

DRAFT PERTH TRANSPORT PLAN FOR 3.5 MILLION PEOPLE AND BEYOND

City of Stirling Submission - 11 October 2016

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1.0 General Comments

The City of Stirling has previously provided submissions on the State Government's strategic land use plan, Perth and Peel @3.5 Million, and the strategic environmental plan, Perth and Peel Green Growth Plan for 3.5 Million. In those submissions, the City raised its concerns that those documents had been developed in isolation from a detailed analysis on the transport implications of the projected population growth. The City therefore welcomes the release of the Perth Transport Plan for 3.5 Million People and Beyond (herein referred to as the Transport Plan or the Plan) for public comment. However those strategies previously advertised now need changes to align with the draft Perth Transport Plan.

1.1 Global Trends

The global trends that influence transport planning are many and varied. From technological developments to changing demographics and evolving workplace arrangements, they have the potential to have a huge impact on the way transport planning responds to Perth's transportation needs over the next 35 years.

Briefly, the following trends are evident at a global level:

- A significant shift in mode share is being seen towards alternative transport modes such as public transport and, in particular, cycling (refer section 3.0 for further details);
- Driving as a mode share is in decline;
- Young people are opting out of driving in favour of alternative modes of transport and also preferring to live in inner City locations rather than outer suburbia;
- Technological advances are creating a whole new user experience, and with it opportunities to provide, manage, access and operate our transport systems;
- Many transport trends arising from the Sharing Economy (such as car ride and sharing services, car pooling and bicycle hire schemes) are already having a direct influence on the way people move around cities;
- Sustainable transport options, such as electric vehicles, are here and need to be planned for; and
- Cities are prioritising transport investment decisions that lead urban regeneration.

It is the role of governments to review their transport planning framework in order to support and capitalise on these global trends. So the question that the State Government needs to ask itself is, how does the Transport Plan respond to these trends? Does it provide an aspirational framework for the future transportation needs of the Perth community? Does it support the community in how it will want to live and work in the future? Or is it a business as usual approach to transport which will ultimately result in an outdated transport system by 2050?

Throughout the world, progressive cities are achieving significant shift in transport mode share and urban intensification through an integrated approach to land use and transport planning. Tangible measures which prioritise alternative modes of transport are being implemented – old freeways through city centres are being demolished and replaced with pedestrian and cyclist promenades and parks, and vehicle lanes are being converted into cycle lanes, which create pedestrian friendly environments. Parking for new developments is being capped as a result of transport investment reducing the demand for cars. There is no reason why Perth cannot implement similar measures to transform its urban areas to significantly enhance the economic, environmental and social performance of the City.

The City believes the current road network in Perth is extensive and, in general, provides a range of options for private vehicle travel. On the other hand, Perth's public transport and cycling networks are underdeveloped and in need of improvement. The transport network supports urban sprawl not urban intensification. Given these circumstances, the Plan should take its cues from global trends and prioritise public transport, cycling and travel demand

management in the short term (i.e. by 2.7 million). This is not to say that some road projects should not be included in the Plan, however their objective should be to improve overall network connectivity rather than localised capacity improvement.

The City recommends that the mode share targets are reviewed with more ambitious mode share targets set to reflect the current and emerging global trends.

1.2 Land Use / Transport Integration – Aligning with Perth and Peel @3.5 Million

In accordance with the Connected City growth pattern identified in Perth and Peel @3.5 Million, 53% of Perth's projected population growth is to be accommodated in greenfield areas on the urban fringe, and 47% is to be accommodated in existing urban areas. In the context of the Central sub-region, this amounts to a need for 215,000 new dwellings in order to accommodate an extra 400,000 people. The State Government's infill plan is for approximately 25% of growth to occur as backyard infill, and for 75% to occur within activity centres and along transport corridors.

However, 80 percent of dwelling growth within existing urban areas is currently happening through backyard infill (see "Backyard Bonanza: improving the quality of "popular" suburban infill", by Anthony Duckworth-Smith, *Australian Planner*, Vol. 52, Issue 4, 2015). There is very little likelihood of a shift occurring from backyard infill to corridor/activity centre infill in the current planning climate unless governance mechanisms and funding mechanisms are changed and transport investment decisions are changed. In contrast, the 53% infill target on greenfield land in the metropolitan area will be readily achieved because that is what much of the transport infrastructure is proposed to support. It is apparent that one of the guiding premises of the Transport Plan is to ensure efficient means of travel for people residing on the urban periphery to the CBD. There is very little in the Plan that shows how transport investment will support or facilitate urban intensification.

Now that the transport implications are understood, a review of Perth and Peel @3.5 Million is required as it is apparent that there are implementation issues with the "Connected City" model. It is also not understood whether the current Plans (both Perth and Peel @3.5 Million and the draft Perth Transport Plan) can actually be afforded.

The finalisation of these documents needs to be held in abeyance until the land use assumptions of Perth and Peel @3.5 Million are reviewed, given it is these assumptions which will determine whether or not the Transport Plan will be able to accommodate future transport needs.

In particular the Perth and Peel @3.5 Million plan contains no details on the significant amount of new underground heavy rail lines and freeways that are identified in the draft Perth Transport Plan. Underground heavy rail lines normally have very high density development around stations and lower density in between, whereas the current Perth and Peel @3.5 Million contains numerous corridors with on-road based transport that would normally have medium density development along the route. This is just one example where there appears very limited integration between the two plans and significantly impacts on many areas within the Metropolitan Area.

Prime Minister, Malcolm Turnbull, spoke on this issue in April 2016, when he gave a speech at the National Cities Summit. His comments sought to evoke a stop to the factious approach to the transport infrastructure and city planning, as follows:

Planning is absolutely critical. The adhocery has got to stop.

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State transport departments have tended to look at linear transport infrastructure, especially the rail lines, as essentially being a challenge of how to get people from A to B. Without recognising that transport infrastructure, and this applies to roads, of course, as well as rail, transport infrastructure changes a community. It can change it for good or ill. It can unite a community or it can divide it. It can create enormous value, enormous value in real estate, enormous value in added amenity.

It has to be looked at in a complete urban context.

The City is concerned that the Perth Transport Plan appears to have been prepared exactly as Prime Minister Turnbull wanted us to avoid – a list of projects designed to move people from where they live now to where they work now, rather than a tool that can be used to support a smarter urban growth plan for the future of Perth.

The City recommends that the Perth and Peel @3.5 Million and the draft Perth Transport Plan are reviewed simultaneously, in collaboration with Local Government, before being finalised as one unified document, to achieve a fully integrated approach to land use and transport planning.

1.3 Funding and Financing

Government spending at the Federal and State level is increasingly being constrained due to budgetary considerations. Consequently there is a need for governments to revisit their approach to the funding of infrastructure projects.

Firstly, the Plan needs to be based upon an understanding that most infrastructure projects have a significant land use impact and that by planning, delivering and financing the two components simultaneously could allow significant savings and the use of alternative funding models, including value capture. Presently major transport infrastructure projects are delivering significant value uplift to surrounding landowners and very little or no capture of this value is occurring to help fund these projects.

Secondly, with the limited amount of government funding available the involvement of the private sector in funding, delivering and operating transport infrastructure should become more prevalent.

The existing approach to financing and funding transport infrastructure has resulted in the majority of such infrastructure supporting urban sprawl. The Plan needs to give further consideration to the capacity of value capture and private sector involvement to influence urban infrastructure funding and financing.

A new approach that involves undertaking transport infrastructure projects, together with land use projects, including capturing the value uplift and being designed, financed, funded and delivered by the private sector will see a major shift towards funding high occupancy transport infrastructure projects that provide the greatest level of infill and value uplift.

This approach is supported by the recently released Smart Cities Plan by the Federal Government. The Smart Cities Plan identifies the importance of urban infrastructure investment being made in a way that delivers economic, social and environmental returns. The Smart Cities Plan identifies the Federal Government's position that a change needs to occur in the way infrastructure investment is used so that it stimulates urban regeneration rather than urban sprawl.

The Smart Cities Plan identifies the need for urban investment to be supported by positive triple bottom line outcomes. The City supports the principles of the Smart Cities Plan, as it

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aligns with the City's position that urban infrastructure investment decisions should not just be made on the basis of how many people can be moved, but also about how urban change can be facilitated at a social, economic and environmental level. Unfortunately this principle appears to be missing from the Perth Transport Plan.

The City recommends that significantly more detail is provided on how transport infrastructure is to be funded looking at the multitude of options available and providing timelines for implementing new funding measures.

1.4 Stakeholder Involvement

The City acknowledges the significant amount of work that has gone into the preparation of the draft Perth Transport Plan. The release of the Plan represents the first holistic transport plan for Perth – on this basis alone the Plan is a key step forward in the transport planning for Perth.

However the Plan has been developed with no engagement with Local Government or the broader community, and the finalisation of the Plan will proceed in the absence of meaningful engagement with stakeholders. The consultation methodology is based upon a predict and provide methodology that supports development at the urban fringes.

The Perth Transport Plan represents the third strategic metropolitan plan to be released by the State Government over the past 12 months. Significant issues have already been identified with the other two plans, being the Perth and Peel @3.5 Million strategic land use plan, and the Perth and Peel Green Growth Plan for 3.5 Million. Given the time that has passed since the release of those documents for public comment, it is presumed that the issues identified during the consultation period have prevented their finalisation although the Western Australian Planning Commission has been holding hearings on submissions. It is therefore apparent that engagement with the community should be a precursor to the preparation of such documents, rather than being the final step prior to their finalisation. This runs the risk of the authors of the plan defending them, rather than developing them in collaboration.

Consultation needs to be done in good faith – notwithstanding how much time has already been invested in the preparation of the Plan, this consultation period needs to be viewed as the beginning of a period of meaningful engagement with stakeholders on the issues that arise during the comments period. The City therefore recommends that this consultation period be followed by a lengthier period of engagement with key stakeholders through the formation of reference groups in order to work through the issues that arise during the consultation period.

The City recommends that the Perth and Peel @3.5 Million and the draft Perth Transport Plan are reviewed simultaneously in collaboration with Local Government.

2.0 Executive Summary and Introduction

The Executive Summary and Introduction of the Perth Transport Plan outline the overarching principles and concepts which have fed into the preparation of the Plan.

3.0 Mode Share

3.1 Mode Share – Perth Transport Plan

The mode share targets are identified in part in Figures 1 and 2 of the draft Perth Transport Plan. However, the City considers the mode share detail provided in these Figures as deficient as it does not set out what the ultimate mode share targets are.

Figure 1 only sets targets based on all day trips (i.e. not just commuter trips), and Figure 2 only identifies peak period motorised trips based on total kilometres, and thus contributes very little to the consideration of mode share.

The City has endeavoured to undertake an assessment of the mode share targets provided in the Plan. The following table has extrapolated the data in Figure 1 of the Transport Plan in order to provide a direct comparison between the overall mode share at the last census compared to the projected overall mode share at 3.5 million (i.e. 2050).

Unfortunately a comparison of commuter mode trip share was unable to be undertaken as the Plan has provided insufficient information on what those mode share targets are.

Mode	2011	@3.5 Million (2050)	Differential
Car Driver	57.1%	50.4%	-6.7%
Car Passenger	22.2%	20.8%	-1.4%
Total Private Vehicle (i.e. Car Driver & Passenger trips)	79.3%	71.2%	-8.1%
Public Transport	6.3%	11.2%	+4.9%
Cycling	1.6%	4%	+2.4%
Walking	12.7%	13.6%	+0.9%

Table 1 – Summary of Mode Share for All Trips per Day – 2011 vs 2050

Based on the above, the City makes the following observations/comments with respect to the mode share aspired to by 3.5 million:-

- Car driver and car passenger trips will slightly decrease;
- Public transport trips will slightly increase to only 11% by 2050;
- Given the extensive expansion of cycling infrastructure proposed by the Transport Plan, an increase in cycling mode share from 2% to 4% is considered too conservative;
- Given that the plan is supposed to be an integrated land use / transport plan less than 1% growth in walking trips over a 35 year period is considered extremely low;
- Trips by private vehicle will remain the dominant mode of transport choice at over 70%;
- Overall the targets for alternative transport modes are considered conservative, unambitious, and the result of a business as usual approach to transport planning;

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- In considering the Plan's objectives (refer later in this submission), it is unclear how a mode shift will be achieved when the Plan is not much more than a list of projects that each separate government department (e.g. Main Roads WA) believes is necessary to achieve their separate objectives (i.e. maintain a free-flowing freeway);
- The targets for all day and commuter trips in all modes of transport need to be outlined clearly, with short and medium term targets; and
- The lack of mode share targets for the short term is a deficiency.

3.2 Mode Share Comparisons of other Cities

In order to inform the City's submission, we undertaken the following analysis of commuter trips and all trips on a national and international level.

Mode %	Perth	Sydney	Melbourne	Brisbane	Adelaide
Car driver	72.9	62.4	71	69.4	76.2
Car passenger	6.4	5.3	5.1	6.6	6.2
Public transport	12.6	23.2	16.1	15	9.9
Cycling	1.3	0.9	1.6	1.2	1.3
Walking	2.8	4.8	3.4	3.7	2.9

Table 2 - 2011 Journey to Work Trips for Major Australian Cities

(as cited in <http://mams.rmit.edu.au/ov14prh13lps1.pdf>)

Table 3 compares the mode share targets for Melbourne, South East Queensland (i.e. Brisbane and Gold Coast), and Perth, based on their applicable strategic transport plan. Note the mode share target dates vary, however what is evident is that Perth's mode share targets for 2050 are significantly less than the mode share targets of the other cities despite those cities having much earlier target dates (2020 and 2031). This reinforces the City's position that, in seeking to achieve in 2050 what other Australian cities are endeavouring to achieve decades earlier, the mode share targets of the Perth Transport Plan are simply too conservative.

Mode %	Melbourne (2020)	SEQ (Brisbane / Gold Coast) (by 2031)	Perth (by 2050)
Car driver / passenger	60%	66%	71%
Public transport	20%	14%	11%
Cycling / Walking	20%	20%	18%

Table 3 – Mode Share Targets for All Trips for Selected Australian Cities

(as identified in the relevant strategic transport plan/s for each city)

The final table compares Perth's target mode share with the mode share in cities throughout the world – specifically, the Mercer Top 10 Cities. This again demonstrates that Perth's target private vehicle mode share is significantly higher than those cities which have been deemed the most "liveable". If Perth wants to continue to compete in terms of "liveability" on a global scale, it is important that a shift in mode share is actively pursued.

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City	Mode			
	Public Transport	Private transport	Cycling	Walking
Perth (2050)	11	71	4	14
1. Vienna	39	28	7	26
2. Zurich	34	36	4	26
3. Auckland	6	89	1	3
4. Munich	21	37	17	28
5. Vancouver	16	76	2	6
6. Dusseldorf	31	53	5	11
7. Frankfurt	30	44	15	11
8. Geneva	N.A	N.A	N.A	37
9. Copenhagen	36	26	30	10
10. Sydney	21	74	1	5

Table 4 – Mode Share of Mercer Top 10 Cities

(*Modes share data cited from the Internet on 03/08/2016 from https://en.wikipedia.org/wiki/Modal_share)

The City recommends that:

- ***More aspirational mode share targets be set for alternative transport modes;***
- ***The targets for all day and commuter trips in all modes of transport need to be outlined clearly; and***
- ***In order to determine whether we are “on track”, the Transport Plan should set incremental mode share targets at 5 year intervals.***

4.0 Vision and Outcomes

The Transport Plan identifies five overarching objectives, as follows:

- *Optimise the use of the existing network and as it grows;*
- *Integrate with land use and across the public transport, active transport and road networks;*
- *Deliver high frequency, ‘turn up and go’ mass rapid transit connected with effective public transport feeder services;*
- *Provide a safe connected network of primarily off-road cycleways and walkways; and*
- *Maintain a free-flowing freeway and arterial road network for the efficient distribution of people and freight.*

The City is concerned that some of the objectives appear to conflict with each other – for example, by maintaining a free-flowing freeway, there will no incentive for people to shift to alternative forms of transport. Similarly, although the objective to achieve land use integration is sound, it is not actually achieved from the contents of the Plan (refer earlier comments). The objectives are essentially based on each mode having its own objective, and in doing so fail to account for the fact that some modes will need to be deprioritised to allow for the necessary benefit of efficiencies in other modes.

The City also questions whether the projects proposed within the Transport Plan have actually been assessed against these objectives.

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The Plan is a list of projects rather than a framework for the assessment of potential projects. These projects have presumably already been determined necessary by the Transport Portfolio, although how that determination has been made is unknown given the Transport Plan and supplementary report includes limited analysis of the costs and benefits of the projects.

In addition there needs to be an additional objective, “to prioritise investment in transport infrastructure that will lead stimulate investment in urban intensification”.

The City recommends that:

- ***The objectives of the Plan are reviewed to ensure that they complement each other and deliver an integrated transport and land use solution and prioritises transport infrastructure investment decisions that support the urban containment and intensification objectives of the Metropolitan Perth planning framework;***
- ***That a new objective be added, being “to prioritise investment in transport infrastructure that will lead stimulate investment in urban intensification”;*** and
- ***The Plan be reviewed to provide a framework for the assessment of potential projects.***

5.0 Integrated Transport Network

The Transport Plan asserts that it provides for an integrated transport network based on the following:-

- *Focuses on connecting major activity centres and encouraging transit-oriented development that is well-served by all modes of transport;*
- *Prioritises active and public transport to meet the significant increase in travel demand that population growth will generate;*
- *Completes the strategic road network and identifies ways to use the network more efficiently; and*
- *Services increasing freight demand with efficient links to ports, airports and intermodal hubs.*

The draft Perth Transport Plan appears to be a combination of each of the transport agencies plans combined together in isolation of the Perth and Peel @3.5 Million land use plan. The effect of this is that the Plan is not an integrated land use / transport network.

While the linking of key activity centres by fast heavy rail is sound, this plan needs to be complemented by a secondary tier of on road transport that supports activity corridors that link these activity centres. The best on road transport system that supports urban intensification along corridors is light rail. Provision of light rail to support urban intensification along corridors would align to the Perth and Peel @3.5 Million land use plan.

The Plan states that it is prioritising active and public transport modes, however as stated previously the conservative mode share targets for these modes demonstrates that a business as usual approach (car based) to transport planning has actually been undertaken.

The City recommends that:

- ***The Perth and Peel @3.5 Million and the draft Perth Transport Plan are reviewed simultaneously in collaboration with Local Government to ensure land use / transport integration; and***
- ***The Plan relook at on road transport modes to see how they can be used to stimulate corridor development between activity centres.***

5.1 Public Transport Network

The Public Transport Network identifies eight planning principles which it seeks to adhere to. Unfortunately, there is no analysis within the Plan or its supplementary reports with respect to how the projects identified within the Plan actually meet these objectives. This lack of analysis is a key flaw of the Plan.

The City believes that the only way to achieve the urban infill targets and reduce road congestion is to invest in public transport. In order to achieve this public transport requires similar certainty in funding as roads have. Roads have guaranteed annual funding through legislated funding models.

The City believes that to have an effective and responsive public transport system Perth requires a three tiered public transport system:

- Heavy Suburban Rail
For moving people quickly over long distances (i.e. regional journeys), with stations every 3 – 4kms. Heavy suburban rail is ideal for linking key activity and employment centres.
- Light Rail
For moving people over medium distances (i.e. district journeys), with stations every 500 metres – 1km. Light rail is the ideal transport mode for activity corridors.
- Bus
For moving shorter distances (i.e. local journeys), with stops every 200 – 500 metres. Acts as a feeder service from lower density areas into the light and heavy suburban rail services.

The Transport Plan seems to focus primarily on the first tier (heavy suburban rail) and the third tier (buses) and only provides limited focus on the second tier (light rail). Detailed discussion on each of these modes is discussed in below.

Unfortunately the lack of information provided in the Transport Plan and its supplementary reports means that it has not been possible to discern why the Transport Plan places so much reliance on heavy rail over light rail. No cost benefit analysis has been provided, nor has any assessment against of public transport projects against the Planning Principles been made. In addition there is no analysis on how the proposed transport assessment will assist with promoting urban containment and consolidation. In the absence of this information, the City can only reinforce its position that light rail should be the preferred when it comes to transport in urban infill areas (i.e. within the Central sub-region).

The plan is also totally silent on ferry public transport services and this is surprising given Perth's extensive river network that has an increasing amount of activities along the river. Perth's ferry service used to form an integral part of an integrated transport system prior to the dominance of the car that linked with the City's previous tram network across the river.

The City recommends that:

- ***All projects identified within the Plan be reviewed against the outcomes and objectives of the Perth and Peel @ 3.5 million, and that that analysis be made publicly available to enable further consideration by stakeholders;***
- ***The Plan include light rail on key corridors to stimulate corridor land development between activity centres;***
- ***The Plan include improved ferry services to cater for the growing number of activities along the river; and***

- ***Including a continuous annual funding model for public transport that is enshrined in legislation.***

5.1.1 Heavy Suburban Rail Network

Perth has developed a hub and spoke heavy rail system that provides good linkages to the Central Business District (CBD) from the two northern corridors and the two southern corridors.

The Plan proposes an extensive extension of this system by providing one new heavy rail link to the CBD from the northern suburbs and possibly an additional heavy rail line from the southern suburbs.

It also proposes a new circle City underground heavy suburban rail system that provides links between key activity centres both in the southern and northern suburbs. This link is critical in providing fast and efficient east – west links between the existing heavy rail lines. However the alignment of this proposed system appears to miss the key employment areas and has taken the most expensive option of underground tunnelling when a much cheaper at-grade option is available. This is discussed further below.

In addition the circle route has a missing link between Morley and the Airport line. It was stated that people can catch a bus to connect between the two systems. A comprehensive and expensive heavy rail system as that proposed should not have a key missing link in the system.

The City believes that more detailed mapping, including station locations, is required in order to enable stakeholders to provide informed comment on the proposed heavy suburban rail network – as provided, the Plan is simply too conceptual to understand the impact at the local level. Given the apparent intention of the government to finalise the Plan immediately after the consultation period (refer comments elsewhere on this issue), these details really need to be provided upfront as there will be limited opportunity for stakeholder input on such matters in the future.

The City recommends that:

- ***More detailed land use / transport planning and cost benefit analysis is undertaken on all proposed heavy suburban rail lines; and***
- ***The Plan provide a heavy rail link between Morley and the Airport line.***

5.1.1.1 Murdoch – Stirling - Morley Orbital Rail Link

The City supports the notion of a railway ring link around the inner metropolitan area (i.e. servicing the Central sub-region as identified in Perth and Peel @3.5 Million) to enable the CBD to be wholly bypassed. The City believes an east-west link is essential to enable Perth's public transport users to bypass the CBD.

The section from Murdoch to Stirling, which runs in a tunnel the full length including under the Swan River only provides linkage to two activity centres, Booragoon and UWA over a total distance of approximately 21km and would be delivered beyond 2050. The majority of land that the proposed underground heavy suburban rail provides is predominantly zoned Residential R20 and contains large areas of bush and institutional land.

There is no information to show where station stops would be or how this extremely expensive infrastructure would integrate with land use, or what opportunities exist to integrate with land uses.

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This section could cost in the order of \$5.2 billion (cost extrapolated from the underground Airport Railway line at \$250 million per kilometre).

An alternative, however longer option (as outlined in the City of Stirling's Transport Strategy) is available utilising the existing freight rail lines from Jandakot to Fremantle and then linking back to Stirling via a shorter rail tunnel. This route would be considerably cheaper in that the at-grade sections would cost approximately \$28 million per kilometre (Based on extrapolating the Butler heavy rail at grade extension). In addition it would link the employment areas of Jandakot and Yangebup.

The section from the Stirling to Morley again is shown in the Plan as a completely underground heavy rail line running 9km along Karrinyup / Morley Drive alignment and delivered beyond 2050. Again this section of the line will be very expensive at approximately \$2.2 billion. It will also run along a corridor where currently no jobs exist and there is low density residential development.

An alternative option, however a longer option (as outlined in the City of Stirling's Transport Strategy) is available linking Stirling City centre to Morley via Reid Highway and linking Balcatta, Mirrabooka and Malaga employment areas which currently have 30,000 jobs. This option will be considerably cheaper than the fully underground line and would cost approximately \$486 million for 18km of at grade railway. This could be delivered before 2031 rather than the proposed beyond 2050 timeline due to cost savings and the fact that the City has planned for this line in its land use plans for the last 10 years.

The City recommends that:

- ***The proposed heavy rail line linking Stirling to Morley be moved to the Reid Highway alignment, as per the City of Stirling Transport Strategy, and be delivered before 2031; and***
- ***An integrated land use / transport detailed plan be prepared, including cost benefit analysis of different options to identify east west heavy rail links in the southern suburbs that provide an alternative to moving through the CBD.***

5.1.1.2 East Wanneroo Rail Link

The proposed East Wanneroo link is a new heavy suburban rail link to the northern suburbs of Perth. The exact alignment of the route cannot be identified from the Plan, however based on the details provided in the supplementary report, it is expected to connect to the Joondalup line north of Clarkson station, along the future Whiteman Yanchep Highway, with stations at East Wanneroo, Gnangara Road and Marshall Road, continuing on to Morley and ECU Mt Lawley. When delivered, the first stage would include the construction of a tunnel from the City to Morley.

This link has also not been shown before and also does not align with Perth and Peel @3.5 Million in relation to the strategic land use planning that has occurred to date. The first stage of the link to be delivered by 2031 is proposed to run from the CBD to Morley in a tunnel and then onto Marshall Road. As no planning has been undertaken to date the delivery date of 2031 seems to be ambitious given the amount of planning required to define the route.

In addition there is no evidence of any cost benefit analysis of this route having been undertaken. The first stage of the route is approximately 13 km in length and about 10km of the route would be in a tunnel giving a cost of approximately \$2.6 billion just for the tunnel section of the route (based on extrapolating the airport rail lines costs of \$250 million per km).

An alternative heavy suburban rail option that is longer but cheaper is to utilise the existing Midland line and then running along Tonkin Highway. This alternative option would involve 10km of new at grade rail at a cost of approximately \$300 million (based on the Butler rail line extension cost of \$28 million per kilometre). Connections to Morley could be made via a 10km long light rail line linking to the heavy rail line on Tonkin Highway via Morley and down Beaufort Street to Perth costed at approximately \$500 million (Based on the City of Stirling cost estimates for light rail on Scarborough Beach Road at \$50 million per kilometre). This option would still see a fast heavy rail connection to Perth's northern suburbs and a light rail line connecting Morley to the CBD. This option is in accordance with the City's Transport Strategy showing a circle route and a light rail route along Beaufort Street. In addition the City has completed the Beaufort Street Activity Corridor which enables significant urban development along the corridor and has been designed around the provision of light rail.

The City recommends that an integrated land use / transport detailed plan be prepared in collaboration with Local Governments, including a cost benefit analysis of different options to identify a heavy rail link to the northern suburbs from the CBD and a light rail option linking the CBD to Morley.

5.1.2 Light Rail Transit

The draft Perth Transport Plan highlights one light rail route within the Metropolitan Area from Curtin to UWA via the CBD. The City is very supportive of a first stage of light rail being constructed in Perth. The City believes that this will enable the future extension of this system to support the urban infill targets required in the Central Sub Region and even substantially improve on the targets. However the City is surprised that there are no future light rail lines connecting to this first stage at all.

The City of Stirling Transport Strategy highlights three key light rail routes linking to a future CBD system, including:

- CBD to Scarborough via Scarborough Beach Road;
- CBD to Morley via Beaufort Street; and
- CBD to Balga via Wanneroo Road.

The City of Stirling has nearly completed the planning for both the Scarborough Beach Road and Beaufort Street lines, including the necessary reservations and built form standards to support light rail. The City is about to embark on planning for the northern section of the Wanneroo Activity Corridor this year. All of these light rail lines are discussed in further detail below.

The draft Perth Transport Plan highlights a number of routes that could be either light rail or bus rapid transit, including:

- Glendalough to Scarborough;
- Ellenbrook to Bassendean Station;
- Midland to the East Wanneroo Heavy Rail line;
- Canning Bridge to Booragoon;
- Fremantle to Murdoch; and
- Fremantle to Cockburn Coast.

None of these proposed lines connect to the proposed City Centre Light Rail line (Curtin to UWA) and all are proposed to be standalone lines. The City has previously been advised by the Public Transport Authority and the Department of Transport that no standalone light rail

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lines would be supported as there needs to be common infrastructure between lines, including depots and maintenance facilities that provide flexibility.

The City and the State Government has completed extensive studies looking at the most appropriate on-road transit option for activity corridors. These studies, which have mainly focussed on the Scarborough Beach Road line, have been completed over a period of 10 years and have cost approximately \$3 million. They form the basis for the City and the State government intensification plans as they effect the City of Stirling. The studies have strongly confirmed that light rail is the most appropriate on-road transit option to deliver the urban infill targets that the Perth and Peel @3.5 Million strategy requires. The reasons for Light Rail being the preferred on-road transit options are as follows:

- It will deliver the biggest reduction in private on-site parking required for a development and typically saves \$30,000 in parking costs per 100m² of office floor space compared to a bus system (due to the fixed nature of the infrastructure);
- It will deliver up to 50% more density along a route due to the reductions in car parking that can be achieved with light rail compared to a bus;
- Will deliver up to 25% more patronage due to the fixed nature of the system compared to a bus system;
- It will deliver up to a 45% increase in land value over a bus system for non-residential property adjacent to the line due to significant improvement in amenity, environmental benefits and the fixed nature of the system (Treasury Corp and CUSP, 2011);
- Up to 8 times cheaper to operate than a comparable bus when operating at higher patronage levels (Parsons Brinckerhoff, 2010);
- Up to 6 times cheaper per kilometre compared to heavy underground railway (City of Stirling costs compared to Airport Railway costs);
- It is a pollution free system and has no diesel particulate produced along the corridor that a typical bus system will deliver, creating a more desirable environment for residential development;
- It is a reduced carbon transport system; and
- Can move up to 3 times more passengers per hour than a bus in one lane.

In addition the City is aware that the construction costs for the proposed MAX light rail system was one of the key reasons why it was axed by the Government in this Plan. The MAX system was designed on the basis of maintaining the existing number of traffic lanes on most sections and widening the road to accommodate additional lanes for light rail. In most sections this required the relocation of services at a significant cost. The City's costs have shown that if a light rail system requires road widening to accommodate separated light rail lanes then costs for the relocation of services can be upwards of \$10 to \$20 million per kilometre.

However if light rail can be accommodated by removing a lane of traffic then there are either no or very low service relocation costs. A recent example of this is the delivery of light rail in the Gold Coast. In many sections of this system traffic lanes were taken over by the light rail. Traffic volumes before and after operation of the light rail system, provided by Gold Coast City Council, have clearly shown that the volume of traffic on the roads has decreased significantly in the sections where traffic lanes were removed and the light rail has exceeded its forecasted patronage levels.

The City believes that a light rail system should be planned by undertaking a detailed transport / land use planning study to determine the most appropriate routes for light rail. This study should include examining which corridors have the largest capacity for density and which corridors have the capacity to replace traffic lanes with light rail lines. (there are numerous roads in Perth that already have replaced traffic lanes with bus lanes, including Beaufort Street and Fitzgerald Street.

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The construction of light rail cannot be staged (i.e. bus then rail) as development will build at lower densities (to match the bus infrastructure) and the development potential, economic development potential and environmental benefits will be lost forever.

The City recommends that the Plan is amended:

- ***To identify key activity corridors that link activity centres, in collaboration with Local Governments, which should include light rail that are linked to the City Centre line to achieve the urban infill targets identified in the Perth and Peel @3.5 Million strategy; and***
- ***If the Plan is not re-evaluated to include light rail then the City of Stirling's residential growth targets in Perth and Peel @3.5m should be reduced.***

5.1.2.1 Glendalough Station to Scarborough Beach Light Rail

The Transport Plan proposes a Bus Rapid Transit / Light Rail route along Scarborough Beach Road, connecting Glendalough Station in the east with Scarborough Beach to the west, and would be completed as a bus rapid transit by 2.7 million (2031) and light rail by 2050. However, the proposed interim bus rapid transit does not align with the City's Transport Strategy which identifies light rail along this corridor from the start. As discussed earlier light rail has considerable benefits above and beyond a bus system. If a bus system is delivered first many of the benefits of light rail will be lost.

The City and the State Government have spent the last 10 years and spent over \$20 million completing the planning for Australia's largest urban renewal project along the Scarborough Beach Road based around light rail. This includes:

- Herdsman Glendalough Urban Renewal project;
- Stirling City Centre;
- Scarborough Beach Road West; and
- The Scarborough Urban Renewal project.

Table 5 highlights the key attributes of this area and highlights the significant urban infill that can only be achieved with light rail. Extensive studies completed by the City and the State have shown that the population and job possibilities cannot be achieved by a bus system alone and also cannot be staged due to development requiring more car parking resulting in less floor space and density.

	Dwellings	Population	Commercial (m ²)	Jobs	Area (Ha.)
Scarborough	2,850	5,400	26,000	1,300	100
SBR West	3,750	8,000	14,800	750	43
Stirling City Centre	13,000	24,700	600,000	30,000	355
Herdsman Glendalough	14,000	26,600	1,000,000	50,000	218
Total	33,600	64,700	1,640,800	82,050	716

Table 5 - Population and Jobs proposed on the Scarborough Beach Road Activity Corridor

This corridor alone could achieve over 16% of the central sub regions target of 400,000 people by 2050.

As discussed earlier the draft Perth Transport Plan does not identify the Scarborough Beach Road light rail route connecting back to the City Centre light rail line. This is considered a significant issue as the State has previously advised the City consistently for 10 years that it will not support a standalone system. The City believes that this system needs to be connected back to the City centre light rail line through the City of Vincent. There are numerous route options to achieve this link.

The City recommends that the proposed light rail / bus rapid transit line on Scarborough Beach Road:

- ***Is changed to a light rail line;***
- ***Is extended to connect to the City Centre light rail line; and***
- ***Is delivered by 2031 as it is a shovel ready project with the majority of the planning completed for the route and provides the highest cost benefit of any urban regeneration project in Australia;***
or
- ***The Perth and Peel @3.5 million strategy is changed to reduce the population targets for the City of Stirling.***

5.1.2.2 CBD to Morley Light Rail via Beaufort Street

The City of Stirling Transport Strategy identifies the CBD to Morley light rail as a critical link to provide support for significant urban intensification along the Beaufort Street activity corridor. The draft Perth Transport Plan only identifies this as a high frequency public transport corridor.

The City has completed the Beaufort Street Activity Corridor study that identifies light rail stops and has secured road widening to accommodate the light rail stops as well as new development standards for significant infill development. This Activity Corridor Plan has been 3 years in the making, has had overwhelming community and business support, and has now been adopted by the City of Stirling.

As stated above the delivery of light rail along this corridor would deliver a multitude of benefits. Based on the City's costings for light rail a 10km line from Elizabeth Quay to Morley would cost approximately \$500 million. The line would not require road widening outside of the stop locations and would keep the existing one lane of traffic in each direction. The City believes that this could be delivered by 2031 instead of the proposed \$2.6 billion Stage 1 of the East Wanneroo Heavy Suburban Rail line to Morley.

The City recommends that the Plan includes the CBD to Morley light rail line and identify it for delivery by 2031 as it is a shovel ready project which will facilitate land use intensification along the entire corridor, with the majority of the planning already complete for the route.

5.1.2.3 CBD to Balga Light Rail via Wanneroo Road

The City of Stirling Transport Strategy identifies the CBD to Balga light rail as a critical link to provide support for significant urban intensification along the Wanneroo Road activity corridor. The draft Perth Transport Plan only identifies this as a high frequency public transport corridor.

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The City is about to commence a significant study along a large part of the Wanneroo Road Activity Corridor that will seek to significantly increase density along the corridor in accordance with the City's draft local Planning Strategy and the Perth and Peel @3.5 Million strategy. This study will identify light rail stops and new development standards for buildings along the corridor.

As stated above the delivery of light rail along this corridor would deliver a multitude of benefits. Based on the City's costings for light rail an 11km line from Yagan Square to Balga would cost approximately \$900 million. The line would require road widening along the route and would keep two lanes of traffic in both directions. The City believes that this could be delivered by 2031 and is more affordable than heavy underground rail that will have large station spacing's and deliver limited urban intensification.

The City recommends that the Plan include the CBD to Balga light rail line and identify it for delivery by 2031.

5.1.2.4 Other Possible Light Rail Routes within the City of Stirling

The City of Stirling has also undertaken transport / land use analysis of other possible light rail routes including:

- Stirling City Centre to Morley via Morley Drive / Karrinyup Road;
- Stirling City Centre to Mirrabooka via Amelia Street; and
- Glendalough to Balcatta via Main Street.

This analysis looked at where there is development potential along corridors that link key activity centres together within the City of Stirling. Each line was analysed to see:

- Height of buildings generally;
- Level of density could be achieved given current land tenure;
- Number of stops;
- Number of jobs and residents;
- Number of trips generated; and
- Number of Light Rail trips likely to be generated.

The findings showed that with relatively low to medium intensification of all of the corridors to an average height of buildings of around 4 to 5 stories all lines showed sufficient patronage to justify a light rail line. Detailed planning / land use studies would be required including community engagement to see if the densities required would be acceptable to the businesses and residents in each locality.

The City of Stirling is undertaking the "Better Suburbs" study from 2016 through to 2019. The study will examine the built form in the suburbs of Nollamara, Balga, Westminster, Dianella and Mirrabooka. All three of the additional lines analysed run partly through the better suburbs project area so the City will be testing acceptable development densities with the community through this project.

The City recommends that the Plan is amended to identify key activity corridors that link activity centres, in collaboration with Local Governments, which should include light rail that are linked to the City Centre line to achieve the urban infill targets identified in the Perth and Peel @3.5 Million strategy.

5.2 Road Network

This Plan has proposed very conservative alternative transport mode share targets (public transport, walking and cycling) and therefore it appears that the assumptions used in any transport modelling undertaken for this Plan would be favouring car usage over alternative transport.

This transport modelling therefore appears to be at odds with the Perth and Peel @ 3.5 Million strategy that seeks to achieve 47% of all new development along existing corridors and within centres and encourage alternative transport over car usage. Successful urban intensification supports the use of alternative transport modes over the car due to the nature of the development and its density. A significant proportion of this urban intensification is proposed to occur within the Central Sub Region where generally car usage on major arterial roads such as Scarborough Beach Road, Wanneroo Road, and Beaufort Street have not seen any traffic growth in over 10 years. This is due to a number of factors, including limited capacity due to the constrained reserves, large increase in public transport use and urban intensification.

The Plan proposes that many of the existing freeway reserves (Mitchell, Kwinana, Reid, Tonkin and Roe) that have been reserved since the first Metropolitan Region Scheme Plan in 1963 will become full freeway systems. The City supports this initiative as it will allow the delivery of heavy rail along Reid and Tonkin Highway in accordance with the City of Stirling's Transport Strategy. Further discussion of this is outlined below.

The most significant new part of the proposed freeway system is the proposed Stock Road Tunnel. Detailed discussion on this is outlined below. A number of other road initiatives that affect the City of Stirling are also outlined below.

The City believes the five Road Network Planning Principles outlined in the Plan do not match the key outcomes sought by the Perth and Peel @ 3.5 Million strategy. The respective principles / objectives in each of the documents need to be aligned to ensure the goal of obtaining 47% urban intensification is achieved.

Principle Number 4 also requires some clarification, as it is unclear whether this "Sustainability" principle is referring to existing Urban and Urban Deferred land, or existing road reservations under the MRS. The City is supportive of the objective to limit impact on land outside of the designated metropolitan area, however if the objective of this principle is to limit impact on land in order to prevent further roads being designated under the Metropolitan Region Scheme, then this appears to be somewhat impractical given the significant increase in car usage anticipated by the Plan. On this basis alone it is expected that further Metropolitan Region Scheme road designations will be necessary. Clarification is therefore required.

The City recommends that:

- ***The Road Network Planning Principles be reviewed to align with the key outcomes sought by the Perth Transport Plan and the Perth and Peel @ 3.5 Million strategy; and***
- ***Principle Number 4 is clarified with respect to which land this "Sustainability" principle applies to.***

5.2.1 Metropolitan Region Scheme - Road Classification

Currently there are two road classifications under the Metropolitan Region Scheme. One is the Primary Regional Roads Reservation – (Red Roads) which were traditionally for controlled access Highways and Freeways. Within the City of Stirling these historically included the

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Mitchell Freeway and Reid Highway (both having no driveways or access to private properties) which are both controlled and maintained by Main Roads WA. Then in the early 1990's Karrinyup Road / Morley Drive and Wanneroo Road were also included in the Primary Regional Road Reservation and the City relinquished its control and responsibility for the carriageways to Main Roads WA (the City retained control and responsibility for the verges). This occurred even though these roads have a significant number of driveways onto them.

The City believes that control and responsibility of roads that have no access to private properties should remain with Main Roads WA. However the City believes that control and responsibility of both Karrinyup Road/Morley Drive and Wanneroo Road should be removed from Main Roads WA and given to the Department of Transport or the Department of Planning, and that the verges remain the responsibility of the City of Stirling. These roads are identical in many ways to both Scarborough Beach Road and Beaufort Street, in terms of traffic volumes, number of lanes and amount of access to private properties, however both of these roads are controlled by the City of Stirling and the Department of Planning.

The reason for this change is that the Perth and Peel @ 3.5 Million strategy and the draft Perth Transport Plan identify both Karrinyup Road/Morley Drive and Wanneroo Road as activity corridors and high priority public transport routes. In order to ensure that these roads achieve these functions it is important the agencies that control and maintain these roads are supportive of these functions. Main Roads Western Australia's primary objective is to ensure that vehicle traffic flow is maintained over all other modes. Wanneroo Road already has more people moving during the peak period by Public Transport over cars. Furthermore the City has had a good working relationship with the Public Transport Authority, the Department of Transport and the Department of Planning on the Scarborough Beach Road and Beaufort Street Activity Corridor Studies. However Main Roads WA has historically been unsupportive of attempts to create activity corridors with a major public transport function. Therefore were these roads controlled by the Department of Transport or Department of Planning, this would more readily facilitate their transformation into activity corridors as required by the strategic planning framework.

The City recommends that the Metropolitan Region Scheme and the draft Transport Plan should be modified to include a new road classification "Connector Regional Roads" ("green roads") – the key role of these roads would be to connect activity centres (e.g. Karrinyup Road /Morley Drive), with the Department of Transport or Department of Planning having responsibility for the planning of these roads for transport.

5.2.2 Stock Road Tunnel

The City is not supportive of the proposed Stock Road Tunnel project at this point in time as there is insufficient evidence to show it is required by 2050. As stated above the City does not have access to the detailed transport modelling that has occurred and therefore cannot understand the need for such a road.

Notwithstanding this the City of Stirling and the Department of Planning allowed for a future tunnel under Stirling City Centre to accommodate any future road or rail requirements from the southern suburbs. The City and the State Government have spent the last 10 years and over \$20 million ensuring that the Stirling City Centre can be developed without the need for a surface Freeway or Highway cutting through the centre. The future tunnel provides this assurance. The City of Stirling, The Department of Transport, the Department of Planning have recently completed transport modelling for Stirling City Centre to 2031 which shows no need for any tunnel to that point in time and has proven that the Transport Plan as outlined in

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the Stirling City Centre Structure Plan provides sufficient road capacity to 2031 and beyond with at grade City Centre roads that support the development of Perth's second CBD.

The City is concerned that Main Roads Western Australia still plans to construct an above ground Freeway or Highway through Stirling City Centre as at the Local Government briefing session the Main Roads presenter indicated that there could be either a tunnel or at grade Freeway through Stirling City Centre.

The City recommends that:

- ***The assumptions used in the Transport Modelling to justify the Stock Road Tunnel are released for evaluation by Local Government and the wider community; and***
- ***That the draft Perth Transport Plan be amended to clearly state that there will be no surface Freeway or Highway running through Stirling City Centre and that only an at grade City Centre Road will be constructed in accordance with the Stirling City Centre Structure Plan.***

5.2.3 Reid Highway

The City is supportive of the construction to freeway standard for the remainder of Reid Highway east of the Mitchell Freeway, however is not supportive of a freeway standard of road for the section between Mitchell Freeway and Marmion Avenue.

The grade separation of the remainder of Reid Highway east of the Mitchell Freeway will enable the easier provision of heavy rail along Reid Highway connecting Stirling City Centre to Morley.

The City recommends that Reid Highway not be grade separated between Mitchell Freeway and Marmion Avenue.

5.2.4 Other Roads

The City notes that the following works are identified in the supplementary Road Network Plan report as being possibly required by 2050:-

- Grade separation of the intersection of Wanneroo Road and Morley Drive;
- Grade separation of the intersection of Wanneroo Road and Beach Road;
- Grade separation of the intersection of Wanneroo Road and Balcatta Road; and
- Grade separation of Morley Drive from Alexander Drive.

The City objects to these projects. These intersections are all located on activity corridors. The proposed grade separation would only reinforce the dominance and prioritisation of private vehicles over the strategic land use planning objectives which seeks to provide for high density urban infill in these locations. Providing grade separation would immediately result in an environment which is not conducive to urban consolidation.

The City recommends that the following intersections are not grade separated as this would stop these roads becoming activity corridors and high priority public transport routes:

- ***Intersection of Wanneroo Road and Morley Drive;***
- ***Intersection of Wanneroo Road and Beach Road;***
- ***Intersection of Wanneroo Road and Balcatta Road; and***

- ***Intersection of Morley Drive from Alexander Drive.***

and that the Plan ensure all work on these roads are integrated with land use planning.

5.3 Active Transport Network

Active Transport is the most affordable form of transport and should be encouraged over all others, particularly due to the financial constraints on both the State and Federal Governments. High levels of walking and cycling are not only affordable but would normally indicate a built form that is people friendly and sustainable.

In order to achieve this active transport requires similar certainty in funding as roads have. Roads have guaranteed annual funding through legislated funding models.

One of the most significant drivers towards uptake of active transport is providing an option for pedestrians and cyclists which is not available for motorists. It is, therefore, regrettable that the most effective stimulants, the new river and lake crossings in section 3.7 of the Cycling Network Plan, are relegated to the medium to long term. A case in point would be the Lake Joondalup Bridge, which would link Wanneroo City centre to Joondalup City centre, hospital, train station and ECU campus. The bridge alone (offering a direct 3km link as opposed the 10km heavily congested road alternative via Ocean Reef Road) would activate active transport on both sides and stimulate the development of active neighbourhoods. Without that link the transformational driver in Wanneroo would not exist and progress would be slow to non-existent.

The Plan also does not mention the importance of place-making and the differentiation between roads that are going places and roads that are places. The City's 'Integrated Cycling Strategy' is predicated on "*integrate where possible and segregate (only) where necessary*". In contrast, the Transport Plan is wholly predicated on an assumption that segregation is the preferred model, when in actual fact segregation is the result of a failure to design the street correctly.

The City recommends that Plan be amended by:

- ***Discussing in detail the benefits of active transport;***
- ***Including a continuous annual funding model for active transport that is enshrined in legislation;***
- ***Ensure that active transport solutions interventions occur early in order to drive behaviour change and facilitate safer, vibrant urban places; and***
- ***Adopting a position that segregation of cyclists from motorists only be undertaken where absolutely necessary.***

5.3.1 Cycling

The Transport Plan states that there will be more emphasis on cycling particularly around activity centres. However the Plan only seeks a small increase in cycling to 4% of all trips. Given the fact that along with walking, cycling is the cheapest form of transport to provide for, the City believes that the cycling target should be significantly greater. This is also because the Plan is for a significant amount of the growth of Perth to be along corridors and around centres. This denser form of development encourages far greater levels of cycling than proposed in the Plan. An example is Stirling City centre, which has a cycling mode share target of 15%.

Based on the WA Bicycle Network Plan (2014 – 2031), cycling as the journey to work mode choice increased by 28% between 2001 and 2011. The Bicycle Network Plan set a target to

double cycling in WA within 5 years. Unfortunately the cycling targets set by the WA Bicycle Network Plan do not appear to have been carried through into the Transport Plan and it is recommended that the Transport Plan be reviewed for consistency.

There is limited synergy, and some conflicts, between the Perth Transport Plan, the Transport Plan summary document, and the supplementary Cycling Network Plan report. Furthermore, these conflict at times with the current WA Bicycle Network Plan and Liveable Neighbourhoods.

The City recommends that:

- ***The various documents that make up the Transport Plan be reviewed to ensure consistency, and that these documents also be reviewed to align with other relevant State documents, including the WA Bicycle Network Plan and Liveable Neighbourhoods, with respect to their implications on the Cycling Network.***
- ***The mode share targets for cycling be more aspirational and at a minimum build on the targets within the WA Bicycle Network Plan.***

5.3.1.1 Cycling Network Principles

To provide cycling infrastructure in a grid matrix (with 5km and 2.5km spacing) is supported and aligns with the City's Integrated Cycling Strategy and draft Bike Route Development Plan. However, particularly in Stirling, this cannot be achieved with off-road cycleways (as they are inappropriate through suburbia where there are property frontages) but can be provided by integrated (5km intervals) Primary routes. The strategic routes are appropriate and can be provided by integrated (2.5km intervals) Secondary routes. Local routes at 1.5km intervals are unnecessary as, by the time they could be provided, the increased cycling participation should have triggered and been sustained.

The City agrees with the idea of Bike Boulevards, however, the illustration is misleading and does not represent a typical solution.

5.3.1.2 Cycling Network

The Cycling Network espoused by the Transport Plan unfortunately takes a "business as usual" approach to cycling, in that it continues to prioritise segregation. While this works for outer metropolitan areas (where no private access or egress is permitted on arterial roads), it is simply not capable of implementation in the inner metropolitan areas, where access points already exist along the majority of arterial roads. The segregation of cyclists from motorists, and pedestrians from cyclists (as reflected in the Planning Principles) is clearly impractical in most existing areas. This is a deficiency of the Transport Plan and the City therefore recommends that this be acknowledged and addressed.

The Transport Plan seeks to increase the existing 172 km of off-road commuter and recreational cycle ways to around 850 km. However the interim target of increasing the network by 42% by 2.7 million seems too little given that this will coincide with a 77% population increase. The interim 2.7 million target should be increased to more accurately align with the increased demand for cycling that will occur during this period.

A cyclist does not recognise the difference between commuter and recreational bike routes (for example the coastal route functions at similar levels to some PSPs) so the cycling network should consider a hierarchy rather than a function based network.

Some significant issues remain with delivery in relation to 'Our Vision' in that it relies on the provision of "*a safe, connected active transport network of primarily off-road cycle ways and*

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walkways". This demonstrates a continued reliance on segregated infrastructure along arterial corridors, which will perpetuate 'roads are for cars', rather than integrated on road cycling along parallel and/or realigned local streets. There is no 'one fits all' solution as different local government areas and suburbs require different approaches and solutions. In the City's case off-road cycle ways are not an option as even major roads generally have property access along their length.

The City recommends that the strategy for cycling should:

- ***Provide cycling infrastructure in an approximate grid network based on Primary and Secondary Routes;***
- ***That the basic route network should be provided, in conjunction with local government where most of the 'grid' is located, by 2031;***
- ***The development of routes should be based on the principle of "integrate where possible and segregate (only) where necessary"; and***
- ***That route development should be undertaken according to a 'Hierarchy of Measures' which places shared paths as the measure of last resort.***

The following table identifies the City's comments in response to the identified upgrades proposed by the Transport Plan for major cycling projects identified within the City of Stirling:-

Path	Proposed Works	City Comment
Principle Shared Paths (PSPs) <i>To provide fast, direct commuting routes parallel to high-speed corridors such as freeways and railway lines.</i>	Mitchell Freeway PSP (by 2.7 Million) including: <ul style="list-style-type: none"> • Scarborough Beach Road to Hutton Street; • Civic Place to Erindale Road; and • Upgrade cycling infrastructure between Reid Highway and Ocean Reef Road to PSP. 	The City strongly supports the completion / upgrading of the PSP route adjacent to the Mitchell Freeway. This route needs to be upgraded as a priority (i.e. by 2.7M, if not sooner) to address ongoing risks for cyclists in crossing Karrinyup Road, Cedric Street and Hutton Street. However the upgrading does appear to have missed a key link in the PSP, being Civic Place to Hutton Street. The City therefore recommends that the Cycling Network Plan be modified to require the Mitchell Freeway PSP from Scarborough Beach Road to Erindale Road inclusive to be completed/upgraded in order to address ongoing inefficiencies and associated safety concerns for this section of the PSP.
	Reid Highway (by 2.7M) including: <ul style="list-style-type: none"> • Marmion Ave – Everingham Street; and • Wanneroo Road – Mirrabooka. 	The City supports this proposal.
	Duplication of the Kwinana/Mitchell Freeway PSP's between Joondalup and Cockburn Central by 3.5M.	The City is supportive of this proposal, on the basis of the duplication occurring firstly in the areas identified of greatest need. This would most likely be in the Central sub-region where a higher rate of PSP usage occurs.
	Upgrading the West Coast Highway RSP (between Grant St and Karrinyup Rd) to PSP standard before linking into the Marmion Ave PSP proposed by 3.5M.	The City supports this proposal.

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Path	Proposed Works	City Comment
	<p>Expansion of the PSP network by 3.5 million to include routes along:</p> <ul style="list-style-type: none"> • Wanneroo Road (north of Reid Highway) • Alexander Drive (north of ECU Mount Lawley); and • Marmion Avenue (between Karrinyup Road and Yanchep) 	<p>The City supports these proposals, however requests clarification on the following:-</p> <ul style="list-style-type: none"> • What will the route on Wanneroo Road south of Reid Highway be classified as given this is not currently a PSP? • What will the route on Alexander Drive south of ECU Mt Lawley be classified as given this is not currently classified as a PSP? <p>The City considers it important for the PSP route to avoid any sudden missing links in the network, particularly on routes within the Central sub-region which would otherwise link directly to the Perth CBD. If the purpose of these upgrades is to provide for improved cycling efficiencies to the Perth CBD, then the City would recommend that these PSP's either be continued, or directly linked with Strategic Routes, as is outlined in the ECU Mount Lawley Cast Study in section 4.1 of the Cycling Network Plan.</p>

The City recommends that the identified Principle Shared Path upgrades be supported, subject to the following:

- ***that the Cycling Network Plan be modified to require the Mitchell Freeway PSP from Scarborough Beach Road to Erindale Road inclusive to be completed/upgraded as a priority in order to address ongoing inefficiencies and associated safety concerns for this section of the PSP; and***
- ***That clarification be provided with respect to the classification of the routes on Wanneroo Road south of Reid Highway and on Alexander Drive south of ECU Mt Lawley, and how they will link in with the proposed PSP routes north of these locations.***

5.3.2 Walking

The Transport Plan states that walkability is primarily a local government responsibility. The Plan only seeks a 1.3% increase in walking over a 40 year period, from 12.7% (2011) to 14% (2050).

Given that the Perth and Peel @ 3.5 Million strategy sets a 47% infill target to achieve urban consolidation a much greater level of walking should be achieved. Urban consolidation will increasingly take the shape of mid-rise mixed use development along corridors and higher rise development in centres. This type of development supports significant walking trips. The Stirling City Centre Structure Plan has a target of 20% of all trips by walking by 2050.

Additionally, the Plan fails to acknowledge that decisions by the Transport Portfolio to prioritise vehicles, cyclists and public transport can directly impact on the ability for local governments to plan for walkability (as well as its ability to achieve the State Government urban consolidation targets). It is commonly accepted that best practice road design for engineers is not best practice for pedestrians, as the provision of unnecessarily wide, "perfectly planned" roads

marginalise pedestrians as they are forced to use impractical routes and crossings. It is apparent that the planning for pedestrians requires greater consideration, and the City therefore recommends this be the subject of further stakeholder engagement.

The City recommends that the Plan be amended by:

- ***Significantly increasing the mode share for walking;***
- ***Providing more detail on how walking mode share will be increased; and***
- ***Ensuring that road designs seek to support and enhance walking not impede it;***
- ***Providing State funding to improve walking infrastructure.***

5.4 Freight Network

The City of Stirling has limited comment on the freight network given there are minimal changes proposed to routes within the Stirling local government area. Comments are therefore confined to the following:

- The ongoing identification of West Coast Highway as a secondary freight route will be superfluous once the Stock Road Tunnel is constructed. This is because the existing coastal freight route, which runs along Curtin Avenue in Cottesloe and West Coast Highway, runs parallel to and relatively close to the proposed Stock road freight route. By declassifying West Coast Highway as a freight road, the residential areas which predominantly exist adjacent to West Coast Highway will no longer be exposed to the negative amenity implications of a freight traffic running along this route.
- Figure 30 of the Transport Plan has neglected to identify the major industrial area of Balcatta, as per the WAPC's strategic land use plan, Perth and Peel @3.5 Million, and the WAPC's Economic and Employment Lands Strategy: Non-Heavy Industrial. It is therefore recommended that Figure 30 be amended to correctly identify Balcatta as an existing major industrial area.
- Hutton Street and Jon Sanders Drive in Osborne Park are designated as Other Regional Roads under the MRS, in part because of their role in the metropolitan freight network. It is therefore recommended that the extent of this MRS designation over Hutton Street and Jon Sanders Drive be identified in Figure 30.

The City recommends that:

- ***Figure 30 be amended by including the Balcatta Industrial Area;***
- ***Figure 30 be amended by including a secondary freight route from Jon Sanders Drive to Hutton Street to the Mitchell Freeway; and***
- ***Figure 30 be amended by deleting West Coast Highway from the freight network.***

6.0 Optimising the System

6.1 Improving Network Efficiency

The City is supportive of the proposed public transport network optimisation measures.

The City objects to the introduction of ramp metering given the implications this will have on the local road network. The implications on the local network as a result of controlling access to the freeway, thus "ramping" vehicles on the adjacent local roads, does not appear to have been considered in the provided documents. If the outcome of managed freeways is that the

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congestion is simply being “moved” from freeways to local roads, then the City objects to this proposal.

The City recommends that ramp metering not be introduced as experience in other jurisdictions has shown it has a significant negative impact on road congestion on nearby arterial roads.

6.2 Influencing Travel Choices

The Transport Plan identified four tools which are intended to be implemented in Perth in order to manage people’s travel patterns and choices. These are as follows:-

- Travel Plans for New Developments;
- Parking Strategies;
- Transport Pricing (Roads and Public Transport); and
- Travel Behaviour Programs.

The choices provided for in the Transport Plan with respect to travel demand management appear to have been informed by a detailed analysis of the costs and benefits of each tool, as outlined in the supplementary Travel Demand Management Plan. In doing so, it is readily understood how the Transport Portfolio have arrived at their decisions with respect to the recommendation of the travel demand management tools that have ultimately been chosen. This is commended as it is in stark contrast to the remainder of the supplementary Transport Plan reports, none of which provide any evidence of cost benefit analysis or similar having been undertaken. As identified elsewhere in this submission, it is recommended that all recommendations and projects in the Transport Plan be subject to the same level of scrutiny.

The table below outlines the City’s comments on the travel demand management tools identified in the Transport Plan:-

Travel Demand Management Tool	City Comments
<p>Travel Plans for New Developments <i>A package of measures to encourage safe, healthy and sustainable travel options by people working for a specific organisation or at a particular site.</i> <i>These measures can include employers supporting car sharing, discounted public transport, cycle facilities or personalised journey planning. All of these measures can contribute to significant reductions in single occupancy vehicle trips in peak</i></p>	<p>The City strongly supports the use of travel plans – these have previously been identified in the City’s Integrated Transport Strategy as a potentially effective tool for increasing mode share in new developments.</p> <p>The supplementary report entitled “Travel Demand Management Plan” identifies that area plans are more effective than plans for individual sites, and that travel plans can only meet their objectives if appropriate regulatory or other mechanisms are introduced to ensure they are properly implemented. Unfortunately as a result of ongoing statutory changes, the ability for local governments to ensure travel plans are provided as part of major developments has been diluted for the following reasons:</p> <ul style="list-style-type: none"> • Structure plans and activity centre plans no longer have statutory effect; • Local government’s ability to meaningfully engage with applicants as part of the structure planning and activity centre planning process has been stymied due to strict timeframes being imposed; and • The requirement for a structure plan or activity centre plan has in some cases been “waived” by the Development Assessment Panel process, which some developers view as a means of bypassing the local government assessment process. <p>As a result of these issues, there is now generally no upfront consideration of travel demand management as part of the approval of major developments. So while the City supports the notion of travel plans, the reality of the planning system as it currently stands is that their effectiveness will be reliant on the</p>

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Travel Demand Management Tool	City Comments
<p><i>periods.</i></p>	<p>ability of the State Governments' Development Assessment Panels to ensure they are required as part of major development and/or the ability of the WAPC to ensure structure plans and activity centre plans sufficiently address this.</p> <p>Finally, the notion of local governments individually adopting local planning policies to control the content of and requirement for a travel plan in the current statutory context is likely to be ineffective given local governments' planning authority is being constantly diluted as a result of State government legislation such as the Planning and Development (Local Planning Schemes) Regulations 2015. If travel plans are deemed a necessary measure, it is recommended that instead of local governments preparing what will amount to 140 different local planning policies on the issue, the WAPC should take responsibility for this and prepare a Development Control Policy which can then be applied across all local government areas.</p> <p><i>It is recommended that the State Government require that certain development applications require travel management plans.</i></p> <p><i>It is recommended that the Department of Planning prepare a Development Control Policy to guide the preparation and assessment of travel management plans.</i></p>
<p>Parking Strategies</p> <p><i>Effective parking strategies generally include long and short term parking charges or levies and limits on the number of parking spaces in a particular area (parking caps). These measures limit the use of private car trips to specific sites or areas and can reduce car travel to activity centres by up to 30% when good transport alternatives are made available.</i></p>	<p>The requirement for parking strategies to be developed as part of the preparation of activity centres and industrial areas is strongly supported.</p> <p>The Plan includes a suggestion that local governments need to be responsible for the implementation of public transport strategies. Unfortunately this fails to address the fact that local governments now have no authority when it comes to the determination of structure plans, activity centres plans, and major development applications and the provision of public transport services.</p> <p>Additionally, the document states that:</p> <p><i>“Local Governments will be encouraged to implement strategies that develop active and public transport. For example the existing Perth parking Management Area.”</i></p> <p>There is no recognition that the Perth Parking Management Area is controlled by the Perth Parking Management Act. Without this State Act there is no ability to charge parking levies to pay for public transport.</p> <p>The State Government should prepare metropolitan wide parking and management plans that are backed by State legislation to charge for parking which will fund the provision of public transport. This occurs in New South Wales which have different pricing for the different tiers of centres. Currently there is no recurring funding source for the provision of public transport services. This is not the case for roads which are guaranteed recurring funding every year through a number of funding sources.</p> <p><i>It is recommended that the State Government prepare a metropolitan wide parking and management plan backed up by State legislation that includes parking levies at varying levels to fund public transport services.</i></p>
<p>Transport Pricing</p> <p><i>Introduction of a broader system of road transport pricing following a national inquiry into road user charging reform.</i></p>	<p>The Transport Plan identifies the introduction of transport pricing as a way to manage demand for roads and public transport. However the Plan, inclusive of the supplementary Travel Demand Management Plan, is unfortunately very vague in terms of scope, pricing and implementation - consequently the community is provided with no certainty in relation to how, when or where transport pricing will be implemented. This is a clear deficiency of the Plan and it is recommended that further details, by way of criteria that will guide the possible qualification for transport pricing, be included within the Plan.</p>

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Travel Demand Management Tool	City Comments
<p><i>Introduction of differential public transport fares for the peak period and non-peak times to facilitate a shift in travel patterns and 'spread the peak'.</i></p>	<p>Alternatively stakeholder engagement on this issue will need to occur separately prior to any pricing changes.</p> <p><u>Road Pricing</u></p> <p>The City acknowledges the principle of the introduction of road pricing as contained in the supplementary Travel Demand Management Plan that “<i>Road use pricing reform aims to eliminate other road user taxes and charges such as vehicle registration fees and fuel excise while more directly charging motorists for their individual levels of road use</i>”. The City does however question whether, from a socio-economic perspective, this is an equitable approach to the funding of road infrastructure? It will invariably result in additional costs for those who live in the outer suburbs, while those who can afford to live closer to the City will be provided with increased options to avoid or be charged a minimum for the travel they undertake. If road pricing is to be introduced, it needs to be done in a way which is socially and financially fair.</p> <p>The City would be prepared to consider supporting the introduction of road pricing, but only where it is applied in an equitable manner, applied in the public interest, and replaces all existing road user taxes and charges. The City would not be supportive of road pricing in the absence of social and economic equity being given due consideration.</p> <p><u>Public Transport</u></p> <p>The principle of peak and off peak fares is sound, however the differential needs to be carefully evaluated and managed. If peak fares are increased, this provides an immediate disincentive for commuters to use public transport and they will instead revert to private vehicle use. For this reason the City recommends that peak fares remain unchanged, and that off-peak fares be introduced at a reduced rate. This will ensure that no economic disadvantage is imposed on people who have no choice but to travel during peak periods, and will also prevent an increase in private car use.</p> <p>The City also recommends that free fares on public transport be examined during certain off-peak periods. Given these services run regardless of patronage, there is no “cost” to the government in introducing a trial of this proposal. An example could be to allow “free fares” between 5.30am to 6.30am, thus reducing the pressure on public transport during the peak commuter period. Whilst there would be a financial cost as a result of loss of fares that would otherwise be collected during these periods, the benefits would also be evident as it would ultimately result in a reduction in people travelling during the peak period. Given this is one of the key objectives of travel demand management, the City believes such a trial could be beneficial.</p> <p>Another option that could facilitate increased public transport usage would be the introduction of periodic fare-free days – for example, on the last Friday of every month. Many other cities already do this, as it provides a direct incentive for people who would otherwise not use public transport to try it out. This can ultimately result in sustained change in transport mode choice.</p> <p><i>It is recommended that the Plan:</i></p> <ul style="list-style-type: none"> • <i>Be amended to provide clarification in relation to how Transport Pricing will be applied.</i> • <i>Give greater consideration to how financial incentives will be applied to increase public transport usage in general, as well as facilitating a “spread” in the peak period commute.</i>
<p>Travel Behaviour Programs</p>	<p>The City of Stirling pioneered this in 2006 with the establishment of its Travel Smart programme, however its ongoing implementation was ceased as a result</p>

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<p><i>Programs that can be used by schools, workplaces and households to educate, inform and provide incentives to influence and assist people to voluntarily reduce their need to travel, particularly by car, and to increase walking, cycling and the use of public transport.</i></p>	<p>of a lack of effectiveness. In the City's experience, travel behaviour programs do not provide sufficient long term benefits to justify the cost involved in their implementation. Ultimately, travel behaviour programs need to have an end date, following which ongoing travel behaviour changes need to be maintained by those individual users. If at the cessation of the program there is no sustained change, as has been the City's experience, then they are not an appropriate or effective tool to influence travel change.</p> <p>The City further understands that the more recent Your Move program cost a significant amount to implement and its implementation was reliant on a large number of staff. The City questions the cost efficiencies and practicalities of rolling out this model on a wider scale given the budget constrains at both levels of government.</p> <p><i>It is recommended that travel behaviour programs be subject to further analysis to determine how they will be effectively implemented on a larger scale, at an affordable cost, maintained in the longer term, and achieve sustained mode share change.</i></p>
<p>Other Factors Influencing Travel Demand</p>	<p>The City notes that a number of other options are available to the government in order to influence travel demand. Some are identified in the Plan, albeit briefly; others are not identified at all. The City in particular supports and/or suggests the following initiatives which would have a positive impact on travel demand:-</p> <p><u>Flexible Working Hours</u></p> <p>Flexible working arrangements, otherwise referred to as "flexitime", are already a common feature of workplace agreements in both the public and private sector. However the City believes these could be readily expanded in order to provide even greater benefits to travel demand management. Most flexitime arrangements are currently "capped" with respect to start and finishing times – for example, employees can commence no earlier than 7am, and no later than 9am, and finish no earlier than 4pm and no later than 6pm. While this does produce some degree of "spread" over the two hour start and finish times, it still concentrates those start and finish times during the peak periods. However, by expanding flexible hours into non-peak hour periods (for example, employees can start anytime from 6am to 10am, and finish anytime from 3pm to 7pm), this would directly alleviate the peak hour "crush". Given the concentration of government departments in the Perth CBD, and location of local government offices in activity centres, were local and state government alone to implement more flexible working hours this could result in an immediate reduction in commuters travelling during peak hours.</p> <p><u>Home Businesses</u></p> <p>The Perth Transport Plan does not appear to give any consideration to the contribution that home businesses make to a reduction in travel demand during peak periods. The City considers this an omission, and believes that home businesses have an important role to play and should therefore be addressed in the Plan.</p> <p><u>Car Sharing/Car Pooling</u></p> <p>While car sharing is good in theory, the City's experience is that such programmes will only work where there is a core concentration of people (eg Perth CBD, Osborne Park business area). Where employee numbers are more limited, uptake is likely to be significantly lower. It is unclear based on the Transport Plan whether carpooling as a travel option is intended to be encouraged via formal workplace programmes or similar, or whether it will continue to contribute only as an informal travel option (i.e. where a husband</p>

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	<p>and wife work in the same area, and thus share their journey to and from work). No commitment has been provided with respect to whether car pool lanes will be implemented. Given the Perth Transport Plan does not seek to increase the share of people undertaking their journey to work as a passenger in a private vehicle (22% in 2011 census, proposed to decrease to 21% at 3.5M), it appears as though the Plan has no ambition to encourage carpooling as an alternative travel option.</p> <p>The City recommends that carpooling be further investigated in order to provide further incentives to their use – for example, the introduction of carpooling lanes on major roads would provide an immediate message to commuters that trips which encourage more efficient use of private vehicles will be prioritised.</p> <p><u>Telecommuting</u></p> <p>The notion of telecommuting, where employees use technology to replace the need for physical travel for work purposes, has been included in the supplementary Travel Demand Management Plan, however is not referenced in the Transport Plan. The City considers telecommuting has the potential to become an effective travel demand management tool for some industries. The City's Integrated Transport Strategy identified that although businesses believe the idea of telecommunication is a positive thing, it is not yet being implemented on a widespread basis. Making the most of telecommunication options would thus require some level of government intervention - consequently the City recommends that the Transport Plan give consideration to measures that could be implemented to facilitate an increase in telecommuting.</p> <p><i>It is recommended that the Plan provide greater consideration to how the State government can encourage flexible working hours, home businesses, car sharing/car pooling and telecommuting to reduce the need for travel, particularly during peak periods.</i></p>

7.0 Implementation

The City has the following general comments in regards to implementation:-

- The lack of details provided in the Transport Plan re detailed routes / station locations will result in significant confusion amongst stakeholders about the implications of the Plan – i.e. what will be built and where. Truly informed comment on the Plan cannot occur until these details are provided. Please refer comments earlier in this submission in regards to effective stakeholder engagement being necessary moving forward.
- The inclusion of projects likely to be required beyond 3.5M is supported as will enable for their long term planning (e.g. road reservations etc).
- The number of projects identified as being required by 2.7M is considerable and it appears unrealistic that they will be implemented given the current lack of planning and/or funding commitments.
- Implementation is reliant on broad political support for the provision of essential infrastructure. It is confusing to the community, not to mention financially irresponsible, for potential infrastructure projects to become the subject of political campaigns. An example of this was the case of the MAX light rail project, where significant funds were expended on the development of a project which was ultimately deemed to be unnecessary. In the absence of broad political support, the effectiveness of the Transport Plan will be compromised.

7.1 Timing

The City's submission has earlier addressed the matter of project planning and implementation. The City strongly disagrees with the notion that "*it is too early to determine the exact timing and priority of most projects*". The community and stakeholders all deserve certainty as to what projects are, based on transparent cost benefit analysis, to be prioritised. The State Government has chosen to approach the Transport Plan as a set of projects, rather than a framework against which it will assess potential projects. A consequence of this approach is that the projects that have been deemed necessary should also be subject to some assessment of priority as part of the Plan.

This certainty will also avoid undue political influences on the provision of essential infrastructure. The lack of commitment in the Plan supports the City's earlier argument that no detailed cost benefit analysis of the projects or analysis of alternatives has occurred to date.

The City recommends that the draft Perth Transport Plan be amended to:

- ***Include more detail on all projects that are proposed to be delivered by 2031, including benefit cost analysis and exact timing on planning, design and implementation and who is responsible;***
- ***Include assessment against land use outcomes required to achieve outcomes of the Perth and Peel @ 3.5 million strategy; and***
- ***Include a clear set of criteria to determine which projects are given priority and funding.***

7.2 Economic Appraisal

The Transport Plan acknowledges that no economic appraisal has occurred to date on the projects identified in the Transport Plan. The City asserts that this is a flaw of the Transport Plan – as commented on earlier in this submission, if projects are being identified in the Plan then they should have already been subject to detailed cost benefit analysis.

Furthermore, it is unclear how the projects identified in the Plan have been identified, prioritised, and/or committed to given it is acknowledged that no detailed cost benefit analysis has occurred to date. Many of the projects seem conceptual at this point, with project planning, evaluation and budget decisions coming afterwards. These decisions will presumably be dependent on the location of population growth, which is in turn related to private sector urban development decisions – it is a reactive rather than proactive response to transport infrastructure planning.

Implementation of the projects identified in the Transport Plan will be dependent on funding decisions by successive State Governments and/or the private sector. Implementation will also be reliant on more detailed design work being undertaken to ensure projects are planned and costed appropriately. These economic and political uncertainties are significant, and have the potential to undermine the effective implementation of the Transport Plan. The City recommends that the projects identified in the Transport Plan be subject to detailed analysis *prior* to the finalisation of the Plan. Alternatively, and more appropriately, the Plan should be reviewed as a whole so that it provides less emphasis on individual projects and more emphasis on the strategies and policies which underpin the implementation of potential projects – i.e. that the Plan be a framework for the *assessment* of potential projects, rather than just a list of projects that may or may not be implemented.

Section 1 of this submission has already provided comments regarding the economic and funding considerations of providing a transport network to support 3.5 million people. Ultimately, this appears to be an issue for which too little information has been provided, or too little analysis has occurred, to enable the City to determine whether the Plan can be implemented in an economically sustainable manner. In the absence of this information being provided, the City can only conclude that the economic appraisal of the Plan as a whole is deficient.

7.3 Consultation

The City's submission has already commented on the fact that no stakeholder engagement has occurred on the Plan to date. Although the City welcomes the release of the Plan, the extent of stakeholder engagement (i.e. solely relying on a three month consultation period) is considered inadequate.

Collaboration rather than consultation should occur on such important documents. Consultation is merely asking for stakeholder's views after the documents have been released. Given the short amount of time to digest the significant amount of information provided most stakeholders will only be able to provide limited comment. Collaboration on the other hand involves stakeholders in the development of the plan.

Rather than proceeding to the finalisation of the Plan in late 2016, the Transport Portfolio, and more importantly the State government, needs to view this consultation period as the beginning of a discussion with stakeholders on the future of transport in Perth. In this regard, the Transport Plan should at this stage be considered more of a discussion paper than a final plan. Given the lack of engagement during its preparation and a desire to achieve broad political support and wide support from local governments and the community, an extensive consultation period which extends at least beyond the scheduled State election in March 2017 should be considered.

The City recommends that further detailed collaboration with all stakeholders occur prior to the draft Perth Transport Plan being adopted, including:

- ***Discussing all issues raised through the preliminary consultation stage; and***
- ***Creating working groups to address specific areas that lack sufficient detail.***

7.4 Monitoring and Reviewing the Plan

The City notes and supports the ongoing reviewing the Transport Plan. The City does however question whether the State government departments have the resources to undertake these regular reviews. Delays in strategic planning have become a fundamental problem of the system and, in the City's experience, are in part occurring as a result of ongoing reductions in the resourcing of key State government departments.

The City also recommends that the review of the Plan be tied to a set of key indicators to ensure the review process is not simply used as an opportunity for the Plan to be entirely rewritten upon a change of State Government.

The Transport Portfolio will be responsible for monitoring the delivery of the Plan to ensure that it is implemented in a "coordinated and integrated manner". As identified earlier in this submission, the City is concerned that the projects identified in the Plan have not been the subject of any detailed cost benefit analysis. As such, it is unclear how this monitoring will be successful in the absence of established benchmarks.

The City recommends that the Plan be monitored and reviewed every 5 years.

7.5 Appendix 1 – Estimated Timelines

All projects identified in the Transport Plan are categorised based on three levels of priority – by 2.7 million, by 3.5 million, and beyond 2050. It is recommended that these population targets be tied to approximate dates, so that stakeholders can more readily understand the timeframe for implementation.

The City notes the apparent prioritisation of the implementation of public transport projects, many of which are identified as being by 2.7 million. This is in contrast to the rollout of the road network projects, most of which will not be undertaken until 3.5 million. The City is supportive of this apparent prioritisation of public transport.

The City recommends the following timeframes apply:

- ***By 2.7 million – approximately 2031;***
- ***By 3.5 million – approximately 2050; and***
- ***Beyond 3.5 million – no set timeframe for implementation.***

7.6 Appendix 2 - Glossary

The term “Managed Freeway” is referenced frequently throughout the Transport Plan, however is not defined anywhere.

It is recommended that a definition be included for “Managed Freeway” to enable readers to readily understand its meaning.

8.0 Summary of Submission

The following table provides a summary of the City’s recommendations based on the comments in this submission:-

# Recommendation	
General Recommendations	
1	That the mode share targets are reviewed with more ambitious mode share targets set to reflect the current and emerging global trends.
2	That the Perth and Peel @3.5 Million and the draft Perth Transport Plan are reviewed simultaneously, in collaboration with Local Government, before being finalised as one unified document, to achieve a fully integrated approach to land use and transport planning.
3	The City recommends that significantly more detail is provided on how transport infrastructure is to be funded looking at the multitude of options available and providing timelines for implementing new funding measures.
Mode Share	
4	That more aspirational mode share targets be set for alternative transport modes.
5	That the targets for all day and commuter trips in all modes of transport need to be outlined clearly.
6	That the Transport Plan set incremental mode share targets at 5 year intervals in order to determine whether we are “on track”.

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#	Recommendation
Vision and Outcomes	
7	That the objectives of the Plan are reviewed to ensure that they complement each other and deliver an integrated transport and land use solution and prioritises transport infrastructure investment decisions that support the urban containment and intensification objectives of the Metropolitan Perth planning framework.
8	That a new objective be added, being “to prioritise investment in transport infrastructure that will lead stimulate investment in urban intensification”.
9	That the Plan be reviewed to provide a framework for the assessment of potential projects.
Integrated Transport Network	
10	That the Perth and Peel @3.5 Million and the draft Perth Transport Plan are reviewed simultaneously in collaboration with Local Government to ensure land use / transport integration.
11	That the Plan relook at on road transport modes to see how they can be used to stimulate corridor development between activity centres.
Public Transport Network	
12	That all projects identified within the Plan be reviewed against the outcomes and objectives of the Perth and Peel @ 3.5 million, and that that analysis be made publicly available to enable further consideration by stakeholders.
13	That the Plan include light rail on key corridors to stimulate corridor land development between activity centres.
14	That the Plan include improved ferry services to cater for the growing number of activities along the river.
15	Including a continuous annual funding model for public transport that is enshrined in legislation.
16	More detailed land use / transport planning and cost benefit analysis is undertaken on all proposed heavy suburban rail lines.
17	The Plan provide a heavy rail link between Morley and the Airport line.
18	That the proposed heavy rail line linking Stirling to Morley be moved to the Reid Highway alignment, as per the City of Stirling Transport Strategy, and be delivered before 2031.
19	That an integrated land use / transport detailed plan be prepared, including cost benefit analysis of different options to identify east west heavy rail links in the southern suburbs that provide an alternative to moving through the CBD.
20	That an integrated land use / transport detailed plan be prepared in collaboration with Local Governments, including a cost benefit analysis of different options to identify a heavy rail link to the northern suburbs from the CBD and a light rail option linking the CBD to Morley.
21	<p>That the Plan is amended:</p> <ul style="list-style-type: none"> • To identify key activity corridors that link activity centres, in collaboration with Local Governments, which should include light rail that are linked to the City Centre line to achieve the urban infill targets identified in the Perth and Peel @3.5 Million strategy; and • If the Plan is not re-evaluated to include light rail then the City of Stirling’s residential growth targets in Perth and Peel @3.5m should be reduced.
22	<p>That the proposed light rail / bus rapid transit line on Scarborough Beach Road:</p> <ul style="list-style-type: none"> • Is changed to a light rail line; • Is extended to connect to the City Centre light rail line; and • Is delivered by 2031 as it is a shovel ready project with the majority of the planning completed for the route and provides the highest cost benefit of any urban

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#	Recommendation
	<p>regeneration project in Australia; or</p> <ul style="list-style-type: none"> The Perth and Peel @3.5 million strategy is changed to reduce the population targets for the City of Stirling.
23	The City recommends that the Plan includes the CBD to Morley light rail line and identify it for delivery by 2031 as it is a shovel ready project which will facilitate land use intensification along the entire corridor, with the majority of the planning already complete for the route.
24	That the Plan include the CBD to Balga light rail line and identify it for delivery by 2031.
25	That the Plan is amended to identify key activity corridors that link activity centres, in collaboration with Local Governments, which should include light rail that are linked to the City Centre line to achieve the urban infill targets identified in the Perth and Peel @3.5 Million strategy.
Road Network	
26	<p>The City recommends that:</p> <ul style="list-style-type: none"> The Road Network Planning Principles be reviewed to align with the key outcomes sought by the Perth Transport Plan and the Perth and Peel @ 3.5 Million strategy. Principle Number 4 is clarified with respect to which land this “Sustainability” principle applies to.
27	That the Metropolitan Region Scheme and the draft Transport Plan should be modified to include a new road classification “Connector Regional Roads” (“green roads”) – the key role of these roads would be to connect activity centres (e.g. Karrinyup Road /Morley Drive), with the Department of Transport or Department of Planning having responsibility for the planning of these roads for transport.
28	That the assumptions used in the Transport Modelling to justify the Stock Road Tunnel are released for evaluation by Local Government and the wider community.
29	That the Plan be amended to clearly state that there will be no surface Freeway or Highway running through Stirling City Centre and that only an at grade City Centre Road will be constructed in accordance with the Stirling City Centre Structure Plan.
30	That Reid Highway not be grade separated between Mitchell Freeway and Marmion Avenue.
31	<p>That the following intersections are not grade separated as this would stop these roads becoming activity corridors and high priority public transport routes:</p> <ul style="list-style-type: none"> Intersection of Wanneroo Road and Morley Drive; Intersection of Wanneroo Road and Beach Road; Intersection of Wanneroo Road and Balcatta Road; and Intersection of Morley Drive from Alexander Drive. <p>and that the Plan ensure all work on these roads are integrated with land use planning.</p>
Active Transport Network	
32	<p>That the Plan be amended by:</p> <ul style="list-style-type: none"> Discussing in detail the benefits of active transport; Including a continuous annual funding model for active transport that is enshrined in legislation; Ensure that active transport solutions interventions occur early in order to drive behaviour change and facilitate safer, vibrant urban places; and Adopting a position that segregation of cyclists from motorists only be undertaken where absolutely necessary.
33	That the various documents that form the Plan be reviewed to align with each other, and that these documents also be reviewed to align with other relevant State documents, including the WA Bicycle Network Plan and Liveable Neighbourhoods, with respect to their

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#	Recommendation
	implications on the Cycling Network.
34	That the mode share targets for cycling be more aspirational and at a minimum build on the targets within the WA Bicycle Network Plan.
35	That the strategy for cycling should: <ul style="list-style-type: none"> • Provide cycling infrastructure in an approximate grid network based on Primary and Secondary Routes; • That the basic route network should be provided, in conjunction with local government where most of the 'grid' is located, by 2031; • The development of routes should be based on the principle of "integrate where possible and segregate (only) where necessary"; and • That route development should be undertaken according to a 'Hierarchy of Measures' which places shared paths as the measure of last resort.
36	The identified Principle Shared Path upgrades are supported, subject to the following: <ul style="list-style-type: none"> • that the Cycling Network Plan be modified to require the Mitchell Freeway PSP from Scarborough Beach Road to Erindale Road inclusive to be completed/upgraded as a priority in order to address ongoing inefficiencies and associated safety concerns for this section of the PSP; and • that clarification be provided with respect to the classification of the routes on Wanneroo Road south of Reid Highway and on Alexander Drive south of ECU Mt Lawley, and how they will link in with the proposed PSP routes north of these locations.
37	That Plan be amended by: <ul style="list-style-type: none"> • Significantly increasing the mode share for walking; • Providing more detail on how walking mode share will be increased; and • Ensuring that road designs seek to support and enhance walking not impede it; • Providing State funding to improve walking infrastructure.
Freight Network	
38	Figure 30 should be amended to include the Balcatta Industrial Area.
39	Figure 30 should be amended to include a secondary freight route from Jon Sanders Drive to Hutton Street to the Mitchell Freeway.
40	Figure 30 should be amended to delete West Coast Highway from the freight network.
Optimising the System	
41	That ramp metering not be introduced as experience in other jurisdictions has shown it has a significant negative impact on road congestion on nearby arterial roads.
42	That the State Government require that certain development applications require travel management plans.
43	That the Department of Planning prepare a Development Control Policy to guide the preparation and assessment of travel management plans.
44	That the State Government prepare a metropolitan wide parking and management plan backed up by State legislation that includes parking levies at varying levels to fund public transport services.
45	That the Plan be amended to provide clarification in relation to how Transport Pricing will be applied.
46	That the Plan give greater consideration to how financial incentives will be applied to increase public transport usage in general, as well as facilitating a "spread" in the peak period commute.
47	The City recommends that travel behaviour programs be subject to further analysis to determine how they will be effectively implemented on a larger scale, at an affordable cost,

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#	Recommendation
	maintained in the longer term, and achieve sustained mode share change.
48	It is recommended that the Plan provide greater consideration to how the State government can encourage flexible working hours, home businesses, car sharing/car pooling and telecommuting to reduce the need for travel, particularly during peak periods.
Implementation	
49	That the draft Perth Transport Plan be amended to: <ul style="list-style-type: none"> • Include more detail on all projects that are proposed to be delivered by 2031, including benefit cost analysis and exact timing on planning, design and implementation and who is responsible; • Include assessment against land use outcomes required to achieve outcomes of the Perth and Peel @ 3.5 million strategy; and • Include a clear set of criteria to determine which projects are given priority and funding.
50	That further detailed collaboration with all stakeholders occur prior to the draft Perth Transport Plan being adopted, including: <ul style="list-style-type: none"> • Discussing all issues raised through the preliminary consultation stage; and • Creating working groups to address specific areas that lack sufficient detail.
51	That the Plan be monitored and reviewed every 5 years.
Appendix 1 – Estimated Timelines	
52	That the following timeframes apply: <ul style="list-style-type: none"> • By 2.7 million – approximately 2031; • By 3.5 million – approximately 2050; and • Beyond 3.5 million – no set timeframe for implementation.
Appendix 2 – Glossary	
53	A definition should be included for “Managed Freeway”.
Miscellaneous	
54	Sub-regional Transport Plans should be prepared to align with the Perth and Peel @3.5 Million sub-regional planning frameworks.
55	Overlays should be made available to enable the consideration of how the Transport Plan aligns with Perth and Peel @3.5 Million and the Green Growth Plan.