



# Pedestrian Access & Mobility Plan (PAMP)

## Final

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Realising potential

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## Executive Summary

The Gunnedah Shire Council Pedestrian Access and Mobility Plan (GSC PAMP) has been prepared to guide the future provision and management of pedestrian facilities within the GSC Local Government Area. The GSC PAMP has been developed with reference to the NSW Roads and Maritime Services (RMS) document '*How to Prepare a Pedestrian Access and Mobility Plan (2002)*'.

One of the objectives and identified strategies from the GSC '*Strategic Asset Management Plan 2015-2025*' includes:

**Objective: Provide and maintain safe and serviceable public facilities and infrastructure including roads, footpaths and storm water drains.**

**Strategy: Facilitate improvements to motor vehicle, bicycle and pedestrian safety. Identify innovative funding and partnerships to provide for new and upgraded assets and infrastructure.**

The aim of the GSC PAMP is to develop a long-term strategy and action plan for the development of pedestrian facilities within the Gunnedah region in a coordinated and strategic approach that provides safe, convenient and connected pedestrian routes and infrastructure to the community.

Walking is an activity which is synonymous with a healthy lifestyle and a PAMP provides the framework for developing safe and convenient pedestrian routes or areas identified as important for enhanced sustainable safety, convenience and mobility.

The GSC PAMP includes a quantum of works totalling approximately **\$711,200** (GST Exclusive) and the following recommendations are made:

- Adopt the schedule of works as provided in **APPENDIX B** for the ongoing construction of pedestrian and access mobility facilities;
- Review and make recommendations with regards to the program of works for pedestrian and access mobility infrastructure for future Delivery Programs and Annual Operational Plans commensurate with the schedule of works in **APPENDIX B** and subject to available funding;
- Where appropriate, apply to RMS for pedestrian and access mobility infrastructure funding;
- Provide sufficient funds in future Delivery Programs and Operational Plans for the ongoing maintenance of pedestrian and access mobility infrastructure;
- Ensure all pedestrian and access mobility infrastructure is either constructed or provided in accordance with the current guidelines and standards; and
- Ensure that pedestrian and access mobility infrastructure is included in future land development commensurate with the GSC '*Section 94A Contributions Plan*', inclusive of shared paths for pedestrians and cyclists with the locations identified in the GSC Bike Plan 2016 and the GSC '*Development Control Plan (2012, amended 2014)*'.

The pedestrian and access mobility infrastructure works for the GSC '*DRAFT Delivery Program 2013-2017 and Operational Plan 2016/17*' are provided in **Table 1**.

**Table 1 –Infrastructure Program –2015/16**

Year	Description	Amount	Funding Contribution
2016/17	Eglin Street (Conadilly Street to Little Conadilly Street)	\$77,000.00	100% <sup>(1)</sup> GSC
2017/18	Eglin Street (Conadilly Street to Little Barber Street)	\$60,000.00	100% <sup>(1)</sup> GSC
<b>Total</b>		<b>\$137,000.00</b>	

*Note (1) GSC may seek contributions of up to 50% from RMS for the works identified in Table 1 following the Council's adoption of the GSC PAMP.*

## 1. Introduction

The GSC PAMP is a strategic document that has been prepared to guide the future provision and management of pedestrian access and mobility facilities within the Gunnedah region. It has been developed with reference to the RMS document '*How to Prepare a Pedestrian Access and Mobility Plan – An easy three stage guide (2002)*'.

The aim of the GSC PAMP is to provide a long-term strategy for the development and installation of safe and convenient connected pedestrian routes throughout the Gunnedah region which will encourage more people to walk rather than use motorised transport. The definition of 'pedestrian', as defined in the Australian Road Rules and Rule 18 of the New South Wales 'Road Rules 2008', is as follows:

*"A pedestrian includes:*

- a) A person driving a motorised wheelchair that cannot travel at over 10 km/h (on level ground);*
- b) A person in a non-motorised wheelchair;*
- c) A person pushing a motorised or non-motorised wheelchair; and*
- d) A person in or on a wheeled recreational device or wheeled toy."*

### 1.1 Background

The development of PAMPs began in 1998 with the NSW Roads and Maritime Services (RMS), formerly known as the Roads and Traffic Authority (RTA), producing a program to assist and improve planning for pedestrians. A PAMP is a comprehensive strategic action plan for the development and installation of pedestrian routes and facilities. The PAMP also provides a framework for developing pedestrian routes, facilities or areas defined by the community for improved safety, convenience and mobility.

GSC together with assistance from RMS, has a responsibility to provide safe, effective and convenient pedestrian facilities. PAMPs can provide many benefits associated with transport, environmental and social structure within the community including:

- Appropriate facilities in particularly busy pedestrian areas;
- Improved access for mobility impaired persons;
- Reduced pedestrian injuries;
- Integrating with GSC's existing Local Environment Plans, Development Control Plans and other relevant planning documents; and
- Linking with existing transport, bike plan and pedestrian facilities for general improved access for all pedestrians.

PAMPs provide the strategic framework for investment in improved pedestrian facilities and infrastructures. One of the main outcomes of the PAMP is the provision of improved pedestrian facilities in a consistent and appropriate manner which meet the needs of various pedestrian groups.

Core features of a PAMP include:

- The development of objectives. The success or failure of the PAMP will rely on the objectives GSC wish to achieve (with these developed based on input from the community), and the local knowledge of GSC personnel in the implementation of the PAMP;
- The implementation of the works schedule, including the construction of the new facilities in identified key major areas, as ascertained from the community surveys and local knowledge; and
- The review of these new facilities by community groups including local access groups, GSC personnel, local RMS representatives and Police representatives to ensure that the facilities are appropriate and being well utilised.

## 1.2 Aims and Objectives

This PAMP aims to provide safe and convenient pedestrian infrastructure in key areas of pedestrian generating activity. The provision of such infrastructure aims to encourage pedestrians to walk rather than use motorised transport.

A PAMP requires the development of objectives, with these objectives to be clear and measurable. Objectives need to include consideration of existing areas and facilities that already provide for pedestrian access and mobility, and how these areas will be linked to proposed facilities.

The specific objectives of this PAMP are to:

- Facilitate improvements in the level of pedestrian access and priority, particularly in areas of high pedestrian movement;
- Reduce pedestrian access severance and enhance safe and convenient crossing opportunities on major roads;
- Identify and resolve pedestrian crash clusters;
- Provide links with existing transport services;
- Link existing facilities such as community facilities, cycleways, and public transport to better integrate land use;
- Provide improved facilities for those pedestrians who are aged, frail, or have a mobility difficulty via facilities that cater for all pedestrians;
- Ensure that pedestrian facilities remain appropriate and relevant to the surrounding land use and pedestrian user groups; and
- Ensure that all installations are undertaken in accordance with technical standards and relevant obligations under the *Commonwealth Disability Discrimination Act 1996*.



### 1.3 Methodology of PAMP

The methodology for this PAMP was developed in consultation with GSC and comprises of the following:

- Familiarisation with towns and villages within the Gunnedah region, including the location of roads, cycleways, schools, shopping centres, sporting fields and parks;
- Inspecting existing facilities in high pedestrian traffic areas to assess their usefulness;
- Assessment of pedestrian accident statistics;
- Undertaking community consultation to identify areas of current and future need; and
- Developing a list of proposed works.

As GSC has sections of existing pedestrian network inclusive of shared path facilities for both pedestrians and cyclists, the GSC PAMP has been prepared to identify specific sites within the existing network for improvement as opposed to examining specific PAMP routes. As a result, the works identified are capital works only as maintenance works are identified through the GSC Customer Request Management System and from inspections undertaken by GSC officers.

### 1.4 Structure of Report

This PAMP has been developed with reference to the RMS document '*How to Prepare a Pedestrian Access and Mobility Plan – An easy three stage guide (2002)*'.

The PAMP comprises of the following information:

- Study area details;
- Research, review and data collection;
- Details of LGA characteristics;
- Details of community consultation;
- PAMP facilities;
- Audit process, including provision of a physical works schedule;
- Funding sources and implementation; and
- Maintenance.

## 2. Study Area and Characteristics

### 2.1 Study Area

The study area for this PAMP comprises the Gunnedah Local Government Area (LGA), which is located on the north-west slopes and plains of New South Wales and covers an area of 4,994 square kilometres.

For a PAMP, particular focus is placed on those areas which have a large concentration of pedestrian movements. Such areas include those around shopping and business centres, schools, medical facilities, and community facilities such as parks and sporting grounds. Following consultation with GSC representatives, specific localities were investigated including Gunnedah, Curlewis, Breeza and Carroll.

### 2.2 Population

A number of town and villages are located throughout the LGA, with a population of approximately 12,200. Gunnedah is the main population centre for the LGA, with the remainder of the population residing in the villages and hamlets of Curlewis, Breeza, Carroll, Mullaley, Emerald Hill, Tambar Springs and Kelvin and various rural localities.

The location of the various towns, villages and rural localities within the Gunnedah LGA, including their relation to other centres in the north-west slopes and plains is illustrated in **Figure 1**.



**Table 2** provides population figures from the Australian Bureau of Statistics *State Suburbs* within the Gunnedah LGA based on 2011 census data, with an estimated growth rate of 0.7% per annum.

**Table 2 – Population figures for *State Suburbs* within the Gunnedah LGA**

Locality	Population	Locality	Population
Gunnedah	9,340	Mullaley	540
Curlewis	589	Carroll	176
Breeza	380	Other localities	1,041

(Source: Australian Bureau of Statistics 2015)

The *Gunnedah Economic Development Strategy* (Jenny Rand & Associates and Suzanne Lollback 2014) noted that the Gunnedah LGA has an aging population.

## 2.3 Road Hierarchy

The Gunnedah LGA is comprised of a mix of state, regional and local roads (refer **Table 3**) with pedestrian activity and facilities located on all road classifications.

**Table 3 - Road Network in the Gunnedah Shire LGA**

Classification	Length
Local Roads (Sealed)	401km
Local Roads (Unsealed)	924km
Regional Roads	91.2km
State Highways	149km

(Source: Gunnedah Shire Council 2016)

## 2.4 Public Transport

Public transport within the Gunnedah Shire LGA consists of trains, town buses and taxis which are generally focussed on the populated areas of Gunnedah and Curlewis. In addition, community/patient transport buses and school buses operate throughout the LGA.

## 2.5 Future Pedestrian Needs

It is anticipated that future pedestrian needs will occur in areas which currently have or are anticipated to have large concentrations of pedestrian movements. Such areas include those around shopping and business centres, schools, medical facilities, and community facilities such as parks and sporting grounds.

Allowances for pedestrian facilities within new residential, commercial and industrial developments are generally included as specific development consent conditions and/or by the provision of Section 94 development contributions (e.g. shared path facilities for pedestrians and cyclists). It should also be noted that pedestrian facilities are also occasionally constructed as a result of developer initiatives to provide linkages with their developments and to enhance the appeal of the respective development itself.

GSC has a number of local strategies in place with regards to the provision of pedestrian access and mobility infrastructure across the region.

### **2.5.1 2013-2023 Community Strategic Plan**

The Gunnedah Community '*Strategic Plan*' is a 10 year plan, identifying the Community's priorities. The plan identifies themes and objectives relating to the Gunnedah area focusing on key issues facing the Community now and in the future. A number of aims and objectives relating to cycleways, cycleway improvements and management of infrastructure are contained within the plan. These include:

- Strategic Asset Management to ensure all assets are managed in a sustainable manner for current and future generations;
- Infrastructure strategically managed - provide and maintain safe & serviceable public facilities and infrastructure including roads, footpaths & storm water drains.
- Develop best practice asset registers and management plans and practices for infrastructure and assets;
- Facilitate improvements to car, bicycle and pedestrian safety;
- Identify innovative funding and partnerships to provide for new and upgraded assets and infrastructure;
- Implement and maintain developer contribution plans which require appropriate contributions for development impact upon infrastructure so as not to unfairly burden existing ratepayers or future developers;
- Develop strategies for sustainable local road network and regional transport, including options for public transport to connect with existing transport services;
- Create opportunities for people to participate in active and healthy recreational activities - Encourage cycling and walking through developing safe tracks and paths; and
- Environment - Increase the number of pedestrian and cycle ways in future - Programs for management and upgrade of cycleways, street lighting and roads.

### **2.5.2 Gunnedah Development Control Plan 2012 (Amended 2014)**

The '*Gunnedah Development Control Plan 2012 (Amended 2014)*' (DCP) contains detailed guidelines for development within the Gunnedah region. With respect to the provision of pedestrian infrastructure, the DCP states that residential subdivision must meet a number of criteria, including:

- Road network design should include consideration of vehicular, pedestrian and cyclist safety. This should include restricted/controlled use of four-way intersections, the standards for Staggered-T intersections, the speed environment created by the road network and the risk to safety created by the design;
- Residential subdivision must incorporate appropriate facilities and opportunities for pedestrian and bicycle movement;
- A road within a residential subdivision must include a constructed pedestrian footpath/cycleway (minimum width of 2m) in accordance with Council's Footpath/Cycleway Masterplan; and
- Open spaces must be safely accessible by pedestrian and cycleway links and provide complimentary uses of open space (drainage, conservation, cycleways, etc.) that ensures ongoing usability.

### **2.5.3 Gunnedah Economic Development Strategy - Adopted 19 March 2014 - Volume 2**

The Gunnedah Economic Development Strategy provides the framework and directions for economic development within Gunnedah Shire, with the focus being on actions that can be achieved over the next 5 years. Detailed strategies and priorities have been developed in the plan, with the most applicable to the Bike Plan being *'Priorities for Economic Development, Priority 2: To ensure that the foundation 'blocks' needed to stimulate and support economic development are in place.'* To ensure Gunnedah is considered an attractive place to work and live, the strategy encourages investment to *'Continue to expand the range of recreational and leisure facilities available in the Shire'*

### **2.5.4 Gunnedah Shire Council Bike Plan**

The *'Gunnedah Shire Council Bike Plan'* is a strategic document that has been prepared to guide the future provision and management of cycleways inclusive of shared paths for both cyclists and pedestrians.

### 3. Research, Review and Data Collection

#### 3.1 Literature Review

Refer to the reference list in **Section 10** for details of the documents which were reviewed during the preparation of this PAMP.

#### 3.2 Pedestrian Crash Data

Statistics for pedestrian crashes over a period of five years from 2010 to 2014 were obtained from RMS and the Transport NSW Centre for Road Safety.

##### 3.2.1 Number of Crashes

**Table 4** indicates that there were eight pedestrian crashes, with no fatalities recorded.

**Table 4 - Number of pedestrian crashes (2010-2014)**

Year	Number of Crashes
2010	2
2011	2
2012	3
2013	1
2014	0
<b>Total</b>	<b>8</b>

(Source: Transport NSW Centre for Road Safety 2016)

##### 3.2.2 Crash Details

**Table 5** provides greater detail regarding the crashes including vehicle type, location, and road classification.

**Table 5 - Pedestrian crash details (2010 – 2014)**

Factor	Sub-category	Number	Proportion
Vehicle Type	Car	6	75%
	Truck	2	25%
	Semi	0	0%
	<b>Total</b>	<b>8</b>	<b>100%</b>
Road Classification	State Highway	5	62.5%
	Regional Road	0	0%
	Local Road	3	37.5%
	<b>Total</b>	<b>8</b>	<b>100%</b>

(Source: Transport NSW Centre for Road Safety 2016)

Contributing factors to pedestrian crashes can include driver behaviour, road surface and weather. **Table 6** indicates driver behaviour as the main contributing factor with speeding a factor in one of the crashes.

**Table 6 – Contributing factors for pedestrian crashes (2010-2014)**

Factor	Sub-category	Number	Proportion
Driver Behaviour	Fatigue	0	0%
	Alcohol	0	0%
	Speed	1	14.3%
	No infringement	6	85.7%
	<b>Total</b>	<b>7</b>	<b>100%</b>

(Source: Transport NSW Centre for Road Safety 2016)

### 3.2.3 Gender and Ages of Pedestrian Casualties and Motor Vehicle Drivers

**Table 7** provides information regarding gender statistics which indicates that the majority of pedestrian casualties and motorists involved in pedestrian crashes are male.

**Table 7 – Gender of pedestrians & motorists for pedestrian crashes (2010 to 2014)**

Gender	Pedestrian	Proportion	Motorist	Proportion
Male	6	75%	3	42.75%
Female	2	25%	3	42.75%
Unknown	0	0%	1	14.5%
<b>Total</b>	<b>8</b>	<b>100%</b>	<b>7</b>	<b>100%</b>

(Source: Transport NSW Centre for Road Safety 2016)

Children and older pedestrians (>60 years) are more vulnerable than other age groups as they are more likely to suffer a serious injury if involved in a crash. Older people are also less likely to fully recover from serious injuries than younger people. **Table 8** summarises the ages of pedestrians and motorists involved in pedestrian crashes and from this information it can be seen that accidents involving pedestrians are spread almost evenly across all age groups.

**Table 8 – Age groups of pedestrians & motorists involved in pedestrian crashes (2005 to 2013)**

Age Group	Pedestrian	Proportion	Motorist	Proportion
0-16	2	25%	0	0%
17-29	1	12.5%	1	14.5%
30-59	2	25%	2	28.5%
60-70+	2	25%	2	28.5%
Unknown	1	12.5%	2	28.5%
<b>Total</b>	<b>8</b>	<b>100%</b>	<b>7</b>	<b>100%</b>

(Source: Transport NSW Centre for Road Safety 2016)



## 4. Pedestrian Facilities

### 4.1 Classification and Types of Pedestrian Facilities

Pedestrians are vulnerable within the road and rail corridor and are therefore reliant on pedestrian facilities and traffic control devices to control and protect them. This can be achieved by implementing a number of pedestrian facilities with defined objectives as described in **Table 9**

**Table 9 – Classification of Pedestrian Facilities**

Classification	Objective	Pedestrian Facility
Time separated facilities	To minimise conflict between pedestrians and vehicles by allotting short time periods for use of section of road by pedestrians, alternating with periods of use by vehicles.	<ul style="list-style-type: none"> <li>• Pedestrian crossings (zebra)</li> <li>• Children's crossings</li> <li>• Pedestrian Actuated Traffic Signals (mid-block)</li> <li>• Pelican Crossings</li> <li>• Pedestrians at Signalised Intersections</li> </ul>
Physical pedestrian facilities	To increase the safety of pedestrians by use of physical aids within the roadway so as to reduce conflict between pedestrians and simplify the decisions which both pedestrians and drivers have to make.	<ul style="list-style-type: none"> <li>• Pedestrian refuges</li> <li>• Traffic islands</li> <li>• Medians</li> <li>• Kerb extensions</li> <li>• Loading islands</li> <li>• Safety zones</li> <li>• Pedestrian fencing</li> </ul>
Grade separation	To increase the safety of pedestrians by eliminating conflict between vehicles and pedestrians.	<ul style="list-style-type: none"> <li>• Underpasses and bridges</li> </ul>
Warning signs	To warn of the presence of pedestrians or pedestrian facilities ahead.	

(Source: AS1742.10-2009)

Most pedestrian activity occurs within the verge of the road reserve. At locations where there is high pedestrian activity the verge is generally sealed with concrete or pavers to provide all weather access footpaths. These paved footpaths can vary in width from between 1.2 metres wide to the full width of the verge depending on the location. In the Gunnedah region, the width of paved footpaths varies but can be generally described as per **Table 10**.

**Table 10 – Paved footpath widths in the Gunnedah Shire LGA**

Location	Paved Footpath Width
Residential Areas	1.2 to 1.8 metres
Shared Paths <sup>(1)</sup>	1.5 to 2.5 metres
Commerical Areas	Full width of the verge

*Note (1) - Some footpaths in the Gunnedah region are classified as shared paths for use by both pedestrians & cyclists. Information regarding the bicycle network & associated shared path network are provided in the GSC Bike Plan.*

The provision of pram ramps at the interface of the verge and road pavement complements footpaths by allowing for the safe movement of pedestrians from the verge on one side of the road to the other. The pram ramps also assist people with disabilities or those with young children to move safely, as the ramp allows wheeled mobility devices such as wheelchairs, walkers and prams to smoothly transition from one surface level to another.

Other pedestrian facilities, including cut-through access across median islands, and tactile ground surface indicators (tactile markers), combine with footpaths and pram ramps to facilitate safe pedestrian movements. Details of the pedestrian facilities in place throughout the Gunnedah region are provided in **Table 11**.





Table 11 – Pedestrian Facilities in the Gunnedah Shire LGA

Pedestrian Facility		
<p><b>Footpaths and shared paths</b></p> <p>A paved area of varying width located within the road verge. Where provision is made for bicycles to use these footpaths, they are known as shared paths.</p>		
<p><b>Kerb ramps</b></p> <p>A section of kerb which is angled to as to provide a smooth transition from one surface level to another, allowing wheeled movements.</p>		

Pedestrian Facility		
<p><b>Pedestrian Crossing (zebra)</b></p> <p>A section of road delineated by white stripes parallel to the centre line and associated signage. Pedestrian crossings require a warrant for installation.</p> <p>An alternative is the St George crossing which is delineated by white stripes on a red background.</p> <p><i>(NB: this type of pedestrian crossing has not been installed in the Gunnedah Region)</i></p>		
<p><b>Pedestrian Refuge</b></p> <p>An island located in the middle of the road whereby pedestrians can wait until traffic has passed. Generally installed where it difficult for pedestrians to cross the full width of the road in one attempt.</p>		

Pedestrian Facility		
<p><b>Childrens Crossing</b></p> <p>A section of road that has control devices in place to allow for the crossing of pedestrians (usually school children). The control devices are only in place during specific times of the day.</p> <p>A Childrens Crossing Supervisor may also be present at those crossings which have satisfied RMS requirements.</p> <p>A Childrens Crossing may also be located at a marked pedestrian crossing.</p>		
<p><b>Pedestrian facilities at railway crossings (level crossings)</b></p> <p>Level crossings can be either passive or active. Passive crossings require the pedestrian to look both ways before crossing the railway lines, while active crossings have gates, booms, and/or alarms to prevent pedestrian access to the railway when a train is passing.</p>		

Pedestrian Facility		
<p><b>Kerb extensions</b></p> <p>Are constructed along a kerb to minimise the width of roadway to be crossed and to provide pedestrians with improved visibility of approaching traffic.</p>		
<p><b>Pedestrian fencing / Bollards</b></p> <p>Installed at the kerb to direct pedestrians to a crossing point or to prevent pedestrians from crossing at specific locations.</p>		

Pedestrian Facility		
<p><b>Tactile Markers</b></p> <p>Plastic composite materials with raised 'bumps' are set into the pavement directly adjacent to pram ramps. The 'bumps' allow visibility impaired pedestrians to note upcoming crossings via canes.</p>		
<p><b>Pedestrian Bridge</b></p> <p>A grade separation for pedestrians from traffic (road or rail) or for providing all weather access.</p> <p>This can include a separate bridge for pedestrians only or the inclusion of a pedestrian footpath incorporated in a road bridge.</p>		

Pedestrian Facility		
<p><b>Warning Signs</b></p> <p>Advanced warning signage for road users to warn of the presence of pedestrians or pedestrian facilities ahead. High Pedestrian Activity Zones use warning signs and reduced speed limits to inform drivers of higher pedestrian occurrence in these zones.</p>		

(Sources: AS1742.10-2009 & RTA Road Design Guide)



## 4.2 Design and Construction Standards

It is important that pedestrian facilities are designed to high standards that comply with relevant standards and recognised guidelines to ensure their safety. Construction of these facilities to high standards can also reduce overall maintenance costs for the life of the facility. **Table 12** provides details of the standards and guidelines to be considered for design purposes.

**Table 12 – Design and Construction Standards**

Pedestrian Facility	Design and Construction Standards
Footpaths and shared paths	<ul style="list-style-type: none"> <li>• Gunnedah Shire Council '<i>Engineering Guidelines for Subdivision and Developments</i>' 2013</li> <li>• Cement and Concrete Associations '<i>Guide to Residential Streets and Paths, 2004</i>'</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Kerb ramps (pram ramps)	<ul style="list-style-type: none"> <li>• Australian Standard AS1428.1 Design for access and mobility – General requirements for access</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Pedestrian Crossings (zebra)	<ul style="list-style-type: none"> <li>• Australian Standard AS1742.10 Manual of uniform traffic control devices (Part 10: Pedestrian control and protection)</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Pedestrian Refuge	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> <li>• Austroads Guide Information for Pedestrian Facilities</li> </ul>
Children's crossings	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Pedestrian Actuated Traffic Signals (mid-block)	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Pedestrians at signalised intersections	<ul style="list-style-type: none"> <li>• Australian Standard AS2353 Pedestrian push-button assemblies</li> <li>• Australian Standard AS1742.14 Manual of uniform traffic control devices – Traffic signals</li> </ul>

Pedestrian Facility	Design and Construction Standards
	<ul style="list-style-type: none"> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Pedestrian facilities at railway crossings	<ul style="list-style-type: none"> <li>• Australian Standard AS1742.7 Manual of uniform traffic control devices – Railway crossings</li> <li>• Various rail authority design guidelines</li> </ul>
Pedestrian overpass bridge	<ul style="list-style-type: none"> <li>• Australian Standard AS5100.1 Bridge design</li> </ul>
Traffic islands	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Medians	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Kerb extensions	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Pedestrian fencing	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Tactile markers	<ul style="list-style-type: none"> <li>• Australian Standard AS/NZS 1428.4 Design for access and mobility – Means to assist the orientation of people with vision impairment – Tactile ground surface indicators</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>
Warning Signs	<ul style="list-style-type: none"> <li>• AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection</li> <li>• Austroads Guide to Road Design and Guide to Traffic Management – various parts</li> </ul>

## 5. Public Consultation

### 5.1 Initial Consultation

A survey was carried out in May 2016. The aim of the survey was to ascertain the needs and concerns of pedestrians, particularly with regards to the existing footpath network.

In order to ensure that relevant stakeholder views were represented a survey was distributed to the organisations as described below. A copy of the letter and questionnaire is provided in **APPENDIX A**.

- Gunnedah TAFE New England Campus;
- Community College;
- Gunnedah High School;
- St Mary's College;
- St Xavier's Primary School;
- Gunnedah South Public School;
- Carinya Christian Community School;
- G.S. Kidd Memorial School;
- Alkira Aged Care;
- Gunnedah Railway Station;
- Gunnedah Radio Cabs;
- Hope PT;
- Keating Tours.
- Paraplegic and Quadriplegic Association of NSW;
- Curlewis Public School;
- Carroll Public School;
- Gunnedah Police Station;
- Curlewis Police Station;
- Guide Dogs NSW/ACT;
- Gunnedah Hospital;
- Gunnedah Community Health Service;
- Gunnedah Aged Care Services;
- Gunnedah Taxis;
- Hawkins Coach Lines;
- Millerds Bus Service; and

At the end of the survey period dated 3 June 2016, a total of nil responses had been received.

### 5.2 Ongoing Consultation

As per the RMS PAMP Guidelines, it is a requirement that the final draft of the GSC PAMP be placed on public display for a period of 28 days with the general public invited to view the plan and submit comments.

Public exhibition of the GSC PAMP was undertaken during the period 27 September 2016 to 14 October 2016 with no comments received.

## 6. PAMP Facilities

### 6.1 Existing Facilities

#### 6.1.1 Pedestrian Crossings

Marked pedestrian crossings are only provided in locations accordance with the pedestrian crossing warrant as per RMS requirements. There are seven marked pedestrian crossings located throughout the Gunnedah region both of which are located in Gunnedah as indicated in **Table 13**.

**Table 13 – Marked pedestrian crossing locations**

Item	Location
1	Conadilly Street at the Henry Street intersection (refer <b>Plate 1</b> )
2	Elgin Street at the Conadilly Street intersection (refer <b>Plate 2</b> )
3	Conadilly Street between Elgin Street and Marquis Street (refer <b>Plate 3</b> )
4	Conadilly Street between Marquis Street and Chandos Street (refer <b>Plate 4</b> )
5	Marquis Street between South Street and Reservoir Street
6	Henry Street at the Bloomfield Street intersection



**Plate 1 – Conadilly St at Henry St**



**Plate 2 – Eglin Street**



**Plate 3 - Conadilly Street between Elgin Street and Marquis Street**



**Plate 4 - Conadilly Street between Marquis and Chandos Street**

### 6.1.2 School Zones and Children Crossings

All roads fronting schools have a 40km/h speed limited school zone between the hours of 8:00am and 9:30am and 2:00pm and 4:30pm on designated school days in NSW.

Some schools also have part-time children crossings adjacent to the school as summarised in **Table 14**. Schools which fulfil RMS requirements may also have part-time children's crossing supervisors.

**Table 14 – Children crossing locations**

Item	Location
1	Bloomfield Street opposite Gunnedah Public School (refer <b>Plate 5</b> )
2	Bloomfield Street opposite St Mary's College
3	Stock Road opposite Gunnedah South Public School
4	Bridge Street opposite Gunnedah South Public School



**Plate 5 – Part time children's crossing on Bloomfield Street**

### 6.1.3 High Pedestrian Activity Zones

The implementation of 40km/h High Pedestrian Activity Zones (HPAZ) is a State wide initiative of the RMS which targets areas where there is likely to be greater pedestrian activity resulting in a greater risk of traffic/pedestrian accidents.

The assessment criteria for the installation of HPAZ takes into consideration various types of pedestrian generators that are likely to increase pedestrian activity. For example, pedestrian generators can consist of supermarkets, cafes, hotels, clubs, retail and commercial outlets and recreational areas.

RMS provides Council with specific funding to assess the need for the implementation of HPAZ on a case by case basis. There is presently one HPAZ in the Gunnedah Shire Council Area. This commences in Conadilly Street at Eglin Street, traversing Conadilly Street until it terminates at the Chandos Street roundabout. The HPAZ encompasses the intersections at Marquis Street.

### 6.1.4 Footpaths

Numerous streets throughout Gunnedah and Curlewis have paved footpaths on at least one side of the street whilst a number of streets within Gunnedah have paved footpaths on both sides of the street. The locations, lengths and condition of all paved footpaths in the Gunnedah region are recorded on GSC's asset management system.

Paving can consist of concrete, asphalt, bitumen or brick pavers and the total recorded length in the asset management system for the Gunnedah region, inclusive of cycleways, is approximately 34.2 kilometres. **Plate 6** and **Plate 7** show some of the different paved footpaths.



**Plate 6 – Paved Footpath**



**Plate 7 - Typical Concrete Footpath**

A footpath construction program has been developed by GSC which includes the provision of new paved footpaths across the region. A copy of the footpath construction program is provided in **APPENDIX B**.

### 6.1.5 Kerb Ramps

Kerb ramps are located in numerous locations throughout the Gunnedah region. A typical kerb ramp is shown in **Plate 8**.

Tactile ground surface indicators are also located on some kerb ramps within the Gunnedah region to assist people with sight impairment as shown in **Plate 9**.



**Plate 8 - Typical kerb ramp**



**Plate 9 - Kerb ramp with tactile marker**

### 6.1.6 Pedestrian Refuges / Cut-through Medians

There are 9 pedestrian refuges / cut-through median islands located in Gunnedah as detailed in **Table 15**. These median islands have been constructed to separate traffic as well as to provide an area for pedestrians to wait whilst traffic has passed. They are typically located in the median islands on the approaches to a roundabout or in mid-block locations. The locations and condition of all medians in the Gunnedah region are recorded on GSC's asset management system.

**Table 15 – Pedestrian Refuge Locations**

Item	Location
1	Conadilly Street at the Henry Street intersection
2	Abbott Street at the Conadilly Street intersection (both sides of the intersection)
3	Kamilaroi Highway and Eglin Street roundabout (all approaches to the roundabout)
4	Chandos Street and Kamilaroi Highway intersection (on the mall side of the street)
5	Both sides of Tempest Street at the Kamilaroi Highway intersection
6	Both sides of Rosemary Street at the Kamilaroi Highway intersection
7	All approaches at the South Street roundabout except the Marquis Street approach
8	Hunter Street and Marquis Street intersection, adjacent to the school
9	Wandobah Road adjacent to the View Street roundabout



**Plate 10 – Roundabout approach**



**Plate 11 - Intersection**

### 6.1.7 Kerb Extensions

There are numerous kerb extensions located throughout the Gunnedah region. These kerb extensions have been provided to reduce the width of road pavement to be accessed by a pedestrian when crossing a road and to approve pedestrian visibility of approaching traffic. **Plate 12** and **Plate 13** show a kerb extensions constructed within Gunnedah.



**Plate 12 – Chandos Street**



**Plate 13 – View Street**

### 6.1.8 Pedestrian facilities at railway crossings (level crossings)

There are 2 locations in the Gunnedah region area that have designated pedestrian facilities at railway crossings for active rail lines as summarised in **Table 17**.

**Table 16 – Pedestrian facilities at railway level crossings**

Item	Location
1	Carroll Street railway level crossing in Gunnedah (refer <b>Plate 14</b> )
2	Marquis Street railway level crossing in Gunnedah (refer <b>Plate 15</b> )





Plate 14 – Carroll Street



Plate 15 – Marquis Street

### 6.1.9 Pedestrian Bridges

There is currently one location in the Gunnedah region that has a designated pedestrian bridge as summarised in **Table 17**.

**Table 17 – Pedestrian Overpass Bridges**

Item	Location
1	Abbott Street between Barber Street and South Street over the railway line in Gunnedah (refer <b>Plate 16</b> )



Plate 16 – Rail Overpass

### 6.1.10 Pedestrian Fencing/Bollards

Pedestrian fencing is predominately provided in Gunnedah only to guide pedestrians to the appropriate locations for crossing a particular road. **Plate 17** shows fencing installed at South Street and **Plate 18** shows the bollards and chain installed at the Chandos Street and Conadilly Street intersection.



Plate 17 – South Street



Plate 18 – Chandos Street

### 6.1.11 Warning Signs

There are numerous advanced warning signs to alert motorists to the presence of pedestrians and pedestrian facilities and these are located throughout the Gunnedah Shire in specific locations. Typical examples of the types of available signage are provided in **Figure 2**.



Pedestrians



Pedestrian Crossing



High Pedestrian Activity Zone



Give Way to Pedestrians



Separated Footway

Figure 2 – Typical Pedestrian Signage

### **6.1.12 Other Facilities**

Public transport services operate regularly, including school bus services, commercial, and non-commercial bus services throughout the LGA with taxi services provided in Gunnedah. The provision of bus stops and taxi ranks are provided for pedestrians waiting to use these services.

## 7. Proposed Works

The proposed works for the GSC PAMP have been identified by considering the following factors:

- Whether or not proposed works will facilitate increased linkages in the overall pedestrian network;
- Pedestrian generating areas; and
- Consultation with GSC personnel.

The GSC PAMP works schedule with a total estimated cost of **\$711,200** (GST Exclusive) is provided in **Table 18**.

In consultation with GSC personnel, a priority listing has not been provided as this will enable GSC to determine works each year as part of the Annual Operational Plan review subject to available funding. Further details on the works schedule are provided in **APPENDIX C**.

**Table 18 – PAMP Schedule of Works**

Location	Work Proposed	Estimated Cost
<b>Gunnedah – New Footpaths</b>		
Elgin Street to Abbott Street	Footpath Construction (northern side)	\$28,800
Abbott Street to Henry Street	Footpath Construction (northern side)	\$37,800
Conadilly Street to Kitchener Park entrance	Footpath Construction (eastern side)	\$21,600
Bloomfield Street to Little Conadilly Street	Footpath Construction (western side)	\$21,600
Bloomfield Street to Little Conadilly Street	Footpath Construction (eastern side)	\$21,600
Tempest Street to Chandos Street	Footpath Construction (southern side)	\$36,000
Warrabungle Street to Rosemary Street	Footpath Construction (northern side)	\$36,000
Barber Street to Conadilly Street	Footpath Construction (western side)	\$36,000
Jensen Street to Jensen Street	Footpath Construction (eastern side)	\$30,600
Stock Road to George Street	Footpath Construction (western side)	\$37,800
View Street to Rodney Street	Footpath Construction (northern side)	\$115,200
Reservoir St to 8th Divisional Memorial Ave	Footpath Construction (northern side)	\$27,000
Walter Rodd Street to Stock Road	Footpath Construction (eastern side)	\$12,600
From Goodwin St to Stock Road Shared Path	Footpath Construction	\$3,600
<b>Subtotal</b>		<b>\$466,200</b>

- Notes:
- (i) Estimated costs are inclusive of traffic control provisions during construction;
  - (ii) Estimated costs are current as at August 2016;
  - (iii) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual operational plans; and
  - (iv) Whilst the type of each facility has been nominated, these may be adjusted in order to satisfy available funding.

Location	Work Proposed	Estimated Cost
<b>Gunnedah - New Kerb Ramps</b>		
Bloomfield Street & Osric Street intersection	Construct four (4) new kerb ramps	\$4,000
Bloomfield Street & Henry Street intersection	Construct three (3) new kerb ramps	\$3,000
Bloomfield Street & Abbott Street intersection	Construct one (1) new kerb ramp	\$1,000
Bloomfield Street & Elgin Street intersection	Construct two (2) new kerb ramps	\$2,000
Bloomfield Street & Marquis Street intersection	Construct one (1) new kerb ramp	\$1,000
Bloomfield Street & Tempest Street intersection	Construct two (2) new kerb ramps	\$2,000
Conadilly Street & Warrabungle Street intersection	Construct two (2) new kerb ramps	\$2,000
Conadilly Street & Rosemary Street intersection	Construct six (6) new kerb ramps	\$6,000
Conadilly Street & Tempest Street intersection	Construct four (4) new kerb ramps	\$4,000
Conadilly Street & Osric Street intersection	Construct one (1) new kerb ramp	\$1,000
Conadilly Street & Wentworth Street intersection	Construct four (4) new kerb ramps	\$4,000
Wentworth Street & Little Barber Street	Construct one (1) new kerb ramp	\$1,000
Barber Street & New Street intersection	Construct two (2) new kerb ramps	\$2,000
Barber Street & Rosemary Street intersection	Construct three (3) new kerb ramps	\$3,000
Barber Street & Tempest Street intersection	Construct four (4) new kerb ramps	\$4,000

Location	Work Proposed	Estimated Cost
Barber Street & Chandos Street intersection	Construct four (4) new kerb ramps	\$4,000
Barber Street & Elgin Street intersection	Construct seven (7) new kerb ramps	\$7,000
Barber Street & Henry Street intersection	Construct three (3) new kerb ramps	\$3,000
Wandobah Road & Short Street intersection	Construct one (1) new kerb ramp	\$1,000
Wandobah Road & High Street intersection	Construct one (1) new kerb ramp	\$1,000
Apex Road & Stock Road intersection	Construct three (3) new kerb ramps	\$3,000
Goodwin Road & Stock Road intersection	Construct two (2) new kerb ramps	\$2,000
South Street & Porcupine Street intersection	Construct one (1) new kerb ramp	\$1,000
View Street & Hunter Street intersection	Construct two (2) new kerb ramps	\$2,000
Hunter Street & Little Reservoir Street Intersection	Construct four (4) new kerb ramps	\$4,000
<b>Subtotal</b>		<b>\$68,000</b>

- Notes:
- (i) Estimated costs are inclusive of traffic control provisions during construction;
  - (ii) Estimated costs are current as at August 2016;
  - (iii) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual operational plans; and
  - (iv) Whilst the type of each facility has been nominated, these may be adjusted in order to satisfy available funding.

Location	Work Proposed	Estimated Cost
<b>Gunnedah - Replace Substandard Kerb Ramps</b>		
Bloomfield Street & Boundary Road intersection	Replace one (1) substandard kerb ramp	\$1,000
Bloomfield Street & Wentworth Street intersection	Replace three (3) substandard kerb ramps	\$3,000
Bloomfield Street & Osric Street intersection	Replace one (1) substandard kerb ramp	\$1,000
Bloomfield Street & Henry Street intersection	Replace three (3) substandard kerb ramps	\$3,000
Bloomfield Street & Abbott Street intersection	Replace six (6) substandard kerb ramps	\$6,000
Bloomfield Street & Marquis Street intersection	Replace four (4) substandard kerb ramps	\$4,000
Bloomfield Street & Chandos Street intersection	Replace three (3) substandard kerb ramps	\$3,000
Conadilly Street & Rosemary Street intersection	Replace two (2) substandard kerb ramps	\$2,000
Conadilly Street & Tempest Street intersection	Replace four (4) substandard kerb ramps	\$4,000
Conadilly Street & Henry Street intersection	Replace eight (8) substandard kerb ramps	\$8,000
Conadilly Street & Osric Street intersection	Replace seven (7) substandard kerb ramps	\$7,000
Conadilly Street & Wentworth Street intersection	Replace four (4) substandard kerb ramps	\$4,000
Conadilly Street & Carroll Street intersection	Replace four (4) substandard kerb ramps	\$4,000
Conadilly Street & Stanley Street intersection	Replace two (2) substandard kerb ramps	\$2,000
Little Barber Street - New Street to Henry Street	Replace fifteen (15) substandard kerb ramps	\$15,000
Barber Street & New Street intersection	Replace one (1) substandard kerb ramp	\$1,000
Barber Street & Rosmary Street intersection	Replace five (5) substandard kerb ramp	\$5,000



Location	Work Proposed	Estimated Cost
Barber Street & Tempest Street intersection	Replace three (3) substandard kerb ramp	\$3,000
Barber Street & Chandos Street intersection	Replace three (3) substandard kerb ramp	\$3,000
Barber Street & Marquis Street intersection	Replace eight (8) substandard kerb ramps	\$8,000
Barber Street & Elgin Street intersection	Replace one (1) substandard kerb ramp	\$1,000
Barber Street & Henry Street intersection	Replace two (2) substandard kerb ramp	\$2,000
Barber Street & Osric Street intersection	Replace two (2) substandard kerb ramp	\$2,000
Wandobah Road & Short Street intersection	Replace one (1) substandard kerb ramp	\$1,000
Wandobah Road & High Street intersection	Replace one (1) substandard kerb ramp	\$1,000
Wandobah Road & Bando Street intersection	Replace two (2) substandard kerb ramp	\$2,000
Bridge Street & Jensen Street intersection	Replace one (1) substandard kerb ramp	\$1,000
Bridge Street - Stock Road to Hunter Street	Replace eight (8) substandard kerb ramps	\$8,000
Rodney Street - George Street to South Street	Replace thirteen (13) substandard kerb ramps	\$13,000
Anzac Parade - Hunter Street to South Street	Replace nine (9) substandard kerb ramps	\$9,000
Hunter Street - South Street to View Street	Replace ten (10) substandard kerb ramps	\$10,000
<b>Subtotal</b>		<b>\$137,000</b>

- Notes:
- (i) Estimated costs are inclusive of traffic control provisions during construction;
  - (ii) Estimated costs are current as at August 2016;
  - (iii) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual operational plans; and
  - (iv) Whilst the type of each facility has been nominated, these may be adjusted in order to satisfy available funding.

Location	Work Proposed	Estimated Cost
<b>Gunnedah - Kerb Extensions</b>		
Marquis Street - Reservoir Street to South Street	Kerb extensions for existing marked pedestrian crossing	\$20,000
Conadilly Street at the Henry Street Intersection	Kerb extensions for existing marked pedestrian crossing	\$20,000
<b>Subtotal</b>		<b>\$40,000</b>

- Notes:
- (i) Estimated costs are inclusive of traffic control provisions during construction;
  - (ii) Estimated costs are current as at August 2016;
  - (iii) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual operational plans;
  - (iv) Whilst the type of each facility has been nominated, these may be adjusted in order to satisfy available funding.

## 8. Funding Sources

### 8.1 Costs and Prioritisation

All of the proposed works identified with the GSC PAMP have been inspected in terms of feasibility with the works schedule provided in **APPENDIX C**.

In order to determine new pedestrian facility works, all proposed locations have been assessed using factors including specific funding obligations, public survey results, proximity to services, commercial areas, schools, public facilities and the ability to link to the existing pedestrian network.

### 8.2 Funding Sources - Construction

Funding for the construction of pedestrian facilities is generally provided as per the funding arrangements detailed in **Table 19**.

**Table 19 – Funding Contributions for Pedestrian Facility Construction**

Road Classification	RMS Contribution	GSC Contribution <sup>(1)</sup>
State Roads (including National Highway)	100%	0% <sup>(2)</sup>
Local Roads <sup>(4)</sup>	50% <sup>(3)</sup>	50% <sup>(3)</sup>

*Note (1) – GSC contributions can comprise of funding sources including the General Fund, Restricted Reserves, Section 94A contributions and adjacent landholder contributions.*

*Note (2) – GSC contributions on State Roads are provided on a case by case basis dependent on specific arrangements with RMS.*

*Note (3) – For approved PAMP related projects - whilst the 50/50 funding contribution is the typical funding arrangement, there is scope for GSC to request an increased contribution from RMS on a case by case basis.*

*Note (4) – Typically for local roads, 100% funding is provided by GSC for pedestrian facilities not part of an approved funding program such as the PAMP or Bike Plan for example with funding sources from the General Fund and Restricted Reserves*

Pedestrian facilities may also be constructed by developers, either in accordance with the consent conditions applicable to the specific development, or as an 'in kind' contribution in lieu of monetary contributions. These 'works in kind' developer initiatives often receive favourable consideration as they can result in the timely and coordinated provision of pedestrian infrastructure which also enhances the appeal of the respective development itself.

#### **8.2.1 Development Contributions (Section 94A)**

In January 2013, GSC adopted the 'Gunnedah Shire Council Section 94A Contributions Plan'. This Section 94A Plan has been prepared to satisfy the requirements of the Environmental Planning and Assessment Act (1979) and Regulation (2000), enabling GSC or an accredited certifier to levy contributions from development for the provision of community infrastructure including footpaths and pedestrian mobility improvements.

The Section 94A Plan ensures that adequate community infrastructure is provided for future development and that the existing community is not burdened by the provision of community infrastructure required as a result of future development.

The pedestrian mobility and footpath infrastructure to be provided by funds as indicated in the Section 94A Plan are detailed in **Table 19**.

**Table 19 – Development Contributions - Summary of Pedestrian Infrastructure Works**

Description	Estimated Expenditure	Staging <sup>(1)</sup>
Pedestrian Mobility Improvement Program - Gunnedah CBD	\$250,000	Short to Long Term

Note (1) – Short term = 1-2 years; Medium term = 3-4 years; Long term = 5-10 years

From time to time, developers offer to construct pedestrian infrastructure in lieu of payment of pedestrian infrastructure related contributions in conjunction with the construction of residential areas. These 'works in kind' offers or developer initiatives often receive favourable consideration as they can result in the timely and coordinated provision of infrastructure which enhances the appeal of the development.

### 8.2.2 Funding included in the DRAFT Delivery Program 2013-2017 and Operational Plan 2016-17

The provision of funding for the construction pedestrian facilities as per the GSC 'DRAFT Delivery Program 2013-2017 and Operational Plan 2016-17' is detailed in **Table 20**.

**Table 20 – Pedestrian Facility Construction Funding**

Year	Description	Amount	Funding Contribution
2016/2017	Elgin Street – Conadilly Street to Little Conadilly Street (UPGRADE)	\$77,000	100%GSC
2017/2018	Elgin Street – Conadilly Street to Little Barber Street (RENEWAL)	\$60,000	100%GSC
<b>Total</b>		<b>\$137,000</b>	

### 8.3 Funding Sources - Maintenance

Funding for the maintenance of pedestrian facilities is generally provided from the GSC General Fund and/or Restricted Reserves. No specific funding is provided by RMS for maintenance activities associated with pedestrian facilities.

The provision of funding for the maintenance of pedestrian facilities is included with the overall funding provided for bridge and road maintenance across the region. The amount allocated for pedestrian facility maintenance each year is commensurate with the required maintenance of deficiencies identified as part of routine inspections.

## **9. Implementation and Maintenance**

In order to continue the provision of facilities which improve pedestrian safety within the road verge, it is important that sufficient funds be budgeted on an annual basis to maintain these assets in a safe and usable condition. Maintenance costs will vary depending on the location and type of pedestrian facility. However, it is considered that the maintenance needs of pedestrian facilities within the Gunnedah region can be adequately managed via an annual allocation within the overall maintenance budget as described in **Section 8**.

### **9.1 Footpath Maintenance**

Given that footpaths form the majority of pedestrian facilities throughout the Gunnedah region, pavement maintenance is a high priority. Footpaths and shared paths require regular inspection and routine maintenance to ensure that the pavement is maintained in a smooth and safe condition. Inspections resulting in a condition rating are undertaken by GSC Officers on an annual basis.

Concrete pavements should have cracks repaired, or whole sections repaired when the extent of cracking or failures is assessed as extreme. Well-constructed concrete paths could be expected to have an average useful life of 50 years.

For asphalt or bitumen footpaths, routine maintenance comprises of the repair of crack and potholes, with resurfacing required every five to ten years in accordance with condition assessment undertaken by GSC Officers.

For footpaths that have brick pavers, routine maintenance is comprised of the replacement of damaged pavers and the relaying of a section of pavers as necessary.

### **9.2 Maintenance of other Pedestrian Facilities**

Other pedestrian facilities are inspected by GSC Officers on an annual basis, or following receipt of a community complaint, to assess the condition of the asset and identify any maintenance that may be required.

### **9.3 Follow-up Activities**

A review of the GSC PAMP, including a revision of the works schedule, will be undertaken as part of the development of GSC's future programs and operational plans.

## 10. References

- AS1428.1, Design for access and mobility – General requirements for access
- AS1742.10, Manual of uniform traffic control devices – Pedestrian control protection
- Australian Bureau of Statistics 2015, '*Community Profiles*', *Census Data and Analysis*. Retrieved from <http://www.abs.gov.au/websitedbs/censushome.nsf/home/communityprofiles?opendocument&navpos=230>
- Austroads 2013, *Guide Information for Pedestrian Facilities*
- Cement and Concrete Associations 2004, *Guide to Residential Streets and Paths*
- Gunnedah Shire Council 2016, *Bike Plan 2016*
- Parnell & Pope, Charles Sturt University 2008, *An evaluation of the Pedestrian Access and Mobility Plan program from the Roads and Traffic Authority of NSW as implemented by local councils in the South West Region of New South Wales*
- Roads and Traffic Authority 2002, *How to Prepare a Pedestrian Access and Mobility Plan*
- Gunnedah Shire Council 2013-2023 *Community Strategic Plan*,
- Gunnedah Shire Council *Delivery Program 2013-2017 and Operational Plan 2015-16 - Final as at 1 July 2015*,
- *Gunnedah Development Control Plan 2012 - Amended Jan 2014 - current version*,
- *Gunnedah Economic Development Strategy - Adopted 19 March 2014 - Volume 1*,
- *Gunnedah Economic Development Strategy - Adopted 19 March 2014 - Volume 2*,
- *Gunnedah Shire Council Long Term Financial Plan 2015-2025 - as at 1 July 2015*,
- *Gunnedah Shire Council Section 94A Contributions Plan - Jan 2013*,
- Gunnedah Shire Council *Strategic Asset Management Plan 2015-2025 - as at 1 July 2015*;
- Gunnedah Shire Council DRAFT *Delivery Program 2013-2017 and Operational Plan 2016-17*

**APPENDIX A**  
**Consultation Letters and**  
**Survey**

5 May 2016

**Gunnedah Shire Council Pedestrian Access Mobility Plan (PAMP) & Bike Plan**

Dear Sir/Madam,

Constructive Solutions, on behalf of Gunnedah Shire Council, is currently preparing a Pedestrian Access Mobility Plan (PAMP) and Bike Plan for the Gunnedah Shire and is seeking input from various sectors of the community to gauge a broader understanding of the needs of its residents.

A PAMP is a strategic action plan to develop and construct effective pedestrian improvements in areas where they offer the most benefit. A Bike Plan serves the same purpose for cycling. Both plans will take approximately 6 months to complete and will assist Council in terms of strategic planning and future external funding opportunities for pedestrian and cycling infrastructure in the local government area for the next five to ten years.

The benefits of a PAMP and Bike Plan include but are not limited to:-

- The installation of appropriate pedestrian and cycling facilities in specific areas;
- Improved access for those persons with a mobility impairment;
- The linking of existing pedestrian and cyclist generating developments or features, such as shopping centres, car parks, parks, and schools; and
- Ensuring all facility improvements are consistent throughout NSW.

The PAMP and Bike Plan will include nomination of sites for priority-based attention over the next five to ten years. Types of works included in the PAMP and Bike Plan are limited to the following areas:-

- Kerb ramp and cycleway construction or improvement;
- Taxi and/or bus zone improvements including signage, handrails (at specific locations only) and general pedestrian amenity improvements;
- Tactile tile installation for the vision impaired in selected locations commensurate with the specific RMS warrant;
- General improvements in linking existing pedestrian and cyclist generating developments; and
- Areas of general improvement as being beneficial to pedestrian and cyclist amenity in specific areas.

PAMP and Bike Plan works do not include paved footpaths, pedestrian crossings, sealed or unsealed road maintenance, street lighting or bus shelters.

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PROFESSIONAL PROJECT, VALUE & ENVIRONMENTAL MANAGEMENT SERVICES



Once the draft plans have been completed, a public exhibition period will be undertaken to allow further feedback from the community before they are finalised and considered by Council.

The PAMP and Bike Plan will be implemented as funding permits with nominated works generally completed on 50:50 funding basis with NSW Roads and Maritime Services (RMS).

All sites or requests for works nominated as part of this consultation process will be inspected and assessed to ensure compliance with the Roads and Maritime Services (RMS) PAMP and Bike Plan guidelines prior to inclusion as a nominated site.

Constructive Solutions will accept written submissions for the PAMP and Bike Plan on Council's behalf up until the close of business on 3 June 2016. Please send any responses to either [danielle@constructivesolutions.com.au](mailto:danielle@constructivesolutions.com.au), or post to:

Constructive Solutions  
PO Box 1498  
TAMWORTH NSW 2340

We look forward to your valuable contribution to further improving pedestrian and cyclist amenity within the LGA.

Yours Faithfully

A handwritten signature in black ink, appearing to read 'S O'Rourke', written over a horizontal line.

Steve O'Rourke  
Director

## Gunnedah Shire Council – PAMP and Bike Plan Survey

<b>Name:</b>				
<b>Address:</b>				
<b>Email:</b>				
<b>Phone No.:</b>				
<i>Please tick &amp;/or answer the following questions where relevant</i>				
<b>1. Gender:</b>	<input type="checkbox"/> Male		<input type="checkbox"/> Female	
<b>2. Age:</b>	<input type="checkbox"/> <15	<input type="checkbox"/> 16-25	<input type="checkbox"/> 26-35	<input type="checkbox"/> 36-45
	<input type="checkbox"/> 46-55	<input type="checkbox"/> 56-65	<input type="checkbox"/> 66-75	<input type="checkbox"/> >75
<b>3. Where do you predominately travel to and from home (using any mode of transport)?</b>				
<input type="checkbox"/> work		<input type="checkbox"/> School		<input type="checkbox"/> Supermarket / Town Centre
<input type="checkbox"/> Sporting Facility		<input type="checkbox"/> Friend or relative's home		<input type="checkbox"/> Tourist Attraction
<input type="checkbox"/> Recreation Area (eg: park, pool)		<input type="checkbox"/> Other (provide details):		
Comments:				
<b>4. During the week, which mode of transport do you most commonly use and how long do the trips take?</b>				
<b>Time:</b>	<input type="checkbox"/> <10 minutes	<input type="checkbox"/> 10-30 minutes	<input type="checkbox"/> 30-60 minutes	<input type="checkbox"/> > 60 minutes
<b>Mode:</b>	<input type="checkbox"/> Walking	<input type="checkbox"/> Cycling	<input type="checkbox"/> Driving	<input type="checkbox"/> Public Transport
	<input type="checkbox"/> Other (provide details):			

<b>5. Do you own or have access to a bicycle?</b>		<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>6. How frequently do you ride a bicycle?</b>			
<input type="checkbox"/> Everyday	<input type="checkbox"/> At least once a week	<input type="checkbox"/> Infrequently	<input type="checkbox"/> Never
<b>7. How confident are you about riding a bicycle?</b>			
<input type="checkbox"/> Highly skilled / no issues	<input type="checkbox"/> Confident	<input type="checkbox"/> Somewhat confident / have concerns about safety	<input type="checkbox"/> Not confident
<i>Please only answer Question 8 if you do not ride or do so irregularly.</i>			
<b>8. What is the primary reason why you do not cycle?</b>			
<input type="checkbox"/> Safety	<input type="checkbox"/> Lack of adequate paths/lanes/end-of trip facilities	<input type="checkbox"/> Lack of time	
<input type="checkbox"/> Negative image associated with cycling	<input type="checkbox"/> Don't own/have access to a bicycle	<input type="checkbox"/> Unable to ride	
<input type="checkbox"/> Weather	<input type="checkbox"/> Other modes of transport more convenient	<input type="checkbox"/> Other (provide details):	
Comments:			
<i>If you answered Question 8, please skip ahead to Question 11.</i>			
<b>9. What is the primary reason why you cycle?</b>			
<input type="checkbox"/> Recreation	<input type="checkbox"/> Fitness	<input type="checkbox"/> Commuting	
<input type="checkbox"/> Touring	<input type="checkbox"/> Other (provide details):		
Comments:			

**10. What are the major benefits you experience from cycling?**

Health/fitness

Enjoyment

Financial

Convenience

Freedom / independence

Social

Other (provide details)

Comments:


**11. What improvements would you like to see that would encourage you to walk or cycle more often?**


**12. Any other comments?**


**13. Are you happy to be contacted for further information?**

Yes

No



27 September 2016

Dear Sir / Madam,

**Draft Pedestrian Access and Mobility Plan and Draft Bike Plan Project: Have Your Say**

You may be aware that Gunnedah Shire Council has recently prepared a Draft Pedestrian Access and Mobility Plan (PAMP) and Draft Bike Plan with the assistance of consultants Constructive Solutions.

The purpose of the Pedestrian Access and Mobility Plan (PAMP) and Draft Bike Plan is to provide greater long term strategic focus for the development of accessible pedestrian routes and coordinated cycling infrastructure in the shire.

We are excited to let you know that both draft documents are now on public exhibition, with the Gunnedah Shire community invited to review and provide comment on the proposals and actions identified in the planning documents.

Copies of the Draft Pedestrian Access and Mobility Plan (PAMP) and Draft Bike Plan are available at [www.gunnedah.nsw.gov.au](http://www.gunnedah.nsw.gov.au), Paper copies of the plans are also available at the following Council buildings:

- Shire Administration Building, 63 Elgin Street, Gunnedah
- Gunnedah Shire Library, 291 Conadilly Street, Gunnedah
- The Civic, 85 Chandos Street, Gunnedah

If you would like to make comment on the Draft Pedestrian Access and Mobility Plan (PAMP) and Draft Bike Plan please do so in writing and address submissions to: General Manager, Gunnedah Shire Council, PO Box 63, GUNNEDAH NSW 2380 or [council@infogunnedah.com.au](mailto:council@infogunnedah.com.au). Submissions will be received no later than 4.00 pm on Friday, 14 October 2016.

For further information on the Draft Pedestrian Access and Mobility Plan (PAMP) and Draft Bike Plan please contact our Customer Relations Team on 02 6740 2100 or email [council@infogunnedah.com.au](mailto:council@infogunnedah.com.au).

Colin Formann

ACTING GENERAL MANAGER

**APPENDIX B**  
**Schedule of Works**

**Gunnedah Shire Council PAMP - Schedule of Works**

<b>Gunnedah - New Footpaths (1.2 metres wide)</b>								
<b>Item</b>	<b>Street Name</b>	<b>Location</b>	<b>Work Proposed</b>	<b>Length (m)</b>	<b>Generator</b>	<b>Justification</b>	<b>Estimated Cost</b>	<b>Road Classification</b>
1	Bloomfield Street	Elgin Street to Abbott Street	Footpath Construction (northern side)	160	School Precinct	Completes footpath link in this area opposite the Gunnedah Public School	\$28,800	Local
2	Bloomfield Street	Abbott Street to Henry Street	Footpath Construction (northern side)	210	School Precinct	Links with proposed footpath above connecting to existing footpaths adjacent to St Xaviers School	\$37,800	Local
3	Osric Street	Conadilly Street to Kitchener Park entrance	Footpath Construction (eastern side)	120	School & Sports Precinct	Links with existing footpath in Conadilly Street and the proposed shared path along Osric Street as per the Bike Plan	\$21,600	Local
4	Chandos Street	Bloomfield Street to Little Conadilly Street	Footpath Construction (western side)	120	Commercial & Sports Precinct	Links with existing footpath in Chandos Street and Bloomfield Street	\$21,600	Local
5	Tempest Street	Bloomfield Street to Little Conadilly Street	Footpath Construction (eastern side)	120	Commercial & Sports Precinct	Links with existing footpath in Tempest Street and proposed footpath in Bloomfield Street between Tempest Street and Chandos Street	\$21,600	Local
6	Bloomfield Street	Tempest Street to Chandos Street	Footpath Construction (southern side)	200	Commercial & Sports Precinct	Completes footpath link in this area adjacent to the cricket oval	\$36,000	Local
7	Conadilly Street	Warrabungle Street to Rosemary Street	Footpath Construction (northern side)	200	Commercial	Completes footpath link in this area and connects to the proposed shared path along Warrabungle Street as per the Bike Plan	\$36,000	Classified (State)
8	Osric Street	Barber Street to Conadilly Street	Footpath Construction (western side)	200	Residential	Completes footpath link in this area and connect to the existing footpaths along Barber Street and Conadilly Street including new kerb ramps and replacement of substandard kerb ramps	\$36,000	Local
9	Bridge Street	Jensen Street to Jensen Street	Footpath Construction (eastern side)	170	Residential & School	Wear path to bus stop and links with existing footpath along Bridge Street adjacent to Gunnedah South Public School. Includes replacement of substandard kerb ramps	\$30,600	Local
10	Rodney Street	Stock Road to George Street	Footpath Construction (western side)	210	Residential	Complete the link in this area to the existing shared path in Stock Road and the existing footpaths in Rodney Street	\$37,800	Local
11	Hunter Street	View Street to Rodney Street	Footpath Construction (northern side)	640	Residential	Whilst there is a paved footpath on the southern side of the road, the wear path indicates pedestrian use on the northern side of the road	\$115,200	Local
12	Hunter Street	Reservoir St to 8th Divisional Memorial Ave	Footpath Construction (northern side)	150	Residential	Completes missing link in this location	\$27,000	Local
13	Apex Road	Walter Rodd Street to Stock Road	Footpath Construction (eastern side)	70	Residential	Completes missing link in this location	\$12,600	Local
14	Stock Road	From Goodwin St to Stock Road Shared Path	Footpath Construction	20	Residential	Completes missing link in this location	\$3,600	Local
				<b>2590</b>		<b>Subtotal</b>	<b>\$466,200</b>	

Notes:- (1) Estimated costs are inclusive of traffic control provisions during construction;  
 (2) Estimated costs are current as at August 2016  
 (3) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual delivery programs and operational plans;  
 (4) Location of footpaths subject to inspection by GSC Officers to confirm locations and quantities prior to construction.

**Gunnedah Shire Council PAMP - Schedule of Works**

<b>Gunnedah - New Kerb Ramps</b>						
<b>Item</b>	<b>Location</b>	<b>Work Proposed</b>	<b>Number</b>	<b>Justification</b>	<b>Estimated Cost</b>	<b>Road Classification</b>
15	Bloomfield Street & Osric Street intersection	Construct four (4) new kerb ramps	4	Existing paved footpaths with no kerb ramps	\$4,000	Local
16	Bloomfield Street & Henry Street intersection	Construct three (3) new kerb ramps	3	Existing paved footpaths with no kerb ramps and new kerb ramp for proposed new footpath along Bloomfield Street between Henry Street & Abbott Street	\$3,000	Local
17	Bloomfield Street & Abbott Street intersection	Construct one (1) new kerb ramp	1	New kerb ramp for proposed new footpath along Bloomfield Street between Elgin Street & Abbott Street	\$1,000	Local
18	Bloomfield Street & Elgin Street intersection	Construct two (2) new kerb ramps	2	Existing paved footpaths with no kerb ramp and new kerb ramp for proposed new footpath along Bloomfield Street between Elgin Street & Abbott Street	\$2,000	Local
19	Bloomfield Street & Marquis Street intersection	Construct one (1) new kerb ramp	1	Existing paved footpath with no kerb ramp	\$1,000	Local
20	Bloomfield Street & Tempest Street intersection	Construct two (2) new kerb ramps	2	New kerb ramps for proposed new footpaths along Bloomfield Street between Chandos Street & Tempest Street and Tempest Street between Little Conadilly Street and Bloomfield Street	\$2,000	Local
21	Conadilly Street & Warrabungle Street intersection	Construct two (2) new kerb ramps	2	New kerb ramps for proposed new footpath along Conadilly Street between Warrabungle Street and Rosemary Street	\$2,000	Classified (State)
22	Conadilly Street & Rosmary Street intersection	Construct six (6) new kerb ramps	6	New kerb ramp for proposed new and existing footpaths along Conadilly Street between Warrabungle Street and Rosemary Street	\$6,000	Classified (State)
23	Conadilly Street & Tempest Street intersection	Construct four (4) new kerb ramps	4	Existing paved footpaths with no kerb ramps	\$4,000	Classified (State)
24	Conadilly Street & Osric Street intersection	Construct one (1) new kerb ramp	1	Existing paved footpath with no kerb ramp	\$1,000	Classified (State)
25	Conadilly Street & Wentworth Street intersection	Construct four (4) new kerb ramps	4	Existing paved footpaths with no kerb ramps	\$4,000	Classified (State)
26	Wentworth Street & Little Barber Street	Construct one (1) new kerb ramp	1	Existing paved footpath with no kerb ramp	\$1,000	
27	Barber Street & New Street intersection	Construct two (2) new kerb ramps	2	Existing paved footpaths with no kerb ramps which will link to proposed shared path in New Street	\$2,000	Local
28	Barber Street & Rosmary Street intersection	Construct three (3) new kerb ramps	3	Existing paved footpaths with no kerb ramps	\$3,000	Local
29	Barber Street & Tempest Street intersection	Construct four (4) new kerb ramps	4	Existing paved footpaths with no kerb ramps	\$4,000	Local
30	Barber Street & Chandos Street intersection	Construct four (4) new kerb ramps	4	Existing paved footpaths with no kerb ramps	\$4,000	Local
31	Barber Street & Elgin Street intersection	Construct seven (7) new kerb ramps	7	Existing paved footpaths with no kerb ramps	\$7,000	Local
32	Barber Street & Henry Street intersection	Construct three (3) new kerb ramps	3	Existing paved footpaths with no kerb ramps	\$3,000	Local
33	Wandobah Road & Short Street intersection	Construct one (1) new kerb ramp	1	kerb ramp on southern side of the intersection but not the northern side	\$1,000	Local
34	Wandobah Road & High Street intersection	Construct one (1) new kerb ramp	1	kerb ramp on northern side of the intersection but not the southern side	\$1,000	Local
35	Apex Road & Stock Road intersection	Construct three (3) new kerb ramps	3	New kerb ramps for proposed footpath link from Goodwin Street to Stock Road shared path.	\$3,000	Local
36	Goodwin Road & Stock Road intersection	Construct two (2) new kerb ramps	2	New kerb ramps for proposed footpath in Apex Road linking with existing Stock Road shared path	\$2,000	Local
37	South Street & Porcupine Street intersection	Construct one (1) new kerb ramp	1	Existing paved footpath with no kerb ramp	\$1,000	Local
38	View Street & Hunter Street intersection	Construct two (2) new kerb ramps	2	Existing paved footpath with no kerb ramps	\$2,000	Local
39	Hunter Street & Little Reservoir Street Intersection	Construct four (4) new kerb ramps	4	New kerb ramps for proposed footpath in Hunter Street between Reservoir Street and 8th Divisional Memorial Drive	\$4,000	Local
			<b>68</b>	<b>Subtotal</b>	<b>\$68,000</b>	

Notes:- (1) Estimated costs are inclusive of traffic control provisions during construction;  
(2) Estimated costs are current as at August 2016  
(3) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual delivery programs and operational plans;  
(4) Location of footpaths subject to inspection by GSC Officers to confirm locations and quantities prior to construction.



**Gunnedah Shire Council PAMP - Schedule of Works**

<b>Gunnedah - Replace Substandard Kerb Ramps</b>						
<b>Item</b>	<b>Location</b>	<b>Work Proposed</b>	<b>Number</b>	<b>Justification</b>	<b>Estimated Cost</b>	<b>Road Classification</b>
40	Bloomfield Street & Boundary Road intersection	Replace one (1) substandard kerb ramp	1	Existing kerb ramp does not meet the existing design criteria	\$1,000	Local
41	Bloomfield Street & Wentworth Street intersection	Replace three (3) substandard kerb ramps	3	Existing kerb ramp does not meet the existing design criteria	\$3,000	Local
42	Bloomfield Street & Osric Street intersection	Replace one (1) substandard kerb ramp	1	Existing kerb ramp does not meet the existing design criteria	\$1,000	Local
43	Bloomfield Street & Henry Street intersection	Replace three (3) substandard kerb ramps	3	Existing kerb ramp does not meet the existing design criteria	\$3,000	Local
44	Bloomfield Street & Abbott Street intersection	Replace six (6) substandard kerb ramps	6	Existing kerb ramp does not meet the existing design criteria	\$6,000	Local
45	Bloomfield Street & Marquis Street intersection	Replace four (4) substandard kerb ramps	4	Existing kerb ramp does not meet the existing design criteria	\$4,000	Local
46	Bloomfield Street & Chandos Street intersection	Replace three (3) substandard kerb ramps	3	Existing kerb ramp does not meet the existing design criteria	\$3,000	Local
47	Conadilly Street & Rosemary Street intersection	Replace two (2) substandard kerb ramps	2	Existing kerb ramp does not meet the existing design criteria	\$2,000	Classified (State)
48	Conadilly Street & Tempest Street intersection	Replace four (4) substandard kerb ramps	4	Existing kerb ramp does not meet the existing design criteria	\$4,000	Classified (State)
49	Conadilly Street & Henry Street intersection	Replace eight (8) substandard kerb ramps	8	Existing kerb ramp does not meet the existing design criteria	\$8,000	Classified (State)
50	Conadilly Street & Osric Street intersection	Replace seven (7) substandard kerb ramps	7	Existing kerb ramp does not meet the existing design criteria	\$7,000	Classified (State)
51	Conadilly Street & Wentworth Street intersection	Replace four (4) substandard kerb ramps	4	Existing kerb ramp does not meet the existing design criteria	\$4,000	Classified (State)
52	Conadilly Street & Carroll Street intersection	Replace four (4) substandard kerb ramps	4	Existing kerb ramp does not meet the existing design criteria	\$4,000	Classified (State)
53	Conadilly Street & Stanley Street intersection	Replace two (2) substandard kerb ramps	2	Existing kerb ramp does not meet the existing design criteria	\$2,000	Classified (State)
54	Little Barber Street - New Street to Henry Street	Replace fifteen (15) substandard kerb ramps	15	Existing kerb ramp does not meet the existing design criteria	\$15,000	Local
55	Barber Street & New Street intersection	Replace one (1) substandard kerb ramp	1	Existing kerb ramp does not meet the existing design criteria	\$1,000	Local
56	Barber Street & Rosmary Street intersection	Replace five (5) substandard kerb ramp	5	Existing kerb ramp does not meet the existing design criteria	\$5,000	Local
57	Barber Street & Tempest Street intersection	Replace three (3) substandard kerb ramp	3	Existing kerb ramp does not meet the existing design criteria	\$3,000	Local
58	Barber Street & Chandos Street intersection	Replace three (3) substandard kerb ramp	3	Existing kerb ramp does not meet the existing design criteria	\$3,000	Local
59	Barber Street & Marquis Street intersection	Replace eight (8) substandard kerb ramps	8	Existing kerb ramp does not meet the existing design criteria. Consideration should be given to relocate the kerb ramps such that pedestrians are not walking on the edge of the travel lanes of the roundabout	\$8,000	Local
60	Barber Street & Elgin Street intersection	Replace one (1) substandard kerb ramp	1	Existing kerb ramp does not meet the existing design criteria	\$1,000	Local
61	Barber Street & Henry Street intersection	Replace two (2) substandard kerb ramp	2	Existing kerb ramp does not meet the existing design criteria	\$2,000	Local
62	Barber Street & Osric Street intersection	Replace two (2) substandard kerb ramp	2	Existing kerb ramp does not meet the existing design criteria	\$2,000	Local
63	Wandobah Road & Short Street intersection	Replace one (1) substandard kerb ramp	1	Existing kerb ramp does not meet the existing design criteria	\$1,000	Local
64	Wandobah Road & High Street intersection	Replace one (1) substandard kerb ramp	1	Existing kerb ramp does not meet the existing design criteria	\$1,000	Local
65	Wandobah Road & Bando Street intersection	Replace two (2) substandard kerb ramp	2	Existing kerb ramp does not meet the existing design criteria	\$2,000	Local
66	Bridge Street & Jensen Street intersection	Replace one (1) substandard kerb ramp	1	Existing kerb ramp does not meet the existing design criteria	\$1,000	Local
67	Bridge Street - Stock Road to Hunter Street	Replace eight (8) substandard kerb ramps	8	Existing kerb ramp does not meet the existing design criteria	\$8,000	Local
68	Rodney Street - George Street to South Street	Replace thirteen (13) substandard kerb ramps	13	Existing kerb ramp does not meet the existing design criteria	\$13,000	Local
69	Anzac Parade - Hunter Street to South Street	Replace nine (9) substandard kerb ramps	9	Existing kerb ramp does not meet the existing design criteria	\$9,000	Local
70	Hunter Street - South Street to View Street	Replace ten (10) substandard kerb ramps	10	Existing kerb ramp does not meet the existing design criteria	\$10,000	Local
			<b>137</b>	<b>Subtotal</b>	<b>\$137,000</b>	

Notes:- (1) Estimated costs are inclusive of traffic control provisions during construction;  
(2) Estimated costs are current as at August 2016  
(3) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual delivery programs and operational plans;  
(4) Location of footpaths subject to inspection by GSC Officers to confirm locations and quantities prior to construction.

**Gunnedah Shire Council PAMP - Schedule of Works**

<b>Gunnedah - Kerb Extensions</b>						
<b>Item</b>	<b>Location</b>	<b>Work Proposed</b>	<b>Generator</b>	<b>Justification</b>	<b>Estimated Cost</b>	<b>Road Classification</b>
71	Marquis Street - Reservoir Street to South Street	Kerb extensions for existing marked pedestrian crossing	School and Health Services Buildings	Marquis Street is wide and kerb extensions will assist in traffic calming whilst also providing pedestrians with improved pedestrian facilities.	\$20,000	Local
72	Conadilly Street at the Henry Street Intersection	Kerb extensions for existing marked pedestrian crossing	Residential & School	Conadilly Street is wide and kerb extensions will assist in traffic calming whilst also providing pedestrians with improved pedestrian facilities.	\$20,000	Classified (State)
<b>Subtotal</b>					<b>\$40,000</b>	
<b>Total</b>					<b>\$711,200</b>	

Notes:- (1) Estimated costs are inclusive of traffic control provisions during construction;

(2) Estimated costs are current as at August 2016

(3) It is recommended that the estimated costs be adjusted in accordance with the CPI rate for the preparation of future annual delivery programs and operational plans;

(4) Location of footpaths subject to inspection by GSC Officers to confirm locations and quantities prior to construction.