ORDINARY COUNCIL MEETING

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LARGE ATTACHMENT TO REPORT IE-055-16

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Infrastructure and Environment	
IE-055-16	City of Canning's Response to Draft Perth Transport Plan for 3.5 Million People and Beyond.
Attachment 1	Response to Draft Perth Transport for 3.5 Million (D16/134672)

Response to Draft Perth Transport Plan

City of Canning

| FINAL

27 September 2016

Response to Draft Perth Transport Plan

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Executive Summary

The Department of Transport released the *Perth Transport Plan for 3.5 Million People and Beyond* (PTP) in late July 2016. The PTP is open for public comment until 28 October 2016. Jacobs has been commissioned by the City of Canning (City) to prepare a response to the Department of Transport expressing the City's stance on the PTP.

Perth's population is planned to increase to 3.5 million (nominally by 2050). The PTP is a high-level strategic transport plan for Perth that considers how transport needs of the population will be provided for. It addresses the infrastructure provision as well as the travel demand management practices that may be employed. It caters for all transport modes: car, public transport, active transport. It also considers the movement of freight by road and rail. The PTP is informed by a number of technical reports. These are the:

- Cycling Network Plan;
- Perth Freight Transport Network Plan (parts 1 to 3);
- Public Transport Plan;
- Road Network Plan;
- Travel Demand Management Plan; and
- Mass Rapid Transit for Perth and Peel @ 3.5 Million and Beyond.

The City of Canning is a local government area in the south-east of Perth. The City is proactive in planning for transport and land use integration. Its requirements for transport systems in the future consider factors such as:

- The number of people living in the City which relates to the density and variety of housing available within the City; and
- The people working or recreating in the City as well as those who travel from and through the City to access other parts of Perth. This relates to the mix of land uses in the City, the availability of employment and facilities, the connectivity of the transport network and the location of Canning within broader Perth.

The City understands that an effective transport system is crucial in helping it attain its strategic planning goals. As such, the City has four major strategic planning documents that relate to transport. These are the:

- Integrated Transport Strategy (ITS) (2015);
- Movement, Access and Parking Strategy (MAPS) (2015);
- Draft Canning Cycling and Walking Plan (2016); and
- Draft Manning Road Light Rail Pre-Feasibility Study (2016).

This report tabulates each of the proposals in the PTP that are of relevance to the City. It also provides the City's proposals for transport projects that are not stated in the PTP.

The key recommendations to the Department of Transport, from a City perspective are:

1. The radial extension of the heavy rail line from Thornlie to Cockburn Central is acknowledged.
2. The light rail from UWA/QEII to Curtin University is acknowledged. From here Canning believes the light rail should extend from Curtin to Cannington railway station via Manning Road and the Canning City Centre.

3. Bus priority measures, such as queue jumps and bus lanes are acknowledged. Their locations should be determined in conjunction with the City of Canning.

4. The upgrade of Roe Highway to 8 lane freeway standard is acknowledged, along with the Roe 8 extension and eventual planned Perth Freight Link.

5. The upgrade of Leach Highway to expressway standard from Tonkin Highway to Orrong Road is acknowledged. Leach Highway south of Orrong Road should not be upgraded to expressway as it is not connected to another freeway/expressway, and therefore vehicles will be displaced onto roads in the City. Widening of Shelley Bridge is acknowledged. Grade separation of both road and rail is acknowledged. Consideration needs to be given to amenity of residential properties abutting Leach Highway.

6. The upgrade of Albany Highway to 6 lanes between Leach Highway and Welshpool Road is acknowledged. Grade separation of Albany Highway and Nicholson Road is acknowledged. Consideration of a 4 general traffic / 2 bus lane cross section for this portion of Albany Highway is recommended.

7. Upgrade of Ranford Road to a 4 general traffic / 2 bus lanes cross section is acknowledged. Removal of Ranford Road from the RAV network is acknowledged.

8. Expansion to the cycle network to include the routes outlined in the City of Canning's draft Canning Cycling and Walking Plan including cyclist/pedestrian bridges over Albany Highway and over the freight line in Canning Vale is acknowledged;

9. Additional Canning River cyclist/pedestrian crossings are generally acknowledged but further consideration needs to be given to the actual location of crossings and environmental constraints need to be accounted for.

10. The removal of the freight rail level crossing at Nicholson Road is acknowledged.

11. Travel demand management practices such as travel plans, travel behaviour change, parking strategies, end of trip facility provision and road use pricing are acknowledged. Increased public transport fares are unlikely to be supported.

Canning makes the following further general recommendations:

1. The plan is mono-centric and as a result, neglects Cannington in its role as a strategic activity centre in the south-east of the metropolitan area.

2. Policy needs to be brought forward in the Perth Transport Plan and linked to the issue it aims to address. In particular, policies for attaining mode shift from private vehicles to public or active transport need to be better articulated.

3. A method of project appraisal needs to be put forward. All projects must be subjected to the same appraisal process.

4. The status of the technical reports needs to be clarified. The technical reports contain reference to more projects and locations than are mentioned in the Perth Transport Plan itself.

5. Creative funding mechanisms should be explored. These may include value capture, local government levies, parking charges or road pricing.

6. It is recommended that an ongoing collaborative and consultative process should be adopted at the finalisation of the Perth Transport Plan.

Important Note

This report was prepared for the City of Canning (the City) in response the public release of the *Perth Transport Plan for 3.5 Million People and Beyond* (PTP) by the Western Australian state government. It articulates the City's thoughts on the content of the PTP and will be used as the basis for a submission to the Department of Transport whilst the period for public comment on the plan is open. This report has been prepared exclusively for the City and no liability is accepted for any use or reliance on the report by third parties. The report is to be read in full that is, no excerpts are representative of the findings.

The City has provided information and data used in the preparation of this report. This information and data are relied upon and presumed accurate at the time of the study and the writing of the report. Any warranty/guarantee (expressed or implied) to the data, observations and findings in the report are excluded to the extent permitted by law.

1. Introduction

The Department of Transport released the *Perth Transport Plan for 3.5 Million People and Beyond* (PTP) in late July 2016. The PTP is open for public comment for three months, and submissions are invited until 28 October 2016. Jacobs has been commissioned by the City of Canning (the City) to prepare a response to the Department of Transport expressing the City's concerns with the PTP.

1.1 Perth Transport Plan Background

The PTP is a high-level strategic transport plan for Perth. It has been prepared following the release of the *Perth and Peel @ 3.5 Million* planning framework by the Western Australian Planning Commission and the *Perth and Peel Green Growth Plan* by the Department of Premier and Cabinet.

Perth's population is planned to increase to 3.5 million (nominally by 2050). It is currently home to just over 2 million people. The vision of the PTP is for a "vibrant, connected and productive city". The plan aims to provide a transport system that delivers this vision.

The plan addresses infrastructure provision as well as travel demand management. It caters for all transport modes: car, public transport, active transport. It also considers the movement of freight by road and rail.

The plan sets targets for mode shift. It plans to increase public transport use to 11% of all-day trips increase cycling and walking to 18% of all day trips and reduce the mode share of car driver trips to 50% of all day trips.

The PTP has identified the following key aims for Perth's transport system:

- Optimising the existing network;
- Integrating land use with the public transport, active transport and road networks;
- Delivering high frequency, "turn up and go" mass rapid transit and adequate feeder services;
- Providing a safe, connected active transport network; and
- Maintaining a free flowing freeway and arterial road system to effectively distribute people and freight.

Non-infrastructure measures for improving the transport system are also considered and may include travel planning, parking strategies, transport pricing and travel behaviour programmes. It is acknowledged that new technologies such as electric and or autonomous vehicles may also impact transport planning for Perth into the future. Further to this, social trends such as the emergence of the "sharing economy" may lower the prevalence of exclusive ownership of cars, and reduce their use. Changes such as tele-commuting and online shopping may also impact the transport network. It is envisaged that the PTP will be reviewed every five years.

The PTP is informed by a number of technical reports. These are the:

- Cycling Network Plan;
- Perth Freight Transport Network Plan (parts 1 to 3);
- Public Transport Plan;
- Road Network Plan;
- Travel Demand Management Plan; and
- Mass Rapid Transit for Perth and Peel @ 3.5 Million and Beyond.

1.2 City of Canning Context and Local Transport Planning

The City of Canning is a local government area in the south-east of Perth. The City is proactive in planning for transport and land use integration. Its requirements for transport systems in the future consider factors such as:

- The number of people living in the City which relates to the density and variety of housing available within the City; and
- The people working or recreating in the City as well as those who travel from and through the City to access other parts of Perth. This relates to the mix of land uses in the City, the availability of employment and facilities, the connectivity of the transport network and the location of Canning within broader Perth.

The City currently has a population of about 100,000 people and is planning for significant population growth into the future, particularly in three project areas for which there are structure plans - Canning City Centre, Queens Park Railway Precinct and Bentley Regeneration Precinct. The City has articulated its plan to accommodate people in its Local Housing Strategy. The Local Commercial and Activities Centre Strategy lays out the City's plans for economic and social development, providing the detail for where people will work, shop and socialise.

The City understands that an effective transport system is crucial in helping it attain its strategic planning goals. As such, the City has four major strategic planning documents that relate to transport. These are the:

- Integrated Transport Strategy (ITS) (2015) - which identifies a range of interrelated transport strategies to assist the City in managing sustained urban growth and without compromising the community's high quality of life. It has six key areas of focus - roads, public transport, cycling and walking, parking, travel demand management and monitoring/feedback. The transport system is planned holistically in terms of how it contributes to the economy and increases accessibility to the City. Increasing population health, safety and social inclusion are also key outcomes for the Integrated Transport Strategy.
- Movement, Access and Parking Strategy (MAPS) (2015) - which plans for movement, access and parking within the Canning City Centre. The Canning City Centre is identified as a Strategic Metropolitan Centre in Directions 2031 (the strategic plan for Perth) and significant population increase is planned as well as altering of the land use mix. There are significant transport challenges to be met in transitioning the Canning City Centre from a commercial area to high density mixed use. These include increasing the levels of walking and cycling, increasing the number of people using Cannington Railway Station to access The City and other parts of Perth, optimising feeder bus services (or light rail) to connect Cannington to other Strategic Metropolitan Centres including Curtin, Murdoch and the Perth Airport, and addressing car use by modifying the levels of parking currently available in the Canning City Centre.
- Draft Canning Cycling and Walking Plan (2016) - was a recommendation of the Integrated Transport Strategy and is a strategic plan for walking and cycling within the City in the period until 2031. The plan recommends the construction of 5 key cycling routes that connect activity centres within Canning as well as providing links to locations outside of the City, such as Perth, Curtin and Murdoch. It also proposes a range of behaviour change measures to encourage cycling and walking including employing a TravelSmart Officer for the City.
- Draft Manning Road Light Rail Pre-Feasibility Study (2016) - also a recommendation of the Integrated Transport Strategy, this project looked at the space required to accommodate light rail from Curtin University to the Canning City Centre and the land take/rezoning that should be planned to secure land for such a project. It is envisaged that the light rail would run from Curtin University eastwards along Manning Road to Fleming Avenue, before proceeding in a yet to be determined configuration from Fleming Avenue to Cecil Avenue, then along Cecil Avenue to the Cannington Train Station.

1.3 Structure of This Report

The remainder of this report is structured as follows:

Chapter 2 - Provides a consideration of the proposals presented in the PTP as relevant to the City. It tabulates proposals in the plan within the City as well as proposals in the plan outside of Canning, but which will impact the City. It also tabulates the infrastructure that this not proposed in the PTP, but which the City believes should be included.

Chapter 3 - Discusses the need for the prioritisation of infrastructure projects and proposes that a strategic merit test be employed along with linking infrastructure projects to policy.

Chapter 4 - Key recommendations.

2. Identifying and Summarising Relevant Proposals

The PTP and its associated technical reports have been reviewed by Jacobs. Aspects of the plan that are likely to impact the City of Canning have been tabulated.

Table 1 identifies and summarises:

1. Proposed projects located in the City; and

2. Proposed projects located outside the City that may affect the City.

Table 2 describes projects or demand management measures that are not in the PTP, but which the City believes should be included.

Use of Population Targets and Future Years

In recent years, it has become normal to talk about Perth's future development in terms of trigger population figures. In general, the trigger population of 2.7 million is expected to occur about the year 2031, while the trigger population of 3.5 million is expected to occur about the year 2050. The tables typically try to align with the Perth Transport Plan in referring to the population targets by which certain projects may be required, however the years 2031 and 2050 may also be mentioned (in particular with regard to road infrastructure).

Maps

In addition, two maps have been created to indicate the locations of the proposed projects within the City. A map showing the projects proposed in the PTP is **Figure 1**. The map showing projects not in the PTP but which the City believes should be included is **Figure 2**.

Table 1: Proposals relevant to the City of Canning in the Perth Transport Plan

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
Public Transport	Radial Extension – Cockburn Central Station to Thornlie Station	2.7M people	**P**	**P**	The proposed rail link extension includes the provision of 2 new train stations at Nicholson Road and at Ranford Road. The proposal is consistent with the Integrated Transport Strategy and the Movement, Access and Parking Strategy.	Perth Transport Plan (page 17); Public Transport Plan (page 22); Integrated Transport Strategy (page 25); Movement, Access and Parking Strategy (page 34).	This is acknowledged by the City. The rail link would provide a more direct service to Cockburn for people using the train from rail stations within the City.	1
	Radial Extension - Armadale line to Byford	3.5M people		**P**	The proposal enables the community in Byford to have a direct public transport connection to employment centres in Armadale, Cannington, and Perth. The Public Transport Plan states that a transit centre (with adequate provision for Park 'n' Ride and bus connections) could be provided north of Thomas Road to provide for the wider area including Mundijong. Alternatively, the line could be extended directly to the Byford town centre.	Perth Transport Plan (page 17); Public Transport Plan (page 27).	This is acknowledged by the City. The rail link would provide better public transport accessibility from the City to other areas in the south east of the metropolitan area.	2
	Radial Extension - Forrestfield to Thornlie	Over 3.5M people		**P**	The rail link is indicated on the network map of the Perth Transport Plan only. There are no details in the Public Transport Plan. It appears that this extension would link Thornlie Station with the new Forrestfield Station on the Forrestfield/Airport Line, which is currently under construction.	Perth Transport Plan (page 17).	This is acknowledged by the City.	3
	Stirling- Murdoch Orbital Stage 3 Murdoch to Thornlie	Over 3.5M people		**P**	The proposed Stirling-Murdoch Orbital will connect (at its southern end) to the Armadale Line via Thornlie. The Stirling-Murdoch Orbital will be extended to Morley at its northern end, creating a circular route.	Perth Transport Plan (page 17); Public Transport Plan (page 31).	This is acknowledged by the City. The rail link would provide improved accessibility to Murdoch, Morley and Stirling for people in the City.	4
	Perth Light Rail Stage 1 – UWA – QEII to Curtin-Bentley	2.7M people		**P**	The Public Transport Plan recommends a road-based Light Rail Transit (LRT) orbital connecting UWA-Queen Elizabeth II (QEII) Medical Centre via the central and eastern CBD, Victoria Park, and Curtin-Bentley. The Public Transport Plan states the LRT would provide transfer opportunities from the rail-based radial network and the northern corridor at West Perth (with connection to Fremantle), Perth Underground/Central railway stations, the new Perth Busport, the eastern CBD and Canning Bridge. These opportunities for transfers would also provide relief to the congested central CBD stations.	Perth Transport Plan (page 21); Public Transport Plan (page 22).	The light rail connection between UWA/QEII and Curtin University through Perth City is acknowledged by the City.	5
	Perth Light Rail Stage 2 - Curtin-Bentley to Canning Bridge	3.5M people		**P**	See comments above in relation to Stage 1.	Perth Transport Plan (page 21); Public Transport Plan (page 22);	This proposal is acknowledged by the City. It is the view of the City that beyond Curtin, a light rail connection to Canning City Centre and the Cannington Railway Station would provide improved access to the	6

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
						Integrated Transport Strategy (page 25, 38); Movement, Access and Parking Strategy (page 34); Manning Road Light Rail Pre-Feasibility Study.	south-east. The City has already begun to plan a route for such a connection in the Manning Road Light Rail Pre-Feasibility Study.	
	Canning bridge bus interchange	2.7M people		**P**	The Public Transport Plan states that a new segregated bus station is proposed for Canning Bridge to allow for interchange of passengers between the bus, heavy rail and proposed light rail networks.	Public Transport Plan (page 24); Integrated Transport Strategy (page 25, 38); Movement, Access and Parking Strategy (page 34); Manning Road Light Rail Pre-Feasibility Study.	This proposal is acknowledged by the City. It is the view of the City that beyond Curtin, a light rail connection to Canning City Centre and the Cannington Railway Station would provide improved access to the south-east. The City has already begun to plan a route for such a connection in the Manning Road Light Rail Pre-Feasibility Study.	7
	Bus priority measures	3.5M people	**P**		The Perth Transport Plan states that bus priority measures such as queue jumps, signal priority and bus only lanes will be provided in 20 key corridors, but gives no details about routes/localities. The "Frequently Asked Questions" accompanying the Perth Transport Plan does list 20 key corridors. These are un-ranked and in the City include: · South Street/Ranford Road; · Circle Route Improvements. The Public Transport Plan recommends High Priority Public Transit Corridors to ensure the appropriate level of on road priority is given to buses as required. Corridors identified within the City are: · Murdoch to Canning Vale; · Cannington to Curtin University; and · Improvements to sections of the Circle Route. The Public Transport Plan further gives the guidelines about the minimum levels of transit that need to be achieved before bus priority measures could be installed. The Perth Transport Plan refers to Dynamic Stand Management and use of real-time tracking to allow for dynamic (variable/on the fly) allocation of buses to stands, thereby maximising stand use. The Road Network Plan states that dedicated bus lanes/bus priority measures have been implemented on the following routes: · Manning Road / Lawson Street bus lane, · Centenary Avenue bus queue-jumps, · Albany Highway / Nicholson Road bus lanes,	Perth Transport Plan (page 15, 38); Public Transport Plan (page 21, 34, 45); Road Network Plan (page 29, 49, 65); Integrated Transport Strategy (page 25, 58); Movement, Access and Parking Strategy (page 34).	This is acknowledged by the City. The City should be consulted by the relevant authorities prior to the implementation of road network changes in Canning.	8

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
					· South Street bus lanes; The Road Network Plan states that South Street and Ranford Road, which link Jandakot and Murdoch to Fremantle, will carry large traffic volumes by 2050 and will require a bus priority corridor. The Road Network Plan states that the section of Ranford Road between Roe Highway and Nicholson Road allows for 4 general traffic lanes and 2 dedicated bus lanes as this section carries high general traffic and bus volumes during peak periods. The Integrated Transport Strategy has also identified issues on many of the above-mentioned corridors.			
	Public Transport Network Optimisation	3.5M people	**P**	**P**	This proposal is consistent with the Integrated Transport Strategy and the Movement, Access and Parking Strategy documents which identify the need for increased capacity and increased frequency on the Armadale / Thornlie rail lines.	Perth Transport Plan (page 38); Public Transport Plan (page 33-36); Integrated Transport Strategy (page 25, 58); Movement, Access and Parking Strategy (page 34).	This is acknowledged by the City.	
Road	Roe Highway - upgrade to freeway standard and extension to Stock Road (Roe 8) Roe Highway - upgrade to 8 lanes and implementation of all lane running as required by demand	2.7M people 3.5M people	**P**		The Perth Transport Plan states that Roe Highway will be upgraded to freeway standard and extended from the Kwinana Freeway to Stock Road (Roe 8). The Road Network Plan states that Roe Highway will be upgraded to 8-lane freeway standard by 2050 (currently it is 4-lane or 6-lane). This will require the implementation of all lanes running (use of emergency lanes for general traffic) and Managed Freeways. It is noted that widening between Karel Avenue and Kenwick Link is constrained by a 330kV power transmission line and may require further investigation. The widening of Roe Highway would provide improved road access between the Canning Vale industrial area, the Welshpool/ Kewdale industrial area, and the inner and outer harbours on the coast. Roe Highway, together with Reid Highway will eventually form a ring road around Perth. The proposal is consistent with the Integrated Transport Strategy. The Integrated Transport Strategy identified major congestion issues on Roe Highway from Willeri Drive to Orrong Road.	Perth Transport Plan (page 23, 27, 28) Road Network Plan (page iv, 10). Integrated Transport Strategy (page 21, 24, 27, 32).	This is acknowledged by the City. The Roe 8 extension may remove heavy vehicles from Leach Highway (also stated in the Road Network Plan page 20). Roe Highway is also listed in the Freight section of this table.	9
	Leach Highway upgraded to Expressway between Tonkin Highway and Shelley Bridge. Widening of Shelley Bridge.	3.5M people	**P**		The Perth Transport Plan states that Leach Highway will be upgraded to expressway standard between Tonkin Highway and Shelley Bridge. An expressway is defined as: *"A divided highway with bridges and underpasses at all interchanges, but some access (eg. left in, left out)*	Perth Transport Plan (page 27, 28, 51); Road Network Plan (page 12, 22, 74); Integrated Transport Strategy (page 24, 32).	The City acknowledges upgrades to Leach Highway, in particular the widening of Shelley Bridge, but has some concerns about this proposal. The Freeway Network map in the Perth Transport Plan (Figure19 page 27) suggests that the proposed	10

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
					between those interchanges. Some parts of a highway may be constructed to an expressway standard." The Road Network Plan states that Leach Highway is an important regional freight route, extending from Tonkin Highway at Perth Airport to Fremantle. Shelley Bridge over the Canning River is constructed to a 4-lane cross-section. By 2050 Shelley Bridge will be duplicated and the existing traffic signals at Centenary Avenue will be removed. Within the City, grade separation is provided at, Albany Highway, and Orrong Road. Grade separation is planned at Welshpool Road and Manning Road by 2050. Beyond 2050 the intersection of Leach Highway with Bungaree Road is planned to be grade separated. The Road Network Plan notes that there are intersection constraints on Leach Highway between Manning Road and Stock Road. The Freight Transport Network Plan 3 suggests that Shelley Bridge will be widened to six lanes by 2.7million people. This conflicts with the Road Network Plan provisions. The Integrated Transport Strategy identifies a number of intersections where Leach Highway is congested. It also identifies a need to widen Shelley Bridge. Improvements in the Road Network Plan may relieve this congestion.		Expressway will end at Shelley Bridge, and therefore not connect to another Freeway/Expressway. As a result, the transition (slow down of trucks, dispersal of vehicles) of vehicles will occur in the City. It is recommended that the Expressway should end at Orrong Road. Important consideration should be given to urban land use. The City has concerns about the amenity of properties that abut Leach Highway. In particular, there are residential properties that have frontage on Leach Highway between Manning Road and Shelley Bridge within the City. Further work will be required in relation to access and land acquisition. There is no explicit mention about upgrades to rail crossings (road over rail). An example of this occurs where Leach Highway passes over the Armadale Rail Line. At this point, Leach Highway narrows to 4 lanes. This bridge will need to be duplicated to accommodate 6 traffic lanes and a shared path.Leach Highway is also listed in the Freight section of this table.	
	Orrong Road upgraded to Expressway between Graham Farmer Freeway and Roe Highway.	3.5M people	**P**		The Perth Transport Plan says that Orrong Road will be upgraded to expressway standard between Graham Farmer Freeway and Roe Highway. The Road Network Plan states that Orrong Road provides an important link between the airport and Perth CBD via Leach Highway. Orrong Road is classified as a major freight route, providing access to the Kewdale, Welshpool and Forrestfield industrial areas, playing an important role in the movement of freight in and out of this precinct as well as internally. The road is planned to 6-lane divided standard, and will be upgraded to 6-lane expressway standard between Graham Farmer Freeway and Roe Highway with rationalisation and grade separation of intersections. The Road Network Plan also noted intersection constraints on Orrong Road between Great Eastern Highway and Roe Highway.	Perth Transport Plan (page 28); Road Network Plan (page 12, 74); Integrated Transport Strategy (Page 21).	This is acknowledged by the City. Further work will be required in relation to access and land acquisition.	11

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
					The Integrated Transport Strategy identified major congestion issues on Orrong Road from Roe Highway to McDowell Street.			
	Kwinana Freeway all lane running	2.7M people		**P**	The Perth Transport Plan states that all lane running will be implemented to improve capacity. The Road Network Plan indicates that all lane running is part of a broader suit of improvements called Managed Freeways, which may also include coordinated ramp signals and variable speed limits.	Perth Transport Plan (page 23, 28, 51) Road Network Plan (page 7).	This is acknowledged by the City.	12
	East–West City Link Riverside Bridge and East-West Tunnel	3.5M people		**P**	The Perth Transport Plan states that there will be a new bridge/tunnel connecting Canning Highway at Berwick Street to Riverside Drive at Plain Street and a complementary tunnel linking Riverside Drive at Plain Street to the Narrows Interchange and Mounts Bay Road. The Road Network Plan determined that the river crossing substantially improves connectivity and transit operations between the city and areas east of the river, carrying strong peak period movements into/out of the CBD from Berwick Street and Canning Highway (East Victoria Park and Kensington). In addition, the crossing carries east-west movements between Albany Highway / Berwick Street / Great Eastern Highway (East Victoria Park, Kensington, Bentley, Redcliffe and Kewdale), and Mounts Bay Road (Subiaco, QEII, UWA and Nedlands) as well as the freeway north.	Perth Transport Plan (page 23-25) Road Network Plan (page 14, 51, 56).	This link should be reconsidered and justified. More roads will induce travel. The focus in recent years has been to reduce the number of cars in the CBD, so this project seems counter-intuitive. It may be better to consider an East-West ferry service instead to provide better access to the City of Canning through the Town of Victoria Park or another location. This ferry service could be coupled with incentives to encourage the use of public transport to the east (e.g. parking and road pricing strategies). This proposal will potentially contribute to destruction of habitat on Heirisson Island (if the road is not sunk underground in a tunnel) and disturbance of the riverbed.	13
	Shepperton Road upgraded to 6-lane divided standard	3.5M people		**P**	This is proposed in the Road Network Plan but is not in the Perth Transport Plan. The Road Network Plan states that Shepperton Road (and Albany Highway) form a major south east radial route linking the Perth metropolitan area with regional areas to the south of the state. Shepperton Road (Causeway to Welshpool Road) carries mainly commuter and commercial traffic and has been constructed for most of its length to 4-lane undivided standard. Shepperton Road will be upgraded to 6-lane divided standard. Modelling suggests the intersection with Welshpool Road will carry high volumes by 2050.	Road Network Plan (page 17).	This is acknowledged by the City, but it is recommended that the 6 lanes proposed for Shepperton Road comprise 4 general traffic lanes and 2 dedicated bus lanes.	14
	Albany Highway upgraded to 6-lane divided standard between Welshpool Road and Leach Highway. The intersection of Albany Highway and Nicholson Road is grade separated.	3.5M people	**P**		This is proposed in the Road Network Plan but is not in the Perth Transport Plan. The Road Network Plan states that between Welshpool Road and Leach Highway, Albany Highway has been constructed to 4-lane undivided standard with grade separation at Leach Highway. Between Leach Highway and Kenwick Link it has been constructed to its ultimate 6-lane cross-section. By 2050 the section between Welshpool Road and Leach	Road Network Plan (page 17, 74); Integrated Transport Strategy (Page 21, 24, 38, 74).	The City acknowledges upgrades to Albany Highway, but has some concerns about this proposal. From Station Street to Wharf Street, Albany Highway passes through the Canning City Centre. The highway forms a physical barrier and causes severance between the “river” and “Carousel Shopping Centre” sides of the City Centre. It is difficult for pedestrians and cyclists to cross. At this location there is already congestion. As much of the traffic on this section of	15

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
					Highway will be upgraded to 6-lane divided standard, tying in with the existing 6-lane section to the south. Modelling suggests the intersection with Nicholson Road may need grade separation by 2050. The Road Network Plan also notes intersection constraints between Great Eastern Highway and Kelvin Road.		the Highway is single-occupant cars, the City believes to behaviour change techniques can be employed to manage demand for the road. Further, the City would also support the investigation of undergrounding of Albany Highway through its City Centre. In the section of Albany Highway from Leach Highway to Welshpool Road, the City suggests that the 6 lane cross section should comprise 4 general traffic lanes and 2 dedicated bus lanes. The City acknowledges the grade separation of Albany Highway and Nicholson Road.	
	Ranford Road upgraded to 6-lane cross section between Roe Highway and Nicholson Road		**P**		This is proposed in the Road Network Plan but is not in the Perth Transport Plan. The Road Network Plan states that the section of Ranford Road between Roe Highway and Nicholson Road will carry high passenger volumes (over 1,000 passengers per hour on sections by 2050). A 6-lane cross-section (4 general traffic lanes and 2 bus lanes) is planned by 2050. The Integrated Transport Strategy identified Ranford Road as operating at capacity from Waratah Boulevard to Roe Highway in the AM peak. It identified Ranford Road/Bannister Road/South Street intersection in the top five within the City for crashes.	Road Network Plan (page 65, 74); Integrated Transport Strategy (Page 20, 21, 24, 25, 32).	This is acknowledged by the City.	16
	Burrendah Boulevard	3.5M people	**P**		The map titled “Expansion of the Road Network @ 3.5 million) in the Road Network Plan suggests Burrendah Blvd will require update at 3.5million people, but no further detail is provided.	Road Network Plan (page 25)	The City does not support increasing the capacity of Burrendah Boulevard. Burrendah Boulevard provides direct access to the Southlands Shopping Centre, a large recreation area as well as residential properties. It is also a bus route.	17
	Sevenoaks Street between Wharf Street and William Street	3.5M people	**P**		The map titled “Expansion of the Road Network @ 3.5 million) in the Road Network Plan suggests portions of Sevenoaks Street will require update at 3.5million people, but no further detail is provided.	Road Network Plan (page 25)	The City acknowledges the upgrading of Sevenoaks Street to a 4 lane road with modifications (narrowing) of the road at TOD Sites. Sevenoaks Street borders two structure plan areas and local planning is at an advanced stage in this area (Canning City Centre and the Queens Park Structure Plans). Significant residential increase is planned.	18
	Jandakot Eastern Link road	3.5M people	**P**		This is proposed in the Road Network Plan.		The City acknowledges the Jandakot Eastern link Road.	27
Active Transport	Upper Canning Connections – 1. Pipeline River Crossing; 2. Salter Point Bridge; 3. Canning River Elevated Boardwalk.	3.5M people	**P**		The Perth Transport Plan provides for three pedestrian/cyclist bridges (the Upper Canning Connections) over the Canning River improving access to Curtin-Bentley hub, Cannington, and Canning Vale . The Cycling Network Plan gives this added detail: 1. Salter Point Bridge would link Rossmoyne to Salter Point and provide an alternative north-south route	Perth Transport Plan (page 34); Cycling Network Plan (page 24); Integrated Transport Strategy (page 26); Draft Canning Cycling and	The City acknowledges the additional Canning River crossings, but the information below should be considered. The Salter Point Bridge would provide a conduit for cyclists south of the Canning River to access Curtin en route to the Freeway or Perth CBD. A boardwalk should be constructed over the native vegetation in Salter Point so as to minimise impact on the Salter	19

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
					between Curtin and Cockburn, relieving pressure on the Kwinana Freeway Principal Shared Path. 2. Pipeline River Crossing would utilise the existing water/power corridor to provide a direct north-south link between Canning Vale and Curtin University. It is likely such a connection could be added when the existing pipeline structure has reached the end of its life. Further investigation may reveal the potential for a cycling facility to be retrofitted to the pipeline structure itself. 3. Canning River Elevated Boardwalk would provide a link between Spencer Road/Nicholson Road and the proposed Berwick Street strategic route. The Integrated Transport Strategy flags crossing Leach Highway as a problem for cyclists (especially Shelley Bridge). The Draft Canning Cycling and Walking Plan identified the need for cyclists and pedestrians to be able to cross the Canning River to access activity centres within Canning on both the northern and southern sides of the River. The River was also identified as a key attractor for recreational cyclists and walkers. It suggested the need for new or improved cyclist/pedestrian bridges at Shelley Bridge, Kent Street Weir, Willcock Street and Nicholson Road.	Walking Plan (page 52).	Point lagoon/wetland peninsular. The amount of constructed path work appears to be limited in this area which should minimise the impact on native vegetation. It is also recommended that a boardwalk be constructed over the native vegetation on the Shelley Rossmoyne Foreshore to minimise potential impact on the fringing vegetation of the river foreshore. The Pipeline Crossing is broadly consistent with a Shelley Bridge crossing, but should be reprioritised and provided at 2.7 million people. The structural integrity of the existing path along Centenary Avenue has been subject to foreshore erosion problems and flooding, particularly closer to Shelley Bridge. Erosion control works were recently undertaken along the section of Centenary Avenue foreshore near Shelley Bridge. A pipeline crossing would help cyclists avoid this rehabilitation area. Consider the establishment of a fishing platform alongside the proposed crossing. Consideration needs to be given to whether to construct the pipeline crossing, the Shelley bridge crossing or both. Canning River Elevated Boardwalk in this location is not supported by the CoC. The boardwalk/path construction will potentially impact native vegetation in the Canning River Regional Park. The proposed boardwalk/paths would be located in protected bushland in the Canning River Regional Park (Bush Forever site no.224). Providing additional access through this area is not generally supported. There is an existing route close by that cyclists can take. Fleming Avenue links to an existing cycle path along Carden Drive that joins on to Greenfields Street and Willcock Street. A second option of crossing the river via a new boardwalk across Wharf Street Wetland would not provide much benefit to users and would increase maintenance costs into the future. The proposed boardwalk is over a long length of river, when there are alternative shorter lengths of river that could be traversed. The boardwalk and paths would intersect the Wharf Street Wetland, an environmentally sensitive area which has recently been restored and revegetated. The Spencer Road – Fleming Avenenue link provides a route on the Chapman Road – Berwick Street alignment which crosses Leach Highway. No provision is provided for this in the Plan.	
	Off-road cycleways on both sides of Canning River using boardwalks, and floating pontoons	3.5M people	**P**		The Perth Transport Plan states the need for improvements to off-road cycleways (recreational	Perth Transport Plan (page 30);	This is acknowledged by the City. The City would advocate for the routes to be decided in consultation with those proposed in its draft Cycling and Walking	

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
					network) on both sides of Swan and Canning Rivers. The Cycling Network plan states that paths should be provided from Fremantle to Gosnells alongside the rivers. It also identifies that there may be environmental or heritage constraints in some locations.	Cycling Network Plan (page 15); Travel Demand Management Plan (page 5, 27); Integrated Transport Strategy (page 26); Draft Canning Cycling and Walking Plan (page 52).	Plan.	
	On-road cycling network improvements	3.5M people	**P**		Aside from bridges, the Perth Transport Plan contains no specific details and says that improvements will be assessed on a case by case basis. The Cycling Network Plan supports the development of local bicycle routes. It also states that Bicycle Boulevards will be implemented in older suburbs but gives no further details in terms of locations.	Perth Transport Plan (page 31); Cycling Network Plan (page 17); Travel Demand Management Plan (page 5, 27); Integrated Transport Strategy (page 26); Draft Canning Cycling and Walking Plan (page 50, 52).	This is acknowledged by the City. The City would advocate for the routes to be decided in consultation with those proposed in its draft Cycling and Walking Plan. Bicycle Boulevards in appropriate locations are supported by the City. The Draft Canning Cycling and Walking Plan proposes Bicycle Boulevards in Canning along Gibbs Street, portions of Wharf Street, Halsey Close, Herndon Close Doust Street, portions of Boulder Street, Willcock Street, Upnor Street Bridge Street, part of McKay Street, part of Marquis Street.	
	Expansion of the Principal Shared Path Network along the Armadale Railway line	2.7M people		**P**	This is not stated in the Perth Transport Plan. The Cycling Network Plan states that the Principal Shared Path network will be extended along the Armadale Rail line. The section of PSP within the City is complete. The City supports the extension of the PSP northwards of Welshpool Station and southwards of Lacey Street.	Cycling Network Plan (page 12); Travel Demand Management Plan (page 5, 27); Integrated Transport Strategy (page 26); Draft Canning Cycling and Walking Plan (page 52).	This is acknowledged by the City.	20
	Expansion of the Principal Shared Path Network between Fremantle and the consolidated airport terminal	3.5M people	**P**	**P**	This is not stated in the Perth Transport Plan. The Cycling Network Plan states that a Principal Shared Path could be considered between Fremantle and the airport, along Leach Highway.	Cycling Network Plan (page 14).	This is acknowledged by the City.	21
	Upper Swan Connections:- o Heirisson Island o Racecourse o Maylands bus bridge	2.7M, 3.5M, 3.5M people		**P**	The Perth Transport Plan states that these green (ie. cyclists and pedestrians only) bridges will be constructed over Swan River	Perth Transport Plan (page 33) Cycling Network Plan (page 22).	This is acknowledged by the City.	22
Freight	Roe Highway	2.7M people 3.5M people	**P**	**P**	The Freight Transport Network Plan states that Roe Highway is the most heavily trafficked heavy vehicle route in the Perth area. The future extension of the Roe Highway (Roe 8) between Kwinana Freeway and Stock Road will establish it as the main east-west route into the Fremantle Inner Harbour further	Perth Freight Transport Network Plan 3 (page 59, 60, 70); Integrated Transport Strategy (page 24, 32).	This is acknowledged by the City. Roe Highway is also listed in the Roads section of this table.	9

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
					underpinning substantial growth in freight volumes. Roe Highway to be six lanes and freeway standard between Kwinana Freeway and Tonkin Highway. It will function as a ring road bypassing much of the inner city. Roe Highway extension from Kwinana Freeway to Stock Road (Roe 8) to be done (no date is given for this in the Freight Transport Network Plan).			
	Leach Highway	2.7M people 3.5M people	**P**	**P**	The Freight Transport Network Plan states that Leach is one of Perth's earliest and most integral freight routes and is a strategic east-west connection between the existing port and industrial lands and interstate rail terminals at Kewdale and Forrestfield. In the future, sections of Leach Highway, particularly between Welshpool Road and Tonkin Highway, will support increases in freight traffic. The exception to this is between Stock Road and Kwinana Freeway, where the construction of Roe 8 will significantly reduce the amount of trucks using this part of Leach Highway. The Freight Network Plan suggests that Leach Highway will only be expressway standard from Perth airport to Orrong Road (conflicts with Road Network Plan, which takes the expressway to Shelley Bridge). Widening of Shelley Bridge to 6 lanes by 2.7m is shown in Map 6 of the Freight Network Plan 3. Grade separation of Leach Highway / Manning Road and Leach Highway / Bungaree Road by 3.5m is shown in Map 7 of the Freight Network Plan 3.	Perth Freight Transport Network Plan 3 (page 61, 70, 81, 82); Integrated Transport Strategy (page 24, 32).	The City acknowledges upgrades to Leach Highway, in particular the widening of Shelley Bridge, but reiterates the need for consideration to be given the amenity of properties that abut Leach Highway. In particular, there are residential properties that have frontage on Leach Highway between Manning Road and Bungaree Road within the City. There is no explicit mention about upgrades to rail crossings (road over rail). An example of this occurs where Leach Highway passes over the Armadale Rail Line. At this point, Leach Highway narrows to 4 lanes. Leach Highway is also listed in the Road section of this table.	10
	Freight rail upgrades: · Remove level crossings at Nicholson Road in Canning Vale; · Progressively remove high risk at crossings with use of bridges / underpasses; · Double stacking; · Expanded operating hours for freight rail.	2.7m people 3.5m people	**P** **P**	**P**	Rail grade separations include the removal of the level crossing at Nicholson Road in Canning Vale (immediate priority, already funded). The Perth Freight Transport Network Plan 2 refers to removal of level crossings in relation to freight and states that the Western Australian government will continue its investment program in grade separations. There are no details identifying specific crossings or what quantifies are high risk crossing. It is noted all new and replacement structures over relevant freight lines will be constructed to a clearance of 7.3m to enable double stacking (of containers on the railroad cars to increase capacity). It is proposed to increase the operational hours for freight rail. Community concerns about adverse impacts of freight movements including noise and vibration are noted.	Perth Transport Plan (page 36); Perth Freight Transport Network Plan 2 (page 25, 29, 33, 34). Integrated Transport Strategy (page 24, 32, 56).	This is acknowledged by the City with appropriate consideration (mitigation for noise and vibration) for freight rail through residential areas.	23
	New intermodal terminal – Kewdale Terminal 2 (T2)	2.7m people		**P**	The Freight Transport Plan recommends a series of high-capacity intermodal terminals located in the Kewdale and Forrestfield areas to facilitate the interstate and international rail freight markets.	Perth Transport Plan (page 36); Perth Freight Transport Network Plan 2 (page 41,	This is acknowledged by the City.	24

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
						43, 47).		
	Duplicating the single track sections at Forrestfield Kewdale.	2.7M people		**P**	The Freight Network Plan 2 states that the existing Forrestfield Kewdale section of the network converges to single-track configuration in areas which causes congestion. Full duplication is required for sections of single-track to eliminate these existing bottlenecks, and to improve efficiency of freight train movements and allow for future expansion and development of intermodal terminals in the Kewdale and Forrestfield precincts.	Perth Transport Plan (page 36); Perth Freight Transport Network Plan 2 (page 27, 32); Integrated Transport Strategy (page 26).	This is acknowledged by the City.	25
	Perth Freight link	2.7M people		**P**	The Perth Transport Plan says that the planned Perth Freight Link will connect Muchea to Fremantle Port, comprising NorthLink, Gateway, Roe 8, Fremantle Tunnel, and the Fremantle Port. The planned Perth Freight link project and eventual widening of Roe Highway will provide improved road access between the Canning Vale industrial area and the Welshpool/ Kewdale industrial area. The Freight Transport Network Plan 3 states that the strategic freight network provides linkages out of the metropolitan area to the north (via the Perth Darwin National Highway), the east (via Great Eastern Highway), the south west (via Kwinana Freeway / Forrest Highway and Tonkin Highway) and the south east (via Albany and Brookton Highways). As discussed above, the Perth Darwin National Highway will be constructed to Muchea and the Perth Adelaide National Highway will replace Great Eastern Highway as the primary freight access from the east. The preferred access from the south east is via the Welshpool Road East / Canning Road route, providing a link between Brookton Highway and Tonkin and Roe Highways.	Perth Transport Plan (page 23) Perth Freight Transport Network Plan 3 (page 59, 72); Integrated Transport Strategy (page 24).	This is acknowledged by the City provided that noise mitigation is provided where the freight routes abut residential areas.	26
	Ranford Road to have Restricted Access Vehicle downgrade	2.7M people			Map 5 in the Freight Transport Network Plan 3 shows Ranford Road as currently being in RAV4 class. By 2.7m it will no longer have this function (no longer in the Principal Road Freight Network).	Perth Freight Transport Network Plan 3 (page 80)	This is acknowledged by the City.	16
Travel Demand	Travel plans for new developments	2.7M people	**P**		The Travel Demand Management Plan states that establishing travel plans in new major commercial and residential developments in Perth could be achieved through building on existing processes that have proved successful in introducing travel plans for some specialised activity centres and large commercial developments in Perth. Travel plans will become compulsory for major commercial and residential developments within Strategic Activity Centres in Perth at 2.7 million. They will become compulsory for all major commercial developments elsewhere in Perth by 3.5 million.	Perth Transport Plan (page 39); Travel Demand Management Plan (page 3, 16); Integrated Transport Strategy (page 49-50, 62); Draft Cycling and Walking Plan (page 70).	This is acknowledged by the City.	

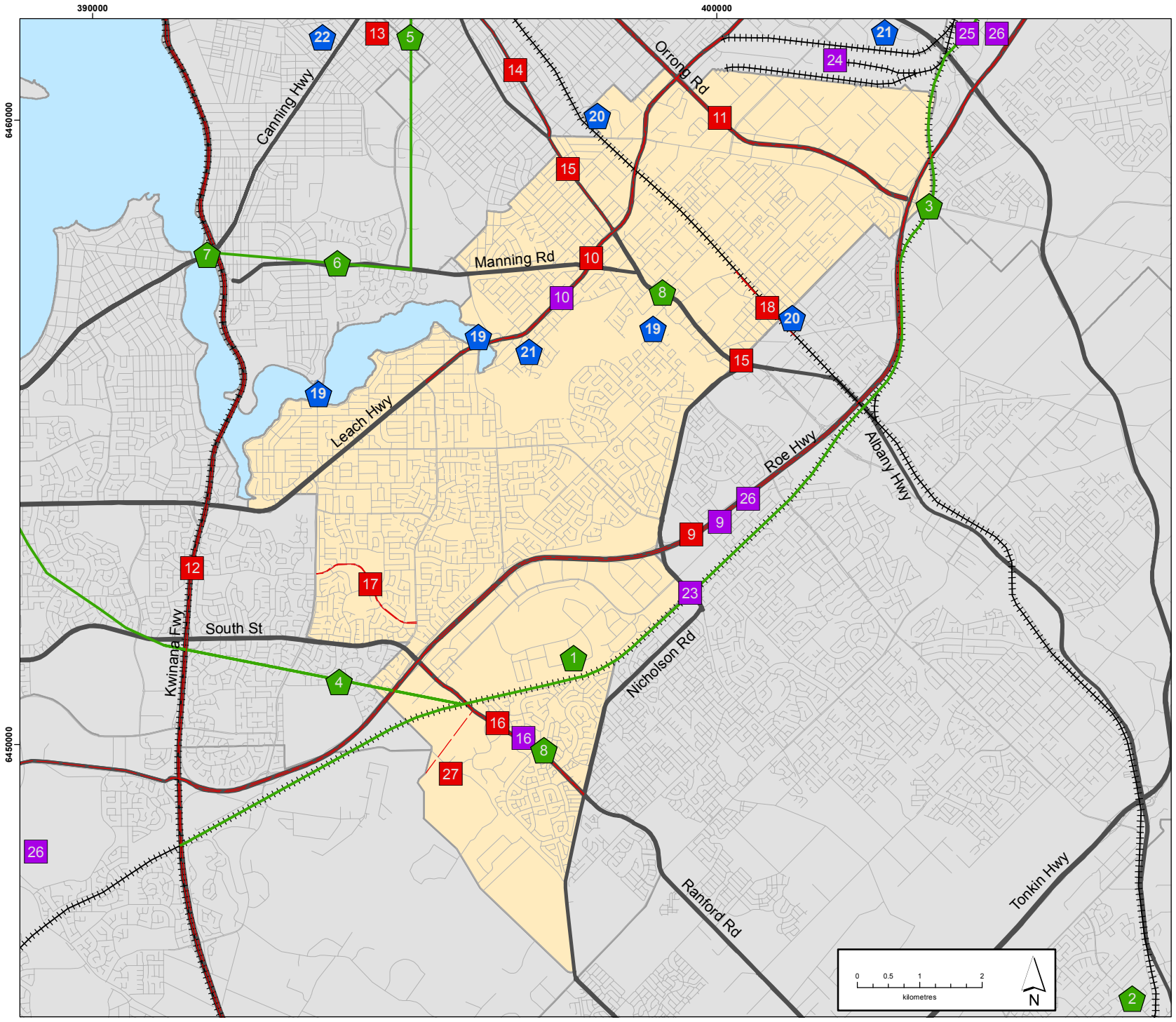
Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
	Travel behaviour change programs	2.7M people	**P**		Travel behaviour change programs use education, information, incentives and other marketing-based approaches to encourage people to alter their need to travel, their mode choice or their patterns of travel. The aim is to reduce demand on transport infrastructure. Travel behaviour change programs are proposed to target households, workplaces and schools. By 2.7 million, programs will be rolled out in targeted parts of Perth or for targeted developments. By 3.5 million travel demand management programs will be delivered across Perth every 10 years.	Perth Transport Plan (page 41); Travel Demand Management Plan (page 4, 21); Integrated Transport Strategy (page 49-50, 62); Movement, Access and Parking Strategy (page 40); Draft Cycling and Walking Plan (page 64).	This is acknowledged by the City.	
	Parking strategies	2.7M people	**P**		The Travel Demand Management Plan states that measures to encourage more efficient use of parking facilities will be applied. These may include: supply constraints, sharing, efficient pricing, improved user information, and incentives to use alternative modes (not car) where it is more cost effective than subsidising parking. Parking levies and parking caps may be imposed.	Perth Transport Plan (page 40); Travel Demand Management Plan (page 5, 32); Integrated Transport Strategy (page 57, 61); Movement, Access and Parking Strategy (page 40);	Measures in the City should be in line with City parking strategies.	
	Provision of end of trip facilities	2.7M people	**P**		The Travel Demand Management Plan states that by 2.7 million end of trip facilities (such as change rooms and bicycle parking) will be available in all major activity centres in Perth.	Travel Demand Management Plan (page 5, 27); Integrated Transport Strategy (page 24, 43-45); Movement, Access and Parking Strategy (page 36); Draft Cycling and Walking Plan (page 70).	This is acknowledged by the City.	
	Public transport time of day pricing	2.7M people	**P**		The Travel Demand Management Plan states that public transport time of day pricing may be introduced. Peak pricing schemes can be introduced as either a surcharge for travel in peak periods or discounted travel during off-peak periods, or a combination of both. The idea here is to shift the need for public transport users to use services during the peak hour. It is suggested that by 2.7 million, peak fares will be raised to be 30% higher than off-peak fares. The fare differential will be reviewed at 3.5 million and maybe further increased.	Perth Transport Plan (page 40); Travel Demand Management Plan (page 5, 38).	The City would not support a rise in public transport fares and believes this would be counterproductive in encouraging people to use public transport. It should also be noted that many people use public transport to access their place of work. Not all workplaces can provide flexible hours and as such most commuters have no choice but to travel during the peak. Staggered school hours are already in place in many City schools (for example Willetton Senior High School). This was implemented to account for unprecedented large numbers of enrolments at the school and does not necessarily alleviate the need for people to travel during peak hours.	

Network	Proposal	At	Located in city	Located outside city	Information in PTP or Technical Reports	Reference	Canning Comment/Recommendation	Map Ref.
	Road use pricing reform	3.5M people	**P**		The Travel Demand Management Plan suggests the use of congestion charges and tolls. Road use pricing aims to eliminate other taxes such as vehicle registration fees and fuel excise.	Perth Transport Plan (page 40); Travel Demand Management Plan (page 6, 42).	Any pricing measures in the City should be appropriate in terms of reducing congestion and providing a fair outcome to the City. Revenue generated from a scheme in the City should help fund projects in the City. If road pricing was to be introduced, it must be accompanied by the abolition of other vehicle taxes, not levied in addition to these existing taxes.	
	High occupancy vehicle lanes and riding sharing	3.5M people	**P**		The Perth Transport Plan states that High Occupancy Vehicle Lanes (or car-pool) lanes may also be considered. The rise of ride sharing (like Uber) will be monitored by the Department of Transport.	Perth Transport Plan (page 39); Travel Demand Management Plan (page 50, 51);	This is acknowledged by the City.	

Table 2: Not listed in Perth Transport Plan

Network	Proposal not included in Perth Transport Plan	Reference	Canning Comments/Recommendation	Map Ref.
Public Transport	Light rail connection between Curtin University and Cannington Railway Station (with bus rapid transit in the interim).	Perth Transport Plan (page 14); Integrated Transport Strategy (page 40, 58); Movement, Access and Parking Strategy (page 34); Manning Road Light Rail Pre-Feasibility Study.	City suggests that light rail transit route be provided from Curtin to Cannington Railway Station via the Canning City Centre. The route is proposed to go from Curtin University, to the intersection of Manning Road and Centenary Avenue, and then proceed along Manning Road, crossing Leach Highway to Fleming Avenue. It is envisaged to continue along Fleming Avenue, passing the City of Canning Administration Centre, before linking into Cecil Avenue and proceeding to the Cannington Railway Station. This light rail project was identified the Integrated Transport Strategy and the Movement Access and Parking Strategy. A specific study of the space required to accommodate light rail was undertaken in the Draft Manning Road Light Rail Pre-Feasibility Study. This study recommends the land that needs to be secured (under reservation in Canning's Town Planning Scheme) to facilitate the project. Bus Rapid Transit along the envisaged route from Curtin University to Cannington Railway Station is suggested in the interim until Light Rail Transit is implemented. Significant residential increase is planned along the proposed light rail route, comprising the Bentley Redevelopment (1650 dwellings), Canning City Centre development (10,000 dwellings) and general increase in the Manning Road corridor (2303 dwellings). There may be value capture opportunities associated this proposed project. The map on page 14 of the Perth Transport Plan shows a gap in the public transport infrastructure between Cannington and Curtin, which the light rail could fulfil.	1
	Bus Rapid Transit: · Cannington to new rail terminal at Perth Airport via Gibbs Street and Mc Dowell Street.	Perth Transport Plan (page 14); Integrated Transport Strategy (page 25).	The City has identified the need for a number of additional bus connections in its Integrated Transport Strategy. The Perth Transport Plan indicates a rail link from Forrestfield Station (on the new Airport train line) would connect to somewhere between Cannington and Thornlie Railway Stations on the Armadale line beyond 3.5 million. There are no further details about this connection. The City suggests that Bus Rapid Transit should be provided between Cannington Station and the Airport until this link is built. The Bus Rapid Transit should also link Gibbs Street (residential) and McDowell Street (industrial).	2
	Bus priority measures: · Centenary Avenue; · Albany Highway (Nicholson Road to Cecil Avenue); · Ranford Road (Vahland Avenue to Nicholson Road); · Ferndale bus bridge.	Perth Transport Plan (page 22); Integrated Transport Strategy (page 24, 25).	The Perth Transport Plan states that bus priority measures will be considered in key transit corridors, but these locations have not been specifically identified in the Plan. The Integrated Transport Strategy identified areas within the City as those requiring bus priority measures: · Centenary Avenue - is a strategic road link. It could be improved by road widening and the introduction of reserved bus lanes. · Albany Highway from Nicholson Road to Cecil Avenue - buses are delayed by congestion. Bus lanes should be introduced. · Ranford Road from Vahland Avenue to Nicholson Road - buses are delayed by congestion. Bus lanes should be introduced. · Ferndale Bus Bridge - buses are delayed at Metcalfe Road /Nicholson Road/Spencer Road (where traffic crosses the Canning River) until Albany Highway. Consider a Ferndale bus bridge to bypass Nicholson Road or alternatively widen Nicholson Road to	3

Network	Proposal not included in Perth Transport Plan	Reference	Canning Comments/Recommendation	Map Ref.
			implement reserved bus lanes from Spencer Road to Albany Highway.	
Road	Removal of level crossings in City along Armadale Line at Welshpool Road and Hamilton Street.	Perth Transport Plan (page 37); Integrated Transport Strategy (page 24).	The Perth Transport Plan proposes to remove the freight rail level crossing on Nicholson Road, but level crossings with the passenger rail network at Welshpool Road, Hamilton Street and Wharf Street are omitted. The Integrated Transport Strategy notes that the construction of the Thornlie Line extension provides a funding opportunity to remove the remaining level crossings in Canning.	4
	Centenary Avenue - road widening	Integrated Transport Strategy (page 24)	The Integrated Transport Strategy identifies congestion issues on Centenary Avenue from Leach Highway to Manning Road. See comments under Public Transport > Bus priority measures for Centenary Avenue.	5
Active Transport	Expansion to cycle network to create the following routes: · Welshpool Road to Curtin University via Cannington and Bentley; Carousel to Southlands via Ferndale and Willetton; · Carousel to Rossmoyne High School via Lynwood and Willetton; · Carousel to Curtin University via Wilson; · The North South Route from Curtin University to Canning Vale.	Integrated Transport Strategy (page 24); Draft Canning Cycling and Walking Plan.	The City's Draft Cycling and Walking Plan recommended five key routes through and within the City. There are limited Strategic Routes and Local Routes proposed in the PTP for the "middle ring" LGAs. South of the Canning River is particularly worse off compared to inner suburbs such as Victoria Park. It is recommended that the routes in the PTP be considered for incorporation in the PTP.	6
	Shelley Bridge cycle / walking path	Integrated Transport Strategy (page 24); Draft Canning Cycling and Walking Plan (maps in appendix).	The Integrated Transport Strategy identified the opportunity to construct a cycle / walking path on Shelley Bridge. This could be undertaken when Shelley Bridge is widened as per the Road Network Plan (see Table 2.1).	7
	Cycle and Pedestrian Bridge over the Freight Line at Canning Vale	Integrated Transport Strategy (page 24); Draft Canning Cycling and Walking Plan (page 61).	The freight line severs the Canning Vale residential area from the rest of the City of Canning, particularly for pedestrians and cyclists. It is recommended that a pedestrian/cyclist bridge be installed to provide a link from the residential areas to the Canning Vale industrial and commercial area and to the greater City of Canning. The Draft Canning Cycling and Walking Plan recommends the bridge to be between Mordaunt Circuit and Park Lane, both in Canning Vale.	8
	Cycle and Pedestrian Bridge over Albany Highway at the Canning City Centre	Integrated Transport Strategy (page 24); Draft Canning Cycling and Walking Plan (page 56).	Albany Highway is 6 lane and although it is a critical road link in the City, it acts to severs the retail/train station/future high density residential part of the City Centre from the commercial/lower density residential/river side of the City Centre. It is difficult for active transport users to negotiate Albany highway safely and the installation of a pedestrian/cycle bridge at the Canning City Centre is recommended.	9
General	South East Metropolitan Corridor – Integrated Transport Plan	WALGA	An integrated transport plan for the South East metropolitan corridor should be developed to provide finer grained information for the area.	



PUBLIC TRANSPORT
(diagrammatic - not actual location)

1: Radial Extension - Cockburn Central to Thornlie
2: Radial Extension - Armadale line to Byford*
3: Radial Extension - Forrestfield to Thornlie
4: Orbital - Murdoch to Thornlie
5: Perth Light Rail - UWA/QEII to Curtin
6: Perth Light Rail - Curtin to Canning Bridge
7: Canning Bridge interchange
8: Bus Priority Measures

ROADS

9: Roe Highway - freeway standard and Roe 8
10: Leach Higway - expressway and Shelley Bridge
11: Orrong Road - expressway
12: Kwinana Freeway - all lanes running
13: East-West City Link and Riverside Tunnel*
14: Shepperton Road - 6 lanes
15: Albany Highway/Nicholson Road
16: Ranford Road - 6 lanes
17: Burrendah Boulevard - update
18: Sevenoaks Street - update
27: Jandakot Eastern Link Road

ACTIVE TRANSPORT

19: Upper Canning Bridge (Cyclist)
20: Extend Principal Shared Path to CBD
21: Extend Principal Shared Path to Armadale
22: Cycle path from Fremantle to Airport
23: Upper Swan Bridges (Cyclist)*

FREIGHT

9: Roe Highway
10: Leach Highway
16: Ranford Road - not RAV route
23: Nicholson Road - remove freight level crossing
24: Kewdale - new intermodal freight teminal
25: Forrestfield Kewdale - duplicate freight rail*
26: Perth Freight Link

* indicates proposal is beyond the map extent

Major road
Minor road
Railway
Local Government Area - Canning
Local Government Area - Other

Scale (A4)	1:85,000
Datum	Geocentric Datum of Australia 1994
Projection	Map Grid Australia, Zone 50
Sources	Topography: Geoscience Australia, GEODATA Topo 250K V3, © Commonwealth of Australia, 2006 Roads: MRWA, 2013
File	IW124700_Canning_PTP_Map1_A4L_RevC.mxd

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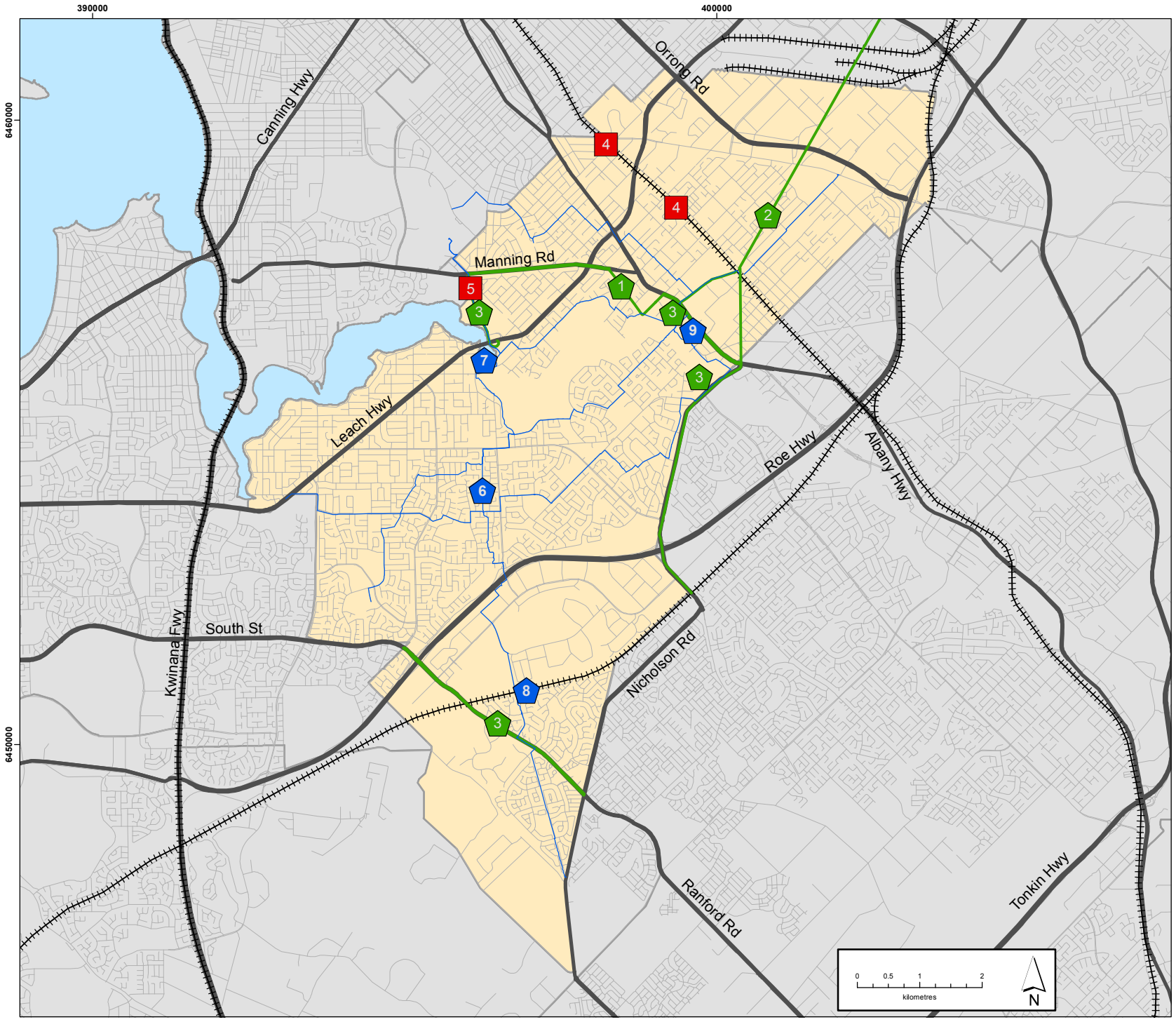
Figure 1: Projects proposed in the Perth Transport Plan of relevance to the City of Canning



PUBLIC TRANSPORT
(diagrammatic - not actual location)

1: Perth Light Rail - Curtin to Cannington
2: Bus Rapid Transit
3: Bus Priority Measures

ROADS

4: Remove level crossing
5: Centenary Avenue - road widening

ACTIVE TRANSPORT

6: City of Canning proposed cycle path network
7: Shelley Bridge cycle/walking path
8: Canning Vale cycle/walking bridge
9: City Centre cycle/walking bridge

Railway
Major road
Minor road
Local Government Area - Canning
Local Government Area - Other

Scale (A4)	1:85,000
Datum	Geocentric Datum of Australia 1994
Projection	Map Grid Australia, Zone 50
Sources	Topography: Geoscience Australia, GEODATA Topo 250K V3, © Commonwealth of Australia, 2006 Roads: MRWA, 2013
File	IW124700_Canning_PTP_Map2_A4L_RevC.mxd

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However, it should be noted that the information shown may be subject to change and ultimately, map users are required to determine the suitability of use for any particular purpose.

JACOBS does not warrant that this map is free from errors or omissions. JACOBS shall not be in any way liable for loss, damage or injury to the user of this map or any other person or organisation consequent upon or incidental to the existence of errors or omissions on this map.

Figure 2: Projects not proposed in the Perth Transport Plan but mooted by City of Canning

3. Policy and Decision Making

The PTP sets a vision to provide a transport system that allows for a vibrant, connected and productive Perth. The release of the plan is welcomed to start the discussion on what transport infrastructure will be needed by 2050 for the different transport modes, however it is light on the policies and strategies that will support the attainment of the vision and deliver the necessary behaviour change. It places too much emphasis up front on infrastructure projects. In addition, there is a need for an appraisal process to be developed and applied to assess the priority for the funding of major strategic projects proposed in the PTP. Finally, it is suggested that the public consultation period for the PTP is insufficient.

3.1 Mono-centric, Limited Focus on the South-East Metropolitan Area

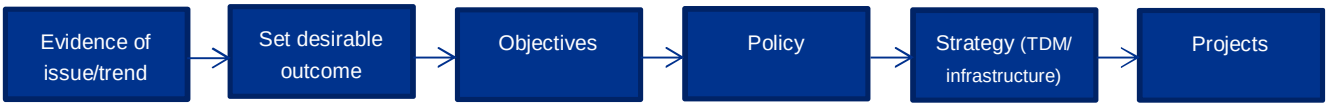
The Perth Transport Plan is mono-centric with significant focus on the Perth CBD and the inner suburbs, at the expense of middle ring and outer metropolitan suburbs. As a consequence, the Perth Transport Plan does only a modest job of supporting (some of) the Strategic Activity Centres. Cannington, which is strategic activity centre, however is neglected in place of the Canning Bridge interchange.

The focus of a substantial number of the proposals is north of the river (ie. the East Wanneroo Link). The north of the river focus appears to be focussed on accommodating to the urban grown that has occurred in those areas in the past. Whilst the need to catch up in infrastructure provision, this appears to be at the expense of the growth that is happening south of the river. More emphasis needs to be placed upon aligning transport provision with growth patterns in the south, particularly the south east corridor. There is a need for a finer grained south-east corridor Integrated Transport Strategy to be developed.

3.2 Need for Further Policy Development and Links to Strategies

The PTP needs to state the policy and strategies it will pursue to deliver the vision and outcomes stated at the commencement of the document. It needs to better demonstrate how these policies and strategies relate to evident trends in transportation (both desirable and undesirable) and how the policies and strategies will direct change towards the desired outcome.

The PTP does contain some policies but these are buried in the closing pages of the report. They should be brought forward in the report and better linked to the transport trends and research evidence that they address. There are a number of technical reports that inform the Perth Transport Plan. Reference should be made to these technical reports within the PTP so that the policy and strategies are clearly evidence-based. It is crucial that policy is established before projects are mooted or prioritised. A suggested layout to better link trends with policy and then strategy is:



Perth has long since moved on from the purely “predict and provide” mentality, that was prevalent in the 1970s when it comes to transportation planning. Travel demand management is current best practice. Infrastructure additions or improvements are only one option to improve a transport system. Non-infrastructure methods such as behavioural change programmes, pricing and parking control are equally valid and may increase the capacity of existing infrastructure (by lowering demand) thereby removing or delaying the need to build or upgrade infrastructure.

Mode shift is one policy that needs to be emphasised. Whilst the overall approach of the Perth Transport Plan seeks to be ‘balanced’ between road and public transport, the reality is that if the aim is to achieve significant mode shift targets the emphasis needs to be on shifting from road to public transport (and active transport) . This emphasis is not evident in the Plan. The aspirational mode shift targets need to be linked to priority

funding for projects that will drive the mode shift. At the Local Government Perth Transport Plan briefing it was stated that the annual budget for transport is a total of $2 billion. At the moment the spending is approximately $1.2 million on roads and about $700-600 million on public transport, with the reminder on other parts of the program. Without a shift in the spending ratio there is little likelihood that the desired mode shift will come about.

There seems to be a policy to use tunnels and a number of projects that are tunnel-based. Whilst this may be needed for river crossing, the use of tunnels to create orbital links is questioned. The Morley to Stirling to Murdoch orbital rail is one example. It is based on an expensive tunnel system – maybe $200 million a kilometre – as compared to light rail with a cost of approximately $20 million per kilometre[1]. The key question that needs to be asked is why is it necessary to spend many dollars per kilometre on tunnels versus a lower number of dollars per kilometre on light rail, which international evidence confirms leads to urban renewal outcomes.

There is a need to emphasise how the Perth Transport Plan contributes to the attainment of outcomes in relevant environmental plans such as the Green Growth Plan for 3.5 Million. The Green Growth Plan is only briefly acknowledged in the Perth Transport Plan. The Department of Parks and Wildlife has plans for the Swan and Canning Rivers which identify activity nodes. The content of these plans should be given consideration in the Perth Transport Plan.

3.3 Requirement for an Appraisal Process

The PTP links each of the projects suggested to population triggers. No method of project appraisal is described and it is not clear how potential projects will be assessed for how well they contribute to the attainment of the vision and outcomes for transport in Perth. In particular, the overall approach seeks to balance the provision of road infrastructure and public transport infrastructure, however it is unclear how projects of each of these types would be assessed against each other. There is a need for more rigorous project appraisal to be applied.

3.4 Make Clear the Status of the Technical Reports

The status of the technical reports is unclear; the technical reports contain reference to more projects and locations than are mentioned in the Perth Transport Plan itself. This should be clarified in the documentation.

Is it to be assumed that projects/location discussed in the technical reports, but not in the Perth Transport Plan, will still be considered when appraisal is undertaken?

Or is it to be assumed that the omission of a project/location from the Perth Transport Plan, despite the fact that the technical reports may identify or advocate for the project, means that it will not be considered when appraisal is undertaken?

It is recommended that projects/locations identified in the technical reports are specifically included in the Perth Transport Plan. It may be appropriate that they are listed in an Appendix. At the moment the status of these projects is very unclear. This ambiguity may lead to projects being omitted. It is also critical (as discussed in Section 3.2) that all projects are subjected to the same appraisal process. “Capitan’s calls” or the commissioning of projects based on perceived public popularity should be avoided.

[1] These costs were estimated by the City of Canning Officers in August 2016.

3.5 Extension of Stakeholder Consultation Period

The PTP is a substantial body of work undertaken by the Transport Portfolio. Its release is welcomed but at this stage, it should be considered more of a discussion paper rather than a final plan. The PTP took two years to develop and is complex. There was no consultation outside of government during the plan preparation. If bipartisan support and public acceptance is the goal, three months is inadequate for consultation. 6. It is recommended that an ongoing collaborative and consultative process should be adopted at the finalisation of the Perth Transport Plan. It is acknowledged that it is envisaged that the PTP will be reviewed every five years.

3.6 Funding Mechanisms

With the exception of road pricing, and increasing public transport fares, the Perth Transport Plan is largely silent about funding mechanisms, though the Travel Demand Management Plan mentions that “alternative funding will be increasingly leveraged.” It is recommended that other creative funding mechanisms should be explored. These may include the use of value capture or the role of local government levies (as used in the Gold Coast light Rail project) to help make a project viable.

4. Key Recommendations

The City of Canning's position on items in the Perth Transport Plan is noted in **Table 1**. Extra items that are not in the Perth Transport Plan, but which Canning believes should be considered are in **Table 2**. Key recommendations from the City of Canning to the Department of Transport regarding the Perth Transport Plan are:

1. The radial extension of the heavy rail line from Thornlie to Cockburn Central is acknowledged.

2. The light rail from UWA/QEII to Curtin University is acknowledged. From here Canning believes the light rail should extend from Curtin to Cannington railway station via Manning Road and the Canning City Centre.

3. Bus priority measures, such as queue jumps and bus lanes are acknowledged. Their locations should be determined in conjunction with the City of Canning.

4. The upgrade of Roe Highway to 8 lane freeway standard is acknowledged, along with the Roe 8 extension and eventual planned Perth Freight Link.

5. The upgrade of Leach Highway to expressway standard from Tonkin Highway to Orrong Road is supported. Leach Highway south of Orrong Road should not be upgraded to expressway as it is not connected to another freeway/expressway, and therefore vehicles will be displaced onto roads in the City. Widening of Shelley bridge is supported. Grade separation of both road and rail is supported. Consideration needs to be given to amenity of residential properties abutting Leach Highway.

6. The upgrade of Albany Highway to 6 lanes between Leach Highway and Welshpool Road is acknowledged. Grade separation of Albany Highway and Nicholson Road is acknowledged. Consideration of a 4 general traffic / 2 bus lane cross section for this portion of Albany Highway is recommended.

7. Upgrade of Ranford Road to a 4 general traffic / 2 bus lanes cross section is acknowledged. Removal of Ranford Road from the RAV network is acknowledged.

8. Expansion to the cycle network to include the routes outlined in the City of Canning's draft Canning Cycling and Walking Plan including cyclist/pedestrian bridges over Albany Highway and over the freight line in Canning Vale is acknowledged;

9. Additional Canning River cyclist/pedestrian crossings are acknowledged but further consideration needs to be given to the actual location of crossings and environmental constraints need to be accounted for.

10. The removal of the freight rail level crossing at Nicholson Road is acknowledged.

11. Travel demand management practices such as travel plans, travel behaviour change, parking strategies, end of trip facility provision and road use pricing are acknowledged. Increased public transport fares are unlikely to be supported.

Canning makes the following further general recommendations:

1. The plan is mono-centric and as a result neglects Cannington in its role as a strategic activity centre in the south-east of the metropolitan area.

2. Policy needs to be brought forward in the Perth Transport Plan and linked to the issue it aims to address. In particular policies for attaining mode shift from private vehicles to public or active transport need to be better articulated.

3. A method of project appraisal needs to be put forward. All projects must be subjected to the same appraisal process.

4. The status of the technical reports needs to be clarified. The technical reports contain reference to more projects and locations than are mentioned in the Perth Transport Plan itself.

5. Creative funding mechanisms should be explored. These may include value capture, local government levies, parking charges or road pricing.

6. It is recommended that an ongoing collaborative and consultative process should be adopted at the finalisation of the Perth Transport Plan.