



9. Transport



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9.1 Air Transport

Alice Springs is served by the Alice Springs Airport, located approximately 15 km south of the CBD. The airport is separated from the CBD by the Macdonnell Ranges, with the Stuart Highway providing the only road connection through Heavitree Gap.

The airport currently provides for 580,000 passengers a year, which is forecast to increase to 750,000 passengers by 2035, as documented in the draft Alice Springs Airport Master Plan. The airport also provides a valuable transportation link for the general aviation and defence industries. The general aviation sector is essential for providing services to remote communities. The draft Master Plan indicates that the airfield and terminal infrastructure at the airport is capable of accommodating the forecast growth.

A new intermodal terminal is being considered south of Alice Springs. An intermodal terminal is where freight is handled to change modes of transport (i.e road and rail). An intermodal terminal south of the CBD would strategically consolidate transport services, reducing travel time to/from the airport.

A detailed review of the viability of such a facility is warranted in conjunction with the staged development of the Airport Master Plan, particularly given the constraints on the road network (Heavitree Gap) linking the airport land from the CBD.

The AZRI/ASAC urban development area is located on airport land, between the existing Kilgariff residential development and the airport terminal. The redevelopment of the entire area, which has a notational yield of 4,100 allotments, could result in a significant increase in traffic volumes, albeit it is anticipated that this will take a significant amount of time to be realised. Nevertheless, if development is not planned, it is anticipated that the urban development area could result in future capacity issues for Santa Teresa Road, which links the airport to the Stuart Highway, and the intersection of Santa Teresa Road and the Stuart Highway. Consideration should be given to the need for an additional access link to the airport land and the potential to separate airport traffic from other generators on the site.

9.2 Rail Transport

Alice Springs is served by the Adelaide to Darwin railway line, located adjacent the Stuart Highway. The station is strategically located west of the Central Business District (CBD), albeit it does bisect much of the development in the City. The Alice Springs intermodal and freight terminal is the primary intermodal terminal serving customers in and around Alice Springs.

The rail site currently suffers from poor connectivity to the CBD due to the historical road network and the limited access availability.

Genesee & Wyoming Australia (GWA), a subsidiary of the global rail conglomerate Genesee & Wyoming Incorporated, acquired the terminal in 2009, having leased the site previously. GWA also operates the Tarcoola to Darwin rail line, linking the Port of Darwin to the Australian interstate rail network in South Australia. Six intermodal freight services are provided per week from Adelaide to Darwin, and a total of 800,000 intermodal freight and 70,000 tonnes of bulk liquids a year are transported between Adelaide and Darwin. Trains are approximately 1,800 m long and weigh 4,000 tonnes. Commodities transported include dry groceries, chilled/frozen groceries, building/construction material, automotive vehicles and parts, mining consumables, liquor and mail. Organic growth opportunities exist in the areas of iron ore, rare earths, phosphates, manganese, nickel, coal, copper, gold and uranium.

A new intermodal terminal is being considered south of Alice Springs. It is anticipated that the “Northern Territory Freight and Logistics Industry Strategy” being established by KPMG for the Department of Transport, will include consideration of the possible future intermodal and provide further details of its location. If a new terminal is established, freight would be separated from commuter rail, allowing for further development of the existing railway station.

A decision in respect to the potential rail terminal will inform the extent of infrastructure requirements to improve connectivity to the existing facility. Nonetheless, improvements to existing infrastructure are critical if the rail facility is to be maximised.

A new railway station and tourism precinct has been envisaged for the site on the western corner of the Stuart Highway/Whittaker Street intersection, which would improve pedestrian connectivity to the CBD. If this is realised, vehicle access should be provided via Whittaker Street rather than the Stuart Highway. This would be desirable from a traffic distribution perspective, as vehicles travelling to/from the northern suburban areas could avoid the signalised intersection. Furthermore, a new conflict point on the Stuart Highway would be avoided. Sufficient separation should be provided to the Colson Street intersection or a four-way roundabout considered, depending on the operation of the Stuart Highway/Whittaker Street intersection.

Opportunities exist for additional railway facilities adjacent the development areas of Abattoir Valley /Arumbera, should the type of development be compatible with rail as a transport mode.

9.3 Road Transport

The primary access route through Alice Springs is the Stuart Highway, the major highway connecting Adelaide and Darwin. Large commercial vehicles use this route. Stuart Highway bisects Alice Springs and therefore also plays the primary arterial function for the City. The road network servicing Alice Springs links to Stuart Highway in a radial style configuration, with the major linkages all connecting to Stuart Highway. This means that the transport routes generally focus on a central point (the Alice Springs CBD) but equally that the risks associated with capacity constraints need to be managed, particularly given the lack of alternative networks.

The lack of alternative route choices for drivers which has resulted from the historical road network will result in individual roads and specific locations creating constraints for development. Future planning for road infrastructure requirements will need to be completed in parallel with development to ensure that these constraints do not adversely impact planned growth areas of Alice Springs.

Heavitree Gap

Heavitree Gap provides a break in the MacDonnell Ranges, and the only route for road and rail traffic. Subsequently it is traversed by the Stuart Highway, with the railway located to the western side and the Todd River to the east. The Stuart Highway provides one lane in each direction at this location.

The Blatherskite Valley/Arumbera, AZRI/Kilgariff and AZRI/ASAC urban development areas are located south of Heavitree Gap. The development of these areas will increase the volume of traffic through the Gap, particularly during the morning and afternoon/evening peak hours as individuals commute to/from the CBD.

The “Alice Springs: Traffic Study” prepared in 2009 by QED for the Department of Infrastructure identified that due to development south of Heavitree Gap, the duplication of the Stuart Highway would be required in the future. The duplication was predicted to be required when 1,350 dwellings were developed south of Heavitree Gap, with the resultant road volume increasing to over 1,450 vehicles per hour (vph). The increase in development south of the Gap will also create an increase in demand and subsequent limitations in catering for vulnerable road users such as pedestrians and cyclists. Additional lanes or duplication of the Stuart Highway is expected to result in impacts on the Todd River and consequently issues will arise with Indigenous Heritage, flooding and possibly vegetation removal.

Jacobs Group is currently preparing the “Alice Springs – Regional Traffic Study” for the Department of Infrastructure that will further consider the future duplication of the Stuart Highway corridor, and include the preparation of a dual carriageway alignment concept for the Stuart Highway. The Department of Infrastructure has advised that the study will be complete in late 2015.

Stephens Road Causeway Crossing (Taffy Pick)

Stephens Road provides access to/from the Mount John's Valley urban development area. During flood events, Stephens Road, which crosses the Todd River is severed by floodwater. An increase in traffic on Stephens Road as a result of future development could result in an additional 6,000 vpd using this road, necessitating road upgrades. The "Alice Springs: Traffic Study" prepared in 2009 indicated that the development of Mount John's Valley should provide no more than 200 allotments until an alternative access be constructed.

Safe and functional access to this region will necessitate planning for future infrastructure in order to provide reliable access to the Mount John's Valley urban development area. Further investigations in regard to options to address this access constraint are warranted prior to pursuit of any significant development. The following options could be further explored in such investigations:

- a Connector Road between Stephens Road and Sadadeen Valley Road, which will provide a road link to the existing Stott Terrace bridge; or
- a bridge to provide access in lieu (or addition to) the Stephen Road causeway crossing (known as Taffy Pick).

The Sadadeen Connector Road option provides the benefit of an alternative route for drivers and more traffic distribution, albeit a cost benefit analysis of the holistic benefits to the broader community would inform the stakeholders in respect to the most beneficial option.

Larapinta Drive/Stuart Highway/Stott Terrace Intersection

The signalised intersection of Larapinta Drive, Stuart Highway and Stott Terrace is considered a key component to the restriction of future growth, particularly for the Larapinta Valley urban development area and the CBD. It is considered that the intersection currently has significant traffic demand, particularly during the morning and afternoon/evening peak periods, presenting long delays and queues for drivers. Traffic analysis should be undertaken of the intersection to determine the timing and nature of an intersection upgrade. Furthermore, the analysis should consider alternatives for the railway crossing, such as grade separation, which would improve safety at the location.

Stott Terrace

High crash rates have been experienced at the signalised intersections on Stott Terrace (i.e. at Bath Street, Hartley Street and Todd Street). Upgrades to improve safety at these intersections should be considered as traffic demands increase, particularly if the Sadadeen Connector Road is provided.

This intersection upgrade should be considered as part of a network analysis for the overall CBD to ensure that future development does not exacerbate the safety issues at this location.

Stuart Highway/Bradshaw Drive Intersection

The roundabout treatment at the intersection of Stuart Highway and Bradshaw Drive will be required to be assessed to determine if improvements are required to cater for the increased traffic volumes on the Stuart Highway, particularly given the close proximity of the railway crossing adjacent Bradshaw Drive. Development trigger points should be identified so that these can be included in future growth planning for the nominated regions.

A particular constraint with needs to be considered is the MacDonnell Ranges. The Stuart Highway crosses the ranges through Heavitree Gap, adjacent the railway. The road width is constrained in this location and a review of the need to upgrade this 'crossing' to address capacity and safety implications is warranted if development opportunities south of this location are to be realised. Of particular note are the limitations in catering for vulnerable road users such as pedestrians and cyclists and any increase in development south of this area will increase the demand for such facilities, as will an increase in traffic volume.

9.4 Public Transport

In the past 5 years, patronage on the Public Transport Urban Bus network in Alice Springs has increased in excess of 200%. It is estimated that approximately 215,000 passenger journeys will occur in the 2015 calendar year.

The Department of Transport anticipates that these numbers will continue to grow into the future and a full network review will most likely need to occur within the next two years.

To support future expected growth, suitable road design will need to take into account manoeuvring for buses, including verge areas for the installation of suitable DDA compliant infrastructure (bus shelters, bus stop/cut-ins) for designated routes within all new developments.

Services to the west and south of the town appear to be the most popular and on the increase. The current urban bus interchange is located on Railway Terrace and any expansion of the CBD area would need to consider urban bus access points and the potential for a larger interchange facility.

9.5 Active Transport

Cycling and walking is an extremely popular mode of transportation in Alice Springs.

Annual bike counts consistently show high levels of cycling in Alice Springs compared with other regional centres around Australia.

Alice Springs Town Council, Parks and Wildlife and NTG have developed an extensive network of shared and mountain bike paths, throughout the town. Work is progressing to continue to expand and connect these Networks. Any future developments would need to take active transport into consideration, including end of trip infrastructure (secure bike racks, showers, way finding signage and lockers), particularly for new buildings within the CBD.



Figure 9.1: Transport Considerations

