

Railway Masterplan for the ACT Summary

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ACT Planning &
Land Authority

Overview

Current rail infrastructure, together with associated facilities in Canberra, largely reflects past rail activity. A lot of this infrastructure and its associated facilities, is no longer required, which means there is now an opportunity to think about how we can use this land efficiently in the future.

In looking at the provision of rail services in the ACT, it's important to note that there are existing passenger and historic rail operations that are important to the community. Opportunities for the growth of rail freight between Sydney and Canberra also need to be preserved. While the current growth rate is low (1.1 per cent) compared to road freight (3.1 per cent), this may change in the future.

The rail corridor in the ACT extends west from Queanbeyan through to Fyshwick and ends close to Wentworth Avenue in Kingston. In the rail corridor at Fyshwick there are two tracks parallel to the main line which, in the past, have provided freight train access to sidings in blocks adjacent to the corridor. One of these tracks is no longer used and the other is only used for delivering fuel to the Shell fuel depot, although Shell has announced an intention to cease this operation in early 2010.

The existing railway land at Kingston includes the rail yards, the Canberra Railway Station operated by CountryLink, Australian Railway Historical Society (ARHS) buildings and infrastructure, and the buildings and facilities occupied by William Edmund Pty Ltd (plumbers and rail maintenance contractors). These are bounded by Cunningham Street, Wentworth Avenue, part of Mildura Street and part of the Jerrabomberra Wetlands nature reserve. The current use and track layout of the Kingston rail yards is considered to be inefficient. Industrial sidings reflect the past use of steam locomotives that stopped operating in the 1960s.

The Kingston railway land is part of the East Lake Urban Renewal area—identified in the Canberra Spatial Plan as an area to be investigated for urban revitalisation. The East Lake Urban Renewal Draft Planning Report (ACTPLA, 2007) outlined the vision for East Lake as “a lively, high-density urban community, providing an Australian showcase of sustainable development”.

The renewal of East Lake will deliver a mix of housing types in an area featuring high quality open space that is well connected to existing and new shops, schools and other facilities. It is expected to accommodate about 9,000 people.

Integral to planning for East Lake is the recognition of the environmental importance of the Jerrabomberra Wetlands, protection of existing land uses and that any development should reflect the cultural and historical significance of the area.

Parsons Brinckerhoff (PB) was commissioned by the ACT Planning and Land Authority (ACTPLA) in 2007 to assess the current and future requirements for heavy rail services in the ACT and to prepare a masterplan that considers the most appropriate use of the Kingston railway lands and options for relocating part or all of the existing facilities and operations.

This work was informed by background studies and investigations undertaken as part of the Canberra Railway Operations Study (Indec Consulting 2006) and the East Lake Urban Renewal Project Land Capability and Suitability Study Final Draft Report (ACTPLA, 2005).

Community views

The East Lake Draft Planning Report identified a number of options for the arrangement of rail facilities and stated the intention to prepare a railway masterplan. The prominence of rail uses in the East Lake precinct and consideration of the future of heavy rail together with planning for the area drew a range of comments through public consultation on the East Lake project undertaken in 2007.

People commented on:

- the need to enhance access to passenger rail
- the location of the passenger station (suggesting locations at the existing Kingston site and Civic, the Parliamentary Triangle, Fyshwick, the airport and Queanbeyan)
- the needs and future location for Australian Railway Historical Society operations
- integration of rail infrastructure with urban environment
- freight rail options needing to be kept open.

These community views have been used to inform the preparation of this masterplan.

Masterplan preparation

The Railway Masterplan study was completed in three phases.

The first phase involved consultation, including one-on-one interviews with existing operators on the Kingston site and with other key stakeholders to determine existing and future requirements for the area. Onboard surveys of train patrons were also conducted on two Canberra Xplorer trains operating between Canberra and Sydney to obtain feedback about the Canberra Railway Station and existing use of rail services.

Phase two involved looking at potential site alternatives for rail facilities and evaluating these.

This included:

- a detailed review of existing railway land facilities and infrastructure
- assessing existing site conditions and determining the opportunities and constraints of having railway operations at Kingston and in the Canberra-Sydney rail corridor
- considering broader transport strategies for the ACT and NSW and implications for the future use of the rail corridor
- a needs analysis to determine the space and facility allocation for existing railway operators occupying land in the rail corridor at Kingston
- preparing conceptual designs for a consolidated rail precinct in the existing railway land at Kingston and for an alternative site adjacent to the rail corridor at Fyshwick
- assessing the Queanbeyan Railway Station as a third option for developing a primary railway station for Canberra and the relocation of other facilities currently on Kingston railway land
- testing the spatial requirements for existing rail facilities and infrastructure; the connections to public transport and other supporting infrastructure, as well as land values and re-establishment costs (if required)
- determining strategic options for the consolidation or relocation of all or part of the existing railway facilities and operations from Kingston to an alternative site
- selection of a preferred site for the Canberra Railway Station precinct and preparation of detailed design concepts for a new facility.

Phase two also considered options for future freight operations to Canberra. It was noted that there is a growing trend for 'inland ports' or intermodal terminals. In these systems container freight is transported to and from a port by rail and the intermodal terminal acts as a transport and distribution hub. The masterplan concludes that this type of facility may be an option for Canberra in the future and if freight predictions are accurate the ACT could potentially sustain a facility handling 10,000 TEUs* per annum, requiring a site area of approximately 20,000 m² (10,000 m² paved area). [*TEU is a twenty foot equivalent unit and refers to a standard container size].

The third phase involved preparing the final masterplan and outlining the preferred arrangement of facilities. The consultants explored the feasibility of consolidating rail infrastructure so a passenger rail service could continue operating from a new Canberra railway station close to Kingston; and replacing or reinstating facilities and infrastructure required by the ARHS on the northern part of the Fyshwick site.

Phase three also included completing a detailed site plan and design concepts for a working site, to accommodate the rail operations of both the ARHS and William Edmund Pty Ltd, at the Fyshwick location and developing design concepts to accommodate a Canberra Railway Station in the East Lake Urban Renewal area.

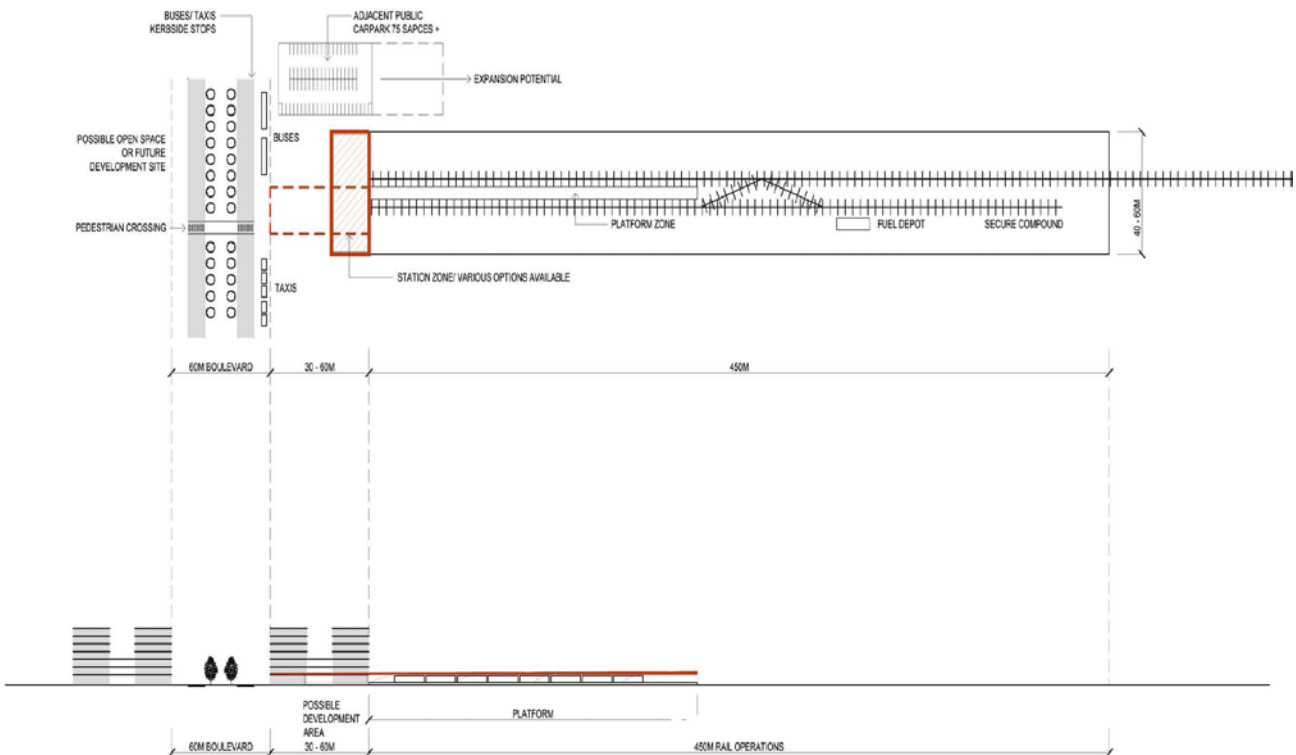
Canberra Railway Station

The preferred arrangement for rail facilities is retaining a passenger station near Kingston in the new development of East Lake. The redevelopment of the East Lake precinct provides an opportunity to develop a new station facility.

Spatial requirements

A station in the Kingston area will require functional areas similar to those in the existing station. This will ensure existing operations can be continued and/or expanded.

The functional site layout relies on a station building with direct access to the platform and convenient access to a public car park, taxis and bus services. This relationship is illustrated below. These drawings show a station building with a gross floor area of 500 to 750 square metres; a public car park with capacity for 75 cars, and a platform approximately 200 metres long.



Siting a railway facility directly next to a road provides an opportunity to integrate pedestrian footpaths and crossings, street lighting, furniture and landscaped open space with the railway station.

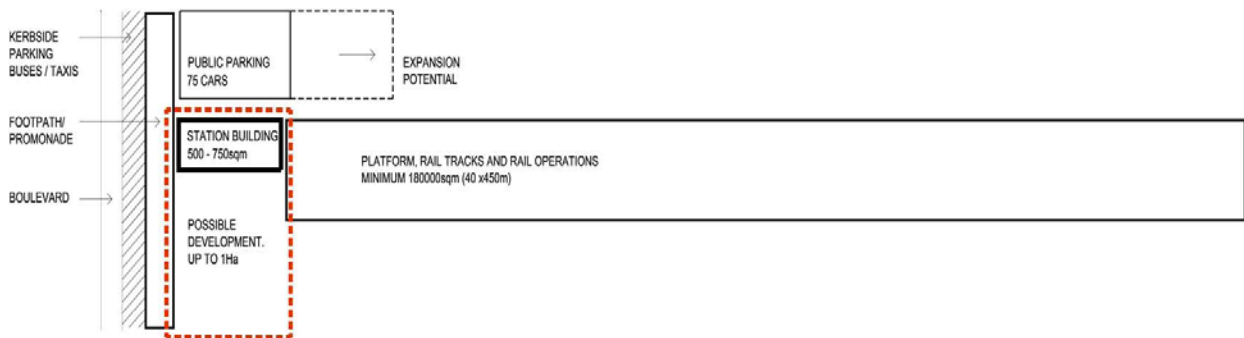
The functional areas of the station are positioned at the rail head (at the end of the platform) rather than alongside the platform. The railway station building could be placed either parallel to or at right angles to the road.

The positioning of the station facility at the end of the tracks rather than alongside the tracks enables a very direct and efficient functional layout. It allows for set down and connection between buses, cars, taxis and the train station at the street entrance of the station. This layout is likely to reduce capital investment because it allows the station to be integrated with a comprehensive mixed-use development, rather than being a stand alone facility, and is likely to provide increased security and amenity for waiting passengers.

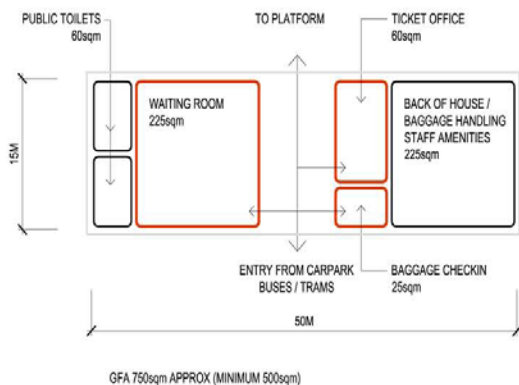
A single platform entered at the end of the railway tracks enables a platform to be built with a track on both sides with more areas for passengers to alight. This provides a more efficient platform infrastructure and can be a better investment in developing a new station.

The spatial requirements for the internal layout of a station facility station are shown below. The internal layout is derived from the existing functional layout of the Canberra Railway Station building, with a waiting room, public amenities, ticket office, baggage check in, 'back of house' baggage handling and staff amenities.

Canberra station/platform and rail operations functional areas and relationships



Canberra station functional areas



Design concept for Canberra Railway Station as an integrated development

This proposed arrangement and combination of rail and road creates commercial development opportunities, potentially through public-private partnership. The functional layout drawings indicate the potential to integrate the small station facility into a larger commercial development. This concept envisages an active ground level including a small retail development with commercial and/or residential uses on the upper floors. This would mean the new station would be part of a larger 'urban village' development that would provide a strong sense of place and amenity at the Canberra Railway Station.

Integrated with urban development, the station would open onto an attractive boulevard and street scene providing amenity and shelter with kerbside areas for taxis, buses and a convenient car parking area. While the station activity requires a minimum area of 500 m² GFA, the size of the potential development in which the station is located, could be in the order of 5,000 to 10,000 m² GFA or larger, as required. The planning intentions identified for the Kingston part of the East Lake Urban Renewal area are for buildings that are generally four to six storeys in height. Accordingly, the proposed concept for a station development would be of an appropriate scale to surrounding development both now and in the future.

Integrating a station in the East Lake precinct requires further study and review and a future feasibility study for a public transport facility.

Historic rail

The Railway Masterplan considers the long-term provision of facilities for historic rail in the ACT including a suitable permanent site for the Australian Railway Historical Society. The preferred arrangement of rail facilities identifies a site in Fyshwick next to the main line corridor.

The ARHS currently occupies a 4.3 hectare site north west of the Canberra Station. The site incorporates workshops, a museum, meeting facilities and covered and external storage areas—sufficient for more than 100 items of rolling stock. It has developed over a number of years providing for a variety of activities undertaken by the society.

The site has developed over an area of railway lands, using parts of infrastructure from previous uses of the site as well as new tracks and buildings. An environmental site assessment for the East Lake precinct has identified the presence of sub-surface contamination in part of the site and other areas of the rail yards. Further investigation on this issue will be undertaken as part of the East Lake project.

The Fyshwick site is constrained in terms of vehicle access and topography. The area being considered for relocating the ARHS and William Edmund facilities is in the rail corridor at Fyshwick (Block 1 and part of Block 11 Section 47 Fyshwick).

Vehicle access to the site will require creating a right-of way from Tennant Street, in an existing ACTEWAGL electricity transmission easement (Blocks 7 & 12 Section 28 Fyshwick) and in an area of unleased Territory Land (Block 13). The site is otherwise generally landlocked (Figure 3-1). Vehicle access is not available from Newcastle Street due to the constraints of level change and existing leased sites.

The area available for relocating the ARHS facilities and for its future development is similar to the existing land used by the ARHS at Kingston (4.3 ha). The site can provide for necessary facilities and an area for public car parking, although it is intended that either the Canberra Railway Station or the Queanbeyan Railway Station will continue to be the passenger loading platforms for historic train trips.

The key features of an arrangement that can be accommodated on this site are:

- the total amount of track space is 3 km (comparable to the existing arrangements)
- the site has a single connection to the main line
- separate areas include workshop, display and storage of rolling stock locomotives
- a potential connection is available to the North Shunting Line which would permit the ARHS to operate its trains on this line for testing and for access to the Canberra Railway Station.

The ACT Government has recently granted a lease to the ARHS for their current site at Kingston, securing their tenure at that site in the short term. Ongoing consultation with stakeholders in the area will ensure their involvement in planning for new facilities.

Rail freight

Rail freight in the ACT has typically been low compared to freight coming in via other means. The Railway Masterplan recommends excluding freight rail from the East Lake precinct and retaining the rail corridor through Fyshwick and opportunities for rail freight in this industrial area.

One freight service is currently operating to the ACT—a fuel train to the shell siding at Fyshwick, generally three to four times a week. The main freight service on the Sydney–Canberra line is carting rubbish from Sydney to the Woodlawn Waste Management Facility at Tarago, which operates five days a week but does not use the line to Canberra.

There is potential in the ACT to establish an intermodal terminal facility to reduce the need for long-haul road transport by transferring rail freight to road for further distribution. Currently, a significant quantity of freight is transported to the ACT in containers using road transport.

Ideally, such a facility would be located next to the rail corridor and would be close to the industrial and manufacturing areas of Fyshwick and Hume. The facility would also require good connection to local trunk roads for ease of freight distribution. Throughout Australia there are a number of smaller intermodal terminals servicing regional populations with most of these terminals handling consumer goods. If current freight projections are accurate Canberra could potentially sustain a freight terminal similar to that operating at Belfield, in Sydney, which is situated on a 20,000m² site, of which 10,500m² is paved hardstand. Total annual throughput by rail was in the order of 10,000 TEU during the last financial year. This site acts as a distribution centre with no warehousing or other supply chain management facilities.

Should this facility be feasible in the ACT, a number of sites next to the rail line could potentially accommodate such a development. This will be considered further in conjunction with freight policies for the ACT and the Government's land release program.

Long-term future

High-speed rail

High-speed rail is a long-term prospect for rail connections from Canberra to Sydney and Melbourne. It has been considered at various times 1981. It has been the subject of various studies and demand analysis during this time, and more recently was the subject of a bid for Commonwealth funding through the Building Australia Fund administered by Infrastructure Australia.

Studies have identified a new railway corridor for high-speed rail through the Majura Valley to connect with Canberra Airport at a new terminal. The Airport masterplan identifies that the airport has the potential to become a major transport hub integrating all transport modes. The Canberra Spatial Plan and The Sustainable Transport Plan make similar statements identifying the potential of the airport as a regional transport hub.

If such a high-speed rail service was to be developed it would be highly unlikely that the current commitment to the existing heavy-rail service could be sustained. The corridor and facilities may be retained for freight movement and adapted for other transport uses.

Rapid transit / light rail

Proposals have been developed for a public transport network connecting the urban centres of Canberra using rapid transit technology such as light rail. The ACT Government has reviewed a potential network in 2009 through a submission for Commonwealth funding through the Building Australia Fund administered by Infrastructure Australia.

Any development for heavy rail must recognise the potential future use of the corridor and facilities for transport services. Long-term uses and the need to adapt to technology need to be considered in designing facilities.

Next steps

The Railway Masterplan proposes a direction for rail infrastructure and facilities in the ACT. It will be followed by further detailed analysis, consultation and consideration by the ACT Government on providing rail infrastructure in the ACT.

Future steps in developing rail in the ACT include consultation with stakeholders to confirm facility requirements, detailed costing and design and preparation of a detailed staging and construction program. This is to be facilitated through the preparation of a feasibility study that will inform future capital works and planning for the East Lake precinct.

This feasibility study is expected to be delivered to the ACT Government in mid-2010.

