



Ground Transport Plan

10

10.1 Introduction

Ground transport planning is essential to the development of Parafield Airport to ensure effective, safe and efficient access and connectivity for all users of the airport. Ground transport consists of roads for staff, visitors, public transport and cycleways.

Parafield Airport is located approximately 18 kilometres north of Adelaide Central Business District (CBD) and is well connected to the metropolitan road and rail networks, with three major arterial roads bordering the airport and providing transport links to metropolitan and regional areas and an adjoining rail corridor which caters for the northern metropolitan passenger line to Gawler along with the separate freight line connecting Adelaide with Darwin, Perth, Melbourne and Sydney. Kings Road to the north has direct connectivity to Port Wakefield Road and the Northern Connector, which is one of Adelaide's most important freight and transport corridors, while Elder Smith Road to the south provides connection to Salisbury Highway which also plays a significant role in providing strategic connections for the airport to the wider transport network including Port Adelaide. Both Kings Road and Elder Smith Road are designated B-double (truck) routes. To the east, Main North Road provides access to the CBD and the north-eastern metropolitan areas of Adelaide and is also a major freight route, forming part of the road train network. Connectivity to the Port of Adelaide is via Salisbury Highway and the Port River Expressway.

Figure 10.1 shows the road and rail network surrounding the Parafield Airport site and Figure 10.2 shows the location of the airport and its relationship to the CBD and wider metropolitan Adelaide road network.

Each day there are approximately 29,000 vehicle movements in and out of the airport, and by 2043 this is expected to reach approximately 66,000 daily vehicle movements. As Parafield Airport grows, it is critical that adequate consideration is given to future ground transport demands within, and adjacent to, the airport.

10.2 Overview

- Parafield Airport is well connected to metropolitan road and rail networks.
- The Commonwealth and South Australian governments are continuing to invest in improvements to external infrastructure, including the construction of the River Torrens to Darlington portion of the North-South Corridor which will complete the corridor and provide efficient access for both visitors and freight.
- Parafield Airport will continue to invest in new and improved ground transport facilities to support increased traffic demand as development continues.

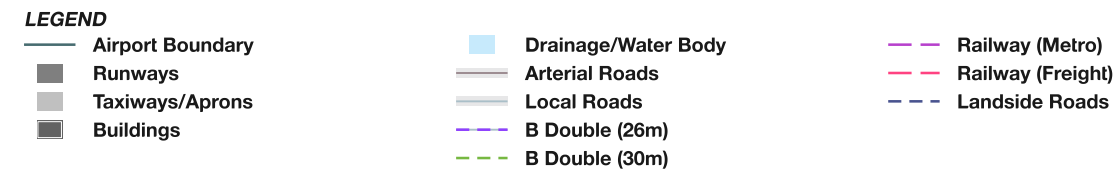
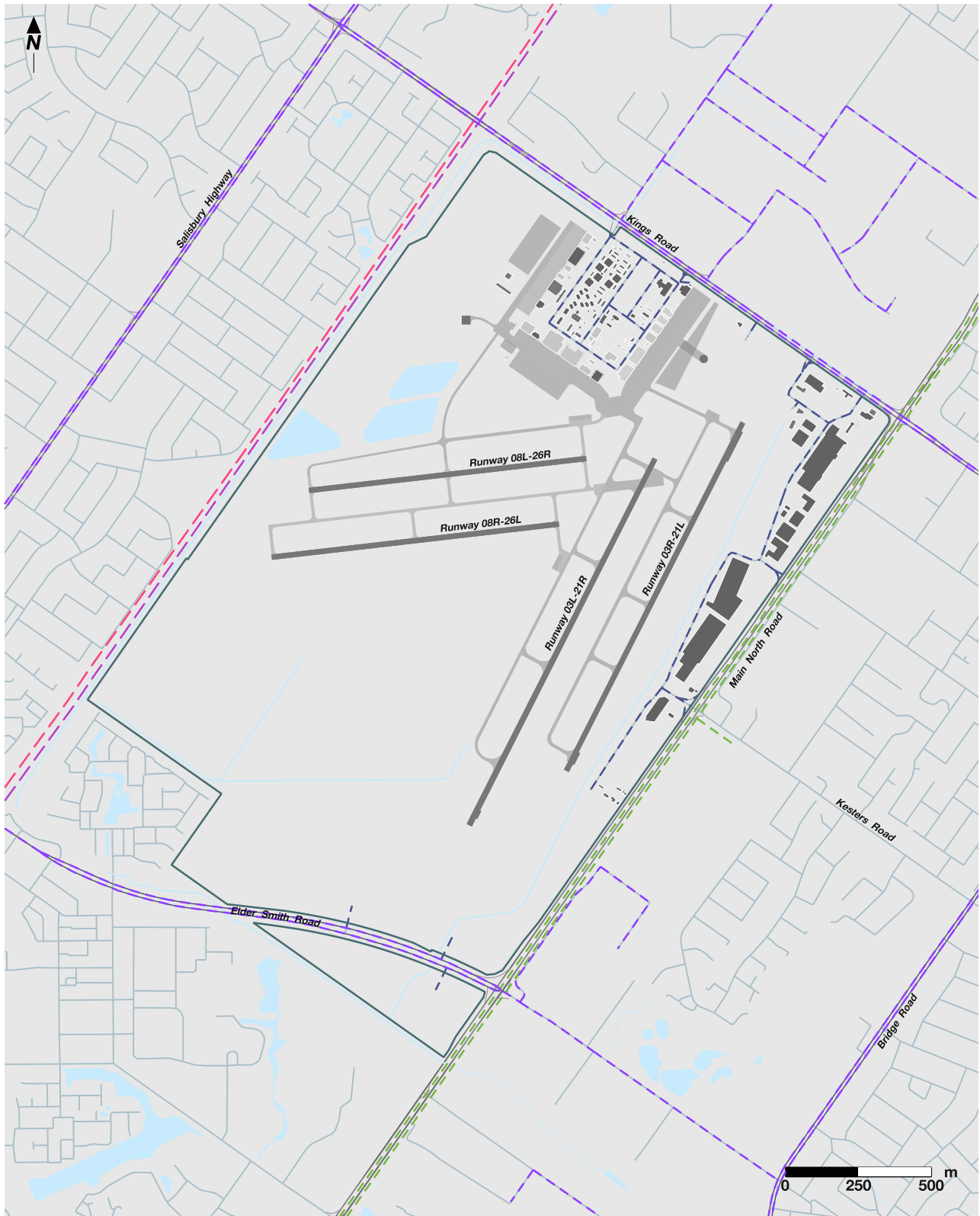


Figure 10.1: Existing external road and rail network surrounding Parafield Airport



LEGEND

- Railway
- Tram Line
- Major Transport Routes
- Parks, Forests and Reserves
- Drainage/Water Body
- National Road Network
- North-South Corridor

Figure 10.2: Wider metropolitan Adelaide road context

10.3 Responsibilities

Parafield Airport Limited (PAL) engages directly with the South Australian and local governments, as well as through the Parafield Airport Planning Coordination Forum (described in Section 5), to ensure that the future demands of the airport's operations and development are reflected in strategic network planning.

The key organisations and agencies involved in ground transport planning around Parafield Airport are:

- South Australia's Department for Infrastructure and Transport (DIT), which sets policy and strategic direction transport throughout the state; plans, constructs and maintains major road and rail infrastructure; and provides infrastructure planning for public transport systems.
- The South Australian Public Transport Authority (SAPTA), which provides advice to the State Government regarding the strategic direction of public transport initiatives and operational and customer services.
- The City of Salisbury, which is the local government authority responsible for the planning, construction and maintenance of local roads adjacent to and surrounding the airport.
- PAL, which is responsible for the planning, construction and maintenance of roads within the airport site.
- The Commonwealth Minister for Infrastructure, Transport, Regional Development and Local Government, who may provide funding to the South Australian government for major transport infrastructure projects (such as the North-South Corridor) and is responsible for approving the Ground Transport Plan as part of this Master Plan and any subsequent Major Development Plan (where required) for road network construction within the airport site.

10.3.1 Infrastructure Deed between State and Parafield Airport Limited

An agreement between the South Australian Government and PAL was entered into in 2020 which sets out principles and a framework for ground transport infrastructure works within, at the airport boundary and outside of the airport boundary, to ensure that ease of access to and from Parafield Airport is provided, as growth in aviation activity, commercial development and/or network activity is realised. The agreement details funding responsibility under various scenarios and trigger levels.

10.3.2 Deed for Signals at Elder Smith Road between State and Parafield Airport Limited

An agreement between the South Australian Government and PAL was entered into in 2006 for the future signalisation of the existing Elder Smith Road intersection, should traffic volumes to and from the Enterprise Precinct trigger the requirement.

10.3.3 South Australian Government Upgrades

DIT publishes planned road upgrades, as well as potential road upgrades being investigated, on its website, dit.sa.gov.au/infrastructure. Recent projects relevant to Parafield Airport include:

- Northern Adelaide Transport Study, which seeks to identify and inform potential transport improvements in the northern Adelaide suburbs and support future growth in the region.
- Level Crossing Removal Planning Program, which identifies potential opportunities to remove the level crossings and improve safety. The Kings Road rail crossing is a priority location.
- Kings Road Corridor Study, which seeks to identify opportunities to improve Kings Road between Port Wakefield Road and Main North Road.
- Elder Smith Road Widening Planning Study.

10.4 Airports Act 1996 Requirements

The *Airports Act 1996* requires a Master Plan to include a plan for a ground transport system on the landside of the airport that details the:

- Road network plan.
- Facilities for moving people (employees, passengers and other airport users) and freight at the airport.
- Linkages between those facilities, the road network and public transport system at the airport and the road network and public transport system outside the airport.
- Arrangements for working with the state or local authorities or other bodies responsible for the road network and the public transport system.
- Capacity of the ground transport system at the airport to support operations and other activities at the airport.
- Likely effect of proposed developments identified in the Master Plan on the ground transport system and traffic flows at, and surrounding, the airport.

10.5 State Planning

10.5.1 Planning Framework

The South Australian Government is responsible for setting policy and strategic direction for transport throughout South Australia, as well as planning and constructing major road and rail infrastructure, infrastructure planning for public transport services for the Adelaide metropolitan region, and regulating taxi, rideshare and chauffeur operations. In 2019, the State Government established the South Australian Public Transport Authority (SAPTA), an independent body responsible for providing the strategic direction of initiatives, operational and customer services for public transport for the Adelaide metropolitan region.

Infrastructure SA, an independent statutory body, is responsible for developing a 20-year State Infrastructure Strategy and a Statement of Capital Intentions identifying major infrastructure projects to be undertaken in the state as a priority within a five-year period, as well as other strategies, statements or plans relating to infrastructure in South Australia.

The Australian and South Australian governments are jointly funding \$15.4 billion for the remaining sections of the North-South Corridor, completing the non-stop motorway between Gawler and Old Noarlunga. The project is expected to be completed in 2031. The North-South Corridor is one of Adelaide's most important transport corridors. Its proximity and connection to Parafield Airport has the potential to improve accessibility and travel times for commuters accessing the airport.

10.5.2 State Transport Strategies

This Ground Transport Plan considers and incorporates state transport strategies which affect Parafield Airport.

10.5.2.1 The 30-Year Plan for Greater Adelaide (2017)

The 30-Year Plan provides directions for urban and regional development for business, industry, infrastructure provision, utility supply and government agencies. The 30-Year Plan provides a framework for how Adelaide can grow to become a more liveable, competitive and sustainable city. It guides the long-term growth of the city and its surrounds over the next 30 years. The South Australian Government is actively updating the 30-Year Plan as detailed in section 4.3.1.3.

10.6 Airport Transport Planning

10.5.2.2 The 20-Year State Infrastructure Strategy (2020)

The 20-Year State Infrastructure Strategy aims to set the longer-term priorities and direction for infrastructure investment across a number of key sectors, including transport, to support economic growth and enhance the liveability of South Australia. Priorities for transport within the strategy include, but are not limited to:

- Improved connectivity and accessibility to key economic precincts
- Increased mode shift to public transport
- Strategic approach to promotion of active transport options
- Improved safety of the road network
- Improved efficiency of freight
- Development of a future mobility strategy to enable the benefits of innovation to be realised.

In preparation for the subsequent 20-Year State Infrastructure Strategy, a Discussion Paper was prepared by Infrastructure SA in 2023 to gather stakeholder and community feedback. PAL is supportive of a Strategy which recognises the importance of sustainable and efficient transport infrastructure for aviation related facilities and freight and logistics operations.

As PAL continues to use its land to grow and modify the activities occurring on the airport, it is important that careful consideration be given to transportation requirements now and into the future to capture both opportunities and potential impacts.

The key considerations for the Parafield Airport Ground Transport Plan are:

- Effective, safe, sustainable and efficient connectivity for all users of the airport.
- Catering for existing and planned aviation and commercial developments and associated employment and visitor traffic.
- Achieve appropriate level of service during peak periods, based on performance measures such as degree of saturation of movements at intersections, queue lengths and delays.
- Maintain over-dimensional (heavy vehicle) access to facilitate development and growth within the airport.
- Segregate, as much as practicable, commercial and domestic vehicles.
- Provide access alternatives.
- Maximise the efficient use of existing infrastructure.
- Cost effective infrastructure investment.
- Development of flexible and adaptable infrastructure to cater for future technologies and innovations.
- Provide a safe and accessible active transport network within the airport, connecting to the wider active transport network and public transport.
- Minimise impacts to surrounding areas through design.
- Preserve the nature and function of the road network.

The Parafield Airport Ground Transport Plan and associated modelling which has been undertaken to inform it, focusses on requirements at an estate and precinct level. As part of the development approval process for individual sites (Section 7.13), a traffic assessment is undertaken to confirm potential traffic impacts of that specific development.

10.7 Recent Developments

Between 2017 and 2023, the following improvements have been implemented by PAL to the ground transport network:

- Extension of Nobby Buckley Drive south of Kesters Road
- Extension of Nobby Buckley Drive south of Freda Thompson Place, including construction of a roundabout.

The following improvements have also been undertaken on the external network adjacent to the airport by DIT:

- Widening of Main North Road including a dedicated bicycle lane
- Main North Road and Kings Road intersection upgrade.

10.8 Forecasting

Future forecasts of vehicle traffic and parking demands are primarily based on the projected development of the airport site. Forecasting uses a range of data inputs and assumptions. These include State Government forecasts for traffic volumes on the external network, traffic counts, commercial development predictions and aviation forecasts.

10.8.1 Future Demand

Further commercial development within the airport site will be the primary driver for an increase in vehicle traffic to and from the airport. Daily vehicle traffic volumes are forecast to increase from approximately 29,000 vehicle movements per day in 2023 to 39,000 vehicle movements by 2031 and 66,000 vehicle movements by 2043 (refer Figure 10.3). These forecasts are indicative due to their dependency on development of the airport site.

10.8.2 Modes of Travel

The majority of access to the airport is by private motor vehicle. PAL continues to monitor how people travel to and from the airport – including trends in the potential uptake of public transport or emerging transport technologies such as autonomous vehicles – in order to plan for and provide appropriate infrastructure.

PAL supports opportunities for an increase in public transport and active travel modes (refer Sections 10.11 and 10.12 below) however acknowledge that private motor vehicles will likely continue to be the highest mode share and it is expected that the overall mode share will not shift significantly within the planning period.

10.8.3 Future Technologies

There have been, and will continue to be, substantial developments in emerging and innovative transport technologies, which include electric vehicles, autonomous vehicles, vertical take-off and landing (VTOL) aircraft for on-demand air taxi services, regional air mobility and/or freight delivery and the use of drones for deliveries.

While these technological advances have the potential to improve access and connectivity, they may also create challenges for ground transport systems and other infrastructure associated with airports. The views on the impacts of transport technologies vary significantly, nationally and globally, and will likely require government intervention or policy to adapt as these technologies are realised.

A number of technological advances are in their infancy and are being trialled across Australia. Planning for VTOL and the use of drones requires careful consideration of aircraft operations and airspace requirements.

There has been significant growth in the uptake of electric vehicles (EV) in Australia in recent years and this is forecast to continue aligned with the Commonwealth Government’s National Electric Vehicle Strategy. With increasing demand there will be a requirement for infrastructure to support electric charging and the development of a future EV strategy for Parafield Airport.

PAL will continue to monitor emerging technologies. Adaptable staging and timing of infrastructure investment allows PAL to consider and respond to opportunities for incorporating innovative and sustainable access options.

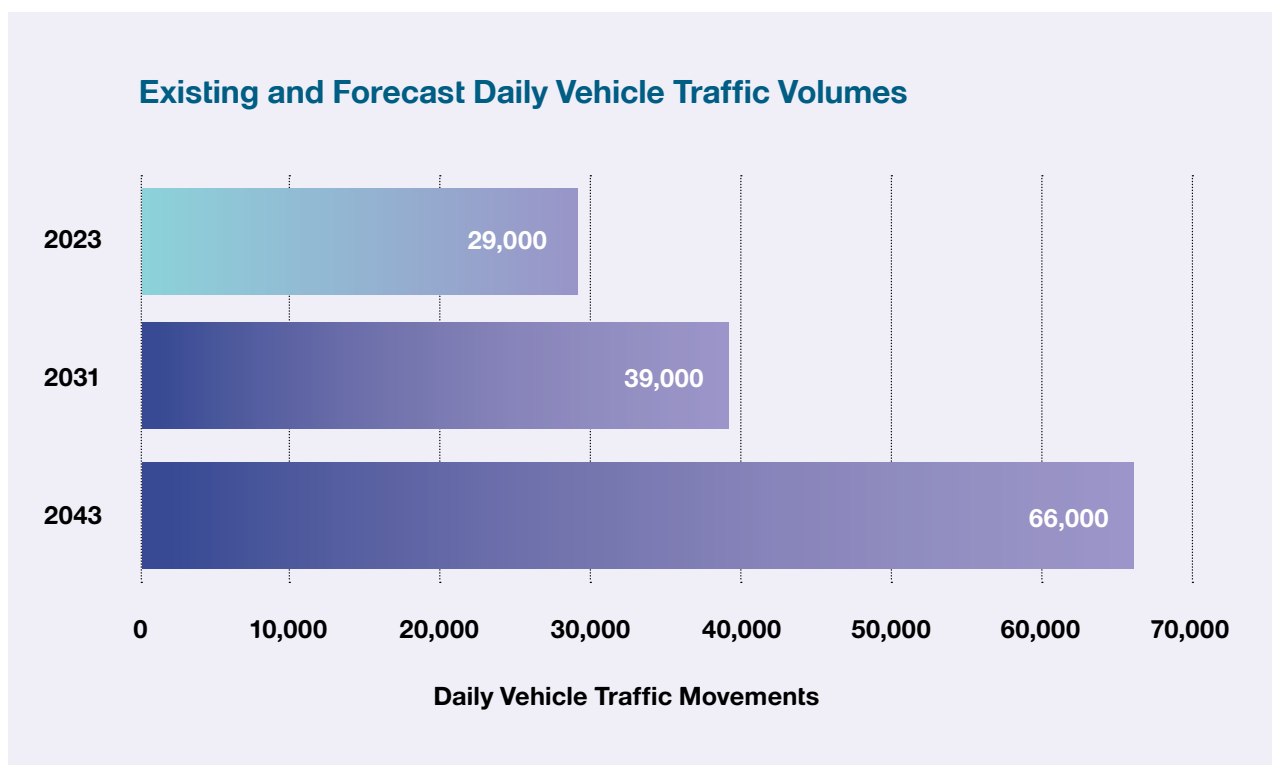


Figure 10.3: Existing and forecast daily vehicle traffic volumes at Parafield Airport

10.9 Precinct Planning

PAL is responsible for all roads within the boundary of the airport. This includes both landside (publicly accessible) and airside (restricted access) roads. Figure 10.4 shows Parafield Airport's internal road network and access points to the external state and local government road networks.

10.9.1 Modelling

Assessment of requirements for the road network within the airport site and at the boundary were assessed using Aimsun microsimulation modelling in 2011 and updated forecasts and plans have been reviewed against the assumptions within the forecast model to confirm that it remains valid. Based on this review, the external network is expected to have sufficient capacity for the future demand at the airport.

Proposed new boundary intersections at the Airport Business Precinct and Enterprise Precinct were assessed using a SIDRA software model for the present day and 2036 growth period. The 2036 growth period is adopted by DIT for its road network planning and represents the period on the external road network for which predicted growth volumes have been prepared. This model assesses the performance of intersections using several key metrics such as degree of saturation, 95th percentile average vehicle delays and queuing distances.

10.9.2 Next Steps

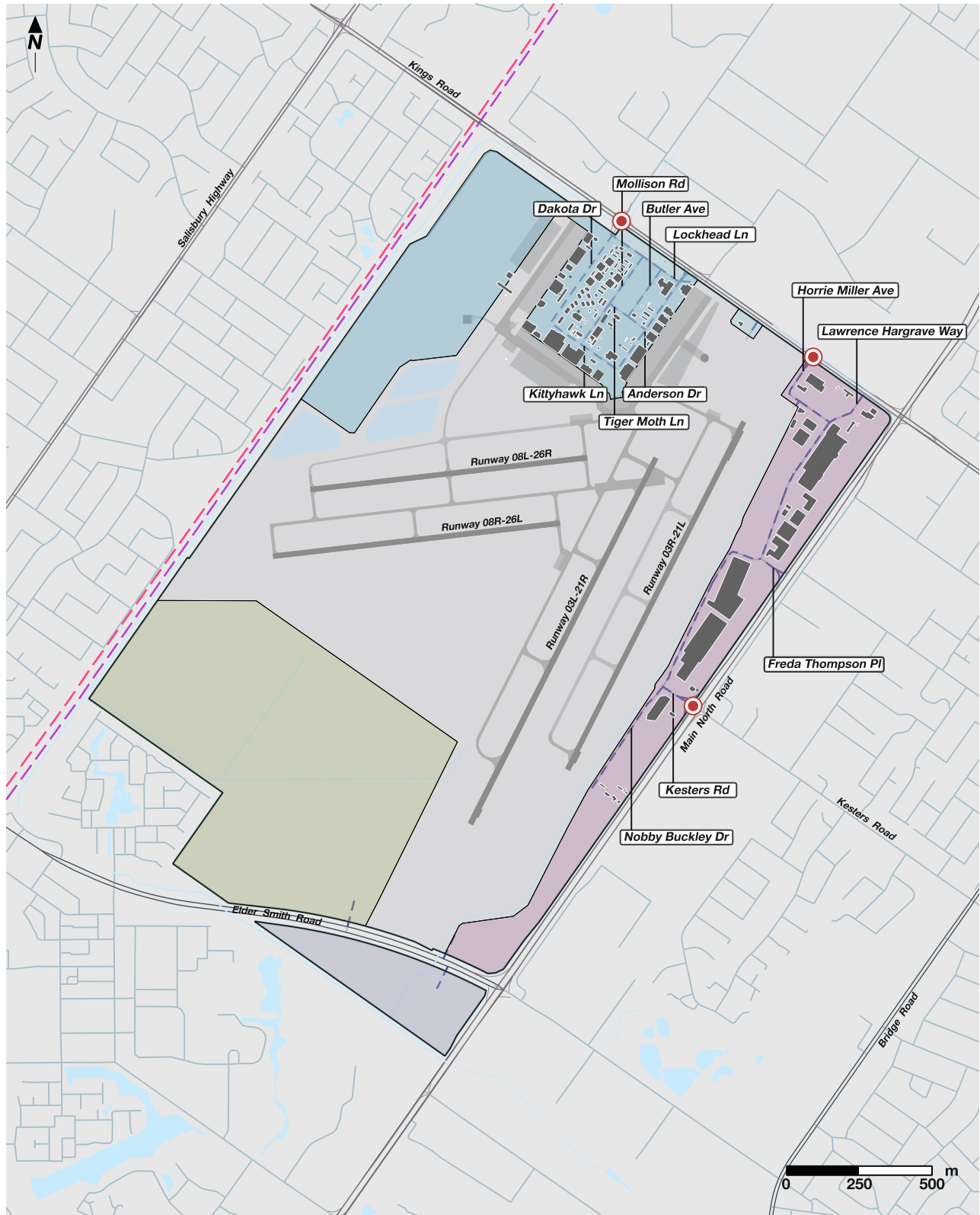
The ground transport concepts outlined in this Master Plan will undergo further detailed modelling and refinement as triggers for development are reached to confirm final alignment, location, dependencies, layout of new intersections, as well as upgrades to existing infrastructure and therefore concepts may change.

Further consultation with the state and local governments will take place to understand any wider network impacts, with updated modelling to reflect any updated planning outcomes that may arise from DIT planning studies.

10.9.3 Road Network

Figure 10.5 and Figure 10.6 show the eight-year and 20-year Ground Transport Plan for Parafield Airport. The specific planning for each precinct is described in the following pages.





LEGEND

- | | | | | |
|--------------------|-------------|-----------------------|------------------|-----------------------------------|
| — Airport Boundary | ■ Runways | ■ Drainage/Water Body | — Arterial Roads | ● Existing Signalled Intersection |
| ■ Taxiways/Aprons | ■ Buildings | — Local Roads | — Landside Roads | — Railway (Metro) |
| | | | | — Railway (Freight) |
| | | | | — Precinct Boundary |

PARAFIELD AIRPORT PRECINCTS

- Runways
- Airport Business
- Commercial
- Bennett
- Enterprise

Figure 10.4: Parafield Airport's existing internal road network

10.9.3.1 Airport Business Precinct

The Airport Business Precinct is accessed via the signalised intersection of Dakota Drive with Kings Road and unsignalised intersection of Anderson Drive with Kings Road. These intersections provide connectivity to an internal rectangular grid of roads comprising Anderson Drive, Kitty Hawk Lane, Dakota Drive and Lockheed Lane which form the outer ring, and Mollison Road, Tiger Moth Lane and Butler Avenue within. All internal roads provide one lane in each direction. No formal access is currently provided to the undeveloped section of the Airport Business Precinct to the west.

The access points and roads currently serving the precinct are suited to existing and future traffic loads from development activity within the eastern portion of the precinct which will not change the nature or function of the roads. The internal road reserve to Dakota Drive allows for a future dual carriageway, separated by a median, to be provided if required.

Access to the western section of the precinct is proposed via a new intersection with Kings Road to provide adequate access capacity for the site while minimising impacts on Kings Road. The access will also provide an opportunity for separation of the anticipated heavy vehicles, which would be accessing this area, from the light vehicles which dominate volumes within the eastern section of the precinct, and ensure adequate separation between intersections within the Airport, thus improving safety and minimising conflict. Modelling has identified that the intersection may need to be signalised in future, however PAL will continue to work with DIT to determine the appropriate treatment. The intersection will need to be coordinated with the wider traffic network and any proposal by DIT to grade separate Kings Road at the railway intersection. The internal road network to the west will likely be staged with development and be suitable for B-double vehicles.

10.9.3.2 Commercial Precinct

The Commercial Precinct extends from the north-east corner of the airport to the south-east corner with frontage to Main North Road, Kings Road and Elder Smith Road. It provides a range of commercial, service, trade and large-scale retail facilities, and supporting shops and services. Access to the precinct is provided along Main North Road and Kings Road via both signalised and unsignalised intersections. An access point is also provided along Elder Smith Road for future expansion of the road network. The internal road network is designed to provide customer access to the car parking areas at the front of these facilities, with back-of-house operations and deliveries to the rear, creating separation between heavy and light vehicles.

There is sufficient capacity within the internal and external road network to cater for planned development growth within the Commercial Precinct. Potential extensions to Nobby Buckley Drive in each direction may be required to provide access for future development in these areas.

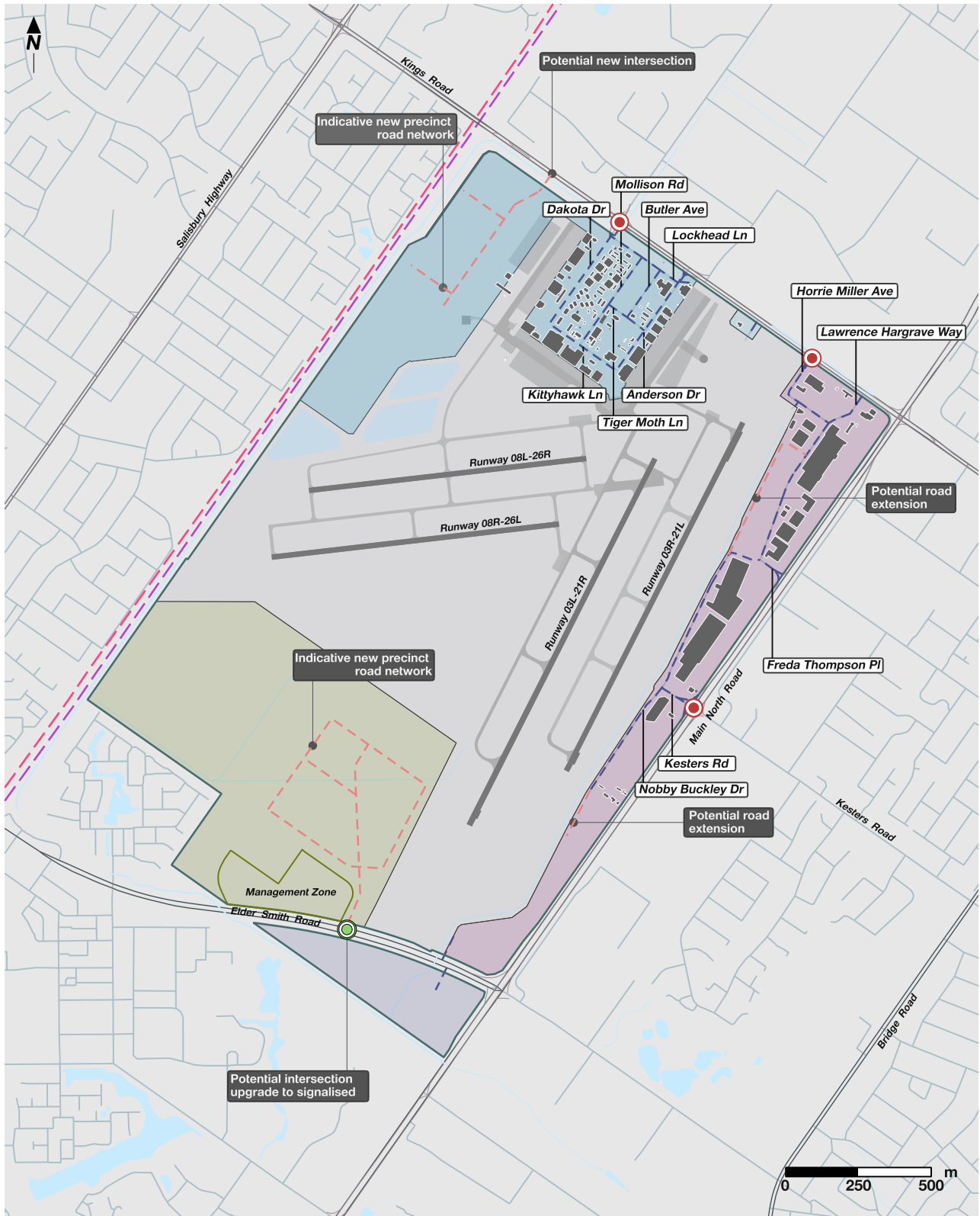
10.9.3.3 Enterprise Precinct

The Enterprise Precinct is largely undeveloped. An access point is provided from Elder Smith Road from which the internal B-double-capable road network will be determined, as required, to support development and traffic demand. To improve capacity and provisions for right-turning vehicles to and from the precinct in future, the existing Elder Smith Road intersection may be signalised aligned with an agreement with DIT in 2006. A secondary access point may also be desirable to the west of the main entrance to assist in distributing domestic vehicle traffic within the precinct and provide a potential separate access point for heavy vehicles.

PAL is supportive of an extension of Elder Smith Road to Port Wakefield Road, which would provide for improved connectivity between the airport and major transport networks to the north, east and south of Adelaide.

10.9.3.4 Bennett Precinct

The Bennett Precinct is located at the southern end of the airport to the south of Elder Smith Road and provides opportunities for low intensity activities. Service access is currently from Elder Smith Road via a 'left in, left out only' on the southern carriageway and is anticipated to be adequate for the future uses envisaged for this precinct. Informal access is also available from the northbound carriageway on Main North Road.



LEGEND

- Airport Boundary
- Runways
- Taxiways/Aprons
- Buildings
- Drainage/Water Body
- Railway (Metro)
- Arterial Roads
- Local Roads
- - - Landside Roads
- - - Potential Roads
- Management Zone
- - - Railway (Freight)

- Existing Signalised Intersection
- Potential Future Signalised Intersection
- Precinct Boundary

PARAFIELD AIRPORT PRECINCTS

- Runways
- Airport Business
- Commercial
- Bennett
- Enterprise

Figure 10.5: Parafield Airport 8-year Ground Transport Plan



LEGEND

- | | | | |
|---|--|--|--|
| <ul style="list-style-type: none"> — Airport Boundary ■ Runways ■ Taxiways/Aprons ■ Buildings ■ Drainage/Water Body — Precinct Boundary | <ul style="list-style-type: none"> — Arterial Roads — Local Roads — Landside Roads — Potential Roads □ Management Zone — Potential Railway Freight | <ul style="list-style-type: none"> ● Existing Signalled Intersection ● Potential Future Signalled Intersection — Railway (Metro) — Railway (Freight) | <p>PARAFIELD AIRPORT PRECINCTS</p> <ul style="list-style-type: none"> ■ Runways ■ Airport Business ■ Commercial ■ Bennett ■ Enterprise |
|---|--|--|--|

Figure 10.6: Parafield Airport 20-year Ground Transport Plan

10.10 Freight Rail

The rail corridor that forms the western boundary of the airport site is part of the Kalgoorlie to Serviceton and Parkes Corridor and is owned by Australian Rail Track Corporation. It provides freight connectivity to Perth, Darwin, Sydney and Melbourne.

A future freight railway spur link may be considered for the Enterprise Precinct to provide additional opportunities for the movement of freight and products into, or out of, the precinct, as illustrated in Figure 10-6.

The freight rail line is located to the west of the high-frequency passenger rail line, and any rail spur will need to be considered carefully through consultation with relevant authorities and stakeholders to determine feasibility, assess potential impacts on schedules and potential collision risks to both rail freight and commuter rail lines. Impacts on the existing open channel stormwater drain and shared path would also need to be considered.

10.11 Public Transport

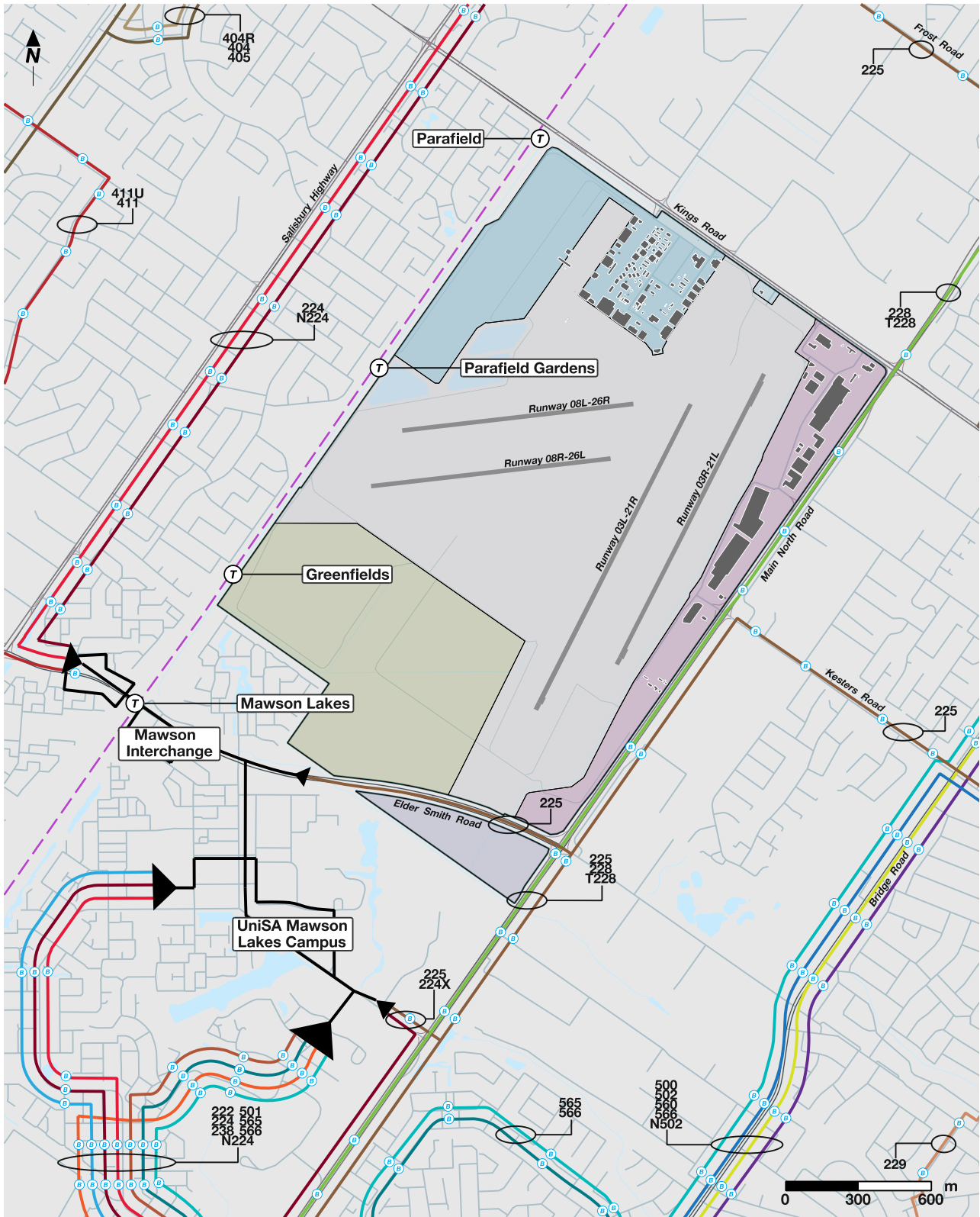
Public transport to the airport is primarily provided by passenger rail services along the Gawler rail line which is located adjacent to the western airport boundary and various bus services passing the airport along their routes, as shown in Figure 10.7. Both are operated by Adelaide Metro.

The bus service Route 225 passes along the southern and eastern boundaries via Elder Smith Road and Main North Road, and bus service Route 228 passes along the eastern boundary via Main North Road. Bus stops are located only on Main North Road. There is no bus service located along Kings Road.

PAL encourages improved bus connectivity to the airport to provide greater opportunities for the public to use public transport, including but not limited to:

- Inclusion of Route 228 bus stops within Commercial Precinct.
- Inclusion of Route 225 bus stops within the Enterprise Precinct as it is developed.
- Bus connectivity along Kings Road providing for access to Airport Business Precinct.

The rail corridor provides for the passenger rail service from Adelaide Railway Station to Gawler Railway Station. There are four rail stations on this line in the vicinity of the airport. Mawson Lakes Railway Station provides a key interchange between rail, bus and car travel. Greenfields Station, Parafield Gardens Station and Parafield Station are directly adjacent to the airport. Parafield Station has a park and ride facility that has potential for expansion which will need to be considered as part of the South Australian Government's Kings Road overpass project. The Gawler rail service currently operates every fifteen minutes in peak periods during weekdays and every half hour in non-peak periods.



LEGEND

- Airport Boundary
- - - Railway
- Runways
- Buildings

- Local Roads
- Arterial Roads
- Drainage/Water Body

- (B) Bus Stop
- (T) Train Station
- Precinct Boundary

PARAFIELD AIRPORT PRECINCTS

- Runways
- Airport Business
- Commercial
- Bennett
- Enterprise

Figure 10.7: Bus and rail routes and stops within and surrounding Parafield Airport

10.12 Active Travel

There are a series of cycling and shared paths (bicycle and pedestrian) within, around and connecting to the Parafield Airport site. Cycleways consist of off-road shared paths and on-road bicycle paths. There are on-road bicycle lanes, in both directions, along Main North Road and Elder Smith Road and an off-road shared path along the western boundary of the airport site and a portion of the northern boundary to Dakota Drive.

There is opportunity to extend the off-road shared path along the northern boundary of the airport site, both within the airport boundary and adjacent to it within the Kings Road verge. Similarly, there may be opportunity to further extend the path adjacent to Main North Road which would provide for a safe, well-lit environment for pedestrians and cyclists while providing access to food and retail in the vicinity. To the south of the airport, an off-road shared path within the Bennett Precinct would allow for connection to the existing path to the west and The Paddocks (community area currently being redeveloped by the City of Salisbury) to the south of the airport. PAL will continue to consult and collaborate with relevant authorities to further explore and develop a suitable shared path network, with consideration of opportunities both within the airport and within state and local government road reserves. The goal is to not only improve and promote active travel to and from the airport but to also contribute to the broader network and community.

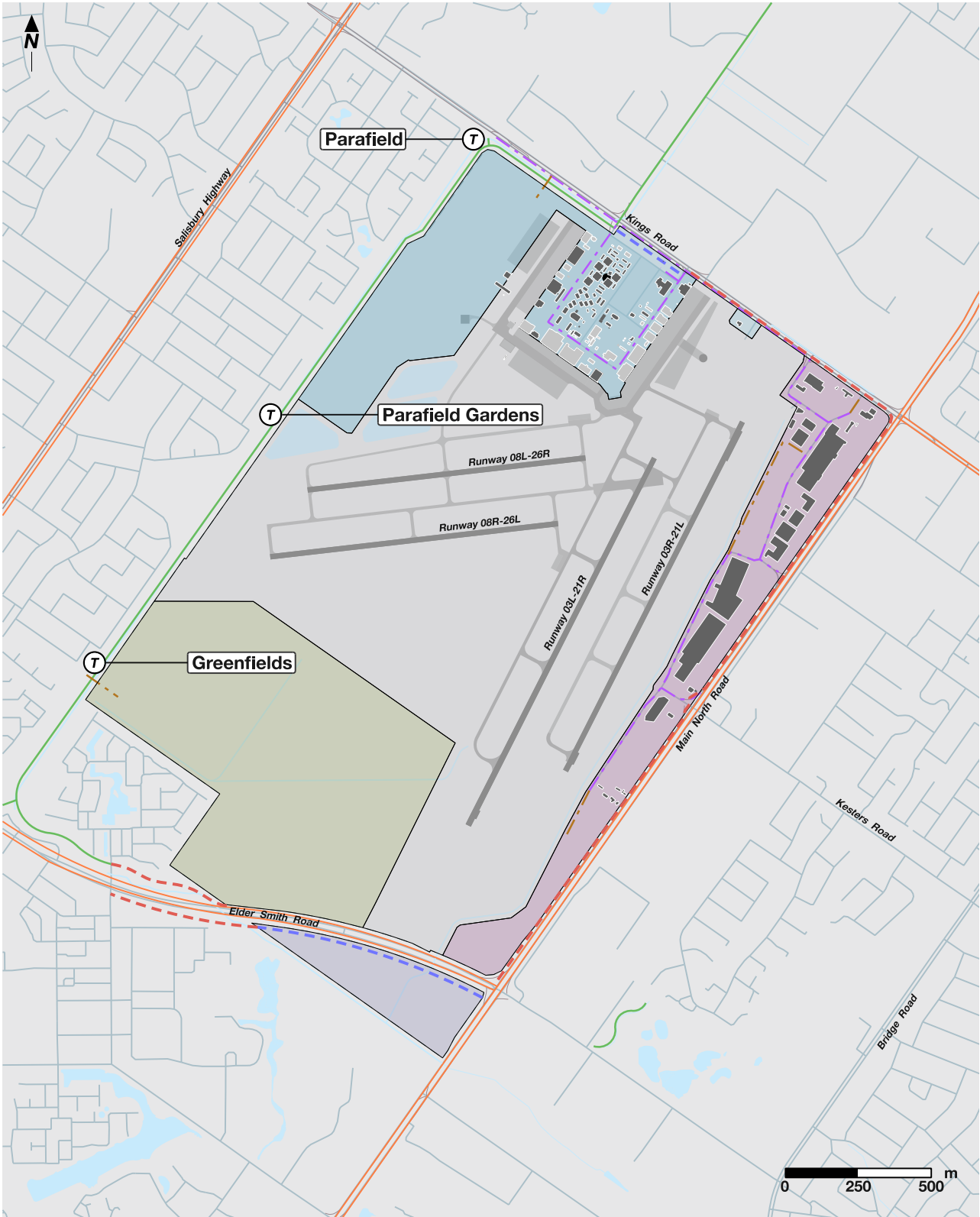
The primary pedestrian network servicing Parafield Airport is focused on the developed areas of the Airport Business Precinct and Commercial Precincts as illustrated in Figure 10-8. Proposed walkways within the Airport Business Precinct aim to improve connectivity to other existing or proposed paths. Within the Commercial Precinct walkways are proposed to extend in line with future development. For yet to be developed areas of the airport, such as the Enterprise Precinct and Airport Business Precinct (west), walkways and connectivity will be a key consideration of the precinct planning and development including connectivity to public transport.

The existing and potential future cycleways and shared paths are shown in Figure 10.8.

10.13 Car Parks

Vehicle parking within the Airport Business Precinct is provided within most individual business and commercial sites. Kerbside parking is also provided along Andersen Drive and Kitty Hawk Lane. Demand for parking from aviation staff and business customers has grown in recent years and additional car parking facilities are anticipated to be required in the short to medium term.

The Commercial Precinct requires a high degree of formalised parking. This is currently provided for within existing retail and commercial developments and will continue to be required for new developments. The road network within the Commercial Precinct does not permit kerbside parking to ensure clear and safe two-way flows of traffic are maintained.



LEGEND

- | | | |
|------------------------------|-----------------------------------|---|
| — Airport/Precincts Boundary | — Arterial Roads | — Existing Walkway |
| ■ Runways | — Local Roads | — Potential Walkway |
| ■ Taxiways/Aprons | — Existing Bicycle Lane (on-road) | — Potential Shared User Path (PAL) |
| ■ Buildings | — Existing Shared User Path | — Potential Shared User Path (External) |
| ■ Drainage/Water Body | Ⓣ Train Station | |

PARAFIELD AIRPORT PRECINCTS

- Runways
- Airport Business
- Commercial
- Bennett
- Enterprise

Figure 10.8: Existing and potential future cycleways and shared paths

10.14 Ground Transport Development Plan

The implementation plan for key ground transport upgrades proposed within the next 8 years and 20 years is based on current forecasts. The requirement and timing for ground transport developments will be informed by one or more of the following triggers, therefore the actual timing of developments may vary:

- New commercial development
- Capacity constraints resulting in delays, congestion
- External roadworks
- Improved customer experience
- Improved safety
- Change in mode share
- New technologies and innovation
- Viability of the proposed investment.

The 8-Year Development Plan and the 20-Year Development Plan are detailed in Table 10-1 and Table 10-2, respectively.

PAL will continue to consult with relevant authorities as triggers are approached and further design and modelling is undertaken.

TYPE	POTENTIAL PROJECT	BENEFITS
Roads	Airport Business Precinct – New intersection with Kings Road to provide access to the western section of the precinct	Increased capacity for forecast volumes Separation of heavy vehicles and light vehicles which dominate traffic within the eastern portion of Airport Business Precinct
	Airport Business Precinct - New internal road network aligned with proposed development	Access to new developments
	Commercial Precinct – Extension of Nobby Buckley Drive (north and south) to provide access for potential new commercial development	Access to new developments
	Enterprise Precinct – Signalisation of existing intersection on Elder Smith Road	Increased capacity for forecast volumes Appropriate heavy vehicle access and egress
	Enterprise Precinct – New internal road network aligned with proposed development	Access to new developments
Walkways and Cycleways	New walkways aligned with road extensions and new road networks within precincts	Reduced reliance on vehicular modes
	Extension of shared path on Kings Road (portion within the airport site)	Enables link to Main North Road cycle network
Car Parks	Airport Business Precinct - Additional car parking aligned with demand	Increased capacity for forecast volumes

Table 10-1: 8-Year ground transport development plan

TYPE	POTENTIAL PROJECT	BENEFITS
Roads	Airport Business Precinct – Modifications to Kings Road intersection	Increased capacity for forecast volumes
	Airport Business Precinct - New internal road network aligned with proposed development	Access to new developments
	Commercial Precinct – Extension of Nobby Buckley Drive (south) to provide access for potential new commercial development	Access to new developments Redistribution of traffic on the internal and external network
	Enterprise Precinct – New intersection on Elder Smith Road	Increased capacity for forecast volumes Potential separation of heavy vehicle access and egress from light vehicles
	Enterprise Precinct – New internal road network aligned with proposed development	Access to new developments
	Possible link between the Airport Business Precinct and Enterprise Precinct	Reduced traffic volumes on external road network More direct access for tenants that may use both precincts
Rail	Potential freight rail spur into Enterprise Precinct dependent on requirements and uses of future development	Reduced traffic volumes on external road network
Walkways and Cycleways	New walkways aligned with road extensions and new road networks within precincts	Reduced reliance on vehicular modes
	Extension of existing shared path adjacent to Elder Smith Road to connect into Enterprise Precinct	Enables off-road link to Main North Road cycle network
	New shared path within Bennett Precinct adjacent to Elder Smith Road	Enables off-road link to Main North Road cycle network
Car Parks	Airport Business Precinct - Additional car parking aligned with demand	Increased capacity for forecast volumes

Table 10-2: 20-Year ground transport development plan