike Week is a state-wide NSW Government funded initiative held in September that aims to raise the profile of cycling as a healthy, easy, low cost and environmentally friendly transport alternative for driving short trips. Funding is available to promote local community NSW Bike Week events, which should be designed to encourage cycling in the local community <http://www.transport.nsw.gov.au/customers/cycling/bike-week-2015>.

Community Builders

The NSW government provide a directory for potential funding and grant sources for community type projects. It provides a location to search programs from:

- Federal government
- State government
- Institutions
- Philanthropic trusts
- Businesses

This can be searched at <http://www.communitybuilders.nsw.gov.au/funding-grants/funding-and-grants>. There is also guidance as to how to write more successful applications.

7.1.2 NSW Department of Planning and Infrastructure (DoPI)

NSW Environment Trust

The Department of Environment and Heritage (DEH) manages a number of grant programs under the banner of NSW Environment Trust. Each grant program funds projects which rehabilitate or regenerate the environment, or promote environmental education and sustainability. Cycling infrastructure can be incorporated into projects as a way to reduce greenhouse gas emissions by reducing car dependency and increasing cycling. Details of past and present programs are provided on the Environment & Heritage website: (<http://www.environment.nsw.gov.au/grantsandfunding/>).

ClubGRANTS

Clubs that earn over \$1 million annually in gaming machine revenue provide funding for community projects and services, and in turn receive dollar-for-dollar gaming tax deductions. In 2013, \$92 million was allocated to eligible causes through the ClubGRANTS program.

This funding can also be used to implement cycling encouragement initiatives like cycling programs, workshops and distributing maps. Further details are available on the ClubsNSW website (<http://www.clubsnsw.com.au/community/clubgrants/about-clubgrants>).

7.2 Federal Government

Department of Infrastructure and Transport

The Department of Infrastructure and Transport (DIT) offers a range of funding opportunities under the banner of the Nation Building Program. Details of all programs are provided via the [DIT website](#), including the following:

Roads to Recovery Program

In November 2000, this program was introduced as a single intervention by the Commonwealth to address the specific problem of local roads reaching the end of their economic life, and their replacement being beyond the capacity of local government. From 2014-15 to 2018-19 the program will provide funding of \$3.2 billion. This program has been used by councils throughout Australia to fund bicycle infrastructure development and upgrades. It is understood that Gilgandra Shire Council will receive nearly \$5 million in funding from 2015-16 to 2018-19.

Black Spot Program

The Black Spot program began in 1996-97 and is part of the government's commitment to reduce crashes on all roads in Australia. The program, which provides \$500 million from 2014-15 to

2018-19, targets road locations where crashes are occurring. Typical projects include upgrading traffic signals and improving roundabouts at dangerous locations. However, this program has also been used by councils throughout Australia to fund bicycle infrastructure development and upgrades.

7.3 Other Funding Opportunities

Reinstatement Works

Following significant corridor upgrades for water, sewer or power, the local road network must be reinstated. These works may be undertaken by the contractor or by council. During the reinstatement works it is an opportune time to deliver bicycle facilities within the existing kerbs.

Private Development

Property developers and property managers levy new buildings to fund local walking and cycling infrastructure nearby. If a development is occurring (such as a shopping centre), bicycle parking facilities and safe bicycle routes around the site can be integrated into the plans encourage cycling for short trips.

Business Improvement Districts

Local business districts may levy members to deliver bicycle infrastructure; for example bicycle parking. This investment may become a platform for encouragement programs to increase short neighbourhood trips to the centre and can be integrated into the plans to encourage cycling for short trips.

Advertising

Revenue from business and clubs in the local area can provide funding for advertising within the LGA. These advertisements could be cycling related by providing bicycle maps and information and encouragement advertisements.

Rail Trail Tourism Funding

The 2014-15 NSW state budget set aside \$50 million for rail trail development. Pilot scheme applications have recently ceased, but Council should be informed of any developments in this niche funding sector for which the Coonamble branch line may be a desirable route if the ARTC changes its view on active transport links in the rail corridor.

http://www.industry.nsw.gov.au/_data/assets/pdf_file/0003/65757/EOI_Rail_Trails.pdf

Destination NSW has a select number of programs available to fund and co-fund regional tourism opportunities. Such programs include the *Regional Visitor Education Fund* and the *Regional Flagship Events Program*. <http://www.destinationnsw.com.au/tourism/business-development-resources/funding-and-grants>

At a national level, tourism funding grants have recently ceased through the *Tourism Industry Regional Development Fund*. However, there is a new program referred to as the Tourism Demand-Driver Infrastructure Programme which may be relevant to drive demand, as well as improve and increase tourism opportunities and expenditure.

<http://www.austrade.gov.au/Australian/Tourism/Tourism-and-business/tddi>

8. Monitoring and Evaluation

Being able to monitor and evaluate any strategy is paramount to ensuring that the outcomes are being progressed. The report outlines approximate rollout timelines and budgetary costs and the items should be revised annually to determine if funding can be brought forward or deferred.

At a minimum, an annual review of the Active Transport Strategy should assess what infrastructure and programs have been implemented, the uptake of these initiatives, value-for-money for health, environment and quality of life outcomes.

Following the launch of the Active Transport Strategy infrastructure and initiatives program, periodic monitoring should be conducted to ensure the programs operate as planned and report successes with stakeholders and users.

It is suggested that Gilgandra Shire Council undertake sufficient monitoring and evaluation by the following means:

- Annual bike and pedestrian counts at key locations
- Annual review of crash statistics, specifically reported bicycle crashes
- Meetings of Council's traffic advisory local committee and community services committee
- Holding and supporting various events.

These activities provide the necessary data to continually evaluation the success of the bicycle strategy. As an example, this may involve conducting intercept surveys with pedestrians and cyclists at major desire lines and activities following the launch of new infrastructure or wayfinding routes, to understand if they are new riders or attracted to the facility from a previous route.

In addition, if there are any significant developments (including but not limited to new housing land releases and new employment centres) in the Gilgandra region over the ten (10) year period considered in this report, due consideration would need to be put into appropriately revising active transport targets and funding opportunities.

Appendix A

Proposed Pathway Map

Legend

- Existing Footpath
- Proposed Footpath
- Existing Sharedpath
- Proposed Sharedpath
- Existing Pedestrian Crossing
- Proposed Pedestrian Crossing Facility
- Railway Crossing Facility



Client
Gilgandra Shire Council

Job Title

Gilgandra

Drawing Title

Infrastructure Overview

Scale at A3

As shown

Drawing Status

Final

Job No

16S1040000

Issue

D1

0 100 200 300 400 500 m



Legend

Infrastructure Type

- Proposed Shared Path
- Existing Footpath

0 100 200 300 m



GTA consultants

www.gta.com.au

Client

Gilgandra Shire Council

Job Title

Gilgandra PAMP and Bike Plan

Drawing Title

Tooraweenah Overview

Scale at A3

As shown

Drawing Status

Final

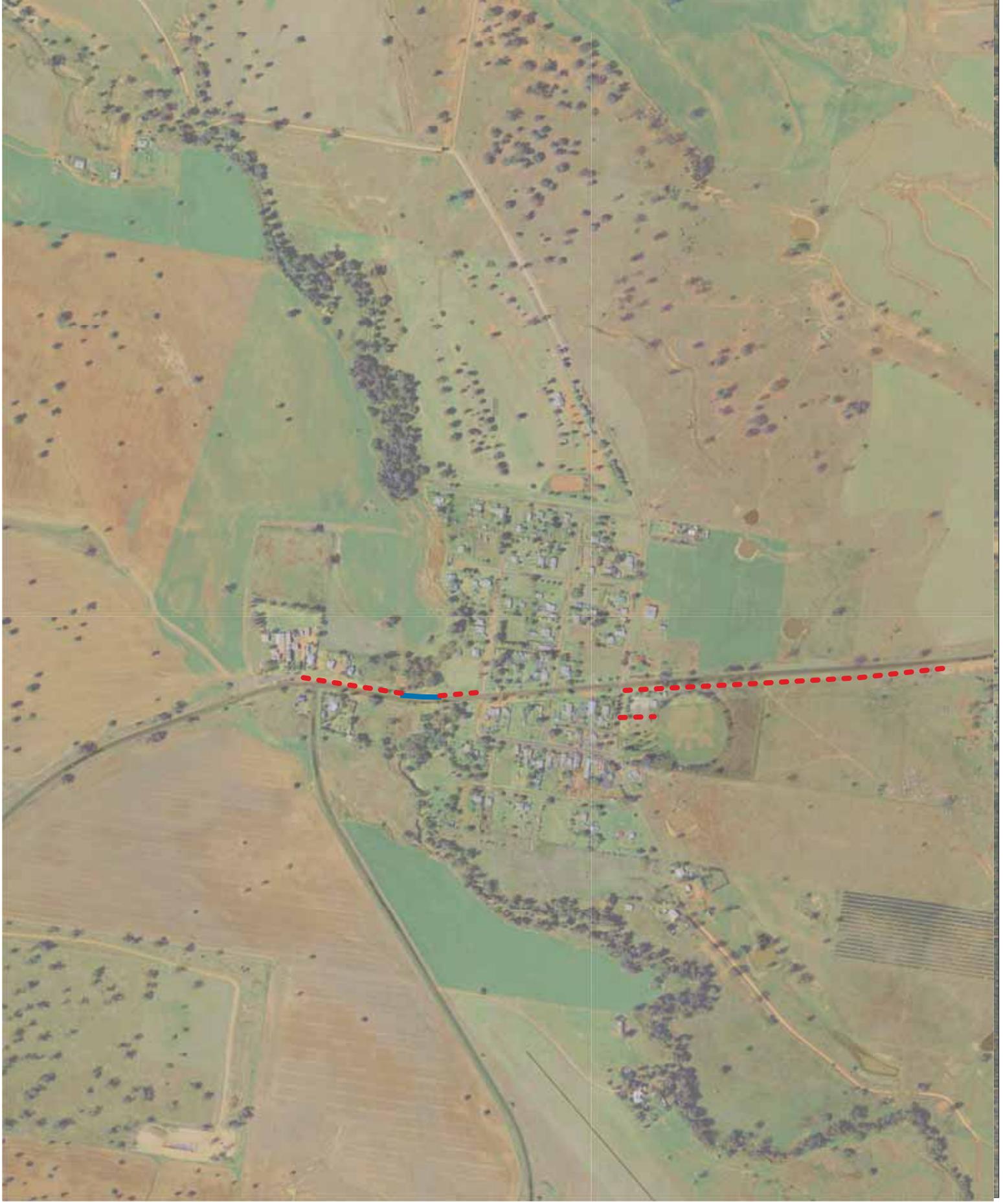
Job No

16S1040000 001

Drawing No

Issue

D1



Appendix B

Working Paper from Site Visit

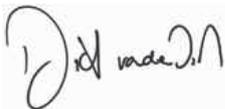
Appendix B

Gilgandra Active Transport Plan Working Paper

This document is a working paper based on the site visit conducted by GTA Consultants on 22 and 23 September 2015. It details the comments made in the various meetings, a SWOT analysis to evaluate opportunities and constraints to walking and cycling in Gilgandra and meetings held with two different schools within Gilgandra. It also addresses a site visit and subsequent consultation in the village of Tooraweenah. There are appendices for ancillary information regarding invitations to consultation, an existing infrastructure audit and the meeting presentation.

I trust this is in line with your expectations, should you have any queries or comments, please do not hesitate to contact me.

Regards,



Dick van den Dool

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Community Meeting

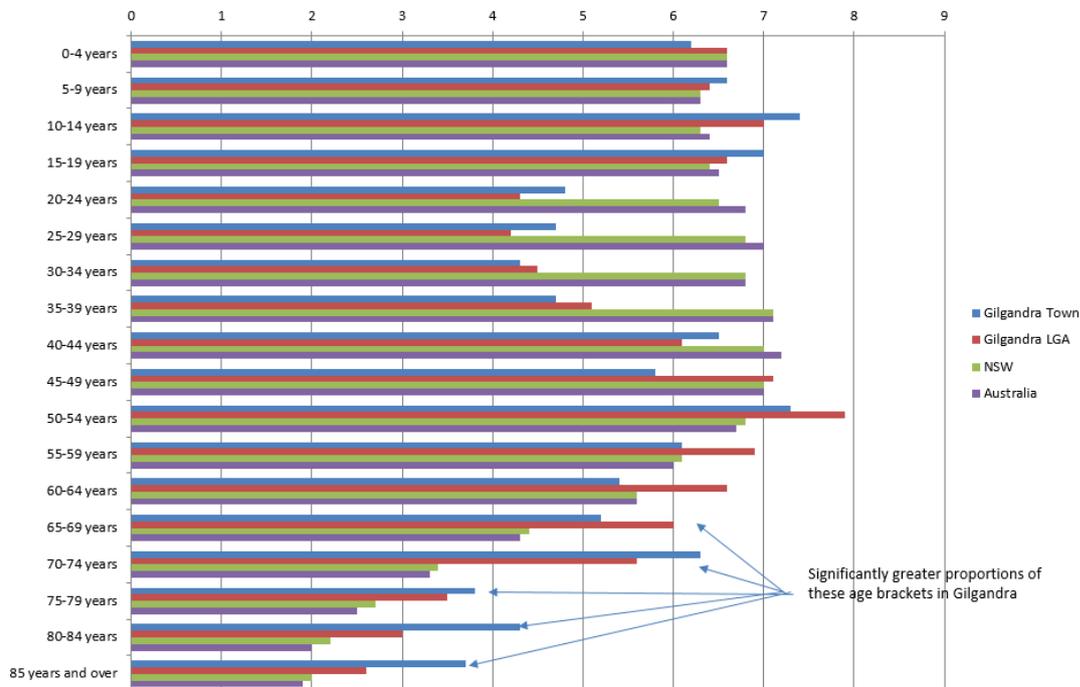
| | | | | | |
|----------------------|---|-----------------|----------------------------|------------------|--|
| GTA Job No: | 16S1040000 | GTA Rep: | Volker Buhl, Dean Rance | Date: | 22 Sep 2015 |
| Job Name: | Gilgandra Active Transport Strategy | | | Time: | 5:30-6:30pm |
| Client: | Gilgandra Shire Council | | | Location: | Gilgandra Shire Council Chambers |
| Purpose: | Active Transport Strategy Consultation Meeting | | | | |
| Attendees: | Rolly Lawford (Council) , Brad Perera (Council), Matthew Wilson (Council), Sharon Grierson (RMS), Volker Buhl (GTA), Dean Rance (GTA), two members of the Gilgandra community | | | | |
| Apologies: | | | | | |
| Distribution: | Rolly Lawford, Brad Perera, Sharon Grierson | | | | |

A meeting with stakeholders was held at Gilgandra Shire Council Chambers on Thursday, 22 September 2015. The following paragraphs summarise the meeting and give an overview of the discussion. A copy of the invitation is included in Appendix A. An invitation was also placed on the Facebook page of Gilgandra Shire Council.

Review of existing conditions

The township of Gilgandra has a population of approximately 2,600. The population of the town Gilgandra is on average older than NSW and Australia. In particular, 35% of Gilgandra's population is older than 55 years compared to 26% for NSW and Australia; this is a significant disparity and highlights the need to accommodate for an ageing population. The extensive use of community members using mobility scooters was also noted. The current extent of the footpath network is limited in scope and infrastructure can end abruptly. There is evidence of higher volume movement along some corridors (Noreen Street; Court Street) that do not have footpaths as is evidenced by foot tracks through grassed areas. An existing conditions audit has been undertaken and is included as Appendix B. Evidence of improvement works including grinding back of uneven paths can be seen throughout the town. The Windmill Walk makes up part of a broader leisure walk for which there is a long term development plan.

Figure 1: Population distribution (horizontal axis is % of population)



Review of policies and strategies

No strategic mobility documents for Gilgandra Council are currently existent beyond the asset management plan and operational plan. The lack of such strategic planning document has resulted in RMS rejecting funding requests for infrastructure and initiatives. The development of this project aims to be a reference guide for the long term rollout of walking and cycling investment. Two key documents for reference include the *Central West Regional Transport Plan* and the *NSW Transport Long Term Master Plan*.

- <http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/central-west-regional-transport-plan.pdf>
- <http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/nsw-transport-masterplan-final.pdf>

Key points extracted from these documents are shown in the presentation (see Appendix C) which has also been distributed to the attendees.

The neighbouring community of Tooraweenah is part of the study area.

GTA Consultants presented typical barriers for people to choose active travel modes such as a lack of infrastructure, initiatives and convenience. In more detail, reasons for not choosing active travel modes include:

- Lack of road shoulders/ dedicated foot and cycle paths
- poor surface conditions
- climatic conditions
- speed differential
- lack of dedicated safe crossing points

- no one to ride/walk with
- not enough links to points of interest
- not enough wayfinding.

A prominent study conducted in Portland showed that up to 60% of people would consider riding (and walking) more if appropriate provisions were made.

- <http://www.portlandoregon.gov/transportation/article/158497> (Click link)

GTA Consultants has prepared an online survey which incorporates identifying current deterrents and points of interest in Gilgandra. By 26 October 2015, 45 responses have been recorded. The results of this online survey will be analysed and used for the preparation of the draft ATP.

Existing Active Transport Patterns

- Census data shows an active transport commute to work in Gilgandra is nearly double the state average (10.8% compared to 5.8%).
- The topography is favourable in Gilgandra.
- Heavy Goods Vehicle (HGV) traffic may act as a deterrent to walking and cycling.
- Access to relevant points of interest including schools, shopping district on Miller St, employment centres (including Gilgandra hospital and nursing homes) needs to be provided.
- The existing Windmill Walk infrastructure has recently been extended with an underpass across the Newell Highway
- Gilgandra High School has approximately 250 students, they are broadly serviced by the existing network, despite some network limitations. The primary school was observed to have higher active travel patterns.

Identified Issues and opportunities

- The existing road network needs to be considered for leisure, commuting and tourism riding and walking. It would be desirable to identify suitable routes in the region.
- A possible initiative is for bicycle workshops and for a local shop to act as a retailer for disposable items such as tubes.
- The lack of kerb ramps in some instances can lead to undesirable instances of mobility scooter riding on roads. Kerbs are also in some instances too steep and some have lips which make access difficult. New kerb-ramp construction guidance from RMS can support future upgrades.
- The outside edge of the road is in many instances poorly sealed and there is a general prevalence of loose gravel and potholes. This acts as a deterrent to cyclists who feel uncomfortable cycling towards the centre of the road.
- A possible reduction of the speed limit to 30km/h in selected areas could have significant safety benefits as demonstrated in relevant studies overseas.
- Another idea outlined was the investigation of the potential for a pool/community bike scheme.
- Warren Road west from Federation St to Marshall Street was identified as a critical area with a number of concerns about pedestrian safety.

SWOT Analysis

Based on the comments during the stakeholder meeting and from our site observations, a SWOT analysis was prepared to give a better indication of potential future active travel strategies.

Figure 1: SWOT Analysis

| | |
|---|---|
| <p>Strengths</p> <ul style="list-style-type: none"> ○ Low traffic volume roads and wide road corridors should encourage cycling/walking and minimise potential conflict. ○ Layout of town means that most journeys within the town are short (<4km) and ideally suited to walking and cycling. ○ The flat topography means that cycling should be easily adopted by all spectrums of the population ○ Walking culture ○ Observed demand for recreational walking | <p>Weaknesses</p> <ul style="list-style-type: none"> ○ Small population and budget constraints means potentially poor economies of scale. ○ Kerb ramps are not present on all footpaths, making bicycle, and in particular scooter mobility difficult. ○ No existing bike shop and no sales of bike maintenance equipment and tools means it is difficult to promote change. ○ General lack of end of trip facilities throughout town. ○ Climatic conditions identified by community (especially in summer) |
| <p>Opportunities</p> <ul style="list-style-type: none"> ○ Develop local cycling club/organisation. ○ State documents clearly define possible funding streams which are relevant to Gilgandra. ○ Develop education campaigns and understanding of walking and cycling. ○ Cooperate with local schools to advertise and educate on active travel ○ Work with local health representatives to establish “green” prescriptions, walking school buses to reduce sedentary lifestyles. ○ Develop key routes for mobility scooter use | <p>Threats</p> <ul style="list-style-type: none"> ○ Increasing heavy vehicle traffic on regional roads. |

Defining the Target Demographics

The SWOT analysis has been used as a tool to identify potential target user groups for active travel and assist shaping an active travel strategy. At this point, potential target user groups include:

- **Gilgandra’s local/secondary student population base** - High school students beginning to have independence and autonomy in mobility whilst not being exposed to potentially dangerous major roads.
- **Residents in the 50-65 age bracket** who get health benefits out of active mobility.
- **Local employees** - Particularly those employed in concentrated employment areas in vicinity of Miller Street and the Council/aged care facilities.

- **Mobility scooter users** - Ensuring easy links to points of interest relevant to mobility scooter use such as the aged care facilities with local shops on Miller Street and the RSL.

Council Meeting

A key reason behind the development of an Active Transport Strategy is to provide an overarching document that individual funding requests can be related to. This will help with RMS funding of infrastructure and initiatives in the future.

Aged care is and will remain a major influence in the community. As part of the Windmill Walk, the underpass at Oxley Highway has recently been constructed. There is ongoing planning to further develop this in the future. The surface of the Windmill Walk is perceived as harsh for bicycles, the loose gravel and poor surface conditions could reduce the amenity of the path for cyclists. The windmill Walk is also seen as too short for a leisure ride in its current form.

RMS will not approve new formal pedestrian crossings where pedestrian volumes are low. This results in needing kerb extensions and median islands with no right of way for pedestrians.

There was a brief discussion about that selection of travel mode is dependent on its purpose, and that walking and cycling will not always be desirable modes. There was also a discussion as to how the strategy would be able to cater for an ageing population with vision and hearing deterioration.

Site Observations

GTA Consultants undertook site observations in Gilgandra and noted the following:

- The surface of the shared path along Chelmsford Avenue is generally coarse. Low cost planning measures were observed in some areas of the path (e.g. the crossing point on Chelmsford Avenue). Such a crossing may need to be redesigned in the medium term.
- Though roads are sufficiently wide to encourage cycling, the shoulder can often be in poor condition with loose gravel, forcing cyclists towards the centre of the road, which detracts from perceived safety.
- Active travel to school anecdotally appeared to be higher at the primary school. Both schools provide bike parking but only few bikes were observed.
- Three marked zebra crossings exist in Gilgandra (one on Miller Street and two near the primary school). Median islands are the only crossing facilities on local streets.

School Meetings

Meetings between Gilgandra High School and Gilgandra Primary School representatives, Volker Buhl and Dean Rance on 22 and 23 September 2015.

Gilgandra High School

Gilgandra High School has 262 students in total of which 126 students commute on school buses from out of town. There is the provision of a bicycle rack, but rates of walking and cycling are anecdotally declining as part of a “cultural shift”. The school remains neutral in active travel, neither encouraging nor discouraging such initiatives. Scooters and skateboards are also utilised, these may be popular due to a non-existent risk of punctures (solid rubber wheels).

The school representatives outlined that the climate can be a disincentive (particularly summer heat) to the students and staff for active travel. Representatives noted that the upkeep of the paths and roads may also disincentivise walking and cycling patterns.

As noted above, the school currently does not incentivise walking and cycling, and there traditionally has not been a policy of inviting the police to discuss road safety, although the school indicated it would be open to this possibility.

Figure 2: Bike rack at the high school



Figure 3: Advisory signs near the high school



Gilgandra Public School

The school representative outlined that most students walk to school (either with parents or friends). There is a pattern of social disadvantage leading to low motor vehicle ownership which necessitates that children walk and cycle in the community (usually walk due to cost of bicycles). A road safety program has been conducted with the students as part of the PDHPE curriculum.

Six students were observed to ride out of the school on the afternoon of 22 September. The school representative outlined that children generally receive bikes as ‘hand-me-downs’ and bikes can be of varying condition. There is a bike rack at the school, though there have been instances of theft and students with new bikes are encouraged to park them in the school office.

The school representative outlined broad concerns with road conditions. Although the roads are sufficiently wide in most instances, the amount of loose gravel near the gutter effectively forces people to ride closer to the centre of the road.

Figure 4: A desire line heading away from the school



Figure 5: Two existing pedestrian crossings near the school



Tooraweenah Site Visit

GTA Consultants undertook a site visit of Tooraweenah, located around 45km northeast of Gilgandra. The village has a population of 140 and provides basic amenities, a primary school and a caravan park. There are no walkways or cycleways in Tooraweenah with the exception of a short stretch parallel to the road bridge across the Tooraweenah Creek near the school. A new viewing platform several hundred meters south of Tooraweenah is not connected to the village by a walkway but access is via the main road.

A community meeting was held with several community members and stakeholders attending. Council and GTA introduced the idea behind the development of an Active Transport Strategy and outlined potential benefits for Gilgandra and Tooraweenah. The main desire for additional infrastructure in Tooraweenah was identified near the school and for access to the viewing platform. There are currently significant levels of active travel happening in Tooraweenah, the weather conditions being highlighted as the main deterrent.

Appendix A

Advertising Flyer

Active Transport Plan for Gilgandra and Tooraweenah- for everyday transport needs

What: Open Workshop on Active Transport Plan

Where: Gilgandra Shire Council Chambers, Warren St, Gilgandra

When: Thursday, 22 October from 5.30 – 6.30pm

Would you like to walk or cycle to work, to the shops or to school but don't because of a lack of safe footpaths and cycle routes, poor signage or a secure place to park your bike?

Gilgandra Shire Council recently received a grant from Roads and Maritime Services to engage a transport consultant to develop an Active Transport Plan for Gilgandra and Tooraweenah. An Active Transport Plan is a comprehensive strategic and action plan that assists Council to develop pedestrian and cycling facilities and policies that support a culture where people walk or use a bike for everyday transport.

An Active Transport Plan will assist Council to coordinate investment in safe and convenient pedestrian and cycling routes. The plan will focus on developing routes that connect community and commercial facilities so that residents can bike or walk to commute as part of their work, for fun or for fitness. There are many benefits that can be achieved by improved active mobility facilities including improved health and fitness as well as social, environmental and economic benefits that arise from walking or cycling instead of using the car.

Community engagement is a critical process of developing an Active Transport Plan that meets the needs of all community members including school children and seniors. If you would like to have your say in the development of Gilgandra's Active Transport Plan then please attend the community consultation meeting at Gilgandra Shire Council Chambers on Thursday, 22 October at 5.30pm.

Council has engaged GTA Consultants to assist with this work. Some of the questions GTA will be asking of the community include:

- What makes Gilgandra a good place for walking and cycling?
- What needs to change to make Gilgandra a better place for walking and cycling?
- How can Council support the community to improve walking and cycling conditions?



What happens if I cannot make it?

Please feel free to email Dean Rance on dean.rance@gta.com.au or call the GTA Consultants office on 8448-1800.

Participate in a 3 minute survey
<https://www.surveymonkey.com/r/Gilgandra>

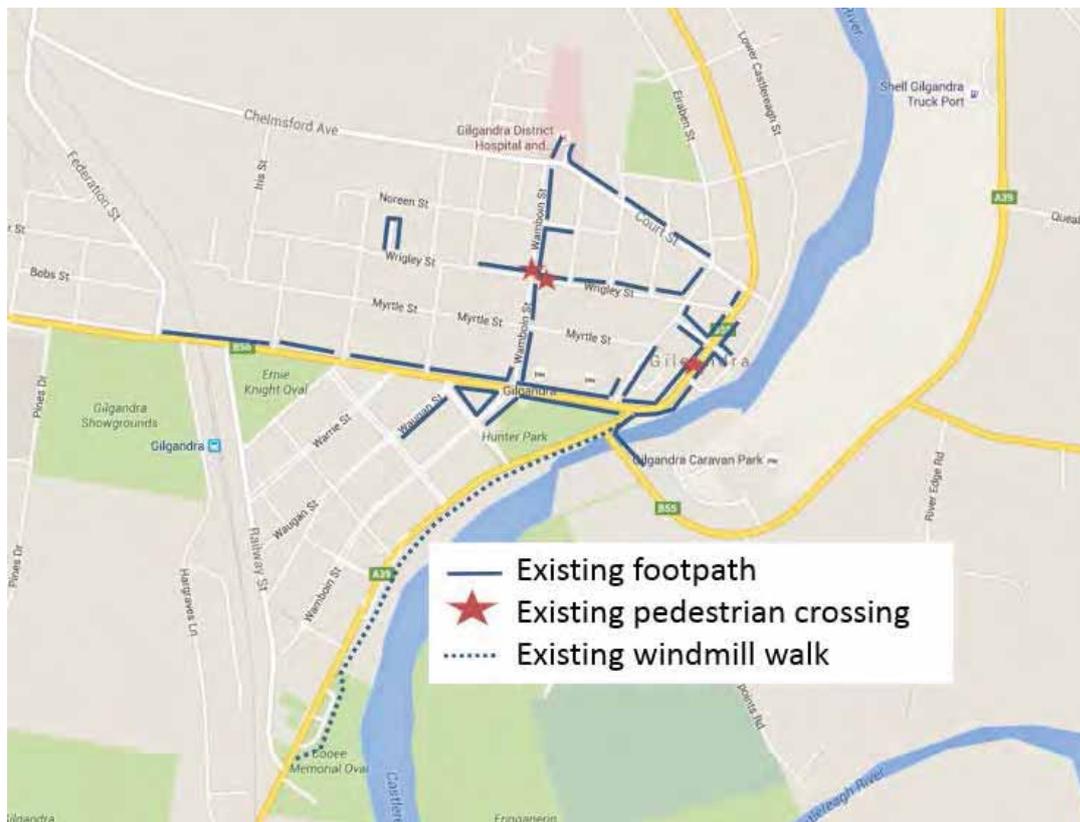


Appendix B

Existing Conditions Audit

GTA Consultants were provided with a walking track development map which outlines the proposed expansion of the windmill walk which will end up covering a distance of as much as 14km. When combined with the existing conditions map below, the network will be well-developed. Tentative future footpaths identified may include Iris/Raymond St to provide a north-south link at the western extent of the town between Warren Road and the existing track along Chelmsford Ave. Morris St should also be looked at developing due to its rear entrance to Miller Street. A complete network will be internally and externally discussed and a complete network plan and implementation timetable will be detailed in the draft report.

Figure 5: Gilgandra Footpath Network and Pedestrian Crossings



Appendix C

Presentation



Gilgandra Active Transport Strategy

Volker Buhl and Dean Rance

22 September 2015



A Review of Demographics and Activity

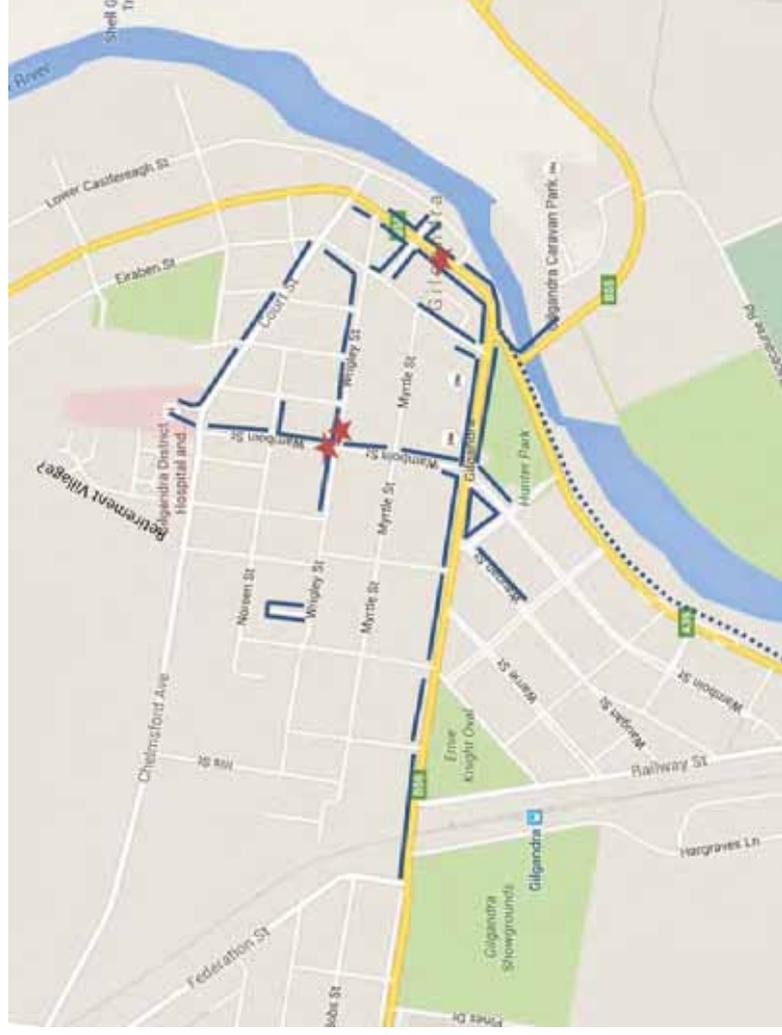
- Town has a population of 2,664, LGA a population of 4,368
 - Gilgandra has a limited footpath network
 - Challenging for encouraging further shift to walking/cycling and mobility scooter use
- 2011 census showed that 781 workers commuted to work, 7 rode a bicycle and 75 walked; active rate of 10.5% compared to 5.8% for the state
- Major employers in Gilgandra are Council, education, farming, retail and health sectors

A Review of Transport Strategies

- No specific existing Gilgandra document beyond broader Asset Management Plan and section 4.2.1 of 2015/16 Operational Plan
- Central West Regional Transport Plan 2013 – TfNSW
 - *Roll Out the Walking Communities Program and Roll Out the Cycling Towns Program*
 - Making walking and cycling easier and safer and giving customers choice when travelling within their towns
- NSW Transport Long Term Master Plan 2012 – TfNSW
 - As part of investing in cycleways in partnerships with local councils, funding will be prioritised towards opportunities which promote regional tourism.
 - ‘All new road projects or road network upgrades will be required to examine the feasibility of providing for cycling as an essential component of the project’.

Existing Infrastructure in Gilgandra

- Limited footpaths in Gilgandra, serving a small portion of destinations
- Road surfaces adequate
 - Large LGA and small population makes infrastructure challenging
- What is community view on extent of footpath network?
- Road crossing facilities?
- Suitability for mobile scooters?



Windmill Walk

- Links CBD with Memorial Park and Rural Museum
- What is the overall condition perceived as?
- Community is aware of it, but how well utilised is it?
- Is the path suitable for walking and cycling?



http://www.virtualtourist.com/travel/Australia_and_Oceania/Australia/State_of_New_South_Wales/Gilgandra-1876041/Things_To_Do-Gilgandra-TG-C-1.html

Barriers to Walking and Cycling

- Why do people not walk and cycle more currently?
 - Primarily it is due to a perceived lack of safety resulting from a lack of infrastructure and initiatives, or convenience
- Up to 60% of people would consider cycling regularly if appropriate provisions were made
- What are barriers to walking and cycling in Gilgandra?
- What can be done to further

Improve walking and cycling?



<http://cyclingchristchurch.co.nz/2012/11/06/are-you-interested-but-concerned/>

Initiatives and Infrastructure

Initiatives

- Council to purchase bikes for hire by community – Bike Hire Scheme
- Walk to school/work
- Invite cycling club to conduct introductory rides
- Invite bike shop to conduct maintenance workshops
- Supermarket to sell tubes etc
- Bike week
-
-

Infrastructure

- End of trip facilities such as bicycle parking
- Wayfinding signage directing along safe/low volume routes to points of interest
- Footpaths along key routes
- Crossing facilities (Pedestrian crossings, median islands, kerb extensions)
-
-

Questions?
Comments?
Ideas?

Contact:
Dean Rance
8448-1800

Dean.Rance@gta.com.au

Gilgandra High School

- Walk/Bike/Scooter/Skateboard all used for 'active' transport to school
- Heat in summer is a disincentive
- School does not encourage/discourage active transport – 'Passive observer'
- School has experienced a general decline in active transport over many years and decades

Gilgandra Council

- Aged care is increasingly becoming an important service to the town
- Windmill walk → Expansion of route
- RMS has previously refused funding because of no *strategic direction*
- RMS hesitant about more pedestrian crossings, not enough volume

Gilgandra School and Footpath Observations (PM)

- Evidence of improvement works
- Lips on kerb ramps can be problematic – New RMS guidance
- Primary School – 6 bicycles, 40-ish walk
- Children tend not to use crossing
- No crossing for access to island
- High School 1 skateboard, 1 bike, 50+ walks

Survey Results – A New Approach

| | Biggest Deterrent | Smallest Deterrent |
|---|-------------------|--------------------|
| Lack of Shoulders and footpaths makes me feel unsafe | 16 | 7 |
| Poor existing footpath and road conditions | 6 | 12 |
| Climatic conditions – I think it gets to hot/cold/windy/rainy to walk and cycle | 14 | 17 |

- People appear to be deterred by a lack of infrastructure rather than poor infrastructure
- Climate is a polarising deterrent.
 - Equally (large) numbers of people say it is a deterrent and not a deterrent

Survey Results – A New Approach

| | Biggest Deterrent | Smallest Deterrent |
|---|-------------------|--------------------|
| I do not have anybody to ride and walk with. No companionship | 4 | 14 |
| I consider the high speed of vehicles to be a safety hazard | 21 | 8 |
| Climatic conditions – I think it gets to hot/cold/windy/rainy to walk and cycle | 11 | 14 |

- A portion of the population does not walk/ride because of lack of companionship
- High speed of vehicles identified as a significant deterrent
- Climate is a polarising deterrent.
 - Equal numbers of people say it is a deterrent and not a deterrent

Survey Results – A New Approach

| | Most preferred | Least preferred |
|--------------------------|----------------|-----------------|
| Local shops on Miller St | 23 | 7 |
| Schools | 10 | 6 |
| Hospital | 2 | 22 |

- Miller Street shops a strong preference for linking
- Hospital not preferred, but likely get economies of scale if schools are linked

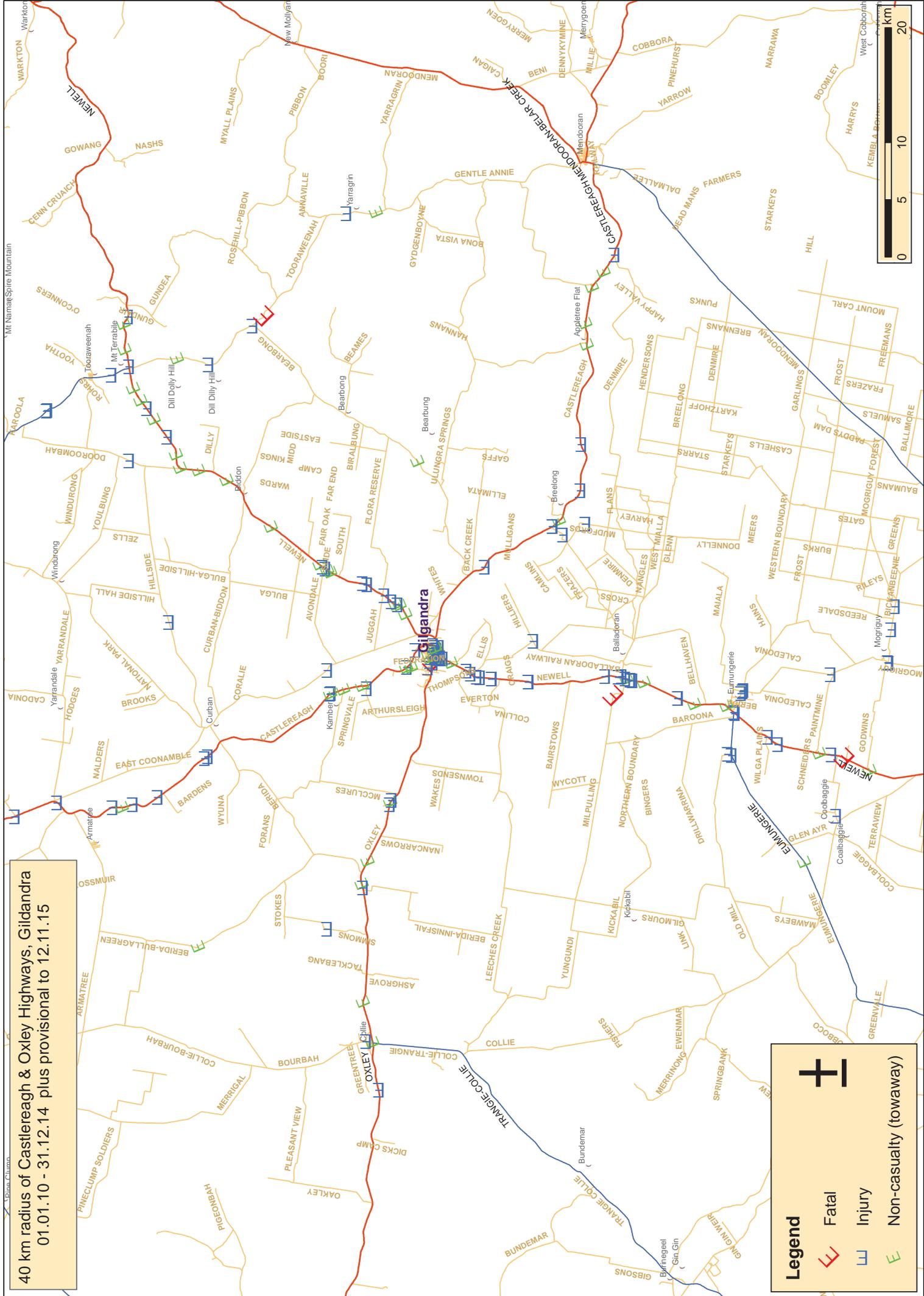
Survey Results – A New Approach

| | Most preferred | Least preferred |
|---|----------------|-----------------|
| Local shops on Miller St | 21 | 7 |
| Major employers (aged care facilities, Council etc) | 12 | 5 |
| TAFE | 2 | 23 |

- Miller Street shops remain a strong preference for linking
- TAFE not a strong preference for linking

Appendix C

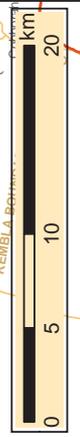
RMS Crash Data



40 km radius of Castlereagh & Oxley Highways, Gildandra
 01.01.10 - 31.12.14 plus provisional to 12.11.15

Legend

-  Fatal
-  Injury
-  Non-casualty (towaway)



Appendix D

Research on Mobility Scooters

Executive summary

The "*Motorised Wheelchair (Mobility Scooter) Safety – the issues, the solutions*" project is a pilot project implemented by Parkes, Forbes and Lachlan Shire Councils and funded by the Roads and Traffic Authority. This project aimed to explore the safety issues surrounding the increasing use of motorised wheelchairs (mobility scooters) and provide a framework that outlines how the Councils may respond to motorised wheelchair (mobility scooter) issues in terms of safer users, safer roads and safer vehicles.

Literature Review

Industry documents, standards and regulations were reviewed to obtain a greater understanding of motorised wheelchairs (mobility scooters). Motorised wheelchairs (mobility scooters) are treated as pedestrians if the vehicle weighs less than 110kg unladen and travels less than 10 km/hr, according to the NSW Road Rules 2008. It was found that there are no requirements for licencing, registration or insurance for these vehicles in NSW although some other states, like Queensland, require registration of the motorised mobility device.

There was generally found to be a lack of knowledge and understanding in users, retailers and the general public surrounding the use and treatment of motorised wheelchairs (mobility scooters) both on and off road, as well as lack of knowledge of rules and regulations pertaining to these vehicles. People who experience a degree of difficulty walking, primarily Australia's aging population are the most prevalent users. Motorised wheelchairs (mobility scooters) are available in a variety of models and dimensions, with varying options for power, speed and additional products and accessories. There is minimal regulation regarding the manufacture, sales and use of these aspects of motorised wheelchairs (mobility scooters).

Safety guidelines from sources such as the Australian Competition and Consumer Commission, motor insurance companies or government transport departments provide valuable safety information to potential and existing users. These usually include:

- Self assessment guidelines for user capabilities
 - Physical capabilities
 - Mental capabilities
 - Road rule awareness.
- Good habits and safe operating procedures
- Maintenance of the motorised wheelchair (mobility scooter).

Road Safety Analysis

An analysis of NSW crash data from RTA for the five-year period ending December 2010 revealed a total of 121 casualty crashes, including eight fatal crashes involving motorised wheelchairs (mobility scooters). There appears to be an increase in annual crash trends over time with 20, 14, 30, 32 and 25 crashes per annum respectively. There was a marked elevation in casualty crashes in the 60-69 and 70-79 year age groups and a further marked increase in the 80-89 year age group which was more pronounced in the fatality patterns. Most crashes involved males, especially the fatalities. The most common crash situation involved the motorised wheelchair (mobility scooter) moving from the footpath and emerging from driveways.

User, retailer and council surveys

User, retailer and council surveys were conducted with a view to better understanding motorised wheelchair (mobility scooter) safety issues. The response rates of the surveys were fairly low and varied between the survey types: User Survey - n=20, Retailer Survey - n=12, Council Survey - n=14.

Accordingly, the responses provide a more qualitative overview rather than a robust quantitative analysis. The user survey showed the key purpose for using a motorised wheelchair (mobility scooter) was due to health conditions or difficulty walking. The motorised wheelchair (mobility scooter) was often used on a daily basis and the users identified that roads were often used for travel since footpaths were either difficult to use or non-existent. Inadequate pram ramp access was identified as one the greatest difficulties, which was confirmed in the retailer and council surveys. Most users did not have insurance for their motorised wheelchair (mobility scooter).

The retailer survey identified a broad range of goods and services purchased with regard to motorised wheelchair (mobility scooter) use, including attachment accessories, home assessments, maintenance and repairs as well as safety information and training. It was also found that retailers often reviewed NSW guidelines for motorised wheelchairs (mobility scooters) with the customers. The council surveys identified that a limited number of councils offered guides or other safety information for motorised wheelchairs (mobility scooters).

Community Forum

GTA Consultants and the Parkes, Forbes and Lachlan Shire Councils hosted a Community Forum on the 28th June 2011, to explore the safety and access issues concerning motorised wheelchairs (mobility scooters) and workshop possible solutions. Forum presentations as well as group workshops covered topics concerning defining the purpose or need for motorised wheelchairs (mobility scooters), legislation and regulations, social health and safety, road and infrastructure requirements and education. Key focus points included the need for clearer regulation of design, motorised wheelchair (mobility scooter) use and user assessments as well as ensuring the safety of users, pedestrians and general traffic plus funding for travel routes.

Action Plan

The ACCC has recently launched a program similar to the Councils' "Mobility Scooter safety – the issues, the solutions" project. It involves the development and distribution of its "Help Cut Mobility Scooter Accidents" booklet to increase motorised wheelchairs (mobility scooters) safety awareness, provide safety tips to users and outline key considerations for purchasing and using motorised wheelchairs (mobility scooters) as well as the formation of working groups – safer roads, safer vehicles, safer speeds to address the issues and solutions at a national level. The working groups will also be doing a survey of users, based on those used in this project to collect data about motorised wheelchair (mobility scooter) use and safety issues and plan possible safety strategies and solutions to address these issues. Based on the research and the community forum, GTA Consultants has developed an action plan to address the issues identified. In many cases the issues are complex and further discussion and investigation is required to formulate effective policy and legislative responses. Table 1 summarises the proposed actions and responsibilities.

Table 1: Motorised Wheelchair (Mobility Scooter) Action Plan

| Action | Primary Responsibility | Secondary Responsibility | Timing |
|---|---|---|---------------------|
| ACCC Working Groups | ACCC | - | ongoing |
| Action #1 – Share information | ACCC Parkes, Lachlan and Forbes Shire Councils | State government Local government | immediate |
| Action #2 – Identify safe routes | Local government | - | ongoing |
| Action #3 – Education campaign | State government | Local government | short term |
| Action #4 – Educate professionals | RTA | Parkes, Lachlan and Forbes Shire Councils | short term |
| Action #5 – Update professional training programs | RTA and local governments | Professional societies/ Universities | medium to long term |
| Action #6 – Parking | Local government | | ongoing |
| Action #7 –Infrastructure quality | Local government | RTA | ongoing |
| Action #8 – Update LGA instruments | Local government | - | medium term |
| Action #9 – Identify funding | Local government | State and commonwealth government | short term |
| Action #10 – Additional classification | Commonwealth and state governments | - | medium term |
| Action #11 –Review regulations and standards | Commonwealth and state governments | ACCC | medium term |
| Action #12 – Labelling scheme | ACCC | Retailers/manufacturers | medium term |
| Action #13 – Insurance | ACCC/ Insurers | | medium term |
| Action #14 – Data collection | State governments | Local government | medium term |

Appendix E

Survey Results

Gilgandra Active Transport Strategy

1. Do you consider yourself to be a regular walker/cyclist?

| Answer Options | Response Percent | Response Count |
|---|------------------|----------------|
| Yes, I consider myself to be a regular walker only | 45.5% | 30 |
| Yes, I consider myself to be a regular cyclist only | 3.0% | 2 |
| Yes, I consider myself to be a regular walker and cyclist | 21.2% | 14 |
| No, I do not consider myself to be a regular walker/cyclist | 30.3% | 20 |
| answered question | | 66 |
| skipped question | | 0 |

2. For what purpose do you usually walk/cycle around the Gilgandra community? (More than one answer permitted)

| Answer Options | Response Percent | Response Count |
|--|------------------|----------------|
| I walked/cycled to go somewhere specific; for example to | 43.9% | 29 |
| I walk/cycle because of the health benefits | 60.6% | 40 |
| I walk/cycle as something to do in my spare time | 15.2% | 10 |
| I walk/cycle with someone as companionship | 9.1% | 6 |
| I do not consider that I walk/cycle | 15.2% | 10 |
| answered question | | 66 |
| skipped question | | 0 |

3. When was the last time you walked/cycled around the Gilgandra community for any purpose?

| Answer Options | Response Percent | Response Count |
|---|------------------|----------------|
| Within the last week | 65.2% | 43 |
| More than a week ago, but less than a month ago | 13.6% | 9 |
| More than a month, but less than three months ago | 6.1% | 4 |
| More than three months, but less than a year ago | 0.0% | 0 |
| More than a year ago | 6.1% | 4 |
| I do not walk/cycle | 9.1% | 6 |
| answered question | | 66 |
| skipped question | | 0 |

4. Does your household own a bicycle?

| Answer Options | Response Percent | Response Count |
|---|------------------|----------------|
| Yes, I have my own bicycle | 60.6% | 40 |
| Yes, I share a bicycle with my | 10.6% | 7 |
| No, my household does not own a bicycle | 28.8% | 19 |
| answered question | | 66 |
| skipped question | | 0 |

5. The following questions determine the factors that deter you from more regular cycling/walking

| Answer Options | Largest Deterrent | Smallest Deterrent | Response Count |
|--|-------------------|--------------------|----------------|
| Lack of road shoulders and footpaths make me feel unsafe | 25 | 13 | 38 |
| Poor road/footpath surfaces - Too many potholes and | 17 | 15 | 32 |
| Climatic conditions - I think it gets too hot/cold/rainy | 18 | 32 | 50 |
| answered question | | | 60 |
| skipped question | | | 6 |

6. The following questions determine the factors that deter you from more regular cycling/walking

| Answer Options | Largest Deterrent | Smallest Deterrent | Response Count |
|---|-------------------|--------------------|----------------|
| I do not have anybody to walk/cycle with | 6 | 26 | 32 |
| High speed of vehicles - I consider the speed differential to | 34 | 14 | 48 |
| Climatic conditions - I think it gets too hot/cold/rainy to | 18 | 18 | 36 |
| answered question | | | 58 |
| skipped question | | | 8 |

7. The following questions determine the factors that deter you from more regular cycling/walking

| Answer Options | Largest Deterrent | Smallest Deterrent | Response Count |
|---|-------------------|--------------------|----------------|
| Lack of wayfinding - There is not enough directional | 5 | 27 | 32 |
| Distances - In such a regional area, the distances to my | 18 | 24 | 42 |
| High speed of vehicles - I consider the speed differential to | 34 | 6 | 40 |
| answered question | | | 57 |
| skipped question | | | 9 |

8. Which places would you most and least likely prefer to see linked by walking and cycling routes within Gilgandra?

| Answer Options | Most Preferred | Least Preferred | Response Count |
|------------------------------|--------------------------|-----------------|----------------|
| Local Shops on Miller Street | 35 | 12 | 47 |
| Schools | 19 | 11 | 30 |
| Hospital | 3 | 34 | 37 |
| | <i>answered question</i> | | 57 |
| | <i>skipped question</i> | | 9 |

9. Which places would you most and least likely prefer to see linked by walking and cycling routes within Gilgandra TAFE

| Answer Options | Most Preferred | Least Preferred | Response |
|----------------|--------------------------|-----------------|-----------|
| Gilgandra TAFE | 4 | 36 | 40 |
| | <i>answered question</i> | | 57 |
| | <i>skipped question</i> | | 9 |

10. Which places would you most and least likely prefer to see linked by walking and cycling routes within

| Answer Options | Most Preferred | Least Preferred | Response Count |
|--|--------------------------|-----------------|----------------|
| Major employers (eg. aged care facilities) | 23 | 9 | 32 |
| Schools | 23 | 12 | 35 |
| Gilgandra showground | 10 | 33 | 43 |
| | <i>answered question</i> | | 56 |
| | <i>skipped question</i> | | 10 |

11. Are you aware that Gilgandra has an existing walking trail in the town designated the

| Answer Options | Response Percent | Response Count |
|---|--------------------------|----------------|
| Yes, I am aware of the Windmill Walk | 94.6% | 53 |
| No, I am not aware of the Windmill Walk | 5.4% | 3 |
| | <i>answered question</i> | |
| | 56 | |
| | <i>skipped question</i> | |
| | 10 | |

12. What age bracket are you in? (No Response Required)

| Answer Options | Response Percent | Response Count |
|----------------|--------------------------|----------------|
| 17 or under | 3.7% | 2 |
| 18 to 24 | 5.6% | 3 |
| 25 to 34 | 13.0% | 7 |
| 35 to 44 | 25.9% | 14 |
| 45 to 54 | 25.9% | 14 |
| 55 to 64 | 18.5% | 10 |
| 65 to 74 | 5.6% | 3 |
| 75 or older | 1.9% | 1 |
| | <i>answered question</i> | |
| | 54 | |
| | <i>skipped question</i> | |
| | 12 | |

13. What is your gender? (No Response Required)

| Answer Options | Response Percent | Response Count |
|----------------|--------------------------|----------------|
| Female | 74.1% | 40 |
| Male | 25.9% | 14 |
| | <i>answered question</i> | |
| | 54 | |
| | <i>skipped question</i> | |
| | 12 | |

Response Text Categories

| |
|--|
| At times there are dogs roaming around and it seems they always do so out of office hours. As it is not an emergency situation is doesn't warrant ringing police. |
| I would like to see some concrete footpaths on either or both sides of Myrtle Street, on the block closest to IGA. Currently, people pushing prams/strollers or riding gophers use the road, which perhaps is because the pedestrian foothpaths are rough and uneven. As Myrtle Street is a frequently used street for vehicle traffic, it worries me that small children and their carers are forced to walk on the road. |
| I walk from Hschoool to the po each day The route is bad for blake in a wheel chair especially hospital park corner of Wamboin& Noreen & the drop-offs along the edge. |

| |
|--|
| I walk from H. school to p.o each Day The route is bad for Blake in a wheel chair especially hospital park corner of Wamboin . Noreen the drop -offs along the edge. □ |
| I walk daily with a wheelchair student from the High School to the Post Office and back. There are three areas I would like to see the walkway cycling track to go all the way around town ie past hospital to railway line to Federation Street to join Warren Road to go to shops etc A circle of track maybe from Council depot workshop to shops so joins up. Bad area to walk where Federation street crosses rail track at Chelmsford Ave |
| I'd like to see a track past the Showgrounds towards the pines subdivisions. Currently many walkers, runners and cyclists are on the highway. Also there are many families in this area and it's unsafe to walk a pram or allow children to ride on the road. |
| None |
| A 5km cycle way/pedestrian path in a loop around the town would be a safe option for people to get out and exercise. Possibly with stations of select equipment. Encouraging people to get out and about and be active safely. |
| Linking the walking/cycling track as much as possible avoiding interaction with traffic as much as possible. |
| Has any of the powers that be ever push an adult in a wheelchair around the streets of Gil it's horrendous walkways for prams to crossover the streets would be useful. Some in bad condition and need repairs. |
| The footpaths that run along Wrigley st in front of the two schools are of the poorest of quality, especially in front of st josephs, very dangerous. |
| I would like to see the youth or high school involved in this survey and plan |
| my early responses are due to my location(major hwy's) |
| This will be a total waste of rate payers funds. Council will yet again blow the budget and will not take any responsibility when it fails in meeting what outcomes it sets out to achieve. |
| up around the school and hospital is a safe place to walk and cycle as there are foot paths and the traffic is slower in these areas,I walk my dogs daily here. The windmill walk is very good. the foot paths around town are good and there is ample cycling areas around the town |
| I would like Council to consider a bike trail from Tooraweenah to the Warrumbungles. This would be great for tourism, health and a safe long ride for enthusiasts and link the mountains to Tooraweenah township. Currently I ride on dirt roads and paddocks on a mountain bike. A long smooth surface with beautiful views would be a great drawcard to my current riding path and easier for the kids to partake. This could even become a sport option for the local school. I hope Council considers options within the Shire as well as Gilgandra township. Thank you. |
| A walking path up to the pines not just for me but there are a lot of young families up that way and some have suggested to me that there should be a walking path especially as a day care is up that way. |
| Appropriate access to kerb and guttering for walking aids and gophers are essential for aged persons |
| Would like to see the Windmill Walk gardens and lawns maintained to a higher standard. Needs increased watering for lawns; dead trees, branches and shrubs removed; whipper snipper to edge of river bank not just where the ride on mower can go. |
| I would like to see the Windmill Walk extended |
| Gilgandra has a walking track and if people desire to walk they are able to on tracks especially made for them with scenic views and mainly away from traffic. No need for anymore. |
| The lack of Pedestrian crossings are an issue in Gilgandra |
| It would be great to see the walking/cycling track extended for those who live in town. |
| a safer walking route linking Chelmsford Ave to Warren road via Federation Street would be great |
| Safe cycling lane for kids to be able to safely ride to school |
| need linkage between existing tracks |
| Current tracks eg Windmill Walk & Chelmsford Avenue need to be maintained. Not a good surface for road bikes & it is dangerous riding on the adjacent roads. |

17. By submitting the answers you have provided, you are consenting to GTA Consultants displaying sample results in the report for the Gilgandra Active Transport Plan being prepared for Gilgandra Council.

| Answer Options | Response Percent | Response Count |
|---|------------------|----------------|
| Yes, I consent to submitting my responses | 100.0% | 53 |
| No, do not submit my responses | 0.0% | 0 |
| answered question | | 53 |
| skipped question | | 13 |

Do you consider yourself to be a regular walker/cyclist?

| | | |
|-------------------------|----|-------|
| Yes, walker | 25 | 64.1% |
| Yes, cyclist | 2 | 5.1% |
| Yes, walker and cyclist | 10 | 25.6% |
| No | 2 | 5.1% |

For what purpose do you usually walk around the Tooraweenah community?

| | | |
|--------------------------------|----|-------|
| Go somewhere | 29 | 46.8% |
| Health benefits | 25 | 40.3% |
| Spare time | 3 | 4.8% |
| Companionship | 5 | 8.1% |
| Not identify as walker/cyclist | 0 | 0.0% |

When was the last time you walked/cycled in the Tooraweenah community?

| | | |
|---|----|-------|
| Within week | 33 | 84.6% |
| More than a week, less than a month | 3 | 7.7% |
| More than a month, but less than three m | 2 | 5.1% |
| More than three months, but less than a y | 0 | 0.0% |
| More than a year | 1 | 2.6% |
| I do not walk/cycle | 0 | 0.0% |

Household own a bicycle?

| | | | | |
|-------------------|----|-------|----------|---|
| Yes, own | 20 | 54.1% | | |
| Yes, shared | 4 | 10.8% | | |
| None in household | 13 | 35.1% | Informal | 2 |

Largest Smallest

| | | | | |
|----------------------------------|----|---|----------|----|
| Adverse Climatic Conditions | 1 | 7 | | |
| Poor Road Surfaces | 2 | 1 | | |
| Lack of Road Shoulders/Footpaths | 13 | 2 | Informal | 23 |

Largest Smallest

| | | | | |
|-----------------------------|----|---|----------|----|
| Lack of Companionship | 0 | 8 | | |
| Adverse Climatic Conditions | 1 | 1 | | |
| High speed of vehicles | 16 | 0 | Informal | 21 |

Largest Smallest

| | | | | |
|--------------------------------------|----|---|----------|----|
| Distances between points of interest | 3 | 2 | | |
| Lack of wayfinding | 2 | 5 | | |
| High speed of vehicles | 11 | 0 | Informal | 22 |

Most Least

| | | | | |
|------------------|---|---|----------|----|
| School | 4 | 4 | | |
| Local shops | 3 | 2 | | |
| Viewing platform | 1 | 0 | Informal | 31 |

| Age bracket | | | |
|--------------------|----|-------|------------|
| under 17 | 0 | 0.0% | |
| 18 to 24 | 3 | 7.9% | |
| 25 to 34 | 6 | 15.8% | |
| 35 to 44 | 5 | 13.2% | |
| 45 to 54 | 8 | 21.1% | |
| 55 to 64 | 10 | 26.3% | |
| 65 to 74 | 5 | 13.2% | Informal 2 |
| 75 or older | 1 | 2.6% | |

| Gender | | | |
|---------------|----|-------|------------|
| Female | 23 | 65.7% | |
| Male | 12 | 34.3% | Informal 4 |

| Further comments |
|---|
| Track to Warrumbungles |
| Connect viewing platform |
| Footpath to benefit elderly |
| infrastructure to benefit children |
| "It would enhance the streetscape and make safer areas for locals and tourists to enjoy our village. Encourage a healthy lifestyle |
| "If there were safe cycling tracks, I would be encouraged to walk/cycle more often" |
| "safety is number one priority whilst walking and cycling and it is too dangerous to do without designated paths" |
| "as a person who works in tooraweenah, I see cyclists using the Jack Renshaw Parkway most mornings. On a professional level, I regularly walk from school to Memorial Hall and school to the shops. Walkways linking the school to the hall, tennis courts, parks and shops would be highly desirable and utilised by residents and visitors. Currently residents move around on inadequate surfaces" |
| Link from town to school, down to platform |
| school has 30 students and 3 staff and regularly accesses the village from the school. |
| Snakes are often seen on road shoulder |

Appendix F

Project Snapshots

Project W1 – Walkway on Myrtle Street between Wamboin Street and Morris Street

Figure 1: Myrtle Street



Project Description

This link will enhance the connectivity of the school and CBD area by providing an additional east-west link.

Estimated Cost of Pathway Materials

390 metres @ \$100/m = \$39,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 390 metres of new 1.2m wide walkway
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W2 – Walkway on Morris Street between Oxley Highway and Myrtle Street

Figure 1: Morris Street



Project Description

This link will enhance the connectivity of the CBD area into the residential areas of west Gilgandra along a clear desire line.

Estimated Cost of Pathway Materials

200 metres @ \$100/m = \$20,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 200 metres of new walkway with a width of 1.2 metres
- Provide lipless kerb ramps at extremities of link
- Possible relocation of utilities (as shown in image below)

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Promote its use
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Project W3 – Walkway on Court Street between Miller Street and Eiraben Street/Morris Street

Figure 1: Court Street



Project Description

This link will enhance the connectivity of the High School, Cooeee Lodge and hospital with the CBD.

Estimated Cost of Pathway Material

135 metres @ \$125/m = \$16,875

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 135 metres of new walkway with a width of 1.5 metres to allow for increased scooter usage.
- Provide lipless kerb ramps at extremities of link
- Likely removal/relocation of some vegetation

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W4 – Walkway on Castlereagh Highway between Court Street and Wrigley Street

Figure 1: Castlereagh Highway



Project Description

This link will enhance the connectivity of the Cooeee Lodge, hospital and high school with facilities such as the CBD along what is a clear desire line.

Estimated Cost of Pathway Material

75 metres @ \$125/m = \$9,375

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 75 metres of new walkway with a width of 1.5 metres due to increased scooter usage
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Promote its use
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W5 – Walkway on Noreen Street between Elizabeth Street and Hall Street

Figure 1: Noreen Street



Project Description

This link will enhance the connectivity of the schools with the broader community along what is a clear desire line.

Estimated Cost of Pathway Materials

110 metres @ \$100/m = \$11,100

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 110 metres of new walkway with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

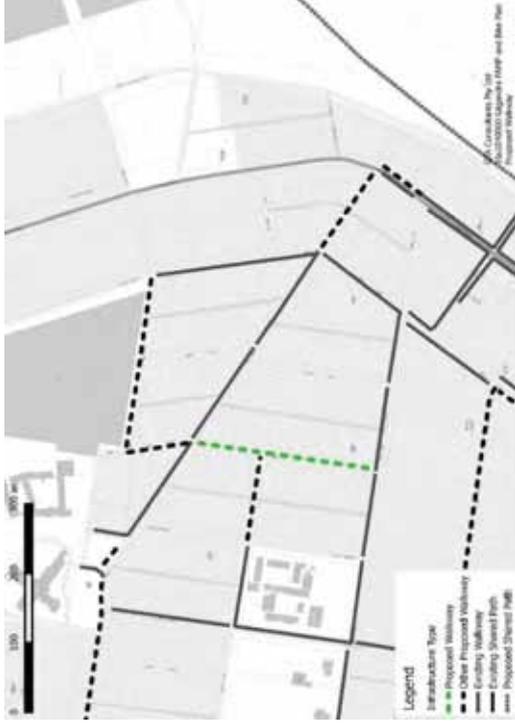
- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Project W6 – Walkway on Hall Street between Court Street and Wrigley Street

Figure 1: Hall Street



Project Description

This link will enhance the connectivity of the schools and provide an additional link to the oval.

Estimated Cost of Pathway Material

245 metres @ \$100/m = \$24,500

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 245 metres of new walkway with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

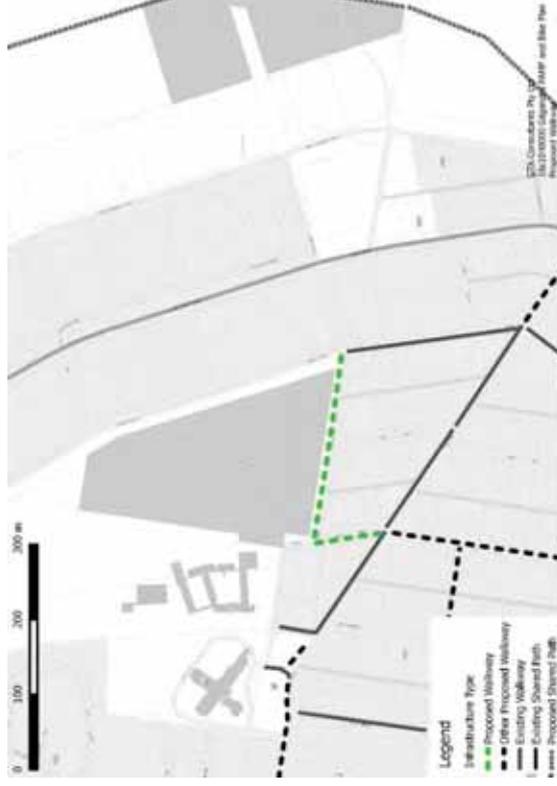
Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W7 – Walkway on Eura Street and Byrne Avenue linking Court Street with Eiraben Street

Figure 1: Eura Street/Byrne Avenue



Project Description of Pathway Material

This link will enhance the connectivity of the schools and residential areas with recreational facilities.

Estimated Cost

330 metres @ \$100/m = \$33,300

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 330 metres of new walkway across two sections with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps); accessed 17 February 2016

Project W8 – Walkway on Court Street between Dudley Street and Elizabeth Street

Figure 1: Court Street



Project Description

This link provides a critical link between the Coonee Lodge, school and hospital with both residential areas to the west and commercial areas to the east

Estimated Cost of Pathway Materials

325 metres @ \$125/m = \$40,625

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 330 metres of new walkway across two sections with a width of 1.5metres to allow for increased scooter usage.
- Provide lipless kerb ramps at extremities of link
- Possible removal/relocation of some vegetation and utility infrastructure

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Project W9 – Walkway on Farrar Street between Federation Street and Stockings Crescent

Figure 1: Farrar Street



Project Description

This link reinforces the pedestrian facilities within western Gilgandra in providing for the community. It will also act as a walkway to aid any further subdivision expansion.

Estimated Cost of Pathway Materials

360 metres @ \$100/m = \$36,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 360 metres of new walkway across two sections with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](#), accessed 17 February 2016

Project W10 – Walkway on Iris Street between Wrigley Street and Chelmsford Avenue

Figure 1: Iris Street



Project Description

This link reinforces the pedestrian facilities within western Gilgandra in providing a pedestrian link to the community linking to the newly completed Chelmsford Avenue path.

Estimated Cost of Pathway Materials

340 metres @ \$100/m = \$34,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 340 metres of new walkway across two sections with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](#), accessed 17 February 2016

Project W11 – Walkway on Raymond Street between Wrigley Street and Warren Road

Figure 1: Raymond Street



Project Description

This link reinforces the pedestrian facilities within western Gilgandra in providing a link for the community through to Warren Road along what is a clear desire line.

Estimated Cost of Pathway Materials

350 metres @ \$100/m = \$35,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 350 metres of new walkway across two sections with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W12 – Walkway on Wrigley Street between Raymond Street and Dudley Street

Figure 1: Wrigley Street



Project Description

This link reinforces the pedestrian facilities within western Gilgandra along a clear desire line for facilities such as the school and CBD. It provides for the residents who would choose not to detour to Chelmsford Avenue or Warren Road.

Estimated Cost of Pathway Materials

580 metres @ \$100/m = \$58,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 580 metres of new walkway with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W13 – Walkway on Waungan Street between Deri Street and Railway Street

Figure 1: Waungan Street



Project Description

This link reinforces the pedestrian facilities within southern Gilgandra in providing a valuable link for the community. It also links facilities such as the park reserve at Waungan/Merri St (shown right).

Estimated Cost of Pathway Materials

510 metres @ \$100/m = \$51,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 510 metres of new walkway with a width of 1.2 metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

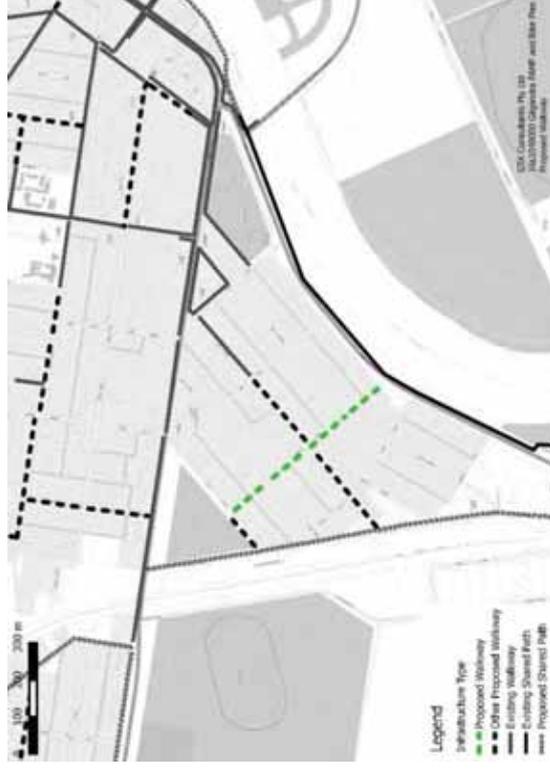
Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W14 – Walkway on Mullion Street between Bundy Street and Castlereagh Street

Figure 1: Mullion Street



Project Description

This link reinforces the pedestrian facilities within southern Gilgandra in providing a valuable link for the community.

Estimated Cost of Pathway Materials

550 metres @ \$100/m = \$55,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 550 metres of new walkway with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W15 – Walkway on Bundy Street between Mullion and Railway Street

Figure 1: Bundy Street



Project Description

This link reinforces the pedestrian facilities within southern Gilgandra in providing a link between the proposed facilities along Mullion Street and Railway Street. It also provides a link to the Railway Hotel.

Estimated Cost of Pathway Materials

120 metres @ \$100/m = \$12,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 120 metres of new walkway with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project W16 – Walkway on Coonamble-Tooraweenah Road either side of Tooraweenah Creek (Newton Street to Tooraweenah Aerodrome Road)

Figure 1: Coonamble-Tooraweenah Road



Project Description

This link provides valuable connection between the township of Tooraweenah on the southern side of Tooraweenah Creek and the public school on the northern side of the creek. It will enhance safety and provide separation between pedestrians and vehicles.

Estimated Cost of Pathway Materials

250 metres @ \$100/m = \$25,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 250 metres of new walkway either side of the bridge with a width of 1.2 metres
- Providing footpath either side of existing bridge

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 23 February 2016

Project W17 – Walkway linking Murray Street to playing oval passing tennis courts and bathroom facilities

Figure 1: Murray Street



Project Description

This link provides a safe recreation link between Murray Street and the playing fields linking other facilities such as the tennis courts and bathroom facilities.

Estimated Cost of Pathway Materials

120 metres @ \$100/m = \$12,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 120 metres of new walkway with a width of 1.2metres
- Removal of part of existing fence

Project Action List

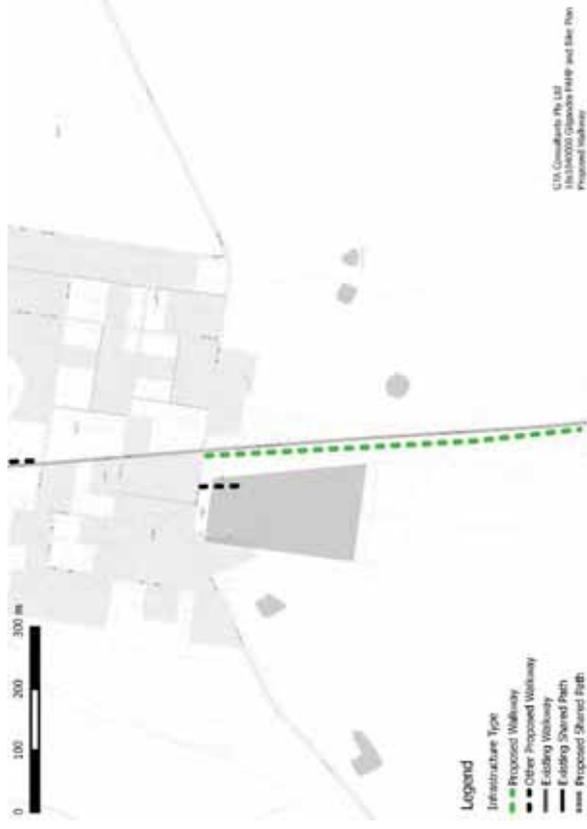
- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Project W18 – Walkway on Coonamble-Tooraweenah Road between Murray Street and the viewing platform

Figure 1: Coonamble-Tooraweenah Road



Project Scope

- 700 metres of new walkway with a width of 1.2metres
- Provide lipless kerb ramps at extremities of link

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions

Project Description

This provides a leisure/recreational link between the town centre and the viewing platform.

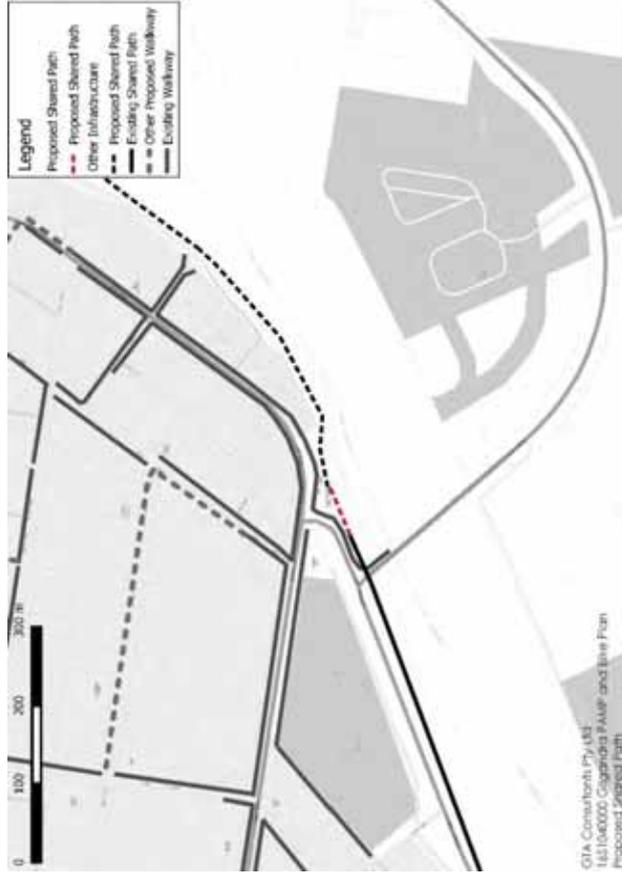
Estimated Cost of Pathway Materials

700 metres @ \$100/m = \$70,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project S1 – Shared Path between on Miller Street between Newell Highway and Lot 1 Miller Street

Figure 1: Shared Path Segment



Project Description

This link will complete a continuous path between the existing shared path and the existing pedestrian facilities.

Estimated Cost of Pathway Material

100 metres @ \$250/m = \$25,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 100 metres of new 2.5m wide walkway across top of embankment
- Provide a direct link between two existing pedestrian infrastructure assets

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions looking south towards existing path

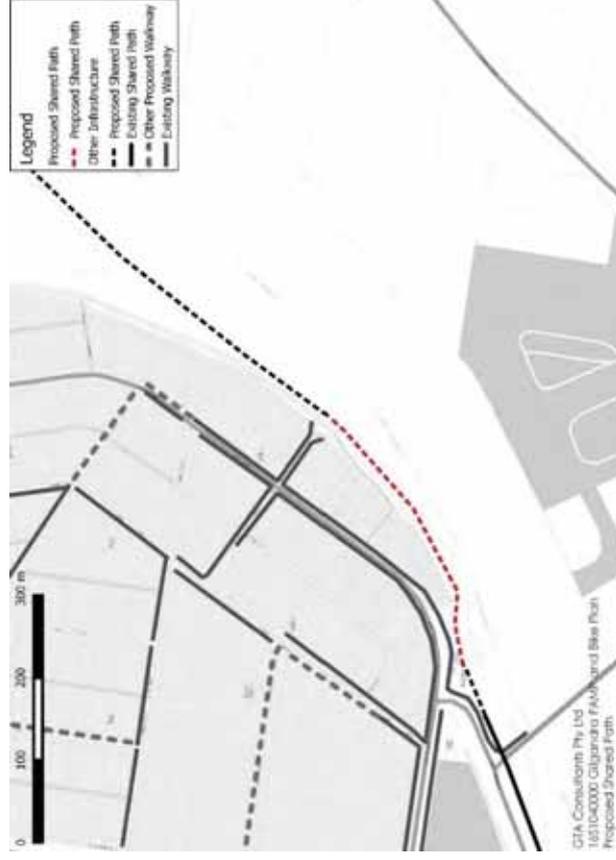


Figure 3: Existing Conditions looking north of edge of embankment



Project S2 – Shared Path between on Miller Street between Lot 1 Miller Street and Bridge Street

Figure 1: Shared Path Segment



Project Description

This link will extend the path between the S1 shared path and the existing pedestrian facilities.

Estimated Cost of Pathway Materials

300 metres @ \$250/m = \$75,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 300 metres of new 2.5m wide walkway across top of embankment
- Remove existing bollards
- Likely removal of existing trees
- Moderate extent of earthworks

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions – Indicative path alignment

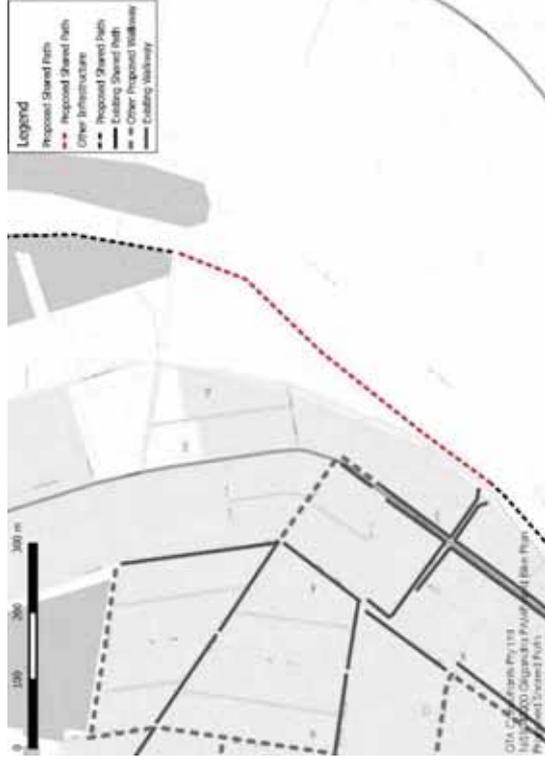


Figure 3: Existing Conditions service road



Project S3 – Shared Path along Lower Castlereagh Street between Bridge Street and Court Street

Figure 1: Shared Path Segment



Project Description

This link will extend the shared path between Lower Castlereagh Street and the river.

Estimated Cost of Pathway Materials

675 metres @ \$250/m = \$168,750

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 675 metres of new 2.5m wide walkway across top and behind of embankment
- Likely removal of existing trees

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project S4 – Shared Path along Lower Castlereagh Street/Clark Street between Bryne Avenue and Castlereagh Highway

Figure 1: Shared Path Segment



Project Description

This link will extend the shared path between Lower Castlereagh Street and the river.

Estimated Cost of Pathway Materials

925 metres @ \$250/m = \$231,250

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 925 metres of new 2.5m wide shared path adjacent to road corridor
- Major crossing facility to traverse the Castlereagh Highway

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions on Lower Castlereagh Street



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project S5 – Shared Path along Eiraben Street and the northern and western edge of the Cooee Lodge to Chelmsford Avenue

Figure 1: Shared Path Segment



Project Description

This link will extend the shared path between Lower Castlereagh Street and the river. It will provide access for the residents of the Cooee Lodge onto the shared path network.

Estimated Cost of Pathway Materials

1,050 metres @ \$250/m = \$262,500

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 1,050 metres of new 2.5m wide shared path adjacent to road corridor
- Major crossing facility to traverse the Castlereagh Highway

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions on Eiraben Street with mobility scooter use

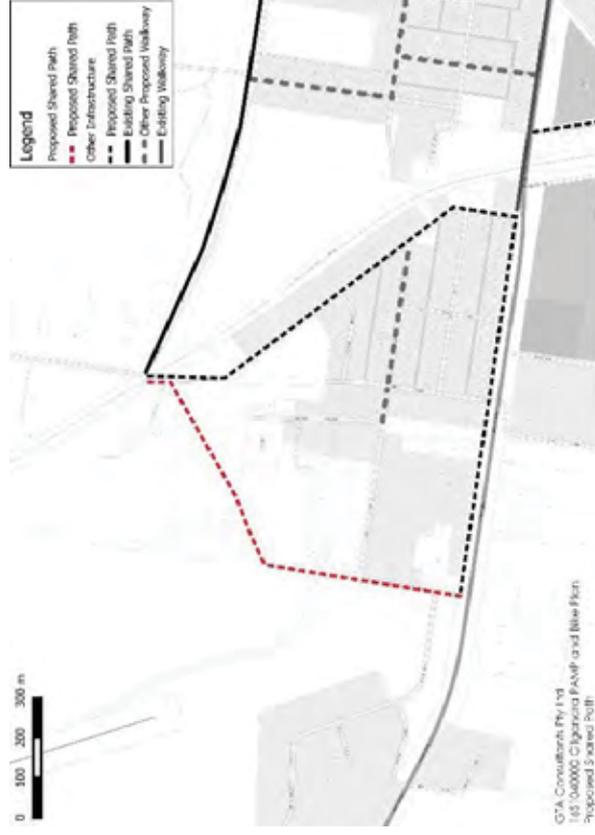


Figure 3: Service road which would make up part of path



Project S6 - Shared Path through subdivision linking Chelmsford Avenue with Warren Road via Marshal Street

Figure 1: Shared Path Segment



Project Description

This link provides a long term link into a proposed subdivision and looks to link western Gilgandra with the shared path route around Gilgandra. It is likely mutually exclusive with project S8. S7 is complementary with this project.

Estimated Cost of Pathway Materials

1,250 metres @ \$250/m = \$312,500

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 1,250 metres of new 2.5m wide shared path
- Pedestrian crossing at railway corridor
- Pedestrian crossing to traverse Federation Street

Project Action List

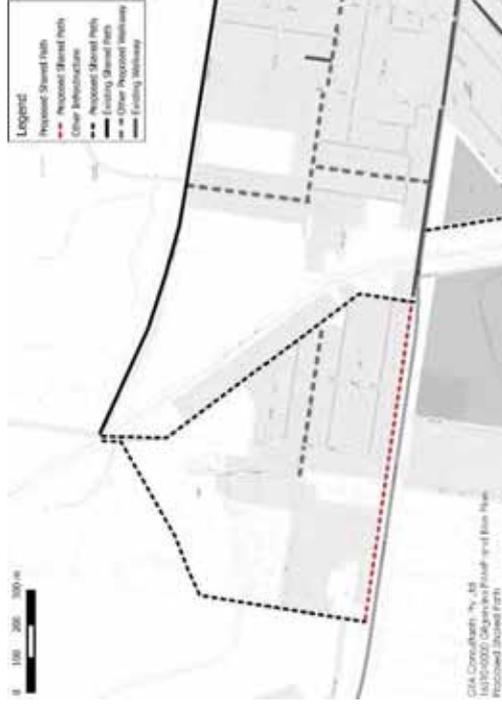
- Confirm requirements of pedestrian crossing at railway corridor
- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions between existing lots and Gilgandra Aerodrome



Project S7 – Shared Path along Warren Road between Marshal Street and Federation Street

Figure 1: Shared Path Segment



Project Description

This link provides a long term link into a proposed subdivision and looks to link western Gilgandra with the shared path route around Gilgandra. It is complementary to project S6.

It would utilise the existing service road between Federation Street and Barden Street

Estimated Cost of Pathway Materials

950 metres @ \$250/m = \$237,500

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 950 metres of new 2.5m wide shared path
- Need gap in w-beam barrier at Federation Street
- Crossing at Barden Street

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Figure 3: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project S8 – Shared Path along Federation Street between Chelmsford Avenue and Warren Road

Figure 1: Shared Path Segment



Project Description

This link provides a long term link alongside a proposed subdivision and looks to link western Gilgandra with the shared path route around Gilgandra. It is likely mutually exclusive with project S6.

Estimated Cost of Pathway Materials

1,050 metres @ \$250/m = \$262,500

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 1,050 metres of new 2.5m wide shared path
- Pedestrian crossing at railway corridor

Project Action List

- Confirm requirements of pedestrian crossing at railway corridor
- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Source: [Google Maps](https://www.google.com/maps), accessed 17 February 2016

Project S9 – Shared Path along Railway Street between Warren Road and Newell Highway

Figure 1: Shared Path Segment



Project Description

This link provides a link within southern Gilgandra and links educational and recreational facilities such as the TAFE and Ernie Knight Oval.

Estimated Cost of Pathway Materials

1,300 metres @ \$250/m = \$325,000

Cost excludes other expenses such as earthworks, kerb ramps and signage

Project Scope

- 1,300 metres of new 2.5m wide shared path through
- Two major road crossings at Newell Highway and Warren Road

Project Action List

- Undertake site inspection
- Confirm scope of works
- Confirm funding stream and availability
- Plan works
- Undertake construction
- Undertake an awareness campaign to promote its use

Figure 2: Existing Conditions



Project X1 – Upgrade/Installation of Pedestrian Crossing Facilities at Railway Level Crossing Crossing Facilities on Warren Road (X1a) and Federation Street (X1b)

Figure 1: Warren Road Crossing

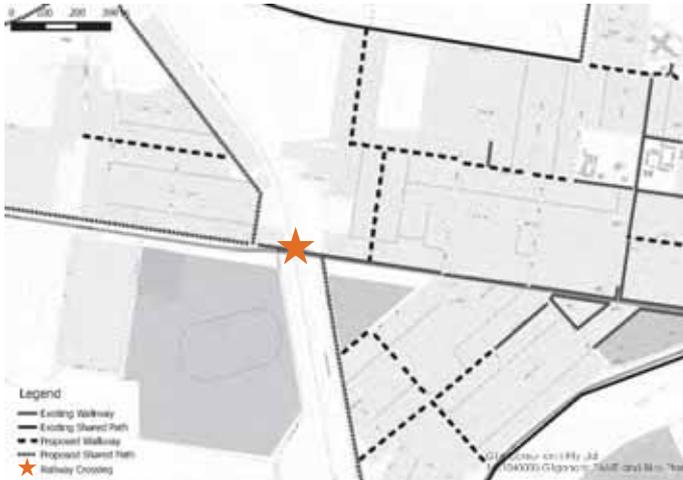


Figure 2: Federation Street Crossing



Project Description

Undertake feasibility study for pedestrian railway crossing facilities in Gilgandra to ensure safety of pedestrians and cyclists using shared paths.

Estimated Cost

\$50,000 has tentatively been allocated for a feasibility study into upgrading the railway crossing facilities.

Project Scope

- Upgrade pedestrian crossing facilities to allow greater mobility and access across the rail corridor

Project Action List

- Confirm requirements of pedestrian crossing at railway corridor
- Undertake site inspection
- Confirm Scope of works
- Confirm funding stream and availability
- Plan works
- Undertake Construction

Figure 3: Federation Street Railway Crossing



Appendix G

Presentation

Gilgandra Active Transport Strategy
Volker Buhl and Dean Rance
22 September 2015



A Review of Demographics and Activity

- Town has a population of 2,664, LGA a population of 4,368
 - Gilgandra has a limited footpath network
 - Challenging for encouraging further shift to walking/cycling and mobility scooter use
- 2011 census showed that 781 workers commuted to work, 7 rode a bicycle and 75 walked; active rate of 10.5% compared to 5.8% for the state
- Major employers in Gilgandra are Council, education, farming, retail and health sectors

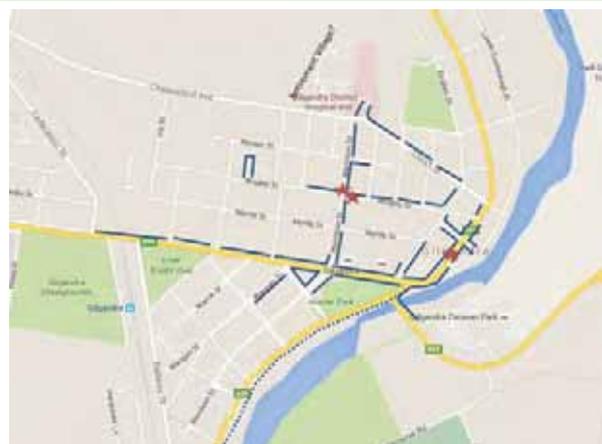
A Review of Transport Strategies

- No specific existing Gilgandra document beyond broader Asset Management Plan and section 4.2.1 of 2015/16 Operational Plan
- Central West Regional Transport Plan 2013 – TfNSW
 - *Roll Out the Walking Communities Program* and *Roll Out the Cycling Towns Program*
 - Making walking and cycling easier and safer and giving customers choice when travelling within their towns
- NSW Transport Long Term Master Plan 2012 – TfNSW
 - As part of investing in cycleways in partnerships with local councils, funding will be prioritised towards opportunities which promote regional tourism.
 - ‘All new road projects or road network upgrades will be required to examine the feasibility of providing for cycling as an essential component of the project’.



Existing Infrastructure in Gilgandra

- Limited footpaths in Gilgandra, serving a small portion of destinations
- Road surfaces adequate
 - Large LGA and small population makes infrastructure challenging
- What is community view on extent of footpath network?
- Road crossing facilities?
- Suitability for mobile scooters?



Windmill Walk

- Links CBD with Memorial Park and Rural Museum
- What is the overall condition perceived as?
- Community is aware of it, but how well utilised is it?
- Is the path suitable for walking and cycling?

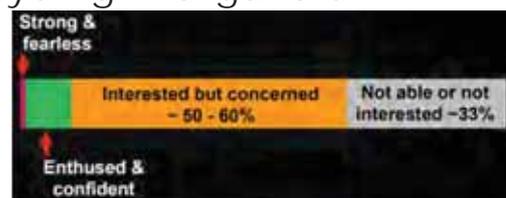


http://www.virtualtourist.com/travel/Australia_and_Oceania/Australia/State_of_New_South_Wales/Gilgandra-1876041/Things_To_Do-Gilgandra-TG-C-1.html



Barriers to Walking and Cycling

- Why do people not walk and cycle more currently?
 - Primarily it is due to a perceived lack of safety resulting from a lack of infrastructure and initiatives, or convenience
- Up to 60% of people would consider cycling regularly if appropriate provisions were made
- What are barriers to walking and cycling in Gilgandra?
- What can be done to further improve walking and cycling?



<http://cyclingchristchurch.co.nz/2012/11/06/are-you-interested-but-concerned/>



Initiatives and Infrastructure

Initiatives

- Council to purchase bikes for hire by community – Bike Hire Scheme
- Walk to school/work
- Invite cycling club to conduct introductory rides
- Invite bike shop to conduct maintenance workshops
- Supermarket to sell tubes etc
- Bike week
-
-

Infrastructure

- End of trip facilities such as bicycle parking
- Wayfinding signage directing along safe/low volume routes to points of interest
- Footpaths along key routes
- Crossing facilities (Pedestrian crossings, median islands, kerb extensions)
-
-



Questions?
Comments?
Ideas?

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Gilgandra High School

- Walk/Bike/Scooter/Skateboard all used for 'active' transport to school
- Heat in summer is a disincentive
- School does not encourage/discourage active transport – 'Passive observer'
- School has experienced a general decline in active transport over many years and decades



Gilgandra Council

- Aged care is increasingly becoming an important service to the town
- Windmill walk → Expansion of route
- RMS has previously refused funding because of no *strategic direction*
- RMS hesitant about more pedestrian crossings, not enough volume



Gilgandra School and Footpath Observations (PM)

- Evidence of improvement works
- Lips on kerb ramps can be problematic – New RMS guidance
- Primary School – 6 bicycles, 40-ish walk
- Children tend not to use crossing
- No crossing for access to island
- High School 1 skateboard, 1 bike, 50+ walks



Survey Results – A New Approach

| | Biggest Deterrent | Smallest Deterrent |
|---|-------------------|--------------------|
| Lack of Shoulders and footpaths makes me feel unsafe | 16 | 7 |
| Poor existing footpath and road conditions | 6 | 12 |
| Climatic conditions – I think it gets to hot/cold/windy/rainy to walk and cycle | 14 | 17 |

- People appear to be deterred by a lack of infrastructure rather than poor infrastructure
- Climate is a polarising deterrent.
Equally (large) numbers of people say it is a deterrent and not a deterrent



Survey Results – A New Approach

| | Biggest Deterrent | Smallest Deterrent |
|---|-------------------|--------------------|
| I do not have anybody to ride and walk with. No companionship | 4 | 14 |
| I consider the high speed of vehicles to be a safety hazard | 21 | 8 |
| Climatic conditions – I think it gets to hot/cold/windy/rainy to walk and cycle | 11 | 14 |

- A portion of the population does not walk/ride because of lack of companionship
- High speed of vehicles identified as a significant deterrent
- Climate is a polarising deterrent.
Equal numbers of people say it is a deterrent and not a deterrent



Survey Results – A New Approach

| | Most preferred | Least preferred |
|--------------------------|----------------|-----------------|
| Local shops on Miller St | 23 | 7 |
| Schools | 10 | 6 |
| Hospital | 2 | 22 |

- Miller Street shops a strong preference for linking
- Hospital not preferred, but likely get economies of scale if schools are linked



Survey Results – A New Approach

| | Most preferred | Least preferred |
|---|----------------|-----------------|
| Local shops on Miller St | 21 | 7 |
| Major employers (aged care facilities, Council etc) | 12 | 5 |
| TAFE | 2 | 23 |

- Miller Street shops remain a strong preference for linking
- TAFE not a strong preference for linking



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