



COMMITTEE 4 WAGGA
SUBMISSION TO THE WAGGA WAGGA
INTEGRATED TRANSPORT STRATEGY
MARCH 2017

Contents

Background.....	3
General Comments.....	3
Committee 4 Wagga Priority Projects.....	5
Glenfield Road Upgrades.....	5
Gobbagombalin Bridge Duplication.....	6
Alternate Route.....	7
Active Travel Plan.....	9
Response to the Peer Review and Summary of Findings Report.....	10
Pedestrians.....	10
Bike Riding.....	12
Public Transport.....	15
Private Cars.....	16
Parking.....	20
Freight.....	21
Land Use.....	22
Projects for Consideration.....	25
Appendix A – C4W Alternate Route Options.....	27
Appendix B – Images.....	28

Background

The Committee 4 Wagga is a member based, self-funded, independent organisation representing 65 member organisations that collectively employ over 4,500 people. C4W works with the community, local businesses and all levels of government to champion positive change for a better city and seeks to achieve the following outcomes:

- Support and promote the city to ensure accelerated population growth
- Identify and implement opportunities that will enhance our cultural, social, business and economic prosperity
- Provide a platform for community, business and government collaboration to effect positive change

C4W have participated in consultation and provided both written and verbal feedback to the Integrated Transport Strategy process at various intervals. The following submission responds to the strategies and projects identified within the Peer Review and Summary of Findings Report published on Council's behalf by MRCagney on February 20, 2017.

General Comments

C4W is supportive of Council undertaking the development of an integrated transport strategy and believes the document can be an important resource to facilitate growth and progress. In a recent survey of C4W members, the Integrated Transport Strategy was rated as the city's most important strategic document. This emphasises the need to produce a collaborative, cohesive document planning for the infrastructure that is essential to support, sustain and ultimately encourage the city's growth. Further to this, over 60% of survey respondents rate the provision of infrastructure to match and facilitate growth as the city's biggest challenge.

The process developing the document has to date been fragmented and poorly managed, however C4W is hopeful recent consultation and feedback can result in a strong document with positive outcomes for Wagga Wagga. C4W is supportive of the broad land use strategies described within the Peer Review Report however does not believe the report has proposed strong, practical solutions and strategies to resolve either current traffic issues or long term opportunities within the city. Significant congestion at key locations is currently constraining the city's growth and it is important to recognise the need to plan and prepare to resolve these issues within documents such as the Integrated Transport Strategy.

It is acknowledged the Peer Review Report is a summary of findings, and not necessarily designed to identify projects at a micro level. This is however a significant concern for C4W and appears to be a gap in the published documents to date. Without aligning the strategies within the report to projects and priorities there is no clear direction with regards to the practical implementation, and the strategy will be adopted with no accountability or follow through on tangible outcomes. It is worth noting examples of Integrated Transport Strategies undertaken in cities such as Wodonga (Vic), Geraldton (WA) and the City of Ryde (NSW) featuring priority projects aligned to the strategy.

Further to this, the Wagga Wagga Integrated Movement Study published in 2008 listed a significant number of projects and recommendations - the overwhelming majority (85%) have not been actioned. While it is acknowledged over the course of time traffic conditions change and solutions will evolve with best practice, it is concerning the 2008 report was adopted by Council for implementation and from a desktop analysis only 15% of the locations identified have received some form of improvement, in most case the works completed have departed from the treatment recommended within the strategy. It should be noted C4W does not necessarily support all recommendations and projects listed within the 2008 study, however does believe this demonstrates careful consideration, commitment and follow through is required when adopting strategies of this significance.

C4W believes the Integrated Transport Strategy should be developed in the city's best interests and based on the best outcomes required to facilitate effective movement around the city. If this underlying principle is maintained it is likely the strategy will consist of recommendations that conflict with the views of other levels of Government. This strategy is for the city of Wagga Wagga first and foremost and should not allow the mix of road ownership and maintenance responsibilities shared between Local Government and the NSW Government to distract and influence the recommendations. Rather, recommendations for the best, most effective solution to integrated movement in the city should be identified within the strategy, followed by determining the path required to achieve the outcomes.

A significant concern of C4W's in relation to transport planning and strategy is lack of long-term vision. The Integrated Transport Strategy proposes to consider and address the city's movement issues and opportunities through until 2043. While the recommendations relating to land use contained within the Peer Review Report will have an impact in the long term, the strategies and recommendations published to date do not identify specific transport issues and opportunities over a 20, 30 or 50 year planning horizon. The Peer Review Report provides limited solutions to a small number of current, short-term issues, however does not account for the inevitable growth of Wagga Wagga to 80,000 people by 2036 and 100,000 by 2060. It is therefore vitally important to plan for this growth by preserving road corridors, acquiring land, and setting aside adequate funding sources for future use. The strategy should also consider long term national projects likely to impact Wagga Wagga, such as the Inland Rail project and the High Speed Rail project. Forward planning and commitment will ensure the city is on the front foot and moving towards a clear vision for growth and prosperity.

Committee 4 Wagga Priority Projects

C4W is currently in the process of developing an updated strategic plan to outline the vision and priorities for the city over the short and long term. For the purpose of this submission, the key transport related projects detailed within the updated Plan have been outlined below including C4W's recommendation. References to these projects have been made elsewhere throughout the submission and the full Strategic Plan is expected to be published in April 2017.

Glenfield Road Upgrades

An integrated solution encompassing both the double roundabouts at Dobney Avenue and duplication of the rail overpass to provide four travelling lanes is required initially to reduce pressure on the route before ultimately duplicating the 2.9kms of road from the southern roundabout on Pearson Street through to the Red Hill Road intersection. The road is one of the most congested in the city (refer to image in Appendix B) and the main arterial route to and from the central business area for an estimated 8,000 residents. As further residential development occurs in Springvale and Lloyd this figure will increase to over 11,000 by 2034. In addition, the Dobney Avenue roundabouts are becoming more and more accident prone as congestion increases.

There are currently 4 major road crossings (either under, over or at grade) of the Main Southern Railway Line servicing the residents living in suburbs south of the central business area: Lake Albert Road, Bourke Street, Edmondson Street and Glenfield Road. Of the 4 crossing points, Glenfield Road is the only route catering for two travelling lanes as opposed to four. By providing a solution to the current bottleneck at the rail overpass, more traffic will be encouraged to use the route as an alternative to Bourke Street and discussions can commence with RMS to reallocate regional road status from Bourke Street to Glenfield Road. This will be a positive outcome and establish Glenfield Road as the main north-south feeder road and transfer traffic volume away from the medical precinct.

The recommendations for Glenfield Road within the Peer Review Report relate to improving intersection design and states that providing more road space will not ease congestion. This contradicts the findings noted within the issues and opportunities section of the GTA Technical Report suggesting the road may require duplication as housing development increases pressure. Further to this the 2008 Integrated Movement Study indicated Glenfield Road was experiencing a level of service (in terms of road capacity and traffic volumes) bordering on unacceptable, particularly north of Fernleigh Road. The 2008 study recommended monitoring the roads growth and operational performance to inform when widening the road to 4 lanes would be necessary.

C4W recommends traffic studies are undertaken along the 3.6km corridor encompassing Glenfield Road, Pearson Street and the Dobney Avenue roundabouts to develop an integrated solution. Currently over \$4.4M have been allocated to Glenfield Road works through Section 94 contributions and the project is scheduled to commence in 2017/18 as per the WWCC Long Term Financial Plan. The Integrated Transport Strategy provides an excellent opportunity to confirm Council's commitment to the project and leverage any additional funds required through State or Federal Government grant opportunities.

Gobbagombalin Bridge Duplication

The Peer Review Report references the need to limit and ultimately prevent development north of the river as a mechanism for reducing the reliance on the Gobbagombalin Bridge as a local commuter road. However, this policy cannot be applied in retrospect and congestion on the bridge is a current issue likely to get worse, even if further development was limited. Therefore practical and realistic solutions should be proposed to resolve current issues, in addition to long term strategies such as land use. C4W also does not accept the notion that the Gobbagombalin Bridge is unlikely to be upgraded in the foreseeable future due to the estimated cost of the project, and challenges the \$400M figure quoted within the report. Further to this the consultant verbally quoted a figure of \$600M to duplicate the bridge during a recent presentation of the report's findings to stakeholders. These figures are alarmist, exaggerated for effect and should not be introduced without firm basis and evidence.

Pressure on the two-lane Gobba Bridge is high, with heavy congestion often occurring during the morning and afternoon peak hour (refer to image in Appendix B). In addition, traffic flow on the bridge is significantly affected by accidents, breakdowns and slow traffic such as heavy freight or machinery, with the potential to cause lengthy delays and long diversions. The bridge is also unable to support alternative modes of transport such as walking or riding.

A further 1,700 blocks of land currently approved for residential development are yet to be subdivided north of the bridge (HIA Land Monitor 2015/16), potentially boosting the area's population to over 13,000 within the next 10 years based on current rates of development and average household sizes. As residential activity continues to occur north of the city consideration must be given to the inevitable congestion as local traffic mixes with regular users of the busy highway.

RMS Traffic counts on the bridge in 2010 indicate over 13,300 movements each way on a daily basis. This is an increase of 33% from counts in 2006 (10,000 movements). The following table indicates the traffic movements on the bridge using the same growth rate evidenced between 2006 and 2010, approximately 7% per year.

Year	Vehicle Movement Projections p/day
2010	13,371
2015	18,700
2020	26,200
2025	36,800
2030	51,700

The projected movement data suggests traffic on the bridge will double between 2015 and 2025, therefore C4W recommends that planning commence and future funding sources are identified to ensure duplication of the bridge can occur when demand exceeds capacity. It should be noted this is likely to occur regardless of future decisions relating to land use north of the river based on the residential land already approved for development and organic growth in traffic volumes along the Olympic Highway.

Alternate Route

In 2015 C4W engaged GHD to identify alternative highway routes to be considered and applied in preliminary planning for an alternate route of the city, the latest version of this document has been provided as Appendix A to this submission. The analysis identified an alternate route to the south of the city as the preferred option (Appendix A, green line) due to more suitable topography and the use of flood free land requiring fewer bridge upgrades or constructions. In addition to the southern route the GHD analysis identified a second option (Appendix A, blue line) for consideration as an immediate, internal route with capacity to cater for diverted Sturt Highway traffic until 2025.

As a result of the work deliver by GHD, the Committee 4 Wagga received a commitment from the NSW Government to undertake a corridor study, specifically to understand the issues and opportunities relating to alternative routes for the Sturt Highway at Wagga Wagga. \$100,000 has subsequently been committed to the RMS to manage the study and it is expected a report will be made available in mid-2017. The Integrated Transport Study should consider and ultimately inform the corridor study as to the short term and long term solutions that will be in the best interests of the city. It is disappointing the Peer Review Report has not considered the work undertaken by C4W relating to alternate routes more thoroughly and has instead made comments referencing the limited influence Council can have relating to this project. The strategy should instead identify what is best for the city, regardless of road ownership or the level of local influence towards a particular project.

The upgrade and development of the road network linking the Sturt Highway to the Riverina Intermodal Freight and Logistics Hub at Bomen should not be considered a component of an alternative route for traffic bypassing the city. Rather, the Bomen Business Park should be acknowledged and designed as a destination for freight activities. This may result in investment from the commercial sector in truck stop facilities and a dedicated trailer interchange, however it will not constitute as a suitable alternative route.

The alternative route must be designed to encourage heavy vehicle use (rather than coerce it) and should therefore offer a more efficient and effective route to the current Sturt highway. The southern route (Appendix A, green line) identified within the GHD route analysis begins east of Forest Hill and circumnavigates the city to the south, traversing mostly farm land before re-joining the Sturt Highway after approximately 33kms. While the current route along the Sturt Highway is indeed shorter at approximately 27kms, the proposed route would allow heavy vehicles to maintain higher speeds for longer periods, rather than contending with local traffic, pedestrians, school zones, traffic lights and roundabouts as they currently do on their way through Wagga Wagga. For example, a vehicle travelling along the current Sturt Highway averaging 60kms between Forest Hill and Yarragundry (as per points A and E in Appendix A) will take approximately 27 minutes. In contrast, a vehicle travelling along the proposed southern route averaging 80kms p/hour will take approximately 24 minutes from point to point. Therefore the proposed route will reduce the travel time overall and result in operating efficiencies for heavy vehicles.

The Peer Review Report notes a business case for an alternative route would consider the capital expense of developing the necessary road infrastructure against the benefits of increased land value, better road user experience and a reduction in road and street wear and tear. In addition to these benefits it is possible to achieve significant efficiency gains for heavy freight vehicles passing through Wagga Wagga. It is also worth noting that a business case for an alternate route is unlikely to indicate the project is financially viable, as many of the benefits realised by alternate routes are difficult to quantify and have a more qualitative outcome, for example:

- Contribute to progression and maturity of the city as a modern, people friendly place
- Discourage trucks to use highly visible public areas or residential streets to de-couple and change drivers (see image in Appendix B)
- Transfer to local Council the ownership and maintenance responsibility of the city's most visible, high profile stretch of road. The corridor can be beautified and enhanced to a higher standard befitting of a major Australian city. The road is currently unappealing and unwelcoming to both residents and visitors to the city
- Improve safety and amenity users of the road on alternative modes of transport, such as pedestrians and cyclists
- Significantly reduce the chance of a severe accident involving heavy vehicles
- Enable increased residential and commercial development opportunities in the central business area that is currently restricted and constrained by safety concerns, noise, vibrations and pollution

C4W recommends planning for this project commences, beginning with identification of the most suitable alternative route to ensure appropriate zoning and preservation of the road corridor can occur.

Active Travel Plan

C4W supports the objectives and network selection outlined within the Active Travel Plan and encourages Council to continue working with Transport for NSW to secure partnership funding for full implementation of the Plan. The city's commuter cycling network is currently underutilised and fragmented, requiring investment to complete dedicated connections between the outer suburbs and the central business area. Establishing the full active travel network will significantly enhance connectivity and liveability within the city while also generating opportunities for new visitor experiences.

The intent and objectives of the Plan are strongly supported however it should be noted that some sections of the 5 route network may need further consideration and consultation with key stakeholders. For example, the Central Link crossing at the intersection of Murray Street and the Sturt Highway could potentially be reconsidered to result in a more suitable solution that includes upgrading the most suitable over bridge pedestrian crossing. The current over rail pedestrian crossings at Brookong Avenue and Railway Street are unlikely to be compliant with current mobility standards and will potentially need replacement as part of the inland rail project. Therefore, the Active Travel Plan presents a suitable opportunity to undertake these upgrades to provide an integrated solution.

If the funding commitment is not forthcoming C4W supports a staged roll out of the plan according to the routes and facilities deemed the highest priorities through further consultation with key stakeholders. Support for a staged roll out is conditional on a commitment to see the plan delivered in its entirety, including suitable end of trip facilities.

C4W also notes its support for the Wagga Wagga to Ladysmith Rail Trail project required to enable the majority of the proposed Forest Hill link. The Wagga Rail Trail Project is important to the community as it will activate an unutilised community asset into a practical transport route and diversify the experiences offered to visitors.

Response to the Peer Review and Summary of Findings Report

The following section has identified and extracted the strategies, recommendations or projects from the Peer Review and Summary of Findings Report published by MRCagney on February 20, 2017. In some instances the extracts taken from the report and presented below have been edited to remove un-necessary context or references, therefore it is suggested the C4W feedback is read in conjunction with the full report.

Pedestrians

Page Ref.	Key Strategies and Recommendations	C4W Response	Comments
#7	The city should review its subdivision standards to ensure poor quality streets do not continue to spread throughout the region.	Support	C4W supports the recommendations within the Peer Review Report to consider updated subdivision standards to encourage better pedestrian connections and mobility in new suburbs.
#17	Update the planning requirements to include satisfactory rather than minimum pedestrian requirements for all new developments. This means minimum width walkways of 2m to allow people to walk side-by-side.	Support	In addition to updating planning requirements to account for future development, it is necessary to continue with progressive upgrades to the existing network. Refer to the 2008 Integrated Movement Study that identified 110 projects, many related to improving footpaths and pedestrian connectivity. Of the 110 projects less than 10% have been actioned as recommended within the strategy and a total of approximately 15% have received some form of treatment. The majority of these recommendations are likely to still be relevant and could be reviewed for currency and included within the Integrated Transport Strategy as a re-commitment.

#17	Make it obvious to all patrons/students that the mode of choice for accessing schools in Wagga Wagga is on foot. 2m paths, shade and creating low speed streets needs to be a priority.	Support	C4W support this as an idealistic outcome however notes the various deterrents such as distance, extreme weather conditions during Summer or Winter and legitimate safety concerns of parents. A significant portion of school children travel to school by either car or bus, in some instances over long distances from one side of the city to the other.
#17	The intersections in the CAD need some review. They are too wide and expansive for proper operation of the “Barnes Dance” or scramble intersections. To reduce the crossing width on all legs would be preferable, as there are no traffic capacity issues.	Support	C4W supports this recommendation and also notes support for the GTA recommendation to consider developing spaces similar to Hargreaves Street and Bull Street in Bendigo, VIC. This treatment is referenced as an example of best practice on page #21 of the Technical Report. C4W also encourages Council to consider the concept of shared zones in the city's central business area, specifically Baylis Street.
#17	There is need for some alignment between the street tree program and the pedestrian program. Street trees are a key element in making people feel welcome in a street and create a wonderful pedestrian environment.	Support	

Bike Riding

Page Ref.	Key Strategies and Recommendations	C4W Response	Comments
#8	It is considered that the strategy outlined in the GTA Background Report and the Active Travel Plan, recently adopted by Council, are appropriate, as they set out core routes through the city, which will ultimately attract development to these corridors.	Support	<p>C4W supports the objectives and network selection outlined within the Active Travel Plan developed by Council as a component of the Integrated Transport Strategy. The city's commuter cycling network is currently underutilised and fragmented, requiring investment to complete dedicated connections between the outer suburbs and the central business area.</p> <p>The intent and objectives of the Plan are strongly supported however it should be noted that some sections of the network may need further consideration and consultation with key stakeholders. For example, the Central Link crossing at the intersection of Murray Street and the Sturt Highway could potentially be reconsidered to result in a more suitable solution that includes upgrading the most suitable over bridge pedestrian crossing. The current over rail pedestrian crossings at Brookong Avenue and Railway Street are unlikely to be compliant with current mobility standards and will potentially need replacement as part of the inland rail project. Therefore, the Active Travel Plan presents a suitable opportunity to undertake these upgrades to provide an integrated solution.</p> <p>If the funding commitment is not forthcoming C4W supports a staged roll out of the plan according to the routes and facilities deemed the highest priorities through further consultation with key stakeholders. Support for a staged roll out is conditional on a commitment to see the plan delivered in its entirety, including suitable end of trip facilities.</p>

#8	The routes need to be direct and have priority over cars in a general sense. The routes should be protected (on road elements, separated and protected from vehicles), should be free of roundabouts, should be subject to adequate casual surveillance and should be rideable by an unsupervised primary school child.	Support	
#8	It will also be important to develop some standard treatments to develop the 'infill' network. That is, as maintenance, infill development and even routine resurfacing occurs, bike facilities should be implemented as a matter of course to an agreed standard.	Support	<p>This recommendation is important in regards to the implementation of the Active Travel Plan. Development of the network is strongly supported by C4W however it should not be at the expense of existing cycling infrastructure, particularly the current on-road network that is in some sections fragmented. For example some areas of the current network feature poor quality surfacing on hard shoulders, no provision for hard shoulders, fading or non-existent line marking and irregular cleaning of cycling lanes.</p> <p>The significance of this recommendation is highlighted by the recent redevelopment of Eunony Bridge Road. The redevelopment provided a requirement by the State Government to include a provision for cycling lanes, however they were not included. This has increased the risk of cyclists interfacing with heavy vehicles and reduced the chance of the route being used as a connector between East Wagga Wagga and North Wagga Wagga. Further to this, the Eunony Bridge is scheduled to be replaced and provision for cycling lanes should be included to avoid a similar situation to the deficiencies of the Gobbagombalin Bridge. This will result in a fragmented network that has lacked vision and sacrificed investment for short term financial gains that will ultimately cost more in the long run.</p> <p>In a further example, the parking lane was recently removed on the western side of Docker Street to re-align traffic and make way for a traffic island. This resulted in the loss of suitable space for cyclists, increased risk and further fragmentation of the network.</p>

#17	Bike use approaching 10% is an excellent indicator of an excellent demographic profile, an excellent land use pattern and well-designed streets. This would be a great target for Wagga Wagga, and once again position it as a regional city leader.	Support	<p>C4W is supportive of increasing active transport within the city, evidenced by its recent initiatives such as the Share The Road campaign and the Lights 4 Lake projects.</p> <p>The Share The Road campaign is a public safety initiative to raise awareness and encourage a safe environment for vehicles and cyclists on the city's road network. Outcomes of the campaign included identifying popular regional cycling routes in and around Wagga, establishing new signage, launching a voluntary code of conduct for cyclists and promoting safety awareness via media to motorists and cyclists.</p> <p>The Lights 4 Lake project encourages increased walking and cycling by providing lighting along the Lake Albert walkway (5.5km). The installation of 104 solar light posts have extended the time at both morning and night when the walking track is used.</p>
-----	--	---------	---

Page Ref.	Identified Projects	C4W Response	Comments
#17	Build the North link of the principal bikeway network.	Support	Support the proposed alignment of the Northern Link, including development of a pedestrian river crossing at the end of Boorooma Street and linking up with the Wiradjuri Walking Track at the Marrambidya Wetlands.
#17	Provide the end of trip facilities in the CAD.	Support	Support the development of end of trip facilities and the locations identified. The provision of end-of-trip facilities is critical to the success of the network and should be considered an essential component when requesting/allocating funding for the project.
#17	Build the Forest Hill Link.	Support	C4W notes support for the Wagga Wagga to Ladysmith Rail Trail project required to enable the majority of the proposed Forest Hill link.
#17	Adopt new contemporary on street bike standards	Support	Note earlier comments relating to the importance of developing the infill network.

Public Transport

Page Ref.	Key Strategies and Recommendations	C4W Response	Comments
#12	Leave the existing coverage routes in place, and enhance service on the patronage route as funds become available, supported by a land use strategy that concentrates growth in mixed use clusters along these bus routes.	Support	<p>Support as a low priority within the Strategy.</p> <p>Service levels and route coverage of public transport will be most effectively determined by the private operator as a function of demand. Currently there is limited demand for the service and the private operator has little incentive to make the system more commercially viable. Changes to the frequency and coverage of the service are unlikely to change the level of patronage in the short to medium term and public transport should be considered a low priority within the strategy.</p>

Page Ref.	Identified Projects	C4W Response	Comments
#18	In conjunction with TfNSW allow for the build-up of higher density and mixed land use on the primary patronage bus routes. Note that this project is very dependent on the land use integration and parking outcomes before any serious discussions can commence on providing higher frequency bus routes.	Support	Support as a low priority within the Strategy. Please note the earlier comments related to public transport.

#18	Examine the Baylis Street bus route to look at improvements to provide consistency to timetables. Examine midblock crossings and signal timings.	Support	Support as a low priority within the Strategy. Please note the earlier comments related to public transport.
-----	--	---------	--

Private Cars

Page Ref.	Key Strategies and Recommendations	C4W Response	Comments
#12	Land use patterns must allow people more varied travel choices and allow the public transport services to be more competitive.	Support	C4W supports this recommendation however notes this will be most effectively influenced through planning documents such as the Local Environment Plan and Development Control Plan.
#12	A smooth flowing network for car traffic is of virtually no benefit to the city and in fact it is more likely to have a negative impact overall.	Don't Support	<p>C4W does not support this theory and believes it has only considered the impact of cars in the central business area and does not account for the benefits a smooth flowing traffic network will have on commuters and local freight transport. A smooth flowing car network is a desirable function of a city and results in the following benefits:</p> <ul style="list-style-type: none"> • Reduced travel times from home to work resulting in more time at home and less time sitting in traffic, therefore ensuring the city's liveability is maintained and enhanced. • Reduced travel times will also lead to reduced emissions and fuel consumption • Improved efficiency of transporting goods therefore increasing productivity • Maintaining the city's appeal as a desirable location with shorter travel times when compared to metropolitan areas.

Page Ref.	Identified Projects	C4W Response	Comments
#18	Replace roundabout intersections on Glenfield Road with signals commencing with the 'dual roundabouts' at Pearson Street and Dobney Avenue.	Don't Support	<p>This project should not be considered in isolation to the work required on Glenfield Road. Please refer to the comments relating to Glenfield Road and the likelihood this corridor will require duplication in the near future. C4W recommends traffic studies are undertaken along the 3.6km corridor encompassing Glenfield Road, Pearson Street and the Dobney Avenue roundabouts to develop an integrated solution, establish a future capital work schedule and secure the necessary funding requirements.</p> <p>It should be noted that upgrades to Glenfield Road including duplication works are scheduled within the current Wagga Wagga City Council S94 plan. \$4.4M has been collected to date and the project is listed to commence in 2017/18.</p>
#18	Re-design and possibly even remove the intersection of the Olympic Highway and Travers Street and seek an alternative access from North Wagga around the race track to the CBD. This will improve safety on the Gobbagombalin Bridge.	Don't Support	<p>Consideration has not been given to the impacts of this recommendation on the Toll depot, a busy local and interstate freight depot located on Travers Street. While the depots location in central Wagga Wagga is historical rather than strategic it results in heavy vehicles frequently joining or exiting the Olympic highway at the Travers Street intersection.</p> <p>Support to restrict vehicles turning left off the bridge could be considered if Kincaid Street was converted to a 60km street capable of accommodating higher volumes of traffic destined for the central business area. In addition, consultation with Toll and other freight operators utilising the intersection is required before support for this recommendation could be provided.</p>

#13	<p><u>Glenfield Road/Bourke St:</u> The frustration experienced by drivers in these locations is caused by intersection design more than lack of mid-block traffic capacity. Providing more road space will not improve driving conditions in this situation. Intersections that could be upgraded are outlined in the GTA Background Report.</p>	Don't Support	<p>C4W does not support the recommendation that improved intersection design can alleviate the congestion along Glenfield Road, specifically at the rail overpass between Pearson Street and Fernleigh Road. There are currently 4 major road crossings (either under, over or at grade) of the Main Southern Railway Line servicing the residents living in suburbs south of the central business area: Lake Albert Road, Bourke Street, Edmondson Street and Glenfield Road. Of the 4 major crossing points, Glenfield Road is the only route catering for two travelling lanes as opposed to four.</p> <p>This recommendation contradicts the issues and opportunities noted within the GTA Technical Report suggesting the road may require duplication as housing development increases pressure. Further to this the 2008 Integrated Movement Study indicated Glenfield Road was experiencing a level of service (in terms of road capacity and traffic volumes) bordering on unacceptable, particularly north of Fernleigh Road. The 2008 study recommended monitoring the roads growth and operational performance to inform when widening the road to 4 lanes would be necessary.</p> <p>In addition, C4W encourages consultation with ARTC regarding the Inland Rail project and the likely impact on the bridge overpass. The Inland Rail project will either rebuild bridges or lower track in sections that do not allow for double stacked freight. It should be noted this issue will also be addressed at the two pedestrian bridges and the Edmondson Street overpass.</p> <p>C4W recommends traffic studies are undertaken along the 3.6km corridor encompassing Glenfield Road, Pearson Street and the Dobney Avenue roundabouts to establish an integrated solution and confirm a capital works program as per the S94 funds collected to date.</p>
-----	---	---------------	---

#13	<p><u>Gobbagombalin Bridge:</u> It is unlikely that the capacity of this bridge will be increased within the foreseeable future. As a result the market will determine for itself when it stops. Northern development will direct traffic to the Gobbagombalin Bridge which has finite capacity, and secondly may well encourage commercial retail development to leak over the river to give these residents services. Either way the city is worse off.</p>	Don't Support	<p>C4W does not support the statements regarding the improbability of the Gobbagombalin Bridge duplication.</p> <p>The report recommends limiting and ultimately preventing development north of the river as a mechanism for reducing the reliance on the Gobbagombalin Bridge as a local commuter road. However, the report does not accept this policy cannot be applied in retrospect and congestion on the bridge is a current issue likely to get worse, even if further development was limited. Therefore practical and realistic solutions should be proposed to resolve current issues in addition to considering long term strategies relating to land use.</p> <p>Demand for residential development in suburbs such as Estella, Boorooma and Gobbagombalin has to date been strong and consistent, increasing the population of residents in suburbs north of the river from just 2,000 people in 2006 to an estimated 8,000 in 2016, an increase of over 300%. In addition, the student capacity of Charles Sturt University's campus is approximately 3,200. Census data suggests approximately 65% of Wagga Wagga residents travel to work by car and a further 5% travel by car as a passenger. Therefore currently about 5,200 people are likely to commute locally on the bridge at a minimum of twice daily, accounting for more than 10,000 trips.</p> <p>A further 1,700 blocks of land are approved for residential development north of the bridge including a neighbourhood shopping centre and supermarket. A NSW Government School has also been strongly considered. The approved development will potentially boost the area's population to over 13,000 within the next 10 years based on current rates of development and average household sizes. Please note the traffic movement projects in the priority projects section at the beginning of this document.</p> <p>Considering this information, restricting future residential zoning and development north of the river will do little to ease the congestion currently experienced on the bridge.</p>
-----	---	---------------	--

#13	The intersection of the Olympic Highway and Old Narrandera Road is an issue that probably can be addressed for safety, and this intersection should probably be closed and traffic diverted back to the Boorooma Street interchange. This further reinforces the need to limit development.	Don't Support	This intersection is a recognised safety issue and improvements through a redesign are supported, however C4W does not support the closure of the intersection based on the continued growth of Estella and Gobbagombalin.
-----	---	---------------	--

Parking

Page Ref.	Key Strategies and Recommendations	C4W Response	Comments
#18	Remove the minimum parking rate on future development in the CAD.	Further Consultation Required	C4W believes consultation with key stakeholders specific to this recommendation is required before considering its implementation.
#18	Introduce paid parking into the CAD which will in turn allow the private sector to provide more parking.	Support	C4W is not opposed to considering paid parking within Baylis street, however support is conditional on the introduction of additional measures designed to spread the parking load and better utilise the city's current assets. For example, improved directional signage and the introduction of smart city technology can significantly improve the efficiency of parking in high demand areas. Smart city technology can combine digital signage indicating parking availability with smart phone technology transmitted across a city Wi-Fi network. Paid parking in Baylis Street must also be complimented with choice and flexibility through the continual provision of free parking options at other locations in close proximity to the central business area.

#18	Examine the parking rates for other uses in the city as a mechanism for creating more desirable development in the right places.	Support	
-----	--	---------	--

Freight

Page Ref.	Key Strategies and Recommendations	C4W Response	Comments
#19	Confirm Bomen as preferred location for freight centre.	Conditional Support	<p>C4W has advocated strongly for the continued development of the Bomen Business Park, specifically the Riverina Intermodal Freight and Logistics Hub project. Commitment from all levels of Government to recognise Bomen's regional importance to freight and logistics should continue and C4W supports the recommendation on that basis.</p> <p>Support is conditional provided the upgrade and development of the road network linking the Sturt Highway to the Riverina Intermodal Freight and Logistics Hub at Bomen is not considered a component of an alternative route for traffic bypassing the city.</p>
#19	Implement and future proof Bomen road network improvement program for full HML account and future vehicle size increases.	Support	Support this recommendation as essential to the Riverina Intermodal Freight and Logistics Hub however note it should not be considered a component of an alternative route for traffic bypassing the city.
#19	Work with freight operators to encourage them moving out to Bomen, including incentives such as shared driver vehicle facilities (food, accommodation, truck washing, secure layover), and rezoning of current lands.	Support	The Bomen Business Park should be acknowledged and designed as a destination for freight activities, and not considered an alternative route for highway traffic. Further development of the business park and investment in the heavy vehicle road network may result in investment from the commercial sector in truck stop facilities and a dedicated trailer interchange, however it will not constitute as a suitable alternative route.

Land Use

Page Ref.	Key Strategies and Recommendations	C4W Response	Comments
#16	Minimum parking rates, height limits, density limits etc. all make development that is very desirable to the city less desirable to the development industry. More of this inner urban mixed use development will vastly improve the transport outlook for Wagga Wagga and should be addressed in residential and other land use strategies.	Support	C4W supports this recommendation however notes this will be most effectively influenced through planning documents such as the Local Environment Plan and Development Control Plan.

#16	<p>Urban sprawl is the worst of all the city killers. All around Australia, big cities and small are being slowly eaten away by sprawl. This is particularly difficult in the case of Wagga Wagga in that the sprawl is spreading in the one location where these residents won't be able to access the city. Capacity on the Gobbagombalin Bridge is one of the only links genuinely under pressure in Wagga Wagga. It is unlikely to be upgraded by RMS in the foreseeable future due to the enormous cost, possibly exceeding \$400 million. It is imperative therefore that future development north of the bridge be limited.</p>	Don't Support	<p>C4W does not accept the notion that the Gobbagombalin Bridge is unlikely to be upgraded in the foreseeable future due to the estimated cost of the project, and challenges the \$400M figure quoted within the report.</p> <p>The Sheahan Bridge located along the Hume Highway at Gundagai features similar characteristics as the Gobbagombalin Bridge and spans approximately the same distance - 1.1km over a flood plain. In 2007 the Sheahan Bridge was duplicated at a cost of \$78M. It is unrealistic and irresponsible to suggest construction costs have increased over 400% in the 10 years since 2007.</p> <p>In another example, a second crossing of the Murray and Campaspe Rivers was recently approved at Echuca-Moama with \$280M funding allocated from the Victorian, NSW and Federal Governments. This project is significantly more sophisticated and complex than what is required to duplicate the Gobbagombalin Bridge, further evidencing the cost estimate from the consultant is unreliable.</p> <p>Urban sprawl is not a desirable effect of population growth and C4W agrees that appropriate land use strategies should attempt to limit its impacts on the central business area, however it is important this is not done at the expense of providing a range of choices in housing and lifestyle. Regional cities actively promote housing choice and affordability in an effort to attract new residents from metropolitan areas such as Sydney and highlight the diverse range of housing options as a key point of difference for people considering to relocate. This includes medium and large lot residential and is evidenced by the strong demand experienced in suburbs such as Estella and Boorooma, and conversely the relatively limited demand in higher density housing. This point of difference should be maintained and the housing market determined as a function of demand.</p> <p>Further to this, the current LEP and DCP do not provide adequate encouragement of higher density housing and developments are constrained by requirements such as setbacks, floor areas, landscaping and height restrictions.</p> <p>It should also be noted restrictions on future residential zoning and development north of the river will do little to ease the congestion currently experienced on the bridge.</p>
-----	--	---------------	---

#16	Currently the type of development the city needs the most, which are more attached housing and mixed use development around the medical precinct and around the CAD are the hardest to get approved. Conditions around this type of development have to be revisited to make them the least complicated and the quickest to get to market.	Support	C4W recommends the medical precinct features strongly within the Integrated Transport Strategy and practical solutions provided to the various movement issues currently experienced. C4W's submission to the WWCC Spatial Plan (2013) highlighted various transport related issues and opportunities specific to the medical precinct however this was not included or referenced within the document.
-----	--	---------	---

Projects for Consideration

C4W have made various submissions to Wagga Wagga City Council on transport related issues in addition to producing related documents that support the positions outlined. This includes a submission to the initial Integrated Transport Strategy feedback process in April, 2016.

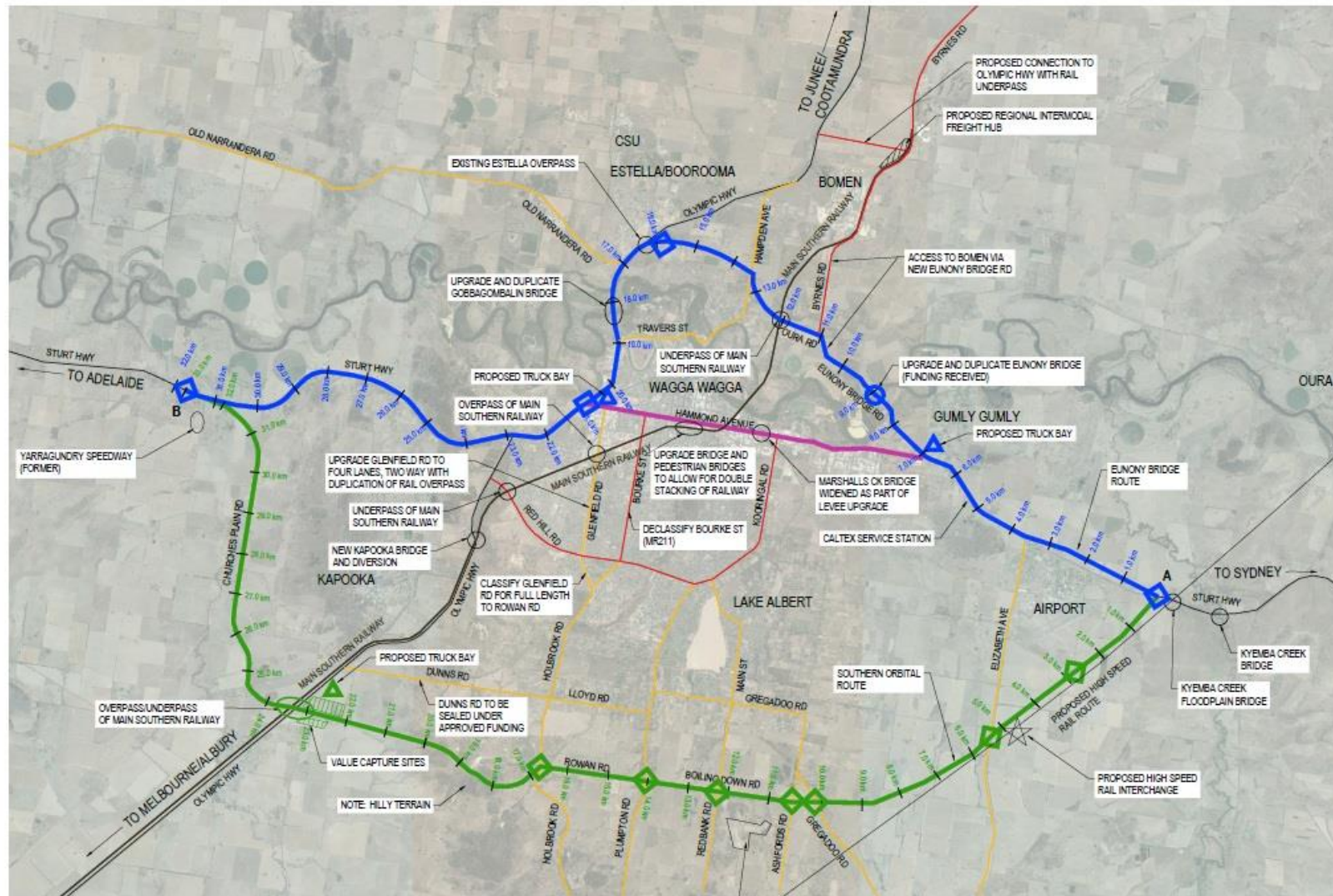
The following are some of the recommendations from previous submissions in addition to projects that C4W believes should be considered during the development of the Wagga Wagga Integrated Transport Strategy. It is noted these projects are simply for consideration at this stage and C4W acknowledge they are likely to require further analysis and consultation to ensure an integrated approach is applied within the final Strategy.

Consider:

- Beginning to plan for an overpass of the Main Southern Railway Line (MSRL) on Docker Street at the Coleman Street intersection.
- Purchasing the vacant land in Coleman Street (formerly Mobil Fuel depot) for development as a car park servicing the medical precinct.
- Developing an elevated footbridge (over the MSRL) connecting the Coleman Street car park (see above) to Roma St.
- Establishing a pedestrian crossing in Brookong Avenue to connect the Coleman Street carpark (see above) to the Hospital grounds.
- Developing an elevated footbridge with lift access over Docker Street from Dwyer Ave into the Hospital grounds adjoining the UNSW facility.
- Improving car parking arrangements in Docker Street to minimise traffic flow disruption. Reverse parking in this precinct is problematic and reduces the smooth flow of traffic.
- Establishing one-way traffic flow in the streets adjacent Calvary Hospital to streamline traffic in the area. For example, Hardy Avenue, Meurant Avenue, Lewisham Avenue and Emblem Street.
- Introducing shared zone concepts in the city's central business area, specifically the Baylis Street blocks between Morgan and Forsyth Street and between Forsyth and Thompson Street.
- Designating Kincaid Street as an arterial road and increase the speed limit to 60kpm. This will encourage a more direct route from the south of the city to the northern CBD precinct.
- Reviewing the Marshall's Creek Bridge on the Sturt Highway (image in Appendix B), with a view to considering duplication of the bridge to accommodate 4 travelling lanes consistent with the road either side of it.
- Completing the missing link of the Wollundry walking loop between Trail Street and Simmons Street with a board walk behind the properties fronting Johnston Street.

- Reviewing the effectiveness of the current on-street parking arrangements in the medical precinct. For example, Chaston Street offers sufficient space to explore options such as angled parking or centre of road parking that will increase capacity and service staff working in the medical precinct (refer to image in Appendix B). In addition, Brookong Avenue and Murray Street (west of the Sturt Highway) are sufficient width to explore options to increase parking capacity such as the centre of road parking model trialled on Kincaid Street.
- Formalising the centre of road parking trial in Kincaid Street with street trees and permanent traffic islands.
- Reviewing the effectiveness of the current on-street parking arrangements in the central business area. For example, Morrow Street and Johnston Street have sufficient width to consider introducing either angled or centre of the road parking as it has been implemented in Kincaid Street.
- Reconfiguring Gurwood Street between Trail and Fitzmaurice Street to include permanent traffic islands and street trees in line with Fitzmaurice Street.
- Introducing smart city technology in conjunction with improved directional signage to improve the effectiveness of parking within the central business area.
- Closing the intersection of Fitzmaurice Street and Travers Street. This will encourage traffic accessing the central business area from North Wagga Wagga to use Trail Street as a more suitable access point, feeding traffic to the various off street parking options. This will also enable the section of Fitzmaurice Street between Crampton and Travers Street to be converted into long term parking to service both the central business area and the Riverside precinct.
- Improving the intersection at Gregadoo Road and Plumpton Road to alleviate congestion during peak traffic periods at morning and afternoon.
- Improving the intersection of the Sturt Highway and Elizabeth Avenue. Residential development at Brunslea Park will continue to increase traffic at this intersection and treatment is required to improve both functionality and appearance (image in Appendix B). In addition, Elizabeth Avenue is a very poor reflection of our city as an entrance to Wagga Wagga via the airport.
- Improving the Koorinal Road and Vincent Road intersection.
- Noting the Farrer Road upgrades within the Strategy as per the WWCC Long Term Financial Plan.
- Improving the configuration of the Lake Albert Road and Fay Avenue intersection encompassing the entry and exit points of the Koorinal Mall and McDonalds to improve traffic flow during busy periods.
- Developing additional entry and exit points to the Exhibition Centre precinct at Koorinal Road and improving parking arrangements to cater for significant events.
- Improving parking arrangements and traffic flow for significant events in the Bolton Park precinct as it further develops as the regional centre for major sporting events.

Appendix A – C4W Alternate Route Options



LEGEND

EXISTING CBD ROUTE	
EUNONY BRIDGE ROUTE	
SOUTHERN ORBITAL ROUTE	
HIGHWAY	
CLASSIFIED ROAD	
LINKING ROAD	
MAIN SOUTHERN RAILWAY	

PROPOSED SIGNIFICANT INTERSECTION

BRIDGE/UNDERPASS

PROPOSED TRUCK BAY

DISTANCE (A TO B)

EXISTING CBD ROUTE	26.3 km
EUNONY BRIDGE ROUTE	31.8 km
SOUTHERN ORBITAL ROUTE	33.0 km



PRELIMINARY

C	TWO OPTIONS		19.08.16
B	FOR INFORMATION	KR	15.03.15
rev	description	app'd	date

COMMITTEE 4 WAGGA WAGGA HEAVY VEHICLE ROUTE OPTIONS LAYOUT PLAN



SCALE 1:50,000 AT ORIGINAL SIZE

Level 7, 16 Marsia Clarke Street
Canberra ACT 2601 Australia
GPO Box 1077 Canberra ACT 2601
T 61 2 6113 3200 F 61 2 6113 3299
E cdm@ghd.com W www.ghd.com

Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has agreed can use the document) for the purpose for which it was prepared and must not be used for any other purpose or for any other purpose.

scale 1:50,000 for A1 job no. | 23-15452
date | AUG 2016 rev no. | C

approved (PD) SK001

NOTES:

- WHERE POSSIBLE, ALTERNATE ROUTES HAVE BEEN IDENTIFIED WITHIN EXISTING ROAD RESERVES TO REDUCE LAND ACQUISITION
- THE EUNONY BRIDGE ROUTE CROSSES THE MURRUMBIDGE RIVER FLOODPLAIN AND WILL BE EXPOSED TO FLOODING. THIS WILL MEAN THE ROUTE IS NOT ACCESSIBLE DURING TIMES OF FLOOD.
- THE EUNONY BRIDGE ROUTE WILL SEE DIVERSION OF ALL HEAVY VEHICLES ACROSS THE GOBBAGOMBALIN BRIDGE WHICH IS NOW ACCOMMODATING A HIGHER VOLUME OF PASSENGER VEHICLES DUE TO ONGOING RESIDENTIAL EXPANSION AT ESTELLA AND BOOROOMA.
- THE SOUTHERN ORBITAL ROUTE WILL REQUIRE ACQUISITION OF LAND BETWEEN THE EASTERN TAKE OFF POINT AND INTERSECTION WITH GREGADOO ROAD.
- THE SOUTHERN ORBITAL WILL NEED TO TRANSVERSE HILLY TERRAIN WEST OF ROWAN ROAD. FURTHER INVESTIGATION IS REQUIRED.
- BOURKE STREET IS CURRENTLY A CLASSIFIED ROAD (MR211) - IT IS PROPOSED THAT THIS ROAD BE DECLASSIFIED AND GLENFIELD ROAD BECOMES THE REPLACEMENT CLASSIFIED ROAD FOR FULL LENGTH FROM THE STURT HIGHWAY TO ROWAN ROAD.
- A NUMBER OF RAIL OVERPASSES WILL NEED TO BE ADJUSTED TO ALLOW FOR FUTURE DOUBLE STACKING OF FREIGHT TRAINS

Appendix B – Images



Gobbagombalin Bridge, Wagga Wagga

Submission to the WWITS – March 2017



Glenfield Road, Wagga Wagga



Makeshift truck inter-change and driver rest area located in central Wagga Wagga



Marshall's Creek Bridge, Sturt Highway, Wagga Wagga

Submission to the WWITS – March 2017



Intersection of Sturt Highway and Elizabeth Avenue, Forest Hill, Wagga Wagga



Chaston Street, Wagga Wagga

Submission to the WWITS – March 2017