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Attn: Secretary, NSW Department of Planning and Environment

SSI 6307

GPO Box 39

Sydney NSW 2001

Re: SSI 6307 submission (WestConnex M4 East)

Objection to WestConnex M4 East Proposal

I wish to register that I strongly object to the WestConnex M4 East proposal and its associated EIS.

Global experience and research has shown conclusively that these kinds of toll road mega-projects are hugely expensive and counterproductive. WestConnex will increase air pollution and traffic, and expose NSW taxpayers to unacceptably high levels of financial risk. It is not a long-term solution to Sydney's congestion problem. The fact that the State Government has already signed multi-billion dollar contracts for WestConnex before this EIS was even placed on public exhibition undermines community confidence that this is a genuine consultation process. I recognise there is pressure on several NSW Departments, including Planning and the Environment, to approve this project. I remind public servants of their obligation to the public and to the potential social, health and economic costs of spending $15.4 billion on WestConnex when it provides no solution to Sydney's transport needs.

Overview of objection and EIS process

In regards to the M4 East EIS process, I strongly object to:

- The lack of transparency in the entire WestConnex process. Billions of dollars of contracts have been let without a full business case having been released or the project being subjected to independent Gateway reviews.

- The short 55-day timeframe which members of the community have been given to respond to the EIS for the M4 East. This document runs to nearly 5,000 pages, but the public was only given 55 days to respond – despite hundreds of people calling and emailing the Minister for Planning to explain why this was not enough time. Insufficient time to respond. The document itself is not easy to digest and contains many internal contradictions. I object that we have inadequate time to highlight all its inadequacies, and note that other 'comparable' projects allocate considerably more time to the EIS process than the M4 – East project.

- AECOM being paid millions of dollars of public funds to play the key role in the EIS for the M4 East. AECOM has been awarded other WestConnex contracts that give it a vested interest in the project going ahead, and this is demonstrated by the lack of independence and the superficial analyses that characterise this EIS. In addition, AECOM has been sued for being negligent in relation to its past traffic studies, and has already paid more than $250 million in settlement costs.

- Having each section of the Westconnex assessed separately for the EIS process. Vague rationales for the whole project are used to justify the serious negative impacts of each stage. Projects such as the Southern motorway F8, which are not even at a planning stage, are included in the argument for the project without explanation. I also object to the failure to consider total negative impacts against the total claimed positive aspects. While the M4 East EIS repeatedly references the positive impact of the entire WestConnex when arguing for the project, it fails to consider the negative impacts of the whole project – such as loss of housing, heritage and biodiversity. This represents a significant inconsistency across the entirety of the EIS document.

- The failure to provide enough data to allow independent experts to verify the M4 East EIS's traffic analysis. For example, a detailed study undertaken by SGS Economics & Planning for the City of Sydney concluded that WestConnex would make traffic worse on Parramatta Rd, Victoria St and many local roads. The M4 East EIS claims it will improve traffic, but offers very little data that would allow experts to objectively assess this analysis.

- Spending $15.4 billion for small savings that will not benefit most commuters. Instead of spending this amount of money to benefit a very small percentage of drivers in Sydney, and cut just one minute off overall road network traffic speeds, the NSW Government should be investing in public transport and traffic management solutions to address traffic congestion and boost NSW's economic prosperity in the long term.

- The poor analysis of alternatives undertaken in the M4 East EIS. This section of the EIS is superficial and amounts to nothing more than a roundabout way of saying that the M4 - East tunnel project is preferred by WestConnex.

- The huge impact that the flow of cars and trucks out of tunnel exits will have on local roads throughout the Inner West.

- Hundreds of residents being forced from their homes and businesses for the M4 East, and the failure of the EIS to assess the social impacts of this. Forcibly acquiring and destroying over 200 homes and businesses will result in massive social disruption in communities. There have been numerous reports of homeowners and tenants being inadequately compensated for the loss of their properties. These acquisitions were in motion before the EIS was even completed. Yet the EIS Social Impact study failed to do any direct research on the impact of forced acquisitions on residents.

- The health risk and air quality analysis, which fails to assess the true impact of the M4 East. The claim is even made that WestConnex will improve local air quality—a difficult concept to comprehend.

- The total inadequacy of the M4 East biodiversity assessment. This 'analysis' is based on insufficient studies. No attempt is made to assess cumulative impacts of the entire WestConnex project on loss of open space, gardens and other vegetation.

- The wholesale destruction of heritage homes and precincts. This is not acceptable, particularly for a project that will not resolve but add to Sydney's traffic congestions.

- The failure of WestConnex consultants to directly consult with business owners. Local business owners were not approached by WestConnex about the impact the M4 East would have on their livelihoods, despite the fact that many stand to see their businesses destroyed as thriving streets precincts are drowned in traffic. The scope of the study is also insufficient to address the broad range of impacts on businesses *outside* what is currently considered the scope of the study, for instance those businesses along King St, Newtown:

- I object to the lack of detail in the EIS in relation to the planned mitigation to be offered to individual premises. (Noise, vibration, dust, smell, light and pollution.)

- I object that the EIS does not identify, confirm or recommend specific mitigation for all the residents and businesses impacted by the four (4) construction zones in Haberfield and Ashfield around the:
  - Parramatta Rd, Ashfield/Haberfield interchange site (on road surface and tunnel construction areas);
  - City Link/ Dobroyd Parade, Haberfield interchange site (on road surface and tunnel construction areas,);
  - Wattle St and Walker Avenue (on road and tunnel construction areas);
  - Northcote St and Parramatta Rd construction site (on road surface and tunnel construction areas).

- I object to the lack of information, or consideration within the EIS of the likely cumulative health and social impacts upon people who not only live within the project area, but who may both work, live and study within that same or different project area. The health and social impacts upon these people will be significantly greater than on others who spend less time within the project area. I therefore also object to the scope for the EIS being too narrowly defined in terms of cumulative health and social impacts.

- Following on from the above point, I object that the project boundary and areas identified as affected is only 50 metres. The impact of this major road project, given marketing of its size comparable to previous infrastructure projects in NSW, will go far wider than 50 metres of the indicative route. By restricting the footprint of the projects impact to just 50 meters along the indicative route, the true number of properties and people adversely impacted is hidden, and the true costs of mitigation avoided. I object that much of the mitigating costs of the impacts of this project are to be borne by individual residents or businesses and not by the proponents.

- I object that within the EIS, there is no reference or table that clearly lists or documents the total number of residents likely to be impacted by the project that also includes a breakdown and identification of single or combined impacts.

- Global experience of major toll road construction has demonstrated conclusively that these projects are enormously expensive and counter-productive. WestConnex will increase air pollution and encourage more car use, quickly filling the increased road capacity. It is not a long-term solution to Sydney's congestion problem.

    - Previous experience in Australia regarding projects seemed 'similar' to the WestConnex Project in this EIS statement (The Cross City Tunnel (Sydney), the Lane Cove Tunnel (Sydney) and the Clem7 tolled tunnel in Brisbane) have proven that these types of projects are no longer viable, effective or necessary. The EIS makes no reference to these projects' failures or lessons [supposedly] learned from them.
    - The role of motorways in a multimodal urban transport network is to allow traffic to circulate around the edge of a city connecting low density suburbs, where the traffic does not directly impact highly populated areas. For radial transport into and out of employment/activity centres, mass transit (e.g., rail) is more quick/efficient, requires less space, and has fewer impacts on highly populated inner-urban areas.

- The fact that the State Government has already signed multi-billion dollar contracts for WestConnex before this EIS was even placed on public exhibition undermines community confidence that this is a genuine consultation process.

My objections to the WestConnex M4 – East proposal EIS are summarised as follows.

Project development and alternatives

- I object to the insufficient consideration seriously given to alternative modes and modal-share options in the scenarios.
- I object to the fact that scenario modelling based on a $15.4 billion project does not consider a greater range of transportation options, including combinations of measures.
- I object to the fact that the 'do minimum' option is rejected on the grounds that it does not meet the project objectives, yet that the WestConnex M4 – East project is unable to justify objectively that it itself meets objectives that will benefit the local, Greater Sydney and NSW community.
- I object to the 'improvements to the existing arterial road network' being rejected on the basis of the 'additional capacity' assumptions, as these measures in combination with public transport improvements should have been considered as a separate, alternate option.
- I object to the 'public transport' option being rejected given that 'diverse [transport] needs' would not be met. A more viable alternative would combine this option with the above improvements to the existing road network and/or demand management. The current proposal as it stands does not allow for 'diverse' travel needs to be met—it favours one mode only.
- I object to the demand management alternative which is considered 'complimentary' to other options not being adequately or seriously considered in combination with these other options as a viable alternative.
- I object to the consideration of 'Alternative 5' (the project as outlined in the EIS) as 'the preferred strategic alternative' given that the specifications of the project remain unclear, and also given the wider, negative implications for the Greater Sydney and NSW communities.
- I object to the insufficient detail in this EIS of the 'investment' in public transport/rail freight and demand management that are given as 'viable complementary strategic alternatives'. If this option (M4 East) was selected under the assumption of improved public transport and demand management as complimentary measures, these should form a central aspect to the proposal, including their benefits and drawbacks.

Consultation

- I object to the insufficient time period (55 days) given to the community to read, understand and prepare and submit a response to the EIS, especially given its size, difficulty to access (relating to document size physically and digitally and also given limited copies around the Sydney region) and ramifications for the community
  - I object to the claim that 'Stakeholder and community involvement in program planning and ongoing environmental management would be key to avoiding, minimising and mitigating the social impacts of the project'. When evaluated against the IAP2 Public Participation Spectrum (https://www.iap2.org.au/resources/iap2s-public-participation-spectrum) the 'community involvement' centres around 'informing' (the lowest stage on the spectrum with the least impact on decisions) and only rarely could be considered 'consultative' (the second lowest). For example, 'The framework would ensure that local residents, businesses and workers are provided timely and clear ***information*** about local changes and the progress of construction and operation. Project communication would need to consider the cultural and linguistic diversity in the project area, so that project ***information is communicated*** effectively' (emphasis added) and 'The [community consultation] framework should also provide opportunities for local communities and specific key stakeholders discussed in the social impact assessment to have input into the development and refinements of construction management plans, and for the use and management of residual lands on operation. The framework would also provide for ***community feedback or monitoring*** by telephone and online.'
  - I object to the insufficient consultation given to those whose businesses or houses will be acquired, whose businesses or houses will be impacted upon (eg through noise, reduced amenity, increased pollution, reduced accessibility etc), to those who are deemed the 'major benefactors' of the project (to evaluate whether this is their preferred 'solution') and especially to the Greater Sydney population, as this is the scale at which many impacts of the project will impact on the community.

Traffic and transport

The WestConnex M4 – East EIS document itself states that: **'Improvements in public transport availability and efficiency would have broad social benefits. The use of public transport includes incidental exercise (eg walking to and from bus or train stops), increasing the chance of travellers meeting recommended daily physical activity targets. A more active lifestyle can help reduce the risk of preventable diseases, including coronary heart disease, stroke, type 2 diabetes, obesity and some cancers. It can also help improve mental health, community life, social wellbeing and community safety.'**

The Traffic and Transport Assessment does not stand up to scrutiny. There is not enough information about the methodology, input data or assumptions for the forecasts to be independently verified.

- I object to the overreliance of this EIS report and the overall WestConnex project on its justification relying solely on traffic modelling. Traffic modelling, in attempting to model the future, makes a number of assumptions to produce what can sometimes seem like absolute and certain figures. These figures are indeed estimates though (there is often a large disparity between modelled and actual traffic figures) and give one alternate outcome from many. As such, to rely solely on these findings can lead to misguided conclusions or outcomes, and add unnecessary risk to a project (Evans, Burke, & Dodson, 2007), as seen in recent Australian examples such as the CLEM7 tunnel in Brisbane, traffic modelling for the Lane Cove Tunnel, and the Cross City Tunnel struggling to reach 20,000 cars per day after modelling suggested that 90,000 cars a day would use it (http://www.smh.com.au/federal-politics/political-opinion/the-forecast-was-not-good--or-even-accurate-20120929-26rzb.html). Indeed a reliance on traffic modelling as justification for projects (as happens commonly in Australian cities) has seen '…investments in Melbourne's urban road network [result] in more time being used by Melbourne's motorists rather than less time' (Odgers, n.d., pp. 14-15), finding that from 2000-1 to 2006-7 overall speeds per hour on Melbourne freeways stayed generally the same, at around 78km/hour. Thus it is important to consider that 'Transport models are useful planning tools, but travel demand forecasting is not a precise science, and there are numerous outside factors which are difficult to predict or quantify' SGS (2015b). Professor Michiel Bliemer and Dr Matthew Beck (both from the University of Sydney's Institute of Transport and Logistics) (Bliemer & Beck, 2015) state that models do not factor in future trends, preferences or behaviour (even trends that are known to be happening, such as 'millennials' driving less). Instead, this EIS uses the traffic modelling 'estimates' as actual, definite figures upon which to base its justification. Listed below are some of the limitations of traffic modelling and central reasons to why I object to the basis of the EIS and justification of the wider WestConnex project centring around traffic modelling:

1 Traffic modelling overlooks future trends

'A linear relationship is assumed between population, concentrations of land use and long-term transport demand' (Evans et al., 2007, p. 6), some future trends that are not considered in traffic modelling such as that used for this EIS project include (but are not limited to):

- Changes in fuel prices and shortage (or perceived shortage) of fuel ('Most technical assessments of transport systems are naïve to the issue of petroleum risk' (Evans et al., 2007))
- Changes in government policy (including transport and planning policy)
- The effect that emerging transport trends including decentralised and disruptive transport provision (such as Uber), car share (eg GoGet) and autonomous vehicles will have on car use
- Changes in generational travel preferences (such as 'Millennials' preferring technological connections over private vehicle connections; 'Boomers' driving less as this cohort ages)
- Changes in sociocultural trends (such as preference for particular destination types such as for their high amenity value, or avoidance of areas due to issues such as crime)

2 Traffic modelling inadequately addresses effects of 'induced traffic'

Traffic models also struggle to accurately address induced traffic, which 'weakens their capacity to inform policy makers about the broader economic value and environmental impact of major transport projects' (Evans et al., 2007, p. 6). Induced traffic can include:

- Mode change (such as switching from public transport to car use due to reduced travel time upon immediate opening of the road, known as the Downs-Thompson Paradox—see for example http://io9.com/how-the-downs-thomson-paradox-will-ruin-your-commute-1152573927), this switch then makes public transport services less viable to support, so the trend continues
- New trip
- Change of route
- Shift of times at which people travel
- As travel times are initially shortened by increased road capacity, people have more time in their travel budget (generally around one hour—see the Marchetti Constant for more on this) so may choose to make longer trips
- Changes in land use due to changes in accessibility to transport modes
- Reduced public transport services further increasing automobility of a city

'The biggest force still driving the Auto City to build large freeways and accommodate the automobile rather than providing other options is the standard "black box" transportation/land use model…These are based on how a new or widened road will save time, reduce fuel, and lower emissions and road accidents...these benefits are illusory due primarily to "induced traffic."' (Newman & Kenworthy, 1999)

The EIS statement, in mentioning 'induced traffic', does not fully and satisfactorily address the wider implications of induced traffic on the study area or wider Sydney region.

3 Traffic modelling oversimplifies trip types

Travel is 'grossly simplified' with minimal trip types considered (Evans et al., 2007, p. 4), for instance 'trip-chaining' (combining a number of destinations in one journey, such as dropping children at school before going to work, then picking the child up and going shopping) is ignored in modelling due to its complexity. The EIS' traffic modelling is a rather 'blunt instrument' by which to understand localised (especially) and regional traffic patterns and behaviour, yet alone to model it into the future with any confidence.

4 Traffic modelling oversimplifies or limits considerations that lead people to choose trip or mode types

Residential density, land use mix and non-motorised accessibility all influence travel behaviour are rarely accounted for (list adapted from Evans et al., 2007):

- 'Australian metropolitan strategies…generally seek to reduce land use separation and distance, to promote walking, cycling, and public transport, and to reduce the use of the private motor vehicles. The use of models unable to assess land use/transport interactions in order to determine and prioritise transport project investments within these strategies is therefore questionable.' For example Ashfield 2023's vision to 'Reduce the reliance on public cars' is aligned with many higher level NSW planning documents that aim to reduce the negative impacts of the automobile whilst providing equitable accessibility to Sydney residents, though traffic modelling aimed *only* at increasing automobile travel times completely overlook this complex and more strategic goal.
- Trip zones considered are generally large, limiting consideration of walking or cycling.
- Modal assignment is limited and overlooks many qualitative considerations of public transport services (such as youth preference to engage technology while travelling).
- Limited consideration of non-motorised trips and other travel options (such as carpooling).
- There is a focus on interchange and waiting times over quality of nodes or destinations (which affects the modes of transport people will take).

5 Traffic modelling focusses predominantly on travel times at the expense of other considerations

There is limited consideration in models for effects such as pollution, noise or carbon emissions, while route/traffic assignment (Evans et al., 2007) assigns traffic flows to an equilibrium where no traveller can switch routes and reduce their costs—not how the 'real world' works; capacities are generally over-simplified (for example heavy vehicle movements and highway geometry often overlooked).

6 Traffic modelling is generally 'Expert'-led and 'technocentric', with little community input or justification of assumptions and inputs

By their technical nature, 'knowledge of how the models work and their capacities, and in turn their biases and inadequacies, are often restricted to a small number of professional experts' (Evans et al., 2007, p. 2). This can give traffic modelling reports the impression of 'objectivity' and 'universality', whereas the policy context and the political surroundings certainly play a role in the assumptions and inputs into such models, and when this is added to 'the inherent inadequacies of transport modelling, this technical complexity may be seen to create a form of institutional risk for transport planning assessment' (Evans et al., 2007, p. 2). This risk is not adequately addressed (or mentioned) in the Traffic and transport section of the EIS.

7 Traffic modelling generally favours one mode—the car (Evans et al., 2007)

In addition, I note the following points regarding the Traffic and Transport sections of the EIS document:

- Just 30-40% of trips during peak and business hours are for business purposes, and this high level of other trips (60-70%) that might be considered discretionary or able to be conducted at other, 'non-peak' times, provides an opportunity for traffic demand management strategies to reduce congestion and increase efficiency without expanding the roadway. Though 'additional capacity is limited during peak periods', removing even a limited

percentage of these discretionary trips, or having them change to out of peak use of the roadway, would remove the need for the M4 – East project.

- 'Congestion costs' as quoted in the report are crude measures that simply assume an hourly wage that everyone would be earning and multiply it by the time they are in traffic, and the modelling that leads to the rise to costs of $8.8 billion does not consider the effects of 'peak car' (see Appendix B) and changing consumer and travel trends (Newman and Kenworthy, 2015) such as the possibility of *reduced* per capita or even *reduced* overall car use. If congestion costs are to be included, so too could wider measures such as monetised environmental costs of the project, and also the social and economic cost of health problems associated with increased car use and sedentary lifestyles.

- I object to the fact that a 'Do nothing' approach is used as the baseline for any time-saving benefits of the M4 East and wider WestConnex project, as a more viable comparison might have been an incremental improvement of multiple modes of transport infrastructure (including for cars, buses, trains, light rail, walking and cycling) using the funding amounts for the M4 East and wider WestConnex project ($15.4 billion).
- I object to fact that the study area—defined as the Local Government Areas in the project—is assumed in the report to be auto-dependent and reliant predominantly on cars for transport. Newman and Kenworthy (2015) outline the fact that a suitable aspirational target for total trips taken by car might be 75% in an 'automobile fabric' area. Table 5.7 (Appendix G, p. 5-8) however shows that the average weekday travel for all local government areas within the project area is 57%, far lower than both the Greater Metropolitan Area of Sydney (67%) and the threshold for Newman and Kenworthy's 'automobile fabric'. It is a figure that is closer to a 'transit fabric' of 50% overall car use (see also Figure 5.4 from Appendix G, below). Along with the fact that 90% of western Sydney commuters to the CBD travel every day by public transport (SGS, 2015), this brings into question the modelling assumptions that cars are the preferred form of transport and that they will remain so to the modelling horizon (2031). (Appendix G (p. 5-8) itself states: 'Findings from the HTS [household travel surveys] shows that on average, 57 per cent of trips on a typical weekday in the project area are car based compared to 69 per cent in the Sydney GMA. The lower proportion of residents who are dependent on car travel can be partly attributed to good public transport options in the project area and also to the proximity of activities with a high proportion of travel utilising the walk mode share in comparison to LGAs with a more dispersed land use.') See Figure below:

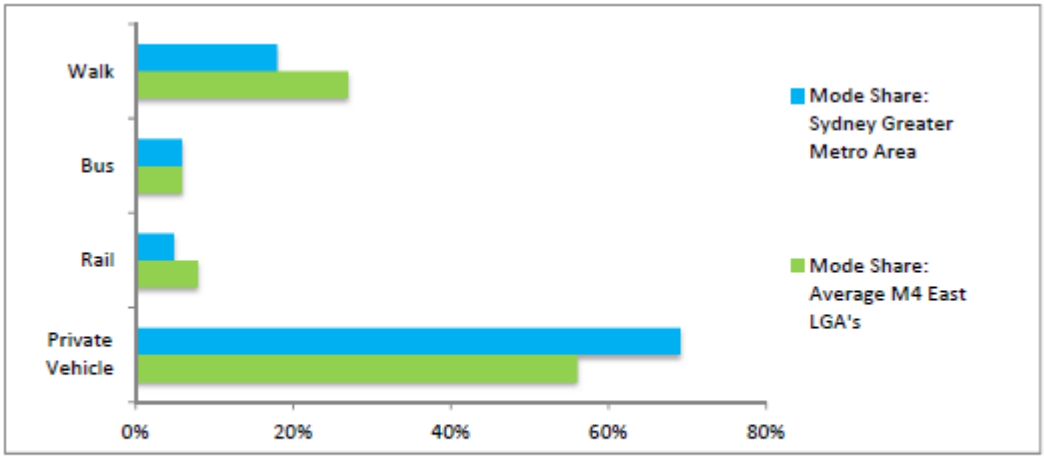

Figure 5.4 **Travel mode share comparison between study area average and Sydney GMA (Source: NSW Bureau of Transport Statistics, Household Travel Survey Report: Sydney 2012/13, November 2014 release)**

- I object to the fact that a business as usual/status quo future is assumed and that current social trends are largely ignored. Such traffic models struggle to deal with future trends and patterns. However even current trends such as peak car (Newman & Kenworthy, 2015), which began in 2004 and is the decrease in overall, per capita car use, are ignored in the modelling. Ignoring trends towards peak car and shifts away from automobile dependence, as well as societal changes (such as an ageing population in Sydney and reduced reliance on cars by younger generations) and potential future technological developments (such as car share systems and autonomous vehicles), adds risk to the traffic modelling (and thus all other) assumptions and significantly reduces the reliability of this EIS report and its findings. See Appendix B for further details.
- I object to the level of induced traffic (2-7%) that is assumed (see below quotes). The inherent uncertainty regarding the *actual* amount of this induced traffic and its effects on project aims (such as 'Relieve road congestion' and 'Create opportunities for urban revitalisation…along Parramatta Road'), its impact on the local study area and its implications in the context of the Greater Metropolitan Sydney area is not addressed.
    - 'At the extremes of the project a slight increase in volumes is shown on Parramatta Road, Concord Road and City West Link. This is indicative of the **induced traffic demand** attracted to the corridor as a result of the project…To the west, Concord Road and Parramatta Road continue to show an increase in expected daily volumes reflecting the induced demand resulting from the attraction to drivers of the WestConnex scheme.' (Appendix G, p. 8-2)
    - 'Induced travel demand increases 2031 future year traffic volumes using WestConnex **between two per cent and seven per cent**, with the specific value varying across different sections of the project.' (Appendix G, p. 4-6)
- I object to the effect of induced traffic demand on public transport usage not being acknowledged. Despite claims that improved public transport (such as bus) travel times will improve patronage (Chapter 8, p. 32), the effects of induced traffic (such as switches away from public transport to cars) on alternate modes are ignored. Concerns regarding increasing the demand for automobile use when the majority of developed cities around the world and most strategic directions and plans for Sydney point towards reducing automobile demand are completely overlooked.

- I object to the independently conducted SGS traffic modelling report (see Appendix A) being ignored in this EIS document and its appendices, particularly relating to the Traffic and Transport section. A traffic modelling report conducted by SGS Economics and Planning (SGS, 2015b) relating to the entire WestConnex project produces numerous counterpoints to the modelling conducted for the M4 East project and given in the EIS. This report is ignored throughout the M4 East report, despite the opportunity to strengthen both models by comparing and contrasting outcomes, and identifying and addressing differences in assumptions that led to any disparities.

- I object to the fact that there is no sensitivity analysis in the Traffic and Transport Assessment. The effects of varying key assumptions (e.g., willingness to pay the M4 East toll) have not been disclosed.

- I object to fact that the Traffic and Transport Assessment has not modelled the travel time and accessibility impacts for non-motorised modes (walk and bicycle). This does not meet the purpose of the report in '[completing] a holistic traffic and transport assessment…and opportunities to enhance public and active transport networks within the project area.'

- I object to the insufficient attention to traffic demand management in the Traffic and Transport section of the EIS report, road pricing reform for example.

- I object to the fact that changes in aggregate transport measures have not been provided for the various scenarios. For example:

    - Overall increase in VKT (Vehicle Kilometres Travelled)

    - Change in average trip distance.

- I object to the rationale behind the statement that **"It is acknowledged that any investment in motorway infrastructure has to be aligned with supporting public and active transport initiatives to achieve an increase in capacity, while aiming to reduce the reliance and demand of private vehicles on the future road network"**. Increased capacity will *increase* reliance and demand of private vehicles on the future road network, given that funds and mode-share will be skewed towards the automobile.

    - For instance, the Downs-Thomson Paradox is not considered: the project will attract passengers away from public transport to automobiles. As such, public transport patronage will be lower than it would be without the project. This could result in public transport service levels being cut, which will encourage further mode shift from public transport to road.

- I object to the size of the model coverage area used in the EIS report. The model coverage area is too small to capture all the transport impacts of the project. The project will affect transport demand and behaviour across the whole metropolitan area.

- I object to the lack of weekend period modelling, despite current weekend traffic volumes being higher than weekday traffic volumes on many corridors.

- I object to the lack of detail regarding costs/benefits, equity and equality issues including:

(a) How many people are better off with the project?

(b) How many people are worse off with the project?

(c) Do benefits/impacts accrue to any population groups more than others, e.g., people with a disability or on low incomes?

- I object to the EIS failing to model the impacts of implementing the proposed project (M4 East) relative to not implementing the proposed project (the 'future do minimum' scenario).
    - The 'future do something' scenarios, on which the traffic, air quality, health and greenhouse modelling is based, include the M4 East project plus another uncommitted project to convert kerbside general traffic lanes on Parramatta Road to bus priority. With these additional bus lanes, the capacity of Parramatta Road would be significantly reduced and traffic volumes would fall accordingly, with drivers opting to use the M4 East tunnel instead. As such, the traffic volumes for the M4 East tunnel have been dramatically overestimated, and the traffic volumes for Parramatta Road have been dramatically underestimated in the 'future do something' scenarios.
    - The impacts of the project as proposed by the proponent (and as defined in Section 5 of the EIS), that is, the M4 East Tunnel with no new priority bus lanes on Parramatta Road, has not been presented in the EIS, as required by the SEARs.

Given future transportation choice and social trends, the growing nature of Greater Sydney and NSW populations, and the lack of consideration for other alternatives better suited to these contexts (such as higher levels of public transport investment, road pricing reform and/or improved land use planning) the justification for the WestConnex project and the M4 – East in particular is put into question. This is especially so given questions of validity and accuracy of traffic modelling methodologies and the insufficient provision of information regarding the methodology, input data and assumptions to allow for the forecasts to be verified independently.

In summary, given the seriously flawed Traffic and Transport Assessment, there can be no confidence in the accuracy of the other impact analyses in the EIS that are dependent on the traffic forecasts, in particular:

a) Air quality,

b) Noise and vibration,
c) Human health,
d) Greenhouse gas emissions.

References

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Evans, R., Burke, M., & Dodson, J. (2007). *Clothing the Emperor?: Transport modelling and decision-making in Australian cities.* Paper presented at the State of Australian Cities National Conference, Adelaide.

Newman, P., & Kenworthy, J. (1999). *Sustainability and cities: Overcoming automobile dependence*. Washington, D.C.: Island Press.

Newman, P., & Kenworthy, J. (2015). *The end of automobile dependence: How cities are moving beyond car-based planning*. Washington, DC, USA: Island Press.

Odgers, J. (n.d.). Have all the travel time savings on Melbourne's road network been achieved? *GAMUT Discussion Paper*. Melbourne: RMIT.

SGS. (2015). WestConnex transport modelling: Summary report. Sydney: Commissioned by City of Sydney.

Air quality

- I object to the overreliance of the report on the WestConnex Road Traffic Model (WRTM) forecast of reduced traffic on Parramatta Road for its claim that there will be negligible impact on the overall air quality in the vicinity of the WestConnex project.
- I object to the air quality statndard that is used in the assessment of Air quality and pollution. Whereas the new (to be endorsed) National Environment Protection (Ambient Air Quality) Measure (NEPM) standard (of 20ug/m3 for average 24-hours) should have been used, the current standard (25ug/m3) was employed instead.
- I object to the lack of comparison between this project and other 'cleaner' forms of transport (such as mass transport). This could have been in the form of a cost-benefit-analysis.
- I object to the insufficient analysis regarding the effects of the length of the tunnel on in-tunnel air quality. The final length of 33kms of unfiltered tunnels could be dangerous for regular users of the full tunnel; this is especially true for motor cycle riders.
- I object to the claim (Appendix H, Figure 5.2) in the EIS statement that building this infrastructure will reduce air pollution levels. **Increasing car use and road infrastructure increases air pollution.**

Noise and vibration

- I object to the lack of detail surrounding noise and vibration mitigation measures given the extent and significance of their effects:
    - '… for a number of areas where traffic on the surface roads is expected to increase as a result of the project a small increase in pollutant concentration may occur.' Also, within the same assessment it is noted that: '…where property treatments are required to mitigate traffic noise, these measures are to protect people from adverse health impacts where they spend most of the day (i.e. indoors). These treatments assume that residents take up these measures and where they do, they keep external windows and doors shut and have minimal use of outdoor areas.'
    - The exact details of these treatments are not given.
    - The locations of the properties to be subject to these measures are not given, raising questions as to how residents know whether they will be offered/required to adopt such measures
- I object to the lack of detail surrounding the social impacts of the noise and vibration caused by the project (the three years of noise and vibration impacts are stated to 'cause stress and anxiety, affect the enjoyment of outdoor spaces and disturb normal indoor activities…[and] interrupt sleep patterns, with consequent impacts on health and wellbeing', and 'In locations where the tunnel is less than 40 metres deep' such as at Concord Road, to the east of Burwood Road, to the south of Parramatta Road, Ashfield and at Wattle Street 'there is the potential for ground borne noise to exceed noise criteria for longer periods', up to 2 weeks. To conclude that 'More consideration of management measures would be required during detailed design to minimise and mitigate these impacts' is insufficient, especially in an EIS which (hopefully) aims to determine and evaluate the full benefits and costs of a project, as it will exist in its final form, to the community.

Human health

- Given current concerns surrounding Australians' health (Australian Institute of Health and Welfare, 2014) I object to the lack of serious consideration for wider health concerns surrounding increased automobile use and automobile dependence, including but not limited to:
    - Increased rates of obesity as a result of increases in sedentary travel behaviour—every additional hour in a car per day increases the risk of obesity by 6% (Frank, Andresen, & Schmid, 2004)
    - Increased rates of noncommunicable diseases (such as Type II diabetes, heart and cardiovascular disease, osteoporosis, cancers (such as colon cancer) and respiratory diseases) as a result of increases in sedentary behaviour (Falconer & Richardson, 2010; Southworth, 2005)
    - Decreased opportunities to meet daily physical activity guidelines through active modes of transport (Brown, Bauman, Bull, & Burton, 2012)
    - Increased risk of mental stress associated with increased automobile use/associated with reduced opportunities for active transport (Morris & Hardman, 1997)
    - The relationship between traffic intensity, air and noise pollution and human health (Matan, Trubka, Newman, & Vardoulakis, 2012)
    - Opportunity cost of the next most viable option (such as public transport improvements) given the health benefits of alternative modes including active transport and mass transport (Litman, 2010)
- I object that the concerns of local residents regarding air quality, particularly surrounding tunnel pollution stacks, are not addressed adequately and detailed in full.

Cumulative impacts

- The EIS does not consider the *cumulative* costs of adding more urban motorways to those previously built through the heart of Sydney since the 1950s. Although the economic, social and environmental costs of each individual motorway (as reported in an EIS) may be considered by some stakeholders to be acceptable, the cumulative costs are considerable:
    - Following decades of road expansion and consequential sprawl, Sydney now spends about 13% of its GDP on transport, while the average European or Asian city spends only between 5% and 8%, and the majority of these cities are moving away from providing new, large-scale automobile projects altogether (Newman & Kenworthy, 2015)
    - Serious human health impacts arise due to petrochemical vehicle emissions/smog, including:
        - Lung cancer
        - Asthma
        - Heart disease
        - Impaired lung development in children living near motorways/exhaust stacks
        - Waterways contaminated with road runoff (heavy metals and carcinogens in brake and clutch dust, exhaust particulates etc.)
        - High traffic crash costs (of deaths/traumatic injuries and material damage)
        - Urban sprawl and increasing commuting distances
        - Social isolation for non-drivers living in car-dependent suburbs
        - Noise pollution from traffic and its impacts on sleep
        - Impacts on visual amenity (pollution stacks, concrete interchanges, concrete flyovers)
        - Extreme summer temperatures (urban heat island effect)
        - Community destruction and severance
        - Destruction of heritage
        - Less incidental physical activity from walking and cycling (including to/from public transport), resulting in higher rates of obesity, diabetes, cancer and heart disease
        - Increased chauffeuring burdens for parents and carers

- Less independence for children
- High per-capita greenhouse gas emissions

Although adding new radial capacity directly into an already congested CBD, increasing ‘pinch points’ outside the M4 East boundary and causing increases in traffic and car use across Greater Sydney are factors considered ‘outside the scope’ of this EIS report, they are all relevant and cumulative impacts directly attributable to this project and in conjunction with the other WestConnex stages, and should thus be considered so. The *positive* cumulative impacts of the WestConnex project are considered throughout, so too should the *negative* impacts.

Sustainability

To claim that the Sustainability Strategy 'aims to ensure that sustainability is consistently applied across WestConnex' conveys both a questionable understanding of the term 'sustainability' as it applies to a road project, and highlights that an appropriate level of analysis for this section of an EIS (ie the sustainability of the project as a new radial road/tunnel in the context of Greater Sydney) has been omitted, instead focussing on design, construction and operation phases. It is certainly difficult to associate the terms 'ecologically sustainable development' (as defined on Chapter 27, page 1) and 'precautionary principle' with this project and the (long-term, broad-scope) economic, social and environmental sustainability of this project is not dealt with in this section or throughout the entire EIS.

I strongly object to the claim that the WestConnex M4 – East project is 'sustainable'.

Project justification and conclusion

The stated objectives for the project were contrived to fit the project after it had already been announced. In a democratic strategic planning process, objectives are set first based on the needs and desires of the community, and then alternative projects/policies are appraised against their ability to meet those objectives.

The M4 East will be used by less than 1% of the NSW population each day. The costs will be borne by the whole population. It cannot be argued that it is providing for the 'greater good'.

I object to the EIS' claim that this project meets its objectives and is the best out of all possible alternatives to do so.

Summary of submission

I therefore call on the Minister for Planning to reject this proposal on the grounds that even the M4 East's inadequate traffic analysis shows that WestConnex will be at capacity by 2031 and this is an outdated project stuck in twentieth century thinking that is not consistent with current twenty first century knowledge regarding public transport, urban planning and livability of cities.

I strongly object to this proposal as it encourages more cars instead of public transport, and fails to provide a long term solution to traffic and congestion.

I request a written response to all of the concerns outlined above.

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Appendix B – Summary of Automobile dependence, peak car use and induced traffic

Automobile dependence is the situation where our choices and ability to move around the city are constrained by our access to a car, and where 'use of an automobile [becomes] not so much a choice but a necessity' (Newman & Kenworthy, 1999, p. 32).

Automobile dependence's causes and implications for cities are outlined in Newman and Kenworthy's (1989) book *Cities and automobile dependence* and the website http://www.vtpi.org/tdm/tdm100.htm .

Peak car use:

Though most cities around the world have demonstrated some level of car dependence over the last fifty-plus years, growth in car use in Australia and other developed countries peaked in 2004 and is now decreasing in a trend known as 'peak car use' (Newman & Kenworthy, 2015). As both a cause and result of this trend is the fact that cities are no longer being planned solely around the automobile (Newman & Kenworthy, 2015, p. 5). Newman and Kenworthy (2011, pp. 33-37) discuss six potential causes for this trend:

1. **People are generally willing to 'budget' for one hour of travel per day:** The 'Marchetti constant' (Marchetti, 1994; Newman & Kenworthy, 1999) suggests that when our cities become 'one hour wide' (Newman & Kenworthy, 2011), or about 50km wide given average car speeds of 50km/h, further expansion beyond this limit becomes less attractive and traffic becomes a problem within these limits, because the time we are generally willing to spend travelling each day is exceeded. Thus, we see cities slow in their expansion, public transport becomes an attractive way to avoid traffic, and locations closer to destinations become preferable.
2. **Public transport is increasing in popularity:** This trend is due to a number of reasons, not least the high cost of owning and running a car, and preferences for people, especially younger generations, to use their commute times to do other things than drive (for instance reading and using their devices for any range of activities).
3. **The reversal of urban sprawl:** Densities in cities are increasing comparatively to rates of sprawl due to consumer preferences and government policies. Less sprawl and more people living closer together and closer to places they want to go leads to reduced reliance on cars to do so.
4. **The ageing of cities**: Many cities in developed countries are experiencing a rise in the average age of their citizens, and on average people drive less as they get older.
5. **The growth of a culture of urbanism:** 'Empty nesters' are moving back towards city centres from suburbs, as young people too are showing a preference for inner-city life over suburban life, and for technology over cars.
6. **The rise in fuel prices:** Given relatively high fuel costs and price instability, the ownership of a car and its regular use becomes increasingly expensive and decreasingly appealing.

So what does this mean for Sydney?

Sydney is already greater than 'one hour' wide (Penrith is 70km from the CBD by car), public transport is increasingly popular (90% of western Sydney commuters into the CBD come by public transport already) (SGS, 2015a), the city is densifying, renewing and reducing the rate at which it sprawls (consider urban renewal projects proximate to the CBD such as at the bays precinct and Green Square), Sydney's average age is increasing along with Australia and most other developed

countries, there is a strong culture of urbanism (such as increasing consumer preferences to live within walking distance of 'centres' such as Parramatta) and fuel prices (and toll costs) that continue to impact car owners, especially those with the least ability to afford it.

Sydney is not on a different path to other cities of the developed world. It too is in the middle of 'peak car', meaning that the need exists to reprioritise infrastructure provision to reflect and adapt to this trend.

Induced traffic:

Induced traffic occurs when congested motorways increase in capacity (Zeibots, 2007). This increased capacity leads to faster travel times initially, though also gives people more time to travel further by car (as they spend less time travelling on their original trip—and given our travel budgets of up to an hour a day) and also increases appeal for others to either swap travel mode (eg swapping from public transport to car after a motorway expansion) or to create new journeys by car themselves. The 'induced' demand, this creation of new trips and new users of the roadway, ensures that 'congestion-busting' efforts that rely on expanded road capacity are ineffective and is the major reason that even the most traditionally car-dependent cities are turning to alternatives for transportation (such as light rail projects in Phoenix, Dallas and LA, see http://www.houstonchronicle.com/local/gray-matters/article/Why-car-crazy-cities-are-riding-the-rails-6496939.php). Ultimately, 'roads beget roads', as evidence in the below figure.

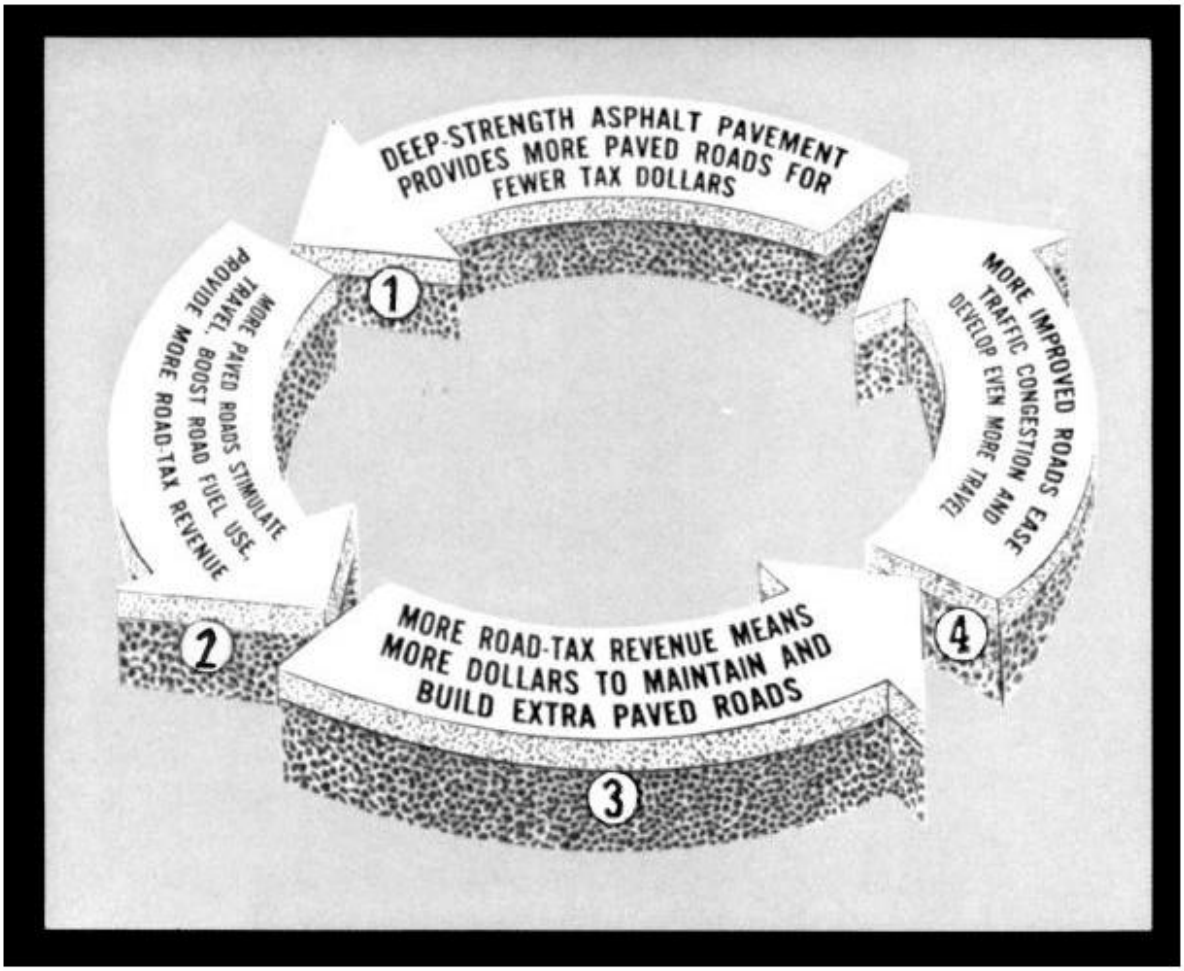

Figure 6. Roads beget roads: From the cover of *Asphalt Bulletin*, April 1966.

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- 'roads beget roads' http://home.business.utah.edu/bebrpsp/URPL5020/System/SprawlSim_ISDS.pdf

The relationship between peak car and induced traffic—could they happen at the same time in Sydney?

Yes. Peak car is a global occurrence especially common in developed nations. We saw peak car use in Australia in 2004, when the rate per capita automobile use slowed, and it is a trend that will continue given the other associated societal trends listed above. On the other hand induced traffic relates to location-specific expansions in road capacity. So Sydney certainly could be exhibiting an overall peak in car use while at the same time drivers and everyone else suffer from government decisions that directly lead to more traffic. The EIS statement does not suitably address these concerns.