



Rail Futures Inc

Submission to Infrastructure Australia in relation to the Australian Infrastructure Audit Report

This submission has been prepared by Rail Futures Incorporated in the public interest. Rail Futures Inc is an independent non-partisan group formed to advocate cost effective rail and intermodal solutions for public transport and freight problems based on sound commercial, economic and social reasoning. Rail Futures members include very experienced rail professionals, engineers and economists.

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By The Rail Futures Institute (Incorporated in Victoria A0059839B) www.railfutures.org.au

Introduction

Rail Futures is an independent, non-partisan group formed to advocate sustainable rail solutions for public transport and freight problems. Our membership includes very experienced rail professionals, engineers and economists.

We believe the case for rail solutions needs to be argued with sound commercial, economic and social reasoning, and we wish to contribute to better public debate on transport problems from a rail perspective.

Rail Futures has published a number of significant studies on Rail and Tram related Infrastructure issues as well as on metropolitan land use and transport strategy. The Institute is based in Victoria and our research, advocacy and publications have a Victorian focus.

We welcome the opportunity to submit comment on the valuable Infrastructure Audit Report developed by Infrastructure Australia.

1. FINDINGS

Rail Futures Comments on AIA Findings

Findings # 1-12. Needs, expectations and demands for infrastructure

We agree with the general direction of these findings. We believe population growth in Sydney and Melbourne (**Findings # 6 and #7**) to be a critical issue and are not confident that decision-makers have grasped the extent of investment in transport infrastructure that will be required for such growth to be catered for. Nor have decision-makers developed appropriate decision-making frameworks or funding streams that could support the required investment.

The high costs of transport in Australia, on a per capita basis among the highest of nations, are not just due to large distances and sprawling cities, but also to high car dependence, with 90% of the urban transport task being via private cars, usually with a sole occupant. However transport demand is changing. There has been a marked shift in young peoples' attitudes to car driving as reflected by delayed driver's license take-up and reduced or delayed car ownership. There needs to be adjustment in policy directions to support greater investment in public transport to enable young people to better access jobs, education and leisure activities without car ownership.

Public transport provision remains most effective only in the inner parts of big cities, while regional cities and outer suburbs are often poorly served. This is a major infrastructure and service gap reflecting outdated thinking and under-investment by decision-makers. We believe any infrastructure audit should look at infrastructure gaps through this lens as well as looking at emerging and future needs.

This introductory section and the following 3 findings (**Findings 13-15 on Infrastructure Gaps**) in our view greatly understate the legacy of under-investment over the past 50 years which must be addressed in addition to and parallel to, the requirements of population growth previously noted.

Findings #16-47 Governance and Policy Reforms

Integrated Infrastructure and Transport Planning

Rail Futures supports the prominence given to these issues in the audit report. We particularly note that the first words in **Finding #16** refer to the need for integrated infrastructure and transport planning. Our recent report *Futureproofing Melbourne*¹, notes that despite this proposition being repeated in successive strategic land use plans over the past two decades, and represented in a variety of structural arrangements, we are very far short of achieving this goal. Too often this principle receives lip service only. It is vital that strong transport planning legislation and strong land use planning legislation are designed to interlock and prevent state and local governments from acting in isolation in response to political or land developer pressure.

Community Engagement

In relation to **Finding #16** we again support the need for community engagement. In recent years proponents have too often arranged nominal consultation sessions that are unable to influence substantive infrastructure decisions and are indeed simply regarded by the proponent as a cost of doing business. Communities must be consulted at a sufficiently early stage to choose between realistic alternative solutions in infrastructure decisions if cynicism and disengagement are to be avoided. There are also many well qualified and astute members of the community that can add substantial value to a project and effective engagement processes should be able to maximize constructive input.

Infrastructure Planning, Project Appraisal and Project Selection

In relation to long-term infrastructure planning, project appraisal and project selection, Rail Futures strongly supports **Finding #17** including the prescription of transparent and consistent cost-benefit analysis. The Victorian community has recently been subjected to excessive secrecy regarding dubious cost-benefit analyses in the failed East West Link project. We look to Infrastructure Australia to promote widely applicable requirements for consistency and transparency in this area. It is clear from many projects that political leaders and project proponents in PPPs too often cover inadequate reasoning with secrecy.

¹ Rail Futures Inc, (August 2015), *Future-Proofing Melbourne: Advocating a Plan for Melbourne that integrates metropolitan land use and transport strategy and ensures a sustainable, resilient, less car-dependent city*. Available on the Rail Futures website, www.railfutures.org.au.

Information on Infrastructure Performance

We support the thrust of **Finding #20** in relation to the need for more detailed information on infrastructure performance. We note that in the transport field, some basic statistics on reliability and on time performance are routinely published but very little on financial performance or on performance outcomes at high levels. We also note the severe difficulty in obtaining public retrospective information.

Public transport rolling stock construction, civil construction and operations are typically delivered via a range of private entities or PPPs, with the object of delivering value for money to government. In some instances, an open book approach has been used to ensure transparency in these contracts; in other cases agreement has been reached at the signing of a contract as to information to be provided to government, although the extent to which governments have been able to use such information well is uncertain.

There may be scope for IA to develop a widely applicable framework of performance information able to be required from all transport jurisdictions as a basis for more effective decision-making and public information and discussion. This is vital given the infrastructure gaps and funding problems highlighted in the audit.

Identification and Protection of Corridors

Rail Futures strongly supports the issue raised in **Finding # 21**, identification and protection of corridors that are needed for future infrastructure. Even today a strong community campaign is being conducted to fight to ensure that space is left for four tracks in the vital Caulfield to Dandenong corridor, where current government rebuilding tenders do not provide ironclad guarantees of corridor protection. Such corridors are needed to address many key issues including providing for urban and peri-urban growth in such a way as to permit access to jobs, education and leisure, providing corridors to key nodes such as airports, ports, shopping and logistics centres, and providing appropriate corridors for emergent technologies. In rail this includes High Speed Trains but also medium high speed (220 kph) trains, as well as much longer and heavier freight trains and port rail shuttles.

Post completion Reviews

Rail Futures strongly supports **Finding #22** regarding post-completion reviews. Over the years many road and freeway projects have been delivered by politicians and proponents on the basis of questionable traffic and other forecasts, and have absorbed substantial public funds that could have been better used. Post-completion reviews should be followed by corresponding reductions in the funding allocated to freeway projects where it is clear that false or misleading traffic estimates have been used to distort resource allocation.

Consideration of Environmental Issues in Infrastructure Planning

Rail Futures supports **Finding #24** concerning consideration of environmental issues in infrastructure planning, and adds three additional comments on these issues. First, both environmental and social impacts (negative and positive) must be included in infrastructure planning. Second, a consistent process for their treatment, especially their use in cost-

benefit analysis, should be prescribed by Infrastructure Australia. Third, the reasoning and figures used in ascribing values must be transparent and contestable so that the public has confidence that sound judgments have been made. The combination of secrecy and questionable logic in evaluating externalities were toxic in the case of the flawed East West link project in Melbourne, and were instrumental in the failure of a number of other PPP freeway projects in various jurisdictions.

Private funding of transport infrastructure

Rail Futures notes **Finding #25** concerning the need for private funding of transport infrastructure; however we believe it is important that private projects sit within a strategic planning framework that provides social licence for the project to be developed. As well, we believe that the process of strategic transport planning, particularly in inter-connected urban environments such as Sydney or Melbourne, must not be ceded to private firms through contracts or arrangements that permit such firms to determine issues which are public prerogatives (including routes, design and location of traffic flows and off ramps). In particular, such contractual arrangements should not include (as the Melbourne City Link concession deed did) restraints on the provision of public transport alternatives nor the closing of alternative public roads for commercial reasons.

Infrastructure pipeline

Rail Futures supports **Finding #33** and acknowledges that such a pipeline if established would provide added stability in procurement. We note that in the rail environment there is also a need for a stable pipeline of rolling stock procurement that is in harmony with civil construction and renewal. Since these areas have chronically been the subject of wanton pork barreling by politicians for perceived electoral advantage and to placate vocal but often sectional lobbies, the role of Infrastructure Australia and its state counterparts needs to be respected and developed in this area.

Climate change and sustainable environmental outcomes

Rail Futures supports **Finding #40** concerning the need for adaptation to climate change; and notes the far superior performance of rail freight over road freight in matters such as fuel economy and emissions. We note however that a range of commonwealth policies in relation to the denial of federal funding to urban rail; investment bias toward freeway projects, and fuel and other tax benefits favoring road transport work against adaptation to climate change and against sustainable environmental outcomes.

Neglect of Regional Rail Infrastructure

Rail Futures supports the thrust of **Finding #46c** concerning the neglect of regional rail infrastructure. State governments and state treasuries in particular bear much responsibility for this situation, which is capable of considerable improvement. Investment in regional passenger rail infrastructure is essential for the development of jobs and services in regional cities to support more balanced regional development vis-a-vis the growth in the large capital cities.

Regarding regional freight services, partnership with the private sector in Victoria has facilitated the refurbishment of several regional lines serving the wheat, rice and mineral sands industries. However the commonwealth government must also shoulder its responsibilities by investing in lines managed by ARTC, and by developing long distance freight rail links such as the Melbourne Brisbane and Mildura to Menindee links. Rail Futures is concerned that any privatisation of ARTC may lead to a narrowing of its willingness to support developmental projects with longer term returns.

Urban Transport Decisions in relation to Land Use Planning

Rail Futures strongly supports **Finding #50** and takes the view that urban transport decisions should not just complement land use decisions but that transport and land use decisions should be required (above a certain threshold of size and significance) to be jointly made. Transport and planning legislation should mandate this of decision makers. In general, public transport provision must be provided to new subdivisions (in the case of housing) or major new ports (in the case of freight planning) at the right time. Public transport provision should be treated as a requirement on similar lines to the provision of power and water connections. In many cases this will require corridor identification well in advance of land release or the construction of other fixed infrastructure.

2. CHALLENGES FOR THE FUTURE

Rail Futures offers the following comments in relation to the “Challenges for the Future” section of the Australian Infrastructure Audit:

#1 We need to improve our infrastructure planning

Rail Futures agrees that the improvement of infrastructure planning is critically important, and with the AIA conclusion that project selection is extremely important, though perhaps not as the report suggests the “key” to boosting economic activity. In the Victorian jurisdiction, poor project selection has been manifest from both major parties in recent years. Projects such as Peninsula Link and East West Link have been advanced (and the former constructed) regardless of their failure to meet Infrastructure Australia standards as to cost-benefit analysis. Other rural freeway projects (such as the Geelong to Colac and Ballarat to Stawell freeway duplications) have also been implemented in the absence of adequate and transparent planning or valid benefit cost analysis, and in the latter case with substantial avoidable environmental damage. By contrast, a project such as Melbourne Metro remains substantially unfunded despite receiving top billing after rigorous IA scrutiny.

We look to Infrastructure Australia and its state counterparts to play an important role in guiding public understanding of how infrastructure planning and project selection should be undertaken. And we deplore the continued tendency of state governments to too often make infrastructure investment promises based on perceived political advantage. This issue has been a long standing theme in the Australian infrastructure space (the creation of the

Victorian Railways Commissioners in 1883 as an independent statutory authority based on professional expertise was a reaction to similar problems). This problem has no simple answer but we would like to see IA place some emphasis on public education with regard to infrastructure planning and project selection as a more sophisticated public understanding may be one way to overcome the continuing shortcomings in this area.

#2 We need to increase public and private funding

Rail Futures believes an increased funding stream is particularly important, from both public and private sources, and makes the following additional points:

- The commonwealth government must make a meaningful contribution to urban rail investment and its withdrawal from this space even on a temporary basis will retard the provision of much needed infrastructure, access to jobs, economic growth and productivity;
- Tax arrangements that allow road freight and single driver commuter cars to impose external costs on the community must be faced. In relation to road freight, we urge the implementation of Recommendation 64 of the Henry Review of Taxation which stated *On routes where road freight is in direct competition with rail that is required to recover its capital costs, heavy vehicles should face an additional charge on a comparable basis, where this improves the efficient allocation of freight between transport modes;*
- In relation to single car commuting in urban centres, which imposes significant infrastructure costs and externalities on communities, we recommend a range of strategies to reduce these costs including extra tolls on such vehicles using motorways, the construction of transit lanes from which such vehicles are excluded, as well as a regime of congestion charging. A proportion of business vehicle registration revenue should be hypothecated for public transport projects;
- More attention should be paid to alternative revenue sources to support public transport investment including levies, value capture, special rates and other measures as are used in many jurisdictions overseas.

#3 We need to focus on resilience and improved maintenance

While the comments in the AIA on this matter are generally supported, we notice that the Audit cites road maintenance and water system maintenance as the areas of concern. Certainly water assets are aging and need maintenance and/or renewal in many older areas. However road maintenance expenditure has been the subject of numerous commonwealth and state cash injections, notwithstanding there are discontinuities from time to time.

Far more significant has been a hiatus of 50 years in investment in many parts of Australia's rail system. Recent leaked reports from the franchise operator Melbourne Metro have disclosed alarming chronic maintenance deficiencies reflecting poor budgeting and the absence of lifecycle asset management by state governments over many years. In the Victorian intrastate freight system the annual periodic maintenance budget for the last decade has been less than \$30 million per annum, spread thinly over an extensive system. This has, resulted in very low speeds in some areas, uncompetitive cycle times, loss of traffic

from rail to road (with concomitant road maintenance costs to state and local governments), flood damage such as washaways not repaired, and aging assets (like the century-old Avon River bridge at Stratford) being retained well beyond their economic life.

Thus we support the challenge noted but urge you to include urban and freight rail in your assessment of urgent need.

#4 We need to have sustainable development and improved environmental outcomes

We very much support this as a key challenge but consider the Audit finding a reasonably timid one as it omits consideration of the significant challenge to sustainability posed by continued commonwealth bias through investment and taxation in favour of road based transport, disregarding environmental issues such as:

- The fact that a two-track railway has the capacity to transport 36000 people per hour in each direction, the same as 14 lanes of freeway;
- The fact that, despite road congestion costing \$15 billion a year, the commonwealth is not funding the only viable solution to this problem: the funding of urban rail;
- The major contribution to air pollution in cities caused by excessive automobile dependence resulting from failure to provide alternative clean means of commuting;
- The fact that Australia's CO2 emissions are twice the OECD average; that transport emissions have increased 50% since 1990, 84% attributable to road transport; and
- The fact that rail freight is three times more energy efficient than trucks per tonne of freight hauled.

These considerations mean that this challenge must be addressed in a much more forthright way than the current wording around this challenge in the Audit report suggest.

#5 We need a national debate about reform

Rail Futures agrees that many aspects of transport policy, infrastructure development, and related revenue and taxation are in dire need of reform, and that a national debate needs to continue on these topics. At the same time, substantial improvement is needed in public education and the education of political leaders on these matters. In this space IA and its state counterparts have a great responsibility as little meaningful national debate will take place while so few of our political leaders have much grasp of the issues or commitment to change. IA is a respected and independent voice that must address this issue by providing information papers, seminars and briefings, as well as regularly contesting some of the more ill-informed comments by politicians and journalists.

3. VICTORIAN TRANSPORT INFRASTRUCTURE NEEDS

In this Section, Rail Futures wishes to comment on a number of issues raised in Volume 2 of the Australian Infrastructure Audit (pages 160-182) concerning Victoria's transport infrastructure needs.

Page 167 - Table 44: Top 10 Road Corridors in Melbourne-Geelong 2011 by delay cost (2011 dollars).

(a) Eastern Freeway and Eastern Freeway to City Link

We note here that the first two listed corridors by delay cost are:

1. City Link to Eastern Freeway connection north of CBD – DEC per lane cost \$5.49m
2. Eastern Freeway Corridor to Ringwood – DEC per lane cost \$5.77m

These figures need to be placed in some context. It should not be assumed that these figures support either the construction of an East West link alternative or further investment in widening of the Eastern Freeway, conclusions which readers unfamiliar with local circumstances may draw.

Relevant factors are:

1. The Eastern Freeway (unlike the Tullamarine, South Eastern and Eastlink freeways) is not subject to any road pricing. Much congestion on these two road links (where only a minority of traffic is freight related) is occasioned by single occupant commuter private car users that are subject to no demand management or pricing inhibitions to their car use;
2. The primary function of the Eastern Freeway and main driver of its congestion is that it serves a large dormitory area of Melbourne, the Manningham area, similar in population size to Hobart that lacks a rail- based public transport alternative to the motor car. Most traffic on this freeway at congested times is caused by commuters heading for the CBD, not cross town trips east-west, and not freight vehicles;
3. Despite frequent recommendations over the years, successive Victorian Governments have failed to implement rail or light rail connection from Melbourne City to Doncaster. The implementation of a rail or light rail facility to Doncaster (at a cost for light rail of about \$1.5bn) would materially reduce this congestion;
4. Successive Victorian governments have failed to comprehensively implement travel demand management on this corridor, apart from limited use of transit lanes;
5. As Figure 64, on page 169 shows, the Doncaster corridor is unique in Melbourne in that trunk public transport is bus based. There has been substantial investment in Smart Buses serving this area and some degree of mode shift has been achieved, however bus transit is less preferred by users in the Melbourne context as an alternative to rail or light rail, one reason being its poor connections to city wide destinations via the rail network;
6. The current Melbourne freeway network does not provide a connection between the Metropolitan Ring Road at Greensborough and East Link at Ringwood, although such a connection is strongly advocated by the roads lobby. Should this link be constructed, much through traffic from the completed Ring Road will avoid the two road sections mentioned.
7. Unlike the position in Sydney, Brisbane and many overseas cities, successive Victorian governments have failed to provide an airport rail connection, despite Tullamarine airport

being (as your report states on p. 174), the second busiest in Australia. Diversion of eastern suburbs airport users from road to rail would reduce congestion on these road links.

Rail Futures contends that road congestion on these two road links should not be addressed by the provision of extra road capacity but instead by:

- Implementation of light or heavy rail to Doncaster;
- Implementation of road pricing on the Eastern freeway;
- Implementation of travel demand management measures on the eastern freeway;
- Construction of a direct rail link from Melbourne CBD to Tullamarine airport;
- Investigation of whether a freeway link could be built from the Metropolitan Ring Road at Greensborough to Eastlink at Ringwood at reasonable cost and without overwhelming environmental damage to the Yarra Flats and other sensitive areas.

(b) Dandenong Corridor (Monash-Princes Freeway Corridor)

Rail Futures notes that the sixth road link listed by delay cost is the Monash-Princes Freeway corridor. In this regard it is of concern that successive Victorian Governments have failed to provide extra track capacity on the Dandenong rail line, which is the rail alternative to that road corridor. A current project valued at \$2.5bn is being undertaken to rebuild this line, for which a key driver was the removal of level crossing delays to motorists. This is a worthwhile project in itself, but the opportunity should be taken to provide extra track capacity between Caulfield and Dandenong. Instead, the project is being designed without ironclad protection within the corridor of the space required for extra tracks. Instead tenderers are to be allowed to build platforms, lifts and other structures on any land that might be needed for extra tracks in the “long term” future.

The burgeoning south eastern suburbs served by the Dandenong rail line cannot be provided with shorter rail journey times through this project despite its large budget. As a result its capacity to relieve the Monash Princes Freeway road corridor by mode shift is being negated from its inception. This provides a classic example of silo based thinking where the political benefits of a level crossing removal program that appeals to motorists is pursued with insufficient regard to the broader transport needs of the region.

The capacity limitations shown in Figure 66 (Melbourne Rail Network demand over crush capacity 2031) illustrates why the present Dandenong line project should be providing extra track capacity now rather than implementing obstacles in the way of its future delivery.

Page 169 Figure 64 Public Transport in Melbourne-Geelong

This table presents public transport usage in a consolidated format that requires considerable deconstruction to be meaningful. One reason for this is the consolidation of information by local government area, whereas presentation by corridor may have been simpler to interpret.

Need for Rail Link to Tullamarine Airport and definition of national High Speed Rail standards

One issue in this section that is salient is that the rail corridors from Brimbank and Broadmeadows to the City are already heavily utilised. When this is related to the position shown in Table 45, whereby the Tullamarine Freeway is identified as third in projected delay costs by 2031, it is clear that more effort should be placed in planning and providing a direct rail link from Melbourne CBD to Tullamarine Airport.

Rail Futures contends that a direct fast rail connection should be provided from Melbourne to Tullamarine airport via a dedicated railway built to High Speed Rail standards. This link should be designed to form part of the regional/interstate rail network, with connections northwards to the Bendigo line near Clarkefield and to the north east railway south of Wallan. The commonwealth should define national standards for high speed rail without delay so that new trunk rail routes via key nodes such as Tullamarine airport can be designed and built to accommodate the future high speed network. Since initial planning and corridor protection should be undertaken now before further urban encroachment north of Tullamarine airport, we urge IA to give priority to supporting commonwealth definition of national high speed rail construction standards as a matter of priority.

Page 169-170 Melbourne's Rail Corridors – Crush Loadings and Delay Costs

The discussion here merely notes that passenger loadings on the Craigieburn, Sunshine, Werribee and Dandenong lines are expected to exceed crush capacity by 2031.

Further consideration of this issue is required. The effect of overloading on key rail corridors being allowed to proceed without corresponding investment can only lead to greater car dependence and road congestion over the 15 years to 2031. Moreover, as trains move toward crush loads, dwell times at stations increase and service standards are lowered.

A more adequate treatment of this issue would be to consider not only overcrowding on existing rail corridors but also the poor journey times and delay costs that failure to expand these corridors imposes on the community. The audit presents information concerning delay costs on road corridors but not the corresponding information on delay costs to rail users and hence the wider community.

Rail Futures' position on these matters is set out in its various technical papers, but in brief,

- Rail Futures contends that Melbourne's capacity to function as a city of 6 to 8 million people mid-century will require substantial investment in rail;
- The recently completed Regional Rail link illustrates how the provision of separate rail corridors for regional rail beside existing suburban corridors can help transform overcrowding and train delays on a corridor;
- In addition to the recently-completed Regional Rail Link, Melbourne requires new rail capacity on each of the four corridors mentioned above, as well as a rail **corridor direct to Melbourne airport**, (built to conform to national high speed train engineering parameters) and a **light or heavy rail connection to Doncaster**.
- In relation to the four corridors mentioned in your audit as facing 2031 crush capacity, Rail Futures comments as follows:
 - The **Craigieburn corridor** should be provided with additional capacity by the reinstatement and upgrading of the currently disused rail link from Somerton to Upfield and the diversion of north eastern broad gauge regional trains via the Upfield corridor. Ultimately, the north eastern corridor should be the setting for high speed train services to Albury, Canberra and Sydney which (as explained above) should be routed via Tullamarine Airport and a direct high speed connection to Southern Cross station.

- The **Werribee corridor** will require relief through several measures. Two of these have been addressed in the PTV metropolitan Network Development Plan but as longer term measures. One is the provision of a rail chord between Werribee and Wyndham Vale, allowing Werribee suburban trains to terminate there. A second is the construction of a direct rail tunnel at Newport and a rail link from there via Fishermans Bend to Southern Cross. Such a link would provide the basis for 30 minute duration regional train services from Greater Geelong to the CBD, which will be necessary as Greater Geelong is expected to be comparable in size to Adelaide by mid-century;
- The **Sunshine corridor** will benefit from extra capacity if Geelong trains travel direct to the City via Newport and Fishermans Bend as described above;
- The Dandenong corridor requires (as described previously) the provision of two extra tracks between Caulfield and Dandenong to provide a **South Eastern Rail Link**, serving outer and peri-urban growth centres beyond Dandenong as well as passenger and freight trains from Gippsland and container traffic and port shuttles to Lyndhurst and the port of Hastings. Planning and construction of the South Eastern Rail Link should be accorded more priority and the Level Crossing Removal Authority should be restrained from placing needless obstacles in the way of this necessary capacity.
- Rail Futures believes the Infrastructure Audit should have given more attention to issues of rail capacity and journey times, the impact their improvement could have on road congestion, and the necessary investments (such as those described above) that are needed for improvement.

In conclusion, Rail Futures Institute Incorporated commends Infrastructure Australia on commissioning the Australian Infrastructure Audit and is grateful for the opportunity to make this Submission on it.

13 August 2015.