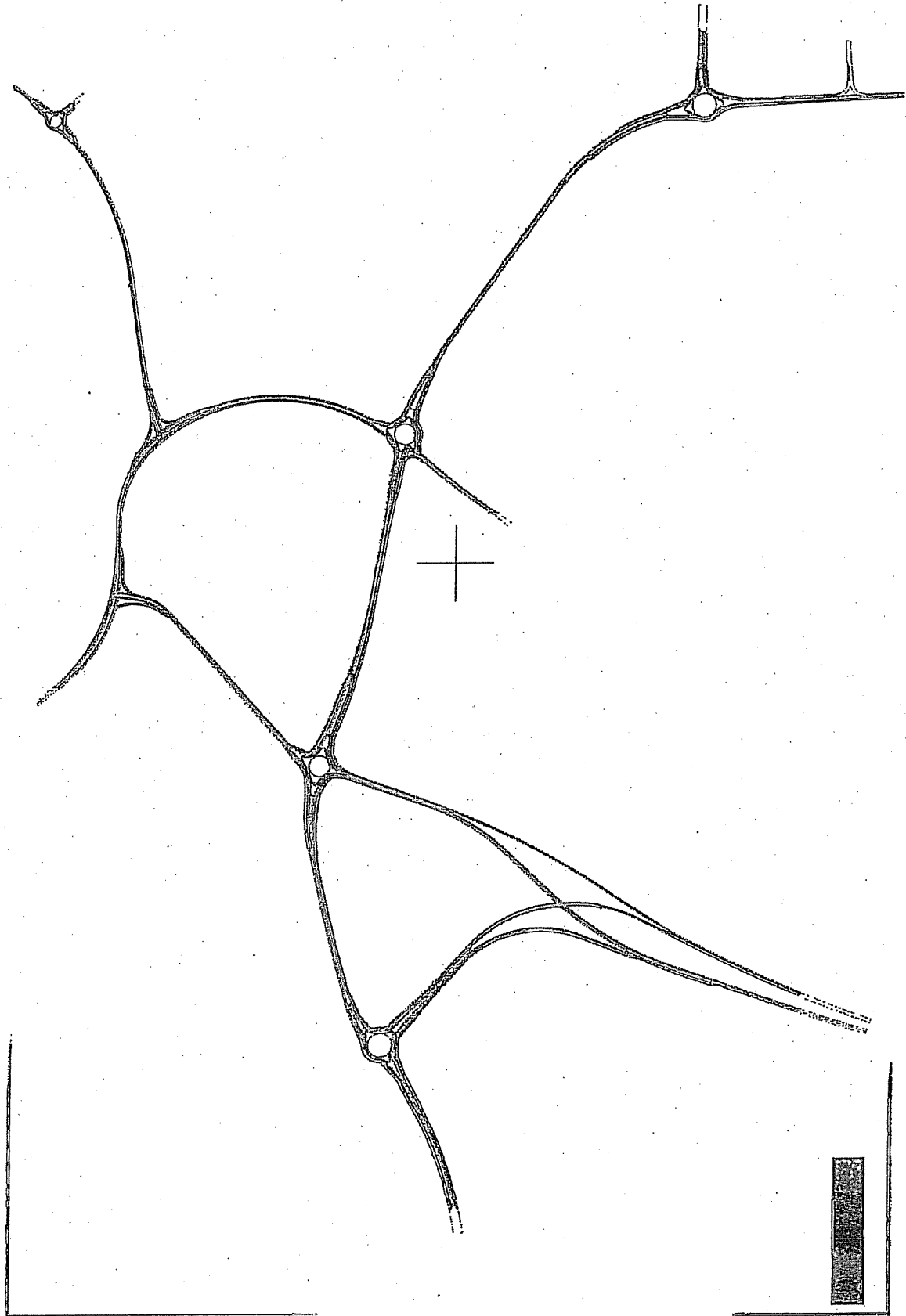


# Appendix B Micro-simulation Snapshots

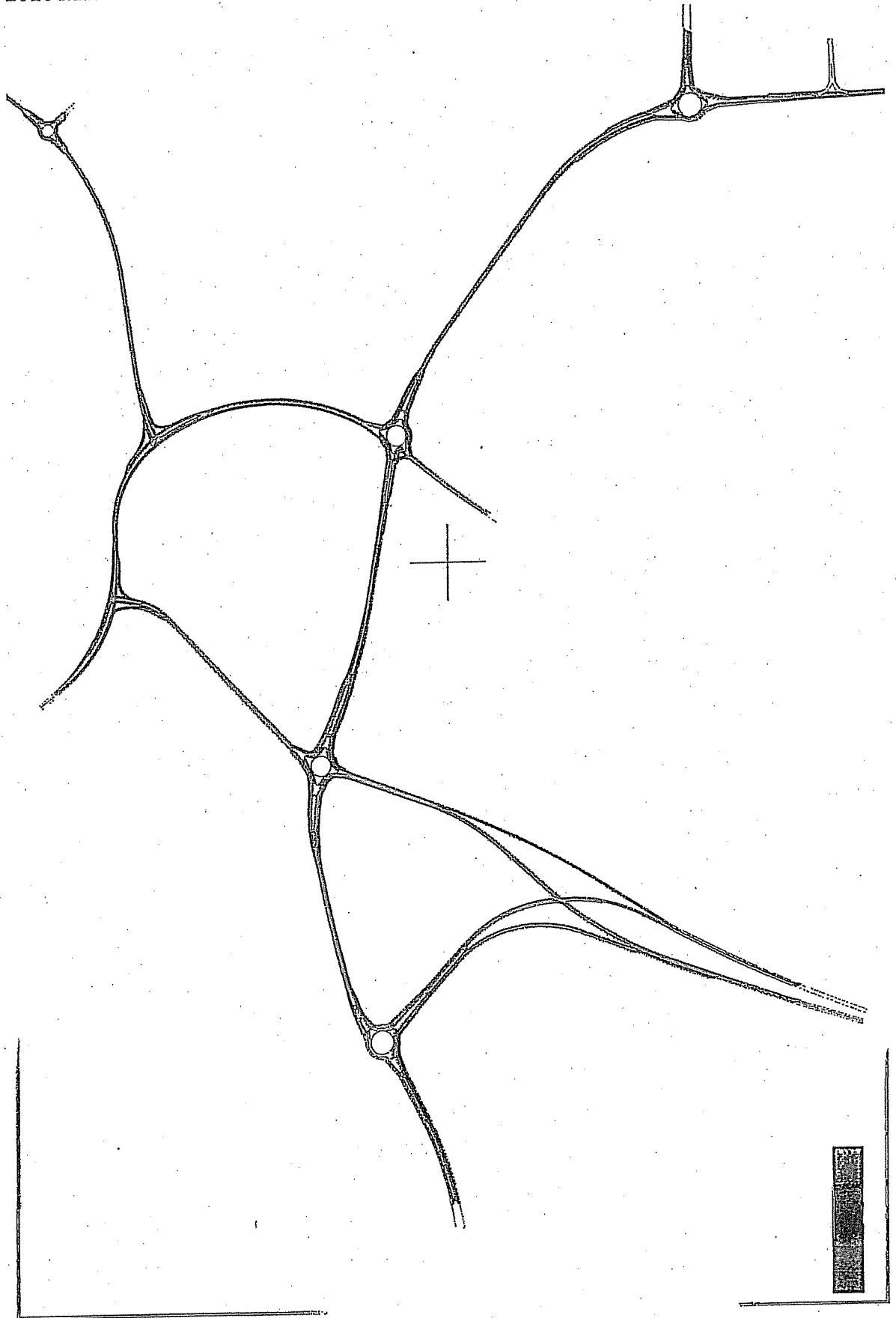
## B.1 Existing Network

### B.1.1 2006 AM



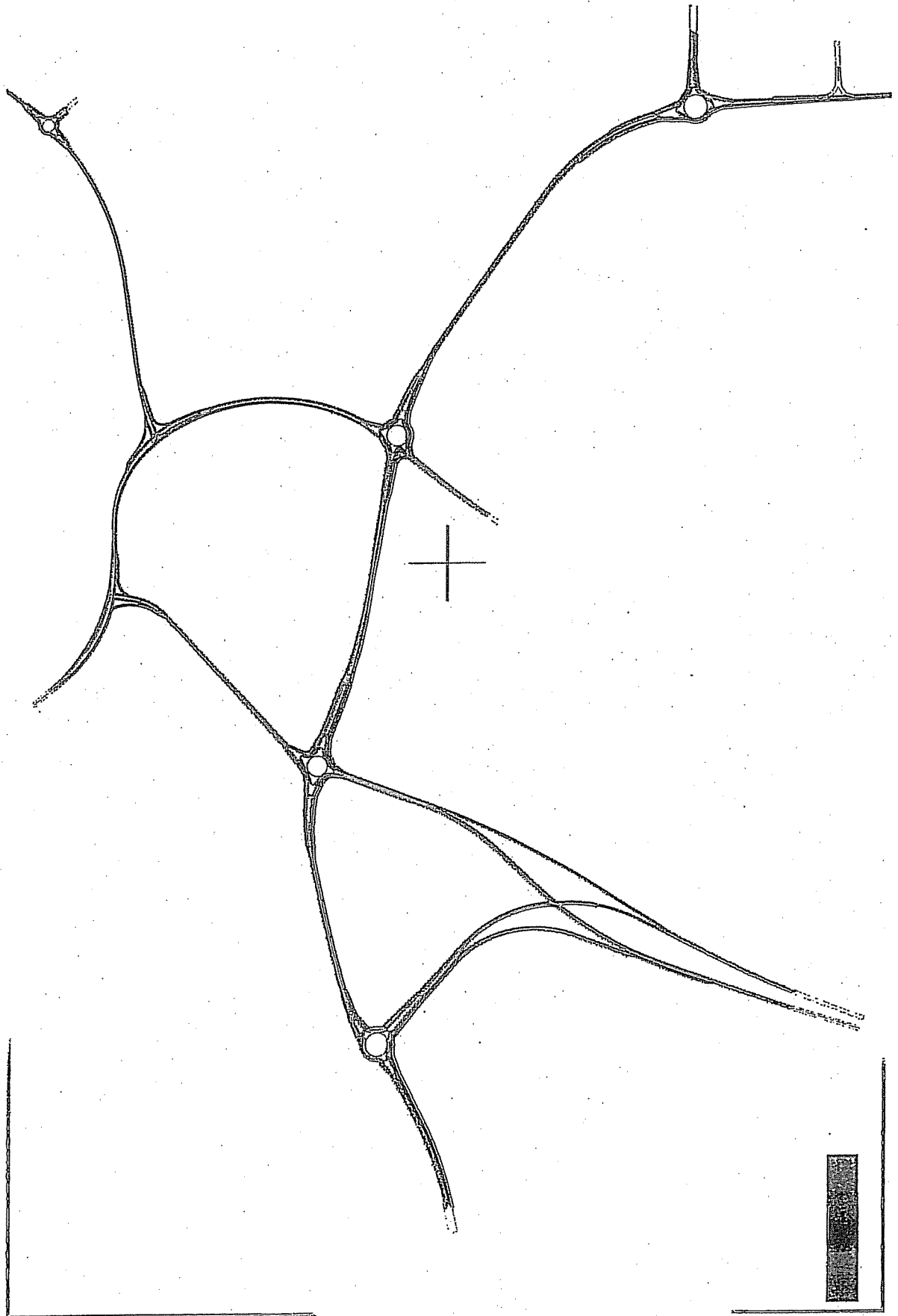
*Colour scale is 0 vehicles per hour (blue) – 3500 vehicles per hour (red)*

B.1.2 2016 AM



*Colour scale is 0 vehicles per hour (blue) – 3500 vehicles per hour (red)*

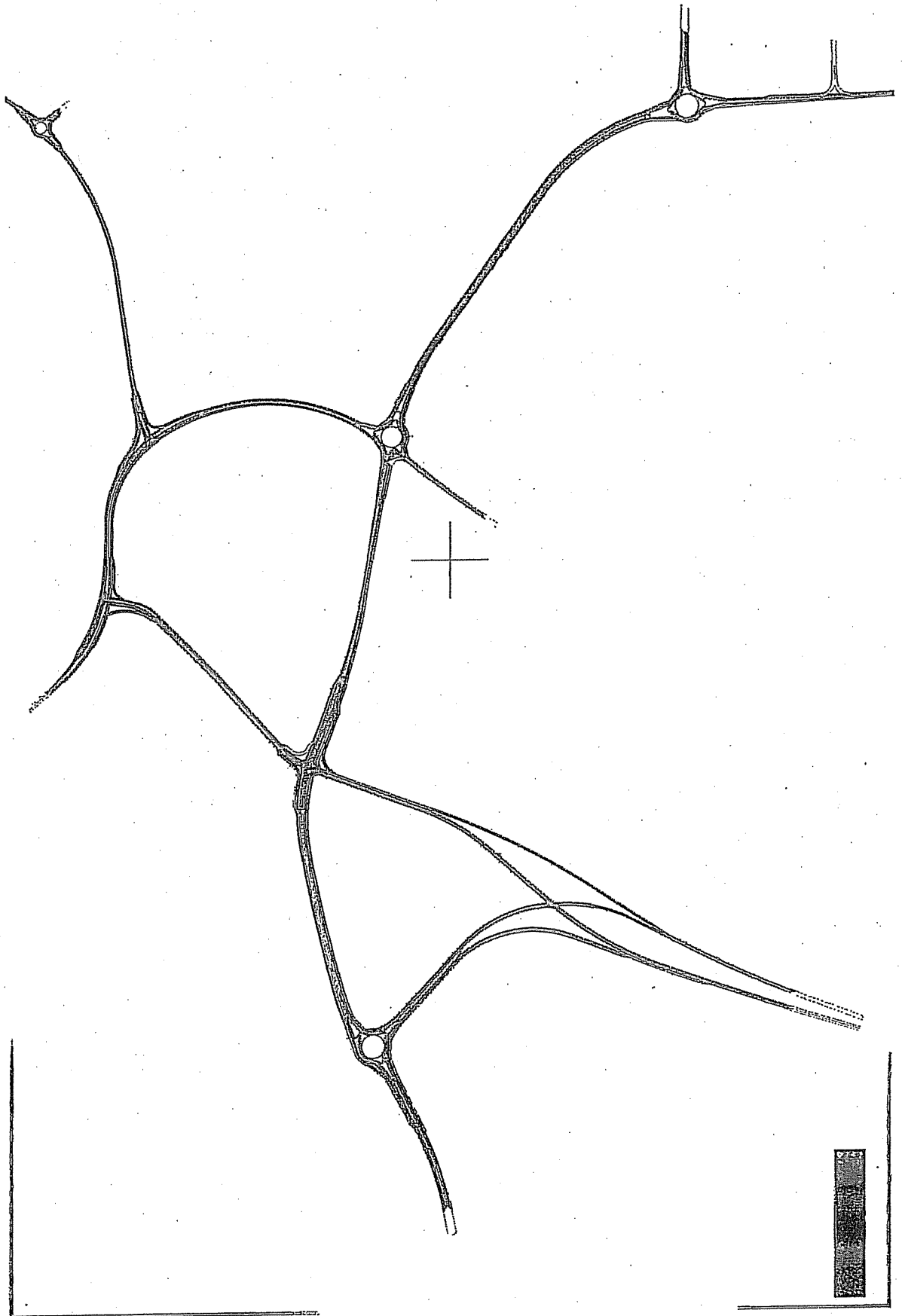
B.1.3 2031 AM



*Colour scale is 0 vehicles per hour (blue) – 3500 vehicles per hour (red)*

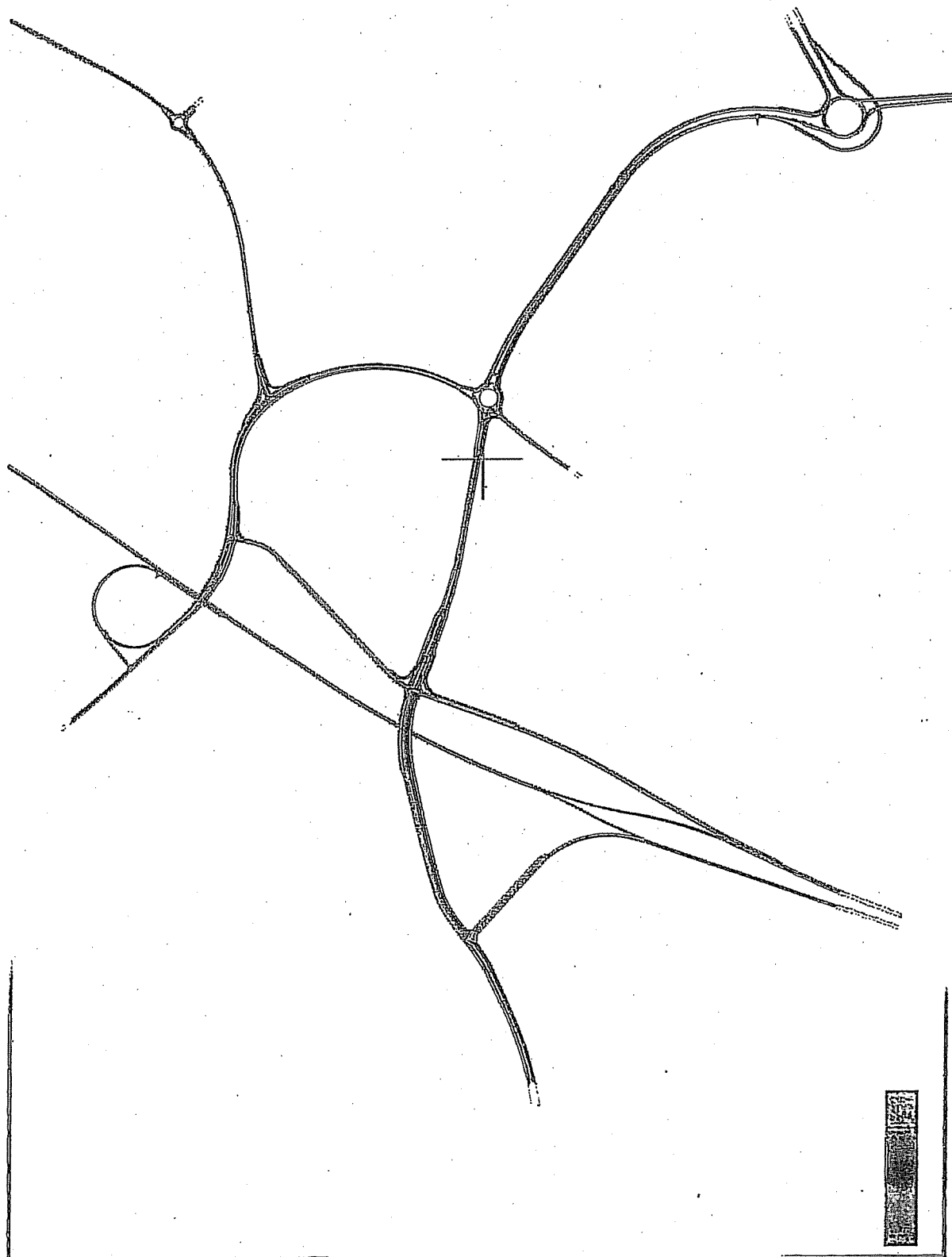
## B.2 Considered Option Staging of PSP followed by Majura Bypass – Grade Separation)

### B.2.1 2006 AM



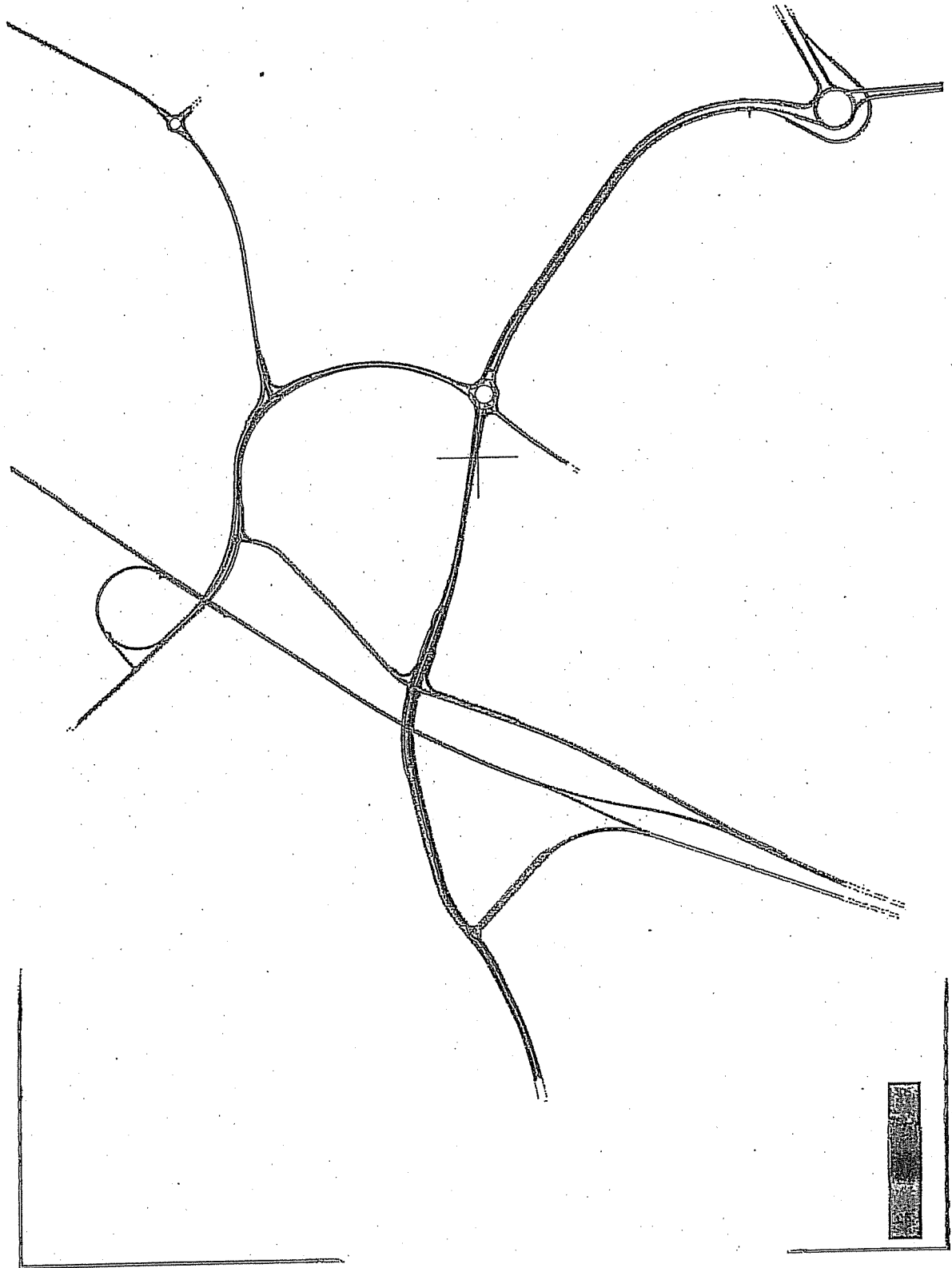
*Colour scale is 0 vehicles per hour (blue) – 3500 vehicles per hour (red)*

B.2.2 2016 AM



*Colour scale is 0 vehicles per hour (blue) – 3500 vehicles per hour (red)*

B.2.3 2031 AM



*Colour scale is 0 vehicles per hour (blue) – 3500 vehicles per hour (red)*

## Appendix C Economic Analysis

### C.1 Considered Option: Staging of PSP Followed by Grade Separation vs Existing Road Network

YEAR	COSTS (shown as -ve) Current Prices			BENEFITS (shown as +ve) Current Prices			TOTALS
	CAPITAL COSTS (\$'000)	ADDITIONAL		Vehicle Operating Cost Savings (\$'000)	Travel Time Savings (\$'000)	Accident Cost Savings (\$'000)	Current Prices (\$'000)
		Annual Maintenance (\$'000)	Cyclic (\$'000)				
2006	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2009	(\$21,500)	(\$33)	\$0	(\$1,100)	\$9,182	(\$253)	(\$13,704)
2010	(\$2,800)	(\$33)	\$0	(\$1,410)	\$11,208	(\$320)	\$6,645
2011	(\$18,700)	(\$40)	\$0	(\$1,721)	\$13,415	(\$389)	(\$7,434)
2012	(\$18,700)	(\$87)	\$0	(\$2,032)	\$15,817	(\$459)	(\$5,460)
2013	\$0	(\$154)	\$42	(\$2,343)	\$18,429	(\$531)	\$15,442
2014	\$0	\$21	(\$108)	(\$2,655)	\$21,267	(\$604)	\$17,921
2015	\$0	(\$133)	\$0	(\$2,965)	\$24,347	(\$680)	\$20,568
2016	\$0	(\$133)	\$0	(\$3,275)	\$27,690	(\$758)	\$23,524
2017	\$0	(\$133)	\$0	(\$3,300)	\$27,631	(\$761)	\$23,436
2018	\$0	(\$154)	\$83	(\$3,324)	\$27,572	(\$765)	\$23,412
2019	\$0	\$21	(\$589)	(\$3,349)	\$27,513	(\$768)	\$22,828
2020	\$0	(\$133)	\$0	(\$3,374)	\$27,454	(\$772)	\$23,176
2021	\$0	(\$133)	\$0	(\$3,398)	\$27,396	(\$775)	\$23,089
2022	\$0	(\$133)	\$0	(\$3,423)	\$27,337	(\$779)	\$23,002
2023	\$0	(\$154)	\$83	(\$3,447)	\$27,278	(\$782)	\$22,979
2024	\$0	\$21	(\$589)	(\$3,471)	\$27,220	(\$785)	\$22,395
2025	\$0	(\$133)	\$0	(\$3,495)	\$27,162	(\$789)	\$22,744
2026	\$0	(\$133)	\$0	(\$3,519)	\$27,103	(\$792)	\$22,658
2027	\$0	(\$133)	\$0	(\$3,543)	\$27,045	(\$796)	\$22,573
2028	\$0	(\$154)	\$83	(\$3,567)	\$26,987	(\$799)	\$22,549
2029	\$0	\$21	(\$589)	(\$3,591)	\$26,929	(\$802)	\$21,967
2030	\$0	(\$133)	\$0	(\$3,615)	\$26,871	(\$806)	\$22,316
2031	\$0	(\$133)	\$0	(\$3,639)	\$26,813	(\$809)	\$22,231
<b>Total</b>	<b>(\$61,700)</b>	<b>(\$2,194)</b>	<b>(\$1,583)</b>	<b>(\$69,555.4)</b>	<b>\$549,664.2</b>	<b>(\$15,774.3)</b>	<b>\$398,857.0</b>
<b>PRESENT VALUES</b>							
PV @ 7%	(\$42,505)	(\$803)	(\$465)	(\$25,013)	\$199,711	(\$5,690)	\$125,236
PV @ 4%	(\$49,669)	(\$1,200)	(\$770)	(\$37,647)	\$299,428	(\$8,554)	\$201,588
PV @ 10%	(\$36,575)	(\$558)	(\$289)	(\$17,291)	\$138,464	(\$3,937)	\$79,815
Discount Rate      4.0%      7.0%      10.0%							
NPV ('000)      \$201,588      \$125,236      \$79,815							
BCR      4.90      3.86      3.13							

APPENDIX C - ECONOMIC ANALYSIS

# Appendix D Construction Phase Diagrams

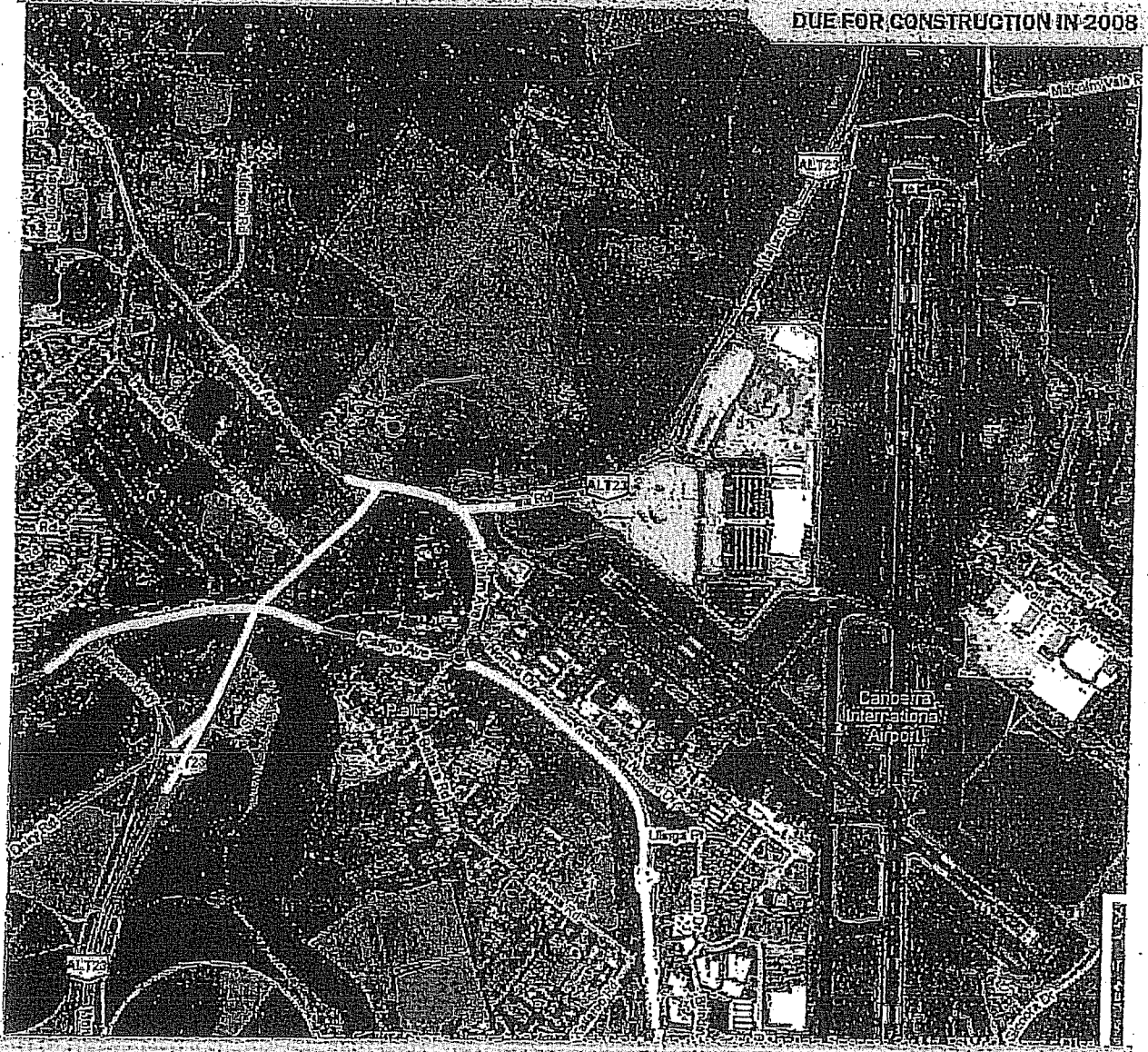
APPENDIX D - CONSTRUCTION PHASE DIAGRAMS

# Pialligo Upgrade - Stage 1

Incorporating Pialligo Upgrade Stages 1A, 1B and Airport Works

**PHASE 1**

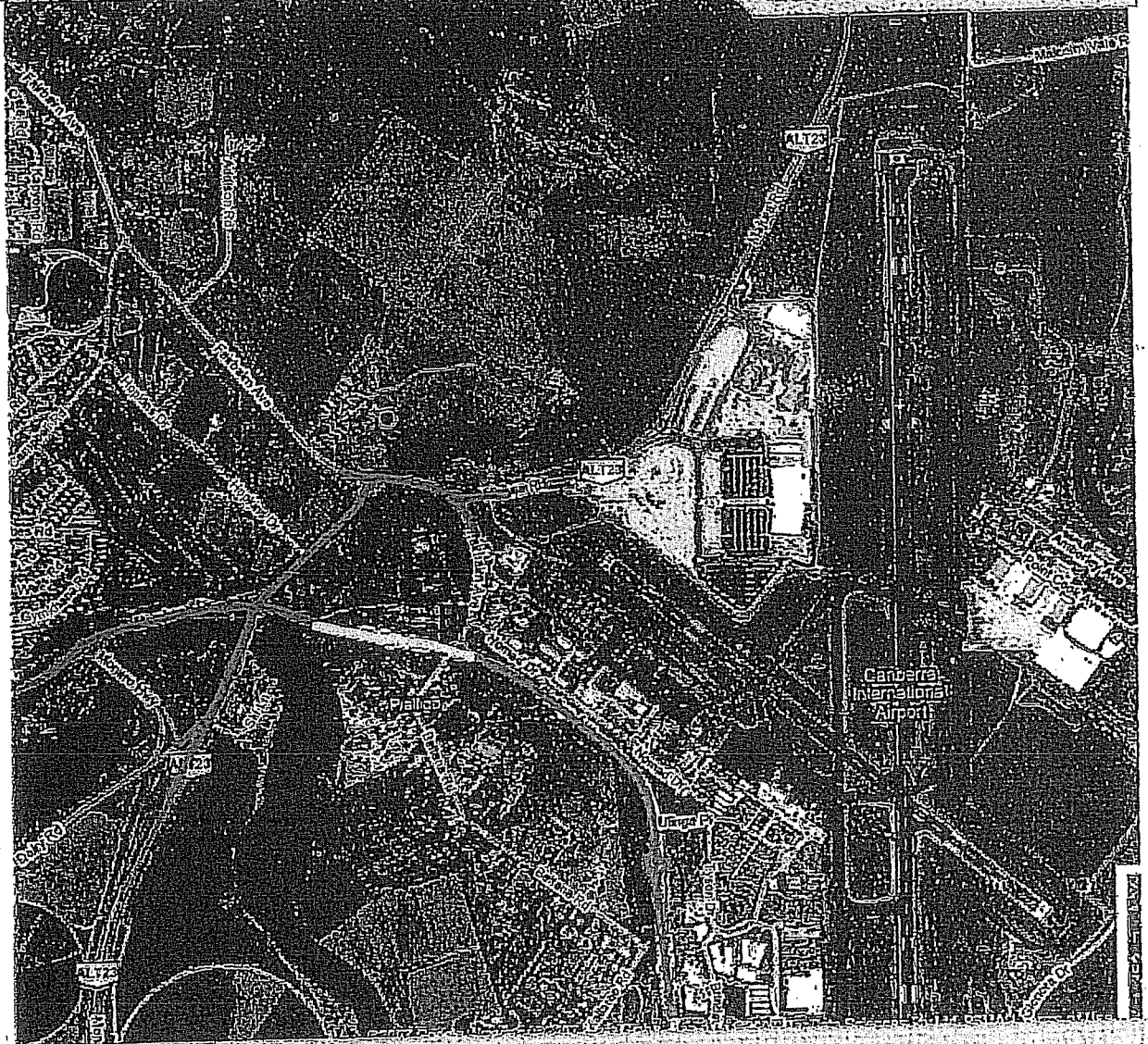
**DUE FOR CONSTRUCTION IN 2008**



# Pialligo Upgrade - Stage 1

Incorporating Pialligo Upgrade Stages 1C

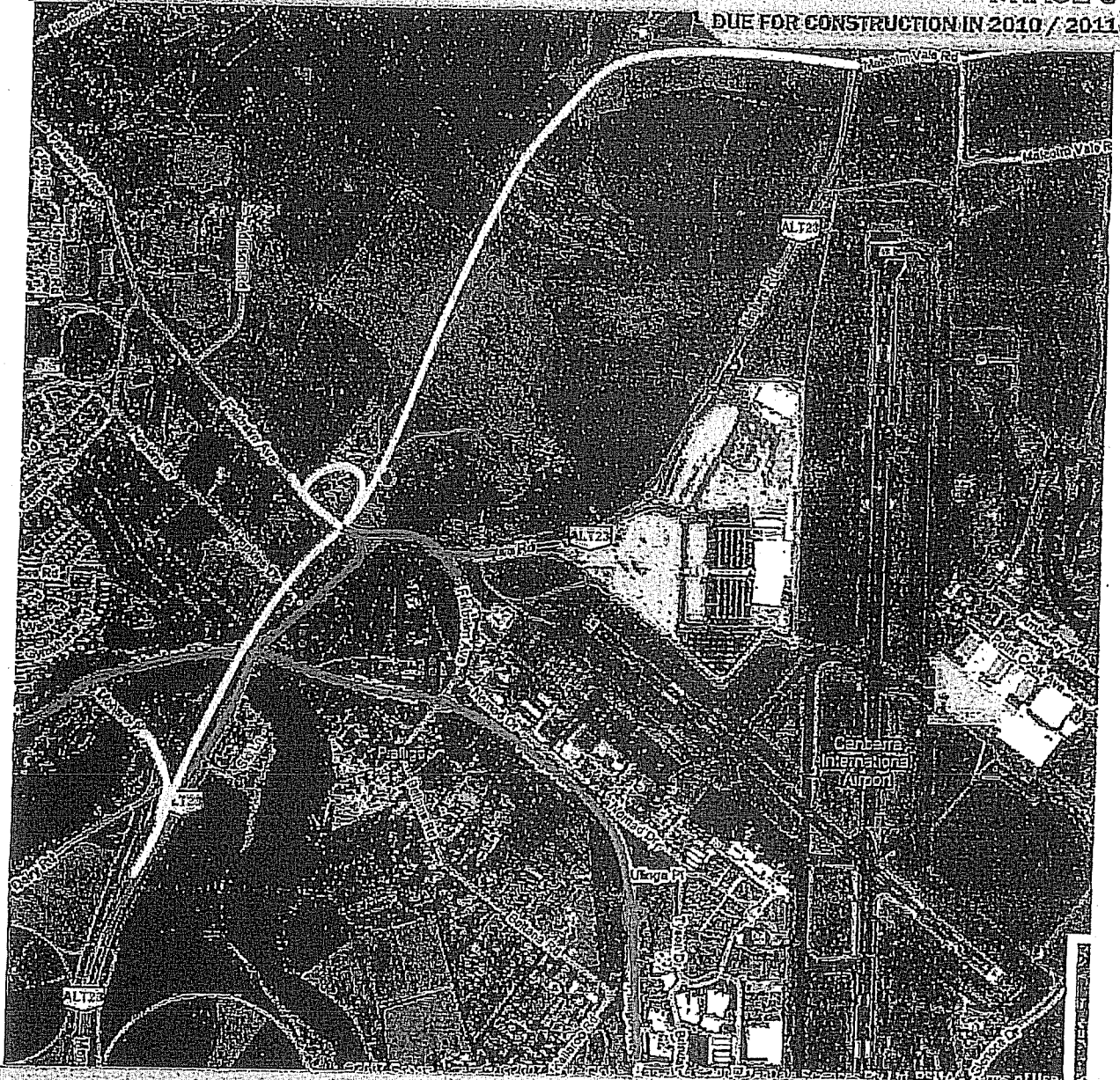
**PHASE 2**  
DUE FOR CONSTRUCTION IN 2009



# Majura Parkway - Stage 1

**PHASE 3**

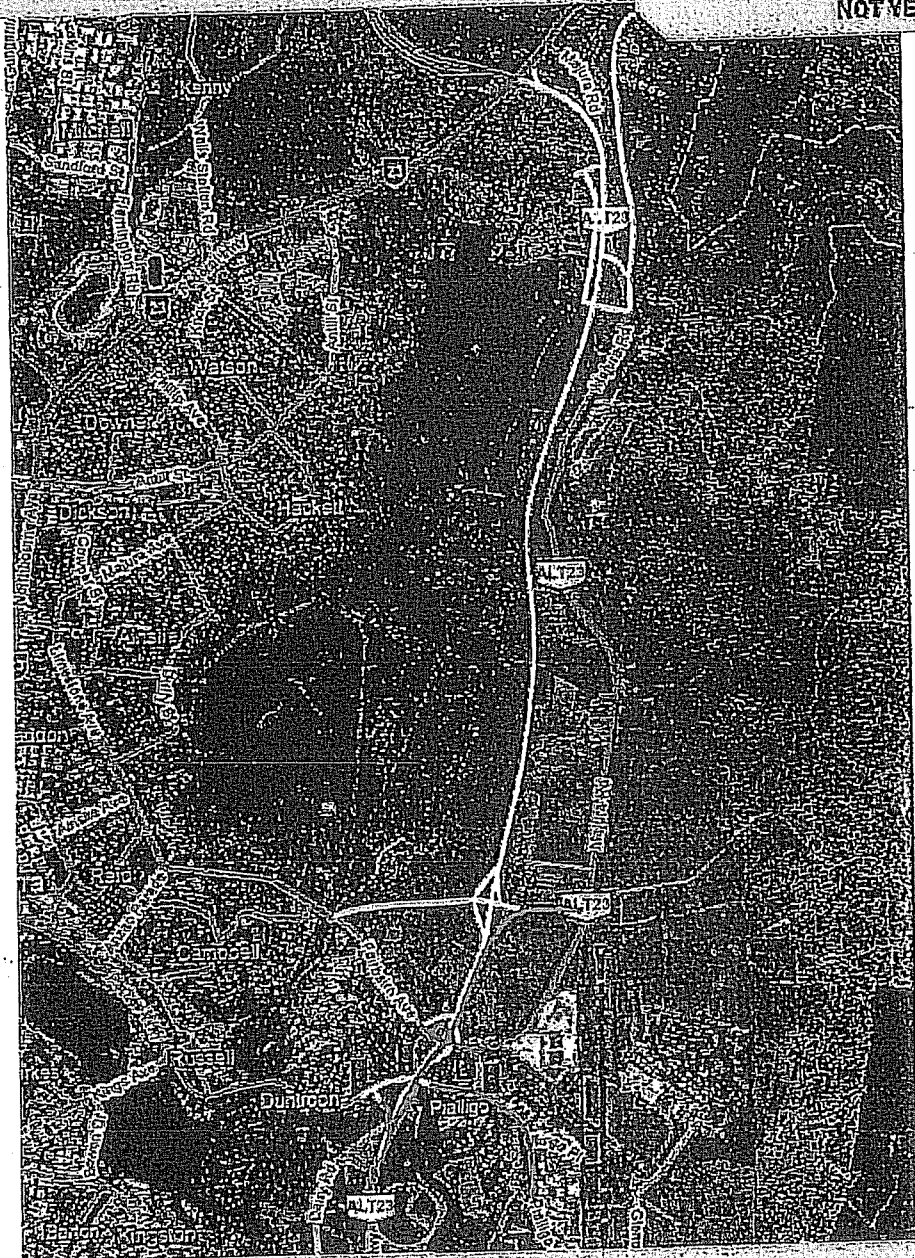
**DUE FOR CONSTRUCTION IN 2010 / 2011**



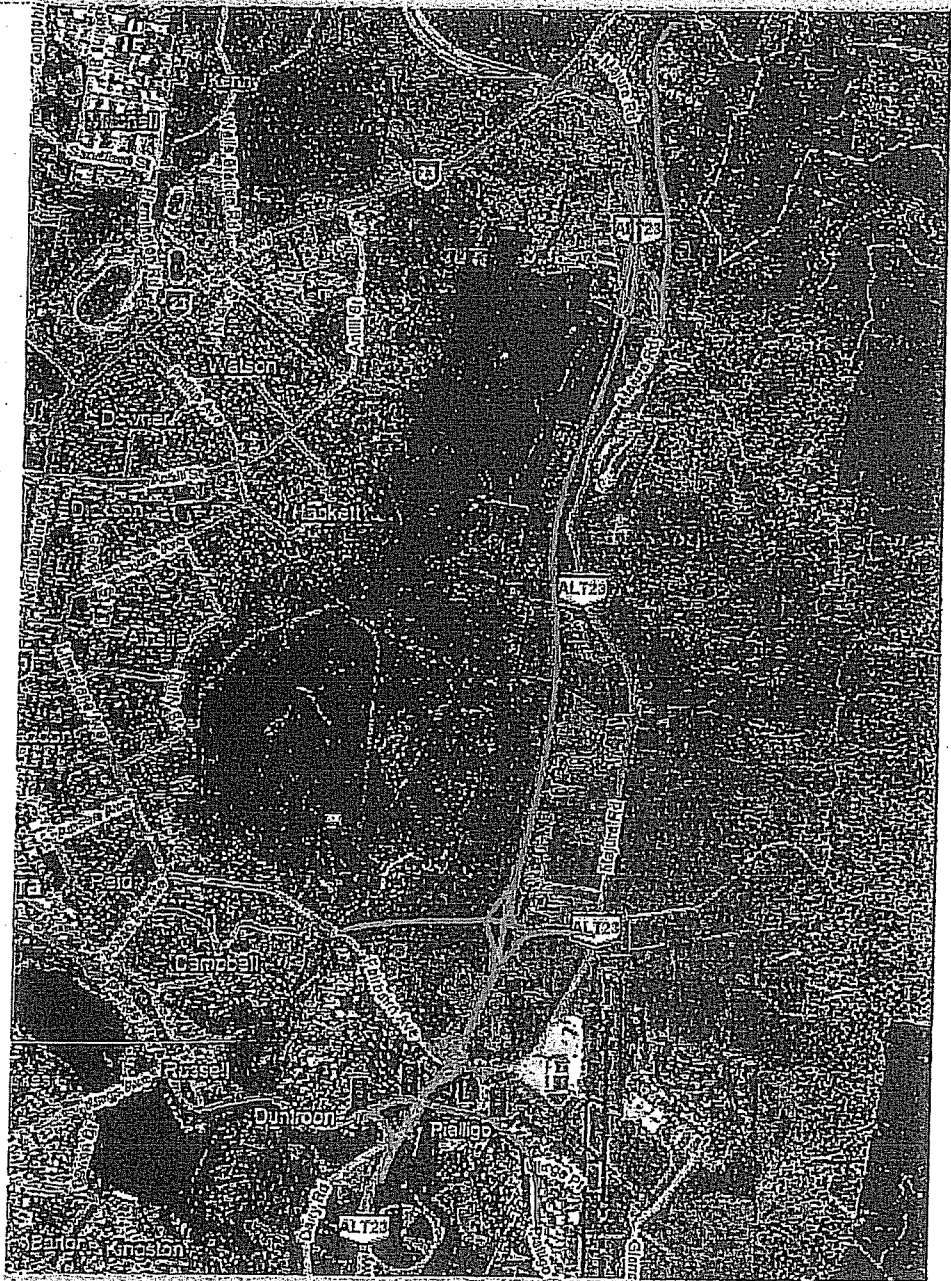
**SMEC ACT**  
HIGHWAYS AND TRANSPORT GROUP

# Majura Parkway – Stage 2

**PHASE 4**  
**NOT YET SCHEDULED**



## Majura Parkway (Ultimate Configuration)





Ms Alison Clifton  
Assistant Secretary – Estate Planning

Doc No: 08/754

Email: alison.clifton@defence.gov.au

### MAJURA PARKWAY

#### Commencement of Lease Withdrawal within Duntroon

I am writing on behalf of Territory and Municipal Services, Road ACT to request the commencement of lease withdrawal activities within Duntroon precinct.

This lease withdrawal is required for part of the Majura Parkway project which Majura Parkway is designed to relieve the pressure around the airport roads and to facilitate the movement of traffic from Gungahlin and the Federal Highway to Canberra City and other destinations to the south. The current network, namely Majura Road, Pialligo Avenue, Fairbairn Avenue and Morshead Drive does not have the capacity to accommodate the current and increasing traffic volumes.

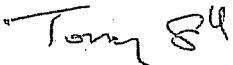
The Majura Parkway will be built in two stages. The first stage (refer illustration) will be a single carriageway starting from the Monaro Highway, crossing over the Molonglo River, through Defence land adjacent to Morshead Drive, crossing the Fairbairn Avenue and ending at Majura Road slight north of the existing Mustang Avenue Roundabout. During the first stage of the works, a bridge will be constructed over Hopkins Drive allowing unimpeded access to the Historic Oval no. 1. Current timelines indicate construction to begin in July 2009.

The Parkway will be constructed on an embankment as it traverses the lower portion of Duntroon (adjacent to Morshead Drive). It will impact upon an existing playing field, but will not impact the golf course. Imported material is required for construction of the embankment and sourcing this material is a major constraint. Fortunately, a source material has been identified from another construction site near the city and an opportunity exists to facilitate construction of this strategically important project. The material will become available during December 2008, and it would be prudent to place it in its final location at that time. This being the case, the commencement of lease withdrawal activities is required such that so that this activity can occur in December 2008.

---

The attached drawing show the proposed alignment of Majura Parkway. For more details or clarification, could you please contact Craig Sutton, Project Manager, SMEC Australia Ltd on phone (02) 6126 1922 or email [craig.sutton@smec.com.au](mailto:craig.sutton@smec.com.au).

Yours sincerely

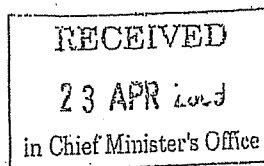


Tony Gill  
Director  
Roads ACT  
Office of Transport

10 June 2008



BRIEF



42

Date 16 April 2009

To Minister for Transport / Minister for Territory and Municipal Services

• Gary Byles, Chief Executive 10/23/4/09

• Stephen Ryan A/g Executive Director, CIS 23/4/09

From Director, Roads ACT

Subject Majura Parkway – Acquisition of Department of Defence Land

#### Purpose

To brief you on the need to acquire land from the Department of Defence to progress Majura Parkway.

#### Background

The proposed Majura Parkway (The Parkway) is a parkway standard road that will connect the Monaro Highway directly with the Federal Highway. The Parkway will be approximately 500m to the west of the existing Majura Road which remains in place but takes on the role of a service road rather than the main connection between the Federal and Monaro Highways.

The case to progress the Parkway in the short term has been argued on three key needs:

- (1) The need to improve freight access from the National Road network (the Federal Highway) to the Regional Road network (the Monaro Highway).
- (2) The need to improve access to Canberra Airport as a regional transport hub.
- (3) The need to improve local and regional access in the Majura Valley.

The construction of the Parkway will be realised in two or more stages depending on funding availability. The initial stage construction is scheduled to commence in November 2009 (subject to the Development Application process).

The preliminary work associated with the finalisation of the preferred alignment for the Parkway has already commenced as part of the Environmental Impact Study (EIS). Two options (a western and an eastern alignment) at the southern end approaching the Monaro Highway were shortlisted as preferred alignments for the initial stage. The road corridor for either options relating to this stage is heavily constrained by environmental, heritage and airspace considerations.

The western alignment is currently considered as the preferred option because it avoids heritage sites and has a minimal impact on environmental constraints.

Furthermore, the eastern option is likely to result in project cost pressures as a result of additional bridgework likely to be required as a result of a wider bridge span necessary to traverse over the Molongolo River at this location.

The selection of the western alignment requires the acquisition of land located to the west of Morshead Drive (North) (including a large portion of the Georges Height Field) owned by the Department of Defence (Defence). It is expected that the total areas required as part of these works will be approximately 33,702 m<sup>2</sup>.

Roads ACT have met with officers from Defence on two occasions to discuss the Parkway project, and the impact these works are likely to have on the land and operations of the Royal Military College (RMC), Duntroon.

A number of amendments to the Parkway have been proposed as a result of these meetings including:

1. The "Northern" Link connection between Fairbairn Avenue and the Majura Parkway has now been removed entirely from the scope. The project now avoids impact entirely upon the Defence Land adjacent to the Campbell Park Offices including the horse paddocks and playing fields on the northern side of Fairbairn Avenue (adjacent to Addison Road). The project also avoids entirely, any impact upon high value ecological area on the corner of Fairbairn Avenue and Northcott Drive (See Attachment A for details).
2. The "Kowen" Link connection between Majura Road and the Parkway has now been removed entirely from the scope. The project now avoids impact upon the sensitive native grassland through which the link traversed. Furthermore, and of particular interest to Defence, the Kowen link removes reference to any implied connection to the future suburb of Kowen, which if kept in the location implied by the Kowen Link would traverse the Defence Mount Majura Training Area (MMTA)(See Attachment A for details).

In deriving the final area of land acquisition, consideration has been given to the following:

- a. Minimising land take as much as possible;
- b. Avoiding impact entirely upon the Australian Rules Football Oval (Alamein Oval). The proposed acquisition boundary has been set 10.0 m from the existing oval boundary thereby allowing space for an access track around the oval;
- c. Minimising impact upon existing services traversing the area;
- d. Impacting 1 x touch football field (Georges Height Field) and avoiding impact upon the Long Tan Field;
- e. Minimising impact upon surface drainage swales surrounding the Georges Height and Long Tan Field(s);
- f. Avoiding impact entirely upon the golf course;

- g. Avoiding impact entirely upon the north eastern RMC Duntroon boundary (adjacent to Fairbairn Avenue).

In finalising the Parkway's land requirement Defence would be willing to accept the loss of some current playing fields provided that the Parkway project will rehabilitate the Oval No 1 together with providing suitable access arrangements to this facility. The details of the scope of these works will be discussed and finalised as part of the land acquisition process.

Roads ACT have been advised by Defence that the ACT Government should commence the land acquisition process by seeking initial approval from the Federal Minister for Defence.

Enclosed along with this brief (See Attachment D for details) is the letter seeking Ministerial approval to commence the land acquisition process required to transfer the necessary land required for the Parkway to the ACT. It is also suggested that this letter is copied to the Parliamentary Secretary for Defence Support, The Hon Mike Kelly MP and the Minister for Finance, The Hon Lindsay Tanner MP.

#### Issues

##### 1. Upgrade of Oval 1:

Defence is keen to have the land acquisition associated with the project and upgrade of the Oval 1 completed prior to the RMC's Centenary celebrations in 2011. Roads ACT have provided "in principle" support to the rehabilitation of Oval 1 in exchange for the land sought from Defence. These works are contingent on the project budget constraints. Negotiations relating to the final scope of these works will commence following the approval from the Minister for Defence to acquire the land.

##### 2. Timing:

The acquisition of this land is critical to the implementation of the initial stage works. The approval and the allocation of this land to the ACT is considered a priority and essential to the successful delivery of the Parkway project. Roads ACT have been advised that the approval process can take 3-6 months to complete. The immediate commencement of the acquisition process is essential.

##### 3. Environmental, Heritage and Airspace Constraints:

The assessment (and selection) of the preferred alignment option for the initial stage involved an assessment of a range of environmental, heritage and financial issues including:

###### a. The Eastern Alignment:

The acquisition of the Oval 1 was considered during the assessment of the eastern alignment. Roads ACT has been advised that whilst the Oval 1 is not on the National Heritage Register it would be included as part of the ACT Heritage list if transferred to the ACT. This would result in Roads ACT unable to use the land for the Parkway alignment anyway. Furthermore, the bridge infrastructure crossing the Molongolo River at this location is

significantly wider than the western alignment. This would impact on the total project budget (in excess of \$25.0 million) and is likely to result in a project cost overrun. (See Attachment C for details)

b. The Western Alignment:

The acquisition of a significant portion of the Georges Height Field is critical to enabling the road corridor to minimise the impacts on the Narrabundah Ashtone 10 site, a significant Aboriginal artefact site and Woolshed Creek Fossil site and the road design to falling within the Civil Aviation Safety Authority (CASA) quarantined airspace zone.

The Environmental Impact Statement (EIS) for the entire Parkway is currently being finalised. A draft of this document will be available by the end of April 2009 for public comment. Initial advice indicates, it appears that there are unlikely to be any significant environmental, heritage and/or social or cultural issues with the degree of complexity of the above for the remainder of the alignment. Identified issues will be addressed as part of the EIS process with the relevant authorities.

### Consultation

To date Roads ACT has consulted with the following stakeholders on various matters relating to the project including:

1. ACT Heritage Council: as part of the EIS Consultation process and in particular the areas with Aboriginal heritage significance issues relating to the initial stage of the Parkway.
2. ACT Parks Conservation and Lands, Heritage Section and the Environment Protection Agency: as part of the EIS Consultation process and in particular the Ashtone 10 and the Woolshed Creek Fossil Beds issues relating to the initial stages of the Parkway.
3. CASA regarding airspace obligations and the impact of the Parkway on these.
4. Canberra Off Road Cycling (CORC) and ACT Forests: regarding the requirements of these stakeholders in terms of related infrastructure and also the impact of future stages of the Parkway on their operations.
5. Department of Infrastructure, Transport, Regional Development and Local Government.
6. National Capital Authority
7. ACT Planning and Land Authority on various issues relating to the project and in particular its impact on the Territory Plan.
8. Roads and Traffic Authority (RTA) NSW and the Queanbeyan City Council to discuss how the Parkway will impact on their operations
9. Canberra Community directly affected by the works including the residents of Pialligo and the Majura Vineyard.
10. Department of Defence on various issues relating the impact of the Parkway on Defences' operations, security and land.

11. Canberra Airport on various issues relating to the impact of the Parkway on the airports operations.

#### **Financial Implications**

The Australian Government has provided \$30 million as part of the Building Australia Program (BAP) (2009-14) for the initial stage of the Parkway. The ACT Government is seeking a further \$220 million from Infrastructure Australia to undertake the remainder of the works package.

The staging of these works allows for the \$30 million provided by the Australian Government to commence the initial stage of the works in 2009/10.

Future stages of the Parkway are intended to be funded through Infrastructure Australia. There is an expectation that these works will be funded in the coming Federal May 2009 Budget with the understanding that construction will commence during 2010-11. The implementation of the initial stage of the Parkway is thus essential to Roads ACT's ability to deliver the Parkway project on time.

#### **Media Impacts**

Significant media opportunities will arise once the project is finalised. However, current processes relating to this brief do not warrant media coverage until the formal funding announcements by the Federal Government later in April or in May as part of the Federal Budget.

To assist with any joint communications between the Australian and ACT Governments regarding funding for the Majura Parkway, some speaking points are included with this brief at Attachment E.

Roads ACT have also commissioned the development of a specific website for the Majura Parkway project. This would become live on the formal funding announcement in May and it will be accessed at the following web address: [www.majuraparkway.act.gov.au](http://www.majuraparkway.act.gov.au). InTACT and Community Engagement have assisted with the development of this site.

**Recommendation**

That you:

- a) note the background, issues and progress to date with the planning for the Parkway;
- b) sign the letter included in Attachment D to the Federal Minister for Defence Joel Fitzgibbon MP seeking his approval for the land acquisition to formally commence;
- c) copy this letter and related plan to the Hon Mike Kelly MP, Parliamentary Secretary for Defence Support and the Hon Lindsay Tanner MP, Minister for Finance, for their information;
- d) use the speaking points provided at Attachment E in any communications on the Majura Parkway project.

Tony Gill

Tony Gill  
Director  
Roads ACT

17 April 2009

Contact Officer: Carl Dias  
Phone: 6205 8605

I have agreed but I also wish to conduct a site visit and

provided to Sharon to arrange IS/S

Jon Stanhope MLA ..... / /

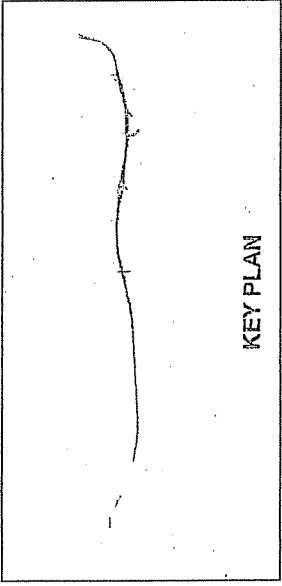
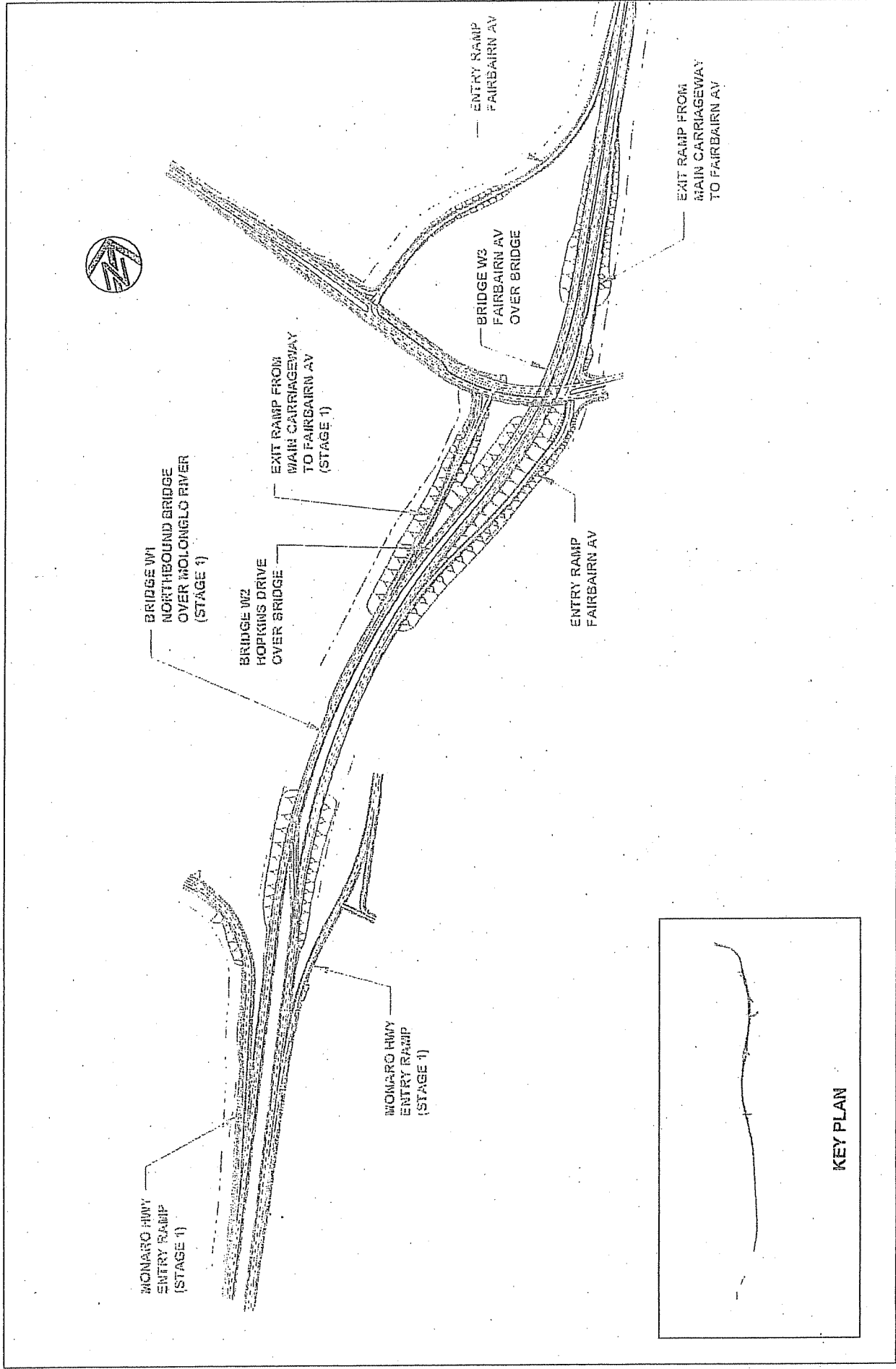
**AGREED/NOT AGREED/NOTED/PLEASE DISCUSS**

M 15/5

**Attachments:**

- A: Majura Parkway Alignment (including the Kowen and Northern link that have now been removed)
- B: Majura Parkway – Initial Stage of works
- C: Entry to ACT Heritage Register – Woolshed Creek Fossil Site
- D: Letter to the Minister of Defence Joel Fitzgibbon requesting approval to acquire Defence land in the vicinity of Morsehead Drive (including Attachment 1 indicating the land area required)
- E: Speaking Notes





KEY PLAN

MAJURA PARKWAY - MONARO HIGHWAY TO FEDERAL HIGHWAY  
WESTERN ALIGNMENT  
STAGE 1 (SHOWN RED)

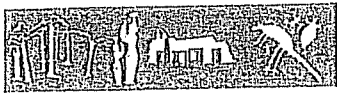
INFORMATION DOCUMENT

3002147-EIS-147

**SMEC**  
SMEC AUSTRALIA PTY LTD  
100 SOUTH BRIDGE ROAD  
SYDNEY NSW 2000  
AUSTRALIA  
TEL: 61 2 9230 6000  
FAX: 61 2 9230 6001

SCALE 1:1000

DATE: 15/08/2011  
DRAWN: [Name]  
CHECKED: [Name]  
APPROVED: [Name]



ACT Heritage Council

## Entry to the ACT Heritage Register

*Heritage Act 2004*

### 20010. Woolshed Creek Fossil Site

Section 6 Block 5 (part) and , land in the Fairbairn Avenue road reservation,  
south of Block 3 Section 12

PIALLIGO

This document has been prepared by the ACT Heritage Council.

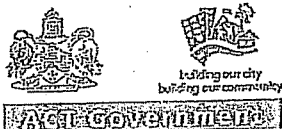
This entry which was previously part of the old heritage places or the old heritage objects registers (as defined in the *Heritage Act 2004*), as the case may be, is taken to be registered under the *Heritage Act 2004*.

Conservation Requirements (including Specific Requirements), as defined under the *Heritage Act 2004*, that are contained within this document are taken to be Heritage Guidelines applying to this place or object, as the case may be.

Information restricted under *the old heritage places register or old heritage objects register* is restricted under the *Heritage Act 2004*.

Contact: ACT Heritage Council c/o Secretary PO Box 144  
Enquiries: phone 02 6207 2164 fax 02 6207 5715

Lyneham ACT 2602  
e-mail [heritage@act.gov.au](mailto:heritage@act.gov.au)



environment ACT

Helpline: 02 6207 9777  
Website : [www.cmd.act.gov.au](http://www.cmd.act.gov.au)  
E-mail: [EnvironmentACT@act.gov.au](mailto:EnvironmentACT@act.gov.au)

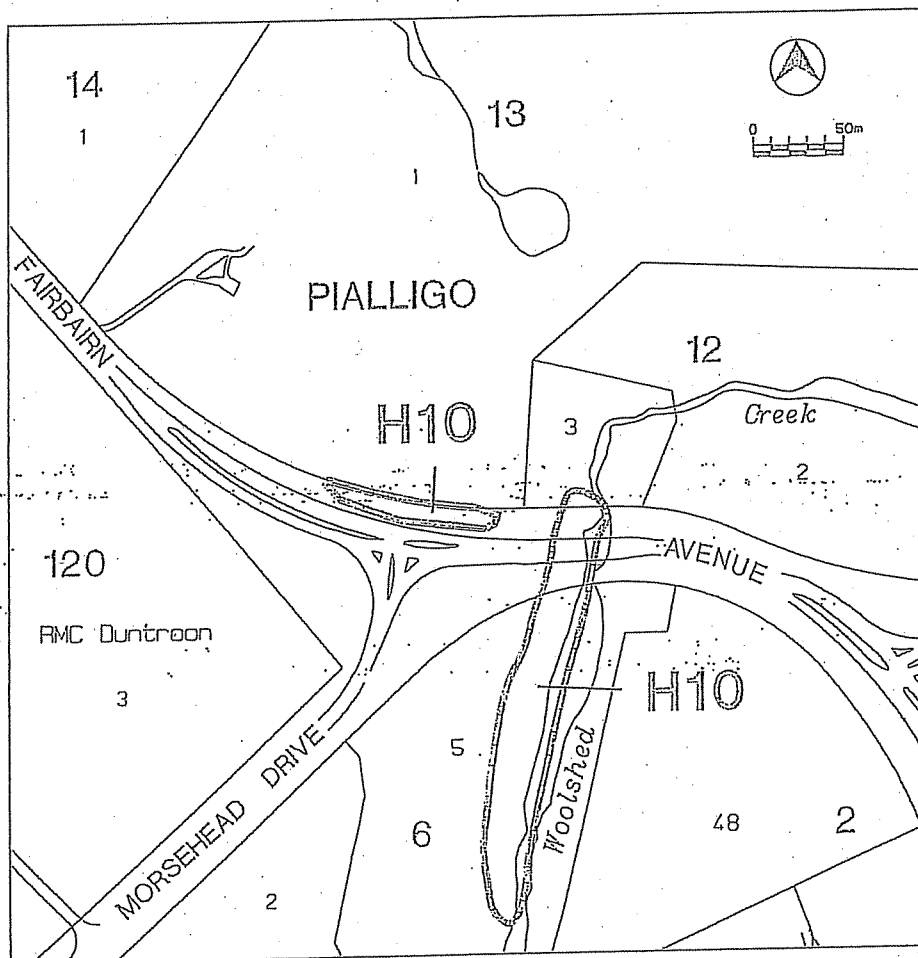
### Specific Requirements

In accordance with s.54(1) of the *Land (Planning and Environment) Act 1991*, the following requirements are identified as essential to the retention of the heritage significance of the place;

The following activities are not to be carried on without the approval of the Minister:

- i) Removal of fossils from the site.
- ii) The encroachment onto the site by stock.
- iii) The construction of facilities and/or trails on or adjacent to the site.
- iv) The installation of capital infrastructure and communication equipment.
- v) Excessive pedestrian traffic on the site.

Figure 10: Woolshed Creek Fossil Site and Narrabundah Ashstone Locality



## INTERIM HERITAGE PLACES REGISTER

### CITATION

#### Woolshed Creek Fossil Site and Narrabundah Ashstone Locality

---

NOMINATED BY: ACT Heritage Unit

---

#### STATUS OF PLACE AT NOMINATION DATE:

Register of the National Estate, Registered 1/11/83.

Draft Conservation Plan prepared by: Graham Taylor and Brian Egloff  
May 1989.

Registered by the National Trust of Australia - 1987

NCDC Sites of Significance 1988 Volume No.5; Page No: 14; SOS  
Number: M 4

Other: 'The Geological Monuments in the Australian Capital Territory',  
Owen *et al*, 1988.

'Geological Features of National and International Significance in  
Australia' Cochrane, RM and Boyce EB, Federal Committee; Geological  
Society of Australia, 1986.

UNLEASED DESIGNATED TERRITORY LAND: Block 5 Section 6 Pialligo  
(part).

ACT LAND: Block 1 Section 12 Pialligo (part).

Most of the exposure is in the road verge beside Woolshed Creek Bridge and as such is not identified by a Block and Section number. These areas are managed by City Parks. Block 5, Section 6, Pialligo on the southern side of Woolshed Creek Bridge is currently unleased Designated Territory Land and is managed by the National Capital Planning Authority. Block 1, Section 12, Pialligo on the north side of Woolshed Creek is ACT Land and is managed by the ACT Government. It is currently unleased land but is intended to be leased to the Richmond Fellowship in the near future for a period of ten years.

The Agriculture and Landcare Section of the Department of the Environment, Land and Planning have applied for the withdrawal of 5000 square metres of leased land north of the road reserve.

Period (395 to 430 million years ago). The sequence has been identified as part of the Canberra Formation which developed as sediments accumulated in a shallow marine environment adjacent to volcanic activity (Taylor and Egloff, Draft Conservation Plan For The Woolshed Creek Fossil Locality, 1989).

A representative section of the Narrabundah Ashstone is exposed in a road cutting on the north side of Fairbairn Avenue approximately 50 metres from Woolshed Creek Bridge. The section, which consists of a westerly dipping sequence of volcanoclastic rocks, displays excellent examples of bedding and jointing. Robert Abell, a Geologist with the Australian Geological Survey Organisation, described the outcrop on a recent field survey as such: 'While the upper and lower contacts of the section are not visible almost the full thickness must be exposed since it is clearly conformable within marine mudstone beds of the Canberra formation which outcrop in Woolshed Creek'. The exposure provides evidence of early volcanic activity in the Canberra region and together with the Woolshed Creek Fossil Site is representative of two totally different types of geological environment in juxtaposition: volcanic and marine (Abell and Cameron, 1992). It is the only exposure of this particular unit in the Canberra region (Taylor and Egloff, Draft Conservation Plan For The Woolshed Creek Fossil Locality, 1989).

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#### **BACKGROUND:**

The first Silurian fossils found in Australia were discovered at Woolshed Creek by the Reverend WB Clarke in 1844 and referenced as the Woolshed Creek Geological Site. In 1860, Clarke sent a collection of the fossils to Professor De Koninck for description and dating. De Koninck wrote a report on the site in 1876 expanding on two papers previously written by Clarke in 1848 and 1860.

Reverend WB Clarke is a noteworthy figure in Australian geology, especially with regard to New South Wales and the ACT. He recorded much of the geology of Eastern Australia for the first time and therefore remains important in both scientific and historical terms.

Further studies on the geology of the site for the proposed national capital were undertaken in the early 1900's by Pittman (1911) and Mahoney and Taylor (1913), (in Taylor and Egloff, Draft Conservation Plan For The Woolshed Creek Fossil Locality, 1989). Numerous other reports have been completed on the site since this time and are referred to in the Draft Conservation Plan for the area by Taylor and Egloff, 1989.

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#### **ANALYSIS AGAINST THE CRITERIA SPECIFIED IN SCHEDULE 2 OF THE LAND (PLANNING AND ENVIRONMENT) ACT 1991:**

Criterion (iv): A place which is highly valued by the community or a cultural group for reasons of strong or special religious, spiritual cultural, educational or social associations.

The Woolshed Creek Site is a notable example of a natural landscape that allows us to piece together the events of the geological past. The genus *Atrypa* is very common in the Silurian and Devonian throughout the world and is indicative, in this instance, of the boundary between the middle and late Silurian period (Australian Heritage Commission 1989). The site also allows for the interpretation of the prevailing environmental conditions under which the rock was formed.

**Criterion (vii):** A place which has strong or special associations with a person, group, event, development or cultural phase which played a significant part in local or national history.

The first Silurian fossils found in Australia were discovered at the Woolshed Creek Geological Site by the Reverend W B Clarke in 1844. The Woolshed Creek Site has provided material for palaeontological studies over many years and as such is a site of both scientific and historical importance.

**Criterion (viii):** A place which represents the evolution of a natural landscape, including significant geological features, landforms, biota or natural processes.

The ashstone and fossiliferous sites are indicative of changing geological processes through time and are representative of an environment far different to that which exists there today.

The sediments of the Canberra Formation accumulated in a shallow marine environment adjacent to volcanic activity. (Taylor and Egloff, Draft Conservation Plan For The Woolshed Creek Fossil Locality, 1989).

The Narrabundah Ashstone is evidence of this volcanic activity. The Woolshed Creek Site displays an unusual richness of fossiliferous biota and provides insight into the geological history of the region during the Silurian Period.

**Criterion (xi):** A place which demonstrates a likelihood of providing information which will contribute significantly to a wider understanding of natural or cultural history, by virtue of its use as a research site, teaching site, type locality or benchmark site.

The Woolshed Creek Fossil Site and the Narrabundah Ashstone Locality have provided the community with information useful in interpreting the geological past of the Canberra Region. Fossils found at the Woolshed Creek Site were used to date the age of the rock and the boundary between the middle and late Silurian Period as well as to determine the conditions under which the rock was formed.

Both sites have been used for many years by the educational institutions of the Canberra region as a teaching aid for geological studies.

Dickens J M (1989) *Comments on the ANUTECH Report on behalf of the Monuments Committee*, Territories Division, Geological Society of Australia.

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#### MANAGEMENT RECOMMENDATIONS

The Woolshed Creek fossil locality needs protection from damage by collectors as well as other causes which may contribute to degradation of the site. Recommendations for management are:

- 1) a sensitively placed interpretative sign should be erected displaying the historical and scientific value of the locality and asking visitors to respect the integrity of the site. A sign may help in preventing damage to the fossil bed and ashstone exposure. The Council will advise on the wording and placement of the sign;
- 2) a Permit system needs to be implemented to restrict the collection of fossils from the site;
- 3) the existing fence structure needs to be maintained to keep stock from damaging the fossil site;
- 4) a psychological barrier, in the form of the already existing treated pine log fence, should be maintained to assist in protection of the fossil site;
- 5) other barriers such as native plantings may be considered in appropriate areas to further restrict and/or direct pedestrian traffic. This fence may be an appropriate location for an interpretive sign and/or a notice requesting that people not walk on the fossil exposure;
- 6) the stone work construction of Woolshed Creek Bridge is unusual and may be interpreted along with the geological component of the site to add further interest;
- 7) access to the Narrabundah Ashstone locality involves standing close to a busy intersection. Signage and access need to take account of this; and
- 8) construction of a fence between the footpath edge and roadway immediately in front of the Narrabundah Ashstone outcrop may contribute to safer viewing of this site.

28/5/09  
COPY



Jon Stanhope MLA

CHIEF MINISTER

MINISTER FOR TRANSPORT MINISTER FOR TERRITORY AND MUNICIPAL SERVICES  
MINISTER FOR INDIGENOUS AFFAIRS MINISTER FOR THE ARTS AND HERITAGE  
MINISTER FOR BUSINESS AND ECONOMIC DEVELOPMENT

MEMBER FOR GINNINDERRA

The Hon Joel Fitzgibbon MP  
Minister for Defence  
Parliament House  
CANBERRA ACT 2600

Dear Minister *Joel*

I am writing to you seeking your approval to commence a land acquisition process between the Department of Defence and the ACT Government relating to the Majura Parkway road infrastructure project in the ACT.

The proposed Majura Parkway (the Parkway) provides an alternative route to the National Highway and north-south routes (linking the Monaro Highway to the Federal Highway) through Canberra as well as a peripheral parkway function as embodied in the ACT's National Capital Plan.

The construction of the Parkway will be realised in two or more stages. The ACT Government has already provided some \$31 million towards the first stage of the project currently being implemented in the vicinity of the Canberra Airport. In addition, the Commonwealth Government has provided some \$30 million as part of the Building Australia Program (2009-14) towards the second stage of these works linking the Monaro Highway to Majura Road. The ACT Government is seeking a further \$220 million through Infrastructure Australia to complete the construction of the Parkway over the coming three years. The outcome of this submission is likely to be announced as part of the May 2009 Federal Budget.

The preliminary work associated with the finalisation of the preferred alignment for the Parkway has already commenced as part of the Environmental Impact Study. Two options (a western and an eastern alignment) at the southern end approaching the Monaro Highway were shortlisted as preferred alignments for Stage 2 works. The road corridor for this stage is heavily constrained by several environmental, heritage and airspace considerations. The western alignment is currently considered as the preferred option because it avoids most heritage sites and has a minimal impact on environmental constraints. This alignment however traverses Defence land to the west of Morshead Drive (North), which includes a large portion of the Georges Height Field. It is expected that the total areas required as part of these works will be approximately 33,702m<sup>2</sup>.

ACT LEGISLATIVE ASSEMBLY

London Circuit, Canberra ACT 2601 GPO Box 1020, Canberra ACT 2601

Phone (02) 6205 0104 Fax (02) 6205 0433 Email stanhope@act.gov.au

Officers from the Department of Territory and Municipal Services have commenced discussions with officers from your department. In response to various issues raised by the Department of Defence, various aspects of the initial Parkway project proposal been removed and/or modified including:

1. The "Northern" Link connection between Fairbairn Avenue and the Majura Parkway has now been removed entirely from the scope. The project now avoids impact entirely upon the Defence Land adjacent to the Campbell Park Offices including the horse paddocks and playing fields on the northern side of Fairbairn Avenue (adjacent to Addison Road). The project also avoids entirely, any impact upon high value ecological area on the corner of Fairbairn Avenue and Northcott Drive.
2. The "Kowen" Link connection between Majura Road and Majura Parkway has now been removed entirely from the scope. The project now avoids impact upon the sensitive native grassland through which the link traversed. Furthermore, and of particular interest to Defence, the Kowen link removes reference to any implied connection to the future suburb of Kowen, which if kept in the location implied by the Kowen Link would traverse the Mount Majura Training Area (MMTA).

In deriving the preferred area of land acquisition, consideration has been given to the following:

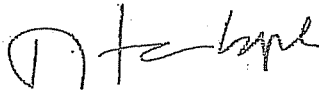
- a. Minimising land take as much as possible;
- b. Avoiding impact entirely upon the Australian Rules Football Oval (Alamein Oval). The proposed acquisition boundary has been set 10.0 m from the existing oval boundary thereby allowing space for an access track around the oval;
- c. Minimising impact upon existing services traversing the area;
- d. Impacting only 1 x touch football field (Georges Height Field) and avoiding impact upon the Long Tan Field;
- e. Minimising impact upon surface drainage swales surrounding the Georges Height and Long Tan Field(s);
- f. Avoiding impact entirely upon the golf course;
- g. Avoiding impact entirely upon the north eastern RMC Duntroon boundary (adjacent to Fairbairn Avenue).

Discussions to date between our Departments have indicated that the Department of Defence would be willing to accept the loss of some current playing fields on the basis that a rehabilitation of the Oval No 1, together with suitable access arrangements to this oval, is provided as part of the overall Parkway project. The details of the scope of these works will be discussed and finalised as part of the land acquisition process.

A block map is attached displaying the proposed new road boundary. The ACT Government is keen to progress this acquisition request as quickly as possible to meet Commonwealth funding timelines and project milestones.

If there are any queries in relation to this request I have asked Mr Tony Gill, Director Roads ACT of the Department of Territory and Municipal Services to be available to provide assistance or information. Mr Gill can be contacted on telephone (02) 6207 6588 or email: [tony.gill@act.gov.au](mailto:tony.gill@act.gov.au).

Yours sincerely



Jon Stanhope MLA  
Minister for Transport

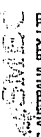
20 MAY 2009

cc: The Hon Lindsay Tanner MP – Minister for Finance and Deregulation  
The Hon Mike Kelly MP – Parliamentary Secretary for Defence Support



**INFORMATION DOCUMENT**

3002147-SKC-148


**SMEC**  
 ONEG AUSTRALIA PTY LTD  
 100/100 WILSON ROAD  
 WILSON PROMENADE  
 WILSON PROMENADE  
 WILSON PROMENADE

MAJURA PARKWAY  
 MOHARD HIGHWAY TO FEDERAL HIGHWAY

SCALE 1:1000

DRAWN BY: [Name]  
 CHECKED BY: [Name]

## Speaking Notes Chief Minister

### Majura Parkway

- The announcement by Infrastructure Australia and the Federal Government that the construction of the Majura Parkway project will be funded over the next three years is a good news story for the ACT.
- The investment of \$250 million over three years is the largest ever capital investment in a road infrastructure project in the ACT.
- This project will stimulate activity in the construction industry over the next three years as well as activity in service and support industries.
- This project is also an important investment into Canberra's future and will support the Territory's development into the 21<sup>st</sup> century.
- While the ACT Government has been undertaking the planning for the Majura Parkway and construction of other roads in the vicinity of Canberra Airport for a number of years, the case put to Infrastructure Australia to fund the Parkway in the short term; indeed bringing it forward by a number of years has focused on regional and national issues as much as the local benefits the Parkway would deliver.
- The case to fund the Majura Parkway focused on three fundamental needs:
  - 1) The need to connect the Federal and Monaro Highways and thus improve freight access from the National Highway network to the NSW/Canberra Regional Highway network.  
  
By 2020, the national freight task will double and improved freight access along this important route will contribute to the nation's productivity.
  - 2) The need to improve access to Canberra Airport which is developing as a transport hub in the Canberra Region.
  - 3) The need to improve access to a developing Canberra and the wider NSW region.
- While the cost of the project is some \$250 million; the benefits that flow from the project over the next thirty years are in excess of \$1 billion.
- The Majura Parkway will provide a direct connection between the Federal and Monaro Highway, a distance of some 11 kilometres.

- The alignment will be to the west of the existing Majura Road which will remain and provide a service or access road function to surrounding properties.
- The Majura Parkway will be constructed to a parkway standard similar to the Tuggeranong Parkway and Gungahlin Drive Extension.
- The construction activities will include a new bridge over the Molonglo River; bridges over the Morshead Drive and Fairbairn Avenue and a new interchange some three kilometres south of the Federal Highway to provide access to/from surrounding areas.
- The Environmental Impact Study which forms part of the statutory planning requirements is currently being undertaken and a draft report was submitted to the ACT Planning Authority at the end of April. This will be released by the Authority for public comment.
- A development application will be prepared once the Environment Assessment process has been finalised and will cover the initial stage of the project.
- This initial stage will cover southern section of the project, extending from the Monaro Highway to Fairbairn Avenue.
- At this point, it is envisaged that the Parkway will be completed in three stages over the next three years.
- While planning and design work is well progressed, the tender for the initial stage will be called in September to enable the development application process to be concluded and the public to be given the opportunity to be consulted on the nature and extent of works and how the impact will be managed.
- The Environmental Impact Assessment has covered the range of environmental; cultural heritage and social issues associated with the construction of major infrastructure projects and measures to manage or eliminate the impacts, will be fed into the detailed design work which is taking place.
- The Parkway will impact on a number of existing rural leases, some recreational use at Majura Pines and a portion of land will have to be acquired from the Department of Defence at Duntroon to enable the road to be constructed.
- The alignment of the road has been modified to protect a significant indigenous site as well as to minimize the impact on a heritage listed geological site of significance.
- Information on the background and issues associated with the Parkway will be included in a website that has been developed and can be accessed at [www.majuraparkway.act.gov.au](http://www.majuraparkway.act.gov.au).