NORTH EAST LINK PROJECT IAC HEARING

STRATEGIC PLANNING ASSESSMENT

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1. **INTRODUCTION**

1.1. **INTRODUCTION**

1. I have been engaged on behalf of the North East Link Project (Project) in my capacity as an expert in the field of urban planning.

2. I have been asked to review the Environment Effects Statement (EES), submissions and draft Planning Scheme Amendment prepared for the Project to the extent relevant to my area of expertise.

3. I have also been instructed to review and respond to the public submissions in respect of the EES and draft Planning Scheme Amendment relevant to my area of expertise.

4. This report examines the strategic planning matters arising from the proposal to develop a freeway-standard connection between the Eastern Freeway at its intersection with Bulleen Road and the eastern end of the M80 Ring Road at Plenty Road to provide for new and enhanced major transport link serving the north-east region of metropolitan Melbourne. The Project will also deliver Melbourne’s first dedicated high-speed busway and extensive walking and cycling links.

5. I have also prepared a second report that examines the potential impacts of the Project having regard to Land Use impacts, particular amenity impacts and the appropriateness of the proposed planning controls and approval processes forming part of the draft Planning Scheme Amendment.

6. In undertaking my assessment, I have had regard to:
   - The EES and its technical reports relating to the project rationale.
   - The North East Link Business case
   - Submissions regarding the project rationale, concerns regarding the project benefits and that the project is not justified, these are listed in Appendix A of my report.

1.2. **QUALIFICATIONS AND EXPERIENCE**

7. Appendix B contains a statement setting out my qualifications and experience, and the other matters in accordance with Planning Panels Victoria’s ‘Guide to Expert Evidence’.
2. SUMMARY OF OPINION

8. The Project itself traverses the municipalities of Yarra, Whitehorse, Boroondara, Manningham, Banyule, Nillumbik and Whittlesea to provide a new freeway standard connection between the M80 Ring Road and an upgraded Eastern Freeway, completing the ‘missing link’ in Melbourne’s metropolitan ring road. This will provide the city a complete orbital road connection for the first time in its history – a key feature of many large global cities.

9. The Project is of a scale that is of state significance and will provide for positive impacts at the metropolitan level. The Project’s Business Case has been evaluated by Infrastructure Australia and rated as a High Priority Project – the highest possible rating.

10. Having assessed the various submissions I note that approximately 75 submitters have expressed concerns relating to the rationale for the project, its potential benefits and whether it has been strategically justified.

11. I note that many submitters are concerned that notwithstanding the benefits of the completion of the connection between the north and the east and south that the impacts associated with the project are so significant as to demonstrate the chosen route and reference design for the link are unacceptable. The principal (but not only) concerns include:

   • The impacts of the proposed Project structures (roads, acoustic barriers and elevated pathways) and future operations on the Yarra parklands and other open spaces along the Eastern Freeway.
   • The loss of open space and the associated recreational and sporting facilities, particularly along the Bulleen Road corridor.
   • The loss of many mature trees and other plants in locations such as the western edge of the current Simpson Army Barracks, Watsonia, the established stands of trees within parts of the open space to be acquired and temporarily occupied in the Bulleen Road corridor and along both sides of the Eastern Freeway and Metropolitan Ring Road to allow for the widening of that route.
   • The loss of approximately 80 businesses at the Bulleen Industrial precinct and the services they provide to the surrounding communities and other businesses.

12. I address those issues relevant to land use matters in a separate report and consider the appropriateness of the proposed planning controls for the project to minimise or manage such impacts.

13. I provide the following summary of my opinion regarding the strategic rationale of the project.

The Need for the North East Link

14. The growth of Melbourne has provided increased demand for transport options across the metropolis. Most parts of the middle ring are now served with freeway standard connections (e.g. Eastlink, Western Ring Road and Metropolitan Ring Road) enabling trips across the suburbs without the need to utilise the radial road system or other arterial roads. This is not the case in the north-east where two arterial roads serve as the current connections between the existing freeway standard cross city links.

15. This circumstance has led to an existing road network that is increasingly unable to cope with the current or future traffic demands. It is noted that over the past 15 years there have been a series of progressive upgrades to the arterial network along the north east corridor to facilitate the increasing demand. However, there is little or no remaining ‘flexibility’ to upgrade or increase the capacity of the existing road network to cater to all trip types (e.g. local, business, through trips etc.).

16. The need to provide an upgraded link offering a freeway standard connection between the M80 and the Eastern Freeway has now become essential because:

   • The externalities of the increasing congestion (such as more noise, constrained accessibility for other road users which in turn impacts on residences and businesses along the route)
will increase to unacceptable levels of amenity impacts (e.g. noise, lack of easy local access, localised air pollution, etc.).

- There are limited choices available to businesses particularly caused by the physical barrier of the Yarra River. The current circumstance finds that nearly all traffic seeking to connect between the east/south-east and the north can only do so through only five crossing points of the Yarra River between the Chandler Highway in Kew and the bridge at the township of Warrandyte. The Yarra River serves to create a major physical barrier of over 19 kilometres in length between these two points. Further these crossing points are already congested during peak times.

- Accessibility between the east/south-east and the north will become increasingly important as each of the three key industrial precincts (west, north and south) continue to expand.

- The necessity to connect the east and south-east to the Beveridge Interstate Freight Terminal (an interstate rail freight terminal and warehousing precinct) which will become a major transfer point for interstate freight movements. The BIFT will not achieve its purpose if it cannot efficiently distribute and collect freight to and from industries and businesses in the east and south-east.

- Melbourne is experiencing significant growth and is already a city of 5 million people having grown by nearly 1 million people over the past decade. This growth has created a significant increase in economic activity as well as a concomitant demand for access to education, services and jobs - which require investment in new transport services

- The metropolis will grow by another 3 - 3.5 million people by 2050, with a significant proportion (approximately 52%) of that growth occurring in the north, east and south-east. The growth further demonstrates that the quantum of transport services, including roads, must be significantly increased to cater to the additional demand.

Key Strategic Drivers
17. Key strategic drivers of the needs for the link include:

- The extraordinary growth of the population of the metropolis in the past decade and the anticipated significant ongoing growth through to the mid-century. Current ABS forecasts estimate the population of metro Melbourne in 2050 could be 8.5 million people (this is the middle forecast of three).

- The significant spatial expansion of the metropolis with most growth taking place at locations more than 25 kilometres from the CBD (e.g. Cranbourne, Narre Warren, Mernda).

- The anticipated expansion of key suburban employment hubs and clusters in line with population growth and government facilitation. The northern, eastern and southern sub-regions of metropolitan Melbourne are expected to accommodate a further 284,000 jobs between 2015 and 2031. It is estimated (based on the VIF population growth forecasts for the sub-regions) a further 350-400,000 jobs could be located in these sub-regions by 2050.

- Whilst the economy has significantly moved toward services (with manufacturing now accounting for approximately 8.6% of GSP - 2016) the demand for freight movements has increased through deliveries of supplies supporting the service sector to the creation of online markets requiring deliveries of bought items.

- Metropolitan freight is expected to grow at an average annual rate of 2.6 per cent between 2014 and 2051 - that is the freight task will increase at a rate faster than the future population growth forecast in Plan Melbourne. That is a more than doubling of the freight task where metropolitan Melbourne will need to move nearly 600 million tonnes of freight per annum.

- The changing nature of the overall economy with the increase in Victoria’s trade with other nations and States leading to increased throughput at Port Melbourne, Melbourne Airport and road freight principally entering the metropolis via the Hume Freeway. It is necessary for these key gateways to be fully liked and integrated with the key economic hubs of the metropolis.
18. In summary, as the city grows it needs to continue to enhance its overall transport infrastructure - otherwise the city will falter on many fronts leading to increased dis-benefits such as declining job accessibility, increased economic costs, lower economic output etc.

**Ring Roads are a key part of city transport networks**

19. The provision of orbital or ring roads to provide for inter-suburban trips is a well-established part of cities worldwide.

- Cities from as 'small' as 1 - 2 million people (Amsterdam, Copenhagen, Thessaloniki) to larger world cities (Tokyo, Beijing, London, Paris) have developed ring roads to provide for enhanced connectivity and accessibility.

- Indeed, it is remarkable that Melbourne has not yet developed an orbital system particularly given its significant ‘footprint’ of over 50 kilometres wide. As the city grows the distances that will need to be travelled to connect new suburbs with key employment hubs will increase. It is highly desirable to maximise accessibility and minimise travel time for those new communities. The completed ring road, with the North East Link, will assist in achieving this aim.

20. The concept of developing a transport network that provided for radial movements accessing the central city and inter suburban and orbital movements has also been recognised in Melbourne’s long-term planning. The various plans also recognised the need to create a link through the north east region of the city, including:

- The Plan of General Development released in 1929 by the Metropolitan Town Planning Commission proposed to create what it termed ‘ring roads’ through new roads that by connexions with existing roads the intersuburban routes form continuous roads circumscribing the metropolitan area at different radii (see page 92 of the report).

- The Melbourne and Metropolitan Planning Scheme 1954 report, when describing the proposed arterial road system for the metropolitan area observed that one of the greatest defects in the present metropolitan road system is the lack of convenient roads for the movement of traffic wishing to make journeys between various suburbs without travelling towards or through the city centre.

- The report recommended a series of new roads which will encourage traffic to avoid the inner and more congested areas and which will provide for expeditious movement between the various residential areas and suburban industrial and commercial centres. Their arrangement approximates to a series of ring roads at various distances from the centre. They will carry a high proportion of the important commercial and industrial traffic that flows at a relatively even rate throughout the day.

- The Melbourne Transportation Study of 1969 proposed a series of freeway standard links across the metropolis including the proposed creation of a new freeway link (F18) running from Burke Road along the west side of the Yarra River to join with Greensborough Road and then an alignment that generally coincides with the M80 route.

**Strategic Policy Justification**

21. Concern has been raised by a number of submitters that the project lacks strategic policy justification. In my opinion there is substantial strategic policy support and justification for the North East Link project being:

- The Victorian Transport Plan released in December 2008 specifically identifies the need for the North East Link project to fill in the ‘missing link’ (see pages 11 and 37).

- The Victorian Transport Plan is specifically referred to in the Transport Integration Act 2010 (see Section 63 Victorian Transport Plan) and is a reference document in all Victorian Planning Schemes (see Clause 18.01-1S Land use and transport planning and Clause 18.01-2S Transport System).

- The former Freight Futures - Victorian Freight Network Strategy highlighted that the Principal Freight Network for metropolitan Melbourne was reliant on the Bulleen Road/Banksia Street/ Rosanna Road/ Greensborough Highway arterial roads route to provide for ‘through’ truck
movements. Whereas for the remainder of metropolitan Melbourne these movements were principally accommodated on freeway standard connections (see Figure 6 – The Principal Freight Network-Metropolitan; page 26).

- The report Victoria’s 30-Year Infrastructure Strategy prepared by Infrastructure Victoria identified the North East Link as a short to medium term infrastructure need for Victoria. The report noted that the link would enhance access to major employment centres, particularly the Latrobe NEC and the Epping, Ringwood and Broadmeadows MACs, through improved orbital road connectivity and improve the capacity of the freight network, particularly from the southeast and Gippsland (see pages 143 and 168).

- Plan Melbourne 2017-2050 (the current metropolitan planning strategy) highlights the importance of the North East Link in achieving Melbourne’s development aspirations for the next 30 years. The strategy proposes that the optimisation of the existing motorway network will be achieved through the use of technology and new and upgraded connections, including consideration of how to fill the missing North East Link on the Metropolitan Ring Road (see Policies 3.1.5 Improve the efficiency of the motorway network and 3.4.1 Support sufficient gateway capacity with efficient landside access).

- The potential route of the North East Link is included in Map 2 - Melbourne 2050 Plan of Plan Melbourne 2017-2050 as a key part of the future metropolis. The Plan notes that potential infrastructure projects are subject to Infrastructure Victoria advice and Government approval. I note that Infrastructure Victoria nominated the North East Link as the priority road project for the State.

22. I note that the Project has also been assessed by Infrastructure Australia who have included the Project on the Infrastructure Priority List as a High Priority Project.

23. The North East Link is truly a project of state significance as it positively impacts on many elements of the metropolitan area and its future operations through the provision of a significantly enhanced ring road link in the south-east, east and north, serving:

- Three (of seven) of the National Employment and Innovation Clusters (NEIC) being Dandenong, Monash and Latrobe.
- Five (of nine existing) of the Metropolitan Activity Centres being Dandenong, Fountain Gate-Narre Warren, Epping, Ringwood and Box Hill.
- Two (of five) of the State-significant industrial precincts being the Southern and Northern Industrial Precincts.
- Four (of 10 existing and proposed) of the Transport gateways being Port of Hastings, Melbourne Airport, Moorabbin Airport and Beveridge Interstate Freight Terminal.

Strategic Benefits of the North East Link

24. The completion of the orbital road connection with the North East Link will:

- Enable the bypassing of an increasingly congested arterial road link that currently carries local, inter-suburban and metropolitan through traffic.
- Provide significantly enhanced intra-metropolitan freight links between south-east to north to match that provided elsewhere across the city.
- Facilitate cross-metropolitan freight movements from eastern Victoria to northern Victoria and beyond.
- Complete the metropolitan orbital road thus providing a choice of routes to access other parts of the city, including key transport hubs, without the need to cross the city centre.
- Provide an enhanced link between the east and south-east with the freight operations of Melbourne Airport.
- Provide an enhanced link between the east and south-east and the proposed Interstate Freight Terminal to be constructed at Beveridge.
Facilitate an increase in accessibility to job opportunities for people with access to the completed orbital road. That is individuals will have more choices as to where they work for the same journey time. Similarly, employers will have access to a larger pool of potential job seekers within a given travel time catchment (e.g. 45 minutes).
3. OVERVIEW

3.1. INTRODUCTION

25. I have been requested to set out my strategic planning assessment of the Project, including review of strategic planning background for the project, the relevant chapters and technical reports forming part of the EES and written submissions received.

26. The physical context of the Project includes:

- The residential suburbs of Watsonia North, Greensborough and Watsonia in the north;
- The Simpson Barracks, the residential suburbs of Yallambie, Macleod, Rosanna and Viewbank and the Banyule Flats parkland in the centre of the project;
- The Bulleen Industrial Precinct, the Bulleen Precinct of the Yarra River parklands together with the sporting and recreational open space and facilities centred along Bulleen Road;
- The residential suburbs of Clifton Hill, Abbotsford, Kew, North Balwyn, Bulleen, Doncaster, East Doncaster, Donvale, Box Hill North, Blackburn North and Nunawading along the route of the proposed expansion of the Eastern Freeway.

27. The Project corridor adjoins a range of existing land uses including residential neighbourhoods, an industrial area, significant public open space, wetlands and recreational facilities.

28. The freeway network in Melbourne today essentially serves as a radial and cross city link function with the exception of the Western Ring road and Metropolitan Ring Road that collectively link the north and west areas of the metropolis. The Monash and Westgate Freeways offer high connectivity between the west and south-east of the metropolis. There is no similar link from the

Figure 1 – Map of Project Route and Extent

3.2. THE NORTH EAST CORRIDOR TODAY

28. The freeway network in Melbourne today essentially serves as a radial and cross city link function with the exception of the Western Ring road and Metropolitan Ring Road that collectively link the north and west areas of the metropolis. The Monash and Westgate Freeways offer high connectivity between the west and south-east of the metropolis. There is no similar link from the
east to the north. This has meant that the arterial road network and other local roads have accommodated most of the growth in traffic movements through this area.

29. Whilst other parts of the metropolis usually have multiple access routes, the Yarra River valley has significantly influenced the location of routes and in turn served to limit the number of north-south arterial roads. The current circumstance finds that nearly all traffic travelling from the south-east and east that wishes to access the northern parts of the metropolis can only do so through only five crossing points of the Yarra River between the Chandler Highway in Kew and the bridge at the township of Warrandyte. The Yarra River serves to create a major physical barrier of over 19 kilometres in length between these two points.

30. A significant proportion of the freight traffic using these routes will use either the Bulleen Road exit from the Eastern Freeway leading to the river crossing at Banksia Street or the (longer and less direct) Tram Road exit leading to the river crossing at Fitzsimons Lane.

31. Larger freight vehicles are required to use the Bulleen Road route. This route then relies on two sections of undivided roads to link with the Greensborough Highway and the M80. The Yarra River valley serves to confine and focus many journeys (from local to interstate freight) onto the same road resulting in excessive congestion and elevated amenity impacts to nearby land use – particularly the adjacent residential neighbourhoods.

32. Given the established nature of existing development in the east and middle north, opportunities to increase supply of road infrastructure to accommodate increasing demand – whether that be expanding existing roads or building new roads – are extremely limited. The key routes between the two freeways are already provided with double right-hand or left-hand turn lanes as they change from road to road to cope with the demand. All of the arterial roads linking the Eastern Freeway to roads to the north and onto the M80 are at or very near their physical capability – that is there are few options to improve capacity of flow.

3.3. THE NORTH EAST LINK PROJECT

33. The Project seeks to provide a major freeway-standard connection between the existing Eastern Freeway and the M80 Ring Road that feeds onto the Greensborough Highway.

34. The new link (excluding the Eastern Freeway expansion works) is approximately 10 kilometres in length and will be created by the widening and removal of at grade intersections along the length of the Greensborough Highway and Rosanna Road, a twin tunnel running under existing dwellings parkland and recreational facilities to link with the Eastern Freeway.

35. It is proposed to create an interchange at Manningham Road that will require the removal and displacement of approximately 80 businesses currently located in the Bulleen Industrial precinct. The intersection with the Eastern Freeway will also require significant land to enable the key interchange movements. Most of the land required for this purpose is used for sporting and recreational purposes.

36. The Project will also involve the widening of the Eastern Freeway to accommodate additional traffic lanes and a dedicated busway between Doncaster Road, Doncaster and Hoddle Street, Collingwood. It is proposed to also upgrade and add to the existing network of shared user paths along and across the widened Eastern Freeway.

37. The Project is not a ‘simple’ joining of two major roads rather, in my view, it is an important link in the metropolis’ overall transport network that will serve to:

- Create a much-needed high capacity regional road crossing of the Yarra River which has served to significantly constrain the capacity for north-south trips to a limited number of crossings.
- Provide enhanced accessibility for freight movements between the south-eastern, eastern and the northern sectors of Melbourne and beyond to locations north of Melbourne (e.g. Sydney).
- Remove significant freight traffic from other arterial roads that were not designed to accommodate regional traffic flows.
• Provide a more direct route between Melbourne’s south-east, eastern and northern suburbs which in turn will increase accessibility for employees to a larger choice of jobs and the potential employment pool for businesses and other employers.

• Meet a need that has been identified in Melbourne’s long-term planning since the late 1920s.

38. The following sections of the report examine:

• The key drivers of change that have and are influencing the need for the North East Link.

• The need for Melbourne, as it spatially expands, to create a transport network that caters to circumferential movements across and around the metropolis.

• The strategic rationale for and benefits arising from the development of the Project.
4. **KEY STRATEGIC DRIVERS INFLUENCING THE NORTH EAST LINK PROJECT**

39. The following section identifies a series of key strategic drivers which demonstrate the need for the Project. There is an array of factors that have contributed to the transport challenges that affect the functionality of metropolitan Melbourne. These include, changes to the quantum and distribution of resident population and employment, the structure of the economy and its spatial orientation, and changes to lifestyle being driven by technological advancement.

4.1. **THE GROWTH OF MELBOURNE**

4.1.1. Melbourne - An Evolving Metropolis

40. Metropolitan Melbourne has previously experienced two ‘waves’ of significant population growth being first in the 1850-1890s with the gold rush era, the second being the post-World War II boom through to the 1970s. In both of these instances Melbourne grew rapidly and was transformed by that growth.

41. A map of Melbourne’s growth conveys the size and some of the influences on the expansion of the city – see Figure 2. The early years were centred on the Hoddle Grid and expansion to the north, east and south. As the city expanded it added a range of major strategic transport links from the metropolitan rail system (principally created in the 19th century) to a series of major highways and arterial roads (created in the 19th and 20th centuries).

42. Much of this infrastructure was centred on maintaining access to central Melbourne. The expansion up to 1954 principally was south and east supported by the extensive rail and tram system. Indeed, much of the growth was centred on the alignment of the various rail services.

43. When the second wave of rapid growth occurred in the 1950s to the 1970s the city grew in the locations between the rail corridors due to the increasing access to private motor vehicles. This increased accessibility, in turn, helped with the creation of major new employment hubs as businesses had access to a greater pool of employees and goods. This growth occurred in areas such as Oakleigh, Clayton/Mulgrave, Moorabbin, Braeside, and Dandenong in the south-east and Nunawading, Ringwood, Bayswater in the east. The north experienced significant growth in manufacturing industries in locations such as Thomastown, Broadmeadows and Campbellfield.

44. As is discussed in Section 5 it was already recognised in the late 1920s and again in the 1950s (when the second growth wave was underway and the population stood at approximately 1.5 million people) there was a need for a comprehensive transport network that provided for radial, inter suburban and circumferential movements within and across the metropolis.

4.1.2. The Current Growth of Metropolitan Melbourne

45. Nearly 50 years on from the second wave of growth Melbourne has again been growing rapidly and is experiencing its third major ‘wave’ of growth. The scale of its growth is significant in the context of developed economies globally and is unprecedented in a national sense, with Greater Melbourne increasing by 985,300 people over the decade to June 2018\(^1\) to 4.96 million people.

46. This trend shows little sign of abating with the city adding 119,000 people (or 2.3 per cent) over the year to June 2018. This growth is consistent with the five-year annual average between 2013 and 2018. The scale of this growth is matched or bettered by very few first-world cities – in other words Melbourne’s growth is very significant.

47. There is no doubt the 2050 population projection for Melbourne is significant, however it is even more significant that it continues to be revised upward. Most, if not all, population projections for Melbourne over the past 60 years have underestimated growth rates and overall growth.

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\(^1\) 3218.0 Regional Population Growth, Australia, March 2019
Plan Melbourne, released by the State Government in May 2014, adopted a metropolitan population figure of 7.7 million by 2051. Plan Melbourne itself was subject to significantly revised population figures during its drafting, whereby the draft released for public comment (9 October 2013) was based on a population of 6.5 million by 2051. This forecast was subsequently revised upwards by 1.2 million people to the projected metropolitan population of 7.7 million by the final version following the release of revised ABS population projection in late October 2013.
49. The current Plan Melbourne 2017-2050 (released March 2017) anticipates an overall metropolitan population of 7.9 million people by 2051² (using VIF 2016 forecasts).

50. Figure 3 highlights the significance of the changed forecasts and that in 2016 the ABS estimated resident population was nearly 100,000 greater than the VIF 2016 population forecast for that year.

51. If current actual growth trends persist, as the ABS expects, then Melbourne is projected to reach a population of 8.5 million people by 2050³. If this eventuates, then Melbourne would be a comparable size to the London (8.9 million) and New York City (8.4 million) of today.

![Figure 3 – Comparison of Population Forecasts for Metropolitan Melbourne](image)

*Source: ABS; Victoria in Future; Urbis*

52. Given these latest forecasts, it is my view that population growth across the metropolitan area, including the areas where the Project will provide the greatest benefits, is highly likely to be greater than the population inputs to the Project Business Case, which stated:

> Land use forecasts based on VIF 2015 projections in the base case expect high population growth in the outer south east, west and northern regions of Melbourne which will result in a significant increase in traffic on the surrounding arterial road and freeway networks, and the wider Melbourne road network⁴.

### 4.1.3. An Expanding Metropolis

53. It is readily apparent that as the population of the city grows, so too does its scale – both horizontally and vertically.

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² Plan Melbourne 2017-2050 p. 7
³ ABS Cat No. 3222.0, Population projections, Australia, 2017 (base) to 2066 (Series B)
⁴ NEL Business Case Appendix Q1 p. 40
Notwithstanding the significant increase in the residential population for central Melbourne most of Melbourne’s future growth will occur in the outer suburbs along the four main growth corridors: north, north west, west and south east.

Based on the allocation of growth used in the VIF 2016 forecasts (which informed the preparation of Plan Melbourne 2017-2050) it is estimated that approximately 52% of Melbourne’s additional growth of 3 million people will occur in the north, east and south-east sub-regions. It is also estimated that most of this growth will occur in locations beyond the route of the ring road completed by the addition of the North East Link. With the distances to be travelled many will rely on the improved accessibility created by the ring road to access jobs, education and a wide range of other services.

Given that the current population forecasts are nearly 600,000 people higher than Plan Melbourne’s estimate of 7.9 million it is highly likely that the ‘outer suburbs’ will take an even larger share of the new population growth leading to an even larger increase in demand for all services.

### 4.1.4. Increasing Complexity and Competition for Space

The overall quantum and rapid rate of population growth is manifesting itself in a number of ways, including:

- Greater economic demand and activity, generated by that population growth, that increases the overall demand for trips (e.g. accessing jobs, increased freight traffic associated with increased trade and development).
- Increased demand for land to accommodate housing, industry, services and infrastructure.
- Increasing congestion within the metropolitan transport system, be it roads or public transport. The rate of supply of transport infrastructure (e.g. increased rail services, widened or new roads) has not matched the population growth and the economic activity associated with that population.

The net result of these and other changes is a significant increase in complexity; in how the city operates and the interaction and interdependency of its infrastructure, economic and social components. With this complexity comes an increasing competition for land and an ongoing series of changes in the way urban land is used.

Whilst the edges of the city can expand into areas with little existing development the same is not found within the established city. As the city grows it finds that the ease of accommodating new uses or additional infrastructure is increasingly difficult due to the fact existing urban areas are already developed or used. Yet as the city grows it loses the ‘flexibility’ to easily change.

In some instances, the city adapts and changes in line with economic and social drivers. For example, the decline in manufacturing has enabled certain parts of the city to be redeveloped for new more intensive housing or new employment typologies. These changes can be seen as a ‘natural’ progression of the city where one land use or building replaces another, or a locality gradually intensifies over time.

Other components of the metropolis, particularly major transport infrastructure, find it increasingly difficult to ‘fit’ within the existing land use and development patterns. For example, this ‘lack of flexibility’ includes the inability to improve the capacity of existing transport links due to excessive costs or other constraints (e.g. lack of land). This leads to the point where transport systems become congested potentially leading to adverse amenity and spill over impacts. This becomes increasingly so as the size of the city grows – unless it is appropriately managed.

Today within the established parts of metropolitan Melbourne there are very limited opportunities to provide for significant additional transport capacity across the metropolis, with many of the arterial roads now at their maximum physical capacity in terms of road widths, without requiring additional land.

Yet as the city grows it needs to continue to enhance its overall transport infrastructure - otherwise the city will falter on many fronts leading to increased dis-benefits such as declining job accessibility, increased economic costs, lower economic output etc.
4.2. MELBOURNE’S EVOLVING TRANSPORT REQUIREMENTS

4.2.1. A Changing Economy is Leading to More Freight

64. Victoria has shifted from a traditional manufacturing and industrial based economy to a post-industrial service-based, knowledge economy. Growth in services-based employment has been a signature feature of first world economies over the last two decades. Melbourne is no different to other global cities in that this structural change has altered the composition and distribution of employment.

65. The structural changes which have reoriented Melbourne towards a services-based economy are long entrenched and part of a much broader set of societal and lifestyle changes that are leading people to consume more services.

66. Melbourne’s economy is diverse and reliant on trade, notwithstanding the shift to a post-industrial economy where services predominate. Where manufacturing has declined as a share of the local economy it has been replaced with a significant increase in imports.

67. An example of the increasing freight demand is the impact of advancements in e-commerce and greater market penetration for online retailing (which now contributes approximately 9 per cent of Australia’s online sales) these trends are changing transport movements across the city. Businesses are increasingly relying on ordering and receiving materials as and when they need them rather than storing supplies to reduce costs. This increases the frequency and amount of deliveries and reduces the typical payloads carried by freight vehicles.

68. The Victorian Freight Plan summarised the impact of e-commerce in the following manner:

\[
\text{E-commerce changes mean that consumers expect greater levels of service and faster delivery of products. The reliability, speed and cost of delivery are critical for online retailers and often a point of difference.}
\]

\[
\text{Consumer expectations are already having a major impact. For example, Australia Post saw a 5.6 per cent rise in domestic parcels in 2016-17. This trend is also reflected in Victoria’s vehicle registration data, where the growth in LCV or ‘small white vans’ has outstripped the growth in other freight vehicles in recent years.}^5
\]

69. The Bureau of Infrastructure, Transport and Regional Economics (BITRE) has also found that light commercial vehicle’s (LCV) are increasingly being used within Australian cities. This is measured by recording the amount of total vehicle kilometres travelled (VKT) which has increased at almost five times the rate for light passenger vehicles between 2008 and 2015.\(^6\)

70. The Victorian Freight Plan\(^6\) examined the future of freight and made several significant findings including:

- Metropolitan freight is expected to grow at an average annual rate of 2.6 per cent between 2014 and 2051 - that is the freight task will increase at a rate faster than the future population growth forecast in Plan Melbourne.

- The increasing population will lead to an increase in demand for imports.

- The rapid growth in urban freight is the result of two main factors: urbanisation and e-commerce.

- Urbanisation will result in larger volumes of freight being transported in congested networks (especially roads) in urban areas.

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\(^5\) Transport for Victoria – Delivering the Goods Victorian Freight Plan, July 2018; page 21

\(^6\) Light commercial vehicles are motor vehicles constructed to carry goods or specialised equipment that are less than or equal to 3.5 tonnes gross vehicle mass. They include utility vehicles, panel vans, cab chassis vehicles and goods vans.

\(^7\) Bureau of Infrastructure, Transport and Regional Economics (BITRE), Light commercial vehicle safety, Information Sheet 87, BITRE, Canberra.

\(^8\) Transport for Victoria – Delivering the Goods Victorian Freight Plan, July 2018; page 19
71. In summary, notwithstanding the change in Melbourne’s economy over the past 20 plus years the outlook is that Melbourne’s economy and people will generate a greater amount of freight and potentially, a greater amount of freight-based trips.

4.2.2. Optimising a Continually Growing Freight Task Within Melbourne

72. Melbourne’s long-term prosperity and globally recognised liveability is closely tied to its city performance and functionality. Central to this performance and functionality is the need for Melbourne's transport network to reduce the city's spatial barriers — particularly the widening gap between the location of population and employment — and to continually improve the movement of people and goods through and within the city.

73. It is recognised that the inherent character and quality of a city is much more than economic issues. However, improving access to workers, inputs to production, suppliers and customers is fundamental to lifting productivity and economic outcomes. This has wide reaching benefits in raising living standards and ameliorating issues such as equitable access to jobs and services for populations in the newer suburbs of Melbourne.

74. In short, the State and metropolitan economies can only operate and grow if goods can be efficiently moved from primary producers, manufacturers, wholesalers and importers to the consumer — wherever they are located.

75. Equally, the concentrations of businesses involved in industrial-type land uses continues to expand, especially in the outer suburbs of Melbourne.

The Urban Development Program, Metropolitan Melbourne Industrial 2017 report, highlighted the scale of change (see Figure 4) as follows:

Across metropolitan Melbourne a total of 6,294 hectares of land was zoned for industrial purposes over the last 16 years while 2,210 hectares was zoned from industrial, resulting in a net increase of 4,084 hectares. This increase occurred mainly in municipalities with a State Significant Industrial Precinct, such as Wyndham, Hume, Greater Dandenong, Cardinia, Casey, Whittlesea and Melton. Losses of industrial land were mainly in Melbourne's inner and middle suburbs.

76. Plan Melbourne 2017-2050 highlights that several major employment clusters (together with many smaller industrial precincts and activity centres) are located within the broad north to south-east corridor including:

- The Southern Industrial Precinct
- The Dandenong NEIC
- Monash NEIC
- The Latrobe NEIC
- Ringwood, Dandenong and Box Hill Metropolitan Activity Centres
- The Northern Industrial Precinct

77. Each of these locations are afforded reasonable access to the surrounding sub-regions by the existing transport network but cannot compete with the accessibility of central Melbourne supported by its radial transport system. This means that the various suburban employment hubs cannot access the same scale of potential employment pools as the central city. For example, the central city enjoys between a three-times to seven-times public transport accessibility advantage over the Monash and Latrobe NEICs.

78. Melbourne Airport is becoming an increasingly important gateway for businesses seeking to import and export a variety of goods. High quality links to the airport are becoming increasingly important for freight and not just passengers.

79. The cost of moving goods is a substantial component of the overall cost of production for many industries in Victoria — accounting for up to 30 per cent — so efficient and reliable movement of...
goods has a direct impact on the productivity and efficiency of businesses, and the economy more broadly.

Figure 4 – Map of Melbourne’s Major Industrial Precincts and Locations
Source Urbis

80. One of Melbourne’s biggest challenges is how it manages both the growth in the volume of freight that is expected to utilise its network of transport assets as well as navigating the dispersed nature of its population and employment uses. The dispersed nature of land uses favours road transportation due to the flexibility it provides to the supply chain operators.

81. These land use patterns are also driving an increase in cross-city and orbital freight movements throughout the city as they avoid seeking to avoid radial movements that travel through the congested central city area.

4.2.3. Creating Greater Accessibility to Employment

82. Today Melbourne is a widespread metropolis that has evolved from a mono-centric focus to a series of sub regions each served by a range of services and employment hubs. Most jobs are located outside central Melbourne (defined as the City of Melbourne) but are more broadly dispersed across the suburbs. Figure 5 below illustrates that employment is generally more focussed in the inner and middle ring localities with some concentrations beyond that ring.
83. The above map also highlights that certain suburban locations beyond the inner and middle ring tend to have a greater concentration of jobs. These include the Monash NEIC, the Dandenong NEIC and Southern Industrial Precinct, Latrobe NEIC and nearby industrial areas and the Northern Industrial Precinct (circled in red).

84. It is readily evident that the completion of the link between the Eastern Freeway, and the associated significant decrease in congestion, will enable residents in the east to be better able to access jobs in the north whilst those in the north can better access jobs to the south and east (indicative arrows only).

85. This enhanced accessibility has two positive outcomes. First, it provides access to more job opportunities for the same travel time for employees. Secondly, it provides a greater pool of potential employees for a given business location for the same travel time.
5. **THE NEED FOR AN ORBITAL TRANSPORT SYSTEM**

5.1. **THE ROLE OF RING ROADS IN CITIES**

86. As cities across the world have developed a number of similar transport links have commonly emerged to support each city’s access requirements and overall functionality. The road systems have generally followed a pattern of local roads to serve the centre followed by a system of radial roads connecting the centre to new suburbs or other towns. As the city expands it is soon apparent that not all trips start or end in the city centre and there is an increasing need to cater to ‘cross-suburban’ trips that start and end in the suburbs.

87. Depending on the scale and physical constraints of the city the need to avoid the central city (and the radial system that supports it) occurs due to a desire to minimise congestion and enhance overall accessibility across the city. This need is accommodated by a ring road.

88. The provision of orbital or ring roads to provide for inter-suburban trips is a well-established part of cities worldwide. Cities from as ‘small’ as a million people (Amsterdam, Thessaloniki) to larger world cities (Tokyo, Beijing, London, Paris) have developed ring roads to provide for enhanced connectivity and accessibility.

89. Indeed, it is remarkable that Melbourne has not yet developed an orbital system particularly given its significant ‘footprint’ of over 50 kilometres wide. As the city grows the distances that will need to be travelled to connect new suburbs with key employment hubs will increase. It is highly desirable to maximise accessibility and minimise travel time for those new communities. The completed ring road, with the North East Link, will assist in achieving this aim.

5.2. **PLANS FOR AN ORBITAL ROAD FOR MELBOURNE**

90. The early physical and economic growth of Melbourne created a radial transport network (road, rail and tram) that served the central city. Since the 1920s it has been recognised that the growing city required a transport system that served radial, cross suburban and circumferential trips in Melbourne – albeit the location of the various transport links has changed as the metropolis has grown.

91. The Plan of General Development released in 1929 by the Metropolitan Town Planning Commission proposed a comprehensive transport strategy for metropolitan Melbourne including arterial roads (radial routes leading from the suburbs to the city), an east west bypass south of the central city, an underground central city rail connection.

92. The Plan also recognised the need to serve suburban traffic movements and proposed three types of Main Roads being Outer Suburban Connections, Intersuburban and Ring Roads and Parkways. The report describes the Intersuburban and Ring Roads as follows:

   Under the scheme of main roads outlined on Map 4, intersuburban routes are planned which, in many instances, incorporate sections or the whole of certain of the intercepting routes referred to in connexion with the outersuburban links with the arterial roads. By connexions with existing roads the intersuburban routes form continuous roads circumscribing the metropolitan area at different radii. This is clearly shown on the diagrammatic map on page 62. In the outer areas where the land is only sparsely built on and unsubdivided, these proposed connexions are more numerous. The intersuburban routes in many cases form parts of the ring roads.\(^{13}\)

93. Map 4 shows the alignment of a metropolitan ring road generally located at the outer edge of the existing urban development (running through suburbs such as Blackburn, Doncaster, Greensborough, Broadmeadows and Keilor East and Braybrook). The northern component of the defined Proposed Main Road was not far from the alignment of the M80 as built today.

\(^{13}\) Metropolitan Town Planning Commission – Plan of the General Development Melbourne – 1929; page 92
The report contains detailed proposals for the widening, upgrading or creation of multiple roads\textsuperscript{14}. A number of important road links for the northern and eastern suburbs were proposed including:

\textsuperscript{14} ibid – pages 93 - 115
• Route 48 – *Circumferential Road – Bundoora to Mitcham* that introduced the concept of a new river crossing near the Templestowe Village before continuing on the east to create the outer ring road for the metropolis.

• Route 50 – *Watsonia to Yarra Boulevard at Heidelberg* that linked Greensborough Road south over Lower Plenty Road to join the Yarra Boulevard and link with Banksia Street

• Route 70 – *Koonung Creek Southern Parkway* (now part of the route of the Eastern Freeway)

95. Whilst the purposes and scale of some of these links were more modest than the roads of today it is apparent that the city recognised the need to provide for ‘cross-suburban’ links to complement the strongly radial transport system.

96. The proposal for a major link between the south-east and the north was again identified in the strategic land use and transport planning for Melbourne in the 1950s.

97. The Melbourne and Metropolitan Planning Scheme 1954 report, when describing the proposed arterial road system for the metropolitan area, made the following comments:

> One of the greatest defects in the present metropolitan road system is the lack of convenient roads for the movement of traffic wishing to make journeys between various suburbs without travelling towards or through the city centre.

> To overcome this deficiency a series of roads have been planned which will encourage traffic to avoid the inner and more congested areas and which will provide for expeditious movement between the various residential areas and suburban industrial and commercial centres. Their arrangement approximates to a series of ring roads at various distances from the centre. They will carry a high proportion of the important commercial and industrial traffic that flows at a relatively even rate throughout the day.\(^{15}\)

98. The proposed series of ring roads included the upgrading of Bell/Banksia Street connecting with Manningham Road (Route 4) and then on to the proposed new Route 19 (now the Eastern Freeway). The need for another link that completed a ring road was Route 6 which the report described as follows:

> Route 6, part of which follows the unused section of the Outer Circle Railway, will provide an excellent medium for distributing traffic between the northern suburbs and those to the east and south-east. It will play an important part in relieving the Nepean Highway and such roads as Burke Road and Warrigal Road.\(^{16}\)

99. The route for the link was proposed to generally follow the Outer Circle railway route (adjacent to the Alamein Line and the disused parts further north) from Ashburton to Kew before linking to Chandler Highway crossing of the Yarra River. Most importantly this link formed part of the ‘inner ring road’ for Metropolitan Melbourne as well as serving as part of the link in the ‘outer ring road’ that included the future East Link and Eastern Freeway routes. See Figure 7.

100. The transport system for Melbourne was again reviewed with the preparation of the recommended Transportation Plan\(^ {17}\) flowing from the Melbourne Transportation Study undertaken in the late 1960s. The Transportation Plan proposed the development of metropolitan roads as a single integrated system comprising\(^ {18}\):

> A network of new freeways.

> A network of improved and extended arterial roads some having access control

> A network of local roads

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\(^{15}\) MMBW – Melbourne Metropolitan Planning Scheme 1954 Report – July 1953; page 96

\(^{16}\) ibid – page 99

\(^{17}\) The Melbourne Transportation Committee - Melbourne Transportation Study - Volume 3: The Transportation Plan, Dec. 1969

\(^{18}\) Ibid 2 – page 47
101. The plan proposed the creation of a new freeway link (F 18) running from Burke Road along the west side of the Yarra River to join with the Greensborough Road and then an alignment that generally coincides with the M80 route. It is noted that a second north south link (F 7) was proposed to be located further to the east generally along an alignment to the east of Middleborough Road running north to Eltham/Diamond Creek and joining with an eastern extension of the M80.

102. The introduction of the Melbourne Metropolitan Planning Scheme saw a number of the proposed freeway reservations put in place including the F18 route on the west side of the Yarra River and the F19 route (Eastern Freeway) along the Koonung Creek valley.
103. Over the next 50 years a number of freeway standard routes were developed but many of the original links were either not reserved or abandoned for a variety of reasons including recognition of the significant impacts that some of the proposed routes would create on established communities or locations and the need to acquire hundreds if not thousands of properties. This included the F18 route.

104. In summary, the need for the link across the Yarra River providing a high-quality circumferential route linking outer suburban locations with each other has been long recognised. Notwithstanding this long-term recognition of the need for a major link between the north and south-east it has been delayed whilst many other parts of the transport network have been completed. The North East Link is now the only remaining ‘gap’ in the network.
6. THE NORTH EAST LINK IS STRATEGICALLY JUSTIFIED

105. I note that several submitters have expressed concern that in the absence of a complete ‘up to date’ transportation strategy for the metropolis it is not possible to proceed with projects such as the North East Link as they lack strategic justification. Whilst I accept that there is no single document that fully lists all transport projects that are required to serve the metropolis both now and into the future, there is a significant body of analysis and existing approved strategies that identifies the Project as vitally important to Melbourne’s future growth.

106. The lack of a freeway standard link between the east and north was formally recognised in The Victorian Transport Plan (VTP) released in December 2008 with the plan proposing a series of initiatives under the heading of Melbourne Orbital Package. The North East Link was identified as the ‘missing link’\(^\text{19}\) in Melbourne’s ring road (see Figure 9). The plan envisaged that:

> The North East Link – will forge a key link between the strategically located northern suburbs – with their vital connections to the national road and rail network – to the economic powerhouse of south-east Melbourne. It will fundamentally alter the economic landscape in this part of Melbourne, just as the Western Ring Road did in the west.

> It will boost jobs, economic growth, social mobility and access to opportunity.\(^\text{20}\)

107. The Victorian Transport Plan is specifically referred to in the Transport Integration Act 2010 (see Section 63 - Victorian Transport Plan) and is a reference document in all Victorian Planning Schemes (see Clause 18.01-1S Land use and transport planning and Clause 18.01-2S Transport System). Notwithstanding the age of the document the Planning Schemes require regard to be had to the document and its policies and projects (as relevant) when making decisions – be it a planning scheme amendment or a planning application.

108. The report Freight Futures - Victorian Freight Network Strategy was released in 2008 and expanded on the freight related parts of the VTF. The strategy highlighted that the Principal Freight Network for metropolitan Melbourne was reliant on the Bulleen Road/Banksia Street/ Rosanna Road/ Greensborough Highway arterial roads route to provide for ‘through’ truck movements. Whereas for the remainder of metropolitan Melbourne these movements were principally accommodated on freeway standard connections.\(^\text{21}\)

109. The strategy also proposed the establishment of a Metropolitan Freight Terminal Network that included a new interstate rail terminal at Donnybrook/Beveridge. See Figure 8 extracted from the strategy.

110. A key element of facilitating the inter-terminal freight flows was the North East Link and enhancements to the links in western Melbourne. The VTF (at page 97) set out the key road projects to facilitate movement around Melbourne.

111. The identified drivers for the North East Link included increasing congestion on all key traffic routes serving the metropolis\(^\text{22}\), anticipated doubling of freight volumes by 2030\(^\text{23}\) across all modes and providing improved access to jobs for a greater share of the population.

112. In December 2016 Infrastructure Victoria released a whole of state 30-year infrastructure strategy that looked at all components of public infrastructure designed to achieve 10 key objectives\(^\text{24}\) from preparing for population change (not just growth), to lifting productivity to reducing disadvantage. The report identified a series (18 in all) needs for Victoria. Two of which are:

- Need 11 – Improve access to middle and outer metropolitan major employment centres, and
- Need 13 – Improve the efficiency of freight supply chains

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\(^{19}\) State of Victoria – The Victorian Transport Plan – December 2008; page 11
\(^{20}\) ibid, page 37
\(^{21}\) State of Victoria – Freight Futures – December 2008; Figure 6 – The Principal Freight Network-Metropolitan; page 26
\(^{22}\) State of Victoria – The Victorian Transport Plan – December 2008; page 22
\(^{23}\) ibid; page 29
\(^{24}\) Infrastructure Victoria – Victoria’s 30-Year Infrastructure Strategy – December 2106; page 13
The North East Link is strategically justified.
Figure 9 – Extract from The Victorian Transport Plan 2008
113. The report identified the North East Link as a short to medium term infrastructure need for Victoria (i.e. construct within 10-15 years) and advised:

As a first step, there needs to be a detailed assessment of alternative alignments. This link would enhance access to major employment centres, particularly the Latrobe NEC and the Epping, Ringwood and Broadmeadows MACs, through improved orbital road connectivity and improve the capacity of the freight network, particularly from the southeast and Gippsland (ref. NEL).

Key new and upgraded transport links in Melbourne

Figure 10 – Extract from Victoria’s 30-Year Infrastructure Strategy – Infrastructure Victoria (Page 136)

25 Infrastructure Victoria – Victoria’s 30-Year Infrastructure Strategy – December 2106; page 143 and page 168
114. The report saw that the construction and operation of the North East Link would achieve the important outcomes of building new transport links to enhance the accessibility of the major employment centres and increase the capacity and connectivity of Victoria’s freight transportation network.

115. The report also included a summary plan highlighting the key new and upgraded transport links it recommended for Melbourne. The North East Link (no. 7) was defined as a new cross-town road link. See Figure 10.

116. The final strategic document that has noted the need for a north east link is the metropolitan strategy Plan Melbourne 2017-2050 that was released in July 2017.

117. Plan Melbourne 2017-2050 highlights the importance of the North East Link in achieving Melbourne’s development aspirations for the next 30 years. The strategy proposes that the optimisation of the existing motorway network will be achieved through the use of technology and new and upgraded connections, including consideration of how to fill the missing North East Link on the Metropolitan Ring Road.

118. The potential route of the North East Link is included in Map 2 - Melbourne 2050 Plan of Plan Melbourne 2017-2050 as a key part of the future metropolis – see Figure 11. The Plan notes that the potential infrastructure projects are subject to Infrastructure Victoria advice and Government approval. I note that Infrastructure Victoria nominated the North East Link as the priority road project for the State.

119. The North East Link is truly a project of state significance as it positively impacts on many elements of the metropolitan area and its future operations through the provision of a significantly enhanced ring road link in the south-east, east and north, serving:

- Three (of seven) of the National Employment and Innovation Clusters (NEIC) being Dandenong, Monash and Latrobe.
- Five (of nine existing) of the Metropolitan Activity Centres being Dandenong, Fountain Gate-Narre Warren, Epping, Ringwood and Box Hill
- Two (of five) of the State-significant industrial precincts being the Southern and Northern Industrial Precincts.
- Four (of 10 existing and proposed) of the Transport gateways being Port of Hastings, Melbourne Airport, Moorabbin Airport and Beveridge Interstate Freight Terminal.

120. The project accords with the relevant strategic directions of Plan Melbourne 2017-2050 including:

- Providing enhanced access that will assist in focusing investment at the abovementioned places of state significance.

- A key outcome (No. 3) that Melbourne has an integrated transport system that connects people to jobs and services and goods to market and its associated Directions being:
  - Direction 3.1 - Transform Melbourne’s transport system to support a productive city
  - Direction 3.2 - Improve transport in Melbourne’s outer suburbs
  - Direction 3.3 - Improve local travel options to support 20-minute neighbourhoods
  - Direction 3.4 - Improve freight efficiency and increase capacity of gateways while protecting urban amenity

121. It is also noted that the Project business case was assessed by Infrastructure Australia who have included the Project on the Infrastructure Priority List as a High Priority Project.

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26 State of Victoria, DELWP – Plan Melbourne 2017-2050 - March 2017; page 69
27 Infrastructure Australia – Project Evaluation Summary North East Link – October, 2018
Map 2

Melbourne 2050 Plan

Source: Department of Environment, Land, Water and Planning.

NOTE: POTENTIAL INFRASTRUCTURE PROJECTS AND GATEWAYS ARE SUBJECT TO INFRASTRUCTURE VICTORIA ADVICE AND VICTORIAN GOVERNMENT APPROVAL. THIS FRAMEWORK WILL BE UPDATED AT THE END OF 2017, FOLLOWING THE GOVERNMENT RESPONSE TO INFRASTRUCTURE VICTORIA’S 20 YEAR PLAN.

Figure 11 – Map 2 – Melbourne 2050 Plan, Plan Melbourne 2017 – 2050
6.1. **SUMMARY**

122. The ongoing growth of the city has simply confirmed the need for a comprehensive transport network and in particular the ability to access other parts of the city without the need to first enter the city centre. Over the past 50 years many of the major elements of the cross-suburban and circumferential links have been put in place including:

- The Western Ring Road linking the Geelong Freeway with the Western, Tullamarine and Hume Freeways (and many other arterial roads along the route) and the Metropolitan Ring Road at the north of the metropolis.
- The Eastlink that joins the Frankston Freeway and Peninsula Link to the Dandenong Bypass, the Monash Freeway, Burwood Highway (and many other arterial roads along the route) and the Eastern Freeway.
- The Monash Freeway, Citylink and Westgate Freeway link that created a city bypass that was originally identified many decades earlier.

123. Only the North East Link remains to be completed to provide a freeway standard ring road providing access and links to all parts of metropolitan Melbourne.

124. From a strategic assessment, the Project will achieve the following important outcomes:

- Enable the bypassing of an increasingly congested arterial road link that currently carries local, inter-suburban and metropolitan through traffic.
- Provide significantly enhanced intra-metropolitan freight links between south-east to north to match that provided elsewhere across the city.
- Facilitate cross-metropolitan freight movements from eastern Victoria to northern Victoria and beyond.
- Complete the metropolitan orbital road thus providing a choice of routes to access other parts of the city, including key transport hubs, without the need to cross the city centre.
- Provide an enhanced link between the east and south-east with the freight operations of Melbourne Airport.
- Provide an enhanced link between the east and south-east and the proposed Interstate Freight Terminal to be constructed at Beveridge.
- Facilitate an increase in accessibility to job opportunities for people with access to the completed orbital road. That is individuals will have more choices as to where they work for the same journey time. Similarly, employers will have access to a larger pool of potential job seekers within a given travel time catchment (e.g. 45 minutes).
APPENDIX A  LIST OF SUBMISSIONS CONSIDERED
List of Submissions Considered

Concerns about benefits quantified
7, 8, 25, 117, 168, 275, 317, 410, 415, 508, 512, 516, 549, 562, 563, 586, 639, 694, 715, 716, 29, 181, 421, 463, 526, 531, 582, 633, 661, 704, 709, 716, 723, 730, 742, 775, 787, 798,

General Support for the project

Opinion that the overall project is not justified, or objectives are not meet
APPENDIX B        GUIDE TO EXPERT EVIDENCE RESPONSE
Name and Address
Michael Bruce Barlow
Urbis Pty Ltd
Level 12, 120 Collins Street,
Melbourne, VIC 3000

• Qualifications
I am a Director of Urbis Pty Ltd. I am a qualified town planner and have practised as a town planner for over 35 years (including 34 as a consultant planner) and hold a Diploma of Applied Science (Town Planning) from Royal Melbourne Institute of Technology for which I qualified in 1981.

• Experience
My experience includes:

• 2011 to present: Director of Planning, Urbis Pty Ltd
• 2002 to 2010: Managing Director, Urbis Pty Ltd
• 1990 – 2001: Director of Urbis Pty Ltd (and its predecessors including A.T. Cocks Consulting)
• 1985 – 1990: Senior Planner, A.T. Cocks Consulting
• 1982 – 1985: Planning Officer and Appeals Officer, City of Melbourne
• 1981 – 1982: Planning Officer, Shire of Eltham
• 1977 – 1980: Planning Officer, City of Doncaster and Templestowe

I advise on the development of cities; their principal activities and land uses and have extensive experience in strategic and development planning. I have been engaged on a wide range of projects throughout Australia, China and the Middle East. I have particular project experience involving major urban development projects across a range of localities and activities including:

• The analysis of drivers of change in cities and their impacts and influence on industry, employment and economic development, retail and activity centres, residential development strategies and policy, metropolitan growth and urban management.
• The preparation of master plans for institutional and educational establishments, airports and new urban development.
• A wide range of international urban development projects including the planning of the new port city serving Shanghai and major city and new town strategies for a number of cities within the Yangtze River corridor, China.
• Leadership of the development of a comprehensive Framework Plan for the Emirate of Dubai. This project created a Vision to guide the economic development of the Emirate, an Urban Framework Plan and an Urban Management System for the government of Dubai.
• Advice on new and specialist land uses and development concepts including the ongoing development of major Australian airports, the introduction and impacts of new retail concepts and standalone megaplex cinemas and the introduction of the casino into central Melbourne.
• Major retail developments comprising central city centres, super-regional centres and mixed-use developments.
• Major commercial and residential developments in the Melbourne central city area including the CBD, Docklands and Southbank and throughout metropolitan Melbourne.

I provide expert evidence at various forums including the Supreme Court of Victoria, Federal Court of Australia, Land and Environment Court (NSW), the Victorian Civil and Administrative Tribunal and independent planning panels regarding the planning implications and impacts of development.
• **Expertise to make the report**
  I have advised on and assessed the introduction of new planning controls across Victoria ranging from the introduction of the new format schemes, new urban area development controls to site-specific development controls over the past 30 years.

• **Instructions**
  I have been requested by Clayton Utz, on behalf of the Major Roads Project Victoria (MRPV) to review the Environment Effects Statement (EES) and draft Planning Scheme Amendment prepared for the Mordialloc Bypass Project (Project) to the extent relevant to my area of expertise concerning Planning and Land Use.

  I confirm that I am the author of this report I have been assisted by Ms Sian Morgan and Mr Nick Andrews in undertaking background research of the EES and the history of the development of the area.

• **The Facts, Matters and Assumptions on which the Opinions are expressed in this Report**
  In undertaking my assessment, I have familiarised myself with the project area and surrounding environs as relevant and have had regard to the following documents:
  • Plan Melbourne 2017-2050 and other relevant documents supporting the metropolitan planning strategy.
  • The Planning Schemes for Kingston and the Greater Dandenong.
  • The draft Planning Scheme Amendment GC107 for the Project.
  • The draft ‘Mordialloc By-Pass (Freeway) Incorporated Document, 15 October 2018’
  • The Exhibited Documents, in particular:
    - The EES Report (as relevant);
    - Technical Reports A, B, D, E, I, M and N (as relevant);
    - Attachment I Environmental Risk Assessment
    - Attachment III - EES Map Book
    - Attachment IV Mordialloc By-Pass Engagement Report;
  • Submissions made by Councils, authorities and others regarding the Environmental Effect Statement and the draft planning scheme amendment (PSA) relevant to my planning expertise.

  The matters addressed within this report fall within my planning expertise. I note in the body of my report where I have specifically relied on the detailed technical assessments and supporting documentation prepared by others to assist my assessment of a particular matter.

• **Declaration**
  I declare that in preparing the material contained in this report I have made all inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.

• **Findings**
  My findings are set out in the body of this report.