

MC  
16/4/08



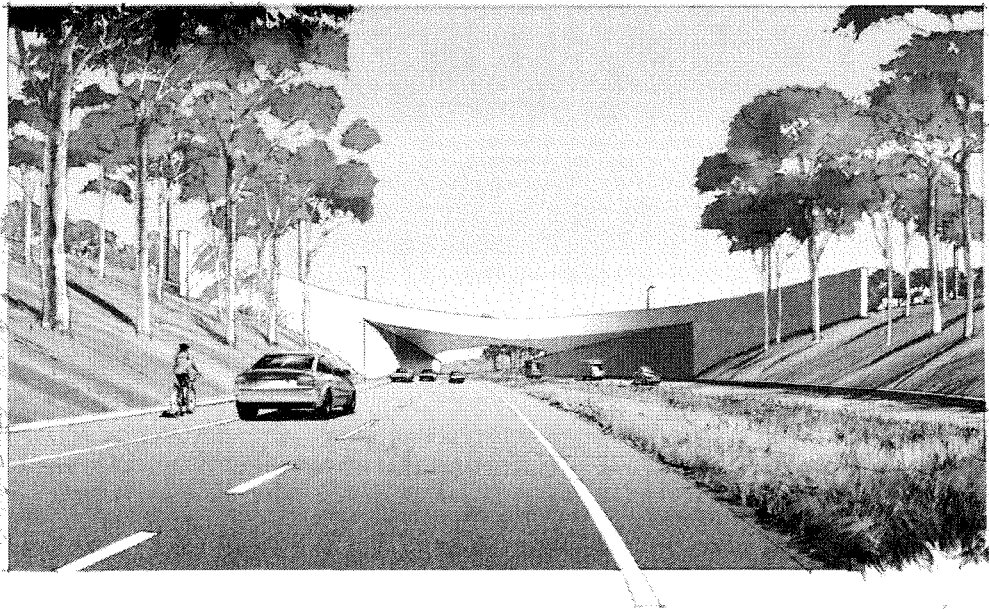
**Australian Government**  
**National Capital Authority**

**NATIONAL CAPITAL AUTHORITY**

**THE *GRIFFIN LEGACY* INFRASTRUCTURE  
BRIDGING KINGS AVENUE OVER PARKES WAY  
AT THE RUSSELL ROUNDABOUT, ACT**

**STATEMENT OF EVIDENCE TO THE PARLIAMANTARY  
STANDING COMMITTEE ON PUBLIC WORKS**

March 2008



## TABLE OF CONTENTS

INTRODUCTION .....	3
BACKGROUND .....	4
The Role of the National Capital Authority .....	4
The Griffin Legacy .....	4
Consultation and Collaboration with the ACT Government .....	5
Technical Studies undertaken during the preparation of the Griffin Legacy .....	6
Publication of the Griffin Legacy .....	6
Consultation with Commonwealth and ACT Government .....	6
Amendments to the National Capital Plan for the Griffin Legacy .....	6
Consultation on the Griffin Legacy Amendments .....	7
Consultation with the Joint Standing Committee on the National Capital and External Territories .....	7
Awards received by the Griffin Legacy .....	7
THE INFRASTRUCTURE BUSINESS CASE .....	8
The Business Case .....	8
Technical Studies undertaken for the Business Case .....	8
NEED FOR THE WORKS .....	9
THE PROPOSED INFRASTRUCTURE PROJECT .....	10
Outline of the Proposal .....	10
Description of the Project .....	10
Acquisition of Land for the Projects .....	10
IMPLEMENTATION .....	11
Appointment of Design Consultants .....	11
Cost Planning .....	11
Technical Studies undertaken for Design Development and Construction .....	11
HERITAGE, ENVIRONMENTAL & INDIGENOUS CONSIDERATIONS .....	12
Legislative Framework .....	12
Heritage Values .....	12
Environmental Values .....	12
Indigenous Values .....	13
THE TECHNICAL SOLUTION .....	13
Design Options Considered and Traffic Studies .....	13
Design Character .....	13
Construction .....	14
Design Standards .....	14
Engineering Services Infrastructure .....	14
Risk Assessment .....	15
Security .....	15
Pedestrian Access & Movement .....	15
Traffic Control Devices .....	16
Street & Pedestrian Lighting .....	16
Landscape .....	16
AUTHORITIES & DESIGN CONSULTATIONS .....	17
Works Approval .....	17
Consultations .....	17
PROJECT COST .....	18
PROJECT DELIVERY .....	18
PROGRAM .....	18
SUMMARY & RECOMMENDATIONS .....	18
APPENDIX A     DRAWINGS .....	20

## INTRODUCTION

1. The *Griffin Legacy* is the blueprint for the future development of the central national areas of the capital in the 21<sup>st</sup> century. The legacy builds on the past investment of the Commonwealth Government in the capital and has been widely acclaimed for planning excellence.
2. In the 2006-07 Budget \$0.5 million was provided to the National Capital Authority (NCA) to further develop the *Griffin Legacy* planning initiatives. These funds enabled the NCA to prepare a Business Case based on a preliminary design for infrastructure critical for development in the capital.
3. The Business Case acknowledged that much of the development giving effect to the *Griffin Legacy* would be undertaken by private sector investment but concluded that the latent investment potential would only be realised if the trunk infrastructure was in place. The trunk infrastructure identified in the Business Case as critical for the implementation of the *Griffin Legacy* included three projects:
  - The duplication of Constitution Avenue;
  - Bridging Kings Avenue over Parkes Way at the Russell roundabout, and
  - The reclamation of part of West Basin.
4. The Business Case identified a range of transport, traffic and accessibility benefits associated with the first two projects including significant travel time and vehicle operating cost savings and reductions in CO<sup>2</sup> emissions. In addition to improved amenity for commuters and visitors to the capital the Business Case also noted that the provision of the trunk infrastructure would reduce the likelihood of commuter traffic intrusion into adjacent residential areas.
5. In the 2007/08 Budget \$58.8 million over four years was provided to the NCA for two major infrastructure projects to transform the centre of the national capital consistent with the *Griffin Legacy* and \$3.1 million ongoing for the maintenance of roads. The projects were:
  - The duplication of Constitution Avenue, and
  - Bridging Kings Avenue over Parkes Way at the Russell roundabout;
6. This funding was conditional upon the ACT Government agreeing to transfer roads critical to the capital at no cost to the Commonwealth. On 20 August 2007 this was achieved by gazettal of road reservations and infrastructure which were Territory Land as National Land.
7. On 6 February 2008 the Government announced that it had decided to withdraw \$46.5 million in funding that had been provided to the NCA for the Constitution Avenue project and for the maintenance of roads that had been declared National Land. At the time of preparing this submission the associated roads and infrastructure were still National Land.
8. The funding of \$26.6 million for the bridging of Kings Avenue over Parkes Way at the Russell roundabout will be provided and this project will proceed. This submission describes the project and outlines the need for its timely completion.

## BACKGROUND

### *The Role of the National Capital Authority*

9. The NCA is established under the *Australian Capital Territory (Planning and Land Management) Act 1988* (the Act). The Act prescribes the functions of the NCA and makes it subject to general ministerial direction. The Minister for Home Affairs administers the Act.
10. The NCA manages the continuing interest of the Commonwealth in the National Capital including the range of functions required to plan, promote, enhance and maintain the Capital.
11. The NCA is a prescribed agency under the *Financial Management and Accountability Act 1997* and is principally budget funded through departmental and administered appropriation.
12. The statutory functions of the NCA are set out in section 6 of the Act, they are:
  - (a) *to prepare and administer the National Capital Plan*
  - (b) *to keep the National Capital Plan under constant review and to propose amendments to it when necessary*
  - (c) *on behalf of the Commonwealth, to commission works to be carried out in Designated Areas in accordance with the Plan where neither a Department of State of the Commonwealth nor any Commonwealth authority has the responsibility to commission those works*
  - (d) *to recommend to the Minister the carrying out of works that it considers desirable to maintain or enhance the character of the National Capital*
  - (e) *to foster an awareness of Canberra as the National Capital*
  - (f) *with the approval of the Minister, to perform planning services for any person or body, whether within Australia or overseas, and*
  - (g) *with the Minister's approval, on behalf of the Commonwealth, to manage National Land designated in writing by the Minister as land required for the special purposes of Canberra as the National Capital.*
13. The statutory object of the National Capital Plan (the Plan) is that *Canberra and the Territory be planned and developed in accordance with their national significance* (sect 9). Under the Plan matters of national significance include the pre-eminence of the role of Canberra as the capital, the landscape, character and setting, the creation and enhancement of sites, approaches and backdrops for national uses and ceremonies, environmental values and respect for the geometry and intent of the Griffin plan.

### *The Griffin Legacy*

14. In 1912 Walter Burley Griffin and Marion Mahoney Griffin won the international design competition for Australia's national capital. Over time Griffin's plan has been adapted and changed but the strong geometry and design for a unique Australian city in the landscape continues to provide a compelling 'vision' for the development of the central parts of the city.

15. In 2002 the NCA commenced the *Griffin Legacy* project which looked at ensuring that Griffin's visionary plan could be transformed into practical actions to develop the national capital. The aims were to appraise the Griffin plan and its relevance to the planning and development of Canberra in the 21<sup>st</sup> century; to extend the legacy through strategic initiatives to restore, where possible, the spirit and intent of the plan; to provide an integrated framework between the Commonwealth Government and the ACT Government for planning initiatives in the central national areas and for the approach routes; and to protect the integrity of the Griffin plan, recognising its stature as a work of both national and international significance.
16. The *Griffin Legacy* research and planning was undertaken by NCA senior professional staff with the assistance of Mr Christopher Vernon who was appointed as an NCA Design Advisor in June 2002. Mr Vernon is a noted Griffin scholar, Landscape Architect and a Senior Lecturer, Faculty of Landscape Architecture and Visual Arts, University of Western Australia.
17. An Advisory Panel, consisting of national experts in planning, architecture and heritage, was appointed in February 2003 to review work in progress and provide independent advice to the NCA. The panel included:
  - Mr Graham Scott-Bohanna (Architect and NCA Managing Director Design), as Chairman;
  - Ms Dorte Ekelund (Director Territory Planning, ACT Planning and Land Authority);
  - Mr Romaldo Giurgola AO (Architect of Parliament House);
  - Mr James Birrell (Architect and Griffin scholar);
  - Mr John McNerney (President, Planning Institute of Australia);
  - Professor Robert Freestone (Planning Historian, Associate Professor, Faculty of the Built Environment, University of New South Wales), and
  - Dr Anna Rubbo (Architect, Associate Professor, Faculty of Architecture, University of Sydney).

#### ***Consultation and Collaboration with the ACT Government***

18. The work on the *Griffin Legacy* was undertaken in parallel with the ACT Government's work to develop a spatial planning policy framework for metropolitan growth. Their work assumed a population of some 500,000 in 30 years, requiring 60,000 – 90,000 new dwellings and concluded that urban development should be established within a containment line of 15 kilometres from the city centre and higher density consolidation should occur within 7.5 kilometres from the city. The *Griffin Legacy* complemented this objective and focused on the potential of the central national area for much of that consolidation.

### ***Technical Studies undertaken during the preparation of the Griffin Legacy***

19. To inform the *Griffin Legacy* research and the development of the strategic planning initiatives a number of technical studies were undertaken, including:
- Economic Feasibility – by Hill PDA
  - Traffic Impact Assessment – by Maunsell AECOM:
  - Transport Economics – by Maunsell AECOM; and
  - City Transport Options – by Maunsell AECOM.

The following studies, undertaken by the ACT Planning and Land Authority, also informed the *Griffin Legacy*:

- Engineering Feasibility – by Maunsell AECOM; and
- Infrastructure Capacity and Catchment Study – by Cardno Young

### ***Publication of the Griffin Legacy***

20. After two years of research and peer review the *Griffin Legacy* was launched in December 2004 by the former Commonwealth Government Minister, Jim Lloyd with the former ACT Government Minister for Planning, Simon Corbell MLA participating in the ceremony.
21. Publication of the Legacy was considered a vital step in securing the future of the city in the 21<sup>st</sup> century. The work was very well received by national professional and industry groups and by the Canberra community.

### ***Consultation with Commonwealth and ACT Government***

22. The *Griffin Legacy* applies to both National Land and Territory Land in the central national area, some administered by Commonwealth agencies and some by the ACT Government. In 2004, a *Griffin Legacy* Forum was established in order to facilitate co-operation and co-ordination in the implementation of the *Griffin Legacy*. The Forum comprises the NCA, Department of Defence, Department of Finance and Deregulation and the ACT Government. In 2006 the parties signed a Memorandum of Understanding. The Forum meets regularly and on an as needs basis.

### ***Amendments to the National Capital Plan for the Griffin Legacy***

23. The *Griffin Legacy* was given statutory effect when four significant amendments to the Plan were approved in November 2006 (the disallowance period in both Houses of Parliament concluded in May 2007). The amendments are:
- Amendment 56 – *Griffin Legacy* Principles and Policies
  - Amendment 59 – City Hill Precinct
  - Amendment 60 – Constitution Avenue
  - Amendment 61 – West Basin

All four amendments were supported by the ACT Planning and Land Authority.

### ***Consultation on the Griffin Legacy Amendments***

24. On 5 August 2006 Draft Amendment 56 was released for public comment. The period for comment closed on 15 September 2006.
25. On 17 August 2006 Draft Amendments 59, 60 and 61 were released for public comment at an Information Forum held at the National Capital Exhibition for industry and business associations, the professions and relevant ACT Government agencies to explain the scope and content of the draft amendments. A large scale model of the *Griffin Legacy* initiatives on permanent display at the National Capital Exhibition was used at the Forum and in the weeks that followed as a consultation tool. The model remains on exhibition and is updated as development takes place.
26. Well attended public information sessions were held at the National Capital Exhibition around the *Griffin Legacy* model on 18, 19, 20 August and 12, 13, 14 September 2006 and a youth forum was conducted on 19 August 2006. The period for public comment closed on 29 September 2006.
27. A total of 323 submissions regarding the *Griffin Legacy* Draft Amendments were received, the majority of which supported or gave qualified support for the amendments. As a result of the comments received a number of changes and/or clarifications were made to the draft amendments before they were submitted by the NCA to the Minister for approval.

### ***Consultation with the Joint Standing Committee on the National Capital and External Territories***

28. The Joint Standing Committee on the National Capital and External Territories (the Committee) received three briefings from the NCA on the *Griffin Legacy*. On 23 June 2004 the Committee was briefed on the *Griffin Legacy* project. On 13 September 2006 the Committee was briefed on Draft Amendment 56 and on 11 October 2006 on Draft Amendments 59, 60 and 61.
29. On 27 November 2006 the former Minister gave the Joint Standing Committee the opportunity to conduct a public inquiry into the *Griffin Legacy* amendments and on 30 November the Committee advised that it would not hold a public inquiry but would instead conduct a 'roundtable forum' to examine the four draft amendments.
30. The roundtable was held on 23 February 2007.

### ***Awards received by the Griffin Legacy***

31. The quality and professionalism of the Griffin Legacy has been recognised with awards including:
  - the 2006 National Award for Urban Design – Plans and Ideas from the Planning Institute of Australia, and
  - the 2006 National Award for Excellence in Research and Communication in Landscape Architecture from the Australian Institute of Landscape Architects.
32. The Griffin Legacy Plan amendments also received the Planning Institute of Australia, ACT Division's 2007 Award for Excellence, Urban Design – Plans and Ideas.

## THE INFRASTRUCTURE BUSINESS CASE

### *The Business Case*

33. In the 2006-07 Budget \$0.5 million was provided to the NCA to further develop the *Griffin Legacy* planning initiatives. These funds enabled the NCA to prepare a Business Case based on a preliminary design for critical infrastructure in the central national areas of the capital.
34. The Business Case acknowledged that much of the development giving effect to the *Griffin Legacy* would be undertaken by private sector investment but concluded that the latent investment potential would only be realised if the trunk infrastructure was in place. The trunk infrastructure identified in the Business Case as critical for the implementation of the *Griffin Legacy* included three projects:
  - The duplication of Constitution Avenue;
  - Bridging Kings Avenue over Parkes Way at the Russell roundabout, and
  - The reclamation of part of West Basin
35. The Business Case identified a range of transport, traffic and accessibility benefits associated with the first two projects including significant travel time and vehicle operating cost savings and reductions in CO<sup>2</sup> emissions. In addition to improved amenity for commuters and visitors to the capital, the Business Case also noted that the provision of the trunk infrastructure would reduce the likelihood of commuter traffic intrusion into adjacent residential areas.
36. In terms of accessibility and security the Business Case noted that the redevelopment of Constitution Avenue and the bridging of Kings Avenue over Parkes Way would provide improved, more reliable and more readily secured transport links between the city, Parliament House and the airport.

### *Technical Studies undertaken for the Business Case*

37. The *Griffin Legacy* Business Case was underpinned by technical studies that analysed traffic and infrastructure capacity, landscape, environmental and heritage considerations and a comprehensive consultation program. The technical studies included:
  - Economic Feasibility – by SGS Economics & Planning:
  - Civil Engineering Feasibility – by Cardno Young:
  - Services Infrastructure Capacity – by Cardno Young:
  - Traffic Impact Assessment – by Maunsell AECOM:
  - Transport Economics – by Maunsell AECOM:
  - Tree Condition Assessment – by Lester Firth Associates:
  - Heritage Impact Assessment, Parliament House Vista – by Lester Firth Associates:
  - Infrastructure Valuations – by Australian Valuation Office.

The following study undertaken by the ACT Planning and Land Authority also informed the *Griffin Legacy* Business Case:

- Central Canberra Pedestrian Movement Study- by Intelligent Space



## NEED FOR THE WORKS

38. The *Griffin Legacy* Business Case considered three options:

- ‘do nothing’
- Complete key trunk infrastructure (Constitution Avenue, Kings Avenue/Parkes Way and West Basin)
- *Griffin Legacy* plus (trunk and precinct infrastructure)

The business case concluded that completion of the key trunk infrastructure would release the latent development potential of the Legacy.

39. The business case, supported by the Traffic Impact Assessment identified the two key infrastructure projects that were necessary to meet the transport and access needs of committed Commonwealth Government building projects located along Constitution Avenue and future developments in the Russell Defence precinct. The infrastructure projects are:

- The duplication of Constitution Avenue from Russell to Vernon Circle to increase traffic capacity; and
- The bridging of Kings Avenue over Parkes Way at the Russell roundabout to increase capacity and separate local and through traffic.

40. The bridging of Kings Avenue over Parkes Way is one of two trunk infrastructure projects required to meet the needs for future development of the Russell Defence precinct and of the Commonwealth Government’s decisions to refurbish the Anzac Park offices for a Commonwealth tenant (construction underway) and to locate the new Australian Security Intelligence Organisation (ASIO) building on Constitution Avenue (design underway).

41. The Russell roundabout has operated at capacity for some time and it is one of Canberra’s worst traffic black spots. The proposed improvements complement the ACT Government commitment to undertake road improvements between the roundabout and the airport.

42. Failure to undertake the project will stop the timely development of essential infrastructure resulting in unacceptable traffic congestion compromising access and safety at the roundabout and will inhibit access throughout the central national areas.

43. This project alone will not address all of the traffic congestion that will result from the Commonwealth’s current commitments to office projects on Constitution Avenue. Duplication of Constitution Avenue will be required if severe congestion is to be avoided (particularly on the avenue and Parkes Way at the intersections with Anzac Parade) when these buildings are occupied.

44. The NCA and Department of Defence has developed a Master Plan for future building development opportunities in the Russell precinct. Should the Department of Defence advance these building development options additional road works and car parking will be required.

## **THE PROPOSED INFRASTRUCTURE PROJECT**

### ***Outline of the Proposal***

45. Funding of \$26.6 million over three years was provided to the NCA for the bridging of Kings Avenue over Parkes Way at the Russell roundabout. This is a major infrastructure project to begin the transformation of the centre of the national capital consistent with the *Griffin Legacy*.

### ***Description of the Project***

46. The bridging of Kings Avenue over Parkes Way at the Russell roundabout will remove one of the worst traffic bottle necks and black spots in Canberra. Parkes Way will be lowered and a new bridge will carry Kings Avenue traffic at its existing level over Parkes Way through to the Russell Defence precinct.
47. The new intersection where Kings Avenue passes over Parkes Way will allow traffic movements in all directions and provide safe pedestrian access from the Russell Defence precinct to Kings Park and the shores of Lake Burley Griffin.
48. This work will also restore Kings Avenue as one side of Griffin's National Triangle.

### ***Acquisition of Land for the Projects***

49. The former Government's Budget commitment was conditional on the ACT ceding control of certain roads to the Commonwealth at no cost.
50. On 9 August 2007 the ACT Chief Minister agreed to the roads being declared National Land at no cost to the Commonwealth following the signing of a Memorandum of Understanding (MoU) requiring consultation and agreement between the ACT and the NCA in relation to roadworks undertaken by the NCA. The MoU was signed on 16 August 2007 and the roads were gazetted as National Land required for the special purposes of Canberra as the national capital on 20 August 2007.
51. The decision by the Government not to proceed with the funding of the Constitution Avenue works and the withdrawal of recurrent maintenance funds of \$3.1 for the newly gazetted National Land roads and assets may mean that these assets will be de-gazetted and revert to Territory Land. If the Minister takes this action the responsibility for future road works and maintenance will return to the ACT Government.

## **IMPLEMENTATION**

### ***Appointment of Design Consultants***

52. Between August and December 2007 the NCA conducted a two stage consultant selection process, in accordance with the *Commonwealth Procurement Guidelines*, to select suitably qualified and experienced design and engineering consultants for the project. The design team appointed for the bridging of Kings Avenue over Parkes Way is:

- Johnson Pilton Walker, Architects, Landscape Architects, Urban Designers
- Taylor Thompson Whitting, Civil & Structural Engineers
- Steensen Varming, Lighting Designers & Electrical Engineers
- Warren Smith & Partners, Hydraulic Engineers
- Morris Goding, Accessibility Consultants

### ***Cost Planning***

53. Under a separate contract the NCA has engaged WT Partnership, Quantity Surveyors to provide cost planning services for the project and to independently monitor and report on the project budget. The services include value management reviews of the project to identify cost pressures and possible savings.

### ***Technical Studies undertaken for Design Development and Construction***

54. To inform the design development of the *Griffin Legacy* infrastructure project the following technical studies have been undertaken:

- Heritage Assessment – by Jennifer Hill (Architectural Projects)
- Environmental and Indigenous Values Assessment – by Navin Officer
- Traffic Impact Modelling – by SMEC
- Traffic Impact Review – by Maunsell AECOM
- Geotechnical Soil and Substrate Testing – by Coffey Geotechnics
- Topographical Survey – by LandDATA
- Preliminary Existing Services – by Cardno Young
- Tree Survey – by DSB Landscape Architects
- Project Risk Assessment – by Price Waterhouse Cooper.

55. Additional site investigations to confirm location and extent of in ground communication services are being undertaken. These will establish the scope of works and verify initial cost estimates of the cost of relocation and reconnection.

## HERITAGE, ENVIRONMENTAL & INDIGENOUS CONSIDERATIONS

### *Legislative Framework*

56. As a Commonwealth Agency the NCA is subject to the provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Section 341ZC of the EPBC Act requires that:

*“A Commonwealth Agency must not take an action that has, will have or is likely to have an adverse impact on the national heritage values of a National Heritage place or the commonwealth heritage values of a Commonwealth Heritage place, unless:*

- a) there is no feasible and prudent alternative to taking the action; and*
- b) all measures that can be reasonably be taken to mitigate the impact of the action on those values are taken.”*

### *Heritage Values*

57. While this infrastructure project, with the exception of some underground services, is not within a National Heritage Place or a Commonwealth Heritage Place, the potential impact of the works on the values of listed places adjacent to the project has been considered during the design development stage.
58. This assessment addresses the impact of the infrastructure project on the heritage values of these places and has concluded that there are no significant impacts on the statutory heritage values of the listed places. The places with heritage values include:
- Parliament House Vista, Commonwealth Heritage List
  - Russell Precinct Heritage Area, Commonwealth Heritage List
59. As Parkes Way is the northern boundary of the Parliament House Vista, a place on the Commonwealth Heritage List the impact of the bridging of Kings Avenue over Parkes Way on the Vista has been assessed. The conclusion is that there will be no adverse impacts on the values of the Vista by the proposed works. The assessment provides guidelines for the design of Kings Avenue and its function as defining the eastern side of the National Triangle.

### *Environmental Values*

60. The EPBC Act requires a Commonwealth Agency to consider the environmental impact of a proposed action on the environment including flora and fauna. While this infrastructure project is not within a place with special environmental values an Environmental Impacts Assessment has been undertaken.
61. Rather than adverse impacts the assessment concluded that the proposed infrastructure project may well deliver environmental benefits particularly through improved transport and traffic efficiencies and reduced emissions.

### ***Indigenous Values***

62. The EPBC Act also requires a Commonwealth Agency to consider the impact of a proposed action on the Indigenous values of the place. Local Indigenous representatives inspected the site of the works and have not identified any sites of Indigenous value.
63. The assessment concluded that the proposed works would not impact on Indigenous values.

## **THE TECHNICAL SOLUTION**

### ***Design Options Considered and Traffic Studies***

64. Two design options have been considered:
  - Option 1: Two bridges on Kings Avenue, one for each carriageway; and
  - Option 2: A single bridge on Kings Avenue
65. Option 1: The design incorporating two bridges on Kings Avenue, while similar to the design of the bridges on Commonwealth Avenue where it passes over Parkes Way has limited performance in terms of traffic management. Substantial benefits in accommodating right turning traffic from Parkes Way onto Kings Avenue going to Russell and Parliament House and from Kings Avenue onto Parkes Way heading east towards the airport and west to the city can be achieved. Nevertheless, such traffic operations require a more flexible intersection design than can be provided with two bridges.
66. Option 2: The single point urban interchange bridge solution is superior to option 1. It provides a significantly improved level of service and flexibility to accommodate the high level of demand for right turning traffic.
67. Traffic studies and analysis support option 2, the single point urban interchange bridge solution, as being the appreciably better alternative to option 1 in both the short and longer term.
68. A single point urban interchange bridge solution is proposed for the intersection.

### ***Design Character***

69. A single bridge on Kings Avenue over Parkes Way will create a new gateway into and out of the National Triangle for traffic travelling west and east respectively on Parkes Way. The design character of the bridge fulfils the dual role of providing a flexible traffic management solution and provides an elegant new entry into the heart of the national capital.
70. The single bridge on Kings Avenue spanning over Parkes Way incorporates a single point urban interchange. Traffic lights regulate traffic turning right from Kings Avenue down onto Parkes Way and traffic turning right onto Kings Avenue from the Parkes Way off ramps. The traffic lights will be programmed to allow right turns in opposite directions simultaneously. Generally, left turning traffic will be controlled by give way signs.
71. The design provides signalised pedestrian crossings on Kings Avenue for access into Kings and Grevillea Parks on Lake Burley Griffin. Signal preference will be given to vehicular traffic during peak periods and to pedestrians at other times.

### ***Construction***

72. Kings Avenue will remain largely at its existing level. Construction of the bridge will be in reinforced concrete. At its extremities the bridge will be supported on reinforced concrete bored piers faced with pre-cast panels. Adjacent bridge retaining walls will be similarly constructed using reinforced concrete piers faced with pre-cast panels. Soil nails will also be used to the bridge abutments and retaining walls as part of the structural design. The bridge balustrade systems will be a combination of pre-cast reinforced concrete and steel railings.
73. The new Parkes Way roadway will be lowered to give standard roadway clearances under the bridge. The Parkes Way cutting embankment slopes will be landscaped.
74. Excavated fill from the site will be transported to a suitable local site for future use.
75. The roads will be surfaced to complement the existing Kings Avenue. Asphalt will be laid on concrete to the bridge and on a crushed rock sub-base to the Parkes Way, Kings Avenue and ramp roadways.
76. The new Kings Avenue bridge will accommodate
  - a combination of through and turning vehicular traffic lanes in each direction;
  - one on-road perimeter bicycle lane in each direction; and
  - perimeter pedestrian footpaths on each side
77. The new Parkes Way roadway will accommodate
  - two vehicular traffic lanes initially in each direction, with the capacity to increase to three lanes in each direction in the future by adding one additional lane each side in the median strip area; and
  - one on-road perimeter bicycle lane in each direction
78. Drawings illustrating the scope of work and the design concept are at Appendix A.

### ***Design Standards***

79. The design for the project has been prepared in accordance with Australian Standards for traffic control and safety as well as the ACT Traffic Ordinances and Regulations.

### ***Engineering Services Infrastructure***

80. Key elements of engineering services infrastructure run underground in the vicinity of the new bridging and roadworks, both along the Kings Avenue corridor as well as adjacent to and across Parkes Way.
81. Where engineering services adjacent Parkes Way are encroached upon by the works these will be moved away from the new roadworks edge. Where engineering services running across Parkes Way are affected by the works, these will be re-run under the new lowered road surface. Services will be run in new conduit or pipe work systems, either by bored or trenched services corridors.
82. Engineering services (as identified at the time of this submission) to be adjusted and relocated include
  - ActewAGL high voltage power, water, sewer and gas services
  - Telstra copper and fibre communications service lines
  - ICON fibre optic cable services

- Other communications services including AAPT Powertel, Optus and TransACT
83. Roadway stormwater run-off will be managed through pipework systems and landscape bio-swales.

### ***Risk Assessment***

84. Project risks assessments are reviewed regularly and are considered under the following :
- Design
  - Budget
  - Time
  - Civil engineering and traffic
  - Authority approvals
  - Engineering Services
    - Electrical
    - Communications (Telstra, Optus, ICON, AAPT Powertel, TransACT)
    - Sewer
    - Water supply
    - Gas
    - Stormwater
  - Landscape and environment

### ***Security***

85. The NCA has worked closely for some years with the Department of Defence to design integrated perimeter security measures for the existing facilities at Russell. The measures are visually unobtrusive and integrated with building and landscape elements to maintain a stand off distance between parked or moving vehicles and adjacent buildings of a minimum of 25 metres.
86. The separation of through and local traffic that will be achieved with the bridging of Kings Avenue over Parkes Way will reduce vehicular traffic in the precinct and enable better integrated perimeter security measures to be implemented throughout the Russell Defence precinct (as development takes place).

### ***Pedestrian Access & Movement***

87. There is a strong pedestrian desire line between the Defence facilities at Russell and Kings Park and Lake Burley Griffin. Currently there are only safe pedestrian connections via underpasses adjacent to the Anzac Park buildings either side of Anzac Parade.
88. Construction of the bridges on Kings Avenue over Parkes Way will address this long standing pedestrian safety concern with the provision of an at grade pedestrian crossing linking the Russell Defence precinct with Kings Park and Lake Burley Griffin.
89. As part of prior Russell precinct planning discussions with the NCA, the ACT Government and the Department of Defence proposed that a pedestrian underpass from the Russell to Kings Park, under Parkes Way, be a consideration in future planning. While the bridging of Kings Avenue over Parkes Way provides improved

pedestrian movement from the Russell to Kings Park, this does not preclude future construction of a pedestrian underpass west of a Kings Avenue bridge.

90. The design solution conforms to the codes for people with disabilities, AS1428.1 and AS1428.2.

### ***Traffic Control Devices***

91. Traffic control devices will be provided in accordance with the relevant Australian Standards and include traffic signals, pavement markings, kerbs, islands, bollards, barriers and signage.
92. Traffic lights regulating traffic on Kings Avenue will be synchronised with other relevant traffic lights in the area and programmed to accommodate the differing level and direction of demand between morning and evening peak periods.

### ***Street & Pedestrian Lighting***

93. The existing street lighting network in and around the area of the works will be modified or replaced and extended onto the new bridges. It is proposed that the street lighting fixtures will match the existing lights and will be fully integrated with the existing on/off switching regime.
94. Along the new roads lighting levels will comply with the relevant Australian Standard for street lighting.
95. Pedestrian lighting will reinforce pedestrian routes and pathways and be integrated with the street lighting.
96. Special lighting will be integrated into the new bridges to accentuate the gateway into the National Triangle.

### ***Landscape***

97. The site for the project forms the transition from the formal landscape of the Russell precinct to the north into the more informal parkland landscape treatment of Grevillia Park to the south-east and Kings Park to the south-west. The landscape design will extend each of these treatments into the areas of the existing road reservation that are not required for the new roads and bridges.
98. Predominantly drought tolerant native plantings will be used throughout the new landscape areas, including more formal planting to Kings Avenue to reinforce its importance as one side of the National Triangle. (Some existing street plantings along Kings Avenue (both Eucalypt and exotic species) have deteriorated due to poor growing conditions and prolonged dry periods.
99. Water sensitive urban landscape design has been used for the project. The landscape design for the median to both Kings Avenue and Parkes Way incorporates bio-swale design features which capture stormwater run off and distribute the run off within the median to maintain the landscape.

### ***Communications/Public Information***

100. During construction, traffic management plans will be developed for each stage of the work that will incorporate signage warning motorists of changed road and access conditions, alternate routes, detours and possible delays. In the lead up to significant changes in road conditions, on-road and media information will be used to prepare motorists for the disruption and encourage the use of alternate routes; in order to minimise the impact of these changes during the construction phase.



## **AUTHORITIES & DESIGN CONSULTATIONS**

### ***Works Approval***

101. The NCA is responsible under the *ACT (Planning and Land Management) Act 1988* (the Act) for preparing and administering the National Capital Plan (the Plan) (Sect 6) and for approving works within the Designated Areas (Sect 12).

102. Section 12(1) of the Act states:

*No works shall be performed in a Designated Area unless:*

- a) the proposal to perform the works has been submitted to the Authority (NCA) together with such plans and specifications as are required by the Authority*
- b) the Authority has approved the works in writing*
- c) the works are in accordance with the plan*

The bridging of Kings Avenue over Parkes Way is within the Designated Areas in the Plan and the NCA must grant Works Approval (Development Approval) prior to the work proceeding.

103. The Delegate has reviewed the preliminary design documentation for the bridging of Kings Avenue over Parkes Way and has advised that the design is “supported in principle”. The final design documentation will be submitted to the Delegate for approval following consideration by the Public Works Committee.

104. Prior to construction completion; the works will be formally verified as complying with the Building Code of Australia, relevant Australian Standards and codes; via professional certification processes.

### ***Consultations***

105. During the development of the design for the bridging of Kings Avenue over Parkes Way consultations have been conducted with:

- Department of Defence
- Department of Finance and Deregulation
- ACT Government Chief Ministers Department
- ACT Planning and Land Authority
- ACT Government Department of Territories and Municipal Services - Roads ACT
- ActewAGL – HV Power
- ActewAGL – Water and Sewer
- Alinta - Gas
- Telstra
- Property Council of Australia
- Canberra Convention Bureau

106. The NCA has received letters of support for the bridging of Kings Avenue over Parkes Way. These letters can be made available.

107. Other specific consultation processes have been adopted as part of project development that includes two Memorandum of Understanding (MoU). The two ongoing MoUs established include the
- Australian Capital Territory National Capital Authority MoU
    - The signatories to this MoU are the ACT Chief Ministers Department and the NCA.
    - In summary, the aim of this MoU "... is to ensure that road works ... carried out by the National Capital Authority (NCA) have the agreement of the Australian Capital Territory (the ACT) ... "
  - Commonwealth and ACT Government (ACT) Griffin Legacy Forum, Griffin 21C Project, MoU
    - The signatories to this MoU are the ACT Chief Ministers Department, ACT Planning and Land Authority, Department of Finance and Deregulation and the NCA.
    - In summary, the aim of this MoU "... is to establish cooperative partnerships with Commonwealth agencies and ACT Government agencies which have planning and land management responsibilities within the Griffin 21C Project area ..."
    - The Griffin 21C Project area includes the Griffin Legacy proposals, including the bridging of Kings Avenue over Parkes Way.

#### **PROJECT COST**

108. The estimated out-turn cost of this project is \$26.6 million (plus GST) and includes construction costs, escalation, contingencies, professional fees and Authority charges.

#### **PROJECT DELIVERY**

109. The construction works will be competitively tendered in accordance with Commonwealth Procurement procedures.
110. Design consultant team members for the project have been previously engaged via competitive tendering in accordance with Commonwealth Procurement procedures.

#### **PROGRAM**

111. Subject to Government agreement to project documentation being undertaken concurrently to the PWC process, the report of the Public Works Committee, Parliamentary approval and the approval of the NCA delegate; tenders for the first stages of the project will be called in late 2008. Construction is scheduled for completion in 2010.

#### **SUMMARY & RECOMMENDATIONS**

112. The bridging of Kings Avenue over Parkes Way at the Russell roundabout will remove one of the worst traffic bottle necks and black spots in the capital. Parkes Way will be lowered and the new bridge will carry Kings Avenue traffic over Parkes Way through to the Russell Defence precinct.

113. The proposed work will also enhance Kings Avenue as one side of the National Triangle.
114. The bridge on Kings Avenue over Parkes Way will create a new gateway into and out of the National Triangle for traffic travelling west east on Parkes Way. The design character of the bridge will fulfil the dual role of resolving traffic management (at both levels) and providing an elegant new entry into the triangle worthy of the national capital.
115. Construction of the bridge on Kings Avenue over Parkes Way will address a long standing pedestrian safety concern with the provision of at grade pedestrian crossings linking the Russell Defence precinct with Kings Park and Lake Burley Griffin.
116. The separation of through and local traffic that the bridging of Kings Avenue over Parkes Way achieves will reduce traffic in the Russell Defence precinct and enable better integrated perimeter security measures to be implemented throughout the precinct as development takes place.
117. The proposal to bridge Kings Avenue over Parkes Way will provide a broad range of demonstrable benefits to visitors to the Capital, agencies of the Commonwealth Government, the ACT Government and the Canberra community. The work provides critical and timely infrastructure for the National Capital at this time in its history and development, It should proceed.

## **APPENDIX A**

## **DRAWINGS**

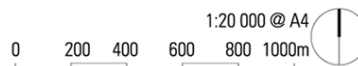
- Site Locality Plan
- Site Plan
- Landscape Plan
- Intersection Plan
- Kings Avenue – Long Section
- Parkes Way – Long Section
- Kings Avenue – Cross Section 1
- Kings Avenue – Cross Section 2
- Parkes Way – Cross Section 1
- Parkes Way – Cross Section 2
- Parkes Way – Cross Section 3
- Perspective

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



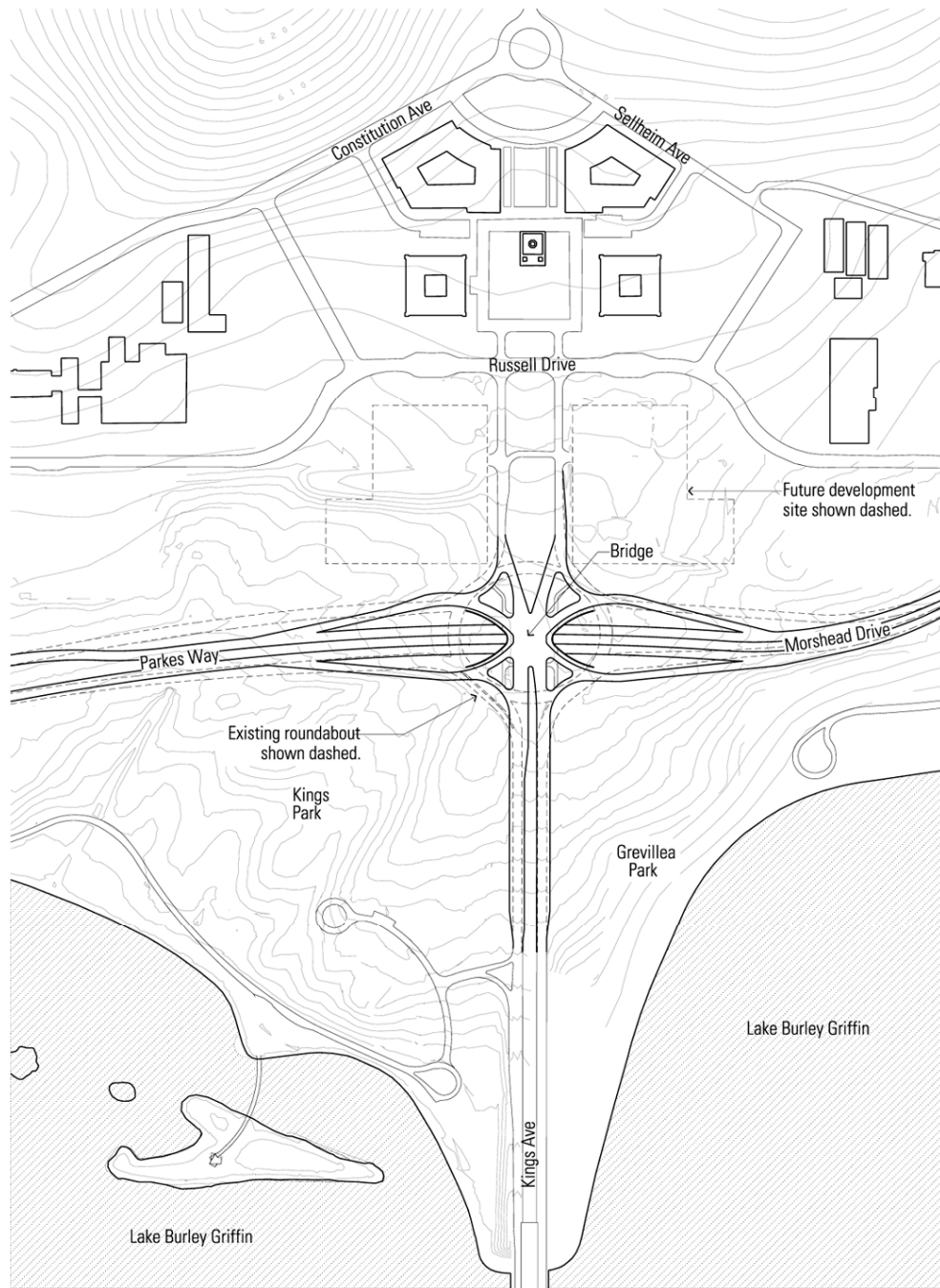
March 2008

**Johnson Pilton Walker**  
Level 10 Plaza Building  
Australia Square  
95 Pitt Street Sydney NSW 2000 Australia



1:20 000 @ A4  
**Site  
Locality Plan**

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



March 2008

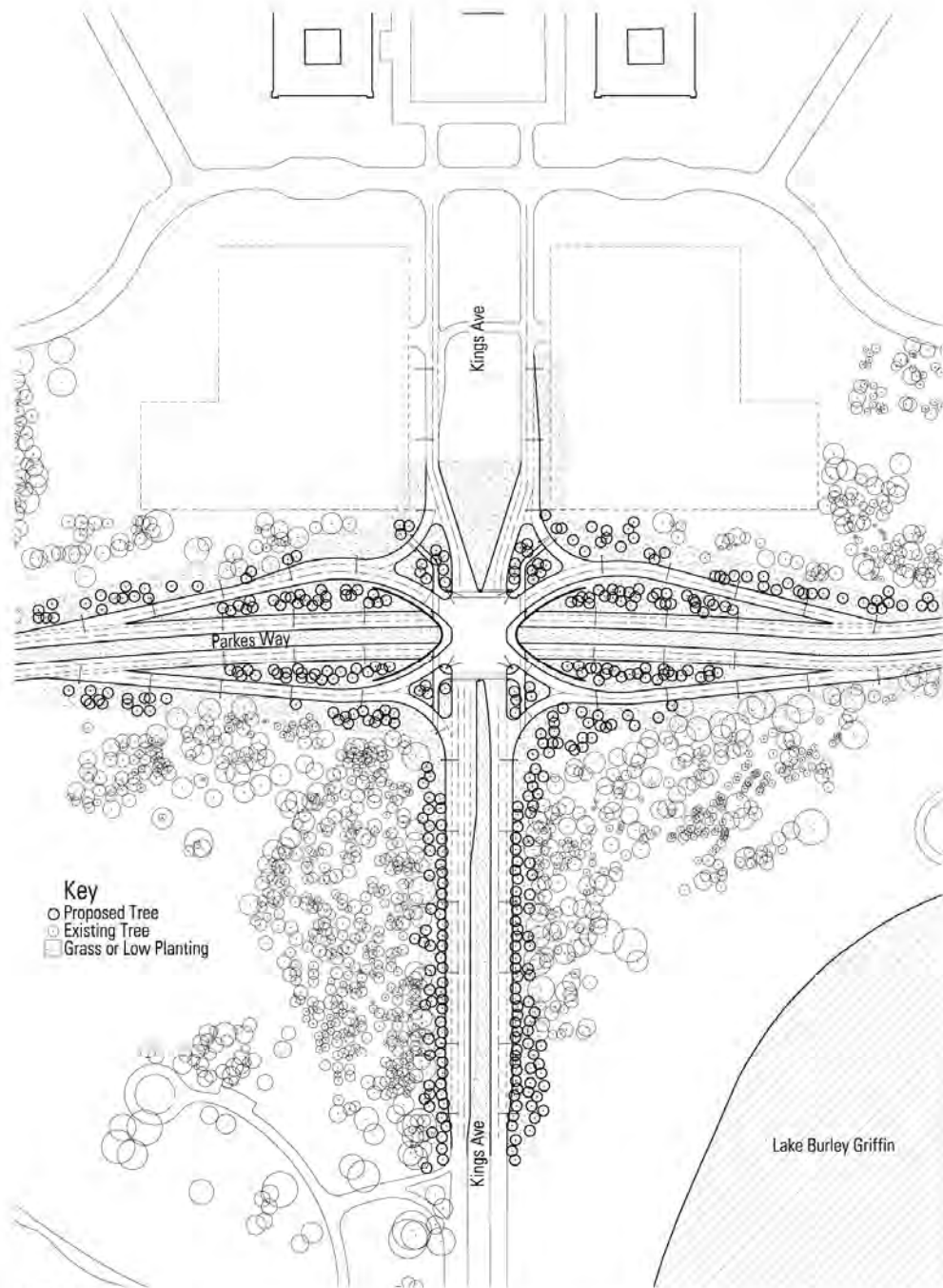
**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia



1:5000 @ A4

Site  
**Plan**

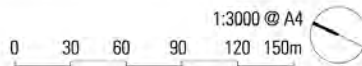
Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



- Key**
- Proposed Tree
  - ⊗ Existing Tree
  - ▨ Grass or Low Planting

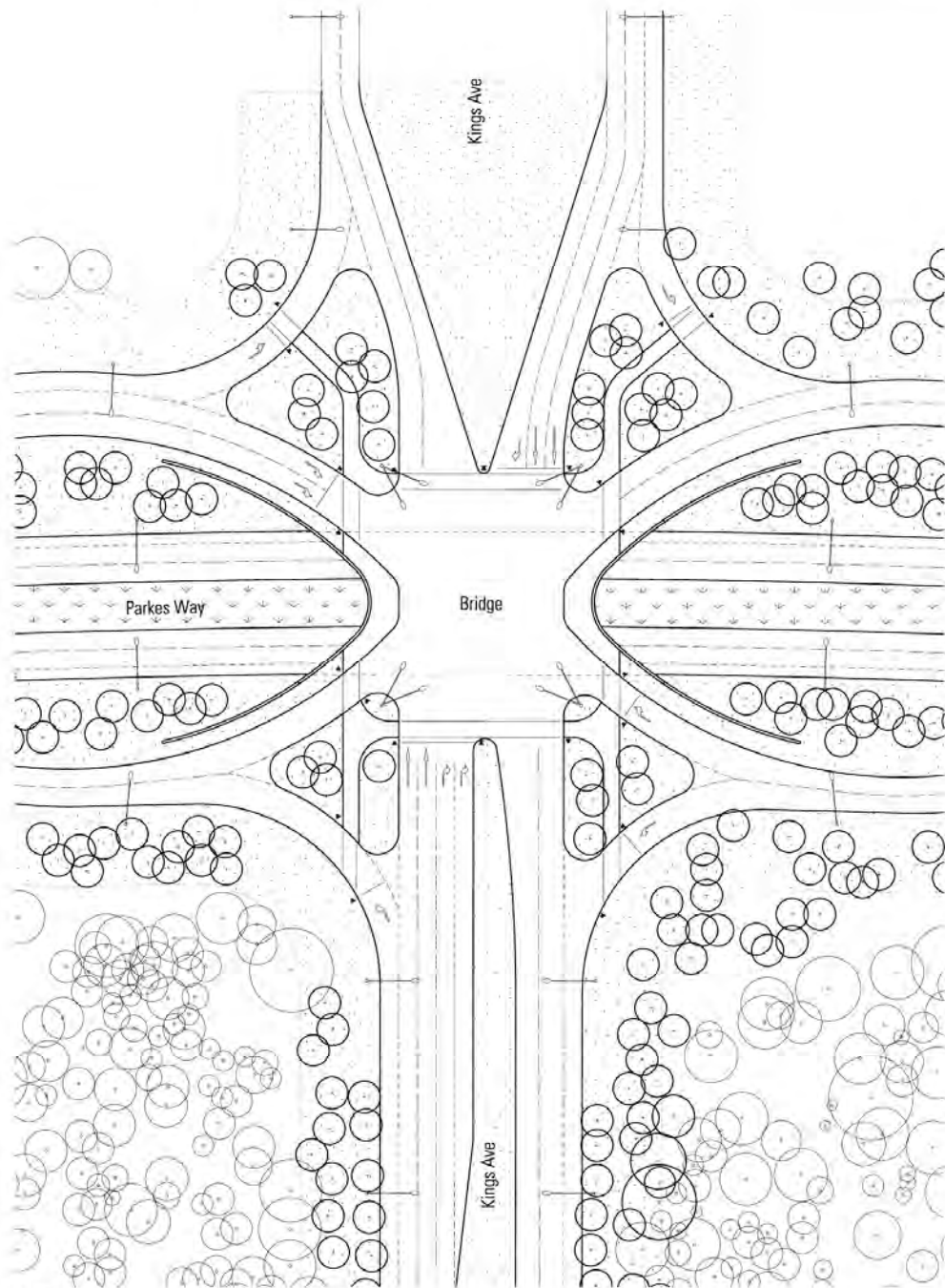
March 2008

**Johnson Pilton Walker**  
Level 10 Plaza Building  
Australia Square  
95 Pitt Street Sydney NSW 2000 Australia



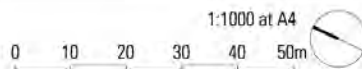
**Landscape  
Plan**

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



March 2008

**Johnson Pilton Walker**  
Level 10 Plaza Building  
Australia Square  
95 Pitt Street Sydney NSW 2000 Australia

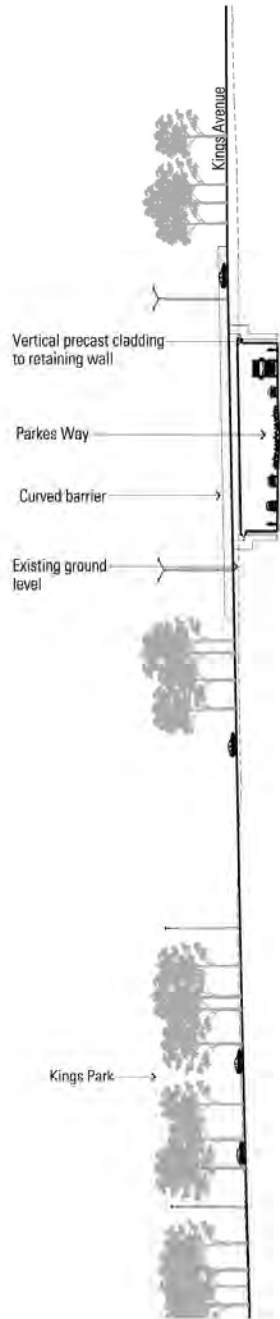


1:1000 at A4

**Intersection  
Plan**



Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



LONG SECTION - Kings Avenue

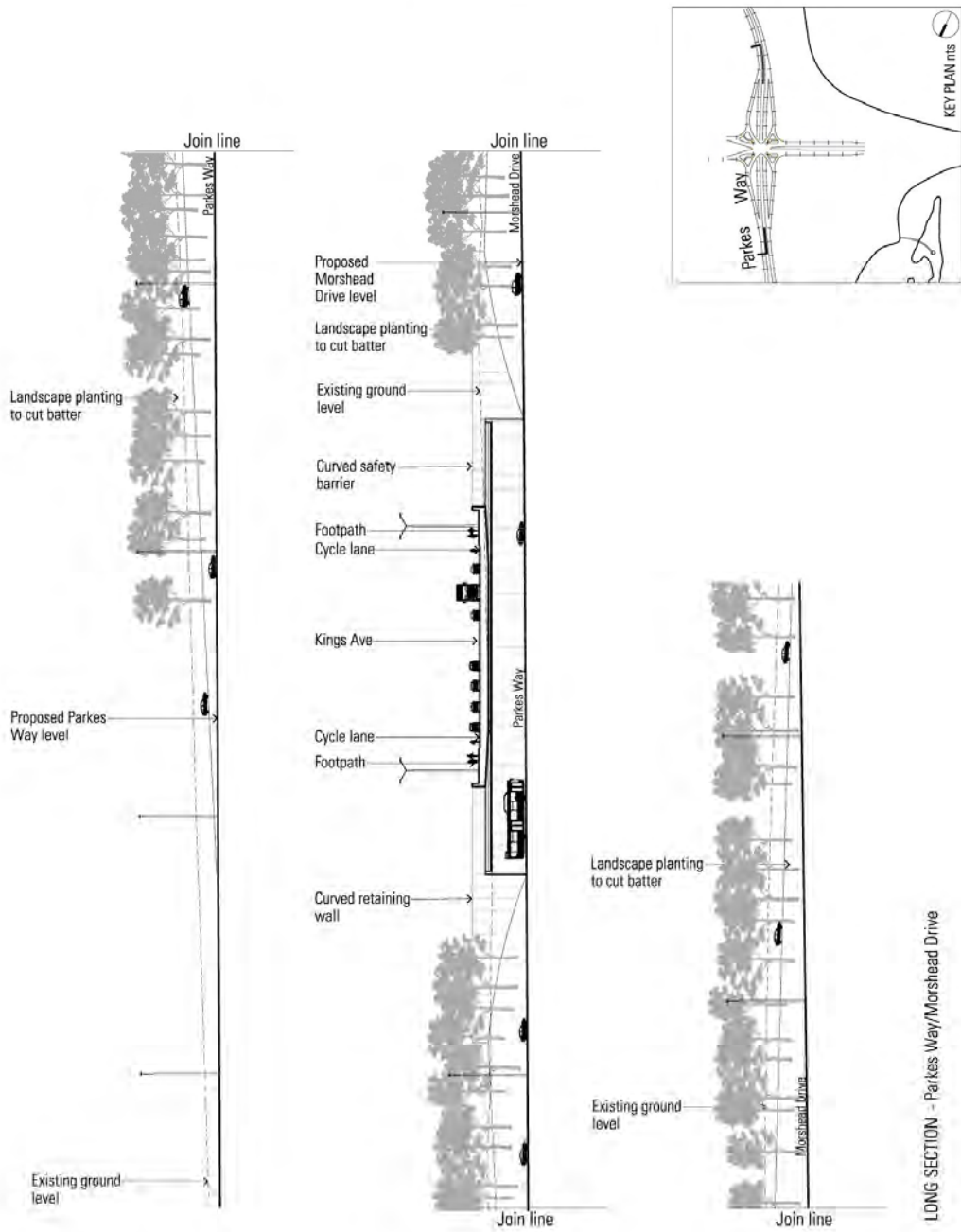
March 2008

**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia

0 8 16 24 32 40m.0  
 1:800 @ A4

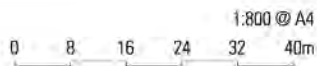
Kings Ave  
**Long Section**

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



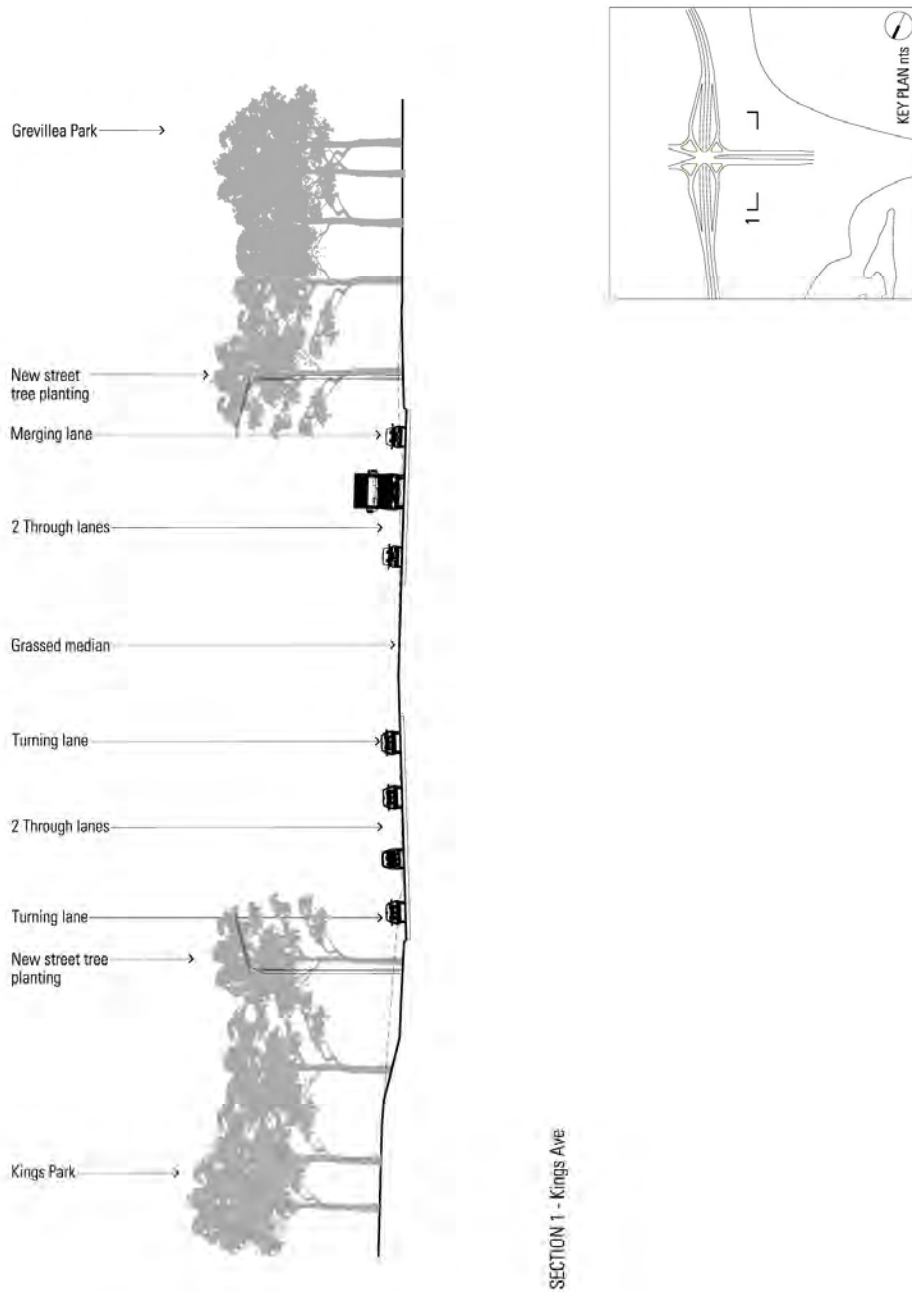
March 2008

**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia



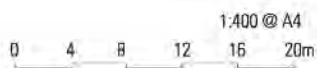
**Parkes Way  
 Long Section**

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



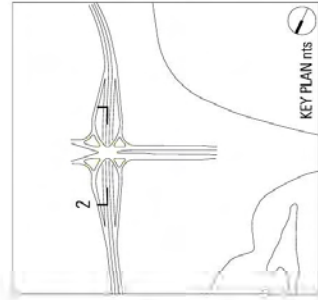
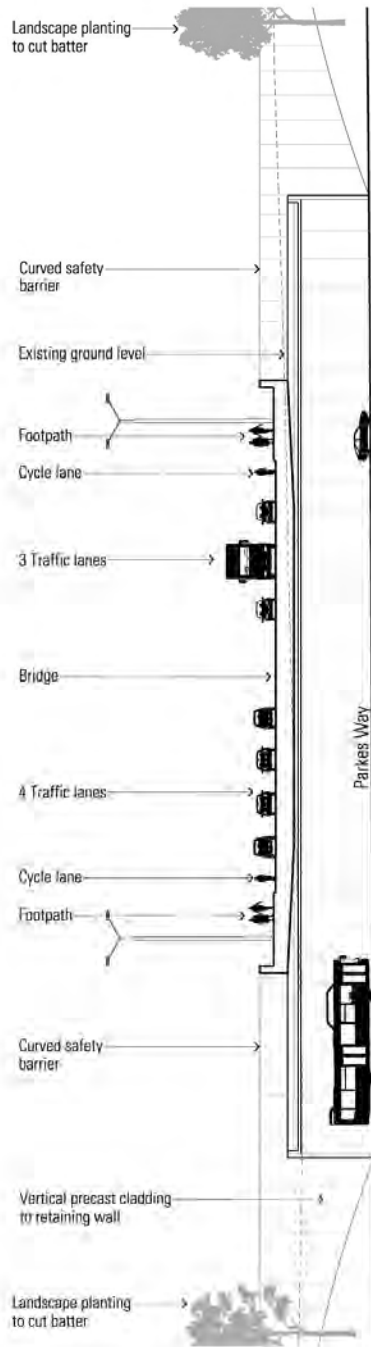
March 2008

**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia



Kings Ave  
**Cross Section 1**

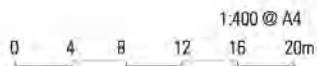
Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



SECTION 2 - Kings Ave at Parkes Way

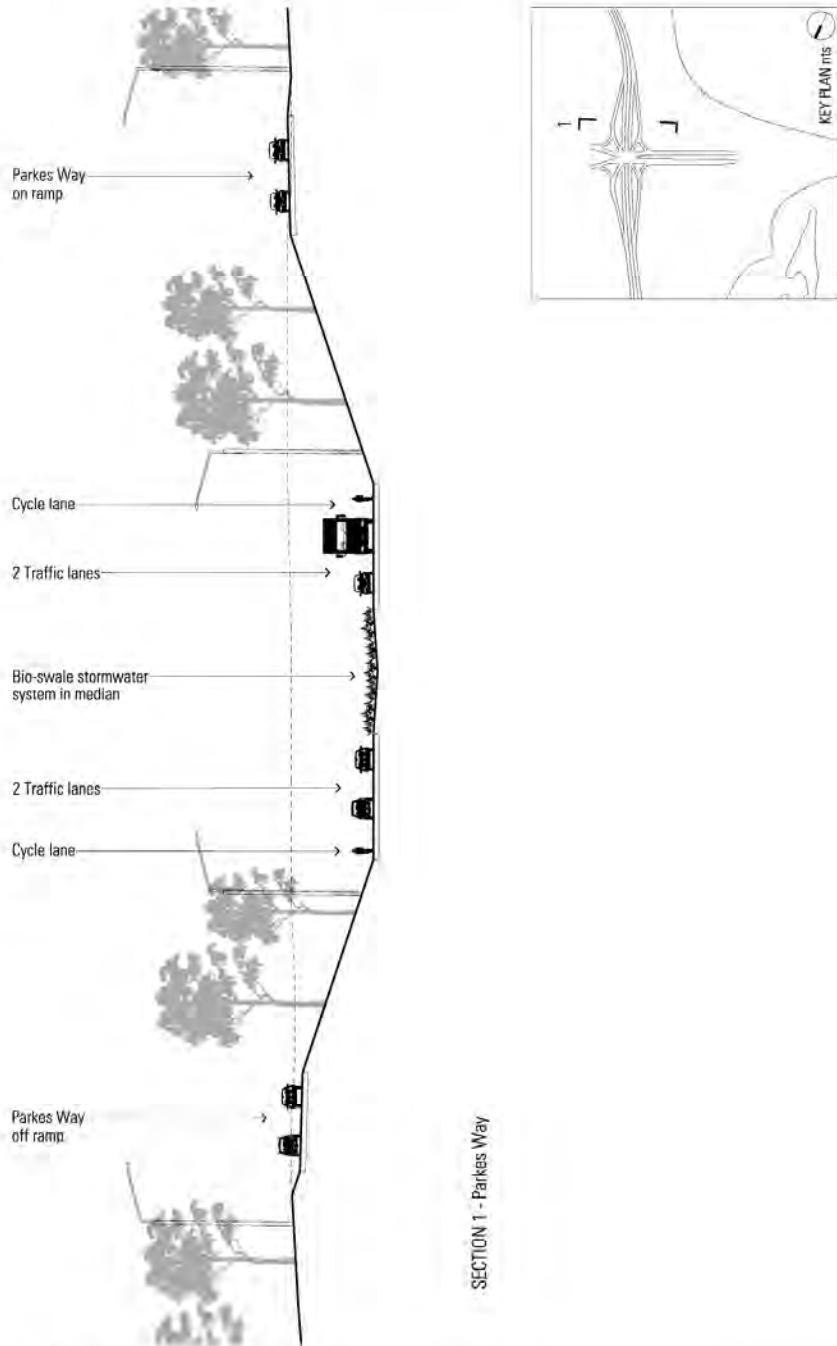
March 2008

**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia



Kings Ave  
**Cross Section 2**

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



SECTION 1 - Parkes Way

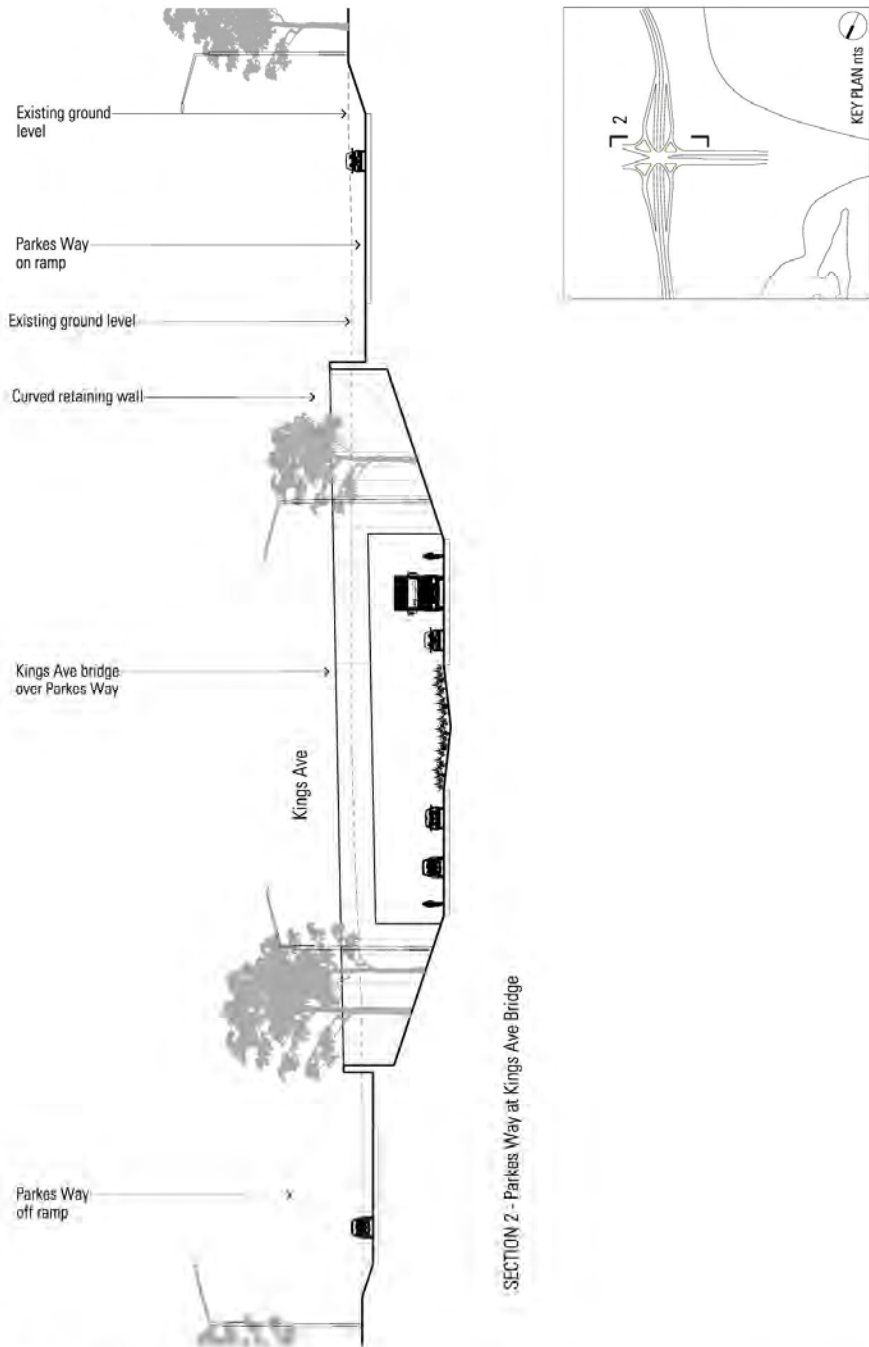
March 2008

**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia



Parkes Way  
**Cross Section 1**

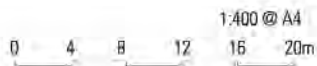
Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



SECTION 2 - Parkes Way at Kings Ave Bridge

March 2008

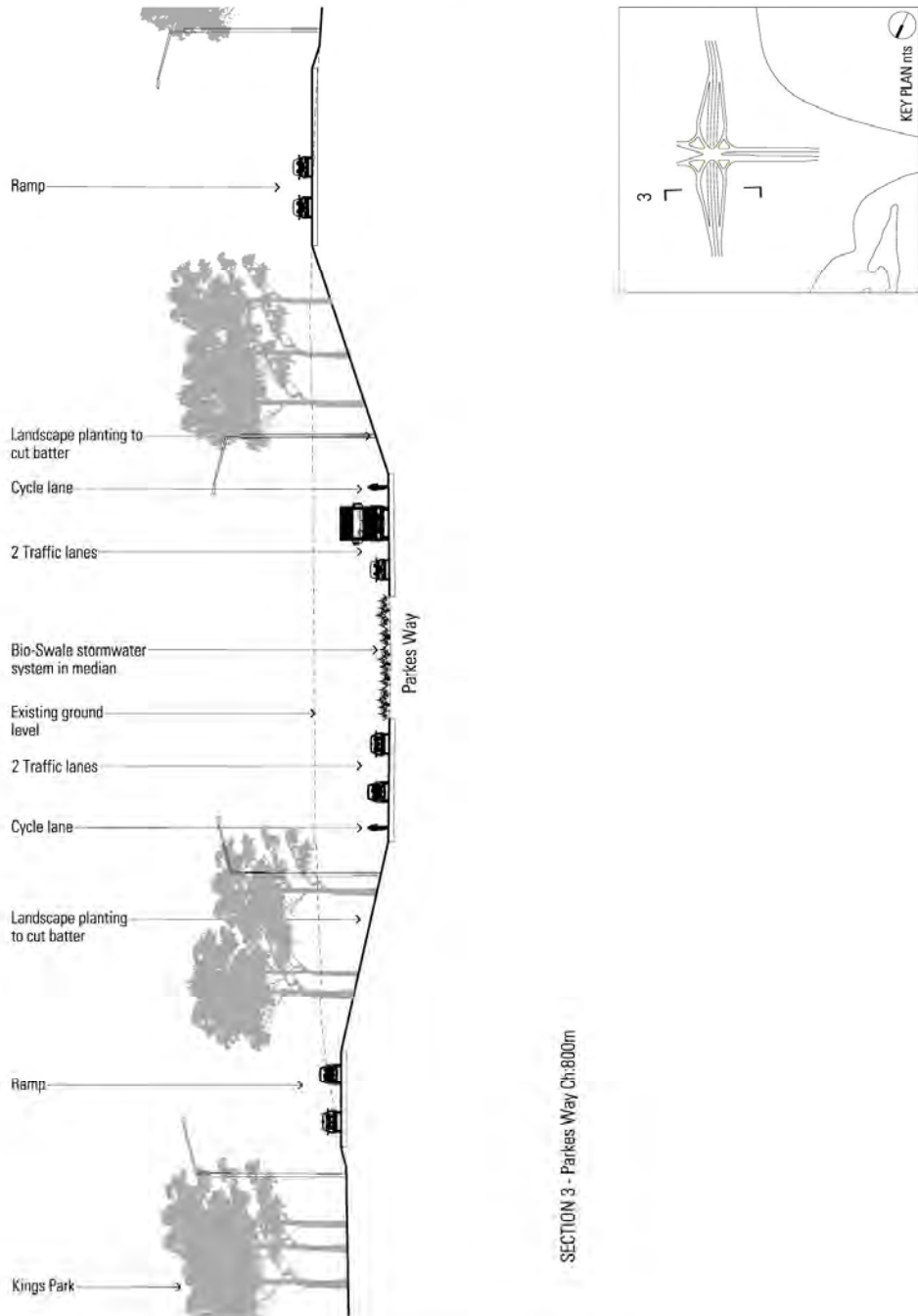
**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia



1:400 @ A4

Parkes Way  
**Cross Section 2**

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



March 2008

**Johnson Pilton Walker**  
 Level 10 Plaza Building  
 Australia Square  
 95 Pitt Street Sydney NSW 2000 Australia



**Parkes Way  
 Cross Section 3**

Bridging of Kings Avenue over Parkes Way **Griffin Legacy Infrastructure**



March 2008

**Johnson Pilton Walker**  
Level 10 Plaza Building  
Australia Square  
95 Pitt Street Sydney NSW 2000 Australia

**Haycraft Duloy**  
63 Justin St  
Lilyfield  
NSW 2040 Australia

Parkes Way West  
**Perspective**



