

# ACT Railway Masterplan Report

May, 2009

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ACT Planning and Land Authority

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Parsons Brinckerhoff Australia Pty Limited ABN 80 078 004 798

*Level 3, Empire Chambers  
1-13 University Avenue  
Canberra ACT 2600  
GPO Box 331  
Canberra ACT 2601  
Australia  
Telephone +61 2 6281 9500  
Facsimile +61 2 6281 9501  
Email [canberra@pb.com.au](mailto:canberra@pb.com.au)*

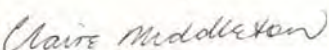
NCSI Certified Quality System ISO 9001, AS/NZS4801

Revision	Details	Date	Amended By
A1	2111557A_PR9967CM	4 May 2009	Jackie Nielsen
A	2111557A_PR9967_A_CM	8 May 2009	Jackie Nielsen
B	2111557A_PR9967_B_CM	11 May 2009	Jackie Nielsen

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Author: Claire Middleton Sandy Scott

Signed: 

Reviewer: Hugh Swinbourne

Signed: 

Approved by: Hugh Swinbourne

Signed: 

Date: 8 May 2009

Distribution: ACTPLA/PB (file)

# Contents

	Page Number
<b>Executive summary .....</b>	<b>v</b>
<b><u>PHASE 1</u></b>	
<b>1. Introduction .....</b>	<b>1</b>
1.1 Background	1
1.2 Scope and objectives	1
1.3 Study team	2
1.4 Location	2
1.4.1 Kingston site	2
1.4.2 Australian Railway Historical Society (ACT Division) Inc: Operations and Requirements	3
1.4.3 William Edmund Pty Ltd	5
1.4.4 Fyshwick site	5
<b>2. Planning policy and transport context .....</b>	<b>7</b>
2.1 Planning context	7
2.1.1 National Capital Plan	7
2.1.2 The Griffin Legacy	7
2.1.3 Canberra Spatial Plan	7
2.1.4 Territory Plan	8
2.1.5 Draft East Lake Planning Report	9
2.1.6 Land Tenure	10
2.1.7 Heritage	10
2.1.8 Land contamination	11
2.2 Transport context	11
2.2.1 Existing Road network	11
2.2.2 Historical Traffic volumes	12
2.2.3 Existing Public transport	12
2.2.4 Existing Pedestrian and cycle access	14
2.2.5 Coach services	15
2.2.6 Future road network	15
2.2.7 Future Public Transport	16
2.2.8 Future pedestrian and cycle facilities	16
2.3 Conclusion on transport issues	16
<b>3. Stakeholder consultation .....</b>	<b>17</b>
3.1 Consultation strategy	17
3.2 On-board rail patrons survey	17
3.3 Rail operators	18
3.3.1 Australian Railway Historical Society (ARHS)	18
3.3.2 Canberra Society of Model and Experimental Engineers (CSMEE)	19
3.3.3 William Edmund Pty Ltd	20
3.3.4 CountryLink	21
3.3.5 Rail Infrastructure Corporation (RIC) operations	22
3.3.6 Australian Rail Track Corporation (ARTC) operations	22
3.4 Government agencies	23
3.4.1 Government agencies workshop	23
3.4.2 ACT Chief Minister's Department	24
3.4.3 Department of Transport and Regional Services	25
3.4.4 Department of Defence	25
3.4.5 NSW Premier's Department	25
3.4.6 Land Development Agency (LDA) and ACT Treasury	25
3.4.7 Territory and Municipal Services, Community and Infrastructure Services	26
3.5 Other interested parties	26
3.5.1 CSIRO	26
3.5.2 Geoscience Australia	26
3.5.3 Capital Airport Group (CAG)	27
3.5.4 NSW Independent Transport and Reliability Regulator	28
3.6 Summary of consultation	28

# Contents (continued)

## Page Number

<b>4. Strategic rail demand assessment .....</b>	<b>32</b>
4.1 Current rail services	32
4.2 Passenger services	32
4.3 Freight services	34
4.3.1 <i>Potential intermodal terminal</i>	34
4.4 Kingston rail yards	34
4.5 Future high speed rail	36
4.6 Future use of the corridor	36
<b>5. Identified on site rail facilities .....</b>	<b>38</b>
5.1 Spatial considerations	38
5.1.1 <i>Canberra Station</i>	38
5.1.2 <i>Shell Fuel Depot, Fyshwick</i>	40
5.1.3 <i>Canberra Yard</i>	42
5.1.4 <i>ARHS site</i>	42
5.1.5 <i>William Edmund sidings</i>	43
5.1.6 <i>Miniature railway</i>	43
5.1.7 <i>Summary of spatial requirements and user needs</i>	43
5.2 Rail operations	43

## PHASE 2

<b>6. Site evaluation and options development.....</b>	<b>45</b>
6.1 Kingston site analysis	45
6.1.1 <i>Opportunities and constraints</i>	45
6.2 Fyshwick site analysis	46
6.2.1 <i>Opportunities and constraints</i>	46
6.3 Queanbeyan site analysis	46
6.3.1 <i>Opportunities and constraints</i>	47
6.4 Site evaluation	47
6.5 Additional corridor land	50
6.6 Options development	51
6.6.1 <i>Option 1</i>	51
6.6.2 <i>Option 2</i>	55
6.6.3 <i>Option 3</i>	59
6.6.4 <i>Option 4</i>	63
6.6.5 <i>Wentworth Avenue Option</i>	67
6.6.6 <i>Options development revenue</i>	70
6.6.7 <i>Options costings</i>	70
6.6.8 <i>Options evaluation</i>	71
6.7 Future options for freight transport to Canberra	72
6.7.1 <i>The ACT freight task</i>	72
6.7.2 <i>Rail freight options to Canberra</i>	73
6.7.3 <i>Other factors impacting on the viability of future freight services</i>	74
6.7.4 <i>Possible future freight/distribution terminal</i>	75
<b>7. Summary and conclusion .....</b>	<b>76</b>

## PHASE 3

<b>8. Canberra Railway Station .....</b>	<b>78</b>
8.1 Spatial requirements	78
8.2 Design concept for Canberra Railway Station as an integrated development	79
8.3 Kingston site: design concepts and location options	79
8.3.1 <i>Urban structure</i>	79
8.4 Location options for a new Canberra Railway Station at Kingston	80
8.5 Option A: 'Railway Parade' or 'East Lake' site	81
8.6 Option B: 'The Causeway' site	82
8.7 Option C: Wentworth Avenue	82



## Contents (continued)

	Page Number
8.8 Staging options	83
8.9 Preferred location option	83
<b>9. Fyshwick Site – ARHS and William Edmund Pty Ltd relocations .....</b>	<b>85</b>
9.1 The site	85
9.2 Spatial requirements	86
9.3 Staging	86
9.4 Costs of relocating ARHS & William Edmund facilities and development of a new Canberra Railway Station facility	86
<b>10. Next Steps .....</b>	<b>88</b>

## List of tables

Table 2-1 Wentworth Avenue Traffic Volumes	12
Table 3-1 Summary of consultation	29
Table 4-1 Train Timetables	32
Table 6-1 Kingston site opportunities and constraints	45
Table 6-2 Fyshwick site opportunities and constraints	46
Table 6-3 Queanbeyan site opportunities and constraints	47
Table 6-4 Summary of site evaluation	49
Table 6-5 Summary of development revenue	70
Table 6-6 Summary of costs	70
Table 6-7 Options evaluation	71
Table 8-1 Summary analysis of options	83

## List of figures

Figure 1-1 Study area	ix
Figure 1-2 Kingston site	3
Figure 1-3 Fyshwick site	6
Figure 2-1 Territory Plan Map	9
Figure 2-2 Bus Routes to and from Kingston site	13
Figure 2-3 Bus Routes to and from the Fyshwick site	14
Figure 2-4 East Lake Draft Structure Plan	15
Figure 4-1 Surrounding land uses	36
Figure 5-1 Canberra Station Sidings	39
Figure 5-2 Fyshwick Sidings	41
Figure 6-1 Queanbeyan Site	46
Figure 6-2 Additional corridor land	51
Figure 6-3 Option 1 Kingston layout	53
Figure 6-4 Option 1 Fyshwick layout	54
Figure 6-5 Option 2 Kingston layout	57
Figure 6-6 Option 2 Fyshwick site	58
Figure 6-7 Option 3 Kingston layout	61
Figure 6-8 Option 3 Fyshwick layout	62
Figure 6-9 Option 4 Kingston layout	65
Figure 6-10 Option 4 Fyshwick layout	66
Figure 6-11 Wentworth Avenue Option	69
Figure 8-1 The relationship of 'Railway Parade' to the Griffin Legacy	80
Figure 9-1 Potential site access	85

## Contents (continued)

### Page Number

### List of appendices

Appendix A	
Canberra Railway Station: functional layouts	
Appendix B	
Kingston Railway precinct: urban context	
Appendix C	
Options A, B & C design concepts for a Kingston location	
Appendix D	
Site concepts for Fyshwick site	
Appendix E	
Estimated Costs Schedule	
Appendix F	
Consultation Report incorporating Consultation Strategy	
Appendix G	
User Facilities and Space Allocations	
Appendix H	
Site Valuation Report	

## Executive summary

Existing rail infrastructure and facilities in Canberra reflect past levels of rail activity and much of this rail infrastructure and associated facilities are no longer required for current rail operations. This provides an opportunity to rationalise the land used for rail purposes and to improve its efficiency, as well as an opportunity to consider other compatible and synergistic land uses for future developments.

At the same time, future opportunities for the growth of rail freight within the Sydney–Canberra rail corridor need to be preserved, although current growth rate is low (1.1%) in comparison with road freight (3.1%).

The rail corridor within the ACT extends west from Queanbeyan, through Fyshwick, and ends with the western boundary of railway lands, close to Wentworth Avenue Kingston. Within 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. These North and South Shunting Roads are no longer used, except for one active siding off the South Shunting Road which facilitates the delivery of fuel to the Shell fuel depot, three or four times per week.

The existing railway lands at Kingston include the rail yards; the Canberra Railway Station operated by CountryLink; the Australian Railway Historical Society (ARHS) buildings and infrastructure; the buildings and facilities occupied by William Edmund Pty Ltd (plumbers and rail maintenance contractors), 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 are considered to be an inefficient use of land associated with a previous era of land use activities, industrial sidings and the use of steam locomotives that ceased operation in the 1960s.

The Kingston railway lands are 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). The vision for East Lake is for a lively, high-density urban community, providing an Australian showcase of sustainable development. It is expected to provide a mix of housing types in an environment of high quality open space and public realm, well connected to existing and new shops, schools and other facilities, with an anticipated new population of 9,000 people.

Integral to the vision for East Lake is ensuring that development recognises the environmental importance of the Jerrabomberra Wetlands, protects existing land uses and reflects the cultural and historical significance of the area.

Parsons Brinckerhoff (PB) was commissioned by the ACT Planning and Land Authority (ACTPLA) to assess the current and future requirements for heavy rail services in the ACT and specifically to prepare a Masterplan which considers the most appropriate utilisation of the Kingston railway lands and options for relocating part or all of the existing facilities and operations. The study has been directed and reviewed at the completion of each Phase by an inter-Government Steering Committee convened by ACTPLA.

The Masterplan considerations relied on background studies and investigations included in the *Canberra Railway Operations Study* (Indec Consulting 2006) and the environmental investigations which informed the *East Lake Urban Renewal Project* Final Draft Report (ACTPLA, 2005).

The Railway Masterplan study has been undertaken in three phases:

Phases One and Two included:

- Detailed review of existing railway land facilities and infrastructure
- Consultations and on-on-one interviews with existing operators located within the Kingston site, and with other key stakeholders, to determine the existing and future user requirements for the area
- An innovative on-board survey of patrons conducted on two separate *Canberra Xplorer* trains operating from Canberra to Sydney, and from Sydney to Canberra, to obtain important user feedback about the Canberra Railway Station and existing use of rail services
- Assessment of existing site conditions and the determination of opportunities and constraints arising from railway operations at Kingston and within the Canberra-Sydney rail corridor
- Consideration of broader transport strategies for both the ACT and NSW, and implications for the future use of the rail corridor
- A needs analysis to determine a comprehensive space and facility allocation for existing railway operators occupying land within the rail corridor at Kingston
- Preparation of conceptual designs for a consolidated rail precinct within the existing railway land at Kingston, and for an alternative site adjacent to the rail corridor at Fyshwick (Phase One report)
- Assessment of the Queanbeyan Railway Station site as a third option for the development of a primary railway station to serve Canberra, and for the relocation of other facilities currently located on railway land at Kingston (Phase Two report)
- The conceptual designs were used to test the spatial requirements for existing rail facilities and infrastructure, both public and private; the strategic connections to public transport and other supporting infrastructure, as well as land values and re-establishment costs (if required)
- The determination of 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.

The four strategic options determined to facilitate a more efficient use of the Kingston site are provided in detail in the Phase Two report and summarised as follows:

**Option 1:** consolidate existing rail facilities at Kingston by relocating the existing Canberra Railway station to a site located 300 metres to the east and building a new station building and platform; rationalising and replacing the AHRS facilities to allow its use of the new station and platform; and remove the encumbrance of railway infrastructure from approximately 20 hectares of developable land to the west of the new station.

**Option 2:** relocate and replace the Canberra Railway station and associated infrastructure, together with the ARHS facilities, to a new location within the rail corridor at Fyshwick; retain operable railway line to Fyshwick for freight use; provide a commuter car park adjacent to the new railway station,

and remove the encumbrance of railway infrastructure from land within the East Lake Urban Renewal Area.

**Option 3:** this option includes part of Option 1 – being to consolidate existing rail facilities at Kingston by relocating the existing Canberra Railway station to a site located 300 metres to the east and building a new station building and platform; rationalising and replacing the ARHS facilities to allow its use of the new station and platform for display and provision of a new museum; and relocation of the ARHS workshops and storage facilities to the Fyshwick site.

**Option 4:** this option includes part of Option 1 – being to consolidate existing rail facilities at Kingston by relocating the existing Canberra Railway station to a site located 300 metres to the east and building a new station building and platform; and remove all ARHS facilities to the Fyshwick site.

In order to select a preferred option, an evaluation of the four options was undertaken during Phase Two of the study. The evaluation included an assessment of each option using a mix of numerical and qualitative criteria. After consideration of the benefits and disbenefits of each option, together with the estimated relocation costs, development opportunities and potential revenues to the ACT Government associated with each option, Option 4 was determined to be the preferred option for the following reasons:

- Second best return on investment
- Predicted satisfactory level of stakeholder acceptance
- Good environmental performance
- Highest ranking in terms of compatible land uses (ARHS workshops located away from potential residential areas)
- Equal top ranking for accessibility.

A fifth and later option assessed by the study team was a variation to Option 4 involving the relocation of the Canberra Railway station approximately 200 metres further west, together with an extension of the existing railway line, thereby allowing a new station facility to address Wentworth Avenue. The study team determined that this additional option did not offer significant benefits in addition to the recommended Option 4, with an estimated net reduction in developable area and an attendant increase in costs associated with a required extension to the rail corridor.

The Phase Two report also considered options for future rail freight operations to Canberra. It was noted that there is a growing trend for 'inland ports' or intermodal terminals, where transport of containerised freight to and from a port is by rail and the intermodal terminal acts as a transport and distribution hub. It was concluded 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 m<sup>2</sup> (10,000 m<sup>2</sup> paved area). [\*TEU is a twenty foot equivalent unit and refers to a standard container size].

Phase Three of the Masterplan study has further explored the feasibility of Option 4 (Phase Two: the preferred option) to consolidate rail infrastructure for the continued operation of a passenger rail service from a new Canberra railway station close to Kingston; and the replacement or reinstatement of facilities and infrastructure required by the ARHS on the northern part of the Fyshwick site i.e. comprising of part

of Blocks 1 and 11, Section 47 Fyshwick (within the rail corridor) and potentially including Block 13 and part of Block 12 Section 28 Fyshwick.

The requirements for Phase Three of the study included the determination of a detailed site plan and design concepts for a working station (no platform) and provision for accommodating the rail operations of both the ARHS and William Edmund Pty Ltd, including the storage of rolling stock, at the Fyshwick site.

Phase Three of the study has included the development of a generic detailed functional layout and design concept to accommodate a Canberra Railway Station facility and associated operational infrastructure, capable of being located within the East Lake Urban Renewal area, close to Kingston.

The design concepts include:

- a site plan, including car parking provision, taxi rank, coach parking, urban open space, pedestrian connections and opportunities for bus/train interchange
- a railway station building footprint and schematic internal layout
- spatial provision for rail operational requirements as identified in the Phase Two report.

The design development for a new station facility at Kingston includes testing of the concepts for two potential locations at Kingston, expanding on the benefits identified for Option 4 in Phase Two of the study.

A functional analysis of the existing Canberra Railway Station has facilitated confirmation of the building footprint, internal layout and gross floor area for a new station building and platform at Kingston. Integration of this facility with a future mixed use development site will ensure a high quality urban design outcome and allow an appropriate level of security and passive surveillance from passing pedestrian and vehicular traffic, not currently available at the existing Kingston site.

Each phase of the Railway Masterplan study has included additional investigations and outcomes. Accordingly, the reports of each phase are complementary.

The Railway Masterplan presents a direction for rail infrastructure and facilities in the ACT. These outcomes will enable further detailed analysis, consultation and consideration by ACT Government for the provision of rail infrastructure. 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.



**Figure 1-1 Study area**

# 1. Introduction

## 1.1 Background

Parsons Brinckerhoff (PB) has been commissioned by the ACT Planning and Land Authority (ACTPLA) to assess the current and future requirements for heavy rail services, within and connecting with the Canberra–Sydney rail corridor. The initial phases of the project included extensive consultations with key stakeholders, both Government and non Government, with rail and associated operations on railway land at Kingston and within the Canberra–Sydney rail corridor.

The outputs from Phases 1 and 2 included a Masterplan report and the determination of a number of options for the most appropriate utilisation of the Kingston railway lands, and for relocating all or part of the land use activities and associated rail infrastructure/facilities. Four options and supporting analyses were presented to the inter-government Steering Committee convened by ACTPLA.

Option 4 was identified as the preferred option and the focus for more detailed planning as part of Phase Three of the Railway Masterplan study. Option 4 proposes the relocation of the Australian Railway Historical Society (ARHS) museum, display areas, workshops and storage of rolling stock to a site within the Canberra–Sydney rail corridor at Fyshwick (Blocks 1 and 11 Section 47 Fyshwick and potentially part of Blocks 12 & 13 Section 28 Fyshwick). This option includes the proposed retention of the Canberra Railway Station at Kingston by developing a new station building and platform (site yet to be determined), thereby creating significant new development areas of approximately 25 hectares, unencumbered by rail infrastructure (see Drawing 004, Appendix C).

The final location for the new Canberra Railway Station will be decided as part of the finalisation of the East Lake Urban Renewal Area Planning Study.

## 1.2 Scope and objectives

For Phase 3 of the project, PB has been engaged to complete the preparation of the Masterplan investigations, which include:

- preparation of generic design concepts a new Canberra Railway Station facility
- refinement and confirmation of the location options for the relocation of Canberra Railway station in East Lake, to facilitate a further detailed review of such options (by others)
- design concepts for the relocation of the ARHS facilities from the Kingston railway lands to the Fyshwick site (previous Option 4)
- confirm a detailed list of site requirements for historic (ARHS) and passenger rail facilities, suitable for direct consultation and negotiation with key stakeholders
- confirm the Rail Facilities Plan outlining the necessary rail and civil engineering requirements



- confirm costs and provide indicative timelines (staging) for the relocation and construction of a new Canberra Railway Station at Kingston, and the ARHS facilities at Fyshwick.

A key objective of the Phase Three investigations is to further develop design concepts for the relocation and establishment of the ARHS facilities and its rail operations, including the rail operations and maintenance facilities of William Edmund Pty Ltd, at Fyshwick, thereby confirming that the site is able to accommodate the required facilities and infrastructure in an efficient and workable manner. This information will allow further discussions and negotiations between the ACT Government, the ARHS and William Edmund Pty Ltd.

The development of a Canberra Railway Station 'module' is to facilitate the determination of a functional brief for the confirmation of either the existing or a new station location at Kingston. The finalisation of requirements and the development of concept plans for both the ARHS and a Canberra Railway Station will provide input to structure planning for the East Lake Urban Renewal area.

## 1.3 Study team

The study team for the preparation of the ACT Railway Masterplan study was led by PB with specialist input provided by Colin Stewart Architects (physical Masterplanning and preparation of conceptual designs) and Colliers International (land appraisal and valuations). Technical input to the strategic analysis of current and future rail operations, and preliminary costings, has been provided by PB's National Rail business.

## 1.4 Location

Option 4 (Phase Two report) proposes the separation of the Canberra Railway Station and the ARHS facility into two specific areas requiring further detailed design investigations. The two areas located within the Canberra–Sydney rail corridor, as shown in Figure 1-1 in the executive summary and is the focus of this report.

### 1.4.1 Kingston site

The existing railway lands at Kingston are bounded by Cunningham Street, Wentworth Avenue, part of Mildura Street and part of the Jerrabomberra Wetlands nature reserve. (Figure 1-2). The previous phases of the Railway Masterplan study identified the following activities at the site:

- Canberra Railway Station and associated facilities including tracks, sidings, refuelling facilities, rail yards for shunting and stabling freight and other buildings no longer used for railway operations.
- Other rail operations and businesses currently operating at the Kingston site:
  - CountryLink passenger rail services comprising of two services each way to/from Sydney daily.
  - The ARHS operates the Canberra Railway Museum, passenger services on historic rolling stock, maintenance of historic trains, and has access to the main rail track for the operation and display of historic trains.

- CSME operates a model (miniature) railway facility adjacent to the entrance to the Canberra Railway Museum.
- William Edmund Pty Ltd is a plumbing business and railway maintenance contractor that operates from the former Trackfast Freight Centre to the north of the Railway Museum. This business also provides back up maintenance and support to Railcorp and to the operations of the ARHS.
- Pacific National has until recently used a freight shed to the north east of the Canberra Railway Station. It is understood this storage shed is now being used on a casual basis by members of a Canberra car club for storage of vehicles.

Phase Three of this study considers the relocation and/or re-establishment of essential infrastructure and facilities for the continued operation of the ARHS; the railway operations of William Edmund P/L, and the provision of a new Canberra Railway Station.

The study has identified that the Kingston Miniature Railway does not require a direct connection to the rail line and can retain its autonomy. It is understood that CSME are in active discussion with the ACT Government to seek an alternate site elsewhere in the ACT for a permanent facility.



**Figure 1-2 Kingston site**

### 1.4.2 Australian Railway Historical Society (ACT Division) Inc: Operations and Requirements

The ARHS has provided written comments in response to the East Lake Urban Renewal Draft planning report (2007) which provides relevant and updated details of the role and extent of operations of the ARHS at Kingston. Further information has been obtained from interviews with representatives of the ARHS, and from a schematic layout of tracks, essential infrastructure and other built facilities essential for the continued operations of the ARHS.

The ARHS Kingston site is a multi-functional facility which occupies a site of approximately 4.3 hectares to the north-west of the Canberra Railway Station. This site comprises a number of sidings and access to the ARHS sidings are via complicated shunting movements within Canberra yard. Operations at the site are also complicated by the lack of direct access.

The ARHS is an accredited rail operator with professional train drivers. The ARHS owns more than 100 items of rolling stock and conducts, on average, two railway operations per month, with a public open day once a month. The current ARHS site includes:

- An educational resource where members of the community can learn about the history and role of Railways in the development of Canberra.
- A public museum that provides a rail experience, based on guided tours and short train rides. The Kingston site dedicates a number of its rail sidings to house a fleet of display vehicles, separate from the operational fleet, to provide a constant representational display of the typical types of rail transportation over the last 100years.
- An operational base for the Society's fleet of restored locomotive carriages. On site storage of the operational fleet occupies almost one kilometre of railway track within the Kingston site. The fleet comprises:
  - two operational steam locomotives
  - four operational diesel locomotives
  - one operational diesel rail car
  - 32 operational passenger carriages
  - nine operational freight and support rail vehicles.
- The Kingston site provides servicing facilities for privately owned locomotives (3) and a number of privately owned operational passenger carriages.
- The ACT's only dedicated rail maintenance facility. [The ARHS is the only rail operator that maintains its fleet in the ACT.] The site's maintenance capacity is supported by specialised railway servicing facilities and equipment, skilled volunteers and employees and approved suppliers.
- The ACT's only heritage rail restoration facility.

A significant requirement of the ARHS for operation of passenger services is the need to test and verify the performance of essential safety equipment on all its trains prior to departure from the depot. To do this, all carriages and locomotives must be marshalled into a complete train with all interconnecting air, electrical and gangway safety barrier equipment connected.

This requires a single rail siding (called a departure road) of approximately 500 metres in length.

The ARHS has indicated that its rail facilities require level land to ensure secure storage and a safe working environment. In addition, its historical trains are up to three times longer than CountryLink trains and need a significantly longer passenger platform capacity for the safe loading of passengers. The current platform at Kingston provides this capacity.

The ARHS has indicated its willingness to consider relocation but would prefer a level site, and is interested in expanding its commercial operations. Some rationalisation of the extensive sidings currently enjoyed by the ARHS for storage of rolling stock will be possible, and even advantageous to the ARHS.

From previous consultations with the ARHS it is known that its minimum requirements for relocation to an alternative site are:

- a connection to the main line and subsequent link to the Bombala branch at Queanbeyan
- suitable siding space for storage and display
- suitable undercover space for operations and minor maintenance
- a location near to its volunteer base resident in Canberra.

### 1.4.3 William Edmund Pty Ltd

William Edmund Pty Ltd is principally a plumbing business operating from a former freight storage facility on railway land at Kingston. This business owns and operates two locomotives for assistance to CountryLink in the event of a passenger service breakdown, and also provides support to the ARHS, as required, for its operations.

Approximately 12% of the business of William Edmund Pty Ltd is associated with locomotive and rolling stock maintenance and services to both public and private railway operators. The company provides on site and regional services to RailCorp, including maintenance of all CountryLink railway facilities (buildings and infrastructure) and back up services for CountryLink trains, in the event of a breakdown between Canberra, Tarago and Yass.

From previous consultations it is known that mutual benefits arise from the co-location of the railway associated business of William Edmund Pty Ltd, and the ARHS. The minimum requirement for the continued operation of this part of its business is a direct main line connection for operation of its locomotives (3) and for maintenance of other rolling stock.

### 1.4.4 Fyshwick site

The Fyshwick site is currently vacant and situated within the existing rail corridor (Figure 1-3). The rail corridor is approximately 200 metres wide at this location and has access to the main railway line as well as the northern and southern shunting lines. The site is currently divided into two separate blocks and has a developable area, including potential access via land currently used as an ACTEW easement, of more than 5.8 hectares (58,000m<sup>2</sup>).

The site currently has a gradient of approximately 3% across the site which will require earthworks in some parts to provide a level site (max 1% grade) to accommodate sidings and an on grade connection to the main line.



Vehicular access to this site is available from Newcastle Street via part of existing Blocks 7 & 12 Section 28 Fyshwick (ACTEWAGL easement for electrical transmission) and unleased Territory Land (Block 13 Section 28 Fyshwick). The existing ACTEWAGL sub station and associated above ground transmission lines within this easement are under consideration to be relocated to East Lake within five to ten years. This will provide the opportunity for the re-distribution of access arrangements between adjacent developments, including the proposed ARHS/William Edmund Pty Ltd facilities.

Vehicular access and parking for members of the public, associated with the activities of the ARHS, are fundamental to the continued operation of the railway museum and the maintenance of its rolling stock. The majority of visitors to the Canberra Railway Museum attend on weekends and specific open days. This public attendance is unlikely to generate increased traffic within the vicinity of the site, since most industrial activities and related businesses at Fyshwick are closed on weekends. In addition, the adjacent bulky goods retailing facility of Domayne has dedicated customer car parking on site.



**Figure 1-3 Fyshwick site**

## 2. Planning policy and transport context

### 2.1 Planning context

#### 2.1.1 National Capital Plan

The subject land is shown in the General Policy Plan map of the National Capital Plan (NCP) as included in urban areas, with the nearby Jerrabomberra Wetlands being part of a Designated Area – The Central National Area (Lake Burley Griffin and Foreshores) of the NCP. The two major roads that lead to the Kingston and Fyshwick sites, Canberra Avenue and the Monaro Highway, are Approach Routes within a Designated Area of the NCP and subject to detailed conditions of planning, design and development, as well as special requirements for Approach Routes. Any development along these roads is required to be of a type and quality complimentary to the role and status of the National Capital.

#### 2.1.2 The Griffin Legacy

The Griffin Legacy, released by the National Capital Authority (NCA) in 2004, sets a policy framework for a strategic vision for Canberra through reinforcing the city's role as Australia's National Capital.

The Griffin Legacy directs future public and private investment in core areas of the capital where opportunities exist for vibrant mixed use precincts. It attempts to restore the original Griffin vision for Canberra as a cosmopolitan lakeside city. The key aims of the Griffin Legacy are to:

- Appraise the Griffin Plan and its relevance to the planning and development of Canberra, the nation's capital in the 21st century;
- Extend the Griffin Legacy through a series of strategic initiatives that restore, where possible, the spirit and intent of the Griffin Plan;
- Provide an integrated framework (between the Commonwealth and ACT Governments) for planning initiatives in the central areas and approach routes of the National Capital; and
- Protect the integrity of the Griffin Plan, recognising its stature as a work of national and international significance.
- To provide for the implementation of the Griffin Legacy, National Capital Amendment No. 56, The Griffin Legacy Principles and Policies, was approved on 30 November 2006. The purpose of Amendment No. 56 is to form a basis for making planning and urban design decision for the Central National Area, its landscape setting and approaches. The development of the master plan has incorporated the axis layout, main avenues and Hume Circle themes that were a significant component of Griffin's original plan.

#### 2.1.3 Canberra Spatial Plan

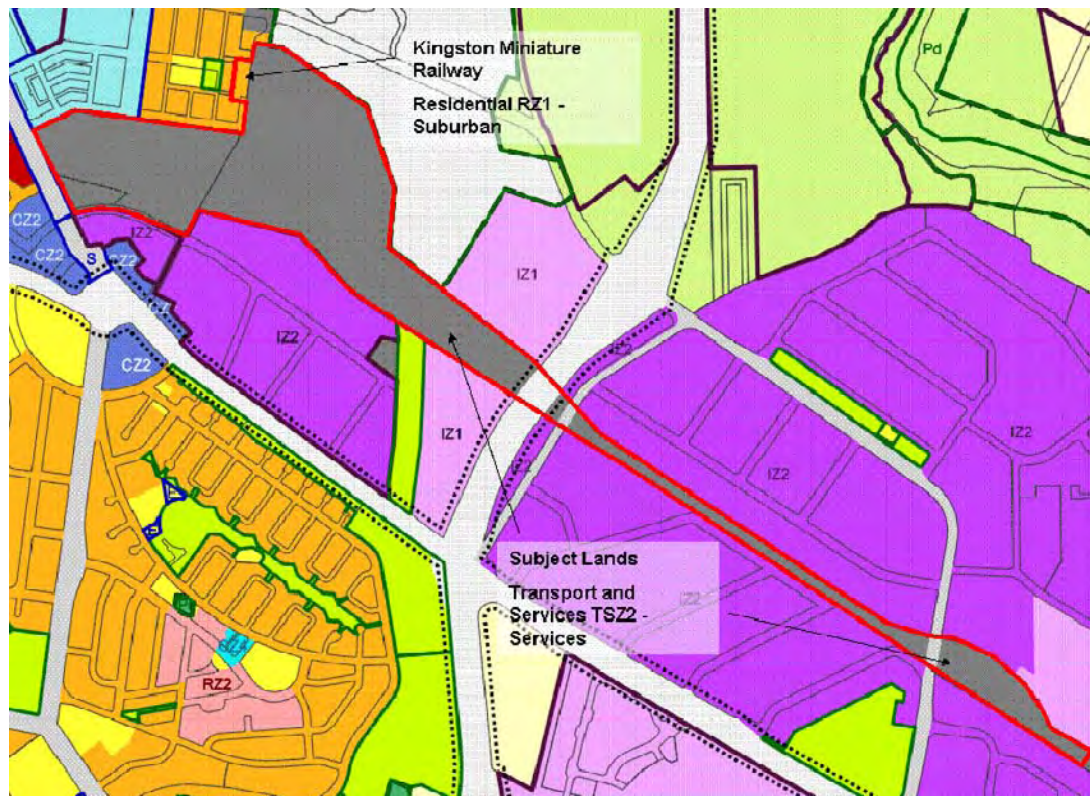
The Canberra Spatial Plan provides a strategic direction for the growth of Canberra over the next 30 years. A key principle of the Spatial Plan is to encourage residential intensification within a 7.5 kilometre radius of the city centre over the next 15 years. This is to ensure that

up to 50 per cent of the predicted future urban growth is located close to existing major employment areas, services and facilities.

Within the Canberra Spatial Plan the Kingston site is identified as a high priority area for residential intensification.

#### 2.1.4 Territory Plan 2008

- Figure 2-1 below identifies the zones of the Territory Plan that apply to the subject land and surrounding areas. These zones generally reflect the existing mix of land use activities. The area known as Fyshwick West, located to the south of the study area, is within an IZ2 – Industrial Mixed Use Zone. This reflects the predominant land use activities of food processing, wholesaling, distribution and marketing.
- An IZ1- General Industrial Zone also applies to the former DAS Fleet site on Dairy Road (Blocks 11 and 12, Section 38 Fyshwick) now known as the Wetlands Foreshore Business Park. The purpose of this zone is to promote general industry and provide for manufacturing, processing, warehouse, storage and transport uses that require large areas accessible to main interstate road and rail connections.
- In addition, there are other land use zones surrounding the site such as:
  - Residential zones RZ1 – Suburban (The Causeway) and RZ5 – High Density Residential
  - Commercial zones CZ2 - Business (adjacent to Hume Circle) and CZ5 – Mixed Use
  - A Community Facilities site
  - Future Urban Areas (FUA) (Kingston Foreshore)
  - Urban Parks and Recreational zone PRZ1 Urban Open Space (associated with Jerrabomberra Creek)
  - Non Urban zone NUZ4 River Corridor (adjacent to the Molonglo River)
- For the purposes of this master plan, the Kingston and Fyshwick sites are within a Transport and Service TSZ2 – Services of the Territory Plan. The permissible land uses within this zone include a Municipal Depot, Public Transport Facility, Railway Use and Transport Depot. The performance controls that apply to this land use policy are a maximum plot ratio of 1:1 and a maximum building height of two storeys.
- Accordingly, any proposed redevelopment of the precinct for land uses other than the above stated permissible land uses, (such as commercial, residential or retail) would require a Variation to the Territory Plan.



**Figure 2-1 Territory Plan Map**

### 2.1.5 Draft East Lake Planning Report

The East Lake Draft Planning Report, September 2007, documents the detailed planning investigations and opportunities for the redevelopment of East Lake, including the Kingston site, being an area identified by the Canberra Spatial Plan for urban revitalisation and urban intensification.

The draft report identifies the vision for East Lake: to become a lively, high-density community providing an Australian showcase of sustainable development with an anticipated population of 9,000 people.

The ACT Government has recently formalised a working partnership with the CSIRO under the Sustainable Communities Initiative for the planning and future development of the East Lake area. The overarching objective of this partnership is to make best use of local and national expertise to achieve an Australian showcase of sustainable development.

Even though the report suggests an large increase in population for the area, it also focuses on the environmental importance of the Jerrabomberra Wetlands, the existing land uses and the heritage and cultural importance of the area.

The options for future development in this report reflect the original planning of Canberra and are based on the Griffin Legacy policy framework.

The report sets a clear direction and the ACT Government's intent for the future development of the East Lake area.

This master plan builds on some of the provisions contained in the East Lake Draft Planning Report, September 2007. The master plan reflects the Government's intention to rationalise



the use and occupation of railway land; to intensify development, and to critically appraise potential options for future development.

### **2.1.6 Land Tenure**

The subject rail land in the ACT is unleased Territory Land. Licence agreements between the ACT Government and NSW Government are being negotiated, through the Rail Infrastructure Corporation (RIC) for the ACT's rail infrastructure and with RailCorp for the Canberra Railway Station.

There have been difficulties in completing these negotiations due to:

- The number of stakeholders currently involved and the site precludes the use of past leases as precedent. The previous lease was agreed in 1985 between the then State Rail Authority and ACT Government. Currently the track is maintained by the ARTC (Australian Rail Track Corporation) under contract to the NSW Government through the RIC.
- The current operators on the site are Pacific National, and the ARHS, whereas in the 1985 agreement, State Rail and ARHS are the sole users. This together with the advent of an Independent Rail Regulator in NSW means that the formulation of the renewal of the lease will require careful consideration and understanding of the role and responsibilities of the various parties.
- The site contains several buildings including the disused Trackfast (freight handling) building which is owned and managed by the Territory, and the ARHS buildings for which the lease has expired and a new lease for the facility is being negotiated with the ACT Government. The William Edmund's Siding similarly has an expired NSW Rail lease agreement and has no current land tenure agreement. The lease held by the State Rail Authority on the railway station has lapsed.
- The miniature railway facility operated by CSME was previously leased by way of a short term Crown Lease over the current site, which has now expired. The facility continues to have tenure on the site via a continuing right to occupy the site (under terms of the expired lease).
- Under the previous agreement between NSW and ACT all the assets on the site that are operated by the NSW Government are owned by the ACT Government. This includes the railway station and the goods shed which were totally funded by the NSW Government.
- All track and signalling is owned by the ACT Government and maintained by the ARTC.

### **2.1.7 Heritage**

There are several places surrounding the subject lands and one object that is listed on relevant heritage registers.

### **Steam Locomotive Number 1210, Stored at ARHS Site, Kingston**

The steam locomotive 1210 built in 1878, is the ARHS flagship and central to Canberra railway history. On 25 May 1914, it hauled Canberra's first revenue-earning train, a coal train to serve the then main electricity generation station of Canberra. At one time this historic locomotive was mounted on a platform adjacent to the entrance to the Canberra railway station. It was eventually rescued by members of the ARHS and is now used by ARHS to haul vintage trains to Royalla, Bungendore and further in NSW for historic rail events and tours.

The Jerrabomberra Wetlands, the Goldenholm Dairy in Fyshwick, Dairy Farmers Cooperative in Griffith and the Causeway Hall are heritage listed and surround the subject lands. The heritage significance of these places will not be affected in the development of this master plan. However, any future development at East Lake that may impact on these places will need to be considered in relation to the provisions of the Heritage Act, 2005. There are no Aboriginal places or objects listed on relevant heritage registers within the subject lands.

#### **2.1.8 Land contamination**

Previous environmental analysis carried out by Coffey Geosciences Pty Ltd for the ACTPLA describes some potential Hydrocarbon contamination on the Railway lands. Parts of the site have also been previously used as municipal waste fill. The investigations have identified 10 areas of environmental concern. Preliminary investigations indicate that the sites can be remediated and do not pose a major constraint to the development. There areas will require a detailed investigations and a contamination assessment and remediation action plan should be prepared for the site.

## **2.2 Transport context**

### **2.2.1 Existing Road network**

The existing railway precinct is bounded by Wentworth Avenue, Canberra Avenue and the Monaro Highway. It has connections to the whole city with good access to the City, Barton, Canberra international Airport and Queanbeyan, and the regional routes to Sydney, the South Coast and south-eastern NSW, including the Snowy Mountains. This network also connects the current station to the remainder of Canberra with links to Gungahlin and Tuggeranong.

The Monaro Highway is a major arterial road that forms the eastern leg of Canberra's parkway system. Identified as a National Approach Route under the provisions of the National Capital Plan, the Monaro Highway connects Gungahlin and Tuggeranong and is also a major transit route to the Monaro region and the ski fields of the Snowy Mountains.

Canberra Avenue is a major east-west arterial road that links Queanbeyan with Canberra and is similarly identified by the National Capital Plan as a National Approach Route. Canberra Avenue connects east to Fyshwick and Queanbeyan, and west to Manuka Group Centre, the Central National Area, and beyond to Woden Town Centre and Civic. It is a divided four lane road with provision for on road cycling. Traffic signals are installed at the intersection with Nyrang Street

Wentworth Avenue connects the Canberra Railway Station to Canberra Avenue, Kingston Foreshore, Kingston Local Centre, the Parliamentary Triangle and to Kings Avenue Bridge over Lake Burley Griffin. Wentworth Avenue is a four lane road with provision for on street parking that is not currently utilised. There are traffic signals controlling the intersection of Wentworth Avenue and Cunningham Street.

These trunk routes connect to employment centres at Fyshwick and Queanbeyan to the east, and west to Kings Avenue, the Parliamentary Triangle and Civic.

The ARHS site, William Edmund Pty Ltd and the miniature railway site are accessed from Cunningham Street (off Wentworth Avenue) which only carries local traffic.

The Fyshwick site is located adjacent to Newcastle Street and the Epicentre development currently under construction. Newcastle Street is a divided sub-arterial road, and currently carries about 22,150 vehicles per day. The peak flows are about 1600 vph in the peak direction and 500 vph in the off peak direction for both peak hours.

Access into the Fyshwick site is quite difficult and restricted due to the proposed development of Block 9 Section 19 (Bunnings Site) and the grade difference between this site and Newcastle Street. Access could be provided via the easement on the northern side or to the southern side of the rail lines via the EpiCentre Estate.

## 2.2.2 Historical Traffic volumes

Traffic flows on Wentworth Avenue have been gradually reducing over the past 25 years whilst Canberra Avenue traffic has been increasing. Selected traffic flows are shown in the table below.

**Table 2-1 Wentworth Avenue Traffic Volumes**

Date	Annual Average Daily traffic	Eastbound AM peak hour	Westbound AM peak hour
1981	21000	2000	660
1988	20800	1700	670
1993	18500	1800	400
1998	19550	1550	650
2004	17700	1250	450

This shows that traffic flows have gradually been reducing on Wentworth Avenue over this period of time. However with the development of the Kingston Foreshores there will be an increase of traffic generation, particularly on the approach to Telopea Park.

Canberra Avenue data is not available to allow any conclusion to be drawn on changes in traffic flows over the same period although it is suspected that traffic may have grown slightly.

## 2.2.3 Existing Public transport

The Kingston Station is currently serviced with buses for current patronage requirements. The current ACTION bus timetable provides six bus routes to the general area. Deane's

Buslines operates regular daily services along Canberra Avenue, connecting to Queanbeyan.



**Figure 2-2 Bus Routes to and from Kingston site**

ACTION bus services can be extended as demand warrants to cater for any redevelopment. Importantly Deane's bus service to Queanbeyan passes the site along Canberra and Wentworth Avenues

In relation to the Fyshwick site, ACTION provides three services along Newcastle Street, routes 80, 83 and 86 as shown in Figure 2-3.



**Figure 2-3 Bus Routes to and from the Fyshwick site**

## 2.2.4 Existing Pedestrian and cycle access

There are cycling lanes along most of Canberra Avenue and the lane arrangements on Wentworth Avenue allow for on street parking that is also used for on road cycling. The lanes are well used, particularly for commuting. On-road cycle lanes are also provided on Monaro Highway and there is a cycle path along Dairy Road, reconnecting with Monaro Highway at the Molonglo Reach crossing and continuing along Morshead Drive.

Pedestrian facilities are limited surrounding the Kingston site. Safe crossing points of the major roads are provided at the signalised intersections of:

- Canberra Avenue/Nyrang Street
- Wentworth Avenue/Cunningham Street,
- Wentworth Avenue/Eyre Street
- Wentworth Avenue/Giles Street

There are only limited other opportunities for safe crossing of Wentworth Avenue and pedestrian movements are generally along the road network.

Redevelopment of the site will provide an opportunity to identify and enhance pedestrian and cycle networks in the area. This includes opportunities associated with the enhancement of



the Jerrabomberra Creek and provision of connectivity with existing truck cycle routes, which is important given the location near existing employment destinations and new commercial development.

Pedestrian and cycle access to the Fyshwick site is available via the adjacent trunk cycle route Queanbeyan – Canberra (along Canberra Avenue) and the shared path along Newcastle Street. However it is expected that there will be no walk up pedestrian trips and few if any cycle trips associated with a rail journey.

### 2.2.5 Coach services

A number of coach lines offer regular services to Canberra from the major cities, and also from regional towns. The two major coach lines servicing Canberra are Greyhound Australia and Murrays Australia. All major coach services commence and terminate at the Jolimont Centre, Canberra City.

CountryLink operates the State rail service from Canberra to Sydney. Daily services run from Sydney to Canberra, and a daily rail/coach service runs from Melbourne to Canberra via Wodonga. CountryLink also provide rail/coach services from Canberra through to Bombala and Eden.

### 2.2.6 Future road network

The East Lake precinct Draft Structure Plan (ACTPLA, 2007) identifies the potential to redevelop the area for mixed land uses as shown in Figure 2-4.



**Figure 2-4 East Lake Draft Structure Plan**

The Draft Structure Plan shows a road connection from Wentworth Avenue through to Newcastle Street via a proposed grid road network. This future development will generate traffic flows within the development and will also increase flows on the external road network. The extent to which these flows will change are beyond the scope of this study. However, it is considered likely that the internal road network within the East Lake precinct will function at an acceptable Level of Service, but the impact on the arterial roads is unable to be quantified at this stage. It is also considered likely that with Wentworth Avenue

operating at about 60% - 70% of its peak hour capacity, the intersections may become more congested than at present, but may still operate at acceptable performance levels for the peak hour situation.

### **2.2.7 Future Public Transport**

ACTION has recently released draft details of its future public transport network scheduled for implementation in mid 2008. However the final bus routes and schedules will not be available until 28 April 2008.

The proposed East Lake Draft Structure Plan and urban renewal concepts provide the opportunity to extend existing bus routes numbers 80 and 83 to connect to the Fyshwick services and retain the existing services to the Canberra Railway Station.

### **2.2.8 Future pedestrian and cycle facilities**

There are currently no details available on the future possible pedestrian and cycle network that are expected to form part of the Eastlake development. However it is expected that the network will connect to the existing trunk routes, proposed lake shore trunk route, and also integrate these transport systems into the existing facilities.

## **2.3 Conclusion on transport issues**

The existing transport network of roads, bus services, pedestrian and cycle facilities service the area quite well and with the implementation of urban renewal initiatives for the East Lake precinct there will be the opportunity to provide improved bus services / networks and also pedestrian/cycle networks. The East Lake development proposals are expected to increase traffic loadings onto the arterial road network with some increase in congestion. Additional traffic studies will need to be undertaken when the plans are finalised as the traffic loadings could be within the acceptable performance standards.

## **3. Stakeholder consultation**

### **3.1 Consultation strategy**

A consultation strategy has been prepared which outlines the objectives of all consultations, identifies the key stakeholders and the workshop sessions. A copy of the agreed consultation strategy is provided at [Appendix F](#).

The sections below provide a brief outline of the discussions held between the study team and the relevant stakeholders. The full consultation report is provided at [Appendix F](#).

### **3.2 On-board rail patrons survey**

An on board survey of patrons was conducted on two separate services: the 12.05pm Canberra Xplorer train from Canberra to Sydney on Monday 25 June 2007; and the 6.58am Canberra Xplorer train from Sydney to Canberra on Thursday 28th June 2007.

The departing Canberra service had 78 passengers on board a three carriage train: two economy class carriages and one first class carriage with a buffet compartment. The passenger carrying capacity of this train is 156: 44 first class seats and 112 economy class seats. From the 78 passengers, a total of 17 interviews were conducted.

The departing Sydney service had 23 passengers on board. On this service a total of 14 interviews were conducted. Each interview was completed within an average time of 15 minutes.

The predominant group of people using the Canberra to Sydney rail service were retired persons over the age of 60, who use the service on average twice a year to visit family and friends in either city. Some people were using the service to make connections to other train services out of Sydney. There were more females than males in this group of retired persons and the most common general comments about the train service were that it is comfortable, relaxing, clean, affordable, but slow.

The early morning weekday service from Sydney was similarly dominated by retired persons, more females than males, using the service to visit family and friends in the National Capital or returning home from a visit to Sydney. There were surprisingly few tourists from other countries (total of three) and only two students. A number of retired persons accessed this service from stations within the southern highlands, journeying to Canberra to visit relatives for periods of up to 3 days. This particular group use the service more often, either fortnightly or monthly.

Interviewees on the Sydney to Canberra service made similar comments about the desirability of train use in comparison to buses, due to comfort, the ability to walk around and obtain food from the buffet compartment, a more relaxing journey and friendly staff.

Comments from those interviewed on both services about the future of passenger rail services from Sydney to Canberra highlighted the need to increase the speed of the service to be comparable to the journey time of bus services, and thereby enhance the competitiveness and sustainability of the train service.



Most people interviewed considered railway services to be a fundamental form of public transport that should be available to all major cities of Australia, especially the National Capital.

Expectations about increasing the speed of train services within the rail corridor are realistic and there is a general understanding of the speed limitations of different sections of the track, especially given the terrain and curved (historic) alignments through the Southern Highlands.

Although the Canberra railway station is geographically close to the city centre, it was observed by numerous people interviewed that the environment of the station is unwelcoming, suffers from lack of information (e.g. map of the city), there are few or no waiting taxis/buses on arrival, and people feel “stranded” if they are not familiar with Canberra’s layout and services.

Since most people are dropped off to Canberra’s railway station, or make a connection using regional bus services, the location of the station is not of particular concern to most people interviewed.

### 3.3 Rail operators

#### 3.3.1 Australian Railway Historical Society (ARHS)

##### Interview details

28 June 2007, 2:00-4:00pm.

##### Summary

The ARHS commenced in the ACT in 1966 and the ACT Division of the ARHS was formed in Canberra in 1975. Today the Society is trustee of the Canberra Railway Museum Trust and is dedicated to the study, preservation and operation of significant items of NSW railway history. As a non profit organisation with more than 400 members, the Society runs heritage rail trips locally and long distance train tours. It also operates the Canberra Railway Museum, the Michelago Tourist Railway and a CountryLink Ticketing Agency (from Queanbeyan Railway Station).

The Society owns or has custody of more than 100 items of rolling stock. These include seven steam locomotives, five diesel locomotives, four diesel rail motors and an extensive fleet of vintage timber-bodied and modern steel sitting, sleeping and dining cars.

The Society is managed by a Council of nine members, including President, Vice President, Treasurer, Secretary and five Ordinary councillors elected annually from the membership.

Discussion topics relevant to the study, included:

- The ARHS is an accredited rail operator with professional drivers and meets all NSW rail and safety requirements. The ARHS is not an accredited rail operator in the ACT because there is no Rail Safety Act in the ACT.
- The basic requirement for a Railway Museum site is flat land. The existing site (2.9 hectares) has been occupied by the ARHS for approximately 30 years. The current arrangement is via a licence to occupy land. However, the ARHS has a Ministerial undertaking that a 10 year lease will issue for its current site.

- The ARHS is willing to look at realistic options for relocating its operations. The meeting attendees indicated that ARHS do not support the view provided to the INDEC study (March, 2006) that heavy locomotive and carriage maintenance could be carried out on the Michelago site.
- In order to operate a rail service from Canberra to Michelago, the ARHS has a lease from RIC over the Queanbeyan to Michelago railway line. ARHS is responsible for maintenance of this line and this is a considerable cost for a small organisation. Expenditure to date has exceeded \$500,000, with an average expenditure of \$250,000 per annum. This is not sustainable and currently the ARHS has withdrawn its local operations to use of the Canberra to Bungendore section of the rail corridor. It was indicated that recently the Michelago rail section has been physically de-stabilised by the activities of a local landowner and has also suffered storm damage (wash out). This has compounded the issue of ongoing maintenance costs of this section of the line.
- The existing historic rolling stock needs sheds and roofing to provide protection and preservation. This has not happened on the existing site because of the lack of permanent tenure, although previously the ARHS has contemplated occupying the freight shed now occupied by Pacific National.
- The ARHS has also considered relocating to underutilised land around the Queanbeyan Railway Station, including the disused fuel depot. However the difficult grades around this site, the short sidings and costly vandalism/security issues have prevented any further consideration of this site as a potential site for the ARHS.
- Other sites considered by ARHS include Harman and Hume (adjacent to Koppers Logs site). Hume has been discounted because of unsuitable slope of the land and steeply cut drains. The cost of works to create usable railway yards would be prohibitive. Harman is constrained because of the need to provide public access to Defence lands.

### 3.3.2 Canberra Society of Model and Experimental Engineers (CSMEE)

#### Interview details

12 July 2007, 6.00pm

#### Summary

CSMEE operates a miniature railway facility from a site within the study area: Block 3 Section 42 Kingston is located off Geijera Place, adjacent to The Causeway housing estate and the ARHS facility.

The CSMEE relocated its operations to Kingston in 1983, originally operating table sized model railways from within full size railway carriages. Later, the current site was secured (area of approximately 2,397m<sup>2</sup>) but relies on use of a ground level track within the ARHS site to provide a running track of approximately 1 kilometre in length for passenger hauling activities. The original intention of co-location with ARHS was that the ARHS activities would attract visitors to the miniature railway. However, on CSMEE running days (one day per month) visitors to this facility have often exceeded 1000. The CSMEE also operates special running days for a range of groups and organisations from Canberra's communities.

Facilities on site are temporary in nature and comprise a metal storage shed; two WWII bicycle storage/shelter facilities that have been recycled as ticketing and waiting areas; a

caravan for a canteen; three shipping containers for storage and maintenance equipment; picnic facilities, and a rank of raised tracks (steaming bays) for servicing, repairing and preparing trains for running.

Although located within close proximity to The Causeway housing estate, there is no particular relationship between the residents of this estate and the CSME facility, in that only one or two residents are currently members of the CSME.

The CSME operates on a cost recovery basis and consequently has been able to offer a service to Canberra's communities at a very cheap rate.

Discussion topics relevant to the study, included:

- Land tenure related to the current occupation and use of facilities at Kingston comprises undocumented permission to use part of the ARHS site and a monthly lease over Block 3 Section 42 Kingston. The monthly lease contains no provision for compensation for improvements. The CSME has attempted, for more than a decade, to secure adequate long term tenure over its Kingston site.
- Minister Corbell wrote to the CSME in March 2007 and advised that a relocation of the Kingston Miniature Railway activities from the current site is likely at some time in the future. The Minister also advised that the necessary planning processes prior to development of the Eastlake area are likely to take a number of years to complete, and that the urban renewal process is expected to occur over the next 30 years.
- Although the preference of the CSME is to remain at its current location in Kingston, if relocated, it would require a site of approximately 3-4 hectares in order to provide appropriate public facilities and a track of sufficient distance/scenic interest to run passenger hauling activities.
- CSME has approached the LDA with a view to obtaining a concessional lease over a new site. However, as a small organisation of approximately 120 members, the miniature rolling stock and engines belong to private individuals and collectively, the organisation is unlikely to have the capital necessary to develop stand alone public amenities and parking. Estimated costs for essential site works is approximately \$450,000.
- Ideally, the CSME should be part of a tourist precinct with shared facilities. The operation of a miniature railway is compatible with areas of urban open space but ground level track needs to be protected from vandalism.

### 3.3.3 William Edmund Pty Ltd

#### Interview details

21 June 2007, 11.30am

#### Summary

William Edmund Pty Ltd is a plumbing and building/site maintenance business that has operated from the Kingston site for 16 years. The business employs eight people. The Manager, Bill Cleary, also holds the position of Manager Train Services and Passenger Fleet Maintenance and provides on site and regional services to RailCorp. These services comprise maintenance of all CountryLink railway facilities (buildings and infrastructure) and back up service to CountryLink trains in the event of breakdown between Canberra, Tarago and Yass. For the latter, Bill Cleary owns and operates two locomotives from the Edmund

siding. Bill Cleary is a registered Department of Transport train driver and also assists the ARHS by driving trains for some of its services.

A private sewage pumping station on the railway land is serviced and maintained by the plumbing business.

Discussion topics relevant to the study, included:

- The business is currently operating from the site without a licence or leasing arrangement in place. Bill Cleary has attended several meetings with ACT Government representatives since 2001 to discuss the Government's plans for future use of the site and surrounding area.
- The building occupied by William Edmund P/L is the first of six buildings planned as part of an inland freight terminal in the 1960s. No other buildings included in the proposal were erected and the building has previously been occupied by a number of storage businesses until becoming derelict for several years before the current occupation.
- The proximity of William Edmund P/L to the ARHS is not critical to either operation, although good for business, but both organisations rely on use of existing sidings and other infrastructure (e.g. cranes), lengths of track for shunting, and close proximity to the operational Canberra-Sydney railway line.
- The current site and adjacent unoccupied railway land is the site of a former landfill and is known to have three types of asbestos deposits: lagging, sheets and tiles.

### **3.3.4 CountryLink**

#### **Interview Details**

24 August 2007

#### **Summary**

CountryLink is a division of RailCorp and is responsible for the operation of country passenger rail services. CountryLink trains operate between Sydney and Melbourne, Brisbane, Canberra, Dubbo, Moree, Armidale and Griffith. CountryLink is also responsible for the provision of bus connections to the passenger trains; these services are normally franchised to local bus operators.

Discussion topics relevant to the study, included:

- CountryLink has no plans to reduce the level of passenger service to Canberra.
- CountryLink is concerned with the isolation of the current Canberra Railway station. The station has no real links with local transport services and taxi services are often unavailable. This is a key issue for passengers arriving at Canberra on CountryLink trains.
- CountryLink would be concerned about any proposals to relocate the station further from the centre of Canberra and correspondingly further from connection with local Canberra transport services. . On this basis, the proposed Fyshwick site would be much less preferred than a site at Kingston.
- At this stage, CountryLink drivers continue to use the barracks located adjacent to the station building. Any change to this arrangement (due to the non-provision of a barracks

building in the new arrangement, for example) would need to be negotiated with CountryLink.

### 3.3.5 Rail Infrastructure Corporation (RIC) operations

#### Interview Details

2 July 2007

#### Summary

RIC was established in 2001 as a statutory State Owned Corporation under the Transport Administration Amendment (Rail Management) Act 2000. Under the Act, RIC's principal objective is to ensure that those parts of the NSW rural network under its responsibility enable safe and reliable passenger and freight services, to be provided in an efficient, effective and financially responsible manner.

Discussion topics relevant to the study, included:

- RIC is not aware of any future plans regarding rail services in and around Canberra. They are unaware if CountryLink plans to alter service, or if PN plan to alter the fuel service (see below).
- RIC is aware that ARHS has indicated that they are investigating running a shuttle to service the defence facility at Bungendore (two trains morning and night).
- There has been discussions of trains transporting gravel from a quarry near Michelago, however, if this eventuates it would connect with the main line at Queanbeyan, and would not rely on facilities in Canberra.
- At times there have been suggestions from some parties that if there was a serious maintenance issue on one of the old structures between Canberra and Queanbeyan, that the Canberra branch line would be closed. This is not the case. RIC has just spent substantial amounts of money upgrading bridges and other structures along the corridor so is unlikely that this maintenance program will cease.
- The discontinuation of the service into Canberra is unlikely to be politically acceptable. Note that this has been done at other line termini – e.g. Boggabilla, Collarenebri, Walgett, etc, however these are all much smaller places than Canberra.
- There are four locations in NSW serviced by fuel trains – Canberra, Tamworth, Wagga Wagga and Dubbo. These services are quite lucrative to PN so is unlikely that these services will cease in the short term.

### 3.3.6 Australian Rail Track Corporation (ARTC) operations

#### Interview Details

2 July 2007

#### Summary

The Australian Rail Track Corporation Ltd (ARTC) was created after the Commonwealth and State Governments agreed in 1997 to the formation of a 'one stop' shop for all operators seeking access to the National interstate rail network.

ARTC currently has responsibility for the management of over 10,000 route kilometres of standard gauge interstate track, in South Australia, Victoria and Western Australia, and New South Wales.

Discussion topics relevant to the study, included:

- ARTC are not aware of any future plans regarding rail services in and around Canberra.
- They have not heard any discussions relating to CountryLink plans to alter their services or PN to alter the fuel service.
- ARTC is aware of the ARHS plans to run a shuttle to service the defence facility at Bungendore. At this point the current infrastructure could handle the additional shuttle service.

## 3.4 Government agencies

### 3.4.1 Government agencies workshop

Workshop details

Friday 22 June 2007, 9:00am

#### Summary

Discussion topics relevant to the study, included:

- Existing rail corridor in the vicinity of Kingston should be retained as a transport corridor, no matter what the future of rail services to Canberra holds.
- The long term importance of the connection of a pattern of development to the Causeway and Hume Circle is reflected in the concept schemes presented. Hume Circle is a logical transport node and the NCA is supportive of the contextual analysis inherent in the draft concepts.
- A transport hub at Hume Circle is likely to generate a social and economic situation that sustains local and regional bus and train services.
- Asbestos deposits within a large part of the railway land (former tip site) will be required to be remediated, regardless of the potential land use suggested for this area.
- The constraints to development in this area are likely to be geotechnical rather than contamination.
- Canberra residents hold strong views about the retention of passenger rail services to the National Capital and the previous proposal by CountryLink to abandon the service met with a public outcry that required political intervention to restore the service, although with a reduced frequency of service.
- The ACT Government (TAMS) has commissioned a traffic impact Assessment for the East Lake redevelopment proposal and this work is being undertaken by ARUP.
- The ACT Government proposes to commission two urban edge studies that are related to the East Lake redevelopment proposals: Hume Circle/Canberra Avenue and the Jerrabomberra Wetlands interface.

- The ACT Government (ACTPLA) is entering into a working partnership with CSIRO to provide advice on ecologically sustainable outcomes for the East Lake area, throughout the life of the project.
- There was general support for the ideas and concepts presented at the workshop.

### 3.4.2 ACT Chief Minister's Department

#### Interview details

22 May 2007, 12pm

#### Summary

The Chief Minister's Department is responsible for the running of strategic transport infrastructure projects for the ACT. Our consultation sought to establish current projects and long term strategic plans that might impact on existing Canberra rail corridor.

Discussion topics relevant to the study, included:

#### Regional rail schemes

- The Chief Minister's Department was involved in the ACT Very Fast Train (VFT) project between Sydney and Melbourne and its later incarnation as Speedrail between Canberra and Sydney. The design of a potential high speed rail link to Sydney has been progressed to a high level of refinement but due to the economic analysis has not progressed any further.
- None of the options designed relied on the use of the current Queanbeyan to Canberra branch line. The branch line is bypassed and becomes irrelevant to high speed projects. Instead a Canberra terminus would be located at the airport.
- Projects mixing passenger trains with approx. 10% freight trains was an option, also the possibility of operating tilting passenger trains. Again neither investment presumed a connection to the existing branch line.
- In the late 1990's Freightcorp were investigating establishing an intermodal freight facility in the ACT. Rail freight has since continued to decline. If the project were resurrected an intermodal site would require:
  - immediate road access to a regional road network
  - large, inexpensive storage space.
- It was agreed that neither would be well satisfied by the current Canberra station location.

#### Local rail schemes

- Monorail and light rail schemes have been investigated by the ACT government over the years. None assumes any interconnection with the existing Canberra branch line, with connections between the airport and Civic being the principal objectives.
- At one time a link between the airport and existing Canberra station was considered to give access from the airport to the city. However expenditure on a more direct link to Civic was felt a better solution if it ever progressed.

### **3.4.3 Department of Transport and Regional Services**

#### **Interview details**

7 June 2007, 2:00pm

#### **Summary**

The AusLink Rail Branch manages the funding and investment programs, administers legislation and the operations of the ARTC. The branch also oversees any nationally important rail issues, including the development of policies and strategies.

Discussion topics relevant to the study, included:

- The current rail corridor is not part of the AusLink National Network and there are no current plans to expand the current AusLink rail network.
- DOTARS agreed that the current operations do not require the amount of land current available and there is scope to rationalise.
- If freight services were to utilise the corridor in the future land does not need to be made available adjacent to passenger services. A freight terminal could be located anywhere along the corridor.
- Given the history of rail services and the central location of railway station at all the other major capital cities it would be undesirable to move the current station further away from central Canberra.

### **3.4.4 Department of Defence**

A letter asking for input and comment was sent to the Director of the Headquarters Joint Operations Command Project on 14 June 2007. A response was received on 16 July 2007 which stated that comment was sought from other authorities within Defence who many have an interested in the subject matter of the study. However, at this stage Defence does not wish to provide any input to the master plan.

### **3.4.5 NSW Premier's Department**

Letter seeking input and comment was sent and no comments were received. After following up the letter with the relevant contact person the Department has advised that they do not wish to provide any comments at this stage.

### **3.4.6 Land Development Agency (LDA) and ACT Treasury**

#### **Interview Details**

25 July 2007, 1.30-2.30pm

#### **Summary**

- LDA is currently funding a \$5.1m access to the Epicentre development at Fyshwick; this development is likely to be a major attraction for residents/visitors.
- Concern about which part of the ACT Government will bear the costs of relocation of existing facilities (if required) and rail infrastructure.



- Associated issues of re-location of 132kv substation and costs.
- Opportunity to investigate air rights development over the Kingston site (but rail infrastructure would still be an encumbrance to development at ground level).
- LDA is keen to see full cost benefit analysis of options.

### 3.4.7 Territory and Municipal Services, Community and Infrastructure Services

#### Interview Details

27 August 2007, 8.30am.

#### Summary

- The ACT Government owns Block 21 Section 10 Fyshwick. This property is currently unleased Territory Land; has an area of 55,827m<sup>2</sup> and development on site comprises ten buildings – an office building, storage sheds and workshops. The office building has a GFA OF 3,600m<sup>2</sup> and is the current location for the following ACT Government Services: the Titles Office, Facilities Management, Parking Inspectors and the Office of Regulatory Services.
- The Property Group has no current plans to dispose of the subject site. If sold at auction, the site is likely to be of interest for Bulky Goods retailing, since it has a significant frontage to Canberra Avenue.
- The opportunity to use the site for a future freight terminal should not be discounted, although access to the Canberra rail corridor is now via privately leased land. A formerly used rail siding is shown on Canberra by Suburbs extending from the rail corridor through Blocks 22 and 23 Section 10 Fyshwick, close to Block 21.
- The existing siding from the railway line is overgrown/disused and the rail track is no longer available (may not exist) beyond the road reserve adjacent to the rail corridor block (Block 5 Section 47 Fyshwick). Private leases are fenced and the undeveloped areas of Block 22 (adjacent to the rail corridor) are being used for outdoor storage (timber) and for the operations of Readymix Concrete.

## 3.5 Other interested parties

### 3.5.1 CSIRO

The ACT Government have just finalised the East Lake development partnership with CSIRO. The project team has sought a time to meet with CSIRO but to date there has been no response received.

### 3.5.2 Geoscience Australia

Letter seeking input and comment was sent and no comments were received. After following up the letter with the relevant contact person the department has advised that they do not wish to provide any comments at this stage.

### 3.5.3 Capital Airport Group (CAG)

#### Interview details

25 June 2007 and 2 July 2007

#### Summary

The Capital Airport Group managed the leased airport land and surround developments.

Discussion topics relevant to the study, included:

- Canberra Airport has recently extended its runway by 450 metres. At this stage the threshold hasn't moved and the glide slope infrastructure is still in the same location. However, CAG is positioning the runway facilities to implement GMS technology in the near future.
- Required Navigation Procedures (RNP) are currently being implemented. This is a new performance based navigation system that modifies current take off and landing procedures.
- The Airport Master Plan continues to recognise and plans to accommodate a route for a Sydney-Canberra-Melbourne Very High Speed Train (VHST).
- Current proposals for a new terminal building will be under construction by 2009 (in its current location) and will provide international gates. By 2011, the Canberra Airport will have a shared international/domestic facility with appropriate nav aids to support regular international flights to Canberra.
- CAG is currently pursuing a freight capability to accept trans-Tasman flights that are increasingly being denied access to Sydney Airport, due to existing curfews and lack of slots (i.e. pre-arranged sequencing to accept flights).
- Sydney airport is currently only able to accept international day freight activities between 5.30am and 10.00pm. After this time, Canberra is increasingly providing a back up service for freight planes that land in Canberra and wait for the next allowable time period to enter Sydney Control Zone. There is current demand for seven freighter bays in Sydney but the capacity is five. Most freight aircraft are 747s and 737s.
- The use of Canberra's rail corridor to haul freight from Canberra to Sydney should remain an option into the foreseeable future.
- The ACT Government's agreed alignment for a VHST is adjacent to the Majura Parkway, with a potential station integrated with the current airport terminal parallel to the east west runway). This location is suitable if the train terminates at the airport.
- If the VHST continues south, the future airport terminal options east of the north-south runway are more suitable. Future master planning for the airport will continue to address this long term proposal.
- The extension of the existing rail corridor to the airport is unlikely to be economically feasible – a regular bus service to the railway station and Civic, is considered more appropriate for local services/connections.

### 3.5.4 NSW Independent Transport and Reliability Regulator

Letter seeking input and comment was sent and no comments were received. After following up the letter with the relevant contact person the department has advised that they do not wish to provide any comments at this stage.

## 3.6 Summary of consultation

Consultation undertaken for the study included meetings with key stakeholders, a joint government agency meeting and an on-board passenger survey on the Canberra Xplorer train service.

Stakeholders consulted in face-to-face meetings included:

- ARHS
- Canberra Society of Model and Experimental Engineers (CSMEE)
- William Edmund Pty Ltd
- CountryLink
- Rail Infrastructure Corporation (RIC)
- Australian Rail Track Corporation (ARTC)
- ACT Chief Minister's Department
- Commonwealth Department of Transport and Regional Services (DOTARS)
- Commonwealth Department of Defence
- NSW Premier's Department
- Land Development Agency (LDA)
- ACT Treasury
- ACT Territory and Municipal Services
- Capital Airport Group

Agencies represented at the joint government agency meeting included:

- ACTPLA
- ACT Chief Minister's Department
- Territory and Municipal Services
- Environment ACT
- National Capital Authority

The table below provides a brief summary of the key stakeholder issues. Further detail on the outcomes of the stakeholder consultation process is provided at Appendix F.

**Table 3-1 Summary of consultation**

Stakeholder	Issues raised
Australian Railway Historical Society (ARHS)	<ul style="list-style-type: none"> <li>ARHS is an accredited rail operator with professional train drivers</li> <li>Flat land is the basic requirement for a railway museum and for the operation of rolling stock</li> <li>Difficult grades at Queanbeyan and Michelago have discounted these sites as realistic options for relocation</li> <li>ARHS wishes to invest in buildings to house historic items at a permanent location</li> <li>Existing site tenure (expired licence) precludes further investment</li> </ul>
Canberra Society of Model and Experimental Engineers (CSMEE)	<ul style="list-style-type: none"> <li>Miniature railway is operated on Block 3 Section 42 Kingston and relies on use of 1km length of track within ARHS site for passenger hauling activities</li> <li>Monthly lease</li> <li>Pursuing alternative site options with LDA</li> <li>Preference for park/open space setting but security for track is essential</li> <li>Existing site tenure has prevented expenditure on permanent facilities</li> <li>Joint venture with compatible facilities (e.g. tourist/cultural) is the best option for future miniature railway</li> </ul>
CountryLink	<ul style="list-style-type: none"> <li>CountryLink intends to maintain existing passenger rail services to Canberra</li> <li>The location of the Canberra railway station needs good connections to other transport services (coach, bus, taxis) and to the city centre</li> <li>Accommodation for train drivers is still in use at Kingston, but needs upgrading</li> </ul>
Rail Infrastructure Corporation (RIC)	<ul style="list-style-type: none"> <li>RIC is responsible for the safe and reliable operation of passenger and freight services on parts of NSW rural rail network</li> <li>RIC has recently spent substantial amounts of money on upgrading the Sydney-Canberra rail corridor infrastructure</li> <li>RIC believes Pacific National will continue to operate fuel delivery service to Canberra for the foreseeable future</li> </ul>

Australian Rail Track Corporation (ARTC)	<ul style="list-style-type: none"> <li>ARTC provides a 'one stop shop' for rail operators seeking access to the National interstate rail network</li> <li>ARTC is responsible for the management of standard gauge interstate track in SA, Vic, WA &amp; NSW</li> <li>ARTC is not aware of future plans/changes to rail services to Canberra or in the surrounding region</li> </ul>
ACT Government agencies (workshop: 22.06.07)	<ul style="list-style-type: none"> <li>Existing rail corridor should be retained as a transport corridor, whether for rail or other services</li> <li>Support a transport hub in the vicinity of Hume Circle</li> <li>Canberra residents strongly support the retention of passenger rail services to the National Capital</li> <li>The East Lake Urban Renewal Project is complimentary to the ACT Railway Master Plan concepts</li> <li>There is general support for the options presented for the redevelopment of underutilised railway land</li> </ul>
ACT Chief Minister's Department	<ul style="list-style-type: none"> <li>Previous investigations for a high speed rail link between Canberra and Sydney did not rely on the existing branch line or the Canberra railway station</li> <li>An intermodal site for rail freight, if future demand increases viability, would require immediate access to the regional road network; and large, inexpensive storage space.</li> </ul>
Department of Transport and Regional Services	<ul style="list-style-type: none"> <li>The Canberra-Sydney rail corridor is not part of the AusLink National Network</li> <li>A future freight terminal could be located anywhere along the corridor (no need to be adjacent to passenger services)</li> <li>It would be undesirable for the Canberra railway station to be moved further away from the city centre</li> </ul>
Land Development Agency	<ul style="list-style-type: none"> <li>LDA is currently funding vehicular access to the Epicentre site at Fyshwick, close to the Fyshwick site option</li> <li>The Kingston site proposed for an integrated railway station and mixed use development offers air rights opportunities</li> <li>LDA is concerned about relocation costs associated with a relocated railway station; a full cost benefit analysis of options may be required.</li> </ul>
Territory and Municipal Services	<ul style="list-style-type: none"> <li>The ACT Government owns Block 21 Section 10 Fyshwick adjacent to the rail corridor. The opportunity to use this site for a future rail freight terminal should not be discounted, although access to the rail corridor is now via privately leased land in the vicinity of this site</li> </ul>

	<ul style="list-style-type: none"> <li>▪ An existing railway siding in this location is no longer in use; rail track not evident</li> </ul>
Capital Airport Group	<ul style="list-style-type: none"> <li>▪ The Airport Master Plan continues to recognise and accommodate a route for a Sydney-Canberra-Melbourne very high speed train</li> <li>▪ The extension of the existing rail corridor to the airport is unlikely to be economically feasible; a regular bus service between the airport, railway station and city centre is considered more appropriate</li> <li>▪ The use of Canberra's rail corridor to haul freight from Canberra to Sydney should remain an option into the foreseeable future.</li> </ul>

## 4. Strategic rail demand assessment

The current ACT rail corridor extends from Queanbeyan into the ACT, through Fyshwick to the rail yards at Kingston connecting Canberra to Goulburn and Sydney.

### 4.1 Current rail services

Rail services from Sydney to the Canberra region extend from a main line south-west from Sydney through to Goulburn. The distance from Canberra to the junction of the main south line at Goulburn (Joppa Junction) is 98 kilometres. Canberra is 330 kilometres from Sydney by rail. At Goulburn the main line continues west to Yass before turning south to Melbourne. The Bombala line extends from Goulburn to stations at Tarago, Bungendore and Queanbeyan then services continue on the Canberra branch line through to Canberra Railway Station at Kingston. The Bombala line continues from Queanbeyan along the ACT/NSW border to Hume and further south to Michelago, Cooma and Bombala, but is in various stages of repair and not used for regular services.

### 4.2 Passenger services

Canberra railway station at Kingston was opened in 1924. It is at the termination of the Canberra branch line. Sidings which previously extended beyond Kingston towards the city now terminate adjacent to the station site.

The Canberra branch is 8 kilometres long and connects to the Bombala branch at Queanbeyan. From Queanbeyan it is a further 90 kilometres to the connection with the Sydney – Melbourne main line at Joppa Junction near Goulburn.

Two daily Xplorer services to Canberra and two to Sydney are operated by CountryLink. Below is the current timetable for winter 2007 from the website [www.countrylink.com.au](http://www.countrylink.com.au). Total journey time in either direction is 4 hours and 20 minutes.

**Table 4-1 Train Timetables**

Sydney to Canberra direct			
	Sydney to Canberra XPL Mon to Sat	Sydney to Canberra XPL Tue, Thu, Sat, Sun	Sydney to Canberra XPL Mon, Wed, Fri, Sun
Central (Sydney) dep	06:58	12:10	18:15
Strathfield	u 07:10	u 12:22	u 18:26
Campbelltown	u 07:48	u 12:56	u 18:57
Mittagong	a 08:44	a 13:51	a 19:53
Bowral	a 08:49	a 13:56	a 19:57
Moss Vale	08:55	14:03	20:04
Bundanoon	a 09:08	a 14:16	a 20:17
Goulburn	09:45	14:53	20:54

Tarago	10:13	15:21	21:23
Bungendore	10:41	15:49	21:51
Queanbeyan	11:11	16:19	22:21
Canberra Station arr	11:21	16:29	22:31

#### Canberra to Sydney direct

	Canberra to Sydney XPL Mon-Sat	Canberra to Sydney XPL Mon,Wed,Fr i	Canberra to Sydney XPL Sunday	Canberra to Sydney XPL Tue,Thu,Sat,Sun
Canberra dep	06:37	12.05	11.55	17.05
Queanbeyan	06:45	12.13	12.03	17.13
Bungendore	07:14	12.44	12.34	17.44
Tarago	07:41	13.11	13.01	18.10
Goulburn	08:10	13.40	13.40	18.40
Bundanoon	a 08:49	a 14.19	a 14.19	a 19.20
Moss Vale	09:02	14.32	14.32	19.32
Bowral	a 09:09	a 14.39	a 14.39	a 19.40
Mittagong	a 09:13	a 14.43	a 14.43	a 19.44
Campbelltown	d 10:08	d 15.39	d 15.39	d 20.40
Strathfield	d 10:42	d 16.10	d 16.10	d 21.11
Central (Sydney) arr	10:55	16.24	16.24	21.25

There are no intermediate stops on the Canberra to Queanbeyan branch. A previous station at Molonglo and a connecting branch to Canberra's Civic Centre, have been closed for many years.

No direct train service operates between Canberra and Melbourne. Connections to the Melbourne train are by coach via Cootamundra and the entire journey takes over 9 hours (6 hours by train, 3 hours by coach).

One service operates in each direction daily.

- departing Southern Cross, Melbourne, at 08.30 and arriving in Canberra at 17.40
- departing Canberra at 09.32 and arriving Southern Cross, Melbourne, 18.55

These Sydney and Melbourne services have been operating for a number of years and it is understood that there is no intention to alter the timetable either by increasing train frequency, or reducing travel time.

There are vending machines but no catering at Canberra station. A buffet service is available within the first class carriage on CountryLink's Xplorer train.



The following infrastructure exists in order to operate the passenger services:

- a large station building and several ancillary structures contain the passenger and staff facilities
- there is a single platform
- substantial free car parking exists adjacent to the station building
- to operate the early morning train from Canberra to Sydney, the service from the previous night is stabled at Canberra. A secure compound was constructed in 2003 to prevent problems with graffiti and vandalism to the trains
- a re-fuelling facility opposite the station is used by to refuel the trains that stay overnight
- a barracks building to house the overnight train crew exists just to the south of the station. The building is no longer in use, with train crews being billeted in local hotel accommodation. The barracks building is however regularly maintained by.

## 4.3 Freight services

One freight service is currently operating to the ACT. Pacific National operates a fuel train to the shell siding at Fyshwick, generally three times a week but in peak times, four times a week. The main freight service on the Sydney-Canberra line is from Sydney to the Woodlawn Waste Management Facility at Tarago, which operates five days a week and deposits rubbish into the former Woodlawn Mine as landfill.

### 4.3.1 Potential intermodal terminal

A significant quantity of freight is transported to the ACT in containers using road transport. An alternative would be to establish an intermodal facility to reduce the need for long haul road transport.

Ideally, such a facility would be located adjacent to the rail corridor and 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 operating to service regional populations with the majority of these terminals handling containerised consumer goods. If current freight projections are accurate Canberra could potentially sustain a freight terminal similar to that currently operating at Belfield, in Sydney.

Sadleirs Transport Co Pty Ltd's Belfield facility is located approximately within 15 km of Port Botany and the Sydney CBD. The facility is situated on a 20,000 m<sup>2</sup> site, of which 10,500 m<sup>2</sup> is paved hardstand. Total annual throughput by rail was in the order of 10,000 TEU during the last financial year. The maximum train length that can be accommodated at this facility is 260 m with an average of 4.5 trains per week using the facility. Its operating hours are from 0530–1930 Monday to Friday and on occasion 0700–1700 Saturday. It acts as a distribution centre with no warehousing or other supply chain management facilities.

## 4.4 Kingston rail yards

The rail corridor within the ACT extends west from Queanbeyan, through Fyshwick and terminates at the rail yards at Kingston. Within Fyshwick there are two tracks parallel to the

main line that service sidings in blocks adjacent to the rail corridor. The northern track is unused and most of the sidings on adjacent blocks have been removed. The southern track is used only by the Pacific National fuel trains to the Shell siding.

The site is poorly utilised because of the spread of railway lines in the corridor dating back to the original uses. From the early 1920s the corridor supported the operation of a Power Station and provided access to Government Printers, The Main Roads Board, dairy farmers and passenger services. All services were steam hauled at the time and the shape and location of the facilities reflects the layout of the rail yards today. The current arrangements are an inefficient use of space, catering for significant yard workings associated with the previous industrial sidings and the use of steel locomotives that ceased operation in the 1960s. For those reasons there is more space than is required to provide the services that currently serve the ACT.

The Canberra Railway Station is located at the western end of the rail yards and accessed off Wentworth Avenue. The station first opened in 1924 and the original station building was replaced in the 1960s. The track configurations and surrounding land uses can be seen in Figure 4-1.

The operations of CountryLink are confined to the main track and the platform, storage and fuelling facility and secure area used store trains overnight.

Sidings in the yard are used by the fuel freight train to release the locomotive from the front of the train to allow it to connect to the other end. This positions the train to place the tankers into the Shell siding and then enables the shunting locomotive to depart with the empty tankers. The sidings are also used to stable the locomotive. There is the potential to improve these operations by recommissioning existing facing points of the rail corridor that would allow fuel trains to access the Shell siding without accessing the existing yard.

The disused freight handling facility (Trackfast) is also located on the site. It includes a car park, platform and siding. There are also larger open areas of the site that are vacant and under utilised, including a large area in the north east of the rail yards.

The ARHS operation is located in the north of the yard and has about 100 vehicles on site, including current operating trains and future restoration projects. Sidings connect the ARHS site to the passenger platform. Located next to the ARHS site is the Kingston Miniature Railway. This site offers miniature train rides, displays and opportunities for enthusiasts to meet and operate their own trains.

A private siding and building (the Edmunds siding) at the north on the rail yards contains a number of privately owned locomotives and carriages in various stages of restoration. The building is currently used as an office for a local plumbing business.

A number of rail worker's cottages exist within the study boundaries. These six dwellings are known as Coinda Court and are no longer required for their original purpose. The dwellings are ACT Government owned and managed by ACT Property.



**Figure 4-1 Surrounding land uses**

## 4.5 Future high speed rail

A long term prospect for rail connections from Canberra to Sydney and Melbourne is for high-speed rail connecting to Canberra Airport. The Airport master plan 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.

Possible rail alignments to the airport include a rail corridor connecting to the western side of the airport precinct for passenger, freight or both service types. All alignments identify a need for the service to connect from Sydney with a continuation, as a through run or future extension to Melbourne.

Although outside the scope of this study, the potential to create a major transport hub at the airport has been considered in developing the concepts contained within this master plan.

## 4.6 Future use of the corridor

The provision of rail services to the ACT has been subject to various studies and demand analysis over the past 15 years. The most notable study involved the evaluation of a high speed train between Sydney and Melbourne with the scope reduced at one stage to Sydney to Canberra.

This study identified that a completely new railway corridor would be required and if this railway was to be developed it would be highly unlikely that the current commitment to the existing service could be sustained.

If the corridor was to be replaced this will impact on the future use of the corridor for freight trains to the ACT and region. However, in the near future no current operators have indicated the intention to use the corridor for additional freight movements.

## 5. Identified on site rail facilities

### 5.1 Spatial considerations

#### 5.1.1 Canberra Station

##### Tracks

There are currently four tracks in the vicinity of the Canberra station, as follows:

- Platform – The main branch line forms the platform track. The platform is on a straight. The platform track terminates in a short headshunt within the secure compound that would allow locomotives to run-round on the loop track.
- Loop – Creates a run-round loop adjacent to the platform track and connected to it at each end. A short headshunt exists in the security compound suitable for stabling locomotives or on-track machines. The loop continues east connecting to Canberra yard via the shunting neck.
- No.1 Goods – Used as the refuelling track and extends into the security compound for stabling Xplorer trains overnight. This track connects to the loop line at the east end of the station.
- No.2 Goods – abandoned.

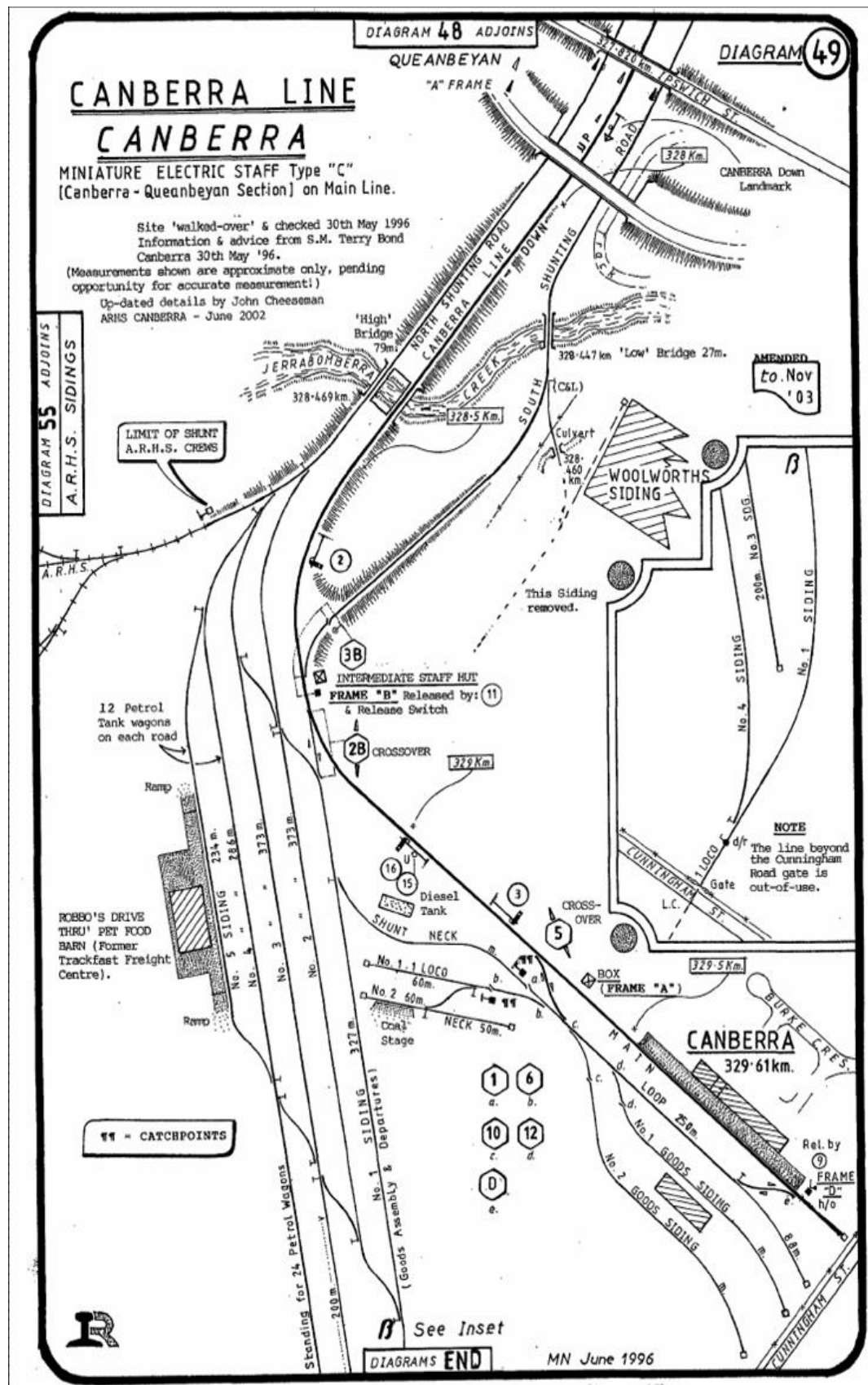
##### Total requirements

The area currently bounded by security fencing provides ample track for the current passenger usage. The station and outbuildings appear substantial for the passenger throughput and the existing car park is more than sufficient.

To rationalise or potentially relocate the station, consultation with CountryLink would be essential to understand their operational requirements.

- Possible rationalisation would require as a minimum:
- Connection to the Sydney/Melbourne main line
- Station building and passenger facilities (ticketing, passenger lounge, baggage handling, travel centre, administration office)
- Car parking, coach parking, bus stops, taxi rank
- Single platform with platform track
- Adjacent loop track with connections at either end
- Secure stabling

Re-fuelling could potentially be achieved off-site, or included within the secure compound negating the need for the third track.



**Figure 5-1      Canberra Station Sidings**

### **5.1.2 Shell Fuel Depot, Fyshwick**

Pacific National operates a fuel train into the Shell sidings at Fyshwick three times a week and in periods of peak demand four times a week.

The south shunt road – forms a loop off the main line connecting at Frame A at approximately 326.000 km in the east and Frame B at approximately 328.900 km in the west.

Historically five sidings serving individual companies also connected to the north shunting road. All but one of these sidings is now redundant.

The remaining operation serves the Shell fuel depot. Arriving Shell trains proceed west of the Shell sidings on the main line. They cannot directly enter/exit the north shunt road from the east because the historic connection at that end has been removed. Marshalling is therefore required in Canberra yard.

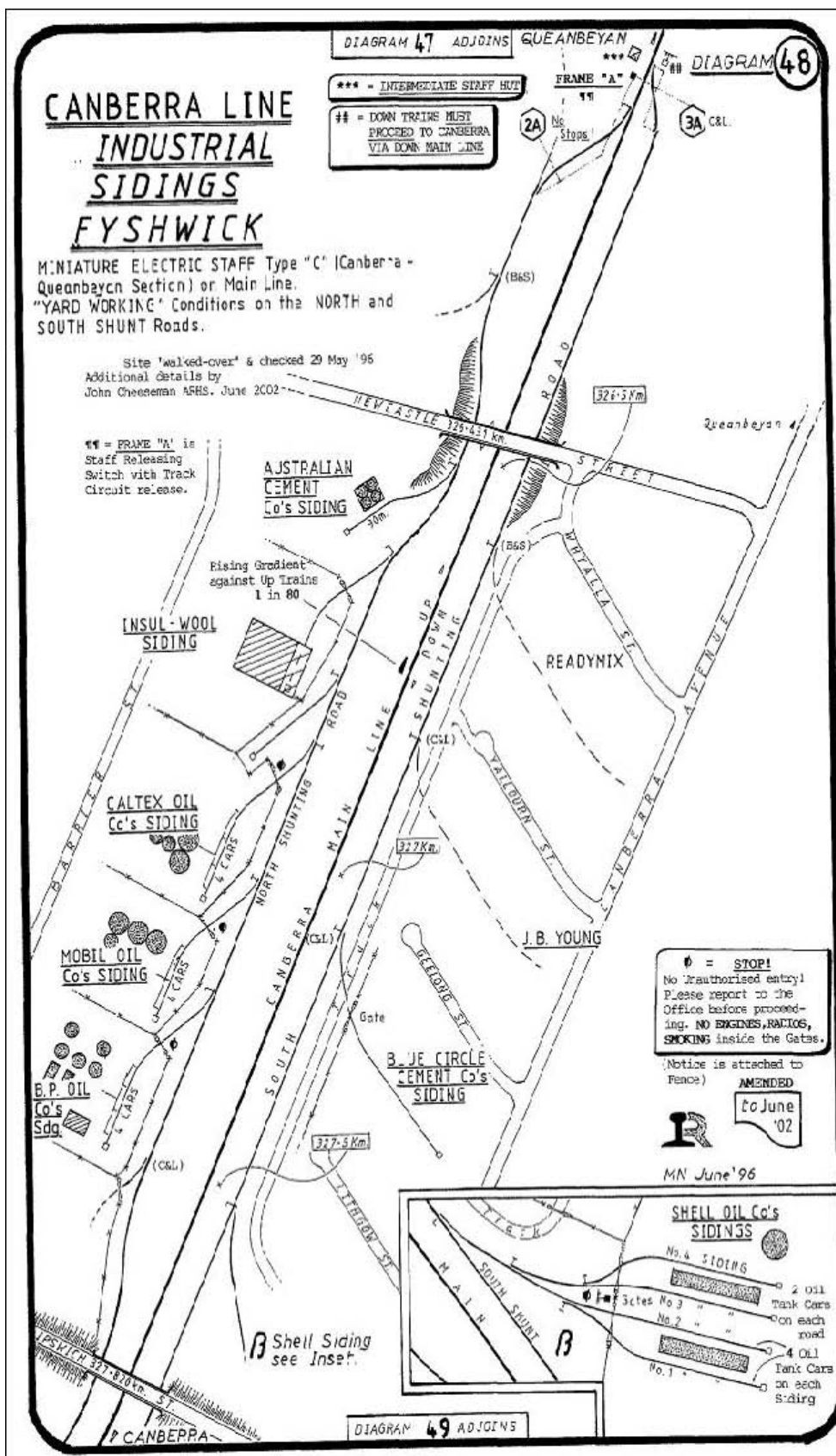
#### **Total requirements**

Current requirements for the operation of the fuel train are:

- access to the main line from the south shunt road
- the south shunt road is required to connect to the Shell sidings
- Canberra yard is required for marshalling the Shell train
- the Shell sidings consist of 4 No. short siding lengths.

Reinstatement of the east end connection to the South shunt road would allow the Shell train to directly access the south shunt siding and use the main line to run the locomotives round. Canberra Yard would not be required by the Shell operation. An additional crossover in the vicinity of Newcastle Street would reduce the required length of the south shunt road required.





**Figure 5-2 Fyshwick Sidings**



### 5.1.3 Canberra Yard

Up until the early 1990's the corridor supported the operation of a Power Station and provided access to Government Printers, the Main Roads Board, dairy farmers and passenger services. All services were originally steam hauled and the shape and space available and the location of the facilities to be serviced by rail determined the layout that is in place today.

The Shunting Neck – connects to locomotive sidings, which appear to have been removed and the platform loop. Current train operational instructions dictate that the shunting tracks must not in normal circumstances be used to access the platform track. Therefore this connection is unlikely to be used.

The No.1 and No.2 locomotive sidings appear to have been removed. The No.1 to No.5 sidings – No.1 siding connects to the main line. The Shell train marshals in these sidings, where the locomotives are able to run-round to the front of the Shell train and haul it into the south shunt road. Redundant tankers are currently stored on the site. There is a connection off the north shunting road to the ARHS site.

#### Total requirements

Current requirements are:

- To accommodate the Shell marshalling operation.
- To provide a single track connection off the north shunt road to the ARHS and William Edmund sites and allow shunting movements between this connection and the main line.

With the passenger operation confined to the station area and the Shell operations potentially confined to the South shunting road, all of the tracks in the yard become redundant except for the connection to the ARHS site.

To avoid the current complicated shunting movements required for ARHS trains to move between their site and the main line, a direct connection could be provided. The Canberra yard would then become redundant and the north shunt road could be significantly shortened.

### 5.1.4 ARHS site

The ARHS occupies a 4.3 hectare site north west of the Canberra Station.

The north shunting road – forms the connection to the ARHS site and Edmunds sidings. Historically seven sidings serving individual companies also connected to the north shunting road. All of these sidings are now redundant. Stop blocks form the eastern termination of the line near Newcastle Street. Therefore access to the ARHS sidings is via complicated shunting movements within Canberra yard.

Other operations are complicated by the lack of direct access to this site. Modifications would be possible to simplify these moves and free up more of the yard for development

A new connection from the ARHS facility to the main line at any point along the north shunting road would make the remaining length redundant.

### **Total requirements**

The exact extent of track within the site is not known. Nor is the extent of track actually required by the ARHS. It is likely the ARHS has grown to fill the space available and therefore some rationalisation of the sidings would be possible and even advantageous to the society.

Canberra station is a focal point for the collection of passengers. Volunteers who staff the society would be potentially disadvantaged if an alternative site was too far from Canberra.

The minimum requirements for the ARHS are therefore:

- A connection to the main line and subsequent link to the Bombala branch at Queanbeyan.
- Suitable siding space for storage and display
- Suitable undercover space for operations and minor maintenance
- A location near their volunteer base of Canberra.

#### **5.1.5 William Edmund sidings**

The existing site contains two sidings fully occupied by rolling stock owned by the company. Mutual benefits arise from being adjacent to the ARHS, who engage the plumbing and rolling stock maintenance services of the company. However the businesses do not need to be on adjacent sites.

### **Total requirements**

The lengths of track in use and required, as with the ARHS, are unknown. A main line connection is a minimum requirement to continue the rolling stock side of the business.

#### **5.1.6 Miniature railway**

Despite requiring only a small site for its main operations, the CSME currently uses an additional area of land within the ARHS site to add 500 metres to its train run. None of the miniature railway operational area requires access to the main railway line, since the operation of model trains is conducted on separate narrow gauge railway tracks. The Canberra Railway Operations Study (Indec, May 2006) notes that all the equipment, apart from the track and associated signalling, is easily relocatable.

#### **5.1.7 Summary of spatial requirements and user needs**

In order to develop the final master plan a needs analysis has been undertaken to determine the facilities and space required for all existing users. The comprehensive space and facility allocations are attached at Appendix G.

## **5.2 Rail operations**

Operators using the Canberra branch and associated sidings will be operating under a rail access agreement authorised by the ARTC. To obtain this access agreement operating criteria of safety and organisational procedure will need to have been followed and

evidenced. Qualified drivers are required for operating any train. Drivers are qualified for certain trains and also for certain routes.

Any movements on the Canberra branch line will ultimately require authority from the signaller. The signaller in charge of the Canberra branch is located at ARTC Network Control based in Junee. The limits of the signaller's authority are defined by signals and yard limit boards. These limits extend through the tracks at Canberra Station and therefore all trains in the platform area are controlled by the signaller.

Once in the siding areas beyond the control of the signaller, such as the ARHS site or the Shell sidings, the trains are under local control. That is a yard controller employed by each facility will be able to move trains around as required as long as they do not exit the site onto the section controlled by Junee.

Only one train can occupy a particular section of track at a time. Safe systems are in place to ensure that other trains cannot enter until the occupying train is clear. This system is managed by the Signaller at their discretion. To manage the overall situation a Standard Working Time Table (SWTT) is produced by ARTC in consultation with the Strategic Rail Authority (SRA). Trains are pre-booked into the SWTT and the signaller will prioritise and cater for these accordingly. The operator's requirements can be varied through a system to update the Daily Train Plan. Applications for train access are submitted to ARTC and coordinated by ARTC and SRA Train Planning according to laid down procedures and criteria. ARTC priority is usually for passenger services.

Blockages of the track for maintenance are organised in much the same way as the trains. A period is pre-booked for each required blockage. If a blockage is required but has not been pre-booked it can be authorised by the signaller between trains.

## 6. Site evaluation and options development

This chapter provides an analysis of the sites considered for the railway precinct, a description of design options developed and an analysis of the options leading to the selection of the preferred option for the railway precinct.

Initially three sites were considered:

- Kingston site (refer to Figure 1-2)
- Fyshwick site (refer to Figure 1-3)
- Queanbeyan Railway Station

A discussion of constraints and opportunities relating to these three sites is discussed below.

### 6.1 Kingston site analysis

#### 6.1.1 Opportunities and constraints

A site inspection and land use analysis has been undertaken to determine the opportunities and constraints. The opportunities and constraints are summarised in the following tables, and have been used to inform the preparation of the development options.

**Table 6-1 Kingston site opportunities and constraints**

Opportunities	Constraints
<ul style="list-style-type: none"> <li>▪ Large relatively flat site of underutilised land</li> <li>▪ Existing passenger rail services operated by CountryLink only require a small area for trains, overnight storage and refuelling facilities, providing the opportunity to propose other land uses for underutilised or vacant land</li> <li>▪ Accommodation for train drivers could be replaced on site in a modern facility integrated with other land uses.</li> <li>▪ Create a new and improved sense of arrival in the National Capital for train travellers</li> <li>▪ Create new mixed use development opportunities on the surplus rail land</li> <li>▪ Improve access, address and connections to the causeway development</li> <li>▪ More appropriate use of “brown field sites” – prime inner urban location adjacent to the Kingston Foreshore project</li> <li>▪ Opportunity for new site development and provision of a road pattern that responds to the Griffin Legacy framework.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Large contaminated railway site</li> <li>▪ No connectivity between Kingston Foreshore and Fyshwick (Majura Precinct)</li> <li>▪ Railway station remote from amenities, shops and accommodation</li> <li>▪ Existing station is a poor entrance to the National Capital for rail passengers</li> <li>▪ Existing parklands and open space under utilised</li> <li>▪ Existing railway layout is a barrier to East Lake development precinct</li> <li>▪ Further investigation is needed to determine the full extent of site contamination</li> <li>▪ Potential environmental amenity issues associated with the retention of the railway precinct in a future medium density residential area.</li> </ul>

## 6.2 Fyshwick site analysis

### 6.2.1 Opportunities and constraints

**Table 6-2 Fyshwick site opportunities and constraints**

Opportunities	Constraints
<ul style="list-style-type: none"> <li>Greenfield site with no known environmental issues</li> <li>Existing passenger rail services operated by CountryLink could be rationalised and accommodated on this smaller site. This provides the opportunity to propose other land uses for the vacant land at Kingston</li> <li>The new station and facilities could be linked to the retail development within the nearby EpiCentre development</li> <li>Surrounding industrial/commercial land uses are less sensitive</li> <li>Create a new and improved sense of arrival in the National Capital for train travellers</li> <li>Improve public transport services between Fyshwick, the city centre, major tourist and urban areas</li> </ul>	<ul style="list-style-type: none"> <li>No connectivity to the city centre, major residential or tourist precincts.</li> <li>The site has poor access and will not present to major roads or create an tourist and transport hub for Canberra and the region</li> <li>Railway station remote from amenities, shops and accommodation</li> <li>At present the public transport services to Fyshwick are poor</li> <li>Poor entrance to the National Capital for rail passengers</li> <li>Due to the site size it will be very difficult to co locate the station with the ARHS</li> </ul>

## 6.3 Queanbeyan site analysis

During the course of this study the Queanbeyan Station and surrounding railway land was identified as a potential site for relocating all or part of the Canberra rail precinct facilities.



**Figure 6-1 Queanbeyan Site**

The station is located immediately adjacent to the NSW/ACT border (on the NSW side). Public access is via Henderson Road and the station layout is typical of most country NSW stations and provides extensive car parking and bus spaces. The historic station is used to sell CountryLink tickets and is operated by the ARHS under contract to RailCorp.

The Queanbeyan yard was once a significant operational centre being a junction station but is now only used as a passenger station for the Sydney–Canberra service. The railway yard includes an operational turntable and, with little effort, the yard could be re commissioned and support all the existing functions of the Canberra Division of the ARHS.

The existing railway station at Queanbeyan with some minor renovations and equipment upgrading could be suitable for the operations of CountryLink services. However at present the Queanbeyan Station does not have refuelling facilities.

Access would be possible through the existing station access or from the ACT side of the railway.

### 6.3.1 Opportunities and constraints

**Table 6-3 Queanbeyan site opportunities and constraints**

Opportunities	Constraints
<ul style="list-style-type: none"> <li>▪ A flat relatively unconstrained site</li> <li>▪ Existing rail facilities in relatively good condition</li> <li>▪ Good site access</li> <li>▪ Services could operate out of existing station building</li> <li>▪ Land available on both sides of the rail lines</li> </ul>	<ul style="list-style-type: none"> <li>▪ No connectivity between the city centre, Queanbeyan CBD major residential and tourist precincts of the national capital.</li> <li>▪ The site does not present to major roads or create an tourist and transport hub for Canberra and region</li> <li>▪ Railway station remote from amenities, shops and accommodation</li> <li>▪ At present the public transport services linking Queanbeyan to Canberra City and the major employment and tourist areas</li> <li>▪ Poor entrance to the National Capital for rail passengers</li> <li>▪ Due to the site size it will be very difficult to co locate the station with the ARHS and the impacts on the adjoining established residential areas will need to be considered</li> <li>▪ Likely contamination issues from rail and fuel storage</li> </ul>

## 6.4 Site evaluation

After considering the opportunities and constraints of the Kingston, Fyshwick and Queanbeyan sites an evaluation process was undertaken. A summary of the process is provided in Table 6-4.

The site evaluation process considered the suitability of the site to accommodate all required facilities. This process does not reflect the ability of each site to accommodate some of the requirements (split facilities options).

Due to the ACT Government's preference that a train service continues to the National Capital, the Queanbeyan site has not been considered as an appropriate option for the relocation of the Canberra station and associated uses.

Although it would be feasible to relocate the ARHS facilities to this site, the Kingston and Fyshwick sites are considered preferable to provide consolidation of rail facilities and also in response to the needs identified by the ARHS.

Therefore, the Kingston and Fyshwick sites have been considered in developing conceptual design options for the rail precinct.

**Table 6-4 Summary of site evaluation**  
**Assessment Criteria for Site Selection – ACT Railway Master Plan**

<b>Assessment Criteria</b>	<b>Assessment of Kingston Site</b>	<b>Assessment of Fyshwick Site</b>	<b>Assessment of Queanbeyan Site</b>
<ul style="list-style-type: none"> <li>Meet the needs of all current users</li> <li>Ability of existing users to continue to co-locate</li> <li>Opportunity to share infrastructure between more than one user group</li> <li>Ease of access to the station via private and public transport</li> <li>Provide sufficient long stay parking for train travellers</li> </ul>	<ul style="list-style-type: none"> <li>Large site with potential for a range of synergistic land uses</li> <li>Existing rail facilities could be consolidated and shared by at least current</li> <li>Public transport exists and could be improved</li> <li>Sufficient land area to provide short or long stay parking staged with progressive development</li> </ul>	<ul style="list-style-type: none"> <li>Site are would be constrained for use other than railway station</li> <li>Not a site considered to be useful to ARHS; Difficult locality for visitors to model trains.</li> <li>Gradient + access are difficult</li> <li>All users could not co-locate</li> <li>Little room for car parking onsite.</li> </ul>	<ul style="list-style-type: none"> <li>Cross border / jurisdictional issues with provision of public transport</li> <li>Grade is unsuitable for activities of ARHS ;</li> <li>Insufficient flat land for CSME</li> <li>Area available for long/short stay parking is small</li> <li>Station served by regional bus service.</li> </ul>
<ul style="list-style-type: none"> <li>Improve accessibility to local centres, employment and tourist locations</li> <li>Ability to link the station with other modes of transport and to the City Centre and major employment and tourist areas.</li> <li>Ability to complement surrounding land uses</li> </ul>	<ul style="list-style-type: none"> <li>Close to emerging tourist / cultural/ recreational area of Kingston Foreshore and Jerrabomberra Wetlands.</li> <li>Address to Wentworth Ave and opportunity for light rail connection to City in future</li> <li>Close to major employment centres of Parkes and Barton</li> <li>Railway maintenance activities not compatible with Residential, but ok with Commercial.</li> </ul>	<ul style="list-style-type: none"> <li>Fyshwick is a major employment centre Mon – Fri and retail centre on Sat and Sun</li> <li>Not a tourist centre</li> <li>Railway station and maintenance are compatible with industrial precinct.</li> <li>Adjacent CPI Centre is unlikely to attract shoppers on trains.</li> </ul>	<ul style="list-style-type: none"> <li>Close relationship to Queanbeyan CBD</li> <li>Some land could be made available for compatible land uses</li> <li>Surrounding land uses are predominantly residential.</li> </ul>
<ul style="list-style-type: none"> <li>Support regional and local development</li> <li>Ability to promote/generate commercial uses/activities at a local and/or regional level</li> </ul>	<ul style="list-style-type: none"> <li>Large site with potential to accommodate a wide range of commercial / tourist / recreational uses.</li> </ul>	<ul style="list-style-type: none"> <li>Very little land available land for an integrated development that includes other land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Larger site area and more opportunities than Fyshwick site, but still a constrained site.</li> </ul>
<ul style="list-style-type: none"> <li>Ability to manage current and potential future environmental impacts</li> <li>ability to minimise impacts in relation to noise, visual and air quality</li> <li>manage land contamination/remediation costs</li> <li>ability to achieve sustainable outcomes, including mix of land uses/TOD potential</li> </ul>	<ul style="list-style-type: none"> <li>Noise impacts arising from railway use can be ameliorated by design of new buildings and separation of residential uses (closer to lake)</li> <li>Railway use contamination is likely within corridor</li> <li>Old land fill site requires remediation.</li> </ul>	<ul style="list-style-type: none"> <li>Noise impacts unlikely to be significant is an industrial precinct</li> <li>Land contamination expected to be similar to rail corridor.</li> </ul>	<ul style="list-style-type: none"> <li>An existing railway station with surrounding residential development</li> <li>Old fuel depot will require remediation; contamination is unknown.</li> </ul>
<ul style="list-style-type: none"> <li>Ability to generate revenue for the ACT Government</li> <li>Revenue earning vs relocation and construction cost</li> <li>The impact on existing users, operators and facilities</li> <li>Ability to minimise property acquisition and displacement impacts</li> </ul>	<ul style="list-style-type: none"> <li>Large revenue bases from relocation of railway platform and suggested subdivision in to two development parcels with extensive road frontages</li> <li>Remediation costs for old land landfill site likely to be considerable</li> <li>Unleased territory land</li> <li>All existing users could be accommodated within close proximity to new station.</li> </ul>	<ul style="list-style-type: none"> <li>Site area is smaller than Kingston and Queanbeyan</li> <li>This site option would allow Kingston site to be fully developed for non railway land uses</li> <li>Access and regrading cost likely to be significant</li> <li>Relocation costs for existing users</li> <li>Loss of synergistic relationships; not all could co-locate.</li> </ul>	<ul style="list-style-type: none"> <li>This site selection would allow Kingston and Fyshwick sites to be re-developed without need to retain railway use and infrastructure.</li> </ul>
<ul style="list-style-type: none"> <li>Ability to create an entrance statement to the National Capital for tourists</li> <li>Legibility of the station and surrounds</li> </ul>	<ul style="list-style-type: none"> <li>Re subdivision / creation of roads provides good potential for increasing legibility and interesting mixed use concept.</li> </ul>	<ul style="list-style-type: none"> <li>Poor ability to create an entrance statement to National Capital. Poor legibility of site.</li> </ul>	<ul style="list-style-type: none"> <li>Unable to be an identifiable entrance to National - Capital</li> </ul>
<ul style="list-style-type: none"> <li>Enhance potential benefits to the community in the short and long term</li> <li>community acceptance of the proposal</li> <li>stakeholder and operator support</li> </ul>	<ul style="list-style-type: none"> <li>There is general community support for retraining a Kingston railway station</li> <li>Key stakeholders prefer Kingston site.</li> </ul>	<ul style="list-style-type: none"> <li>Community acceptance of a Fyshwick site is expected to be low</li> <li>Stake holders unlikely to support this location if the flexibility of current site is reduced.</li> </ul>	<ul style="list-style-type: none"> <li>Not likely to receive 'Canberra communities' support for Queanbeyan location.</li> </ul>
<ul style="list-style-type: none"> <li>Statutory Planning Context</li> <li>Existing zoning and land use provisions</li> <li>Ownership and land tenure</li> </ul>	<ul style="list-style-type: none"> <li>Railway station repositioning within corridor is consistent with Territory Plan</li> <li>Redevelopment to other uses requires Territory Plan Variation</li> <li>Act Govt – Ownership of railway corridor lands.</li> </ul>	<ul style="list-style-type: none"> <li>Railway corridor consistent with facilities</li> <li>Need to acquire land to improve access.</li> </ul>	<ul style="list-style-type: none"> <li>Zoning appropriate for railway use</li> <li>Private ownership of adjoining land may be a constraint to development.</li> </ul>
<ul style="list-style-type: none"> <li>Strategic Planning Options</li> <li>Opportunity to connect to light rail/ alternative transport modes in the future</li> <li>Consistency with proposed strategic planning for surrounding areas/region</li> </ul>	<ul style="list-style-type: none"> <li>Good access to road, rail or water based transport</li> <li>Consistent with East Lake planning studies in terms of new subdivision pattern and land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Opportunity to provide bus links from Canberra Ave.</li> </ul>	<ul style="list-style-type: none"> <li>Opportunities to connect to light rail within existing rail corridor</li> <li>Remote from Canberra Ave and road based public transport Opportunities to connect to light rail within existing rail corridor</li> <li>Remote from Canberra Ave and road based public transport routes.</li> </ul>



## 6.5 Additional corridor land

Indec Consulting in the Canberra Railway Operations Study, May 2006 completed for ACTPLA investigated the possibility of locating the rail facilities within the rail corridor opposite Section 30 and 38 Fyshwick through to Newcastle Street, refer to Figure 6-2.

The section of the corridor opposite Section 30 is contained within the existing rail corridor and located immediately adjacent to the Monaro Highway and is approximately 100 metres wide and has a useable length of 500 metres. The corridor land opposite Section 38 can be access via Section 38 and Newcastle Street. The site is contained within the existing railway corridor, which is approximately 100 metres wide and has a usable length of approximately 300 metres.

The gradients for both sites at the railway line are relatively level with a gentle up hill grade towards Kingston. The corridor contains three tracks, the north and south shunt lines and the main line. The grade separation between the running lines and surrounding land varies between 1 to 4 metres.

With regard to the land opposite Section 30, the limiting factor to usable length is the cost associated with the grade separation of the railway lines and the surrounding land as the railway line continues west to Kingston station from the Monaro Highway bridge. Also the cost of providing access to the railway through Section 30, where the gradient difference is excessive, is prohibitive. A considerable amount of the land will be needed for the provision of vehicular access and parking including coach operations.

With regard to the land opposite Section 38, the limiting factor to the usable space is the cost associated with the grade separation of the railway lines and the surrounding land as the railway line continues west to Kingston station from the Monaro Highway Bridge.

The strip of corridor land opposite Section 30 and 38 Fyshwick through to Newcastle Street is heavily constrained. The strip is very narrow and in parts will not meet the spatial requirements of the existing user groups. Access to this site will be difficult due private land ownership and established industrial premises.

The perceived advantages and disadvantages of the additional corridor land are:

Advantages:

- Site width (in some parts) is adequate for combined station and ARHS facilities
- Site is level and surrounding levels are sympathetic to facilities establishment
- Proximity to the centre of Canberra is favourable

Disadvantages:

- Access to Canberra Avenue is not desirable
- Access to Ipswich Street is difficult and expensive
- Access through Section 38 is unlikely due to existing lease arrangements
- Access to both site will require the construction of a significant amount of roadway
- Both sites relatively remote from residential and commercial areas
- The option will be relatively expensive due to access issues



**Figure 6-2 Additional corridor land**

Due to the issues associated with land tenure and ownership, access, costs, grade differences and the legibility of the sites, it has been considered that these options do not compare to the benefits offered by consolidating the rail facilities on either the Kingston or Fyshwick sites.

## 6.6 Options development

Four options have been development for the railway precinct based on the use of the Kingston and Fyshwick sites. These options are:

- Option 1 – Combined railway station and ARHS facilities at Kingston site.
- Option 2 – Combined railway stations and ARHS facilities at Fyshwick site.
- Option 3 – Railway station and ARHS Museum at Kingston site, ARHS Workshop at Fyshwick site.
- Option 4 – Railway station at Kingston site with all ARHS facilities at Fyshwick site. A detailed description of these options follows.

### 6.6.1 Option 1

#### All Rail Facilities in Kingston (Block 5 Section 30)

- Move the station to new location about 300 metres to east
- Utilise existing or build new tracks as required to optimise land use efficiently
- Build new platform and station

- Extend the Causeway (avenue) to Mildura Street as necessary.
- Construct a new “Railway Parade” to create a prestigious address and entry to the East Lake precinct area.
- Rationalise and replace the existing ARHS facilities alongside the new station facilities.

### **Features of the Proposal**

- Provides approximately 11.6ha of development sites with prime address and location.
- New connections between Railway Station/Railway Parade and the Wetlands Foreshore/East Lake project.
- New linkages to Mildura Street re-development area.
- Provides for the continuation of a residential precinct at The Causeway
- Ease of staging will ensure that the new station can be constructed without any disruption to the existing operations and services.
- Provides the development impetus for the future East Lake precinct which is currently remote and isolated from community access.
- Development project of up to 220,000m<sup>2</sup> of multiuse development including residential office, retail, residential accommodation, and commercial uses.
- Co-locating the ARHS with the new station allows for sharing of some facilities and especially will provide the ARHS with access to a station platform for its historic train rides.
- ARHS facilities are maintained in one location.

### **Concept Analysis**

- This option not only creates an attractive setting for the new Canberra Station but it creates a significant development area of approximately 11.6ha for the ACT Government.
- Importantly this new location for the station opens up an entry and address point for the East Lake Project and the Wetlands Foreshore Area.
- This concept retains a residential precinct at The Causeway.
- The continued presence of the ARHS workshop and storage facilities as well as the operation of stream trains in the Kingston area may cause a loss of amenity to some residents and reduce the value of the development sites in its vicinity.
- Station located in a residential area potentially promotes use of current service or a future public transport facility
- Potential environmental issues (noise and air quality and visual amenity) with train operations and ARHS workshop







Figure 6-3 Option 1 Kingston layout



Figure 6-4 Option 1 Fyshwick layout



## 6.6.2 Option 2

### All Rail Facilities in Fyshwick

#### ***Newcastle Street Site Option (Block 2 Section 83 and Blocks 1 and 5 Section 47 Fyshwick)***

- The ARHS facilities are relocated to Section 83 Block 2, part of Block 3 and Blocks 1 and 5 of Section 47 Fyshwick.
- New railway station adjacent to existing tracks is situated on Block 3, to the east of Block 2.
- Provide new public parking areas adjacent to ARHS and new station
- Retain existing railway to Monaro Highway for freight usage.
- Current Rail Corridor rationalised and retained as a green corridor or future transport corridor.

#### ***Features of the proposal***

- Approximately 15ha of development sites available with prime address and location.
- New linkages to Mildura Street re-development area.
- New station on south side of existing rail line accessible to public from Iron Knob Street within the Epicentre estate.
- Relocating the ARHS from Kingston will increase development opportunities within the project site (increased development area 3.4 ha).
- Splitting the ARHS facilities into a 'dirty' workshop and storage area on Blocks 1 and 5 Section 83 and a 'clean' display facility will help to organise and beautify the display of the ARHS collection.

#### ***Concept Analysis***

- This option produces a new station in an existing vacant area with no immediate access to public transport or other amenities etc.
- The plans for this area include the new Epicentre project and other office buildings, the design of which is unknown at this time.
- There are no apparent benefits in terms of new development opportunities arising from this option in the Newcastle Street area.
- The removal of the railway operation from Kingston does not dramatically alter the redevelopment possibilities for the East Lake precinct, but may improve amenity (less noise from trains).
- There are significant constraints on the location and design of a new station in this area because of site dimensions and the need to maintain existing rail operations.
- Blocks 1 and 2 of Section 83 contain an extensive collection of trees designated protected as part of a historic road reserve, any development on this site would be

dependent upon the accommodation or removal of these trees. Similarly any earthworks on the site would be dependent upon the protection or removal of the trees.

- The limited site areas, protected trees, unsuitable levels and difficult access make it impossible to fit both the ARHS and new railway station on Block 2 Section 83 and Blocks 1 and 5 Section 47 Fyshwick. Both the ARHS and the railway station require the use of Block 3 Section 83.
- Use of the ARHS site, and possibly the railway station facilities will be limited by the continuation of railway tracks to service the Shell freight facilities and potential future freight hub. However the current freight operations of the existing railway will, of course, be lost if the tracks are entirely removed from the existing rail reservation west of Newcastle Street and the costs and benefits of such a change need to be fully evaluated.
- Future access to Blocks 1 and 5 Section 47 Fyshwick will rely on access to the site being through the ACTEW easement (to the east of the site) and ACT Government negotiations with the current owners of Block 8 of Section 28 Fyshwick.





Figure 6-5 Option 2 Kinston Layout





### Figure 6-6 Option 2 Fyshwick Site

### 6.6.3 Option 3

#### ***Station and ARHS Museum in Kingston with Workshops in Fyshwick***

#### ***Station and ARHS Museum in Kingston (Block 5 Section 30) ARHS Workshops at Newcastle Street Site Option (Blocks 1 and 5 Section 47 Fyshwick)***

- Move station to new location about 300 metres to east
- Utilise existing or build new tracks as required to optimise land use efficiently
- Build new platform and station
- Extend the Causeway (avenue) to Mildura Street.
- Construct a new “Railway Parade” to create new prestige address and entry to the Eastlake project area.
- Rationalise and replace the existing ARHS display and museum facilities alongside the new station facilities, separate ARHS workshops and storage facilities and situated on the northern side of the Fyshwick site (Blocks 1 and 5 Section 47 Fyshwick).

#### ***Features of the proposal***

- This option not only creates a new attractive setting for the new Canberra Station but it creates a significant new development area of approximately 17ha for the ACT Government.
- Importantly this new location for the station opens up a new entry and address point for the East Lake Project and the Wetlands Foreshore Area.
- Splitting the ARHS facilities into a ‘dirty’ workshop and storage area on Blocks 1 and 5 Section 83 and a ‘clean’ display facility will help to organise and beautify the display of the ARHS collection.
- This option allows the ARHS Museum to retain a central location, as well as its prominence and ease of access as a tourist destination.
- This concept will create minimal disruption to the existing Causeway community.

#### ***Concept Analysis***

- New connections between Railway Station/Railway Parade and the Wetlands Foreshore/ East Lake project will benefit the new development area.
- Provides for the continuation of the Causeway community.
- Ease of staging because the new station can be constructed without any disruption to the existing operations and services.
- Facilitates and provides catalyst for opening up the entire East Lake project site which it is currently remote and isolated from community access.
- Development project of up to 249,000m<sup>2</sup> of multiuse development at Kingston including residential office, retail, residential accommodation, and commercial uses.

- Co-locating the museum and display section of the ARHS with the new station allows for sharing of some facilities and especially will provide the ARHS with access to a station platform for their historic train rides.
- The continued presence of the ARHS steam trains in the Kingston area may cause some disruption to residents and could limit the use or value of the development sites in its vicinity. (However it should be noted that the ARHS Historic Rail Trips usually occur only once a month).
- The limited access to Blocks 1 and 5 Section 47 Fyshwick makes use of the site for ARHS workshops depended on access to the site being through the ACTEW easement to the east of the site and ACT Government negotiations with the current owners of Block 8 of Section 28 Fyshwick.
- Use of the ARHS site will be limited by the continuation of railway tracks to service the new station, Shell freight facilities and potential future freight hub.
- ARHS facilities are not maintained in one location.





Figure 6-7 Option 3 Kingston Layout





**Figure 6-8 Option 3 Fyshwick Layout**

#### 6.6.4 Option 4

##### **Canberra Railway Station redeveloped at Kingston (Block 5 Section 30)**

##### **ARHS Museum, Display Areas, Workshops and Storage Areas relocated to Fyshwick (Newcastle Street) Site (Blocks 1 and 5 Section 47 Fyshwick)**

- Relocate Canberra Railway Station to new location about 300 metres to east
- Utilise existing or build new tracks as required to optimise land use efficiently
- Build new platform and station
- Extend the Causeway (avenue) to Mildura Street.
- Construct a new “Railway Parade” to create a new prestigious address and entry to the East Lake precinct.
- Remove all ARHS facilities to the Fyshwick site.

##### **Features of the proposal**

- This option not only creates a new attractive setting for a new Canberra Station but it creates a significant new development area of approximately 13.7ha for the ACT Government.
- Importantly this new location for the station opens up a new entry and address point for the East Lake precinct and the Wetlands Foreshore Area.
- New connections between Canberra Railway Station / Railway Parade and the Wetlands Foreshore/ East Lake precinct will benefit the new development area.
- Retains the Causeway residential precinct.
- Ease of staging because the new station can be constructed without any disruption to the existing operations and services.
- Facilitates and provides the development impetus for the future East Lake precinct which is currently remote and isolated from community access.
- Development project of up to 281,000m<sup>2</sup> of multiuse development including residential office, retail, residential accommodation, and commercial uses.
- Splitting the ARHS facilities into a ‘dirty’ workshop and storage area on Blocks 1 and 5 Section 83 and a ‘clean’ display facility will help to organise and beautify the display of the ARHS collection.

##### **Concept Analysis**

- This option maintains the railway station in Kingston, allowing a central and easily accessible location, whilst maximising the development potential of the area.
- Removing the ARHS facilities from Kingston to their own dedicated site removes the possible the impacts of steam trains and storage facilities on the land use and values of the area.
- ARHS facilities are maintained in one location.
- The limited access to Blocks 1 and 5 Section 47 Fyshwick makes use of the site for the ARHS workshops depended on access to the site being through the ACTEW easement

to the east of the site and ACT Government negotiations with the current owners of Block 8 of Section 28 Fyshwick.

- Use of the ARHS site will be limited by the continuation of railway tracks to service the new station, Shell freight facilities and potential future freight hub.





Figure 6-9 Option 4 Kingston Layout





Figure 6-10 Option 4 Fyshwick Layout

## 6.6.5 Wentworth Avenue Option

Following review of Options 1 to 4, an additional option was proposed as a variation to Option 4 involving relocation of Canberra Railway station approximately 200 metres further west of its existing location and bringing the rail line through to Wentworth Avenue.

This option was developed to assess whether the Wentworth Avenue frontage for the station provided a better address compared to the Railway Parade frontage proposed in Option 4. The option was assessed by the project team through examination by team specialists and discussion with ACTPLA representatives in a project team workshop held on 21 February 2008. Details of the option are provided in Figure 1.

An appraisal of the option from the project team is provided below.

### Rail Operations

The option is feasible from a rail operations point of view assuming that the following could be accommodated:

- The horizontal curve would require refinement immediately east of Railway Parade with a minimum radius of 200 metres and ideally 400 metres to avoid wheel squeal.
- Level crossings would be required at Railway Parade and possibly at The Causeway including boom gates, lights and bells. Level crossings are generally avoided where possible for safety reasons. It would also be feasible to elevate the track on viaduct or place it underground to avoid level crossings; however this would add significantly to the cost.
- A corridor width of approximately 15 metres would be required for a single track and platform. A width of 30 metres would be required for two tracks on either side of an island platform which is the current configuration in Option 4.
- A minimum platform length of 200 metres is recommended.
- The option would require a stabling/fuelling area for CountryLink trains overnight, which could be located further to the east along the corridor.

### Urban Design/Planning

The option could be seen to have the benefit of a presence along an existing major avenue (Wentworth Avenue) and potential direct connection to existing bus services.

A significant disadvantage is that the railway would continue to create a major barrier to the development of East Lake and the Jerrabomberra wetlands area. A further constraint is that all other frontages and nearby sites on Wentworth Avenue have been developed or committed so that flow-on opportunities for new development in the immediate vicinity of the station are extremely limited.

The point of arrival on Wentworth Avenue has limitations due to existing development restricting the opportunities for transport interchange and mixed use development at the new station and the creation of an identifiable transport centre. This could be seen as similar to the situation currently experienced at the coach terminal at the Jolimont Centre.

## Property

The extension of the rail corridor across Development sites A and B reduces the available development footprint and also potentially reduces the range of uses, given the amenity issues immediately adjacent to the rail corridor. The extension of the corridor would also divide large parcels of land on either side of The Causeway axis (over 5ha each), which are potential significant large high-value land release sites.

The reduction in developable area would be approximately 5,000 square metres based on a 200 metre extension and 25 metre average corridor width.

## Stakeholders

The space constraints on the railway station at Wentworth Avenue may make it difficult for the ARHS to be accommodated for a permanent display area or museum.

Other stakeholders would be unaffected.

## Environment

There are potential adverse noise and amenity issues for existing residential areas along the 200 metre extension. The proposal has the potential to relocate noise from existing train operations closer to an existing residential community at Kingston Foreshore and residential areas west of Wentworth Avenue.

## Conclusion

The Wentworth Avenue option does not appear to offer significant benefits over the recommended Option 4. The perceived benefit of the Wentworth Avenue address is assessed to be outweighed by the following issues:

- It would lead to a net reduction in developable area and therefore revenue
- There would be increased cost due to extension of the rail corridor – estimated at \$1.5 million
- It would create a barrier to the development of East Lake and the Jerrabomberra wetlands by dividing parcels of land and adding constraints to potential land uses due to the various environmental considerations
- It would increase rather than reduce potential constraints to the development of an integrated railway station and mix of land uses.

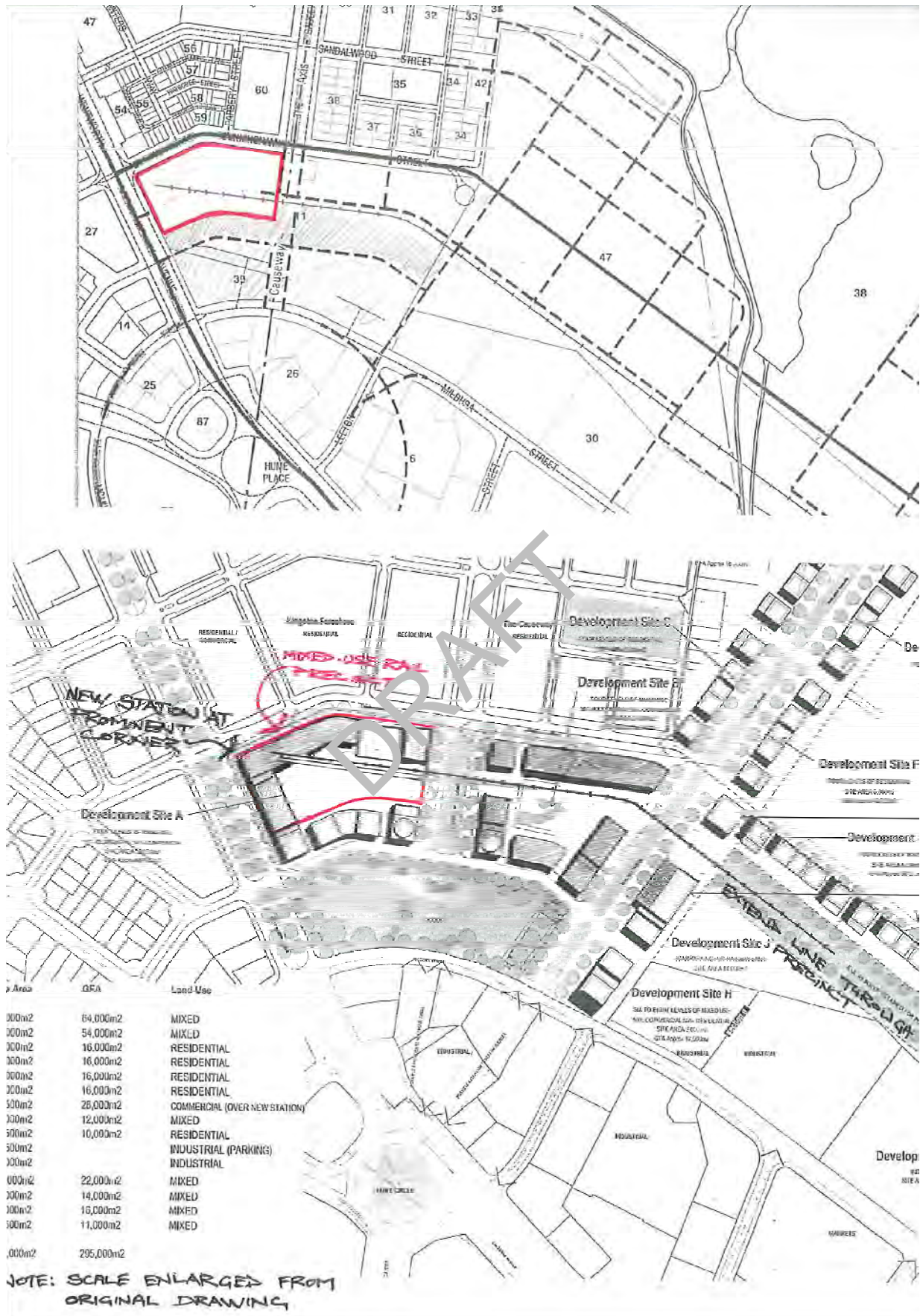


Figure 6-11 Wentworth Avenue Option



### 6.6.6 Options development revenue

Table 6-5 provides a summary of potential development revenue for each option based on current market evaluation. The full valuation report completed for both sites can be seen at Appendix H.

**Table 6-5 Summary of development revenue**

Development Revenue			
	Kingston	Fyshwick	Total
Option 1	\$113,250,000	\$12,350,000	\$125,600,000
Option 2	\$155,850,000		\$155,850,000
Option 3	\$124,050,000	\$8,100,000	\$132,150,000
Option 4	\$144,400,000	\$4,360,000	\$148,760,000

### 6.6.7 Options costings

**Table 6-6 Summary of costs**

Costs (\$M)	Option			
	1	2	3	4
Relocation of ARHS	\$2.0	\$4.7	\$3.9	\$5.1
Relocation of Station	\$6.5	\$8.0	\$6.5	\$6.5
Provision of Freight Crossover	\$0.9	\$0.9	\$0.9	\$0.9
Subtotal	\$9.4	\$13.6	\$11.3	\$12.5
50% contingency	\$4.7	\$6.8	\$5.7	\$6.3
Total including contingency	\$14.1	\$20.3	\$17.0	\$18.8

The following assumptions were made in the establishment of the above costs:

- Reuse and refurbishment of existing turnouts and track to create new ARHS sidings is considered acceptable. New track components are assumed elsewhere
- The length of ARHS sidings required for their operation requires confirmation, an assumption based on current operations has been applied above
- Kingston site – It has been assumed that the site is relatively level with no substantial earthmoving required
- Fyshwick site – This site is not level, to approximate the earthworks quantities involved in using this site a 2 metre average cut over half the total area has been assumed
- Reconstruction of the station platform, building and refuelling facility constitutes a large portion of the relocation costs. The exact costs of this work will vary greatly depending on the final requirements for the new station. This cost is assumed identical across the options at approximately \$5 million. The remaining figure therefore reflects the track and

civil works necessary for the relocation associated with that option. In this way the sensitivity of the option comparison to the building costs is reduced.

- The maintenance costs are assumed to be equivalent across all four options as the scale and nature of the facilities are similar for each option.

### 6.6.8 Options evaluation

In order to select a preferred option an evaluation exercise was undertaken. All four options have significant opportunities to rationalise rail facilities and open up large parcels of land for future development.

The below table presents the criteria used to evaluate the options in order to select a preferred option. The criteria developed by the project team include a mixture of numerical measures and qualitative criteria. Ranking has been undertaken directly using numerical measures for quantitative criteria and by using a ranking system (1-5) for the qualitative criteria. The rankings were determined by the study team after evaluation of each criteria.

The best ranking option for each criteria is indicated by the shading in this table.

**Table 6-7 Options evaluation**

Criteria	Option 1	Option 2	Option 3	Option 4
Total cost including contingency (\$million)	\$14,100,000	\$20,300,000	\$17,000,000	\$18,800,000
Revenue	\$125,600,000	\$155,850,000	\$132,150,000	\$148,760,000
Total site areas	4ha	11.9ha	5.62ha	6.95ha
Stakeholder acceptance	4	2	2	3
Environment (noise, contamination)	2	5	3	4
Accessibility	4	2	3	4
Land use	2	2	3	4

Qualitative Criteria

1 Poor

2 Marginal

3 Satisfactory

4 Good

5 Very Good

As can be seen from the above table Option 1 (all facilities at Kingston) requires the smallest site area, is the cheapest in terms of construction costs but it returns the least in terms of development revenue. Option 1 has been considered to have high acceptance by key stakeholders but rates low in terms of environment impacts (noise and conflicts with surrounding land use).

Option 2 (all facilities at Fyshwick) is the most expensive in terms of construction costs but it has slightly higher development returns than the other options. This option rates low in terms of stakeholder acceptance as CountryLink has stated that they wish to remain at Kingston or a site closer to the city centre. It rates high for environment as it will be within an industrial area away from residential land uses. However this option rates low in terms of accessibility, land use and requires a total site area of approximately 11.9ha.

Option 3 (station and ARHS museum at Kingston ARHS workshop at Fyshwick) is the considered quite expensive and with minimal development returns for the investment. This option also rates low in terms of accessibility, land use and environment. Also it is considered that this option will generally not be accepted, as the ARHS facilities will be split over 2 sites.

Option 4 (station at Kingston and all ARHS facilities at Fyshwick) rates highly in terms of land use, accessibility, stakeholder acceptance and environment. The facilities are split, however, with the station remaining at Kingston and all ARHS facilities at the Fyshwick site. The workshop will be located in an industrial area and will not impact on any surrounding residential properties.

It can be seen that the best ranking options are 1, 2 and 4. Option 1 is seen to have high stakeholder acceptance however, has the lowest revenue return and marginal rankings for environment land use. Option 2 has the highest revenue return but ranks marginally in terms of stakeholder acceptance, accessibility and land use.

After considering these benefits combined with the cost and development revenue option 4 has been selected as the preferred option for the following reasons:

- Second best return on investment
- Reasonable stakeholder acceptance
- Good environmental performance
- Ranks best in terms of compatible land use (ARHS workshops located away from potential residential areas)
- Equal top ranking with accessibility
- It provides a balanced option across the range of assessment criteria with no significant disadvantages.

## 6.7 Future options for freight transport to Canberra

### 6.7.1 The ACT freight task

As discussed previously, rail freight services to the ACT have declined over recent decades and the only current freight service is the Shell fuel train which operates three to four times per week.

The ACT imports over two and half times the amount of goods than its exports yearly, due to the lack of major industries in the area. The average annual growth of the total freight task to 2025 from Sydney to Canberra is 2.9%. The mode split being 3.1% road, 1.9% air and 1.1% rail.

With these projections it is important when looking at future rail services to the ACT that the opportunity for increased freight services is considered.



## 6.7.2 Rail freight options to Canberra

### General

Options identified for rail freight operations to Canberra can be divided into several categories:

- Bulk freight
- Containerised freight
- Cars

It should be noted that although various comments about potential options for freight services to Canberra are made below, further economic analysis would need to be undertaken to ensure the long term sustainability of any freight service. In addition, a more thorough analysis of the freight task for Canberra may identify other areas where rail freight may be a viable option.

It is also noted that some investment may be required to upgrade the Canberra to Sydney rail line to ensure it can compete with road in the freight transport market.

### Bulk freight

Around Australia, bulk freight is generally associated with the mining, resource and agriculture industries, typically from an area of production (mine, agricultural centre) to port for export. Commodities include iron ore, coal, wheat and cotton. Many of these bulk operations are substantial intensive, for example the Hunter valley coal operation, where in excess of 100 million tonnes per annum (Mtpa) is transported by rail, or the Pilbara iron ore railways where over 250 Mtpa is exported via two separate rail corridors.

Smaller bulk freight operations also exist; these include the existing fuel trains to Canberra, operated for Shell. Other examples include the wheat/flour operations for various flour mills, or the transport of cotton, cement or rice. Servicing of the waste disposal facility at Woodlawn (Tarago) is another example of this type of operation. These operations are typically geared around a specific company or industry.

Whilst it is improbable that a large bulk freight operation would ever commence or terminate at Canberra, an expansion of the small-scale type bulk operation may be feasible. This would depend on an appropriate company establishing a processing facility at or near Canberra. Alternatively, Canberra could become a 'producer' by transporting waste to the Woodlawn facility, if this became necessary (due to capacity limits being reached on the existing waste storage facilities, for example).

### Containerised freight

Containerised freight forms the bulk of inter-capital freight in Australia and primarily consists of consumer and industrial goods being transported between cities or between ports and distribution centres.

In broad terms, rail transport of containerised freight becomes more competitive with road transport the longer the distance concerned. To illustrate, in May 2005 ARTC's published data showed that the market share for rail transport was as follows (listed in order of decreasing route length):

- Sydney to Perth 80%

- Melbourne to Perth 80%
- Melbourne to Brisbane 21%
- Sydney to Brisbane 19%
- Melbourne to Sydney 10%
- Melbourne to Adelaide 21%

It can be seen that, apart from the Melbourne to Adelaide corridor, the rail share of the transport task decreases with route length. The fundamental reason for this relates to the time taken to load and unload a train, coupled with rail corridors that are typically slower than road corridors, which have been more recently upgraded and are higher speed (compare, for example, the Hume Highway through the Southern Highlands in NSW against the rail alignment, where trains travel on an alignment not dissimilar to that originally constructed in the 19th century).

Notwithstanding the above discussion, there is a growing trend for 'inland ports' or intermodal terminals, where transport of containerised freight to and from a port is by rail and the intermodal terminal acts as a transport and distribution hub. This type of facility may be an option for Canberra and is discussed in section 6.7.4 below.

### **Cars**

Transport of new cars by train has been a consistent opportunity for rail freight. Cars are bulky but reasonably consistent in dimension, thus well suited to transport by rail.

With the total new car market in Australia being around 1 million per year, on a pro-rata basis this gives around 15,000 new cars per year sold in the ACT. Depending on train length, this could be the equivalent of one or two trains per week between Sydney and Canberra.

For this type of freight operation to develop, obviously an appropriate distribution centre would be required adjacent to the railway line near Canberra.

### **6.7.3 Other factors impacting on the viability of future freight services**

Apart from the issues of supply / demand and market conditions that generally govern the potential for rail freight to Canberra (as discussed above), there are a number of other factors that will impact, both positively and negatively, on the viability of rail freight services to Canberra. These include:

- The work ARTC is currently completing to streamline the freight movements into and out of Sydney, most notably the Southern Sydney Freight Line. When complete, this will provide a route for freight trains directly to the major Sydney terminals and Port Botany, independent of suburban train movements around Sydney (which are a major bottleneck at present). Also, any improvements made on the corridor from Macarthur to Goulburn will also benefit services from Sydney to Canberra.
- The introduction of train order working on the corridor from Goulburn to Canberra is planned by RIC in the near future, although the timing is not set at this stage. This change will replace the existing, archaic methods of working and will result in a journey time saving likely to be in excess of 30 minutes.

- A number of current issues may result in community and political pressure for increased transport of freight by rail. These include climate change, 'peak oil,' congestion on roads (particularly in Sydney, where trucks compete with cars for space in a situation something akin to the issue being resolved by the Southern Sydney Freight Line) and safety concerns with trucks on highways and the transport of certain types of goods by public roads. However, at this stage the long-term influence of these factors is uncertain.
- On the negative side, at present there is no organisation with a mandate to promote rail freight on the line to Canberra. ARTC is fulfilling this function for other intercapital corridors, however ARTC has no interest in the corridor from Goulburn to Canberra – this corridor is not part of the Defined Interstate Rail Network. RIC, the owner of the corridor, has no marketing department. The promotion of freight services to the ACT is perhaps a matter that the ACT government should consider to adopt.
- Also on the negative side, current experience is that there are reasonable barriers to establishing new rail freight services, with a significant cost impediment in the construction of new sidings and connection to the main line. Assistance provided to companies interested in a rail freight option, either in advice or financially, may go a long way to encouraging greater use of rail freight.

#### **6.7.4 Possible future freight/distribution terminal**

As stated in section 6.7.1 above, if the freight predictions are accurate the ACT could potentially sustain an intermodal terminal handling 10,000 twenty foot equivalent units (TEUs) per annum. Typically an intermodal terminal handling 10,000 TEUs per annum would require a site area of approximately 20,000m<sup>2</sup> (10,000m<sup>2</sup> paved). Further detailed analysis would need to be undertaken to evaluate demand and economics and determine the size of a required facility. Once facility parameters determined site could be identified and evaluated. If the feasibility of the facility was proven the next stage could be to seek expressions of interest from private sector operators for development of the facility.

## 7. Summary and conclusion

The existing ACT railway facilities consist of:

- Canberra Railway Station
- ARHS
- William Edmund Pty Ltd
- Kingston Miniature Railway (CSMEE)
- Train refuelling facility
- Shell – fuel freight facilities
- Trackfast rail freight facility (disused)
- Railyards, sidings, shunting facilities

The Canberra railway station is currently accommodated on a 15 ha site. There are 2 passenger services Sydney – Canberra each way daily with approximately 400 passengers per week, 70% being concession holders. During the consultation process it was indicated that CountryLink have no plans to reduce level of passenger service and would be concerned if the station was moved from Kingston.

ARHS facilities are accommodated on a 4.5 ha site. They currently operate a railway museum and workshop facilities and own more than 100 items of rolling stock. The ARHS average two operations per month with a public open day once a month. During the consulting the ARHS indicated that it is willing to consider relocation but would prefer level site and are interested in expanding their commercial operations.

William Edmund Pty Ltd currently utilises a 1.2 ha site, employs eight people, leases locomotives and carriages to the ARHS. William Edmund holds a current maintenance contract with CountryLink for rail facilities between Canberra-Tarago-Yass and provides a backup locomotive for support in the event of a train breakdown. A storage shed is used to store and maintain 3 locomotives, 8 passenger carriages and occasionally stores third party rolling stock.

The CSMEE operates dual 5 inch and 7.5 inch gauge railway that is designed to carry people around 1km of track. The running tracks are primarily contained within the site (4000 m<sup>2</sup>) with an extension of track running along a 250 metre long corridor within the ARHS site. The site contains a canteen, storage shed, 3 shipping containers, covered storage area and various temporary demountable buildings. The CSMEE operates once per month and can attract up to 1,000 people.

Shell operates a fuel train to the depot in Fyshwick approximately 3 times per week and up to 5 times in periods of peak demand. The shell trains utilise the Kingston yard for shunting and also for overnight storage of locomotives. Consultation with Pacific National indicates that the service is profitable and likely to continue

Four Options have been developed in line with the objectives of this consultancy.

- Option 1 – Combined railway station and ARHS facilities at Kingston site
- Option 2 – Combined railway stations and ARHS facilities at Fyshwick site

- Option 3 – Railway station and ARHS Museum at Kingston site, ARHS Workshop at Fyshwick site.
- Option 4 – Railway station at Kingston site with all ARHS facilities at Fyshwick site

After a thorough analysis it has been determined that option 4 is the preferred option providing a balanced solution with no significant disadvantages.

The study has also considered recent freight statistics which suggest that there is going to be continued growth in containerised freight movements to the ACT. If these predictions are accurate the ACT should consider the feasibility of the development of an intermodal facility. As such, any future development in relation to rail facilities should consider the opportunities for an intermodal facility or distribution centre.

## 8. Canberra Railway Station

### 8.1 Spatial requirements

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

The functional site layout is reliant 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 by Drawings 001/002 at Appendix A. These drawings show a station building with a gross floor area of 500 m<sup>2</sup> to 750 m<sup>2</sup>; a public car park with capacity for 75 cars, and a platform of approximately 200 metres in length.

The potential siting of a railway facility with an address to a future road, provides the opportunity to integrate parts of the public domain, pedestrian footpaths and crossings, street lighting, furniture and landscaped open space associated with the road, as an urban setting for the railway station. Consequently, the legibility of the station facility will be enhanced by such an arrangement.

The functional areas of the station are positioned at the rail head rather than alongside the platform as is currently the case. The orientation of the railway station building could either be parallel with, or at right angles to the road it addresses.

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 directly to the street entrance of the station from the rail head. This layout is likely to reduce capital investment, in that it could be integrated with a comprehensive mixed use development, rather than 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 double sided platform to be provided and operable in the future. This is not possible with the current configuration of a one sided platform and accordingly, the proposed concept is a more efficient use of the platform infrastructure and investment.

The spatial requirements for the internal layout of a station facility station are shown in the architectural sketches provided at Appendix A (Drawing 002). 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 and 'back of house' baggage handling and staff amenities.

The functional site layout and internal layout diagrams are applicable to the three location options that have been considered for the retention of a Canberra Railway Station at Kingston, and included in this report.

It should be noted that the Cooina Court buildings and the Barracks facility (used by CountryLink) with the railway precinct at Kingston, are not included in the options analysis for the location of a new Canberra Railway Station.

## 8.2 Design concept for Canberra Railway Station as an integrated development

This proposed arrangement and juxtaposition of rail and road enables commercial development (i.e. public/private partnership) opportunities. The functional layout drawings provided at Appendix A 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.

In this way, the new station would be part of a larger ‘urban village’ development that would provide a strong sense of place and amenity to surround the Canberra Railway Station point of arrival.

The station would open onto an attractive boulevard and street scene providing amenity, shelter and an active place with kerbside areas for taxis, buses and a convenient car parking area. While the station activity requires a minimum area of 500 m<sup>2</sup> GFA, the size of the potential development in which the station is located, could be in the order of 5,000 to 10,000 m<sup>2</sup> 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.

## 8.3 Kingston site: design concepts and location options

### 8.3.1 Urban structure

Appendix B provides two drawings to illustrate the urban context and structure of the rail corridor at Kingston and the new development opportunities to be realised through the reconsideration of the geometry of the adjacent road structure, and the location of a railway station facility which responds to this geometry.

The unencumbered developable area close to the Kingston Foreshore Development area varies with each of the location options discussed in this report.

The alignment of an adjacent new avenue – ‘Railway Parade’ – is deliberately placed to parallel Griffin’s Land Axis and the Telopea Park Axis at right angles to Canberra Avenue, the railway and Mildura Streets. Its alignment remains clear of the Causeway neighbourhood and does not compromise any current or future planning options for this existing residential area. Railway Parade could take the form of a linear park combined with vehicular access or whatever is deemed appropriate as a new main entrance to the East Lake urban renewal area.

This new concept for the Parade aims to fulfil the objectives and design principles outlined in the NCA’s ‘Griffith Legacy’ Policy, as shown by the following diagram.

There are three location options that permit this integrated development opportunity. These options are described in detail in the following sections.

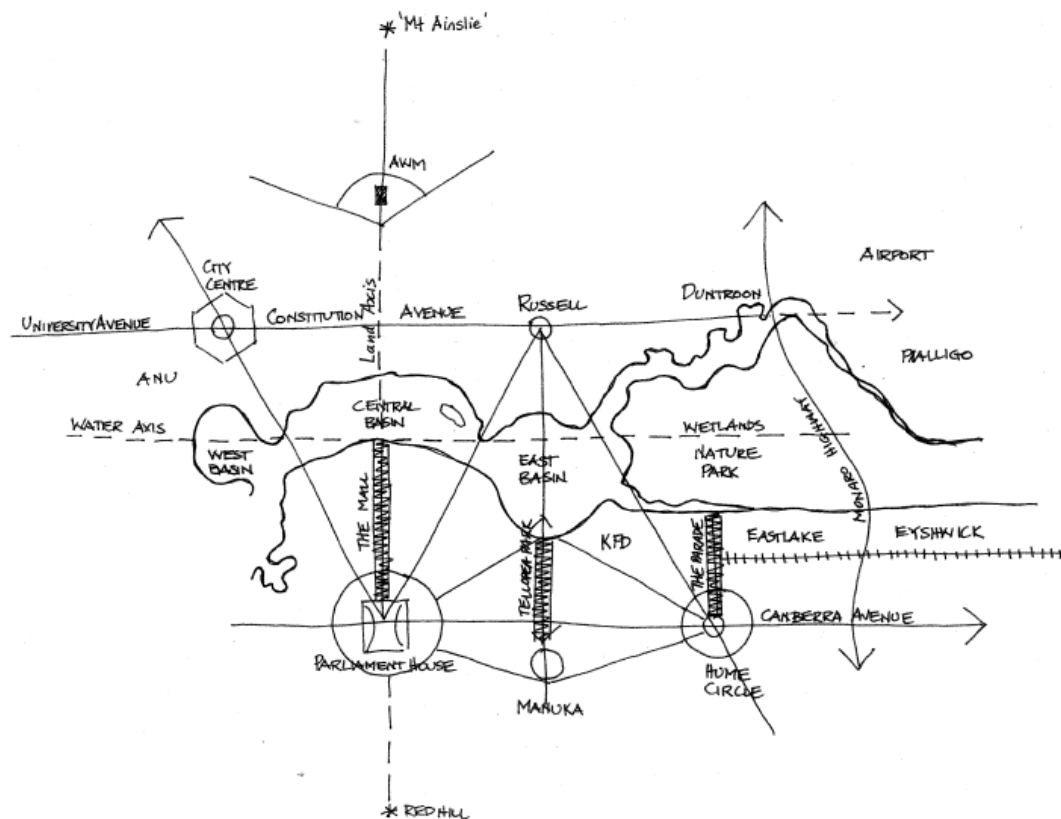


Figure 8-1 The relationship of 'Railway Parade' to the Griffin Legacy

## 8.4 Location options for a new Canberra Railway Station at Kingston

Three location options have been identified and analysed in detail for this phase of the Railway Masterplan study. The three options locate the station on existing or future major avenues in order to create an easily identified point of arrival and sense of place for this important facility and gateway to the National Capital.

Three options considered are as follows:

- A. Railway Parade East Lake
- B. The Causeway
- C. Wentworth Avenue

The Wentworth Avenue and Causeway Avenue are existing avenue alignments.

The Kingston area is currently the location of a number of urban renewal projects – being the Kingston Foreshore Project and the East Lake urban renewal area. East Lake is a 'Priority One' major urban renewal project for the ACT.

Local connectivity and future development opportunities were therefore a major consideration in the development of the options for the location of Canberra Railway Station. Each option offers a range of costs and benefits, but each option offers different levels of development opportunities and different degrees of improved access to the East Lake development area.



For example, relocating the station further away from Wentworth Avenue opens up a large area of land, currently occupied by the rail corridor, as a future unencumbered development area.

Three options have been prepared and illustrated for the provision of a new railway station at Kingston.

The existing railway land at Kingston is largely underutilised and creates a major barrier and obstacle to the future development of the East Lake area. (Refer to ACTPLA Draft East Lake Urban Renewal Planning Report 2008)

The existing railway tracks and railway land create a barrier to accessing the Kingston area and in particular, a major part of the East Lake Urban Renewal area. In fact, the Causeway residential precinct has remained somewhat isolated and cut off from the Kingston, Fyshwick, Griffith and Narrabundah areas for this reason.

Currently, the only road access to the Causeway is via Cunningham Street, which is a cul-de-sac. Although the Kingston Foreshore project has provided new road accesses to the western end of the future East Lake area, the railway infrastructure remains a major obstacle to achieving the connectivity that is essential to the success of East Lake as an urban renewal project, and to its physical integration with the Kingston Foreshore Development Area.

Therefore three options have been considered in detail for the new Canberra Station as follows:

#### **Option A**

This option relocates the station 300 m east (towards Fyshwick) of the existing station, in order to address a new boulevard that we have named Railway Parade or East Lake axis.

#### **Option B**

This option relocates the station 100 m east in order to address the extension of the 'Causeway' boulevard.

#### **Option C**

This option retains the platform generally in its current position but recreates the entrance to the station to the Wentworth Avenue Frontage.

## **8.5 Option A: 'Railway Parade' or 'East Lake' site**

The location analysis drawings for a Canberra Railway Station at Kingston are provided at Appendix C. These drawings include illustrations for location Options A, B & C.

Option A proposes to move the station approximately 300 m further to the east along the existing railway line and create a new street: Railway Parade/East Lake. Railway Parade would create a significant new address and connection from Hume Circle to Wentworth and Canberra Avenue, and ultimately to the heart of the East Lake Urban Renewal area and the Jerrabomberra Wetlands Nature Reserve. A narrow railway reservation would be retained for passenger rail operations to the new station. The rail reservation could be connected to The Causeway road alignment in order to retain long term opportunities open for use of the rail corridor.

Three large development precincts totalling approximately 35 hectares (including the Causeway residential precinct), with approximately 10 hectares of underused railway land, would have a new address and premier location within East Lake. With this option, existing leased sites on Mildura Street and Canberra Avenue would benefit from improved levels of access and connectivity to the proposed East Lake development precincts. Importantly, these new development sites can be accessed, marketed and developed without compromising the future planning of the Causeway residential precinct.

Option A facilitates access to the entire East Lake area and no railway crossings would be necessary. It may be desirable however to provide an additional connection between those areas of East Lake, north and south of the rail corridor, by extending Nyrang Street under the railway tracks. Nyrang Street is adjacent to the Fyshwick Markets and is the only road link to Narrabundah with a signalled crossing on Canberra Avenue. Alternatively, Nyrang Street could provide a connection to areas north of the railway tracks via the existing route under the railway bridge which crosses Jerrabomberra Creek.

## **8.6 Option B: 'The Causeway' site**

Option B proposes to move the railway infrastructure approximately 30 to 50 metres east along the existing railway line. The Causeway road alignment would be extended to service the new station and provide an active frontage to the station functional areas. However this option would only marginally improve connectivity to East Lake and Cunningham Street would remain the main address to the East Lake area.

Option B would yield a developable area of 5 ha between the Causeway and Wentworth Avenue. The geometry of the adjacent rail corridor would allow further development on either site of the railway but a railway frontage is not seen as particularly ideal.

## **8.7 Option C: Wentworth Avenue**

Option C proposes to generally retain the existing station in its current position but to build a new entrance to the station addressing Wentworth Avenue. The station building would be removed and replaced with a new station building (mixed use integrated development) on Wentworth Avenue at the head of the Station platform. Existing fuel area and secure storage facility would be relocated away from Wentworth Avenue.

In this option and in order to minimise the impact on Wentworth Avenue, a new lay by would be provided to Wentworth Avenue, to provide a vehicle set down, taxi ranks and bus stop on the Wentworth Avenue Frontage.

The railway tracks would generally remain in their current alignment and surplus railway land could be made available for other residential or commercial development.

However, the railway tracks in this option would remain a barrier between West Fyshwick and East Lake and level crossings or under/over passes would be required to improve vehicular and pedestrian access to East Lake.

It is considered that the accessibility and legibility of the new East Lake urban renewal area would not be improved with this option.

## 8.8 Staging options

**Option A:** This option includes the provision of a new length of extended railway line at the station (approximately 200 metres). The station and platform facilities can largely be constructed and developed on railway land separated from existing operations continuing on the main 'live' line. There may be some minor disruption to rail services as the new line is connected to the existing line. It is anticipated that the new railway station could be constructed and operable, with a temporary road access, prior to the construction of new Railway Parade to Mildura Street.

**Option B:** This option is likely to have an increased impact on railway operations, in comparison with Option A, since the proposed station would be built between the existing facility and the live railway line. This would mean that the existing Canberra Railway Station would not remain operable during the construction of a new station adjacent to The Causeway road. This is also not the ideal solution.

**Option C:** This option also has some staging problems because recently constructed secure rail storage area must be relocated. Also the new integrated development concept for the new station will partly overlap with the existing platform. This option could be described as an upgrade to the existing station and in that respect the existing 'park' area adjacent to the station would likely need to be retained. This further reduces the new development opportunities associated with this option. The summary analysis of each location option in relation to urban planning principles and objectives is provided in the following Table 8-1:

**Table 8-1 Summary analysis of options**

	<b>Option A/ East Lake</b>	<b>Option B/ Causeway</b>	<b>Option C/ Wentworth Ave</b>
Direct Development Opportunity of railway land	10 ha	5 ha	2 ha
Legibility of urban structure i.e. Visual Access to new development areas	Very Good  New urban form may be designed to achieve high levels of legibility for entire East Lake area, including new Station.	Fair  Partially improves legibility of the Causeway but does not open up access to majority of East Lake.	Poor  Contributes little to improving the legibility of an urban structure of East Lake.  New Station would be highly visible from Wentworth Avenue.
Staging options	Very Good  New Station can be built without conflicts to existing rail operations.	Poor  New station overlays/conflicts with existing station	Poor  Conflicts with existing rail operations
Adaptation potential of Rail corridor in future i.e. change of use	Very High;  Rail corridor connects to widened Cunningham Street/ Wentworth Ave	Fair;  Rail corridor connects to extension of Burke Crescent/ Wentworth Ave	Fair;  Rail Corridor connection to Wentworth Ave.

## 8.9 Preferred location option

Phase Two of the Railway Masterplan study identified opportunities and constraints and analyses four options for the location of a consolidated rail precinct, and tested these options

in relation to spatial requirements; strategic connections to public transport and other supporting infrastructure; and land values.

This third phase of the study has further considered location options for retaining the Canberra Railway Station at Kingston. From this further analysis detailed above, the preferred option is Option A. This option has clear benefits in relation to:

- the creation of enhanced and unencumbered development opportunities for the entire East Lake area (35 ha)
- major new development parcel (10 ha) on Wentworth Avenue
- economic benefits arising from increased land values and reduced impact of rail infrastructure
- the creation of improved legibility, address and urban design for the railway station of the National Capital
- enhanced public amenities as part of an integrated mixed use development
- staging of development which will allow the rail services to Canberra to largely continue, uninterrupted during reconstruction of the new station
- recognition of the Griffin Legacy's principles and policies by proposing a site layout and road geometry which responds to the urban structure for East Lake
- the proposed Canberra Railway Station development will be a catalyst, and create the first building block, for the advancement of the East Lake Urban Renewal Project
- this option achieves a high level of efficiency in its use of land for the new station and rail operations for roads and infrastructure and for new development

With Option A, the very large development parcel available between Wentworth Avenue and the new station (10 ha approximately) will allow a high quality urban environment to be created, in a prime location on elevated land, with multiple links to the Kingston Foreshore, to the Jerrabomberra Wetlands Nature Reserve, and to the heart of the East Lake Urban Renewal area.

## 9. Fyshwick Site – ARHS and William Edmund Pty Ltd relocations

### 9.1 The site

The Fyshwick site is constrained in terms of vehicular access and topography. The area considered for the relocation of the ARHS and William Edmund facilities is within the rail corridor at Fyshwick, identified as Block 1 and part of Block 11 Section 47 Fyshwick. This is the northern area of the Fyshwick site considered as part of Phase Two of the Railway Masterplan study.

Vehicular access to the site will rely on the creation of a Right-of Way from Tennant Street, within an existing ACTEWAGL electricity transmission easement (Blocks 7 & 12 Section 28 Fyshwick) and within an area of unleased Territory Land (Block 13). The site is otherwise generally landlocked (Figure 3-1).

Vehicular access is not available from Newcastle Street due to the constraints of level change and existing leased sites.

The sub station located on Block 7 is under consideration to be relocated to a new location with the East Lake Urban Renewal area within the next five to ten years. Adjacent lessees could also benefit from the formalisation of vehicular access to this part of Fyshwick.

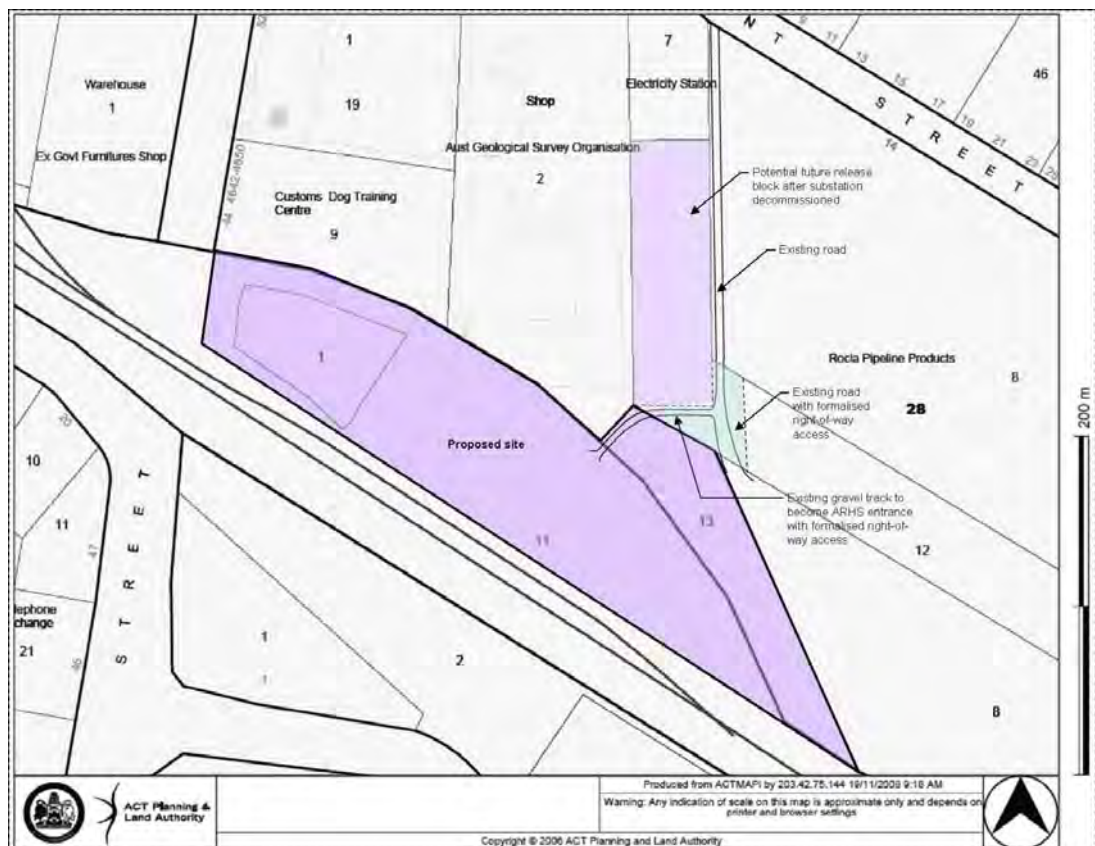


Figure 9-1 Potential site access

The conceptual site plan at Appendix D identifies an appropriate 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 the operation of historic train trips.

The area available for the relocation of the ARHS facilities and for its future development, is similar to the existing available land used by the ARHS at Kingston (4.3 ha).

## 9.2 Spatial requirements

The drawings provided at Appendix D illustrate a site layout which could accommodate the required facilities for the operation of the ARHS at Fyshwick.

The key features of this arrangement are:

- the total amount of track space is 3 km which is 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 layout shown is conceptual and has been derived from similar sites elsewhere to provide a typical arrangement of what might be desired by an organisation such as ARHS. The arrangement provides for substantial additional amenity to that currently available to the ARHS at Kingston. The final site layout and development opportunities at Fyshwick would need to balance the level of amenity against the total cost of relocation.

## 9.3 Staging

Staging the relocation of the ARHS and William Edmund Pty Ltd facilities will be difficult if it is intended to re-use existing sections of track and turnouts in order to save costs. However, re-using materials is likely to provide significant savings

## 9.4 Costs of relocating ARHS & William Edmund facilities and development of a new Canberra Railway Station facility

The detailed preliminary cost estimates for the relocation and re-establishment of the ARHS and William Edmund Pty Ltd facilities from Kingston to the Fyshwick site, and for the development of a new Canberra Railway Station facility at Kingston are provided at Appendix E.

Significant savings for the relocation costs for the ARHS could be achieved if it is able to provide the assistance of expert volunteer labour, from its membership, with the removal and replacement of existing tracks, turnouts, sheds (where appropriate) and other infrastructure.

Similarly, if it is possible to demolish and rebuild the existing sheds on the Kingston site, there will be similar cost savings. The feasibility of demolishing and rebuilding facilities will need to be verified by a Quantity Surveyor, including the preliminary cost estimates when the

preferred layout and essential infrastructure has been determined in consultation with key stakeholders.

The estimated costs for the provision of workshops/sheds are based on replacing similar sized facilities to those currently in use at Kingston.

The total cost for relocating the ARHS and William Edmund Pty Ltd rail operations and facilities to Fyshwick are in the order of **\$7.5 m**.

The total cost for re-establishing a new Canberra Railway Facility at Kingston is in the order of **\$6.0 m**.

An additional cost estimate for provision of a freight crossover relates to the identified need (Phase Two Report) for reinstatement of the east end connection to the South Shunting Road to allow the Shell fuel train to directly access the shunting road and use the main line to turn the locomotives around. The Canberra railway yard would then not be required for the operations of the freight train delivery service to the existing Shell siding at Fyshwick. The estimated cost of provision of the freight crossover facility is **\$930,000**.

## 10. Next Steps

Each phase of the Railway Masterplan study has included additional investigations and outcomes. Accordingly, the reports of each phase are complementary.

The Railway Masterplan presents a direction for rail infrastructure and facilities in the ACT. These outcomes will enable further detailed analysis, consultation and consideration by ACT Government for the provision of rail infrastructure. 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.

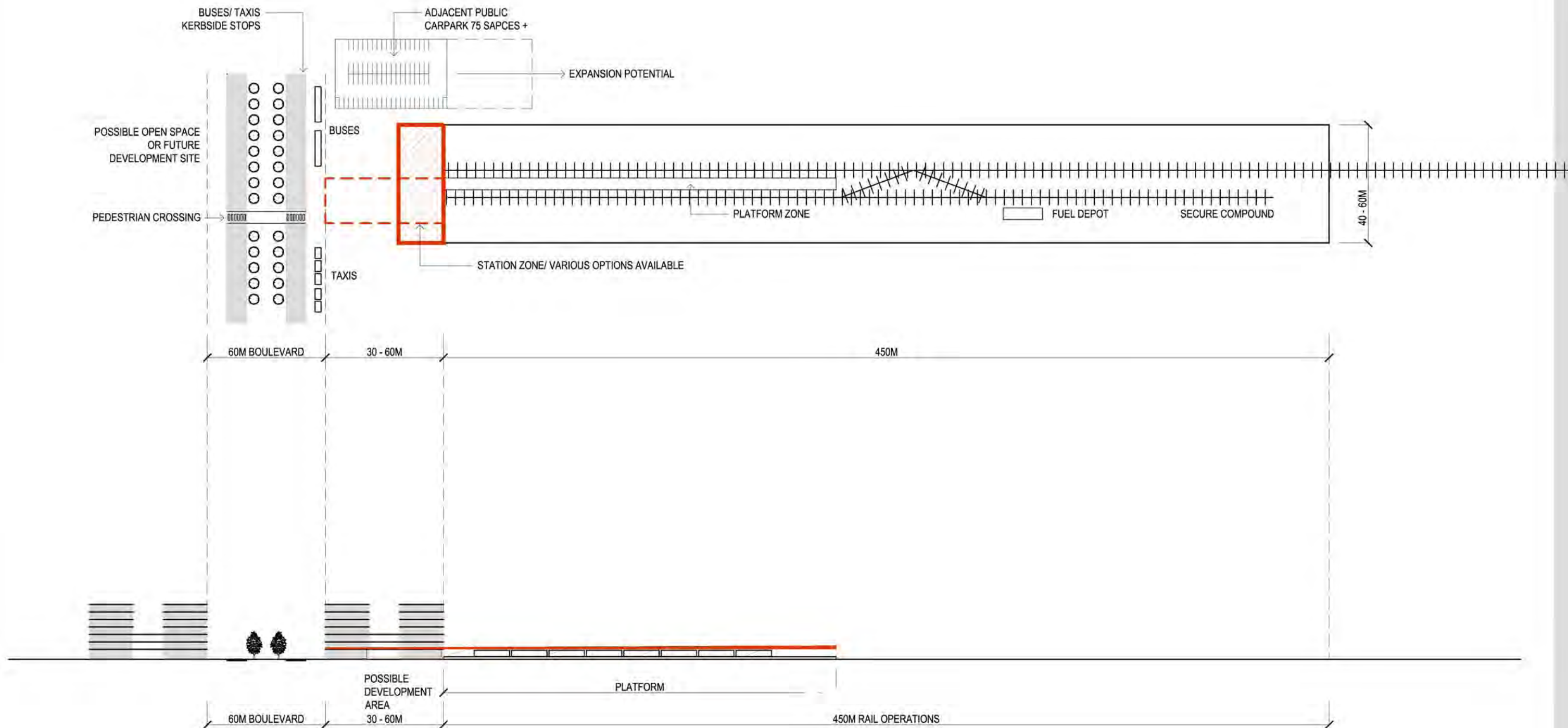


## Appendix A

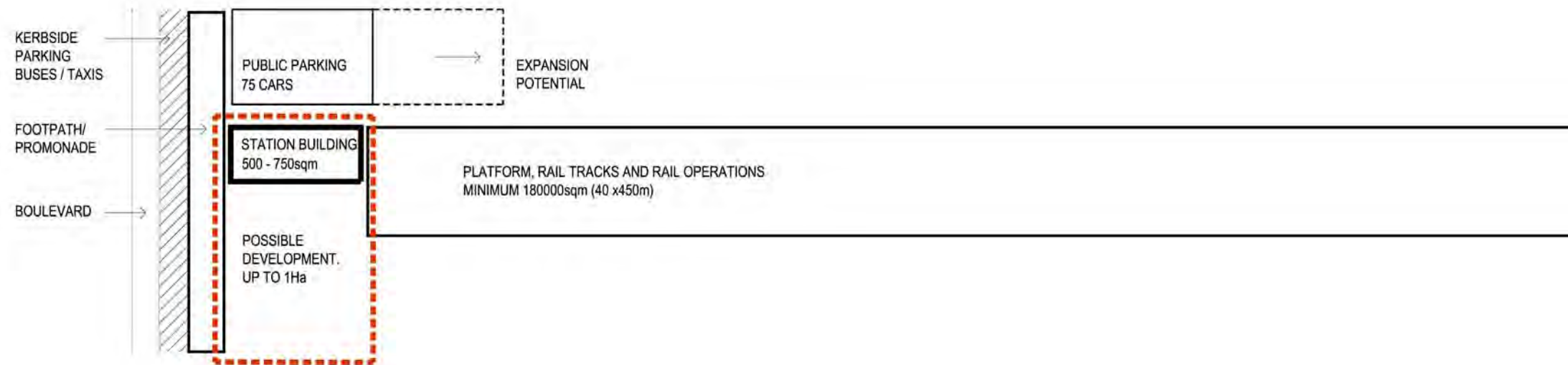
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Canberra Railway Station: functional layouts

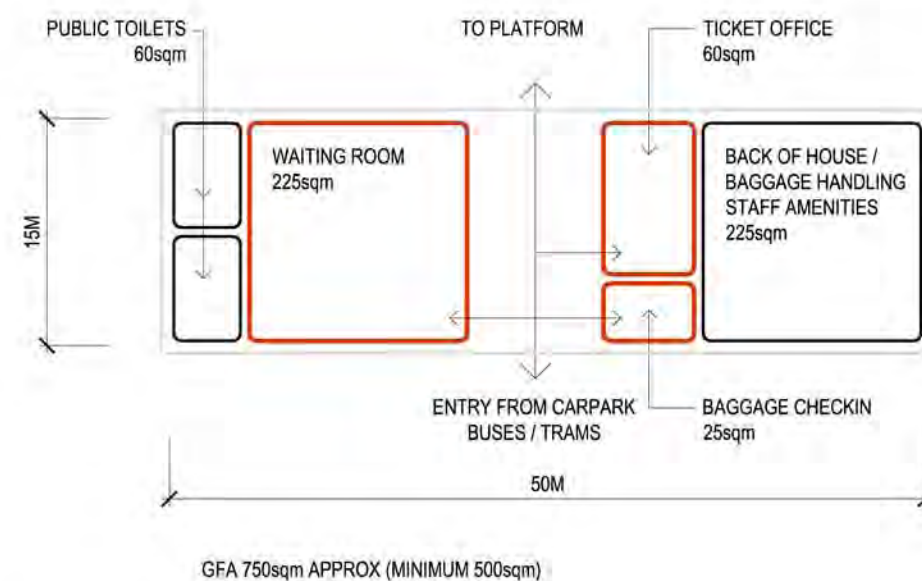








## CANBERRA STATION / PLATFORM AND RAIL OPERATIONS FUNCTIONAL AREAS AND RELATIONSHIPS SCALE 1:2000



## CANBERRA STATION FUNCTIONAL AREAS SCALE 1:500



## Appendix B

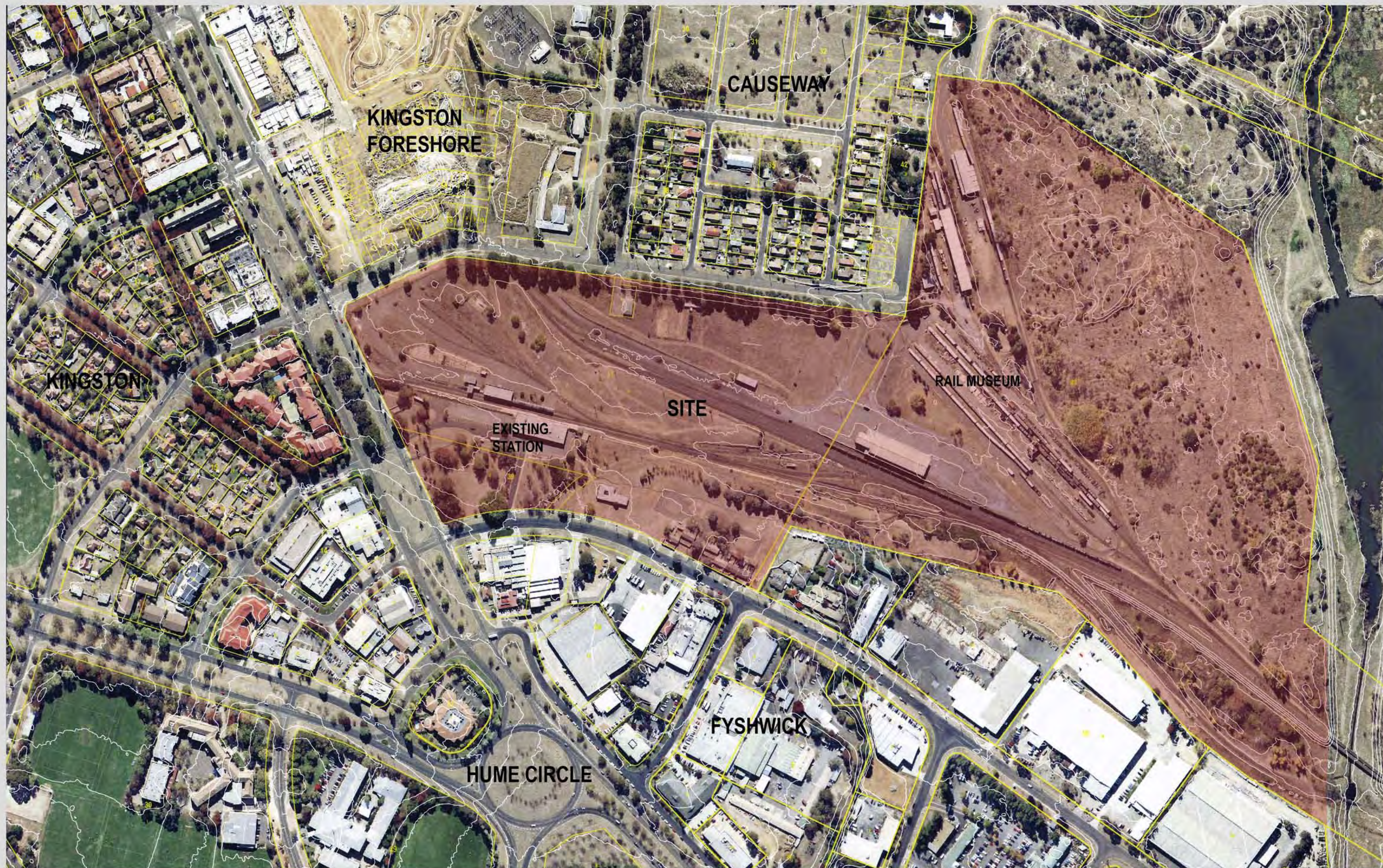
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Kingston Railway precinct: urban  
context





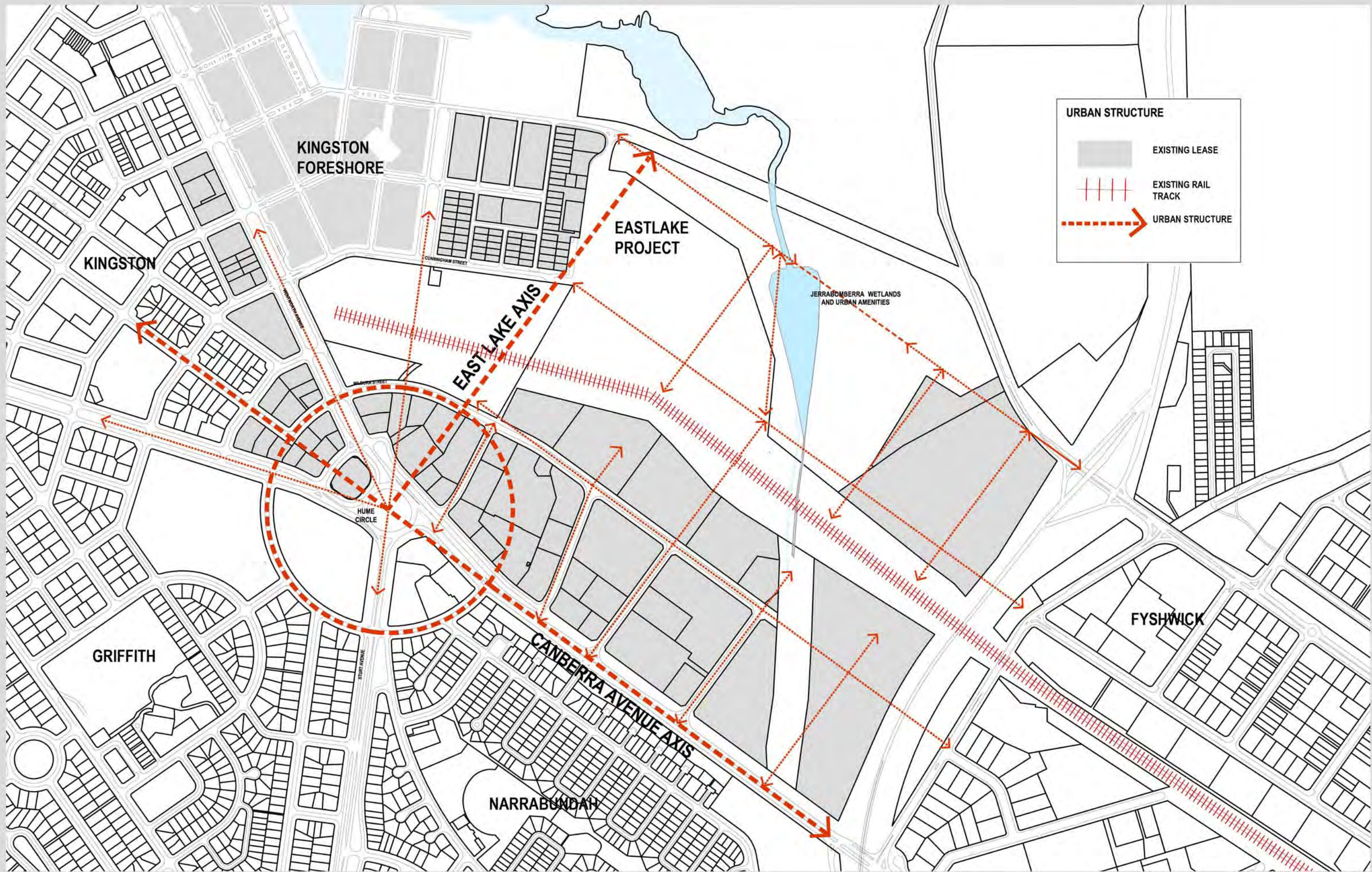
















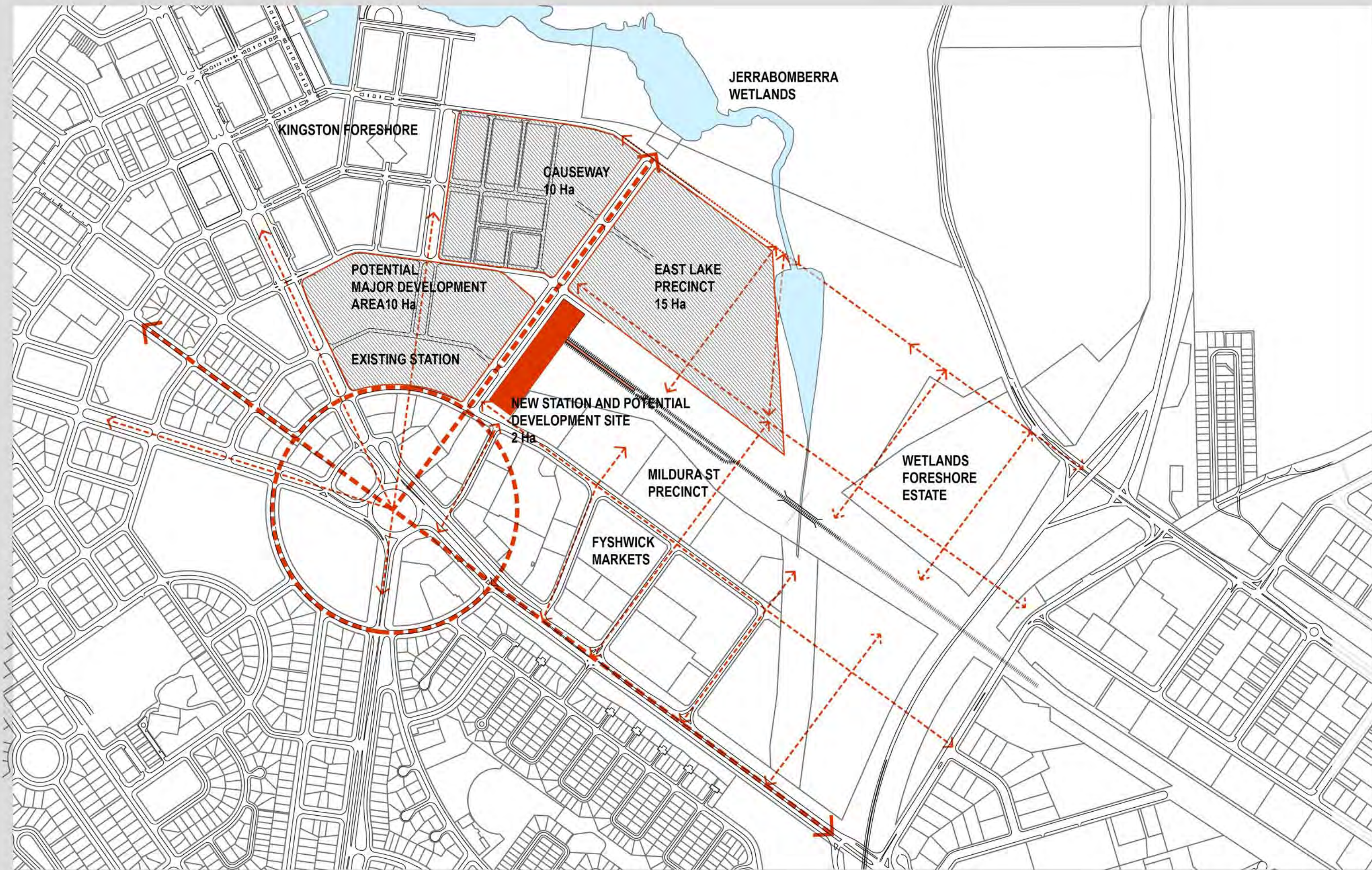
## Appendix C

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Options A, B & C design concepts  
for a Kingston location















**KEY**

**PD** POTENTIAL DEVELOPMENT

**NP** NEW PLATFORM

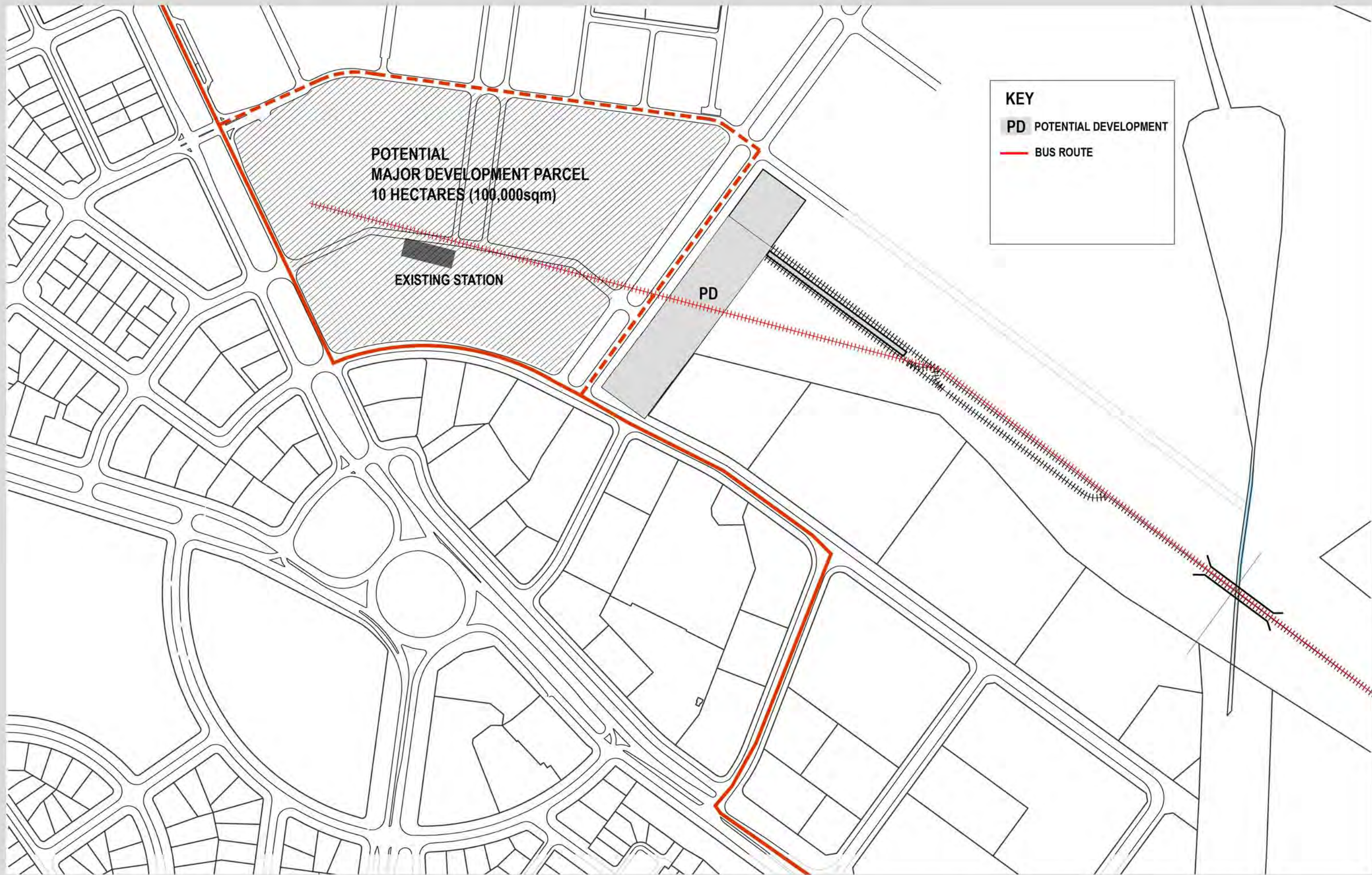
**S** NEW STATION

**P** VEHICLE PARKING





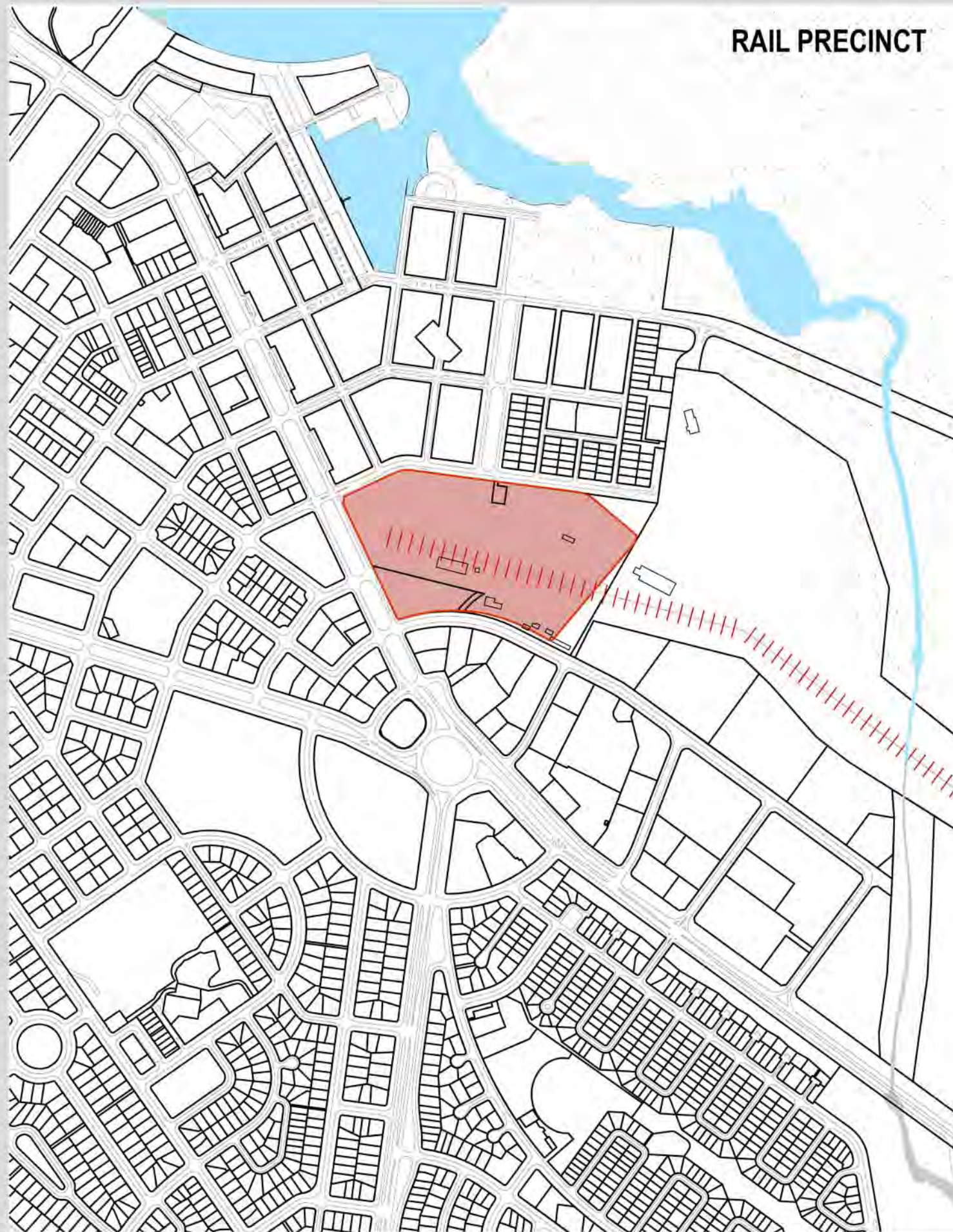




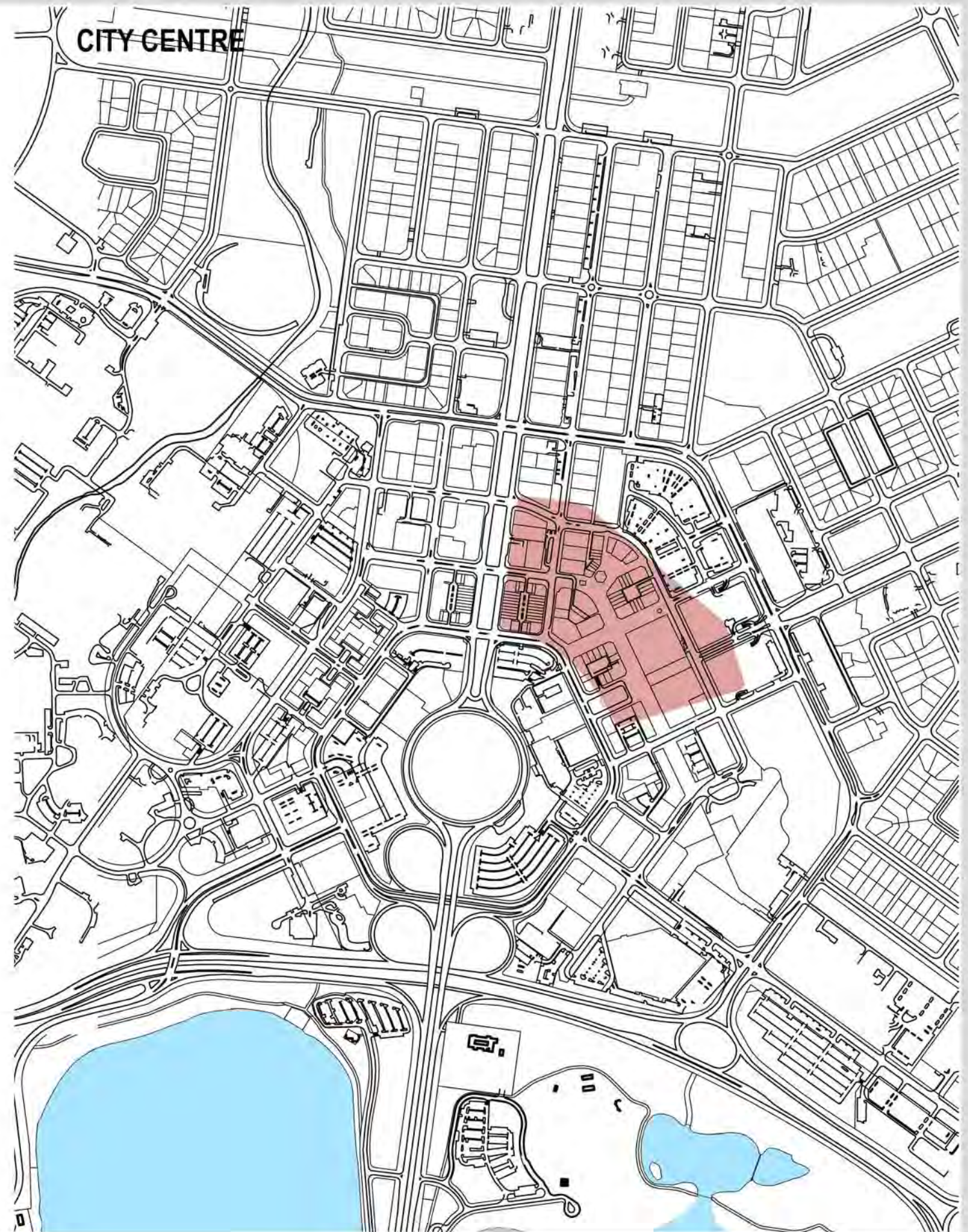








RAIL PRECINCT

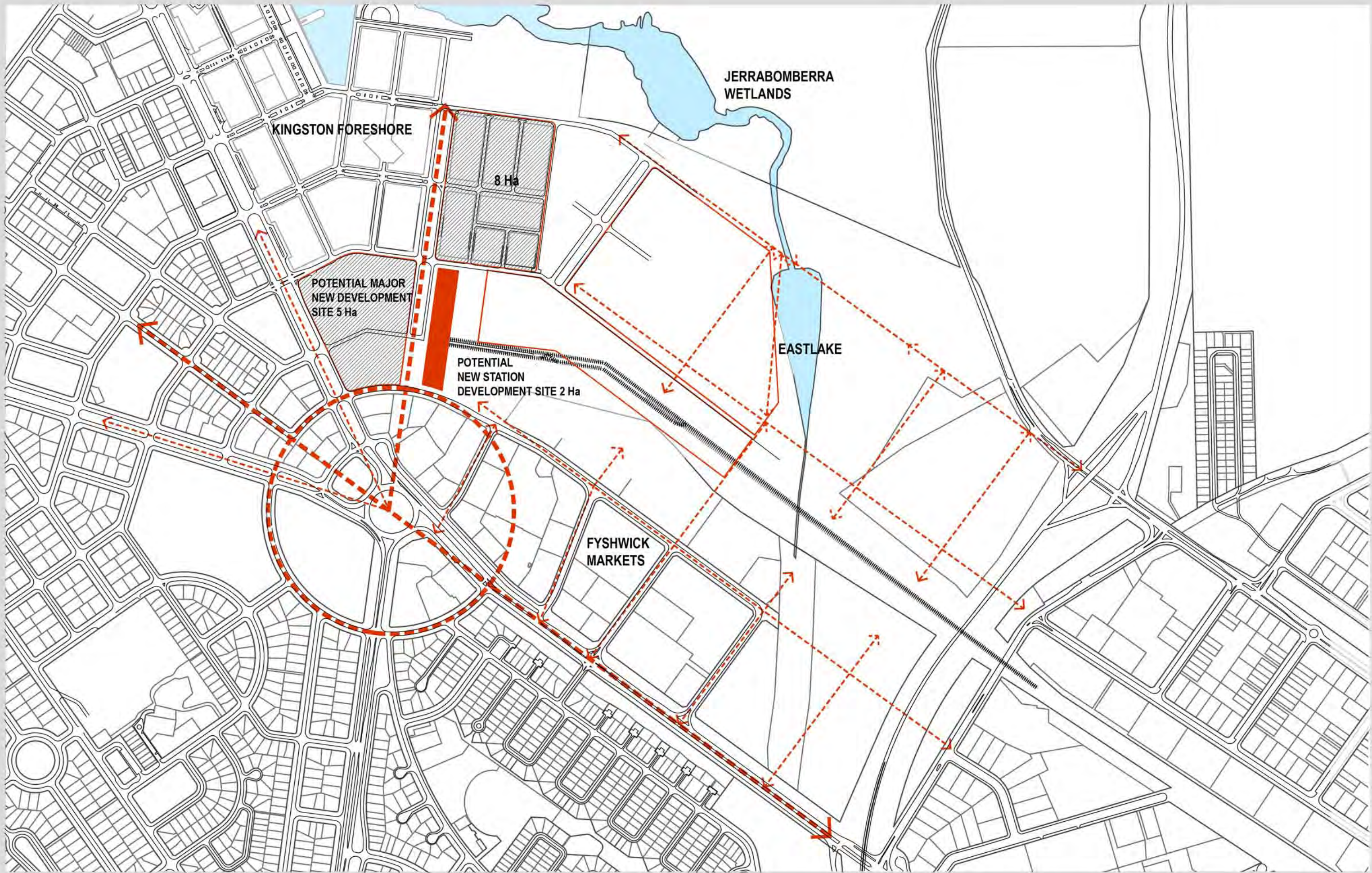


CITY CENTRE











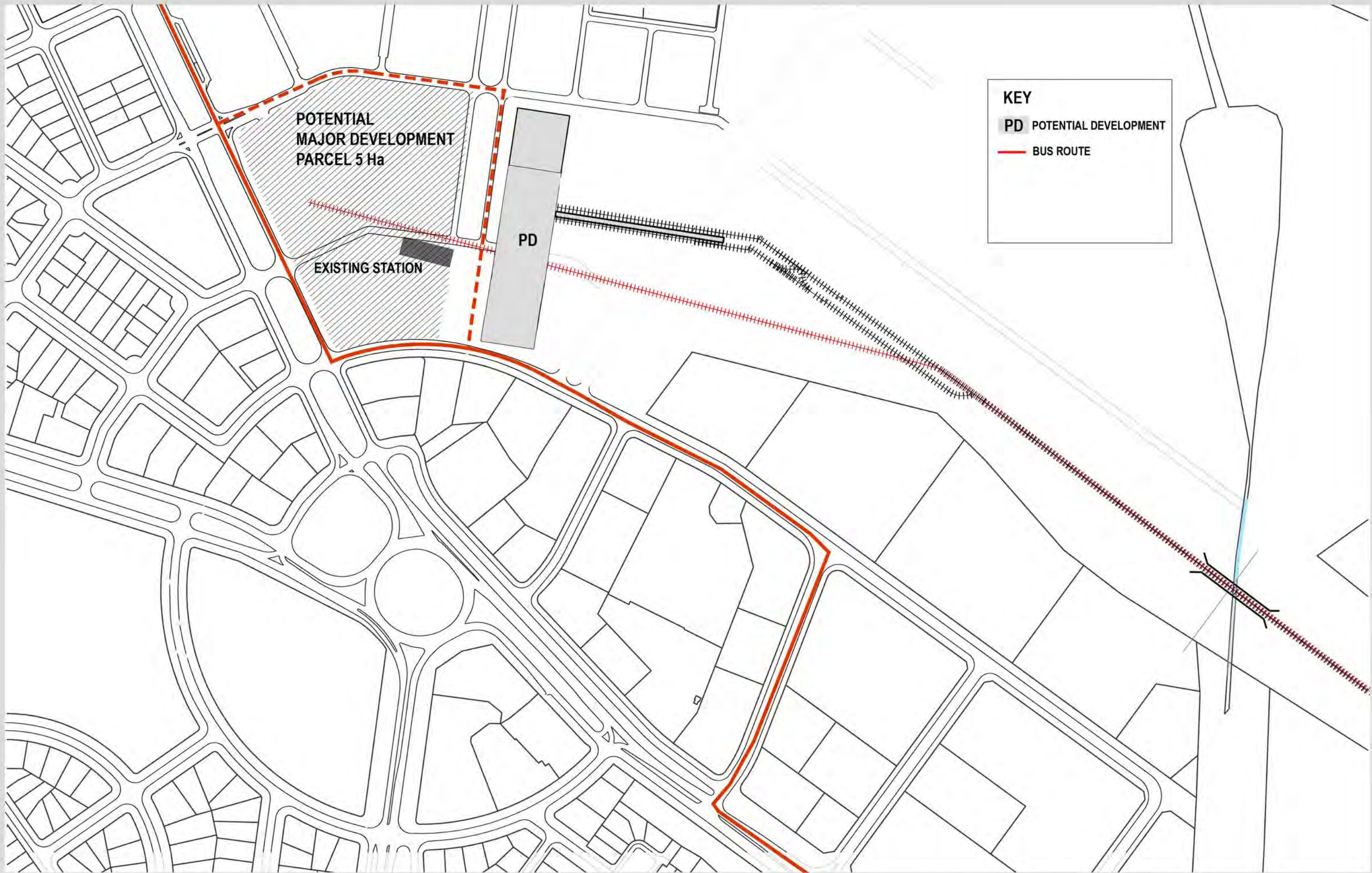




















RAIL PRECINCT

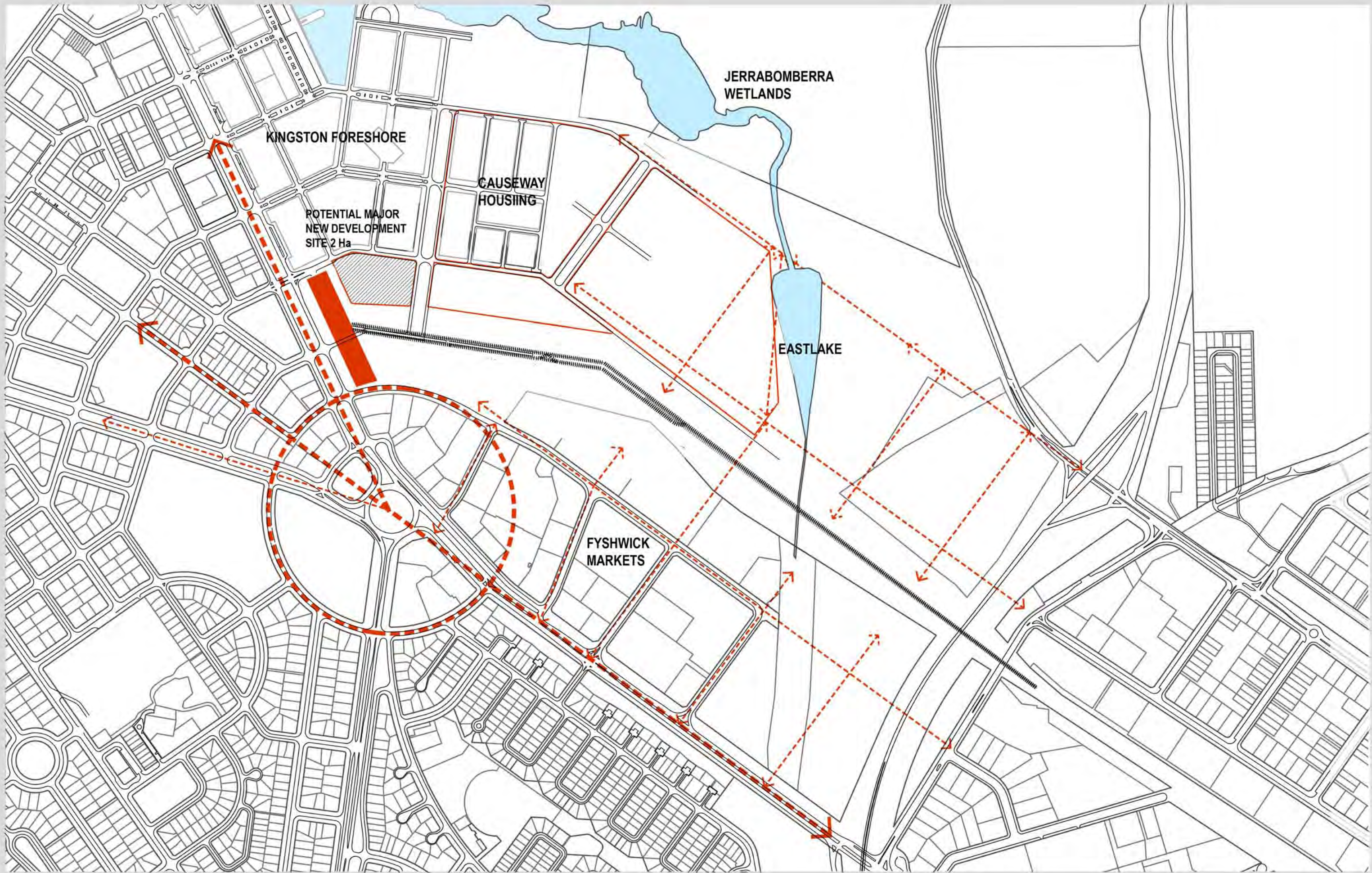


CITY CENTRE



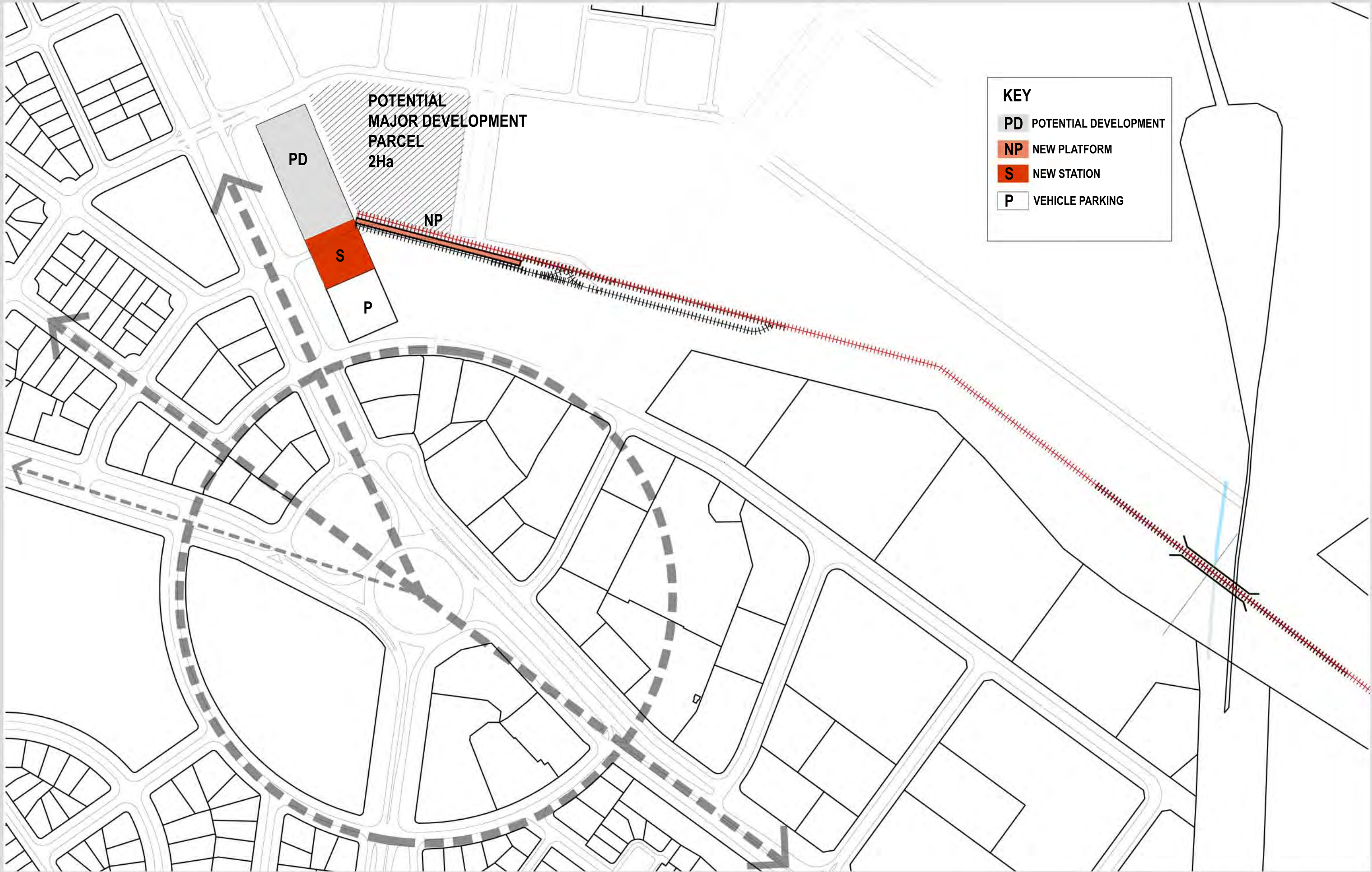










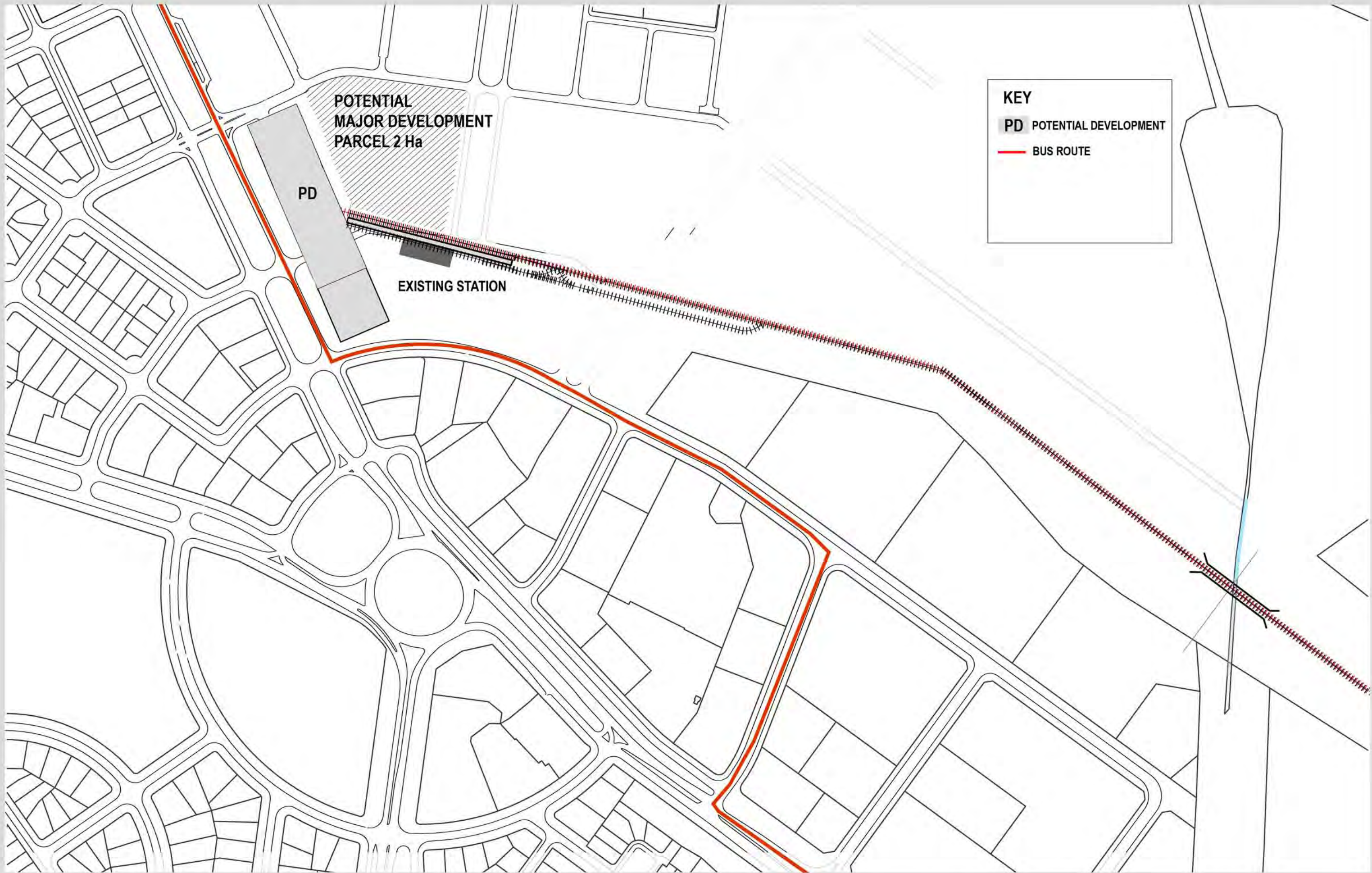


**KEY**

- PD** POTENTIAL DEVELOPMENT
- NP** NEW PLATFORM
- S** NEW STATION
- P** VEHICLE PARKING







**KEY**

**PD** POTENTIAL DEVELOPMENT

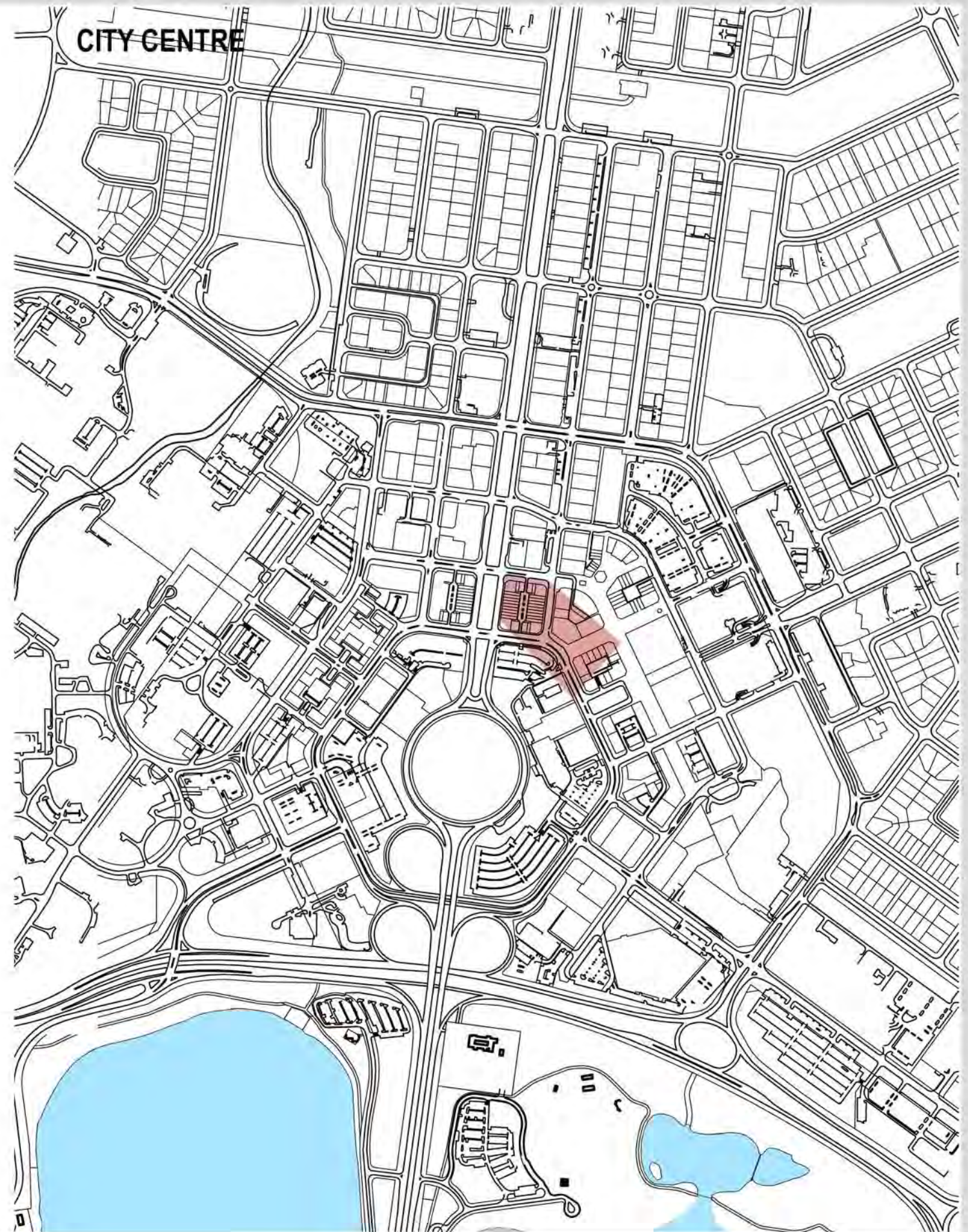
**BUS ROUTE**







RAIL PRECINCT



CITY CENTRE





## Appendix D

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Site concepts for Fyshwick site







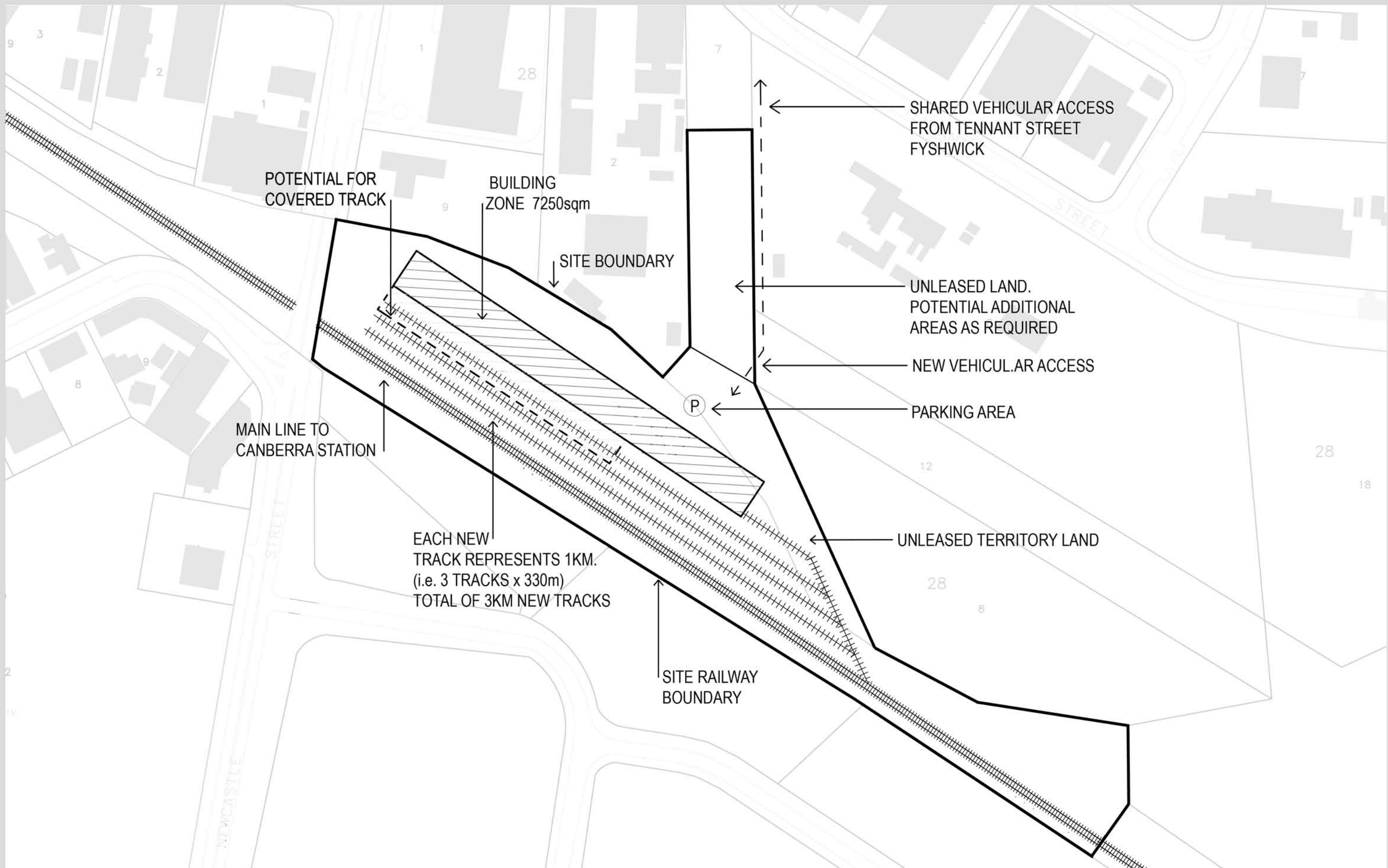
















## Appendix E

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### Estimated Costs Schedule



## Estimated Costs Schedule

Items	Rate	Unit	Qty	Total
<b><u>Relocation of ARHS &amp; William Edmund Facilities to Fyshwick</u></b>				
Single Track and Subsoil drainage	600	\$/m	3500	2100000
Turnouts	88,302	\$ each	5	441510
Earthworks				
Clear and remove vegetation	5,519	\$/ha	7	38633
Cut to Fill (Rock)	22	\$/m <sup>3</sup>		
Cut to Fill (Soil)	22	\$/m <sup>3</sup>		
Cut to Fill (truck useable)	22	\$/m <sup>3</sup>		
Cut to Spoil (soil)	39	\$/m <sup>3</sup>	70000	2730000
Facilities				
Workshops/sheds:				
ARHS workshop/museum display area (replace existing)	728	\$/m <sup>2</sup>	1240	902720
Replacement shed (William Edmund Pty Ltd)	728	\$/m <sup>2</sup>	955	695240
Relocate facilities	50,000	each	1	50000
New equipment	100,000	each	1	100000
Signalling & Telecoms (S&T)				
MLI locations	200,000	each	2	400000
Fencing	44	\$/m	800	35200
Gates	1,104	each	3	3312
Hard standing (inc parking areas)	40	\$/m <sup>2</sup>	300	12000
<b>Sub Total</b>				<b>\$7,508,615</b>
<b><u>Relocation of Station at Kingston</u></b> (based on existing rail formation)				
Single Track and Subsoil drainage	2,500	\$/m	300	750000
	600	\$/m	300	180000
Turnouts	250,000	\$ each	3	750000
Earth Works				
Clear and remove vegetation	5,519	\$/ha	5	27595
Cut to Fill (Rock)	22	\$/m <sup>3</sup>		
Cut to Fill (Soil)	22	\$/m <sup>3</sup>		
Cut to Fill (truck useable)	22	\$/m <sup>3</sup>		
Cut to Spoil (soil)	39	\$/m <sup>3</sup>		
Stations				
Platform	1,000	\$/m <sup>2</sup>	500	500000
Station building	3,500	\$/each	750	2625000
Facilities				
Compound	44	\$/m	500	22000



Items	Rate	Unit	Qty	Total
Gates	1,104	each	2	2208
Refuelling facilities	500,000	each	1	500000
Hard standing (inc parking areas)	40	\$/m <sup>2</sup>	600	24000
Signalling & Telecoms (S&T)				
MLI locations	200,000	each	2	400000
<b>Sub Total</b>				<b>\$5,780,803</b>
<b><u>Provision of Freight Crossover</u></b>				
Single Track and Subsoil drainage	600	\$/m	50	30000
Turnouts	250,000	\$ each	2	500000
Signalling & Telecoms (S&T)				
MLI locations	200,000	each	2	400000
<b>Sub Total</b>				<b>\$930,000</b>
<b>Total</b>				<b>\$14,219,418</b>
<b>Range</b>	<b>+/-</b>	<b>30%</b>		<b>\$9,953,593</b>
				<b>\$18,485,243</b>

## **Appendix F**

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### Consultation Report incorporating Consultation Strategy





# ACT Railway Master Plan - Stakeholder Consultation Report

September 2007

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ACT Planning and Land Authority

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Parsons Brinckerhoff Australia Pty Limited ABN 80 078 004 798

*Level 3, Empire Chambers  
1-13 University Avenue  
Canberra ACT 2600  
GPO Box 331  
Canberra ACT 2601  
Australia  
Telephone +61 2 6281 9500  
Facsimile +61 2 6281 9501  
Email [canberra@pb.com.au](mailto:canberra@pb.com.au)*

*NCSI Certified Quality System ISO 9001*

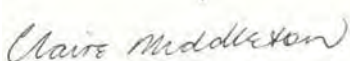
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Author: Cindy Williams

Signed: 

Reviewer: Claire Middleton

Signed: 

Approved by: Hugh Swinbourne

Signed: 

Date: 13 September 2007

Distribution: ACTPLA/PB (file)

# Contents

	Page Number
<b>1. Introduction .....</b>	<b>1</b>
1.1 Background	1
1.2 Purpose of this report	1
1.3 Location	1
<b>2. Stakeholder consultation .....</b>	<b>3</b>
2.1 Consultation strategy	3
2.2 On-board rail patrons survey	3
2.3 Rail operators	4
2.3.1 Australian Railway Historical Society (ARHS)	4
2.3.2 Canberra Society of Model and Experimental Engineers (CSMEE)	5
2.3.3 William Edmund Pty Ltd	6
2.3.4 CountryLink	7
2.3.5 Rail Infrastructure Corporation (RIC) operations	8
2.3.6 Australian Rail Track Corporation (ARTC) operations	8
2.4 Government agencies	9
2.4.1 Government agencies workshop	9
2.4.2 ACT Chief Minister's Department	10
2.4.3 Department of Transport and Regional Services	11
2.4.4 Department of Defence	11
2.4.5 NSW Premier's Department	12
2.4.6 Land Development Agency (LDA) and ACT Treasury	12
2.4.7 Territory and Municipal Services, Community and Infrastructure Services	12
2.5 Other interested parties	13
2.5.1 CSIRO	13
2.5.2 Geoscience Australia	13
2.5.3 Capital Airport Group (CAG)	13
2.5.4 NSW Independent Transport and Reliability Regulator	14

## **Contents** (continued)

### **Page Number**

### **List of tables**

Table 2-1: Attendees

9

### **List of figures**

Figure 1-1 Study Area

2

### **List of appendices**

Appendix A

Consultation Strategy

Appendix B

On board patrons survey – detailed analysis



# **1. Introduction**

## **1.1 Background**

Existing rail infrastructure and facilities in Canberra reflect past levels of rail activity and much of the rail infrastructure and associated facilities are no longer required for current rail operations. This provides an opportunity to rationalise the land used for rail purposes and to improve its efficiency, as well as an opportunity to consider other compatible and synergistic land uses for future developments.

The existing railway lands at Kingston include the rail yards, CountryLink station and the Australian Railway Historical Society (AHRS) facilities and are bounded by Cunningham Street, Wentworth Avenue and the Jerrabomberra Wetlands.

The ACT Government has identified the Kingston rail yards and surrounding industrial and residential land as an area for urban renewal. The area, to be known as East Lake, is expected to accommodate high-density urban environment blending commercial and residential development and creating a new interface with the Jerrabomberra Wetlands. Preliminary investigation and planning for the area indicate a development potential for about 5,000 dwellings and 3,000 new local jobs.

Parsons Brinckerhoff (PB) has been commissioned by the ACT Planning and Land Authority (ACTPLA) to assess the current and future requirements for heavy rail services in the ACT and specifically to prepare a master plan which considers the most appropriate utilisation of the Kingston railway lands and options for relocating part of all of these uses.

## **1.2 Purpose of this report**

The key objective of this master plan report is to make recommendations to the ACT Government in relation to the delivery of rail services to best cater to the current and future needs of the ACT community and reflect broader transport and regional development objectives.

The purpose of this report is to document the discussions and feedback that has been received from the key operators, government agencies and community groups.

## **1.3 Location**

The area to which this master plan applies is all railway land in the ACT and is identified in Figure 1-1 and by the following description:

- Block 2 Section 39, Kingston
- Block 3 Section 39, Kingston
- Block 4 Section 11, Kingston
- Block 5 Section 11, Kingston
- Block 1 Section 47, Fyshwick
- Block 5 Section 47, Fyshwick
- Block 2066, Jerrabomberra District.



**Figure 1-1 Study Area**

The following sections provide details of the existing railway precinct at Kingston and a possible site for relocation of the railway precinct in Fyshwick.

## **2. Stakeholder consultation**

### **2.1 Consultation strategy**

A consultation strategy has been prepared which outlines the objectives of all consultations, identifies the key stakeholders and the workshop sessions. A copy of the agreed consultation strategy is provided at [Appendix A](#).

### **2.2 On-board rail patrons survey**

An on board survey of patrons was conducted on two separate services: the 12.05pm Canberra Xplorer train from Canberra to Sydney on Monday 25 June 2007; and the 6.58am Canberra Xplorer train from Sydney to Canberra on Thursday 28th June 2007.

The departing Canberra service had 78 passengers on board a three carriage train: two economy class carriages and one first class carriage with a buffet compartment. The passenger carrying capacity of this train is 156: 44 first class seats and 112 economy class seats. From the 78 passengers, a total of 17 interviews were conducted.

The departing Sydney service had 23 passengers on board. On this service a total of 14 interviews were conducted. Each interview was completed within an average time of 15 minutes.

The predominant group of people using the Canberra to Sydney rail service were retired persons over the age of 60, who use the service on average twice a year to visit family and friends in either city. Some people were using the service to make connections to other train services out of Sydney. There were more females than males in this group of retired persons and the most common general comments about the train service were that it is comfortable, relaxing, clean, affordable, but slow.

The early morning weekday service from Sydney was similarly dominated by retired persons, more females than males, using the service to visit family and friends in the National Capital or returning home from a visit to Sydney. There were surprisingly few tourists from other countries (total of three) and only two students. A number of retired persons accessed this service from stations within the southern highlands, journeying to Canberra to visit relatives for periods of up to 3 days. This particular group use the service more often, either fortnightly or monthly.

Interviewees on the Sydney to Canberra service made similar comments about the desirability of train use in comparison to buses, due to comfort, the ability to walk around and obtain food from the buffet compartment, a more relaxing journey and friendly staff.

Comments from those interviewed on both services about the future of passenger rail services from Sydney to Canberra highlighted the need to increase the speed of the service to be comparable to the journey time of bus services, and thereby enhance the competitiveness and sustainability of the train service.

Most people interviewed considered railway services to be a fundamental form of public transport that should be available to all major cities of Australia, especially the National Capital.

Expectations about increasing the speed of train services within the rail corridor are realistic and there is a general understanding of the speed limitations of different sections of the

track, especially given the terrain and curved (historic) alignments through the Southern Highlands.

Although the Canberra railway station is geographically close to the city centre, it was observed by numerous people interviewed that the environment of the station is unwelcoming, suffers from lack of information (eg map of the city), there are few or no waiting taxis/buses on arrival, and people feel “stranded” if they are not familiar with Canberra’s layout and services.

Since most people are dropped off to Canberra’s railway station, or make a connection using regional bus services, the location of the station is not of particular concern to most people interviewed.

## 2.3 Rail operators

### 2.3.1 Australian Railway Historical Society (ARHS)

#### Interview details

28 June 2007, 2:00-4:00pm.

Attendees: Graeme Stanley (President); Peter Anderson (Vice President); Peter Semczuk (Vice President); Claire Middleton (PB).

#### Summary

The ARHS commenced in the ACT in 1966 and the ACT Division of the ARHS was formed in Canberra in 1975. Today the Society is trustee of the Canberra Railway Museum Trust and is dedicated to the study, preservation and operation of significant items of NSW railway history. As a non profit organisation with more than 400 members, the Society runs heritage rail trips locally and long distance train tours. It also operates the Canberra Railway Museum, the Michelago Tourist Railway and a Countrylink Ticketing Agency (from Queanbeyan Railway Station).

The Society owns or has custody of more than 100 items of rolling stock. These include seven steam locomotives, five diesel locomotives, four diesel rail motors and an extensive fleet of vintage timber-bodied and modern steel sitting, sleeping and dining cars.

The Society is managed by a Council of nine members, including President, Vice President, Treasurer, Secretary and five Ordinary councillors elected annually from the membership.

Discussion topics relevant to the study, included:

- The ARHS is an accredited rail operator with professional drivers and meets all NSW rail and safety requirements. The ARHS is not an accredited rail operator in the ACT because there is no Rail Safety Act in the ACT.
- The basic requirement for a Railway Museum site is flat land. The existing site (2.9 hectares) has been occupied by the ARHS for approximately 30 years. The current arrangement is via a licence to occupy land. However, the ARHS has a Ministerial undertaking that a 10 year lease will issue for its current site.
- The ARHS is willing to look at realistic options for relocating its operations. The meeting attendees indicated that ARHS do not support the view provided to the INDEC study (March, 2006) that heavy locomotive and carriage maintenance could be carried out on the Michelago site.



- In order to operate a rail service from Canberra to Michelago, the ARHS has a lease from RIC over the Queanbeyan to Michelago railway line. ARHS is responsible for maintenance of this line and this is a considerable cost for a small organisation. Expenditure to date has exceeded \$500,000, with an average expenditure of \$250,000 per annum. This is not sustainable and currently the ARHS has withdrawn its local operations to use of the Canberra to Bungendore section of the rail corridor. It was indicated that recently the Michelago rail section has been physically de-stabilised by the activities of a local landowner and has also suffered storm damage (wash out). This has compounded the issue of ongoing maintenance costs of this section of the line.
- The existing historic rolling stock needs sheds and roofing to provide protection and preservation. This has not happened on the existing site because of the lack of permanent tenure, although previously the ARHS has contemplated occupying the freight shed now occupied by Pacific National.
- The ARHS has also considered relocating to underutilised land around the Queanbeyan Railway Station, including the disused fuel depot. However the difficult grades around this site, the short sidings and costly vandalism/security issues have prevented any further consideration of this site as a potential site for the ARHS.
- Other sites considered by ARHS include Harman and Hume (adjacent to Koppers Logs site). Hume has been discounted because of unsuitable slope of the land and steeply cut drains. The cost of works to create usable railway yards would be prohibitive. Harman is constrained because of the need to provide public access to Defence lands.

### **2.3.2 Canberra Society of Model and Experimental Engineers (CSMEE)**

#### **Interview details**

12 July 2007, 6.00pm

Attendees: Geoff Ross (President), Dick Whitfield (Member, Forward Planning Committee), Dennis McAlister (on behalf of the Treasurer), Claire Middleton (PB).

#### **Summary**

CSMEE operates a miniature railway facility from a site within the study area: Block 3 Section 42 Kingston is located off Geijera Place, adjacent to The Causeway housing estate and the ARHS facility.

The CSMEE relocated its operations to Kingston in 1983, originally operating table sized model railways from within full size railway carriages. Later, the current site was secured (area of approximately 2,397m<sup>2</sup>) but relies on use of a ground level track within the ARHS site to provide a running track of approximately 1 kilometre in length for passenger hauling activities. The original intention of co-location with ARHS was that the ARHS activities would attract visitors to the miniature railway. However, on CSMEE running days (one day per month) visitors to this facility have often exceeded 1000. The CSMEE also operates special running days for a range of groups and organisations from Canberra's communities.

Facilities on site are temporary in nature and comprise a metal storage shed; two WWII bicycle storage/shelter facilities that have been recycled as ticketing and waiting areas; a caravan for a canteen; three shipping containers for storage and maintenance equipment; picnic facilities, and a rank of raised tracks (steaming bays) for servicing, repairing and preparing trains for running.

Although located within close proximity to The Causeway housing estate, there is no particular relationship between the residents of this estate and the CSME facility, in that only one or two residents are currently members of the CSME.

The CSME operates on a cost recovery basis and consequently has been able to offer a service to Canberra's communities at a very cheap rate.

Discussion topics relevant to the study, included:

- Land tenure related to the current occupation and use of facilities at Kingston comprises undocumented permission to use part of the ARHS site and a monthly lease over Block 3 Section 42 Kingston. The monthly lease contains no provision for compensation for improvements. The CSME has attempted, for more than a decade, to secure adequate long term tenure over its Kingston site.
- Minister Corbell wrote to the CSME in March 2007 and advised that a relocation of the Kingston Miniature Railway activities from the current site is likely at some time in the future. The Minister also advised that the necessary planning processes prior to development of the Eastlake area are likely to take a number of years to complete, and that the urban renewal process is expected to occur over the next 30 years.
- Although the preference of the CSME is to remain at its current location in Kingston, if relocated, it would require a site of approximately 3-4 hectares in order to provide appropriate public facilities and a track of sufficient distance/scenic interest to run passenger hauling activities.
- CSME has approached the LDA with a view to obtaining a concessional lease over a new site. However, as a small organisation of approximately 120 members, the miniature rolling stock and engines belong to private individuals and collectively, the organisation is unlikely to have the capital necessary to develop stand alone public amenities and parking. Estimated costs for essential site works is approximately \$450,000.
- Ideally, the CSME should be part of a tourist precinct with shared facilities. The operation of a miniature railway is compatible with areas of urban open space but ground level track needs to be protected from vandalism.

### **2.3.3 William Edmund Pty Ltd**

#### **Interview details**

21 June 2007, 11.30am

Attendees: Bill Cleary (Manager) and Claire Middleton (PB)

#### **Summary**

William Edmund Pty Ltd is a plumbing and building/site maintenance business that has operated from the Kingston site for 16 years. The business employs eight people. The Manager, Bill Cleary, also holds the position of Manager Train Services and Passenger Fleet Maintenance and provides on site and regional services to RailCorp. These services comprise maintenance of all Countrylink railway facilities (buildings and infrastructure) and back up service to Countrylink trains in the event of breakdown between Canberra, Tarago and Yass. For the latter, Bill Cleary owns and operates two locomotives from the Edmund siding. Bill Cleary is a registered Department of Transport train driver and also assists the ARHS by driving trains for some of its services.

A private sewage pumping station on the railway land is serviced and maintained by the plumbing business.

Discussion topics relevant to the study, included:

- The business is currently operating from the site without a licence or leasing arrangement in place. Bill Cleary has attended several meetings with ACT Government representatives since 2001 to discuss the Government's plans for future use of the site and surrounding area.
- The building occupied by William Edmund P/L is the first of six buildings planned as part of an inland freight terminal in the 1960s. No other buildings included in the proposal were erected and the building has previously been occupied by a number of storage businesses until becoming derelict for several years before the current occupation.
- The proximity of William Edmund P/L to the ARHS is not critical to either operation, although good for business, but both organisations rely on use of existing sidings and other infrastructure (eg cranes), lengths of track for shunting, and close proximity to the operational Canberra-Sydney railway line.
- The current site and adjacent unoccupied railway land is the site of a former landfill and is known to have three types of asbestos deposits: lagging, sheets and tiles.

### **2.3.4 CountryLink**

#### **Interview Details**

24 August 2007

Attendees: Nadine Clench (Sales and Distribution Manager), Bill Palazzi (PB)

#### **Summary**

Countrylink is a division of RailCorp and is responsible for the operation of country passenger rail services. Countrylink trains operate between Sydney and Melbourne, Brisbane, Canberra, Dubbo, Moree, Armidale and Griffith. Countrylink is also responsible for the provision of bus connections to the passenger trains; these services are normally franchised to local bus operators.

Discussion topics relevant to the study, included:

- Countrylink has no plans to reduce the level of passenger service to Canberra.
- Countrylink is concerned with the isolation of the current Canberra Railway station. The station has no real links with local transport services and taxi services are often unavailable. This is a key issue for passengers arriving at Canberra on Countrylink trains.
- Countrylink would be concerned about any proposals to relocate the station further from the centre of Canberra and correspondingly further from connection with local Canberra transport services. . On this basis, the proposed Fyshwick site would be much less preferred than a site at Kingston.
- At this stage, Countrylink drivers continue to use the barracks located adjacent to the station building. Any change to this arrangement (due to the non-provision of a barracks building in the new arrangement, for example) would need to be negotiated with Countrylink.

## 2.3.5 Rail Infrastructure Corporation (RIC) operations

### Interview Details

2 July 2007

Attendees: Kel Parfitt, Bill Palazzi (PB)

### Summary

RIC was established in 2001 as a statutory State Owned Corporation under the Transport Administration Amendment (Rail Management) Act 2000. Under the Act, RIC's principal objective is to ensure that those parts of the NSW rural network under its responsibility enable safe and reliable passenger and freight services, to be provided in an efficient, effective and financially responsible manner.

Discussion topics relevant to the study, included:

- RIC is not aware of any future plans regarding rail services in and around Canberra. They are unaware if Countrylink plans to alter service, or if PN plan to alter the fuel service (see below).
- RIC is aware that ARHS has indicated that they are investigating running a shuttle to service the defence facility at Bungendore (two trains morning and night).
- There has been discussions of trains transporting gravel from a quarry near Michelago, however, if this eventuates it would connect with the main line at Queanbeyan, and would not rely on facilities in Canberra.
- At times there have been suggestions from some parties that if there was a serious maintenance issue on one of the old structures between Canberra and Queanbeyan, that the Canberra branch line would be closed. This is not the case. RIC has just spent substantial amounts of money upgrading bridges and other structures along the corridor so is unlikely that this maintenance program will cease.
- The discontinuation of the service into Canberra is unlikely to be politically acceptable. Note that this has been done at other line termini – e.g. Boggabilla, Collarenebri, Walgett, etc, however these are all much smaller places than Canberra.
- There are four locations in NSW serviced by fuel trains – Canberra, Tamworth, Wagga Wagga and Dubbo. These services are quite lucrative to PN so is unlikely that these services will cease in the short term.

## 2.3.6 Australian Rail Track Corporation (ARTC) operations

### Interview Details

2 July 2007

Attendees: Mick Sanders, Bill Palazzi (PB)

### Summary

The Australian Rail Track Corporation Ltd (ARTC) was created after the Commonwealth and State Governments agreed in 1997 to the formation of a 'one stop' shop for all operators seeking access to the National interstate rail network.

ARTC currently has responsibility for the management of over 10,000 route kilometres of standard gauge interstate track, in South Australia, Victoria and Western Australia, and New South Wales .



Discussion topics relevant to the study, included:

- ARTC are not aware of any future plans regarding rail services in and around Canberra.
- They have not heard any discussions relating to Countrylink plans to alter their services or PN to alter the fuel service.
- ARTC is aware of the ARHS plans to run a shuttle to service the defence facility at Bungendore. At this point the current infrastructure could handle the additional shuttle service.

## 2.4 Government agencies

### 2.4.1 Government agencies workshop

Workshop details

Friday 22 June 2007, 9:00am

**Table 2-1: Attendees**

Name	Government Agency
Tom Percival	ACTPLA – Project Manager
Doug Brooks	ACTPLA – Urban Design
Patrick Paynter	ACTPLA – Infrastructure Planning
Rod Power	Chief Minister's Department
Fred Ihegie	Territory and Municipal Services
Helen McKeowen	Environment ACT
Daniel Walters	Environment ACT
Kuga Kugathas	Territory and Municipal Services
Stewart McKenzie	National Capital Authority
Hugh Swinbourne	PB
Claire Middleton	PB
Alex Falvey	PB
Cindy Williams	PB
Colin Stewart	Colin Stewart Architects
Miriam Wallace	Colin Stewart Architects
<b>Apologies</b>	
Daniel Stewart	Department of Treasury
Mark Heckenburg	Territory and Municipal Services
Gordon Lowe	Land Development Agency

### Summary

Discussion topics relevant to the study, included:

- Existing rail corridor in the vicinity of Kingston should be retained as a transport corridor, no matter what the future of rail services to Canberra holds.
- The long term importance of the connection of a pattern of development to the Causeway and Hume Circle is reflected in the concept schemes presented. Hume Circle is a logical

transport node and the NCA is supportive of the contextual analysis inherent in the draft concepts.

- A transport hub at Hume Circle is likely to generate a social and economic situation that sustains local and regional bus and train services.
- Asbestos deposits within a large part of the railway land (former tip site) will be required to be remediated, regardless of the potential land use suggested for this area.
- The constraints to development in this area are likely to be geotechnical rather than contamination.
- Canberra residents hold strong views about the retention of passenger rail services to the National Capital and the previous proposal by Countrylink to abandon the service met with a public outcry that required political intervention to restore the service, although with a reduced frequency of service.
- The ACT Government (TAMS) has commissioned a traffic impact Assessment for the East Lake redevelopment proposal and this work is being undertaken by ARUP.
- The ACT Government proposes to commission two urban edge studies that are related to the East Lake redevelopment proposals: Hume Circle/Canberra Avenue and the Jerrabomberra Wetlands interface.
- The ACT Government (ACTPLA) is entering into a working partnership with CSIRO to provide advice on ecologically sustainable outcomes for the East Lake area, throughout the life of the project.
- There was general support for the ideas and concepts presented at the workshop.

## 2.4.2 ACT Chief Minister's Department

### Interview details

22 May 2007, 12pm

Attendees: George Tomlins, Executive Director Strategic Priorities, ACT Chief Minister's Department, Alex Falvey (PB), Hugh Swinbourne (PB), Claire Middleton (PB) and Cindy Williams (PB).

### Summary

The Chief Minister's Department is responsible for the running of strategic transport infrastructure projects for the ACT. Our consultation sought to establish current projects and long term strategic plans that might impact on existing Canberra rail corridor.

Discussion topics relevant to the study, included:

### Regional rail schemes

- The Chief Minister's Department was involved in the ACT Very Fast Train (VFT) project between Sydney and Melbourne and its later incarnation as Speedrail between Canberra and Sydney. The design of a potential high speed rail link to Sydney has been progressed to a high level of refinement but due to the economic analysis has not progressed any further.
- None of the options designed relied on the use of the current Queanbeyan to Canberra branch line. The branch line is bypassed and becomes irrelevant to high speed projects. Instead a Canberra terminus would be located at the airport.

- Projects mixing passenger trains with approx. 10% freight trains was an option, also the possibility of operating tilting passenger trains. Again neither investment presumed a connection to the existing branch line.
- In the late 1990's Freightcorp were investigating establishing an intermodal freight facility in the ACT. Rail freight has since continued to decline. If the project were resurrected an intermodal site would require:
  - immediate road access to a regional road network
  - large, inexpensive storage space.
- It was agreed that neither would be well satisfied by the current Canberra station location.

#### **Local rail schemes**

- Monorail and light rail schemes have been investigated by the ACT government over the years. None assumes any interconnection with the existing Canberra branch line, with connections between the airport and Civic being the principal objectives.
- At one time a link between the airport and existing Canberra station was considered to give access from the airport to the city. However expenditure on a more direct link to Civic was felt a better solution if it ever progressed.

### **2.4.3 Department of Transport and Regional Services**

#### **Interview details**

7 June 2007, 2:00pm

Attendees: Di Stewart, David Crawford, Cindy Williams (PB)

#### **Summary**

The AusLink Rail Branch manages the funding and investment programs, administers legislation and the operations of the ARTC. The branch also oversees any nationally important rail issues, including the development of policies and strategies.

Discussion topics relevant to the study, included:

- The current rail corridor is not part of the AusLink National Network and there are no current plans to expand the current AusLink rail network.
- DOTARS agreed that the current operations do not require the amount of land currently available and there is scope to rationalise.
- If freight services were to utilise the corridor in the future land does not need to be made available adjacent to passenger services. A freight terminal could be located anywhere along the corridor.
- Given the history of rail services and the central location of railway station at all the other major capital cities it would be undesirable to move the current station further away from central Canberra.

### **2.4.4 Department of Defence**

A letter asking for input and comment was sent to the Director of the Headquarters Joint Operations Command Project on 14 June 2007. A response was received on 16 July 2007 which stated that comment was sought from other authorities within Defence who may have an interest in the subject matter of the study. However, at this stage Defence does not wish to provide any input to the master plan.

## 2.4.5 NSW Premier's Department

Letter seeking input and comment was sent and no comments were received. After following up the letter with the relevant contact person the Department has advised that they do not wish to provide any comments at this stage.

## 2.4.6 Land Development Agency (LDA) and ACT Treasury

### Interview Details

25 July 2007, 1.30-2.30pm

Attendees: Gordon Lowe, Jeremy Morris (LDA); Daniel Stewart (ACT Treasury); Tom Percival (ACTPLA), Hugh Swinbourne, Claire Middleton (PB)

### Summary

- LDA is currently funding a \$5.1m access to the Epicentre development at Fyshwick; this development is likely to be a major attraction for residents/visitors.
- Concern about which part of the ACT Government will bear the costs of relocation of existing facilities (if required) and rail infrastructure.
- Associated issues of re-location of 132kv substation and costs.
- Opportunity to investigate air rights development over the Kingston site (but rail infrastructure would still be an encumbrance to development at ground level).
- LDA is keen to see full cost benefit analysis of options.

## 2.4.7 Territory and Municipal Services, Community and Infrastructure Services

### Interview Details

27 August 2007, 8.30am.

Attendees: David Clark, Manager, Strategic Asset Management, Property Group, Claire Middleton (PB)

### Summary

- The ACT Government owns Block 21 Section 10 Fyshwick. This property is currently unleased Territory Land; has an area of 55,827m<sup>2</sup> and development on site comprises ten buildings – an office building, storage sheds and workshops. The office building has a GFA OF 3,600m<sup>2</sup> and is the current location for the following ACT Government Services: the Titles Office, Facilities Management, Parking Inspectors and the Office of Regulatory Services.
- The Property Group has no current plans to dispose of the subject site. If sold at auction, the site is likely to be of interest for Bulky Goods retailing, since it has a significant frontage to Canberra Avenue.
- The opportunity to use the site for a future freight terminal should not be discounted, although access to the Canberra rail corridor is now via privately leased land. A formerly used rail siding is shown on Canberra by Suburbs extending from the rail corridor through Blocks 22 and 23 Section 10 Fyshwick, close to Block 21.
- The existing siding from the railway line is overgrown/disused and the rail track is no longer available (may not exist) beyond the road reserve adjacent to the rail corridor



block (Block 5 Section 47 Fyshwick). Private leases are fenced and the undeveloped areas of Block 22 (adjacent to the rail corridor) are being used for outdoor storage (timber) and for the operations of Readymix Concrete.

## 2.5 Other interested parties

### 2.5.1 CSIRO

The ACT Government have just finalised the East Lake development partnership with CSIRO. The project team has sought a time to meet with CSIRO but to date there has been no response received.

### 2.5.2 Geoscience Australia

Letter seeking input and comment was sent and no comments were received. After following up the letter with the relevant contact person the department has advised that they do not wish to provide any comments at this stage.

### 2.5.3 Capital Airport Group (CAG)

#### Interview details

25 June 2007 and 2 July 2007

Attendees: Noel McCann (CAG), Claire Middleton (PB)

#### Summary

The Capital Airport Group managed the leased airport land and surround developments.

Discussion topics relevant to the study, included:

- Canberra Airport has recently extended its runway by 450 metres. At this stage the threshold hasn't moved and the glide slope infrastructure is still in the same location. However, CAG is positioning the runway facilities to implement GMS technology in the near future.
- Required Navigation Procedures (RNP) are currently being implemented. This is a new performance based navigation system that modifies current take off and landing procedures.
- The Airport Master Plan continues to recognise and plans to accommodate a route for a Sydney-Canberra-Melbourne Very High Speed Train (VHST).
- Current proposals for a new terminal building will be under construction by 2009 (in its current location) and will provide international gates. By 2011, the Canberra Airport will have a shared international/domestic facility with appropriate nav aids to support regular international flights to Canberra.
- CAG is currently pursuing a freight capability to accept trans-Tasman flights that are increasingly being denied access to Sydney Airport, due to existing curfews and lack of slots (ie pre-arranged sequencing to accept flights).
- Sydney airport is currently only able to accept international day freight activities between 5.30am and 10.00pm. After this time, Canberra is increasingly providing a back up service for freight planes that land in Canberra and wait for the next allowable time period to enter Sydney Control Zone. There is current demand for seven freighter bays in Sydney but the capacity is five. Most freight aircraft are 747s and 737s.

- The use of Canberra's rail corridor to haul freight from Canberra to Sydney should remain an option into the foreseeable future.
- The ACT Government's agreed alignment for a VHST is adjacent to the Majura Parkway, with a potential station integrated with the current airport terminal parallel to the east west runway). This location is suitable if the train terminates at the airport.
- If the VHST continues south, the future airport terminal options east of the north-south runway are more suitable. Future master planning for the airport will continue to address this long term proposal.
- The extension of the existing rail corridor to the airport is unlikely to be economically feasible – a regular bus service to the railway station and Civic, is considered more appropriate for local services/connections.

#### **2.5.4 NSW Independent Transport and Reliability Regulator**

Letter seeking input and comment was sent and no comments were received. After following up the letter with the relevant contact person the department has advised that they do not wish to provide any comments at this stage.

# ACT Railway Master Plan

## Stakeholder Consultation Plan

June, 2007

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ACT Planning and Land Authority

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Parsons Brinckerhoff Australia Pty Limited ABN 80 078 004 798

*Level 3, Empire Chambers*

*1-13 University Avenue*

*Canberra ACT 2600*

*GPO Box 331*

*Canberra ACT 2601*

*Australia*

*Telephone +61 2 6281 9500*

*Facsimile +61 2 6281 9501*

*Email [canberra@pb.com.au](mailto:canberra@pb.com.au)*

*NCSI Certified Quality System ISO 9001*

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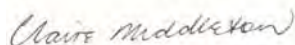
Author: Cindy Williams

Signed:



Reviewer: Claire Middleton

Signed:



Approved by: Hugh Swinbourne

Signed:



Date: June 2007

Distribution: ACTPLA/PB (files)



# Contents

	Page Number
<b>1. General project description .....</b>	<b>1</b>
1.1 Project objective	1
1.2 Scope of services	1
1.3 Aim of this plan	1
<b>2. Stakeholder liaison objectives .....</b>	<b>2</b>
2.1 Incorporation of stakeholder liaison objectives into project delivery	2
<b>3. Stakeholder identification .....</b>	<b>3</b>
<b>4. Key messages .....</b>	<b>5</b>
4.1 Introduction	5
4.2 Key messages	5
<b>5. Communication tools .....</b>	<b>6</b>
5.1 Government agency briefing and discussions	6
5.2 Stakeholder interviews and meetings	6
5.3 On-board rail patrons survey	6
<b>6. Issues table .....</b>	<b>7</b>
<b>7. Roles and responsibilities .....</b>	<b>8</b>
7.1 Consultation Manager	8
7.2 Project Manager	8
<b>8. Monitoring, evaluation and reporting .....</b>	<b>9</b>
<b>9. Stakeholder consultation action plan .....</b>	<b>10</b>
9.1 Program for implementation	10
9.2 Steering group meetings	10

## Contents (continued)

### Page Number

### List of tables

Table 3-1	Preliminary identification of stakeholders, issues/interests and communication activities	3
Table 4-1	Key Messages	5
Table 9-1	Description and timing of consultation activities	10
Table 9-2	Steering group meeting timetable	10

### List of appendices

Appendix A Survey Proforma

# **1. General project description**

The existing railway lands at Kingston include the rail yards, CountryLink station and the Australian Railway Historical Society (AHRS) facilities and are bounded by Cunningham Street, Wentworth Avenue and the Jerrabomberra Wetlands.

The ACT Government has identified the Kingston rail yards and surrounding industrial and residential land as an area for urban renewal. The area, to be known as East Lake, is expected to accommodate high-density urban environment blending commercial and residential development and creating a new interface with the Jerrabomberra Wetlands. Preliminary investigation and planning for the area indicate a development potential for about 5,000 dwellings and 3,000 new local jobs.

PB has been commissioned by the ACT Planning and Land Authority (ACTPLA) to assess the current and future requirements for heavy rail services in the ACT and specifically to prepare a master plan which considers the most appropriate utilisation of the Kingston railway lands and options for relocating part of all of these uses.

PB's project team includes Colin Stewart Architects (CSA) and Colliers International (Colliers).

## **1.1 Project objective**

The key objective of the project is to make recommendations to the Government on the delivery of rail services to best serve the current and future needs of the ACT community and reflect broader transport and regional objectives.

## **1.2 Scope of services**

The project will provide an assessment on the future provision of heavy rail services to the ACT including an outline of necessary components and facilities, an evaluation between two preferred facility location and preparation of a final master plan.

The project will be undertaken in three phases:

Phase 1 – Stakeholder Consultation

Phase 2 – Concept Designs

Phase 3 – Rail Master Plan.

## **1.3 Aim of this plan**

This Stakeholder Consultation Plan (SCP) has been prepared as a project management tool and forms a component of the quality system put in place for the project. The SCP will be used by the project team to manage stakeholder relationships and the liaison activities that will be undertaken to complete a comprehensive consultation process.

The key aim of the SCP is to provide direction for communication and stakeholder relations for the project by:

- Providing background information about the master plan process.
- Provide a description of the key stakeholders.
- Define the key messages, responses and identify the appropriate tools, techniques and activities to take place.
- Identify and allocate roles and responsibilities to complete the consultation tasks.

## 2. Stakeholder liaison objectives

The stakeholder liaison objectives provide a framework for early engagement with key government agencies, stakeholders and the community and maintaining this engagement throughout the preparation of the master plan. This will assist the project team to identify requirements for receiving approval of the master plan. The key objective is to enhance the development of project understanding among stakeholders and promote trust early in the project and ensure there are 'no surprises' for stakeholders if the master plan becomes a public document.

The stakeholder liaison objectives are to:

- Create stakeholder acceptance of the master plan by assisting them to become engaged and contribute to the preparation of the design concepts.
- Utilise a range of consultation activities throughout the project to ensure new issues that emerge are captured and new stakeholders identified are engaged.
- Facilitate open, transparent and informative discussions between stakeholders and the project team on aspects of the proposal that can be negotiated (e.g. rail infrastructure requirements).
- Incorporate stakeholder issues into the land use investigations.
- Manage project risks through pre-empting communication risks and identifying how they can be best addressed early in the process.
- Build and maintain relationships of trust and confidence between stakeholders, the community and the project team.

These objectives will be achieved by:

- Informing stakeholders about the project, its benefits and the opportunities to be involved.
- Provide stakeholders with adequate opportunity to be involved and make comments throughout the life of the project.
- Establish a two way information flow, develop mutual trust.
- Identify issues up front and perceptions associated with the project.
- Identify measures to mitigate perceived and actual identified stakeholder issues.
- Provide consistent point of contact and messages.

### 2.1 Incorporation of stakeholder liaison objectives into project delivery

The consultation objectives complement the overall master planning process. By generating a clear understanding of stakeholder issues these objectives help the project team effectively address these issues in their technical studies to the satisfaction of stakeholders. This will demonstrate to ACTPLA the effectiveness of the consultation methods undertaken and help create effective working relationships between the government, key stakeholders and the project consultants.



### 3. Stakeholder identification

A preliminary identification of stakeholders, correlating issues/interests and the communication activities required to manage these issues/interests is provided in the table below.

**Table 3-1 Preliminary identification of stakeholders, issues/interests and communication activities**

Organisation	Interest/Issues	Method of Consultation
<b>Operators</b>		
Australian Railway Historical Society (ARHS) ACT Division	Potential relocation of facilities. Impact on current historical and tourist activities. Rail services planning to Bungendore.	Stakeholder meeting or site inspection on open day (Sunday).
Kingston Miniature Railway	Potential relocation of facilities.	Stakeholder meeting.
William Edmund P/L	Impact on current business operations/loss of facilities.	Stakeholder meeting.
Pacific National	Impact on current business operations/loss of facilities.	Stakeholder meeting.
<b>Government Stakeholders</b>		
ACT Planning and Land Authority	Rationalisation of land provisions. Potential land use changes. Reflection of the Canberra Spatial Plan, Integrated Transport Plan and Griffin Legacy Plan. Understanding of cross border transport planning initiatives.	Government Agencies background briefing and discussion.
ACT Chief Ministers Department	Potential changes to rail services to and from the ACT. Obtain information from Strategic Planning Unit.	Government Agencies background briefing and discussion.
TAMS	Future transport planning through the provision of rail services.	Government Agencies background briefing and discussion.
LDA	Rationalisation of land provisions. Potential land use changes. Potential land release sites.	Government Agencies background briefing and discussion.
RailCorp/CountryLink	Relocation of existing facilities. Disruptions to current operations. Opportunities and constraints. Financial implications and staging.	Stakeholder meeting.
ARTC	Changes to current track and rail service provisions.	Stakeholder meeting.
NSW Premiers Department	Relationship and integration of cross boarder rail services.	Stakeholder meeting.

CSIRO	Potential land release sites (sustainable communities program).	Stakeholder meeting.
<b>Other Interested Parties (Potential to liaise with following organisations through life of project)</b>		
National Capital Authority	Provision of current rail services and relationship of current facilities to the National Capital Plan.	Potential one on one meeting or telephone discussion.
Queanbeyan City Council	Rationalisation of land provisions. Potential land use changes. Potential land release sites.	Meeting and discussion regarding strategic planning initiatives for LEP review.
Department of Defence (related to HQJOC near Bungendore)	Potential changes to current rail services. Potential use of rail services and facilities.	Letter outlining project and inviting responses/comments or interview.
Geoscience Australia (related monitoring station near corridor)	Potential changes to current rail services.	Letter outlining project and inviting responses/comments or interview.
Capital Airport Group (related to future high speed rail connections)	Potential changes to rail services. Integration of any changes in relationship to the very fast train proposals. Opportunities for multi-mode transport terminal.	Stakeholder meeting.
Department of Transport and Regional Services	Relationship with the AusLink National Network.	Stakeholder meeting.
NSW Independent Transport Safety and Reliability Regulator	Potential changes to rail services.	Letter outlining project and inviting responses/comments or interview.

## 4. Key messages

### 4.1 Introduction

This project involves consultation with a variety of stakeholders both current operators and government agencies, therefore consistent and clear messages are important. Key messages will aid in eliminating preconceived perceptions and inconsistent information and messages being provided to stakeholders, and will ensure that everyone is receiving the same information concurrently. The pre-emptive identification of issues, based on stakeholder categories and matching the method of consultation with each stakeholder, will facilitate the communications of the key messages consistently and effectively.

### 4.2 Key messages

The key messages have been divided into primary and secondary messages. The primary key messages will be consistent messages which will remain unchanged throughout the master planning phase.

**Table 4-1 Key Messages**

Primary Messages	
Topic	Message
<b>Purpose of the Master Plan</b>	The key objective of this project is to make recommendations to the ACT Government in relation to the delivery of rail services to best cater to the current and future needs of the ACT community and reflect broader transport and regional development objectives.
<b>The need for land rationalisation</b>	Existing rail infrastructure and facilities in Canberra reflect past levels of rail activity and much of the rail infrastructure and associated facilities are no longer required for current rail operations. This provides an opportunity to rationalise the land used for rail purpose and to improve its efficiency, as well as an opportunity to consider other compatible and synergistic land uses for future developments.
<b>Site options</b>	The project aims to provide an assessment of the future provision of heavy rail services to the ACT including an outline of necessary components and facilities; a comparative evaluation of two preferred facility locations, and the preparation of a master plan for rail services in the ACT.

## **5. Communication tools**

Consultation activities during the environmental assessment will include a combination of stakeholder interviews and meetings, a government agency workshop and information letters inviting comments.

### **5.1 Government agency briefing and discussions**

A government agencies workshop will be held. Invitations will be issued to key staff from the various agencies. The purpose of the workshop is to introduce the project team, outline the proposed master planning project, outline the process of consultation and record government agency issues relating to the project.

### **5.2 Stakeholder interviews and meetings**

The project team will conduct an initial project briefing with key staff from the relevant operators and user groups. The purpose of these initial meetings is to discuss issues of relevance and get an understanding of any future plans and rail services that might need to be accommodated in the final master plan.

### **5.3 On-board rail patrons survey**

In order to obtain relevant and current information about the operation of rail services between Canberra and Sydney, from a patrons perspective, a survey will be undertaken during a scheduled service. We are currently seeking permission to conduct this survey from CountryLink and a date will be negotiated once approval is received.

The survey proforma is provided as Appendix A.



## 6. Issues table

A comprehensive stakeholder issues table will be prepared during the consultation process and form part of the final consultation report. It will include:

- Analysis of issues and concerns raised during the consultation process.
- A meeting register that details all meetings, their purpose and attendees.
- A summary of issues raised and where they are addressed in the master planning process.

## **7. Roles and responsibilities**

Responsibilities for specific consultation tasks are outlined below.

### **7.1 Consultation Manager**

The Consultation Manager (Claire Middleton) is responsible for:

- Stakeholder liaison.
- Approval of meeting records, stakeholder correspondence and all other public information such as display material and project information.
- Providing timely information to the project team regarding any communication between key stakeholders and government agencies.

### **7.2 Project Manager**

The PB Project Manager (Hugh Swinbourne) is responsible for:

- Advising the PB Consultation Manager on all project developments and potential issues.
- Facilitating stakeholder issues back to the technical assessment team for exploration.
- Coordinating Federal, State and local government discussions and inputs for the assessment process.
- Attendance at government agency workshop and key stakeholder meetings.

## 8. Monitoring, evaluation and reporting

This SCP has been designed to ensure continual monitoring and evaluation of the effectiveness of all consultation activities throughout the preparation of the master plan. The consultative process is seen as flexible in its approach and will be revised to facilitate continual improvement where required.

Performance indicators to be evaluated include:

- The clarity of information distributed to government and key stakeholders.
- Key stakeholders feedback and review on clarity and ease of understanding of the contents.
- Feedback received from government agencies during the project briefing and key stakeholders during the interviews and meetings.
- Participation from all attendees.
- Two way information flow.
- Follow up/response to issues raised and information requests.
- Record of meeting minutes including follow up actions.
- Verbal and written comments from participants.
- Debriefings with project team members facilitating meetings and the information sessions.
- Regular reviews of evaluation criteria to ensure that they are relevant and sensitive enough to record the level of information.

## 9. Stakeholder consultation action plan

### 9.1 Program for implementation

A program for consultation activities has been produced in conjunction with the timing of the preparation of the master plan. Details of consultation activities and timing are provided in the table below.

**Table 9-1 Description and timing of consultation activities**

Activity	Date
On Board patrons Survey	Friday 8 June 2007 CB-SYD 12:05 pm Thursday 14 June 2007 CB-Syd 5:05 pm Friday 15 June 2007 Syd-CB 6:15 pm
Government Agencies Workshop at ACTPLA	14 June 2007 10:00-12:00 pm
Meeting with ARHS	3 June 2007
Meeting with Kingston Miniature Railway	3 June 2007
Meeting with William Edmund P/L	12 June 2007
Meeting with Pacific National	8 June 2007
Meeting with ARTC	8 June 2007
Meeting with RailCorp/CountryLink	4 June 2007
Meeting with Department of Transport and Regional Services	7 June 2007
Meeting with NSW Premier's Department	15 June 2007
Meeting with CSIRO	To be advised by ACTPLA
Meeting with Queanbeyan City Council	6 June 2007
Meeting with Capital Airport Group	6 June 2007
Letter to Department of Defence	8 June 2007
Letter to Geoscience	8 June 2007
Letter to NSW Independent Transport Safety and Reliability Regulator	8 June 2007

### 9.2 Steering group meetings

It is proposed that the project team present the findings of the 3 key phases to the steering group in accordance with the following schedule:

**Table 9-2 Steering group meeting timetable**

Presentation	Date	Time	Location
Phase 1	Friday 6 July	10.00 am	TBC
Phase 2	Friday 3 August	10.00 am	TBC
Final Master Plan	Friday 31 August	10.00 am	TBC



## Appendix G

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### User Facilities and Space Allocations

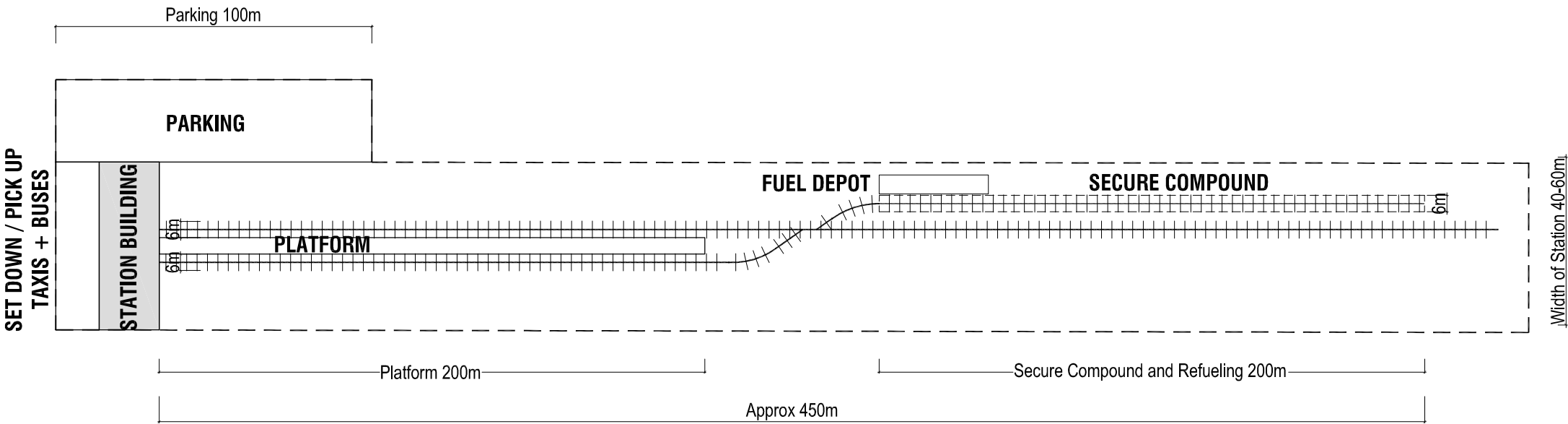
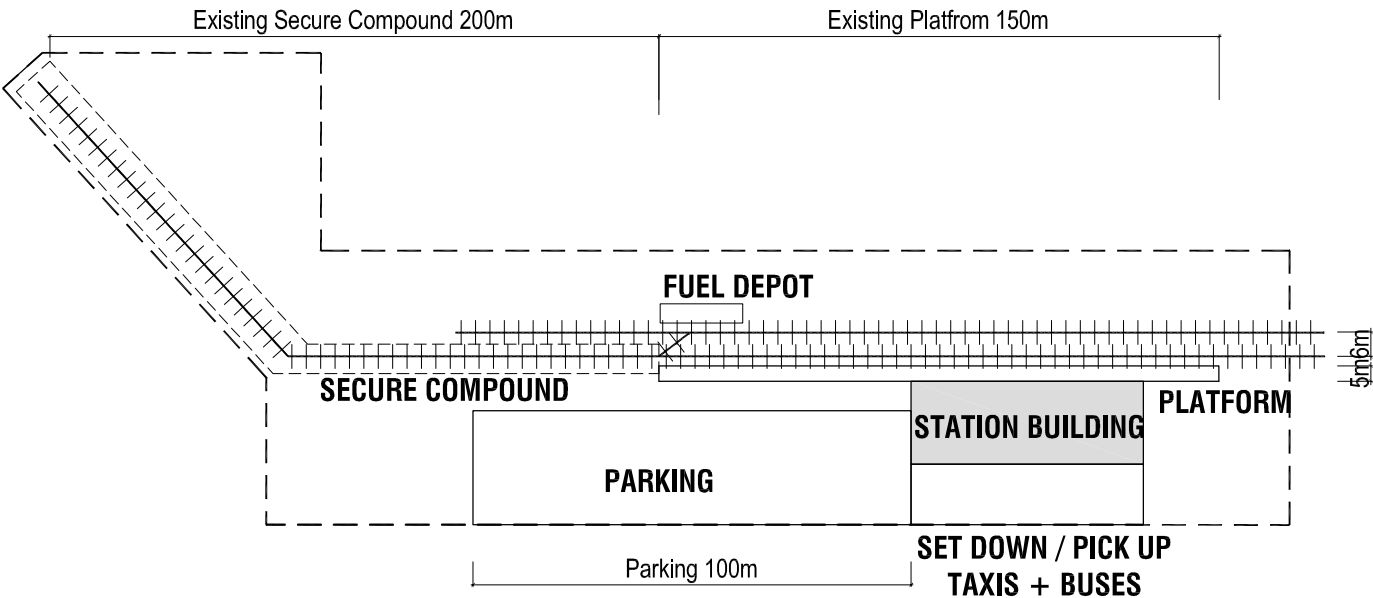




RAILWAY MASTERPLAN

**Existing Station Layout - Site Area 150,000m<sup>2</sup>;  
Site Area utilised for Railway station approx 25,000m<sup>2</sup>**

Approx 1000m<sup>2</sup> of GFA,  
Platform  
Parking for approx. 60 cars  
Refueling and storage facilities



RAILWAY MASTERPLAN

**Optimum Station Layout - Site area approx 41,000m<sup>2</sup>**

Approx 1000m<sup>2</sup> of GFA,  
Double sided platform  
Parking for approx. 60 cars  
Refuelling and storage facilities



PROJECT **Railway Master Plan**  
KINGSTON & FYSHWICK, ACT  
PROJECT NUMBER **987**

REV DESCRIPTION DATE

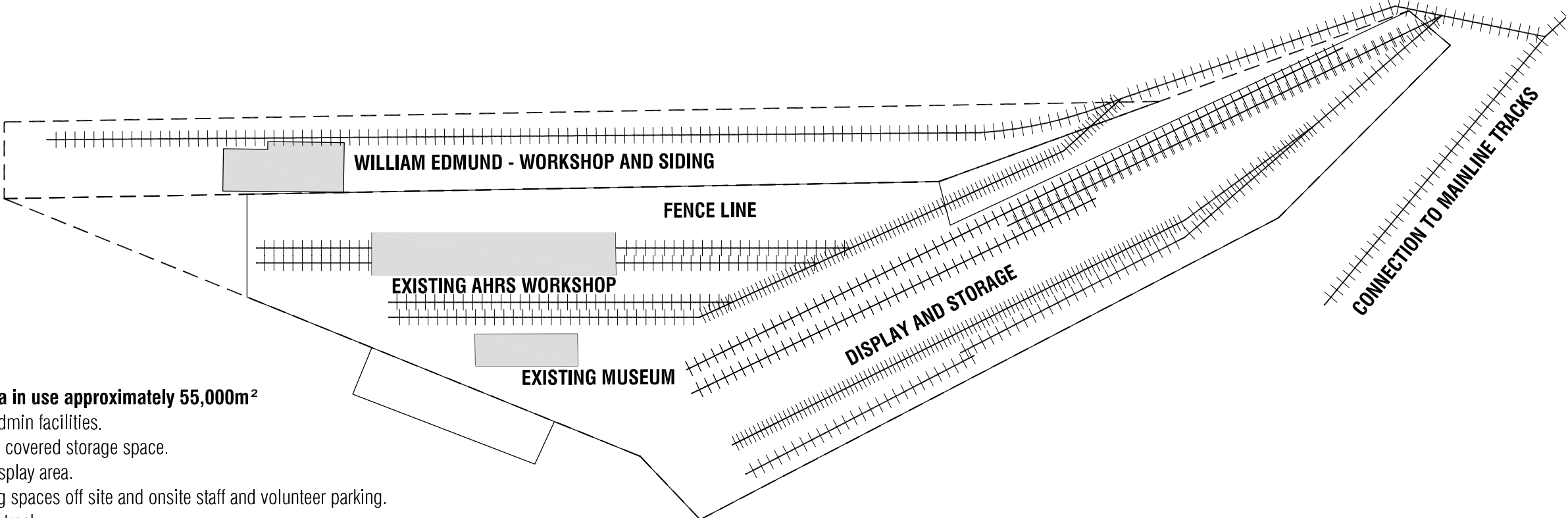
DRAWING **Diagram 2**  
SCALE **1:1000 @ A1**  
DATE **September 2007**  
DWG NUMBER **DIG 002**

**colin stewart architects**  
wetlands house dairy road fyshwick 2609  
po box 3469 maitland act 2803  
p 02 6228 1200 f 02 6228 1499





Over All Site 600m

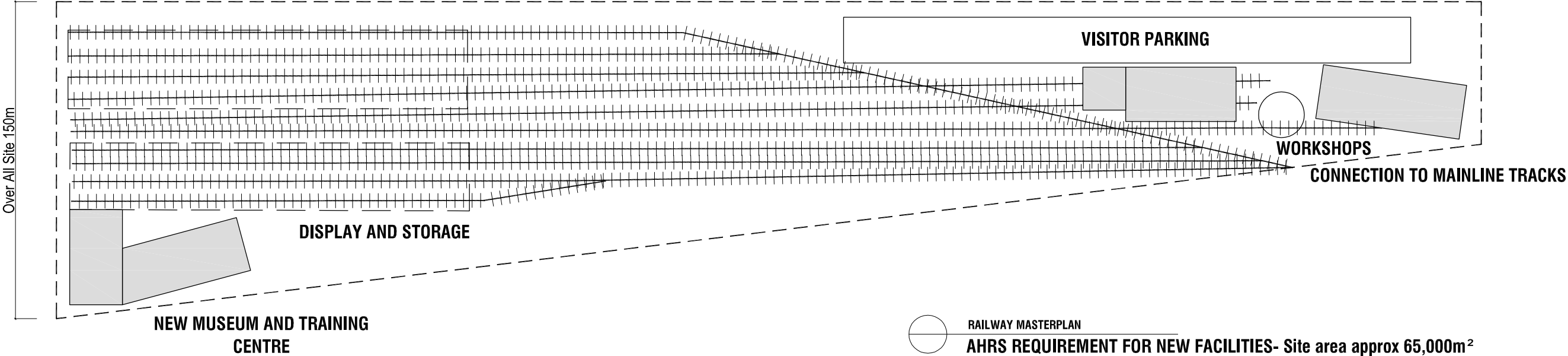


RAILWAY MASTERPLAN

**EXISTING AHRs FACILITIES - Site area in use approximately 55,000m<sup>2</sup>**

Approximately 500 m<sup>2</sup> of Museum and admin facilities.  
Approximately 2600 m<sup>2</sup> of workshop and covered storage space.  
3300m<sup>2</sup> of secure external storage and display area.  
Access to approximately 20 visitor parking spaces off site and onsite staff and volunteer parking.  
Access to approximately 2.5km of railway track  
William Edmund Pty. Ltd. Plumbing uses approx 12,200m<sup>2</sup> of the site, a siding and one large shed with access to tracks

Over All Site 600m



RAILWAY MASTERPLAN

**AHRs REQUIREMENT FOR NEW FACILITIES- Site area approx 65,000m<sup>2</sup>**

Approximately 2500 m<sup>2</sup> of space for the Museum, administration and training.  
Approximately 1000 m<sup>2</sup> of secure external storage and display area.  
3200 m<sup>2</sup> of covered workshop and storage space, all of which should be located on or near the railway tracks.  
Approximately 150 onsite parking spaces for visitors and staff.  
Access to 3.5km of railway track



PROJECT	<b>Railway Master Plan</b> KINGSTON & FYSHWICK, ACT
PROJECT NUMBER	<b>987</b>

REV	DESCRIPTION	DATE
-----	-------------	------

DRAWING	<b>Diagram 3</b>
SCALE	<b>1:1000 @ A1</b>
DATE	<b>September 2007</b>
DWG NUMBER	<b>DIG 003</b>



## Appendix H

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### Site Valuation Report





# **VALUATION REPORT**

**FOR**

## **ACT RAILWAY MASTER PLAN**



Quality  
Endorsed  
Company  
ISO 9002 Lic. 6350  
Standards Australia

**DATE OF VALUATION: 26 SEPTEMBER 2007**

**OUR REFERENCE:  
MC/SEPT/RAILWAYMASTERPLAN**

Colliers International Consultancy and Valuation Pty Limited  
ABN 89 076 848 112  
Level 1, 1-3 Torrens Street, Braddon, ACT 2612  
Ph: 61 2 6257 2121 Fax: 61 2 6257 2937

**COLLIERS  
INTERNATIONAL**

# EXECUTIVE SUMMARY

**PROPERTY ADDRESS:** Kingston and Fyshwick

**INSTRUCTION:** As part of the study into the Railway Master Plan for the ACT, Colliers International have been instructed to provide land values in accordance with identified land uses and development potential outlined in the study.

The study has identified four options located in Kingston and Fyshwick and the following report provides assessment of value in accordance with the proposed uses identified.

**INSTRUCTING PARTY:** ACT Planning and Land Authority  
Dame Pattie Menzies House  
16 Challis Street  
Dickson, ACT

Valuation Report

**DATE OF ADVICE:** 26 September 2007

**VALUATION** Current Market Value - Option 1  
\$125,600,000 – GST Exclusive  
(ONE HUNDRED AND TWENTY FIVE MILLION SIX HUNDRED THOUSAND DOLLARS)

Current Market Value - Option 2  
\$155,850,000 – GST Exclusive  
(ONE HUNDRED AND FIFTY FIVE MILLION DOLLARS EIGHT HUNDRED AND FIFTY THOUSAND DOLLARS)

Current Market Value - Option 3  
\$132,150,000 – GST Exclusive  
(ONE HUNDRED AND THIRTY TWO MILLION ONE HUNDRED AND FIFTY THOUSAND DOLLARS)

Current Market Value – Option 4  
\$148,760,000 – GST Exclusive  
(ONE HUNDRED AND FORTY EIGHT MILLION SEVEN HUNDRED AND SIXTY THOUSAND DOLLARS)

**VALUER:** Colliers International Consultancy and Valuation Pty Limited



Matthew Curtis AAPI  
State Director  
Certified Practising Valuer  
Registered Real Estate Valuer No 3257  
27 September 2007 (Date of Signing Report)

NOTE: This Executive Summary must be read in conjunction with the attached report and the details contained therein.

**COLLIERS**  
INTERNATIONAL

# Contents

1	INSTRUCTIONS .....	1
2	BASIS AND PURPOSE OF VALUATION .....	2
3	PECUNIARY INTEREST .....	3
4	DATE OF VALUATION .....	3
5	LOCATION .....	4
6	SITE PARTICULARS AND USES .....	6
6.1	KINGSTON .....	6
6.2	FYSHWICK .....	8
7	MARKET COMMENTARY .....	10
7.1	ECONOMIC SUMMARY .....	10
7.2	COMMERCIAL OFFICE MARKET REVIEW .....	11
7.3	RESIDENTIAL MARKET OVERVIEW .....	18
7.4	SUMMARY OF THE MARKET .....	23
7.5	SALES EVIDENCE – OFFICE SITES .....	25
7.6	SALES EVIDENCE – MIXED USE SITES .....	28
7.7	SALES EVIDENCE – APARTMENT SITES .....	29
7.8	MARKET POSITION/RECONCILIATION OF LAND VALUE .....	31
8	VALUATION METHODOLOGY .....	36
8.1	BASIS OF VALUATION .....	36
8.2	VALUATION CALCULATIONS .....	36
9	VALUATION .....	38

Valuation Report

## **APPENDICES:**

**A**      Location Plan

# 1 INSTRUCTIONS

As part of the study into the Railway Master Plan for the ACT, Colliers International have been instructed to provide land values in accordance with identified land uses and development potential outlined in the study.

The study has identified four options located in Kingston and Fyshwick and the following report provides assessment of value in accordance with the proposed uses identified.

Our valuation has been prepared in accordance with the Australian Property Institute (API) Code of Professional Practice 5<sup>th</sup> Edition.

We have assumed that the instructions and subsequent information supplied contain a full and frank disclosure of all information that is relevant.

Valuation Report

The Valuer certifies that he has no past, present or future contemplated interest in the property which would conflict with the proper valuation of the property.

The authenticity of this report and valuation contained herein may be confirmed by telephoning the signatory or the Valuation Director at the issuing office.



## 2 BASIS AND PURPOSE OF VALUATION

The valuation has been completed in accordance with the definition of Market Value defined by the International Valuation Standards Committee (IVSC) and endorsed by the Australian Property Institute:

"Market Value is the estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arms length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion."

This valuation report is provided by Colliers International Consultancy and Valuation (CICV) and not by any other company in the Colliers International Group. The valuation report has been prepared for **consultancy purposes**. CICV accepts no responsibility for any statements in this report other than for the stated purpose. This report is issued on the basis that no liability attaches to the companies in the Colliers International Group other than CICV in relation to any statements contained in the valuation report.

Valuation Report

### 3 PECUNIARY INTEREST

We advise that the Valuer nominated within this report is authorised under the relevant laws of NSW to practice as a Valuer and has had in excess of five (5) years continuous experience in the valuation of similar property to the subject.

Further, we confirm that the nominated Valuer does not have a pecuniary interest that could conflict with the proper valuation of the property, and we advise that this position will be maintained until the purpose for which this valuation is being obtained is completed.

### 4 DATE OF VALUATION

Valuation Report

26 September 2007 based upon our complete inspection of 20 July 2007. Due to possible changes in market forces and circumstances in relation to the subject property the report can only be regarded as representing our opinion of the value of the property as at the date of valuation.

## 5 LOCATION

The identified sites are in Kingston and Fyshwick. The following provides a brief summary of each location.

### 1) Kingston

Kingston is a fashionable inner city suburb located approximately 4.5 kilometres from Canberra City and 2 kilometres from the New Parliament House.

Over the past 10 years there has been a steady growth of medium density development in Kingston and developers have purchased traditional house sites for amalgamation and redevelopment.

This redevelopment has in the main, been of executive quality apartments and townhouses.

The close proximity of the suburb to the parliamentary triangle, the City Centre and Lake Burley Griffin has ensured a continuing demand for high quality apartments and town houses.

Other nearby community facilities include Telopea Park, several churches, Kingston and Griffith Group Centres, bowling greens, tennis courts, Kingston Sports ground and Canberra Railway Station.

The subject blocks are located to the south of the Kingston Foreshore development and Causeway residential development. The area will be known as East Lake and will enjoy the many benefits of the Foreshore development being:

- Close proximity to Lake Burley Griffin and associated leisure activities.
- Close proximity to Parliamentary Triangle and Barton commercial precinct.
- Kingston and Manuka shopping centres in close proximity.
- Canberra City and Defence Departments within easy driving distance.

### 2) Fyshwick

Fyshwick is Canberra's foremost industrial suburb approximately 9 kilometres south-east of Canberra's Central Business District and within three kilometres of Canberra Airport. Canberra Railway Station is within 5 kilometres of the subject.

The current workforce employed in Fyshwick is 11,000 which represents 8% of the total workforce in the A.C.T., a fact which demonstrates the suburbs importance as a commercial zone.

Valuation Report

Fyshwick is developed mainly with a mixture of light industrial premises and showrooms/workshops and is a very popular 7 days a week trading area with an increasing emphasis on service trades and "quasi-retail" type usages compared to its historic function as an industrial estate.

The Fyshwick block is located at the south eastern end of Fyshwick adjoining the railway and Department of Customs Dog Training Centre.

A Location Map is contained within **Appendix A**.

Valuation Report



## 6 SITE PARTICULARS AND USES

### 6.1 KINGSTON

As part of the study, four options have been identified for the Kingston and Fyshwick sites. The following provides a brief assessment of the sites identified under each option.

#### 1) Development Site A

Description:	Slightly irregular shaped parcel of land that adjoins Wentworth Avenue to the east, the existing Kingston foreshore development to the north and proposed parkland to the east.
Block Area:	32,000 sqm
GFA:	64,000 sqm
Use:	Mixed use
Levels:	Four (4) stories

Valuation Report

#### 2) Development Site B

Description:	Irregular shaped site situated south of the Causeway development. Western boundary adjoins proposed Causeway Avenue and railway station.
Block Area:	27,000 sqm
GFA:	54,000 sqm
Use:	Mixed use
Levels:	Four (4) stories

#### 3) Development Sites C, D, E & F

Description:	Regular shaped elongated blocks facing onto proposed Railway Parade. Jerrabomberra Crescent and wetlands located to the north whilst proposed further development is located to the east. Development site F is closest to railway.
Block Area:	8,000 sqm each.
GFA:	16,000 sqm
Use:	Residential
Levels:	Four (4) stories

#### 4) Development Site G

Description:	Rectangular shaped site that will encompass new railway station with railway located to the east.
Block Area:	9,500 sqm
GFA:	28,000 sqm
Use:	Commercial

**5) Development Site H**

Description: Small rectangular shaped block situated at the gateway to proposed development located on the corner of Mildura Street and Railway Parade.

Block Area: 3,000 sqm

GFA: 12,000 sqm

Use: Commercial

Levels: Six (6) to eight (8) stories

**6) Development Site I**

Description: Relatively small commercial site facing onto Railway Parade. Surrounding development to be predominantly residential.

Block Area: 2,500 sqm

GFA: 10,000 sqm

Use: Mixed use

Levels: Six (6) to eight (8) stories

**7) Development Site J**

Description: Triangular shaped site located between existing industrial sites and railway corridor. Land potentially to be offered to existing industrial owners.

Block Area: 10,500 sqm

Use: Industrial

**8) Development Site K**

Description: Elongated strip of land located between existing industrial sites and railway corridor. Land potentially to be offered to existing industrial owners.

Block Area: 2,000 sqm

Use: Industrial

**9) Development Site L**

Description: Rectangular shaped site that would be available if existing railway corridor is not retained. Site backs onto rail reserve and opposite proposed residential development.

Block Area: 11,000 sqm

GFA: 22,000 sqm

Use: Mixed use

Levels: Four (4) stories

**10) Development Site M**

Description: Rectangular shaped site that would be available if existing railway corridor is not retained. Site backs onto rail reserve and opposite proposed residential development.

Block Area: 7,000 sqm  
 GFA: 14,000 sqm  
 Use: Mixed use  
 Levels: Four (4) stories

**11) Development Site N**

Description: Rectangular shaped site that would be available if existing railway corridor is not retained. Site backs onto rail reserve and opposite proposed residential development.

Block Area: 8,000 sqm  
 GFA: 16,000 sqm  
 Use: Mixed use  
 Levels: Four (4) stories

**12) Development Site O**

Description: Small irregular shaped site that would be available if existing railway corridor is not retained. Site backs onto rail reserve and opposite proposed residential development.

Block Area: 5,500 sqm  
 GFA: 11,000 sqm  
 Use: Mixed use  
 Levels: Four (4) stories

**6.2 FYSHWICK**

Three sites have been identified within Fyshwick with a brief description of each following.

**Development Site P**

Description: Irregular shaped site adjoining the railway corridor on the northern side. The site adjoins Newcastle Street however access would need to be obtained via an ACTEW easement located off Tennant Street. This assessment assumes that there would be legal access to the site.

Block Area: 28,300 sqm  
 GFA: 14,150 sqm  
 Use: Industrial

### **Development Site Q**

Description: Irregular shaped site located on the southern side of railway corridor and part of the Epicentre subdivision.

Block Area: 18,700 sqm

GFA: 9,350 sqm

Use: Industrial

### **Development Site R**

Description: Elongated rectangular shaped site located on the southern side of railway corridor and part of the Epicentre subdivision.

Block Area: 21,800 sqm

GFA: 10,900 sqm

Use: Industrial

Valuation Report



## 7 MARKET COMMENTARY

### 7.1 ECONOMIC SUMMARY

The Australian economy continued to accelerate in the June quarter 2007, underpinned by strong business and government investment spending. Australia has recorded its highest annual rate of economic growth in three years, with the latest national accounts showing Australia's Gross Domestic Product (GDP) grew 0.90% in the June quarter, enough to take annual economic growth to 4.30%, a rate unsurpassed since June 2004. Household consumption expenditure grew by 0.60% in the quarter, following strong growth in the March quarter, to be 3.90% higher over the year. New business investment grew by a strong 4.60% in the June quarter to be 13.30% higher through the year, with strong business investment being supported by improving business profits. Labour productivity in the market sector strengthened in the quarter, increasing by 1.20% to be 3.00% higher through the year in trend terms (2.90% seasonally adjusted). Net exports subtracted 0.20 of a percentage point from GDP growth in the June quarter. Exports increased by 0.80%, while imports increased by 1.10%. The growth in exports was led by resources exports, which increased by 1.30% in the quarter. With the release of the June quarter National Accounts, the economy recorded its sixteenth consecutive year of economic growth.

Valuation Report

According to the ABS the consumer price index rose by 1.20% in the 2007 June quarter, to be 2.10% higher than a year ago. Major contributors to inflation in the quarter included automotive fuel (+9.10%), hospital and medical services (+3.40%), rents (+1.60%), vegetables (+6.10%), furniture (+3.9%) and house purchase (+1.00%). A sharp increase in world oil prices led to a 9.10% increase in fuel prices in the June quarter, contributing around 0.40 of a percentage point to the overall increase in the CPI. Moderate underlying inflationary pressures should see the CPI remain contained in the period ahead. Labor costs are continuing to grow at a modest pace and the strong Australian dollar is expected to put some downward pressure on inflation. However, high world oil prices and the effects of adverse climatic conditions on food production continue to create some uncertainty around the inflation outlook.

Australia's unemployment rate remained at a historical low of 4.30% in August 2007 for the fourth consecutive month of the year. The latest ABS figures indicated an increase in employment by a seasonally adjusted 31,900 to 10.502 million, with full-time employment increasing by 29,100 to 7.541 million and part-time employment increasing by 2,700 to 2.971 million. The participation rate or the number of people in work or looking for work, in August also witnessed an increase of 0.10 percentage point to 65.10%. The data released by the ABS follows a long run of statistics suggesting recent interest rate rises have not dampened activity in the economy, leaving open the risk of renewed inflationary wage and price pressures.

At its meeting on the 4th of September, the Reserve Bank Board decided to leave interest rates unchanged at 6.50%, this comes after three increases in 2006 and the latest 0.25% rate rise occurring in August 2007. Domestic economic data in recent months have signalled a pick-up in the pace of growth in both demand and activity. Capacity utilisation is high after a lengthy period of expansion, and unemployment over recent months has continued to decline. These conditions have been accompanied recently by higher than expected underlying inflation which in turn has forced an increase in interest rates.

## 7.2 COMMERCIAL OFFICE MARKET REVIEW

Canberra's office market is currently experiencing a significant increase in supply as a response to strong demand for greater quantity and quality of accommodation. The wave of new construction and government expansion has produced highly robust and active market conditions.

Valuation Report

Traditionally the Canberra office market has accounted for around 8% of the total Australian office market and has generally experienced lower than average vacancy levels.

The outlook for the next few years is that Canberra will increase to around 9.5% of the total Australian market based on future supply estimates for Australia by the PCA. We expect this figure to gradually fall back toward the 8% level when the current wave of new development slows down after 2010.

### 7.2.1 CURRENT MARKET CONDITIONS

The data in the table below has been sourced from the Property Council of Australia 2007 Office Market Report (PCA Report)

CANBERRA REGION	JULY 2004	JANUARY 2005	JULY 2005	JANUARY 2006	JULY 2006	Jan 07
Total Stock (sqm) as at:	1,547,238	1,572,799	1,573,759	1,590,007	1,604,371	1,652,383
Total Occupied Stock (sqm) as at:	1,468,726	1,510,413	1,528,010	1,556,183	1,570,718	1,622,333
Total Vacant Stock (sqm) as at:	78,512	62,386	45,749	33,824	33,653	30,050
Total Vacancy Factor (%) as at:	5.10%	4.00%	2.90%	2.10%	2.10%	1.8%
Supply Additions (sqm) 6 months to:	13,666	28,585	6,478	24,267	14,374	59,061
Withdrawal (sqm) 6 months to:	Nil	3,024	5,518	8,019	10	10,609
Net absorption (sqm) 6 months to:	18,782	41,687	17,597	28,173	14,535	51,615

The imbalance of demand over supply is most evident by the contraction in the total vacancy level since 2004. We expect the vacancy level to remain low for the remainder of 2007 as there will be a lag period for some tenants where new supply will become available prior to the expiration of their existing leases. The movement of tenants from old to new accommodation will increase toward the latter part of 2007 and is expected to continue throughout 2008 until 2010.

## 7.2.2 DEMAND

The strong demand driving the Canberra office market is a result of several factors as follows:

- A large number of Commonwealth Government departments entered into long term (10 to 15 year) lease in the 1990's. Many of these leases are due to expire between 2006 and 2009, thus allowing the opportunity to look for new accommodation.
- The growing economy has created the need for many departments and agencies to expand their operations. The need for more accommodation has therefore become stronger.
- The resource boom has boosted the Australian economy and the Australian Government has recorded healthy budget surpluses in recent years. The government therefore has greater affordability to occupy more accommodation.
- The requirement for improving building design and construction has been evident in Sydney and Melbourne where building construction has been more concentrated over the last decade. The limited amount of new construction between the mid 1990's and 2006 did not provide Canberra with much opportunity to fully benefit these advances in building technology. The new developments under construction and being planned are in response to contemporary requirements of major tenants and more comparable to modern developments in other major capital cities.

There is now a greater responsibility on developers to build and tenants; particularly government, to occupy environmentally sustainable accommodation. The Australian Building Greenhouse rating is now well recognised and is a major influence on demand focus and the design of new supply.

Planning authorities have responded to the growth of the market and the need to allow room for expansion. The implementation of the Griffin legacy, ANU exchange and the controlled release of commercial land have provided developers greater guidance as well as opportunity to produce new supply.

Valuation Report

*Industry House is a benchmark commercial office building completed in late 2006. The building's advanced design and construction incorporate several efficiency and sustainability features.*

*The building was fully pre committed to DITR setting a new record rental rate. In December 2006 the building was sold to AMP setting a record yield for commercial property in Canberra and the highest capital value per square metre for a city office building.*

*The building epitomises current market demand features including, need for sustainable, contemporary space and affordability.*



Valuation Report

### 7.2.3 SUPPLY

The current phase of new construction will soon reverse the demand / supply imbalance.

CICV has completed the most recent survey of supply as at March 2007. Some of the supply delivered in the last few months is shown below.

Recently Delivered Supply			
Location	Tenant Pre-Commitment	Delivery Status	Area NLA (sqm)
National Circuit, Barton	PM & C	March 2007	15,000
Industry House City	DITR	Completed late 2006	23,500
"Glasshouse", Phillip	CASA	Completed late 2006	8,000
"Glasshouse", Phillip	APSC & CSA	Completed late 2006	6,600
<b>Total</b>			<b>53,100</b>

The development of 1 National Circuit is an example of the demand for superior quality accommodation by government tenants. Prime minister and Cabinet (PM & C) occupied the adjoining building at 3-5 National Circuit and have virtually moved next door to brand new accommodation. There has been minimal change to the location, however, the total net lettable area (NLA) has increased by 32% (from 11,367 square metres) and the accommodation has improved from B grade to A+ grade.



CICV has maintained a register of all new major office supply to the Canberra market and the most recent update was completed in March 2007. The table below shows the committed supply that will be completed between the present and 2010. The delivery timeframes and quantum of space have been sourced from owners, developers and tenants; but may be subject to variation.

Committed Supply			
Location	Tenant Pre-Commitment	Delivery Status	Area NLA (sqm)
Centro Plaza, Phillip	IOPC	Final stages. Due mid 2007	10,000
Section 61, City	Environment	Final stages. Due mid 2007	8,000
'Centrelink', Greenway	Centrelink	Under construction. Due Sept 2007	40,000
AusAid Building, City	AusAid	Substantially completed Due mid 2007	9,000
1 National Circuit, City	Prime Minister & Cabinet	Under construction Due mid 2007	18,000
Acton House, City	ACCC	Construction commenced. Due mid 2007	6,500
Section 61, City	DAFF	Construction commenced. Due late 2007	27,000
Section 61, City	NICTA/ DAFF	Construction commenced. Due mid 2008	18,000
Bunda Street, City	Taxation	Substantially completed. Due in stages mid 07 and early 08	60,000
Constitution Avenue, Parkes	Australian Federal Police	Refurbishment. Due mid 2007	16,000
29 – 31 Brindabella Park, Canberra Airport	DEWR	Under construction. Due Mid to late 2007	10,000
33 – 35 Brindabella Park, Canberra Airport	Defence	Under construction	12,000
Fairburn Building 1	Defence	Under construction – End 2007	4,500
Fairburn Building 2	Defence	Under construction – End 2007	4,500
Fairburn Building 3	Defence	Under construction – End 2007	4,500
Fairburn Building 4	Ratheon	Under construction – End 2007	4,500
Brindabella Business Park, Canberra Airport	For Lease	Under construction. Due date 2007	13,000
Majura Road Retail, Canberra Airport	Spec - Being Leased	Under construction. Due date 2007	13,000
Chandler St, Belconnen	DIMA	Building being constructed Due early 2008	19,000
3-5 National Circuit, Barton	Attorney Generals	Pre committed for delivery in March 2009	20,000
Miscellaneous	Spec – For lease	Five (5) Smaller buildings over 2 years	17,000
Constitution Ave, Parkes	ASIO/ONA	Pre-commitment. Due mid 2009	40,000
82 Northbourne Ave, Braddon	Spec – For lease	Not yet commenced. Due Dec 2008	8,000
Mort Street, Braddon	ACC	Pre-committed. Due March 2007	3,000
York Park	Environment & Spec	Department of Finance in early stages	60,000
Four (4) sites, Kingston	Owner occupiers	Not yet commenced. Proposed for late 2008.	12,000
Total committed supply			451,500

Valuation Report

The above table shows 451,500 square metres of committed new accommodation being supplied between mid 2007 and mid 2010. The increase equates to 25% over three years or 8% per annum growth. The growth rate is more impressive when compared to the PCA average from January 1990 to January 2007 of 1.9%.

We are aware of proposed developments that may move from being non committed to committed in the near future. An even higher growth forecast than 8% per annum is therefore highly likely.

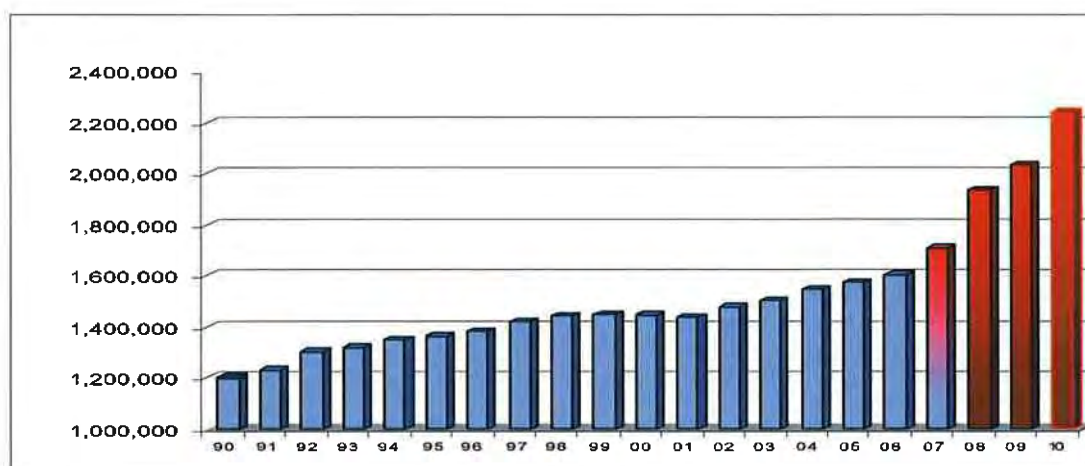
Potential Supply			
Location	Tenant	Delivery Status	Area NLA (sqm)
City, Workers Club site	Spec	Planning approvals received	17,000
Greenway		Current vacant site. Development subject to discussions with potential tenant.	25,000
Woden Town Centre, Phillip.	Department of Health	Expression of interest due 2009. Reasonably certain. Total of 45,000 sqm incl demolition of existing space.	35,000
Canberra City	DEST	Expression of interest from 2008. Reasonably certain.	38,000
Part Section 61, City	For lease	Vacant site not yet developed	9,000
Section 63, City		LDA Auction in 2007	70,000
Section 45, Belconnen	For Lease	Speculate two (2) 9,000 sqm buildings - due 2008/2009	18,000
Constitution Avenue (ANZAC East), Parkes	Commonwealth Negotiations	To be refurbished for 2008	15,000
Russell Offices	Defence	Discussions with Commonwealth	80,000
Dickson	Spec	Not yet commenced Proposed for late 2009	16,000
Canberra Airport		Plans for construction to commence in late 2007	30,000
<b>Total</b>			<b>353,000</b>

Valuation Report

We have consulted with owners and developers associated with the majority of the above proposed projects as well as major government departments who have expressed an interest for more accommodation. We consider it highly likely that around 150,000 square metres of the "potential supply" will be realised in the next two to four years. The two (2) shaded projects have recently been given the go ahead and executed agreements are in the process of being finalised. This will increase to total office market to over 2.2 million by the end of 2010.

## 7.2.4 FORECASTED GROWTH

The graph below shows the increase in the total market from 1990 to 2007 and forecasted supply until 2010. The forecast only includes all committed new supply and what CICV regard as "highly likely". The graph shows the total market will increase from 1.65 million square metres in January 2007 to over 2.2 million by the end of 2010.



Valuation Report

## 7.2.5 VACANCY LEVELS

The Canberra vacancy level for each grade, as at January 2007.

Grade	Total Stock	Total Vacancy	Vacancy Level
A	541,619	143	0.0%
B	579,430	10,236	1.8%
C	457,047	6,289	1.4%
D	74,287	13,382	18.0%
<b>Total</b>	<b>1,652,383</b>	<b>30,050</b>	<b>1.8%</b>

The Canberra market has traditionally maintained vacancy levels below the national average. An exception to this trend occurred between 1996 and 1998 when the Commonwealth government reduced the size of several government departments. The diminished demand caused a substantial increase to the overall vacancy level.

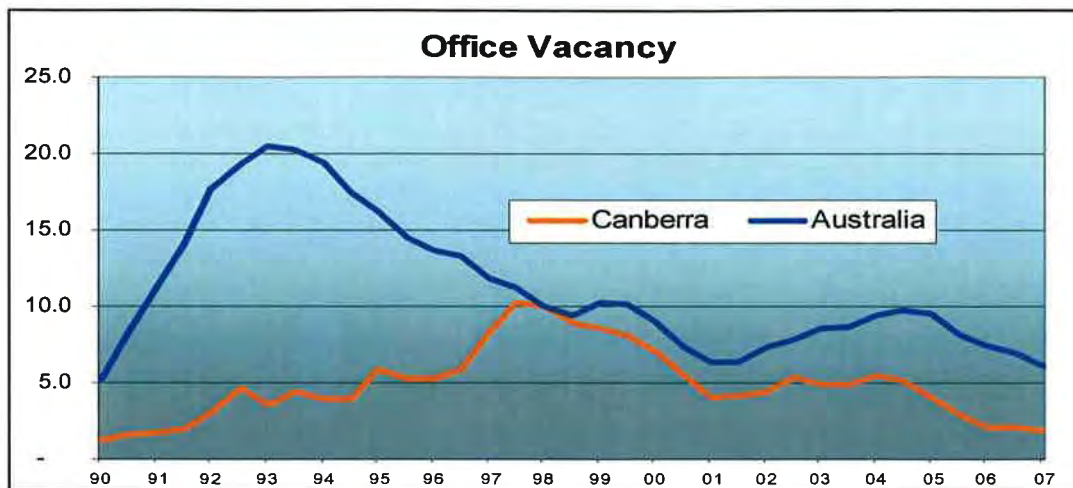
The vacancy level peaked at 10.3% in July 97 and was much higher for lower grade accommodation. Some stock was withdrawn from the market and converted to an alternative use. The Waldorf Apartments was originally developed as a nine storey office tower. The building was converted to strata tilted serviced apartments in 1999 as a response to diminished demand for commercial accommodation space.





## 7.2.6 CANBERRA V NATIONAL MARKET TRENDS

The graph below shows the Canberra market in comparison to the Australian market.



Valuation Report

The Canberra market has traditionally experienced vacancy levels below the national average. An obvious exception, as illustrated by the graph, is a sharp rise in Canberra's vacancy level from 1996 to 1998 when the national average was declining. The Canberra market has since experienced a gradual recovery and once again the vacancy level is well below the national average.

The gap between Canberra and the national average will narrow once again from 2008 to 2010. The above graph will then start to show a repeat of the 1990's, however, this is where the similarity with market conditions in the 1990's ends.

The forces that drove the vacancy level to rise in the 1990's were driven by negative influences such as the contraction of the Commonwealth government sector and uncertainty about the future economic and political environment.

The forces influencing the current market are far more positive and certain. They are being driven by market confidence, strong demand for higher quality accommodation and a good economic outlook.

We do expect older style accommodation to struggle in comparison to the new stock coming on to the market. There is a possibility some stock will be fully refurbished to provide more contemporary office accommodation or even changed to residential use, as happened to the Waldorf and Globe buildings.

Overall the reasons for the increase in vacancy levels are generally positive. There will be an increase from 2007 to 2010 as new supply is realised and older accommodation is vacated. We then expect the market to gradually improve as demand continues, albeit at a slower rate, and the vacancy level gradually falls.



## 7.3 RESIDENTIAL MARKET OVERVIEW

For much of 2006 the ACT residential real estate market was characterised by a softening in sale prices coupled with extended selling periods and low sales volumes. However, the final quarter of 2006 and first quarter of 2007 have seen recovery on the back of a tight rental market and undersupplied land market.

Figures released by *The Real Estate Institute of Australia (REIA)* for the March 2007 quarter indicate a median house price in Canberra fell slightly by 0.8% to \$395,000. This followed a quarterly increase of 6.1% or 8.2% rise from December 2005 to December 2006. Conversely, the median unit price increased again for the third consecutive quarter by .7% to \$310,000.

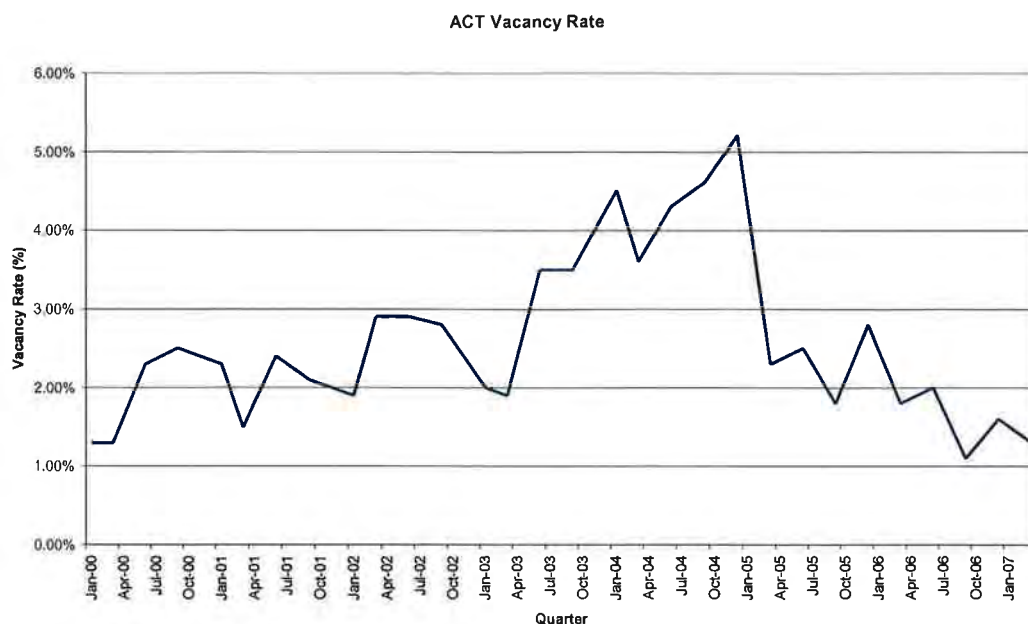


Valuation Report

Source: REIA (2007)

Median unit prices increased marginally to \$310,000 over the March 2007 quarter, which is a 0.7% increase from the December quarter. As with standard residential housing the tight supply of property and land supply constraints affecting builders and first home buyers added upward pressure on prices.

The REIA reported the vacancy rate to be 1.30% in the March 2007 quarter. This is a marginal decrease from December 2006 quarter data and we believe vacancy will remain tight over the next 3 months as the number of transient workers employed by the public service and construction sector has increased not to mention the influx of university students that enter the Canberra rental market every January/February.



## Valuation Report

Source: REIA (2007)

CICV has noticed an increase in rentals and anecdotal evidence from residential leasing agents suggests competition for accommodation is fierce with landlords increasing rents across the region. Further more rentals have been increasing and Canberra now has the highest median house rental in Australia and is the second highest weekly median rental for units after Sydney.

Extended marketing periods generally characterised the market for new housing and units in 2006. Sales volumes remain at low levels when seen in comparison to the activity since 1999. The table below shows the sales volumes for the past 9 years.

Year	House & Land	Units	Total
1998	5,440	1,800 – 25%	7,240
1999	6,450	2,470 – 28%	8,870
2000	6,380	2,960 – 32%	9,340
2001	7,510	3,320 – 31%	10,830
2002	7,550	4,300 – 36%	11,850
2003	8,280	4,423 – 35%	12,703
2004	5,720	3,298 – 36%	9,018
2005	4,609	2,354 – 34%	6,963
2006	4,788	3,483 – 42%	8,271
2007 (March)	1,422	952 - 40%	2,734

Source: ACT Department of Treasury & ACTPLA (2006)

- Six (6) year average 9,939
- Nine (9) year average 9,454

Sales volumes for residential real estate in Canberra peaked over four (4) years ago at over 12,703 sales per annum; we believe 9,000 sales per annum is a sustainable level for the Canberra market. 2006 saw a 25% improvement on 2005 but remains 10% below what should be the norm for a market of this maturity. The decrease in sales volumes during 2004 and more dramatically in 2005 was closely linked to consumer speculation that the Canberra property needed correction, and the interest rate movement uncertainty. Combined, these factors decreased the urgency amongst the majority of potential buyers. Preliminary data for 2007 has seen an increase in activity and quality-built, owner occupier products located in areas with limited competition are currently highly sought after by buyers. Selling agents have reported limited stock has meant sellers have been successful at dictating terms of sale in the early stages of 2007 and selling periods have been diminishing as buyers compete for stock. These factors have seen sales volumes gradually return to longer-run average levels.

## Valuation Report

### Unit Market

The Canberra residential market has historically seen sales volumes for residential units of between 3 – 4,000 dwellings a year of which around 50% has been new and 50% established stock.

During 2006 the total sales volume was 3,483 and the first quarter of 2007 extrapolates to be a similar number.

The following table shows a summary of the major development that are either under development or to be delivered over the next few years (on a calendar year basis).

The supply is concentrated into around 100 projects with total supply around 5,000 – 5,500 units. During 2007 the supply of units is below what has been historically absorbed and will contribute to a continuation of low vacancy rates and high rentals.

The supply for 2008 is in excess of 2,200 units and will assist in keeping the market at equilibrium.

MULTI UNIT MARKET ACTIVITY			Forecast Delivery				Comment
Complex name	No of units	Number Sold / Exchanged	2007	2008	2009	Future sales	
Completed							
Bentley	30	0		30			Units being sold off
Viridian	20	10		20			Complete
Valonia	70	20	70				Under Construction
The Waterfront	104	104	104				Well advanced
Under Construction							
New Acton	32	0	32				Under construction
The Realm	348	0		108	240		Under Construction, to be released mid 2006
69 Torrens Street	8	6	8				Under construction
Sorrento (Ijong Street)	15	11	15				Under construction
Henty Street	9	4	9				Under Construction
Helemon Street	5	0	5				Under Construction
De Burgh Street	7	4		7			Under Construction
Elara	120	71	120				Under Construction
Proximity	160	69	60	100			Under Construction
Lincoln	96	41	20	76			On the market
Bruce, Tynne Street	110	60		110			Under Construction
Campbell APU's	18	4	18				Under Construction
Metropolitan	156	156	156				Advanced Cons. Stage 1 Settled
Conder Heights	18	0	10	8			DA Approved.
Senator	11	2		11			Marketing Underway
Forrest State Circle	60	39		60			Recently approved
Addeco	78	39	78				2nd stage of 42 units on market
Elan	55	31	55				Completed/Soon to be completed
Burnie Court	250	0	25	100	125		APU's Started J.V
Lyons	6	2	6				Under construction
Vibe	25	19	25				Construction about to start
Page	21	0	21				Under Construction
Woden East	700	0		100	200	400	Recently announced Joint Venture
Space2	70	20		70			Under Construction
Marque	9	9	9				Under construction
Turner Cnr Gould & Moore	35	15		35			Under construction
34 Watson Street							
Solstice	128	73	67	61			Under Construction
Yet to Commence							
Acton Tower	200	0			200		Yet to commence
Ainslie service Station	9	0		9			About to Com.
Ainslie Retirement	150	0			150		Planning approved

Valuation Report



MULTI UNIT MARKET ACTIVITY			Forecast Delivery				Comment
Complex name	No of units	Number Sold / Exchanged	2007	2008	2009	Future sales	
Belconnen	115	0		115			DA sought for 67 two storey townhouses and 48 apartments,
Belconnen	333	0		150	183		Lease being varied from 250 units
Belconnen	250	0	250				Under Construction
Bonython	28	0		28			Site purchased at Govt Auction
Bonython	22	0		22			Site purchased at Govt Auction
Bonython	21	0		21			Site purchased at Govt Auction
Bonython	14			14			Site purchased at Govt Auction
Braddon	10	0		10			Yet to Com.
Braddon Carpark	24	0		24			D.A Approval
65 Torrens Street	12	0		12			DA in public notification
Helemon St	8	0		8			Demoished
Braddon Section 5	10	0		10			DA Approved
Braddon Section 13	18	0		18			DA Approved
Bruce - Hindmarsh	48	0		48			
Chifley	5	0		5			DA in public notification
							Marketing Underway.
							First allocation due 18/5
Glebe Park	184	100			184		
Strangeways St, Curtin	25	0		25			DA being approved
Embassy, Deakin	130	0			130		In Planning
Deakin Inn	120	0			120		Approved. Ready to start
Stockdale Street	5	0		5			In planning
	7	0		7			In Planning
Forrest Canberra Avenue	40	0		40			DA Approved
Hotel in Forrest	43	0			43		Available for sale
Hartigan Gardens	50	0		50			D.A approval
Garran	20	0		20			Direct grant
Penton Place	25	0		25			In planning
Gilmore Section 56	6	0		6			Site recently sold. All units presold.
Harrison Section 63	7	0		7			
Kambah	10	0		10			Planning Phase
Kingston Foreshore 5&6	60	0			60		Yet to Com.
Trieste	25	12		25			Marketing commenced
Frazer Court	200	0		50	150		Joint Venture
Renards	40	34		20			Marketing commenced
Wests Rugby Club	10	0		10			Development App.
Mawson Section 41	7	0		7			DA in public notification
Macedonian Church	56	0		56			In planning

Valuation Report

MULTI UNIT MARKET ACTIVITY			Forecast Delivery				Comment
Complex name	No of units	Number Sold / Exchanged	2007	2008	2009	Future sales	
Narrabundah	20	0	20				In planning
Oaks Estate	23	0	23				D.A to be lodged
Turner Section 62	17	0	17				One and two bedrooms
18 Macleay St	9	0	9				DA Lodged
34 Watson Street							Under construction
Weetangera Section 16	5	0	5				In planning
Delayed Belconnen Cameron Offices	300	0			300		On hold
<b>Total</b>	<b>5,495</b>	<b>955</b>	<b>1163</b>	<b>1827</b>	<b>2085</b>	<b>400</b>	

Valuation Report

## 7.4 SUMMARY OF THE MARKET

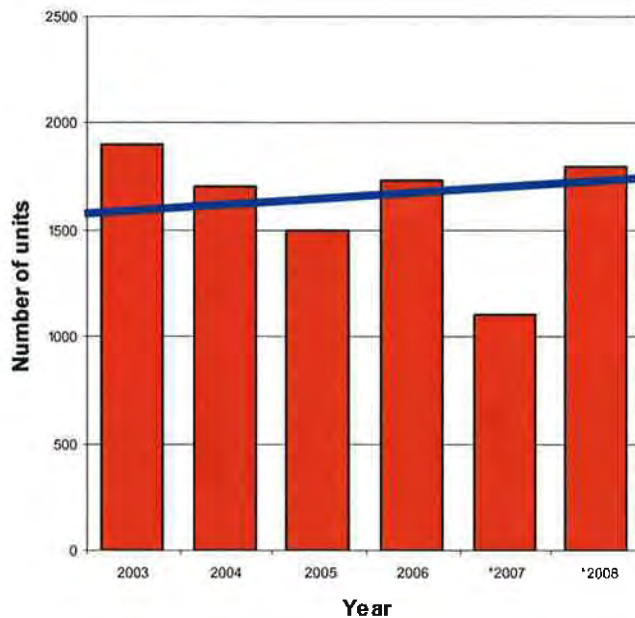
### ECONOMIC OUTLOOK

- ACT economy is in good shape although budget is to go into deficit this year.
- March 2007 budget very little incentives to the property industry.
- Unemployment in the ACT is the lowest of all states in Australia.
- Combined household income is \$68,000 per annum.
- Economy has good growth prospects pending federal election.

### UNIT MARKET

- The total identifiable supply in the next 3-4 years is in the order of 5,400 units, including what is already sold (910) which is in line with the current underlying demand of approximately 1,500 -2,000 new units per annum which is based upon historical transaction rates.
- We note that a number of large projects such as the Realm in Barton, New Acton in the City, are about to begin marketing as well as Glebe Park in the City which has recently commenced marketing will change the number of units sold dramatically in the next two quarters.
- The graph below shows the estimated residential unit supply between 2003 and 2008. The blue line shows the take up and estimated demand in this period.

Unit Supply 2003 - 2008



## Valuation Report

Source: Colliers International (2007)

\*Indicates CICV forecast

- The last 4-5 years on average 3,400 – 3,600 new and used units are sold settled and absorbed by the market of which 50% - 60% is new supply.
- The current level of supply in 2006/2007 is estimated to be in the order of 1,103 new units which are in line with demand. We may see some changes to the unit market in 2007/2008 as a large number of projects come onto the market.
- Based on the total rental product pool of 22,500 plus pending unit supply in 2007, we believe vacancy rates will move out to be in the range of 3% for all residential property and remain so for 12 months.
- The current supply chain and future releases proposed for Constitution Avenue, city precinct and east basin will ensure that this market will have adequate supply for the next 10 years.

This will continue to keep the heat out of prices for this product with the quality of land and construction costs determining the retail values.

## 7.5 SALES EVIDENCE – OFFICE SITES

### Address

Sale Date:

Sale Price:

Comments:

### Block 1 Section 92, City

August 2005

\$3,250,000

Comprises a 1,173 square metre site on the south western side of the CBD sold at public auction with a maximum GFA of 8,775 square metres. Sale price does not include required associated works of \$359,000 resulting in a total purchase price of \$3,609,000. Permitted uses include Business Agency, Financial Establishment, Health Facility, Office, Restaurant, Shop provided that the first floor and above may be used for offices. The building will require at lease two (2) levels of basement parking. This sale shows a capital value overall of **\$411** per square metre of GFA for a much smaller scale site. Based on ground floor higher order uses worth \$500 - \$600 per square metre the office component would be in the order of **\$380 - \$390** psm.

Valuation Report

### Address

Sale Date:

Sale Price:

Comments:

### Block 1 Section 90, City

March 2005

\$5,250,000

Comprises a 1,141 square metre site on the south western corner of the CBD sold at public Government auction with a maximum GFA of 8,000 square metres. Permitted uses include Business Agency, Child Care Centre, Financial Establishment, Health Facility, Office, Residential Use, Restaurant or Shop. This sale shows 8,000 sqm maximum GFA at **\$656** psm of GFA. This sale is out of line with market evidence and is much smaller scale.

### Address

Sale Date:

Sale Price:

Comments:

### Block 16 Section 61, City

April 2004

\$7,800,000

Comprises a 3,509 square metre site on the south west of the CBD sold at public Government auction with a maximum GFA of 29,400 square metres. Permitted uses include Business Agency, Financial Establishment, Office, Restaurant and shop. This sale shows a capital value of **\$265** per square metre of GFA. The gross floor area is predominantly office and will require at least two (2) levels of basement parking. A good sale that reflects around \$225 - \$260 psm for office area only.



**Address** **Blocks 3 & 4 Section 52, City**  
**Sale Date:** November 2003  
**Sale Price:** \$6,745,000  
**Comments:** Comprises a 4,380 square metre site sold at public Government auction with maximum permissible GFA of 21,000 square metres. Permitted uses include Business Agency, Car Park, Drink Establishment, Financial Establishment, Hotel, Residential, Office, Public Agency and Shop. Mandatory off site works at a cost of \$472,000 resulting in an actual purchase price of \$7,217,000 which shows a capital value of **\$344** per square metre of GFA.

**Address** **Block 4 Section 13, Greenway**  
**Sale Date:** May 2002  
**Sale Price:** \$6,500,000  
**Comments:** A 53,500 square metre site sold with a Crown Lease permitting 45,700 square metres GFA of office and ancillary uses. Prior to the auction there was no interest or commitment for office use and the office market was improving. Immediately after the auction a Commonwealth department approached the new owner to commence discussions for a new 40,000 square metre building. This sale shows **\$142.23** psm of permitted GFA.

Valuation Report

**Address:** **Block 10 Section 23, City**  
**Sale Price:** \$4,500,000  
**Sale Date:** December 2002  
**Block Size:** 1,451 square metres  
**GFA:** 8,600 square metres  
**Purpose Clause:** Office and other commercial uses  
**Comment:** A 1,451 square metre site that sold with a Crown Lease permitting 8,600 square metres of GFA office and other commercial uses. The site sold with no tenant commitments but excavation had occurred for a future basement. The sale shows **\$523** per square metre of permitted GFA and \$3,100 per square metre of site area.

**Address:** **Block 10 Section 16, Greenway**  
**Sale Price:** \$9,350,000  
**Sale Date:** November 2006  
**Block Size:** 2.142 hectares  
**GFA:** 21,500 square metres  
**Purpose Clause:** Business agency, offices, residential, restaurant, shop, etc  
**Comment:** Associated works in the order of \$100,000. Shows **\$439.50** psm of permitted GFA or \$436.50 psm of site area. Low plot ratio and suited to residential at \$45,000 per unit site.

Other advice that has occurred for large scale office sites with tenant commitments in place, are summarised below:

<b>Address</b>	<b>Block 4 Section 13, Greenway</b>
Sale Date:	July 2005
Sale Price:	\$28,000,000
Comments:	Same property as above but sold with an eighteen (18) year lease in place and DA approval for 45,700 square metres GFA office building. Sale shows <b>\$613</b> psm of GFA.

<b>Address</b>	<b>ABS Building, Belconnen</b>
Sale Date:	Mid 2001
Package Price:	\$28,000,000
Permitted GFA:	40,000 square metres
Details:	Sold with fifteen (15) year lease in place to ABS and conditional on DA approval and fixed price buildings contract. Sale shows <b>\$700</b> psm of GFA.

Valuation Report

<b>Address</b>	<b>DIMIA Building land, Belconnen</b>
Sale Date:	December 2001
Package Price:	\$37,500,000
Permitted GFA:	32,000 square metres
Details:	Sold with two (2) year cashflow from DIMIA and fifteen (15) year lease in place together with DA and fixed price building contract. Land only component assessed at \$25,000,000 and shows <b>\$781</b> psm of GFA.

## 7.6 SALES EVIDENCE – MIXED USE SITES

**Address:** Block 7 Section 45, Kingston  
**Sale Date:** August 2007  
**Sale Price:** \$9,400,000  
**Comments:** A development site of 4,389 square metres that allows for a maximum of 100 apartments and a maximum GFA of 2,000 sqm. Sale indicates \$94,000 per unit.

**Address:** Blocks 5, 6, 7 & 8 Section 54, Kingston  
**Sale Date:** December 2006  
**Sale Price:** Block 5 \$3,010,000  
Block 6 \$2,950,000  
Block 7 \$2,660,000  
Block 8 \$3,050,000  
**Block Sizes:** Block 5 1,424 m<sup>2</sup>  
Block 6 1,436 m<sup>2</sup>  
Block 7 1,434 m<sup>2</sup>  
Block 8 1,423 m<sup>2</sup>  
**GFA/Purpose Clause:** Each block had a maximum of 4,000 sqm and a permitted use of residential and office  
**Comments:** Four (4) individual sites that sold at public auction and showed the following rates psm of GFA.  
Block 5 \$752.50 psm GFA  
Block 6 \$737.50 psm GFA  
Block 7 \$665.00 psm GFA  
Block 8 \$762.50 psm GFA  
Smaller scale sites in a similar locality to the subject.

Valuation Report

**Address:** Block 1 Section 52, Kingston  
**Sale Date:** \$4,500,000  
**Sale Price:** August 2005  
**Comments:** A development site of 2,912 square metres. Development allowed a maximum of 70 residential apartments and offices restricted to a total of 2,000 sqm. Sale indicated approximately \$64,255 per unit.

**Address:** **Block 13 Section 32, Belconnen**  
**Sale Date:** March 2004  
**Sale Price:** \$8,500,000  
**Comments:** Comprises a 36,300 sqm site sold at Public Government auction with maximum permissible GFA of 20,500 sqm. Permitted uses include *Bulky goods retailing, plant and equipment hire establishment, Produce market, Retail plant nursery, Shop, Store, Warehouse*. Mandatory off site works at a cost of \$153,000 resulting in an actual purchase price of \$8,653,000 which shows a capital value of **\$422** psm of GFA. Slightly smaller scale site with less GFA and of a slightly lower order use.

**Address:** **Block 7 Section 49, Phillip**  
**Sale Date:** August 2004  
**Sale Price:** \$7,000,000  
**Comments:** A development site of 15,220 sqm to be developed with mixed uses or motor vehicle dealership. A wide range of uses permitted with a maximum gross floor area of 9,000 sqm GFA. This sale showed a value of **\$459** psm of site area of **\$778** psm of permitted GFA.

Valuation Report

## 7.7 SALES EVIDENCE – APARTMENT SITES

**Address:** **Blocks 5 – 8 Section 27, Forrest**  
**Sale Price:** \$4,650,000  
**Sale Date:** December 2006  
**Comment:** A combined site area of 3,072 sqm which has approval for 30 apartment units yielding 2 and 3 bedroom apartments in a multiple level building. The sale shows **\$155,000** per unit site.

**Address:** **Blocks 5, 10 & 11 Section 34, Forrest**  
**Sale Price:** \$7,000,000  
**Sale Date:** June 2007  
**Comment:** Three (3) adjoining lots of 3,915 square metres currently utilised as a motel and cottage. Development Approval has been obtained for the construction of 43 units within a three level building. Sale indicates \$163,000 per unit.

**Address:** **Block 19 Section 10, Braddon**  
**Sale Price:** \$2,350,000  
**Sale Date:** March 2005  
**Comment:** A consolidated site of 3,292 sqm that sold with DA approval in place for sixteen (16) 2 bedroom apartments and five (5) townhouses. Sale indicates **\$95,000** per apartment site and \$165,000 per townhouse site.



**Address:** **Site 1 Kingston Foreshore, Kingston**  
**Sale Price:** Approximately \$27,000,000  
**Sale Date:** Preferred tender August 2003  
**Comment:** An 8,500 sqm waterfront site sold by tender based on a design incorporating 102 high quality units with a GFA of around 15,000 sqm. This sale shows a value of **\$270,000** per unit site or \$1,800 psm of gross floor area.

**Address:** **Block 44 Section 43, O'Connor**  
**Sale Price:** \$1,875,000  
**Sale Date:** June 2006  
**Comment:** A combined site area of 2,468 sqm that achieved approval for 24 apartment units. Inclusive of Change of Use charge showed **\$83,333** per unit site.

Valuation Report

**Address:** **Block 3 Section 41, Turner**  
**Sale Price:** \$9,500,000  
**Sale Date:** November 2002  
**Comment:** A 6,378 sqm site on the corner of Northbourne Avenue and Barry Drive that has a purpose clause that permits a maximum of 350 units. The constructed development provided an eight (8) level development comprising only 242 units. This showed **\$39,095** based on the constructed development.

**Address:** **Blocks 5 & 6 Section 48, Kingston**  
**Sale Price:** \$4,800,000  
**Sale Date:** June 2004  
**Comment:** Two (2) vacant residential sites of 3,559 sqm and 3,710 sqm respectively. The sites were sold by the Government as part of the Kingston Foreshore development. Both sites have a Crown Lease requiring the construction of a minimum of 25 and a maximum of 30 dwellings. These sales show **\$80,000** per unit site.

**Address:** **Block 5 Section 41, Kingston**  
**Sale Price:** \$4,750,000  
**Sale Date:** June 2004  
**Comment:** A 3,078 sqm medium density site that sold with DA approval for 54 one (1) and two (2) bedroom apartment units comprising 4,628 sqm of living area in a four (4) storey building. This sale shows a value of **\$88,000** per unit site or \$1,026 psm of GLA.

**Address**

Sale Date:

Sale Price:

Details:

**Section 6, City**

Late 2001

\$8,258,250

A 6,920 square metre site in the south west of the CBD sold at Government auction permitting a maximum gross floor area of 40,000 square metres. Settlement was conditional on obtaining DA approval for 343 residential units. This sale shows a capital value of **\$206** per square metres of GFA or **\$24,076** per unit site. The market has improved since this sale.

**Address**

Sale Date:

Package Price:

Details:

**Block 4 Section 10, City**

November 2002

\$3,450,000

A 3,716 square metre site in the City that had approval for a maximum gross floor area of 10,860 square metres which resulted in 117 units. This sale shows a value of **\$31,147** per unit or **\$318** per square metre of GFA.

Valuation Report

**Address**

Sale Date:

Package Price:

Details:

**Block 9 Section 18, Phillip**

Mid 2001

\$4,500,000

An 8,090 square metre site in the heart of Woden Town Centre with a purpose clause permitting 14,500 square metres GFA and a maximum of 170 units. This sale shows a value of **\$26,500** per unit site on maximum development or **\$310** per square metre of permitted GFA.

## 7.8 SALES EVIDENCE – INDIVIDUAL BLOCKS

The LDA have recently released individual residential sites within the Kingston Foreshore Development in an area known as 'First Edition'. Demand for blocks has been strong with examples of sales including:

Section	Block	Area m2	Sale Price	Rate per m2
55	1	275	\$475,000	\$1,727
55	2	286	\$425,000	\$1,486
55	3	286	\$420,000	\$1,469
55	4	286	\$415,000	\$1,451
55	5	286	\$415,000	\$1,451
55	6	286	\$425,000	\$1,486
55	7	286	\$425,000	\$1,486
55	8	275	\$417,500	\$1,518
56	6	475	\$780,000	\$1,642
56	7	417	\$750,000	\$1,799
56	8	417	\$710,000	\$1,703
54	1	294	\$1,830,000	\$1,556
54	2	294		
54	3	294		
54	4	294		

## 7.9 SALES EVIDENCE – FYSHWICK SITE

**Address:** 46 Collie Street, Fyshwick  
**Sale Date:** March 2005  
**Sale Price:** \$800,000  
**Site Area:** 5,692 square metres  
**GFA:** 4,500 square metres  
**Purpose Clause:** Freight transport facility, general industry, industrial trades, light industry, office.  
**Comments:** Battle-axe site indicating \$181 per square metre of GFA or \$143 square metre of site area.

**Address:** 68 Collie Street, Fyshwick  
**Sale Date:** October 2005  
**Sale Price:** \$850,000  
**Site Area:** 6,029 square metres  
**GFA:** 5,000 square metres  
**Purpose Clause:** Freight transport facility, general industry, industrial trades, light industry, office, site and warehouse. Non retail not exceeding 2,000 square metres.  
**Comments:** Battleaxe block indicating \$165 per square metre of site or \$199 per square metre of GFA after taking into consideration associated works.

**Address:** Block 47 Section 7, Hume  
**Sale Date:** May 2007  
**Sale price:** \$5,500,000  
**Site Area:** 26,315 square metres  
**GFA:** 17,000 square metres  
**Associated Works:** \$23,500  
**Purpose Clause:** Bulk landscape supplies, industrial trades, freight transport facility, light industry, stores and warehouse.  
**Comment:** Large battle-axe site reflecting \$325 per square metre of GFA.

**Address:** Block 4 Section 57, Mitchell  
**Sale Date:** July 2006  
**Sale Price:** \$1,500,000  
**Site Area:** 14,210 square metres  
**GFA:** 10,000 square metres  
**Associated Works:** \$15,000  
**Purpose Clause:** General industry, freight transport, store and warehouse.  
**Comments:** Battle-axe block with easement located in middle of site. Sale indicates \$106.62 per square metre or \$151.50 per square metre of GFA.

Valuation Report

## 7.10 MARKET POSITION/RECONCILIATION OF LAND VALUE

The Canberra region real estate market is in the midst of an exciting period with both the commercial and residential markets at different stages of their cycles. The commercial market is responding to an expanding and demanding Commonwealth Government client with some 413,000 square metres of committed office construction plus the associated expenditure on fit out, relocation, and consultants. This will see the office market expand to circa 2,000,000 square metres which will make the Canberra office market equal to Brisbane which has a population of around 1 million people.

We are in the early stages of this construction boom but we are already starting to see the economic impact with hotel occupancies rising and the residential vacancy rate falling to accommodate the influx of the consultants and expansion of the labour market. This commercial office construction activity will endure until 2009 unless further Government commitments are announced.

Valuation Report

At the same time the residential market has withstood a slow down which started in late 2004, without any major collateral damage. Whilst the majority of other Australia cities have seen a correction in values in this period of 10%-20%, Canberra has remained relatively stable, suffering only from deterioration in the volume of sales. We believe this is due to the small nature of the market and that in comparative terms the market was not too far out of sync with market values albeit land prices were slightly too high.

The residential market started to improve in 2006 and with the influx of employment, 2007 will be a strong residential year.

The challenge in the ACT for the market moving forward will come from further increases in interest rates, the slow down of the construction sector post 2009 and further competition from multiple development fronts in NSW and Molongolo.

For a robust and stable ten (10) year period it quite simply comes down to two things. Firstly, the ability of the Australian Capital Territory to attract people to live here and end up with population growth greater than 1%. The second is a continuation of a diverse but well managed land release program that will stimulate the market and assist in creating interest from developers and residents.

Overall, we believe the next two years will yield strong growth and a vibrant ACT economy.

In assessing the various components of value, we draw the following conclusions:



#### **a) Mixed Use Sites**

Demand for sites within the Kingston Foreshore precinct is currently very strong evidenced by recent sales in the 'First Edition' residential development, the sale of four mixed uses sites within the Kingston Foreshore development in late 2006 and the more recent sale of a 100 unit site for \$9,400,000 also located in the Kingston Foreshores.

Development conditions of the four Kingston sites (1,423 sqm to 1,436 sqm) allowed the sites to be used for residential and office with a maximum GFA of 4,000 sqm. The sales ranged in price from \$665 to \$762.50 psm of GFA with most around \$750 psm of GFA.

The majority of proposed mixed use sites are substantially larger than the abovementioned sales and our assessment of value as a whole site is approximately \$500 psm of GFA. For the smaller sites a higher rate per square metre of GFA has been adopted with the maximum rate being \$650 per square metre of GFA.

Valuation Report

#### **b) Residential**

Land values for residential apartment sites vary whether the project is low rise (ie three storeys or less) or medium to high rise which is seven and eight levels or above. Sales of low rise apartment sites have been generally in the range of \$80,000 to \$155,000 per apartment site with most activity occurring in the B11 and B12 zones of Braddon and Turner plus the odd sale in the inner south suburb of Forrest, Griffith and Kingston.

The residential sites have a maximum GFA of 16,000 sqm which on average produces approximately 145 units. Taking into consideration the size of each development the market value of the site is considered to be approximately \$72,000 per unit or approximately \$650 psm of GFA. The rate varies slightly in accordance to the sites proximity to the railway corridor.

#### **c) Commercial**

Most new office developments in the city have been constructed for the Government sector whilst the private sector has been neglected. There is strong demand for high quality tenancies in the City, Barton and the inner south. Demand is running at 5,000 to 7,000 square metres per annum and at present no new suitable supply is being generated.

The property's location would be considered suitable in satisfying the demand for strata office units within the private sector.

Sales of sites for office uses ranged from \$265 psm up to \$656 psm depending on the scale of development and location. The most recent sales show values for medium to large scale sites of around \$400 to \$450 psm of GFA. We have adopted rates of \$250 to \$350 per square metre taken into account the size of the proposed developments, location and the incorporation of a railway station into one of the development sites.

**d) Industrial**

The industrial market has shown strong growth over the past two (2) to three (3) years. Blocks within the industrial suburbs of Fyshwick, Hume and Mitchell have been in strong demand partly due to limited supply.

The price paid for blocks varies in accordance with the blocks location, purpose clause and site topography.

Development site 'P' would require some earthworks and possible retaining walls to make the site suitable for development. Development sites 'Q' and 'R' are part of the Epicentre subdivision and consequently more attractive to developers. Rates of \$300 to \$400 per square metre of GFA have been adopted.

Valuation Report

## 8 VALUATION METHODOLOGY

### 8.1 BASIS OF VALUATION

In assessing the Market Value of the sites we have utilised the Direct Comparison Method of valuation as our primary method of valuation.

The Direct Comparison Method involves analysing sales of other sites in Canberra to average a rate per square metre of GFA.

Based on our knowledge of this sector of the market and the comments contained in this report, we assess the values of the sites as follows.

In assessing the values, the following has been assumed:

Valuation Report

- a) Sites are suitable for development costs.
- b) Information regarding land areas and achievable plot ratio is correct.
- c) Mixed use is two levels of commercial and two levels of residential.
- d) Commercial is predominantly office use with some associated uses.

### 8.2 VALUATION CALCULATIONS

As indicated by the table below, Option 2 generates the highest potential revenue. This is as a result of the railway facilities being relocated to Fyshwick and allowing the creation of five additional development sites at Kingston

The remaining options involve having the railway in Kingston. Option 4 provides the best option as it still allows the creation of four additional development sites in Kingston. The lease amount of revenue is generated from Option 1 with all the rail facilities located in Kingston.

Option	Site	Use	Area m2	GFA m2	Rate per m2 GFA	Indicative Value
<b>Kingston</b>						
1	A	Mixed	32,000	64,000	\$500	\$32,000,000
1	B	Mixed	27,000	54,000	\$500	\$27,000,000
1	C	Residential	8,000	16,000	\$650	\$10,400,000
1	D	Residential	8,000	16,000	\$650	\$10,400,000
1	E	Residential	8,000	16,000	\$650	\$10,400,000
1	F	Residential	8,000	16,000	\$550	\$8,800,000
1	G	Commercial	9,500	28,000	\$250	\$7,000,000
1	H	Mixed	3,000	12,000	\$500	\$6,000,000
1	J	Industrial	10,500			\$1,050,000
1	K	Industrial	2,000			\$200,000
			<b>116,000</b>	<b>222,000</b>		<b>\$113,250,000</b>
<b>Fyshwick</b>						
1	P	Industrial	28,300	14,150	\$300	\$4,250,000
1	Q	Industrial	18,700	9,350	\$400	\$3,740,000
1	R	Industrial	21,800	10,900	\$400	\$4,360,000
			<b>68,800</b>	<b>34,400</b>		<b>\$12,350,000</b>
	<b>Total</b>					<b>\$125,600,000</b>

## Valuation Report

Option	Site	Use	Area m2	GFA m2	Rate per m2 GFA	Indicative Value
<b>Kingston</b>						
2	A	Mixed	32,000	64,000	\$500	\$32,000,000
2	B	Mixed	27,000	54,000	\$500	\$27,000,000
2	C	Residential	8,000	16,000	\$650	\$10,400,000
2	D	Residential	8,000	16,000	\$650	\$10,400,000
2	E	Residential	8,000	16,000	\$650	\$10,400,000
2	F	Residential	8,000	16,000	\$650	\$10,400,000
2	G	Commercial	9,500	28,000	\$350	\$9,800,000
2	H	Mixed	3,000	12,000	\$600	\$7,200,000
2	I	Mixed	2,500	10,000	\$550	\$5,500,000
2	J	Industrial	10,500			\$1,050,000
2	K	Industrial	2,000			\$200,000
2	L	Mixed	11,000	22,000	\$500	\$11,000,000
2	M	Mixed	7,000	14,000	\$500	\$7,000,000
2	N	Mixed	8,000	16,000	\$500	\$8,000,000
2	O	Mixed	5,500	11,000	\$500	\$5,500,000
			<b>150,000</b>	<b>295,000</b>		<b>\$155,850,000</b>
<b>Kingston</b>						
3	A	Mixed	32,000	64,000	\$500	\$32,000,000
3	B	Mixed	27,000	54,000	\$500	\$27,000,000
3	C	Residential	8,000	16,000	\$650	\$10,400,000
3	D	Residential	8,000	16,000	\$650	\$10,400,000
3	E	Residential	8,000	16,000	\$650	\$10,400,000
3	F	Residential	8,000	16,000	\$550	\$8,800,000
3	G	Commercial	9,500	28,000	\$250	\$7,000,000
3	H	Mixed	3,000	12,000	\$500	\$6,000,000
3	J	Industrial	10,500			\$1,050,000
3	K	Industrial	2,000			\$200,000
3	N	Mixed	8,000	16,000	\$400	\$6,400,000
3	O	Mixed	5,500	11,000	\$400	\$4,400,000
			<b>129,500</b>	<b>249,000</b>		<b>\$124,050,000</b>
<b>Fyshwick</b>						
3	Q	Industrial	18,700	9,350	\$400	\$3,740,000
3	R	Industrial	21,800	10,900	\$400	\$4,360,000
			<b>40,500</b>	<b>20,250</b>		<b>\$8,100,000</b>
	<b>Total</b>					<b>\$132,150,000</b>
<b>Kingston</b>						
4	A	Mixed	32,000	64,000	\$500	\$32,000,000
4	B	Mixed	27,000	54,000	\$500	\$27,000,000
4	C	Residential	8,000	16,000	\$650	\$10,400,000
4	D	Residential	8,000	16,000	\$650	\$10,400,000
4	E	Residential	8,000	16,000	\$650	\$10,400,000
4	F	Residential	8,000	16,000	\$600	\$9,600,000
4	G	Commercial	9,500	28,000	\$300	\$8,400,000
4	H	Mixed	3,000	12,000	\$550	\$6,600,000
4	J	Industrial	10,500			\$1,050,000
4	K	Industrial	2,000			\$200,000
4	L	Mixed	11,000	22,000	\$450	\$9,900,000
4	M	Mixed	7,000	14,000	\$450	\$6,300,000
4	N	Mixed	8,000	16,000	\$450	\$7,200,000
4	O	Mixed	5,500	11,000	\$450	\$4,950,000
			<b>147,500</b>	<b>285,000</b>		<b>\$144,400,000</b>
<b>Fyshwick</b>						
4	R	Industrial	21,800	10,900	\$400	\$4,360,000
	<b>Total</b>					<b>\$148,760,000</b>



## 9 VALUATION

We assign the following values as at **26 September 2007** subject to the comments contained within our report. Our assessment assumes leasehold title is available and the property is free of encumbrances restrictions or other impediments of an onerous nature, which would affect value:

**Current Market Value - Option 1**

**\$125,600,000 – GST Exclusive**

**(ONE HUNDRED AND TWENTY FIVE MILLION SIX HUNDRED THOUSAND DOLLARS)**

**Current Market Value - Option 2**

**\$155,850,000 – GST Exclusive**

**(ONE HUNDRED AND FIFTY FIVE MILLION DOLLARS EIGHT HUNDRED AND FIFTY THOUSAND DOLLARS)**

Valuation Report

**Current Market Value - Option 3**

**\$132,150,000 – GST Exclusive**

**(ONE HUNDRED AND THIRTY TWO MILLION ONE HUNDRED AND FIFTY THOUSAND DOLLARS)**

**Current Market Value – Option 4**

**\$148,760,000 – GST Exclusive**

**(ONE HUNDRED AND FORTY EIGHT MILLION SEVEN HUNDRED AND SIXTY THOUSAND DOLLARS)**

Finally, and in accordance with our normal practice, we confirm that this report is confidential to **the Consultancy for the Railway Masterplan for the ACT**. No responsibility is accepted to any third party and neither the whole of the report or any part or reference thereto, may be published neither in any document, statement or circular nor in any communication with third parties without our prior written approval of the form and context in which it will appear.

**Colliers International Consultancy and Valuation Pty Limited**



**Matthew Curtis AAPI**

**State Director**

**Certified Practising Valuer**

**Registered Real Estate Valuer No. 3257**

**27 September 2007 (Date of Signing Report)**

