

11. Traffic, transport, parking and access

This Chapter summarises the potential traffic, transport, parking and access impacts of the SWRL concept, based on the findings of Technical Paper 1 in Volume 2 of this report. The overall transport context within which the project is located is detailed in Section 2.3. Other details on the existing and future traffic and transport environment at Glenfield, Edmondson Park and Leppington are provided in Chapter 5.

11.1 Construction impacts

The construction activities that would have the greatest effect on the surrounding transport network include:

- earthworks — truck and plant movements associated with haulage of excess stripping and/or cut material, including mobilisation and demobilisation of plant to worksites and truck haulage from worksites to designated stockpile areas
- structures — the timing of construction of structures, particularly bridge structures that require traffic diversions and potential temporary lane closures
- potential cumulative impact of construction activities that overlap with other development in the area — including the development of Edmondson Park, which is likely to overlap with the SWRL construction.

These issues are discussed further in the following Sections.

11.1.1 Vehicle movements for earthworks

The heavy vehicle haulage routes associated with the construction of the proposed SWRL are illustrated and described in Chapter 8 (Construction and operational requirements).

The expected number of heavy vehicle haulage trips for earthworks (see definition above) on each road in the region and the potential impact on existing traffic volumes are summarised in Tables 11-1 and 11-2.

Table 11-1 Estimated heavy vehicle trips for earthworks

SWRL section	Road	Number of trips on road per work day	
		Trips by road and by section/worksite	Aggregate trips by road (rounded)
1 (northern flyover)	Glenfield Road/Cambridge Avenue	0.7	8 trips per workday (over a total of 6 month construction period)
4 (Glenfield Station east side)	Glenfield Road/Cambridge Avenue	7.8	
1 (southern flyover)	Campbelltown Road	0.7	42 trips per work day (over a total of 30 months of various construction periods)
4 (Glenfield Station west side)	Campbelltown Road	7.8	
2 (Chainage 42.4 to 56.4 kilometres)	Campbelltown Road	32.8	
4 (Edmondson Park Station)	Campbelltown Road	0.2	

SWRL section	Road	Number of trips on road per work day	
		Trips by road and by section/worksite	Aggregate trips by road (rounded)
2 (Chainage 46.5 to 52.78 kilometres)	Bringelly Road/Camden Valley Way	33.0	123 trips per work day (over a total of 30 months of various construction periods)
4 (Leppington Station)	Bringelly Road/Camden Valley Way	0.3	
3 (Stabling facility)	Bringelly Road/Camden Valley Way	89.7	

Note: The original number of trips calculated was doubled to reflect inbound and outbound truck trips. The number of months in the construction period was calculated by a sum of the number of days allocated for each construction activity.

Haulage volumes for work sites were aggregated in relation to the nearest access road.

Source: Technical Paper 1 (PB 2006)

Earthworks associated with the main alignment and the stabling facility would have the greatest potential impact on regional road networks, with Campbelltown Road subject to around 42 truck trips per work day for around 30 months. Bringelly Road/Camden Valley Way would carry around 123 truck trips per work day over an approximate 30 month period. The type of construction at Glenfield Station would only result in a few truck trips per day. Construction traffic movements associated with other stages of construction would have less potential impact on the local and regional road network.

11.1.2 Local and regional traffic and access

The potential impact of the SWRL construction on the surrounding road network is illustrated in Table 11-2. These increases would be minimal given the current heavy traffic loads experienced on most roads in the South West Growth Centre, and are unlikely to be noticed by motorists in the form of additional congestion.

Table 11-2 Haulage vehicle earthwork impact on the road network

Road name	Suburb	2002 average annual daily traffic	Estimated maximum two-way truck movements ²	Car equivalent movements ^{1,2}	% vehicle increase	% car equivalent increase
Bringelly Road	Austral	8,828	123	185	1.4%	2.1%
Camden Valley Way	Edmondson Park	35,380	123	185	0.3%	0.5%
South Western Freeway (Hume Highway)	Ingleburn	73,802	165	248	0.2%	0.3%
Campbelltown Road	Edmondson Park	12,892	42	63	0.3%	0.5%
Hume Highway	The Cross Roads	52,310	42	63	0.1%	0.1%
Glenfield Road	Glenfield	12,424	8	12	0.1%	0.1%
Moorebank Avenue	Glenfield	14,348	8	12	0.1%	0.1%

Source: RTA Traffic volumes for the Sydney region 2002, Technical Paper 1

Note 1: Converting truck movements to 'car equivalent movements' by a factor of 1.5 represents an increase of in traffic by an average of 0.5% over 2002 traffic levels.

2: Over the periods of time detailed in Table 11-1

The main potential for increased congestion during the SWRL construction are where haulage vehicles would be required to make a right turn from a minor road onto a major road, particularly at intersections with few traffic management measures. This is particularly relevant in the following locations:

- Eastwood Road right turn onto Bringelly Road
- Dickson Road right turn onto Bringelly Road
- Cowpasture Road right turn onto Bringelly Road
- Camden Valley Way right turn onto Bringelly Road
- Rynan Avenue right turn onto Bringelly Road
- Glenfield Road right turn onto Campbelltown Road.

Appropriate traffic modelling and traffic management analysis would be required at these localities in order to minimise traffic congestion and develop the most efficient traffic movement arrangement. This would be investigated further and would be a requirement under the construction contract.

The SWRL would require the construction of a number of over and underbridges at existing roads, which would temporarily affect general traffic and bus services. It is likely that most of these structures would be precast and delivered to the relevant site in oversized vehicles.

The most significant structure would be the cut-and-cover tunnel for the Hume Highway crossing. A 180 metre long roofed dive structure with an overall length of 580 metres would be required. The Hume Highway would be temporarily diverted to facilitate the construction of the roofed section of the dive structure and reinstated to its original condition following completion of this work. This is feasible within the Hume Highway corridor. The diversions would require a reduction in vehicle travel speeds, which would create some localised congestion.

The proposed construction of the required bridges over Campbelltown Road and Camden Valley Way during different time periods would minimise the risk of unforeseen closure of both roads at the same time. In the event of closure of either road, Denham Court Road would provide a diversion route for traffic between the two roads. Given the strategic importance of these roads, it is proposed that a construction methodology is considered that does not require a full road closure during bridge construction. The bridge structures could be constructed in two parts, with traffic diversions in place to ensure reasonable speed limits throughout construction.

Other road structures (including Cowpasture Road, Rickard Road, Dickson Road and Eastwood Road) would be less critical, as simple and short diversions and/or alternative access would be available to vehicular traffic. At these locations, it would be more cost-effective to allow for temporary full road closure during bridge construction.

Site-specific Traffic Management Plans and Traffic Control Plans would be developed for each locality surrounding the above works, where the traffic movements are likely to be affected. The Plans would address issues including road closures, timing and sequence of works, pedestrian access, emergency services access, length of works (time) and traffic detours.

The structures located at creek crossings such as Bonds Creek, Cabramatta Creek and the Sydney Water Supply Canal would have limited potential traffic impacts.

11.1.3 Rail services and station access

The Glenfield Junction works are the critical determining step for the project duration, and would require approximately 20 weekend track possessions (track closedowns) to complete, during which time, train services through Glenfield would be affected. Although possessions would be timed to ensure minimal impact, disruptions to freight, Countrylink and passenger services would be unavoidable. Disruptions to services would cause some inconvenience to rail passengers and freight operators; although buses would be put in place to replace train services and closedowns would be communicated in advance in accordance with standard RailCorp procedures. Other than during these closedowns, Glenfield Station would remain open during the construction works, with appropriate temporary arrangements incorporated. Pedestrian access from both sides of (and over) the rail corridor would be maintained throughout the construction period.

An estimated 28 month period for the construction of later stages of work at Glenfield Station (i.e. station upgrade works) would have the greatest potential impact on vehicular traffic and bus access to the Station. The potential impact on bus services during construction is detailed in Section 11.1.5 below. It is likely that restrictions on stopping would need to be imposed on Railway Parade in the vicinity of Glenfield Station during this period to ensure smooth traffic flow. However, Railway Parade would remain open to traffic during the entire construction period.

11.1.4 Parking

The existing commuter parking on the eastern side of Railway Parade, comprising approximately 120 spaces, would be removed for construction purposes. There is no space available to provide alternative parking spaces during the short term, and existing commuters would be required to park further from the station or at alternate station locations. TIDC would consider building the permanent replacement parking proposed (see Section 11.2.2) early in the project construction to mitigate potential impacts.

The extent of construction staff parking would vary depending on the construction method being employed at each site at any given time in the construction phase. Staff would generally access construction sites prior to AM and PM peak periods and, as such, would have little potential impact on traffic. Staff would generally use the haulage routes shown in Figure 8-3 to access each construction site.

11.1.5 Buses and taxis

Construction of the SWRL is likely to affect the circulation of bus services in the region. This would be addressed in traffic management plans for the affected localities. Some bus services would require route modification or re-routing where bus stops are relocated or where road closures occur during construction.

At Glenfield, the majority of bus activity is east of the rail corridor, with access from Railway Parade. Three bus services currently stop at Glenfield Station: Busabout routes 864 and 865 and Interline route 870 (see Table 5-1). Each of these bus services uses Railway Parade as a passenger drop-off/pick-up point. As it is likely that restrictions on stopping would need to be imposed on Railway Parade for the duration of the works at Glenfield Station and Junction, these bus routes would need to be diverted to drop-off and pick-up on nearby Hosking Road, which is also within comfortable walking distance of the Station.

Various bus services linking localities in the region are described in Table 6-4 and Appendix D of Technical Paper 1 (Volume 2 of the report). Any planned road closures associated with the SWRL construction activity may affect some of these services, including those on Campbelltown Road (Busabout Route 866) and in the Leppington area (Busabout Route 853/855).

Alternative arrangements for taxis at Glenfield station would be implemented, if required during construction.

11.1.6 Pedestrians and cyclists

The management of traffic at construction sites would need to ensure the needs of pedestrians and cyclists are accommodated. Pedestrian access at Glenfield Station from the car parking areas, retail centre, and Hurlstone Agricultural School, is via the pedestrian bridge over the Station, and provides unencumbered public access for those without a disability. It is the only pedestrian access point in the vicinity of the commercial activities on Railway Parade and thus serves an additional role for non-railway related pedestrian movements. The staging of construction works at the Station would need to be constructed to ensure that access across the corridor is retained at Glenfield Station.

The traffic management plans to be prepared (see Section 11.3) would consider potential impacts of the various work sites on pedestrians and cyclists.

11.2 Operational impacts and opportunities

11.2.1 Regional traffic and transport benefits

The regional traffic and transport benefits of the SWRL are discussed in Chapter 2 (Project Need). The project is expected to have significant regional benefits for traffic, transport and access in the South West Growth Centre and the wider South West Sydney region.

11.2.2 Local traffic and transport impacts

Glenfield Station

Based on mode of access estimates, Glenfield Station is forecast to attract about 700, and generate 400 vehicles, in the AM peak once the SWRL (including the upgrade of Glenfield Station is completed).

The main road access to the Station would remain via Railway Parade, with access west of the rail corridor from Canterbury Road and west of the rail corridor from Campbelltown Road and Camden Valley Way (via Glenfield Road). Access to the western Station entrance would remain via the existing Department of Education access road and the roundabout on Glenfield Road. To accommodate the upgraded Station, Railway Parade would need to be reduced to a single two-way carriageway in the vicinity of the Station. Bus, taxi and kiss-and-ride layover is proposed in proximity to the Station entrance. The proposed strategic bus corridor could be accommodated within the proposed drop-off/pick-up facility, if required.

Pedestrian access is likely to focus on linkages between Glenfield Station and Glenfield village. The existing zebra crossing would be moved northwards to accommodate pedestrian movements across Railway Parade. A pedestrian activated traffic signal could be installed to improve pedestrian safety and roadway capacity during the evening period.

The new residential development bounded between Glenfield Road, the transmission line and Campbelltown Road provides for cycle and pedestrian linkages to Glenfield Station, running alongside the western access road.

The reconfiguration of Glenfield Station would result in the loss of approximately 120 commuter parking spaces along Railway Parade. A number of alternatives are available to replace these parking areas, including:

- a 6,306 square metre site owned by RailCorp located 500 metres from the Station could accommodate approximately 280 at grade parking spaces
- formalising the parking on the existing Department of Education access road could yield a further 10-15 % increase in parking spaces (about 30 spaces). This would require minor works to provide an adequate parking surface and line markings
- increasing the use of existing Council parking at Seddon and Kennett Parks.

Edmondson Park Station

Based on mode of access estimates, by 2021, the proposed Edmondson Park Station is forecast to attract 200 vehicles and generate about 100 vehicles in the AM peak hour.

The Edmondson Park town centre and the surrounding area are planned to support the proposed SWRL and Edmondson Park Station. The SWRL and supporting bus network would reduce overall car use and activity within Edmondson Park and the regional road network. The town centre and medium density housing would be close to the Station and good pedestrian linkages would be important to facilitate walk access to the Station. Bardia Avenue would be the major access road to the Station; whereas, Croatia Avenue and Macdonald Road would be important access roads for public transport.

Leppington Station

By 2021, the proposed Leppington Station is forecast to attract about 1,700 and generate 900 vehicles in the AM and PM peak hour respectively. Camden Valley Way and Bringelly Road would provide regional access to the Station. Rickard Road, Heath Road and Ingleburn Road would be used to access the Station. Rickard Road would be the primary access upon opening.

Detailed precinct planning in the area would need to size access roads to ensure that interchange requirements and traffic needs could be accommodated.

11.2.3 Mode of access requirements

The patronage forecasts for the SWRL described in Section 2.5 were used to determine the mode of access and commuter car parking requirement estimates described in this Section. These were based on preliminary assessment and are subject to further analysis. In particular, they will require rationalisation against the Metropolitan Parking Strategy currently being developed by the Department of Planning.

Glenfield Station

The SWRL is forecast to reduce patronage on the Main South Line, as some existing passengers are likely to change to more convenient access locations (KBR 2006). Notwithstanding the expected attractiveness of the new stations proposed at Leppington and Edmondson Park, Glenfield Station is expected to remain a strategic station on the network. For this reason, the existing patronage levels at Glenfield (see Section 5.2.1) were assumed in for the mode of access estimates described below.

About 25 % of existing commuter parkers at Glenfield Station originate from areas that would be better served by the new SWRL stations. However, due to Glenfield’s strategic location at the junction of two existing rail lines (three with the addition of the SWRL), good road access and its relationship to the surrounding urban development areas, it will continue to be an attractive park-and-ride location. A reduction in commuter parking demand at Glenfield Station is unlikely in the long term, due to the attractiveness of the Station for parking. As a consequence, the pressure for park-and-ride spaces is likely to remain an issue, particularly in the short term.

Although improved bus access to the station is envisaged in the short and longer term, it is likely that bus transit would continue to remain a small contributor to the total mode split. Walking and cycling are likely to remain a moderate contributor; although opportunities for walking/cycling could increase to existing and future developments if good pedestrian and cycle links were provided.

The estimated mode of access and sizing requirements for Glenfield Station in 2021, following completion of the SWRL, are illustrated in Table 11-3, based on a review of existing mode of access, site constraints and opportunities, objectives for surrounding land use, the timing of development and policy considerations.

Table 11-3 Glenfield station mode of access requirements (2021)

Mode	Mode share	Facilities required	Sizing requirement (kerb space)
Walk/cycle	Moderate (25%)	Good pedestrian linkages	Minimum of LoS C ¹
Transit	Low (18%)	3 local passing routes and 1 passing strategic route	3 pick-up bays (40m) 2 drop-off bays (13m)
Kiss-and-ride/Taxi	High (30%)	Pick-up and drop-off facilities	8 pick-up bays (50m) 2 drop-bays (12m)
Park-and-ride	High (27%)	600–700 parking spaces	13,200m ² –15,400m ²

Note 1: LoS C is defined in *Pedestrian Planning and Design* by JJ Fruin (1987) and is the standard adopted by RailCorp for station design.

Source: Technical Paper 1

How the demand for 600-700 parking spaces at Glenfield could be handled requires further assessment (see Section 11.3.1).

Edmondson Park Station

By 2021, entries to the proposed Edmondson Park Station in the AM peak 3.5 hour period were estimated at approximately 1,000 passengers (KBR 2006). The estimated mode of access to and sizing requirements for the Station are illustrated in Table 11-4, based on a review of existing mode of access at rail stations in the south west of Sydney, site constraints and opportunities, objectives for surrounding land use, the timing of development and policy considerations.

Table 11-4 Edmondson Park Station mode of access requirements (2021)

Mode	Mode share	Facilities required	Sizing requirement (kerb space)
Walk/cycle	High (35%)	Good pedestrian linkages	Minimum of LoS C ¹
Transit	High (30%)	Drop-off and pick-up for 2 local passing routes and 1 'premium' passing route	3 pick-up bays (40m) 2 drop-off bays (13m)
Kiss-and-ride/Taxi	Low (15%)	Pick-up and drop-off facilities	4 pick-up bays (25m) 1 drop-bay (6m)
Park-and-ride	Moderate (20%)	200 parking spaces	4,400m ² –5,500m ²

Note 1: LoS C is defined in *Pedestrian Planning and Design* by JJ Fruin (1987) and is the standard adopted by RailCorp
Source: Technical Paper 1

As described in Chapter 7, approximately 250 commuter car parking spaces are proposed to be provided at the Station, which is broadly in accordance with the demand identified.

Leppington Station

By 2021, entries to the proposed Leppington Station during the AM 3.5 hour peak period were estimated at 5,900 passengers (KBR, 2006). The estimated mode of access to and sizing requirements for, the Station in the short term are illustrated in Table 11-5, based on a review of existing mode of access at stations in the south west of Sydney, site constraints and opportunities, objectives for surrounding land use, the timing of development and policy considerations.

Table 11-5 Leppington Station short-term mode of access requirements (2021)

Mode	Mode share	Facilities required	Sizing requirement (kerb space)
Walk/cycle	Low (20%)	Good pedestrian linkages	Minimum of LoS C ¹
Transit	Moderate (23%)	4 strategic routes 8 feeder routes	5 pick-up bays (65m) 2 set-down bays (30m)
Kiss-and-ride/Taxi	High (30%)	16 spaces	100m
Park-and-ride	High (27%)	1,200-1,600 spaces	31,000m ²

Note 1: LoS C is defined in *Pedestrian Planning and Design* by JJ Fruin (1987) and is the standard adopted by RailCorp for station design.
Source: Technical Paper 1

As described in Chapter 7, approximately 1,000 commuter car parking spaces are proposed to be provided at Leppington on opening of the SWRL. Although the demand may be slightly higher than this (as detailed above), the proposed short-term parking provision recognises that NSW Government policy is to encourage the use of bus non-car access to rail stations. That is, the demand for park-and-ride at the Station in the short-term could be reduced by limiting parking supply and providing bus transit as an alternative to car access. However, an extremely high level of service for bus transit would be required to compete with the flexibility of the car. Also, drivers may choose to travel longer distances and park at alternative locations on the Main South Line or travel the full journey by car. This issue would require further consideration during the development of the detailed station concept.

No patronage data is available for the longer term (past 2021). However, based on the town centre planning principles for Leppington (which are based on sustainable development), a higher walk-in catchment, higher levels of transit as the bus network develops,

and increased frequency and reliability of bus services are likely. Estimated requirements in the longer term are detailed in Table 11-6. The long-term forecasts will be reviewed as further precinct planning and patronage modelling is undertaken.

Table 11-6 Leppington Station long-term mode of access requirements (beyond 2021)

Mode	Mode share	Facilities required	Sizing requirement (kerb space)
Walk/cycle	High (30%)	Good pedestrian linkages	Minimum of LoS C ¹
Transit	High (30%)	5 strategic passing routes 15 feeder terminating routes	8–10 pick-up bays (100-130m) 4–5 set down bays (50-65m)
Kiss-and-ride/Taxi	Moderate (25%)	16 spaces	100m
Park-and-ride	Low (10%)	600 shared use spaces	13,200m ²

Note 1: LoS C is defined in *Pedestrian Planning and Design* by JJ Fruin (1987) and is the standard adopted by RailCorp for station design.

Source: Technical Paper 1

As described in Chapter 7, the long-term provision of park-and-ride facilities at the station would be carefully planned as part of the overall planning for the town centre, recognising that the Station would include a substantial bus-rail interchange facility.

11.2.4 Opportunities for pedestrian and cycle links

Major infrastructure projects like the SWRL can lead to severance of communities and the creation of barriers to movement, particularly for pedestrians and cyclists.

The movement of pedestrians and cyclists across and along the SWRL corridor could be facilitated by providing a shared cycle/pedestrian ‘rail trail’, where possible, adjacent to the SWRL corridor and by accommodating shared cycle/pedestrian facilities on or in bridge and culvert structures. Current NSW Government policy supports the development of rail trails (RTA 2005). However, the extensive use of embankment and cut to accommodate the SWRL could make the provision of a continuous rail trail costly and introduce issues of public safety where the rail corridor is not visible. Short trail sections close to the corridor could be considered to enhance the flow of pedestrians and cyclists between Edmondson Park and Leppington to the Western Sydney Parklands.

A potential cycle and pedestrian network to link Leppington and Edmondson Park to the Western Sydney Parklands and the Edmondson Park release area is illustrated in Figure 11-1.

Pedestrian and cycle facilities would be beneficial on Rickard Road (or other access roads within the planned Leppington town centre) to the southern side of Bringelly Road, which would provide access to the Western Sydney Parklands from Leppington alongside the Sydney Water Supply Canal. Edmondson Park could be linked to the Western Sydney Parklands via open space included in the Edmondson Park Local Environmental Plans and along land between the SWRL corridor and Denham Court. Within Edmondson Park town centre, access across the SWRL could be accommodated via the proposed road network. Cycle/pedestrian linkages across the SWRL could be improved by providing additional facilities at the Cabramatta Creek crossing, a crossing within Edmondson Park, a rail trail providing direct access to open space between Cabramatta Creek and Camden Valley Way, and a shared facility over Camden Valley Way.

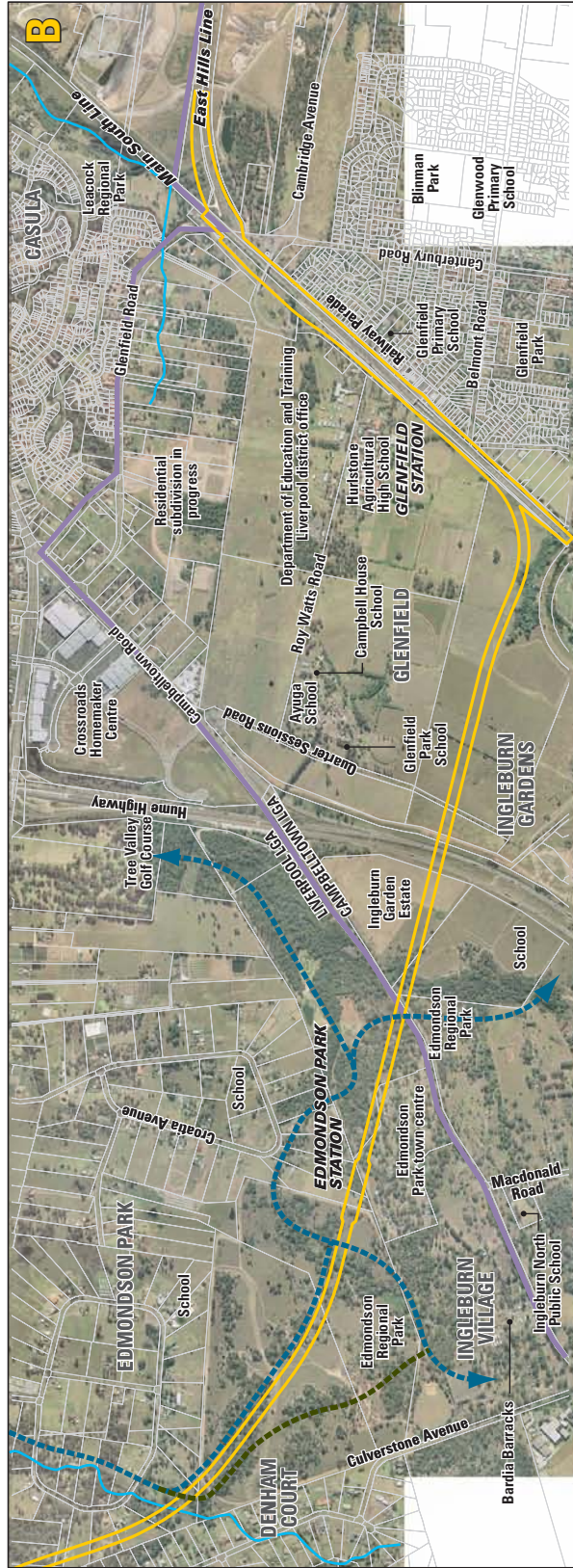
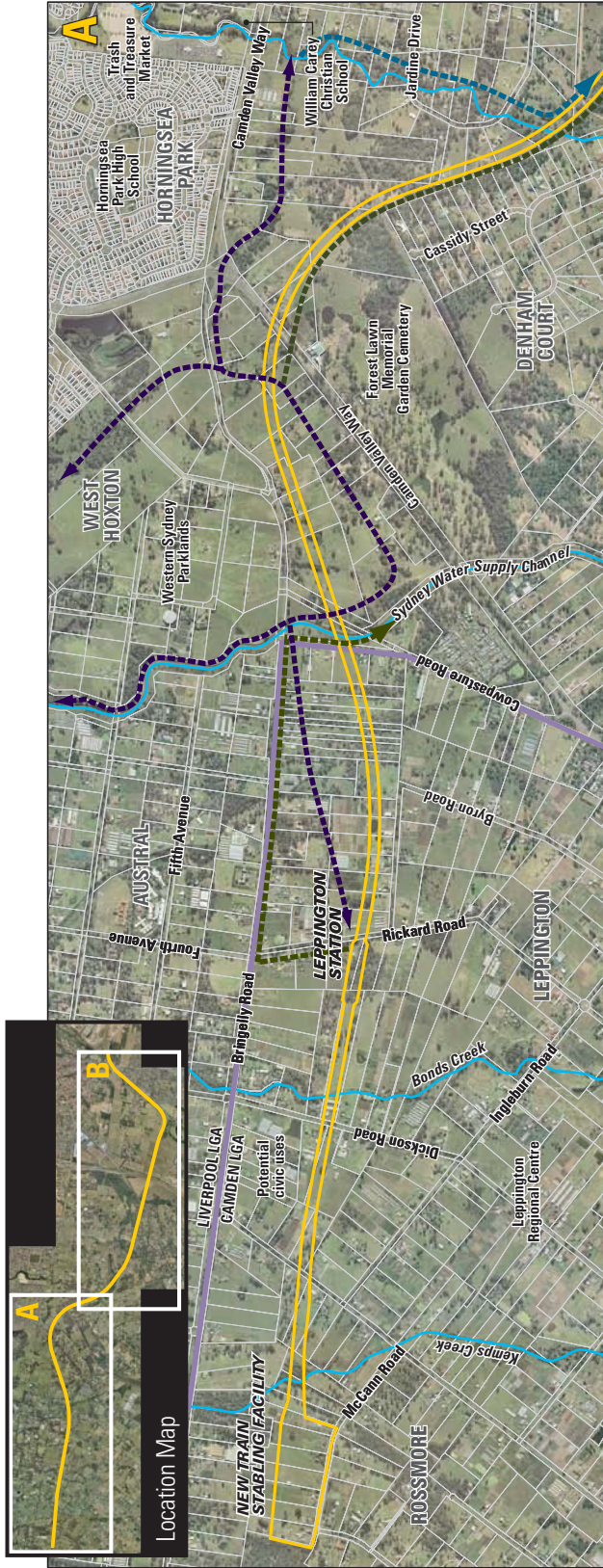


Figure 11-1 Potential cycle and pedestrian network

- Potential SWRL links
- Proposed SWRL corridor
- Western Sydney Parklands Department of Planning recommendations
- Edmondson Park recommendations
- LGA boundary
- Edmondson Park recommendations

0 1 kilometres

These opportunities require further assessment during the future design work on the project.

11.3 Recommendations for further assessment and mitigation

11.3.1 Further assessment

The following detailed assessments are recommended for further assessment as part of the next phases of the project:

- appropriate traffic modelling and traffic management analysis at intersections with potential increased congestion during the SWRL construction, to minimise traffic congestion and develop the most efficient traffic movement arrangement
- assessment of station mode of access interchange facilities, including commuter car parking and bus facilities
- assessment of provision of pedestrian and cycle linkages alongside the SWRL and at various crossing points
- preparation of the detailed traffic management measures required during construction (see Section 11.3.2)
- ongoing liaison with transport stakeholders, including the Roads and Traffic Authority, councils, bus companies and the Ministry of Transport during the design development
- resolution of commuter parking during construction at Glenfield.

11.3.2 Management/mitigation

Detailed traffic management during construction would need to recognise the potential cumulative impact of the SWRL and other construction activities including major infrastructure such as roads and services, and construction of housing and other urban amenities. The timing of the SWRL is, however, likely to occur prior to the other development in the area.

Construction traffic management plans and traffic control plans would be developed for the SWRL once the design and construction program are developed in more detail. Potential construction traffic impacts would be managed in accordance with a three-level hierarchy of plans:

- high level Traffic Management Reports prepared for LGAs that address potential cumulative traffic impacts across a number of construction work sites
- site-specific Traffic Management Plans that focus on individual construction work sites
- Traffic Control Plans for each location where works are proposed in the road or that would affect trafficable areas.

Recommended details of the content and purpose of each level of plan are included in Section 6.3.1 of Technical Paper 1 (Volume 2 of this report).

All of the required Traffic Management and Traffic Control Plans should be developed based on the standard guidelines.

The following specific measures should be considered in the development of the Plans:

- measures to ensure lanes on the Hume Highway are diverted during construction of the SWRL underpass (no lane closures)
- consideration of a construction methodology for the required bridges over Campbelltown Road and Camden Valley Way that does not require their closure
- measures to ensure that Glenfield Station remains open during the construction works (except during the required weekend track possessions), with appropriate temporary arrangements incorporated
- measures to ensure pedestrian access from both sides of (and over) the rail corridor at Glenfield Station is maintained throughout the construction period
- measures to allow for building of the permanent replacement parking proposed at Glenfield early in the project construction to mitigate potential impacts
- measures to mitigate potential impacts of the various work sites on pedestrians and cyclists.

Advance warning of construction would also ensure that public transport operators, public transport users, road users, and businesses and residents in the locality could prepare for any necessary alterations to journeys. As such, a Community and Stakeholder Involvement Plan would be prepared for the construction phase of the project to manage this issue. Some of the communications activities could take the form of press and media advertising of information for the general public. In addition, signs, posters and flyers could be used to supply on-the-ground information at Glenfield Station and in surrounding business areas. More specific issues that could be addressed during the consultation process include:

- notifying emergency services of works, alternative access arrangements and timing well in advance
- advising drivers, pedestrians and public transport users of upcoming changes to the road network, bus interchange or commuter parking areas at least two weeks prior to the changes commencing
- notifying bus, coach and taxi operators of construction works and timing in advance
- notifying public transport users of any revised operation through the use of notices and maps within the affected rail stations or affected bus stops/interchanges and on buses.