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# AUSTRALASIAN RAILWAY ASSOCIATION SUBMISSION

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To

Transport for NSW

On

Sydney Metro Extension Study

Bankstown to Liverpool



## THE ARA

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The Australasian Railway Association (ARA) is a not-for-profit member-based association that represents rail throughout Australia. Our members include rail operators, track owners and managers, manufacturers, construction companies and other firms contributing to the rail sector. We contribute to the development of industry and government policies in an effort to ensure Australia's passenger and freight transport systems are well represented and will continue to provide improved services for Australia's growing population.

The ARA thanks the Minister for Transport and Infrastructure, The Hon Andrew Constance, MP for the opportunity to provide this submission to the Sydney Metro Extension Study - Bankstown to Liverpool. For further information regarding this submission, please contact Emma Woods, General Manager Passenger and Member Services via [ewoods@ara.net.au](mailto:ewoods@ara.net.au) or 02 6270 4512.

## SUPPORT FOR THE PROPOSAL

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The ARA understands that the exploration of extending Sydney Metro from Bankstown to Liverpool is the result of Transport for New South Wales (TfNSW) listening to community feedback on the initial Sydney Metro proposal. It's not every day that a city and its residents are given the opportunity to consider the construction and required station location for a new rail connection and thus, the ARA commends TfNSW.

Liverpool is currently poorly served by public transport. Extending the Sydney Metro between Bankstown and Liverpool will link Liverpool to Sydney's CBD with a frequent, high capacity, fast metro train service. This could be an economic game changer for the Liverpool region. Therefore, the ARA supports the proposal to extend the Sydney Metro from Bankstown to Liverpool.

Comparing Liverpool to Parramatta provides some interesting highlights to support the economic argument. Parramatta is commonly cited as Sydney's second CBD and yet

Parramatta and Liverpool are similar distances from the CBD of Sydney; 24km and 25km respectively.<sup>1</sup> While it takes a similar length of time to drive between these cities and Sydney’s CBD, the current rail service into Sydney’s CBD differs greatly – a train between Liverpool and the city currently takes almost double the time that a train between Parramatta and the city requires. The table below highlights the travel time differences and the need to greatly reduced travel time from Liverpool to Central Station.

Origin – Destination	Mode	Distance	Travel Time
Liverpool - Central Station	Train (T2 Airport, Inner West and South Line)		<b>59 mins</b>
	Car (M5) Car (M5 and M1)	33km 39km	45 – 55 mins
Parramatta - Central Station	Train (T1 Northshore, Northern and Western Line)		<b>33 mins</b>
	Car (M2) Car (M4 and A4)	37km 26km	32 - 45 mins

**Table 1: Liverpool and Parramatta to Central Station travel time comparison**

According to the Australian Bureaus of Statistics Estimated Resident Population, Liverpool has a higher population than Parramatta; 204,594 to Parramatta’s 194,448.<sup>2</sup> And yet Parramatta reports gross regional products more than double Liverpool’s; \$17.12 billion<sup>3</sup> compared to \$8.63 billion.<sup>4</sup> Further, Parramatta reports 17,142 local businesses and 91,353 employed residents<sup>5</sup> while Liverpool trails, reporting 13,514 local businesses and 89,284 employed residents.<sup>6</sup> Compared with Parramatta, Liverpool’s population and distance to Sydney’s CBD suggests Liverpool’s productivity and therefore economic output has significant room for growth which would be facilitated through better transport connections.

Liverpool’s public transport offering is not as strong as Parramatta’s. Car ownership highlights this. In 2011, 39 per cent of Parramatta households reported owning two cars and more than 76,460 vehicles.<sup>7</sup> In contrast, 53 per cent of Liverpool households reported two or more cars, claiming ownership of more than 87,266 vehicles.<sup>8</sup> The same data identified that 69.9 per cent of Liverpool residents travelled to work by car<sup>9</sup> while in Parramatta, 57.4 per cent of residents travelled by car work.<sup>10</sup> Extending the Sydney Metro from Bankstown to Liverpool will open up a new catchment area to public transport,

providing a viable alternative to the car which will have broader benefits of reducing road congestion, reducing transport-related greenhouse emissions, creating healthier lifestyles for those who travel by public transport and providing the ability for households to reduce the number of cars they own and therefore must fund.

## WHY RAIL?

Passenger rail systems provide the following benefits:

- **Safety:** rail is the safest form of land transport and is up to nine times safer than road transport.
- **Capacity:** Passenger rail moves people 'en masse'. The average passenger train takes 525 cars off the road while light rail can move between 4,000 and 20,000 people per hour. The same space dedicated to an arterial road lane could move only 800 cars (or less than 1,000 people) per hour, while buses would move between 2,000 and 8,000 people per hour. The capacity of heavy and light rail reduces road congestion, transport-related greenhouse gas emissions and provides safer roads as a result of less vehicles on the road.
- **Accessibility for all:** Rail aims to be accessible to individuals with all abilities. Legacy heavy rail networks are investing significantly to ensure their systems are fully accessible to all. Modern, low-floor light rail vehicles and metro systems with level-access stops ensure that new rail systems are available to people of all abilities, including the elderly, people with disabilities, tourists with luggage and people with prams.
- **Certainty:** The fixed routes of rail lines provide certainty for residential, retail and commercial property investment. This leads to considerable intensification of property development and uplift in property values around rail lines and train stations.
- **Health improvements:** Public transport is a driver behind more active lifestyles leading to healthier individuals and communities and as a result, helping to mitigate some of the health impacts of sedentary lifestyles. For example, Melburnians travelling by public transport are five times more active than those who drive, averaging 41 minutes walking each day compared to 8 minutes a day for drivers.<sup>11</sup> The Queensland

Government reports that public transport assists increased activity levels of socioeconomically disadvantaged groups who are half as likely as more advantaged individuals to participate in sport or physical activity.<sup>12</sup>

- **Environmentally efficient:** The use of fossil fuels for transport creates one fifth of the world's greenhouse gas emissions.<sup>13</sup> Aside from improving local air quality along the route, electrically-powered light rail vehicles can be one of the most sustainable forms of land transport. Depending on the energy source, light rail is commonly cited as capable of being close to emissions neutral and is therefore recognised as a sustainable transport solution.
- **Increased sense of place:** Making public spaces for community interaction around heavy and light rail stations assists in generating retail, commercial and residential investment, contributing to increased density and activity, property value uplift, creating a greater sense of safe 'places' and encouraging public interaction.

## INPUT SOUGHT

### Possible station locations

In the interests of reducing travel time between Liverpool and Bankstown and on into the Sydney CBD, the ARA recommends that the route between Liverpool and Bankstown is as direct as possible with stations that are actively integrated into other transport modes. As the crow flies, Bankstown to Liverpool is less than 10 kilometres but obviously existing developments, suburbs and amenities must be navigated to connect the two cities and existing communities, infrastructure and services within the region.

The ARA recommends the extension includes stations at the following locations:

- Bankstown existing station
- Condell Park
- Sydney Metro Airport Bankstown / Bankstown Business Estate
- Chipping Norton or Moorebank
- Liverpool existing station.

In December 2015, a leasehold for the 313.3 hectare Sydney Metro Airport Bankstown was acquired for 37 years and an option to extend for 49 years, suggesting the Airport will remain for the next 80 plus years and beyond. In addition to this, the Airport reports a “significant expansion phase with the... warehouse /office complex for Globus, the construction of a new NSW Ambulance Aeromedical Rescue service facility, significant refurbishment of the former Boeing Australia site on Milperra Rd and, subject to the approval of a Major Development Plan, the development of a \$160m Bankstown Business Estate in the south / west sector of Bankstown Airport.”<sup>14</sup>

While the 41 hectare proposal for the Bankstown Business Estate is only at development stage and must be approved by the Commonwealth Minister for Infrastructure and Regional Development, the ARA recommends that provisions are made to include the possible “commercial, warehouse, large format (bulky goods) retail and entertainment” estate to future proof the line and the development options on the significant area of land.<sup>15</sup> This is supported by the NSW Government’s ‘A Plan for Growing Sydney’ which acknowledges Bankstown Airport as part of the ‘Bankstown Airport – Milperra Transport Gateway’ and ‘Bankstown to Liverpool Enterprise Corridors’, recognising the need for development in this region.<sup>16</sup>

An airport station would also provide metro links to the University of Western Sydney campus as Milperra.

## How to best connect town centres and key community facilities such as employment centres, schools and hospitals

Multiple factors will be vital in connecting the new Bankstown to Liverpool metro line with existing facilities and amenities in the region. Specifically, the ARA recommends:

- Upgrading the Bankstown and Liverpool Train Stations
- The service is fully accessibly
- Integration with other transport modes
- ‘Park and ride’ and ‘kiss and ride’ facilities

- Transit-oriented developments

### Upgrading the Bankstown and Liverpool Train Stations

The existing Bankstown and Liverpool Train Stations may require upgrades such as additional platforms and improvements such as escalators and additional lifts to assist with the flow of additional patrons.

### The service is fully accessible

The new service and its stations must be fully accessible to people with a disability or those with limited mobility. The service must also meeting the requirements prescribed in the Transport Standards under the Disability Discrimination Act (1992).

### Integration with other transport modes

Integration between transport modes is vital to the success of any public transport system. Timetables must be integrated to allow timely transfer between buses and rail services. Prior to the launch of the new line, the ARA recommends that TfNSW also reviews the local bus network to position buses as “feeder” services to the metro. When Keolis took over the operation of the subway, tram and bus networks in Lyon, it redesigned a new bus network to better integrate the service with the light rail and subway system. As a result, patronage on Lyon buses increased by 6 per cent. Successfully integrating the modes and establishing buses as feeder services for the metro line should allow TfNSW to achieve similar, if not better results.

### ‘Park and ride’ and ‘kiss and ride’ facilities

The inclusion of ample ‘park-and-ride’ and ‘kiss-and-ride’ facilities at each station on the metro line will be vital. As well as being a car-dominant region already, the Bankstown to Liverpool line will open up a new catchment area. The proposed route’s proximity to the M5 Motorway will likely see a catchment of commuters from nearby regions such as Campbelltown and its surrounds. Adequate parking will therefore be critical. This has the added benefit of taking cars off the roads, reducing road congestion locally and on the M5 into Sydney as well as reducing vehicle-related greenhouse gas emissions.

### Transit-oriented developments

Bankstown and Liverpool are centres in their own right with considerable growth potential. Better transport links will expand the employment opportunities available to local residents whilst also better positioning the region for new commercial opportunities. To capitalise on the revitalisation opportunities that the metro line will provide, the ARA recommends TfNSW embarks on a transit-oriented development policy and implements commercial and residential station precincts at each of the metro train stations. As well as acting as a tool to encourage greater patronage, property developments at and around public transport stations are increasingly utilised to generate long-term revenue to support public transport operations.

Transport or transit-oriented developments (TODs) are increasingly popular commercial, residential and retail spaces located at or within walking distance of transport hubs that stimulate urban development and in turn, generate revenue to fund or reinvest in transport. TODs can be newly constructed or redevelopments of existing structures. Similarly, air-rights to construct a TOD above a train station can be sold to property developers as a means to fund a transport development or, the transport operator or authority develops and manages the TOD to provide ongoing funding for the transport system.

As well as providing ongoing sources of revenue for transport services and infrastructure investment, TODs have been shown to encourage public transport patronage and reduce road congestion by encouraging people to walk and ride public transport instead of drive.

Although TODs do exist in Australia, there is scope to expand. TfNSW could consider Hong Kong's example and establish property developments around transport hubs to help provide long-term revenue for transport infrastructure and service investment. These could either be sold as "air rights", given to property developers to manage, or Sydney Trains could diversify as has been done in Hong Kong where the public transport operator manages some developments. Either way, the TOD value increase provides a value capture opportunity for the NSW Government.

## Stabling locations for metro trains

Extending the Sydney Metro to Liverpool will obviously require additional rollingstock. The ARA believes Sydney Trains as the operator is best placed to recommend from an operational perspective where the expanded fleet would be best stabled. However, at face-value, the ARA would suggest the ability to stable some of the metro fleet in Liverpool would be required.

## Other – innovative funding

Continued investment and expansion of public transport is crucial for the success and productivity of the nation. Whether Australians travel by public transport or not, they still benefit from its existence and use by others. However, long term investment into public transport by Governments at all levels can be limited by competing priorities such as health and education.

The ARA has been a long term advocate for State and Federal governments implementing innovative funding mechanisms to fund public transport projects and infrastructure. Multiple funding tools have been used around the world to fund transport infrastructure. Including:

- **Value Capture:** capitalising on the increased value that public transport provides for nearby commercial and residential properties, value capture recoups part or all of the increased value transport improvements provide to nearby properties. The two common models of value capture are:
  - **Tax Increment Financing:** where a certain increase is forecast within a region or district around the development and a percentage, or increment is agreed to be levied to fund the infrastructure investment overtime or return a portion of the project cost back to the government. Kansas City Light Rail is an example of this.
  - **Joint Property Development:** when government partners with infrastructure developers, or establishes infrastructure development capabilities within the government that allows the developer to recoup part

of the value uplift through its own property development as a revenue source to fund transport projects or reinvest in the system. Hong Kong's MTR is an example of this.

- **Transit-Oriented Developments (TODs):** as well as acting as a tool to encourage greater patronage, property developments at and around public transport stations are being increasingly utilised to generate long-term revenue to support public transport operations.
- **Congestion Charging:** a user-pays demand-management approach where road users pay to access roads or areas, generating funds for reinvestment in public transport and providing incentives for drivers to switch to public transport.
- **Payroll Tax:** employees or employers are levied a small percentage of their taxable income that is then hypothecated to fund public transport investments.
- **Sales Tax:** a percentage of the purchase price is added to the purchase price of goods and services and then drawn upon for public transport investment.
- **Fuel Tax:** a percentage is added to fuel prices and hypothecated for transport investments.

The success of these (and other) tools relies on common criteria that must:

- **Keep pace with inflation:** it is vital that any revenue raising mechanism rises with CPI to continue generating sufficient funds as the economy grows. Failure to do so (Australian and United States Federal fuel excises are examples of this) stalls the revenue generating capabilities of the mechanism, effectively decreasing the revenue raising abilities with each CPI rise.
- **Be hypothecated for transport uses only:** the benefit to providing a reliable and dedicated source of revenue is that long term planning can then occur. Hypothecating, or dedicating the revenue from a specific revenue-raising tool provides certainty and allows long-term planning and commitments to be made.

## Overseas case studies

### *CrossRail, UK*

CrossRail in the UK is constructing 21km of new rail tunnels and 10 new stations between Central London and its South East that will link into 30 existing stations in London.<sup>17</sup> The project is forecast to increase rail capacity in Central London by 10 percent and provide an additional 1.5 million people with a 45 minute commute or less to London's key business districts.<sup>18</sup>

With a total project price tag of £14.8 billion, the Greater London Authority introduced its Business Rate Supplement (BRS) in 2010 to assist with funding. A form of value capture, the BRS identified that London properties are expected to increase 10-15 per cent as a result of CrossRail. Over a 24 to 30 year period, the BRS is expected to generate £8.1 billion for CrossRail by capturing 2 percent of the uplift from commercial properties with an annual rental over £55,000.<sup>19</sup> Interestingly, the BRS received minimal opposition from property owners. This is attributed to the fact that the project had been on the agenda for 20 years and so the public was familiar with the proposal and its anticipated benefits and because the business community was well informed of the financial benefits they would receive as a result of CrossRail.<sup>20</sup>

### *Hong Kong Metro*

Unlike most public transport systems in the Western world, Hong Kong's metro is not subsidised by Government. The system is self-funded through the fare box, commercial station retail rent and residential and commercial property developments, which use a combination of joint property development value capture and TODs.

First announced by the government in 1973 with an initial cost of HK\$ 500 million, by 1982 the Hong Kong metro system was generating a profit, partly due to the increase in land value along the metro line<sup>21</sup>. Land in Hong Kong is owned by the State. MTR Corporation, who operate and manage the system have adopted a "Rail+Property" approach to fund investment in its metro. In a joint property development approach, MTR leases land adjacent to its rail extensions from the government and then develops the land into commercial or residential properties (or a combination of both). MTR pays the government

the value of the land without the rail line, allowing the corporation to capture and profit from the value the rail expansion generates. As well as removing the need for the usually significant government subsidies seen in other operations, MTR is a publically listed company that returns dividends to its shareholders.

According to MTR's 2014 Annual Report, MTR develops residential property for sale in collaboration with property developers and invests in commercial real estate in its station developments. In 2014, MTR's investment portfolio consisted of shopping malls and 18 office floors of the two International Finance Centre office towers, generating HK \$40,156 million per annum.<sup>22</sup>

MTR compliments its Rail+Property strategy with TODs. Extensively used throughout Asia, TODs are acknowledged as the primary funding source that negate Hong Kong's need for government subsidies. According to the MTR website, "our use of transit-oriented development enables us to self-finance our day-to-day railway operations, establish reasonable fares and ensure sustained patronage of the system"<sup>23</sup>. A 2010 review of the Hong Kong metro and 25 of its TODs found that an MTR station with a TOD added around 35,000 weekday passengers to the system<sup>24</sup>.

### *Millennium Park, Chicago*

Millennium Park in Chicago opened in 2004 after \$490 million was invested (\$95 million was raised through tax increment financing) to create a 24.5 acre park in the centre of Chicago. Reviews were conducted in 2011, concluding that the park generated significant value in the surrounding region. Specifically, a population increase of 71 percent in the area, a 22.4 percent increase in apartment rents adjacent to the park, higher average occupancy rates in adjacent rental properties and \$2.45 billion in construction which was estimated to provide 70,000 direct and indirect jobs.<sup>25</sup>

The success and attributed benefits of the Millennium Park highlight the value that TODs can create and the potential to capture some of this value to reinvest in further transport improvements.

## CONCLUSION

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The ARA supports the proposal to extend the Sydney Metro from Bankstown to Liverpool and believes it could be an economic game-changer that drives the economic productivity of the region.

Specifically, the ARA recommends that the following elements are considered:

- The alignment between Bankstown and Liverpool is as direct in nature as possible to achieve a fast, metro-style service without a timetable.
- Upgrading Bankstown and Liverpool Train Stations to ensure the facilities can cater for the increased number of patrons.
- That the service is fully accessible to people with a disability or limited mobility and meets the requirements prescribed in the Transport Standards under the Disability Discrimination Act (1992).
- Integration with other modes of transport to provide public transport links locally and to nearby regions.
- 'Park and ride' and 'kiss and ride' facilities to accommodate locals and commuters from outside the region.
- A transit-oriented development policy is included to encourage greater patronage and potentially drawn on to generate long-term revenue to support public transport operations.
- Innovative funding mechanisms are factored into the planning and contracts stage to assist in funding the project, generating funds for the maintenance of the system or investment into other transport projects.

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