(50)

Stravens, Helen

From: Gill, Tony
Sent: Monday, 27 June 2011 1:21 PM
To: Dias, Carl; Peters, Paul
Subject: FW: infrastructure priority list - assessment/CBA analysis material for public release [SEC=UNCLASSIFIED]
Attachments: Letter from Michael Deegan to the Hon K Gallagher MLA 17 June 2011.pdf; Majura Parkway_Appraisal2011.pdf; Majura Parkway_Brief2011.pdf

Fyi- I have replied

TG

From: Guthrie, Marsha
Sent: Monday, 27 June 2011 12:13 PM
To: Gill, Tony
Cc: Kennedy, Floyd; Dechert, Lauren
Subject: FW: infrastructure priority list - assessment/CBA analysis material for public release [SEC=UNCLASSIFIED]

Tony

IA wrote to the Chief Minister last week advising of their intention to release appraisal information on the Majura Parkway in line with IA Report release in early July (not sure of the exact date).

I am not sure where the official copy of the letter is (maybe CMCD or the Chief's Office has already forwarded to you), however, IA is providing us with an opportunity to comment on these documents (for any thing that is incorrect or should be published).

We have previously review the brief, however the Economic Appraisal is new.

Could your guys please review this information and provide some advice back to be ASAP, sorry for the short timeframe, I only found out about this letter this morning.

Thanks

Marsha

From: Roe Paul [mailto:Paul.Roe@infrastructure.gov.au]
Sent: Monday, 27 June 2011 11:45 AM
To: Guthrie, Marsha
Cc: White Victoria; White Donna
Subject: infrastructure priority list - assessment/CBA analysis material for public release [SEC=UNCLASSIFIED]

Hi Marsha

As discussed, attached is an electronic version of the letter sent to the Chief Minister on 17 June enclosing assessment briefs and appraisal analysis for the Majura Parkway (also attached) that will be publicly released at the same time as IA's report to COAG. Please let me know if you have any questions about this material.

Many thanks

Paul Roe
Infrastructure Australia

Telephone: (+612) 8114 1914
Mobile: (+61) 434 564 104
Fax: (+612) 8114 1932
Email: paul.roe@infrastructure.gov.au

Australian Government
Infrastructure Australia

17 June 2011

The Hon K Gallagher MLA
Chief Minister
London Circuit
CANBERRA ACT 2601

Dear Minister

I am writing to you in regard to Infrastructure Australia's role in assessing nationally significant infrastructure proposals and its focus on ensuring appropriate transparency.

As you may be aware, in the 2011-12 Budget the Australian Government announced that in order to provide greater transparency and confidence "information about Infrastructure Australia's assessments of projects will be published, including cost-benefit analyses".

Accordingly, I will be publicly releasing the Office of the Infrastructure Co-ordinator's assessment briefs and working appraisal of cost benefit analyses relevant to projects from your jurisdiction where the project has been classified as 'threshold' or 'ready to proceed'.

My office has recently circulated draft assessment briefs to jurisdictions at officer level and has received and incorporated feedback where appropriate. The working appraisal documents have not been previously circulated.

For your information, I enclose the assessment briefs and appraisal documentation that will be published relevant to your State. Tuesday

Further, it is proposed to release submissions made to Infrastructure Australia in 2010/11, apart from material that has been identified as commercial-in-confidence.

It is expected that this material and submissions will be published in late June 2011 to coincide with the release of Infrastructure Australia's report to the Council of Australian Governments. It would be appreciated if you could maintain confidentiality of the documentation until it is publicly released.

If you have any concerns regarding this matter, please contact me on (02) 8114 1900.

Yours sincerely

Michael Deegan
National Infrastructure Co-ordinator

Infrastructure Australia
[illegible] Australia
Telephone (02) 8114 1900 [illegible]
www.infrastructureaustralia.gov.au

WORKING ASSESSMENT FOR BCR MODERATION (2010/11 Submissions)	
Project name	Majura Parkway (Federal Highway – Monaro Highway)
Brief project description	The project involves the upgrade of the existing road link between the Federal Highway and the Monaro Highway and consists of construction of an 11.5 km limited-access four-lane road and grade separated interchanges with the Federal Highway, Fairbairn Avenue and Monaro Highway.
Reported BCR @ 7% DR	3.32
Capital cost total – undiscounted, outturned	$288 million
% costs bid for (where relevant)	$144 million
Source documents for review	December 2010 Submission to Infrastructure Australia Majura Parkway February 2011 Feedback Session on the ACT Submission for the 2011 Infrastructure Pipeline
Date of review	24 Jan 2011
Review conducted by	
Key changes from previous submissions	The key changes to the submission include: • Further explanation as to why the Do Nothing base case was used • Further information on the demand modelling outputs have been provided • Maintenance cost have been updated from $28 million to $46 million based on recent Whole of Life cost analysis • Further information on how benefits for generated traffic are calculated have been provided

+ This document is a working appraisal of the cost benefit analysis of the proposal. As the project has developed, more information has been provided, which may supersede or respond to questions arising from earlier assessments, as detailed below.

OVERALL SUMMARY

Overall summary (2-3 paragraphs on overall robustness of analysis and major points raised)

The overall appraisal appears to be robust. The main concern is the use of a Do Nothing base case. The base case assumes a Do Nothing scenario where travel time goes from 15 mins in 2009 to 40 mins in 2031. The option of upgrading the existing road is not considered and could represent a more reasonable base case. Although the submission notes that upgrading of the existing road and associated linkages would have a similar capital cost to the project case (although a detailed breakdown of these capital costs has not been provided in the submission). Additional information provided by the ACT government in the feedback session provides further explanation for using a Do Nothing base case. ACT state that upgrading the existing road was not considered because it believed that the associated costs and negative impact would be larger than the proposed project case. Other supporting evidence given is that upgrading the existing road could trigger Federal Environmental assessments that would impact on the outcome of the proposal. Furthermore, it would only represent a short term solution and would cause congestion on other parts of the network. The arguments given for not using the upgrade of the existing road appear to be reasonable.

Other concerns include the treatment of accident costs and how the residual value is calculated. There could be double counting in the accident costs calculation. Accident costs are included in both the calculation of accident cost savings and the benefits from diverted traffic. This could result in the accident cost savings been counted twice in the BCR. However, any double counting would have a minor impact on the BCR because accident cost reduction benefits represent only around 1% of the total benefits. The residual value has been calculated by using the present value of the future benefits from year 30 to 40. Ideally the residual value for the road and bridge component should be calculated separately using different economic life assumptions. This is particularly relevant given that residual value represents 10% of the total benefit. Removing this benefit would reduce the BCR from 3.32 to approximately 3.0. This however could be difficult to do given that the residual value is calculated using present value of benefits from year 30 to 40. Additional information provided by the ACT also shows that bridge capex cost of the project represents approximately 30% of construction costs. Based on this it appears reasonable to assume a project life of 40 years.

Additional information provided by the ACT show that the maintenance costs has been updated from 28 million to 46 million (a 65% increase). This difference is likely to result in a 65% increase in the present value of maintenance costs. This would result in the present value of maintenance cost increasing from $9.5 million to $15.5 million. Preliminary estimates indicate that this would cause the BCR to go from 3.32 to 3.25. Further information on the demand modelling outputs has also now been provided. This provides clarity on the AM peak share of the traffic under the project case and base case.

Guidance	"Cut and paste" text from proforma if possible	List supporting materials not included in proformas but included with bids (formally and informally)	List all information requested by IA: please note which materials were, and were not provided by jurisdictions. Also list areas to follow up / potential questions	See below	Insert the explanation of any differences or issues with theory, methodology or data used by the jurisdiction	Use this column, if required, to explain any reasoning for making an assessment of the scale of impact on the BCR, using figures if possible	Please insert one sentence summary of argument and conclusion reached	Significantly overstated; slightly overstated; broadly neutral; slightly understated; significantly understated.
Robustness of demand forecast								
1. Has demand been modelled in a robust and 'bottom-up' manner?	Strategic transport modelling of the whole Canberra and Queanbeyan urban area, using TransCAD, was initially conducted to produce the demand matrix used for micro-simulation modelling of the study area in Paramics.			• Has demand been modelled by a reputable transport modelling organisation? • Evidence of use of a city wide travel model which adds the proposal as a new option & measures diversions • How close to capacity is the service in the high AM peak hour • Have different fare levels & elasticity been evaluated & will service offer customer VFM against alternatives?	The demand forecast has been estimated using a bottom-up approach..	Demand modelling for different scenarios have not been conducted.	The demand forecast have been estimated using a bottom-up approach	Broadly neutral
2. Are the underpinning residential, employment and economic growth figures robust?	The ACT Government, through ACTPLA and TAMS, has provided the consultant with the latest updates on land use projections for the forecast years 2006, 2011, 2021 and 2031.			• Are current State or ABS projections used? • Are central growth forecasts used? • Are the transport demand forecasts directly linked to this data?	The land use figures used are from the ACT government.	This is envisaged to have a moderate impact on the BCR.	Land use projections are consistent with ACT government forecasts	Broadly neutral
3. Achievability of the demand forecast?	Vehicle kilometres travelled is estimated to increase from 24,505 kilometres (AM peak) in 2011 to 33,940 kilometres in 2031 for the base case. For the project case, vehicle kilometres travelled is estimated to increase from 37,009 kilometres in 2011 to 62,796 kilometres in 2031.			• Is the forecast justified by an in-depth analytical paper? • Is the forecast endorsed by independent Expert Peer Review? • Does forecast feature a gradual ramp-up (i.e. >4yrs)? • What % of patronage is induced demand (should typically be <20%) • Forecast patronage has been benchmarked to be broadly consistent with outcomes achieved on similar services? • Has the proponent factored the costs of greenhouse gas emissions into their economic planning, including obligations under the Carbon Pollution Reduction Scheme?	The substantial different in vehicle kilometres travelled in the base case and project is due to the Do Nothing base case. Further information was provided in the feedback session, explaining why the Do Nothing base case was used. The ACT government states that the upgrade of the existing road was not considered because it believed that the associated cost and negative impact would be larger than the proposed project case. Another supporting argument given is that the upgrade of the existing road could trigger Federal Environmental assessments that would impact on the outcome of the proposal. Furthermore, it would only represent a short term solution and would cause congestion on other parts of the network. The explanations appear to be reasonable.	The Do Nothing base case has a significant effect on the BCR	Substantial difference between base case and project case vehicle kilometres travelled due to using a Do Nothing base case	Broadly neutral based on information provided in the new submission
4. Sensitivity of BCR to demand	No sensitivity analysis for changes in overall demand has been conducted			• Does a 30% drop in demand significantly alter the BCR?	Ideally the submission should include sensitivity analyses for different demand scenarios. The submission uses a decrease in total benefits instead.	Sensitivity analysis for different demand scenarios has not been conducted.	Decrease in total benefits has been used as a sensitivity test instead of changes in demand.	Insufficient information

5. Is the base case realistic and fundable?	The base case used in the appraisal is a Do-Nothing Option. The feedback session provides further explanation as to why the upgrade of the existing road has not been considered as the base case or one of the options.			• What is Base Case patronage growth – is it in line with historical trends? • From the available information, is the base case capex and patronage a likely scenario, or is it overly loaded or light?	The submission states that the Do Nothing Case is not considered a viable option. The Do Nothing Case is not viable as the travel time is expected to increase from around 15 mins in 2009 to around 40 mins in 2031. A more realistic base case could be the upgrade of the existing road. This could have the following advantages: 1) it could represent a more realistic base case and 2) it would compare constructing the new road to upgrading the existing road. In the feedback session, the ACT government states that the upgrade of the existing road was not considered because it believed that the associated cost and negative impact would be larger than the proposed project case. Another supporting argument given is that the upgrade of the existing road could trigger Federal Environmental assessments that would impact on the outcome of the proposal. Furthermore, it would only represent a short term solution and would cause congestion on other parts of the network.	The Do Nothing base case has a significant effect on the BCR. ACT provided a reasonable explanation as why the Do Nothing base case was used in the feedback session.	The ACT government has provided a reasonable argument to why it used the Do Nothing as the base case.	Broadly neutral
6. Does hourly patronage profile match conventional AM & PM peak flows	1825 AM Peak and annualisation factor is used in the submission. The expansion factor is estimated by applying the existing peak hour to daily flow ratio. Recent 24 hour traffic count data collected for Canberra Airport Group along Majura Road provides a basis for estimating the peak hour to daily traffic flow. Further information provided by the ACT government in the feedback session shows share of the AM peak traffic under the project case and base case.			• Is the model scaled up to full year in a justifiable manner (e.g. annual patronage is normally 250-300 times AM high peak hour)?	In the submission, hourly patronage profile was not explicitly shown. The submission only indicates that the annualisation factor is 1825, but does not indicate the time or length of the AM peak analysed. Furthermore, the annualisation factor used is derived from data related only to one road rather than the whole network and may therefore be deceiving. The ACT government provided further details in the feedback session that shows the share of the AM peak traffic in the base case and option case.	The annualisation factor is envisaged to have a large impact on the BCR		Broadly neutral
Robustness of cost base								
7. Robustness of capex forecasts	The capex cost for the project $288 million. This is a P90 cost estimate of the project design and construction costs			• Is the capex estimate supported by significant in depth work? • Was it produced by a reputable independent organisation?	The estimate is subject to further detailed design. However the P90 offers a conservative estimate of the cost.	This is envisaged to have a medium to large impact on the BCR.	The capex cost could change subject to further detailed design	Broadly neutral

8. Robustness of opex forecasts	In the original submission, the cyclic maintenance was assumed to occur every 5 years and was estimated at 0.5 of the construction cost for the first application and then 1% for the remaining application. Similarly for annual maintenance, its cost was estimated as 0.125% of construction for the initial years of application prior to the first cyclic maintenance, and is then raised to 0.25% of the construction cost. In years that the cyclic maintenance is applied, annual maintenance is assumed to be 0. Updated information provided by the ACT government shows that recent Whole of Life costing of the project indicates that the expected maintenance costs are expected to be $46.298 million instead of the $28.076 million.	No supporting information was given in the original submission		• Is the opex estimate supported by significant in depth work? • Was it produced by a reputable independent organisation?	No supporting information was giving given in the original submission. However, maintenance cost represents only a small proportion of the costs. The 18.222 million difference in maintenance cost would have a small impact on the overall economic performance of the project. The ACT government notes that this difference is much smaller than the increased costs in the sensitivity test 6 which gave a BCR of 2.77.	This is envisaged to have a small on the BCR	Increase in maintenance cost unlikely to have a large impact on the BCR	Broadly neutral
9. Consequential costs	No evidence of consideration of consequential costs.			• Are consequential costs to other parts of the network or other stakeholders taken into account? • E.g. land acquisition, higher costs due to the need to maintain service continuity & / or constructing around live traffic	No evidence of consideration of consequential costs.	N/A	N/A	N/A
10. Revenue treatment	No revenue generated directly from the project			• Is the treatment according to ATC guidelines and in line with best practice?	N/A	N/A	N/A	N/a
11. Construction cost inflation	No construction cost inflation has been indicated	N/A	N/a	• Is the construction cost inflated by a margin above CPI (e.g. construction cost CPI)?		N/A	N/A	Broadly neutral
Key methodological questions								

12. Inflation rate	No inflation rate has been indicated	N/A	N/A	• What inflation rate is assumed and are any costs or benefits escalated by a different rate? • Do values reflect realistic real wages growth (e.g. 1.5% per year)?	N/A	N/A	N/A	No moderation of BCA required
13. Time period used	30 years			• Is the period of assessment valid given the lifespan of the project assets?	The analysis timeframe starts at the first year of construction instead of the first year of operation, thus the actual timeframe assessed is only 28 years. The method used to calculate the residual value means that this has little impact on the BCR.	The method used to calculate the residual value means that this has little impact on the BCR.	The method used to calculate the residual value means that the time period of analysis has little impact on the BCR.	broadly neutral
14. Residual value	The economic life of the project has been assumed to be 40 years. The feedback session provides further explanation to this assumption.			• Are residual values given when appropriate? • Are the values used justified?	This assumption has been made as the ATC guidelines recommend a 30 year life for road projects and a 'much longer life for bridges'. Ideally the residual value should be calculated separately for the road and bridges using different economic life assumptions. The residual value (valued at $705 million in 2042) is calculated using the present value of benefits from year 30 to 40. The 2010 submission shows that the bridge capex cost represents a significant proportion of the project's construction cost (around 30%). Based on this, it appears reasonable to use a 40 year life for the project.	The residual value of the project is around 10% of the project. This is calculated as the net present value of the benefits from year 30 to 40.	The 40 year life is based on the project having a significant bridge component.	Broadly neutral
15. Start and end timing, and phasing	Construction starts in 2013 with the project opening at 2015.			• Does benefit stream period start at the commencement of operation and cost stream at first expenditure? • Are construction costs ramped up in according with standard construction timetables?	No information has been provided.	No information on phasing has been provided	More information needed	More information needed
16. Benefits allocation	The benefits identified are as follows: 66% VOC saving (includes time savings), 1% accident cost savings, 16% generated traffic benefits, 2% environmental cost savings, 5% carbon cost savings, and 10% residual value			• Is the rule of half correctly applied (e.g. to benefits from existing PT users who change modes)? • Are all significant benefits identified? • Are all beneficiaries identified (e.g. benefits of roads to non road users?)	The magnitude of the benefits appears to be within expectation.	N/A	The benefit allocation of the project appears to be within expectation	Broadly neutral
17. Sensitivity analysis – risks? (Capital costs – Construction duration – Operating costs – Discount rate at 10% – changes in oil price)	Sensitivity analysis has been conducted for changes in heavy vehicle mix, changes in discount rate, increases in costs, decreases in benefits, a worse case where costs increases and benefits decreases, and changes in the value of carbon			• Do the reported sensitivity tests, for instance to the price of oil, suggest significant risks surrounding the central case? • How significant are +/-20% construction cost variations? • Does economic viability become negative at a 10% discount rate?	The submission conducts a wide range of sensitivity analysis. The BCR are all above 2.17 even for the worst case scenario.	This is expected to have a small impact on the BCR.	BCR is above 2.17 even for worst case scenario	Broadly neutral

18. Other methodological issues?	None identified			• Any there any other issues regarding the accuracy of methodology used that may significantly impact on the comparability of the BCR?	None identified	None identified	None identified	Broadly neutral
Values benchmarking								
19. Value of time savings: business, non business, freight, and Vehicle operating costs	The value of time and the VOC for existing traffic is calculated together using the Road User Cost (RUC) values by Austroads Generated traffic benefits are derived by calculating the consumer surplus of the diverted traffic. In the feedback session, additional information and algorithms have been provided in relation to the calculation of VOC and accident costs for generated traffic.	Austroads		• Are the values used recommended by the ATC? • Are these constant real through analysis period or do they factor in real growth (i.e. caution if real growth is >2%)	The consumer surplus for generated traffic is calculated by obtaining the difference in perceived price (assumed to be the sum of VOC and AC) for the base and project case. The inclusion of accident cost (AC) may be double counting the benefits as they are already included in accident costs. However, double counting accident costs would only have a small impact on the BCR. Additional information was provided by the ACT government in the feedback session. This shows how the calculations have been conducted. The methodology appears to be robust.	This is expected to have a small impact on the BCR.	Accident costs could be double counted in the BCR	Broadly neutral/slight overstate
20. Value of carbon emissions	The price of carbon is assumed to raise from $10/tonne CO@-e in 2011 to $80/tonne CO2-e in 2040 (2011 dollars)	Not sourced		• Is there a nexus with the patronage forecast? • Are the values used recommended by the ATC? • Has the proponent calculated the direct emissions of their proposal? (i.e. include all carbon emissions from the construction or operation of the structure • Has the proponent calculated indirect emissions of their proposal?	The reduction in carbon emissions was calculated using the total fuel consumption for the Canberra and Queanbeyan urban area from the strategic transport model using Austroads fuel consumption equations.	This is expected to have a small impact on the BCR.	The method that has been used could result in double counting of the benefits	Broadly neutral/slight overstate
21. Death/injury/crash costs, physical fitness and health impacts.	Accident costs are calculated using an accident cost per Million VKT by road type.	The parameters are sourced from the Economic Analysis Manual with the base case accident rate based on historic data		• Are the values used recommended by the ATC?	The approach is reasonable. There is an accident cost saving as the new road is assumed to be a freeway, which in general has a lower accident cost per million vehicle kilometres when compared to other road types.	This is expected to have a small impact on the BCR.	This appears to be reasonable	Broadly neutral
22. Noise, particle emissions and other environmental pollutants (NOX, NMVOCs, SOX, CH4, N2O) Noise impacts	The externality values are calculated for diverted traffic only. The values used are sourced from the RTA's Economic Analysis Manual.			• Are the values used recommended by the ATC?	The submission states that it is hard to calculate the externality costs for existing traffic. The submission states that externality costs are a function of not only kilometres travelled but also speed. Externalities increases with vehicle kilometres but decreases with speed. Thus it would be inappropriate to use the RTA values to calculate the change in externality costs. Externalities are calculated for diverted traffic as it is assumed to be diverted from more urbanised areas. The	This approach makes economic sense however it is not a common approach. The common approach is to estimate the externality costs based on vehicle kilometres travelled. If the common approach was taken, this would likely have a negative impact on the BCR. However, externalities only account for 2% of the benefits and a change in approach would not have a significant impact on the BCR.	The approach taken is reasonable but it is not the conventional approach	Broadly neutral

					externality costs are assumed to be higher in urban areas were average travel speed is lower.			

2010-2011 Initiative Assessment Brief

Current Status:	Ready to Proceed
Status in June 2010 Report to COAG	Ready to Proceed
Initiative Name and IA ID No.:	Federal Highway Link to Monaro Highway - Majura Parkway (10-035-01)
Location (State/Region/City):	Australian Capital Territory, East Canberra
Proponent:	ACT Government
Project Description:	
The project involves the upgrade of the existing road link between the Federal Highway and the Monaro Highway and consists of construction of an 11.5 km limited-access four-lane road and grade separated interchanges with the Federal Highway, Fairbairn Avenue and Monaro Highway.	
Capital Cost by Proponent Outturned ($M):	$288M (previously estimated at $250M in the ACT's 2009-10 Submission)
Contribution sought by Proponent including requests for project development funding ($M):	$144M (50% funding by ACT Government).
Start/Completion by Proponent (month/year):	Not stated (2013 and 2014 construction years in economic analysis)

PROFILING

Infrastructure Australia Profiling Assessment Summary:
• *National Significance*: The project is the main freight route linking the regions north and south of the Australian Capital Territory. It would form part of the Territory's arterial road network, improving north-south transit, particularly to the Airport and eastwards towards Queanbeyan. • *Alignment with Infrastructure Australia's strategic priorities:* The initiative would make a contribution to the 'Increasing Australia's Productivity' and 'Developing Our Cities/Regions' priorities. The potential to sustain these priority objectives into the medium and longer term may be compromised if the freight benefits of the project are impacted by growth in passenger car volumes. • *Application of Infrastructure Australia's Reform and Investment Framework:* The initiative has a long history of being considered in strategic planning for the ACT. Both the *Territory Plan* and the *General Policy Plan* of the *National Capital Plan* refer to the future construction of the road. • *Conclusion:* Majura Parkway is a nationally significant project that aligns with a number of Infrastructure Australia's strategic priorities. The project is a priority in ACT planning documents and a funding priority, which is supported by willingness of ACT to offer 50% funding.

APPRAISAL

Infrastructure Australia Appraisal Assessment Summary:

- *Depth of supporting information*: The economic analysis report is thorough and benefit calculations and parameter values are outlined.
- *Demand*: Demand estimates have been derived from Quadstone Paramics model. The projections seem reasonable and the associated details have been provided.
- *Capital costs/operating costs*: The final design continues to be refined and capital costs could therefore change, although significant changes are not expected. Capital costs have been provided on a P90 basis. The ACT has advised that it has engaged a consultant to update the cost estimates based on a more detailed risk based approach. The results of this more detailed analysis will be available late 2011.
- *Quality of economic assessment methodology*: The economic assessment methodology is robust and consistent with the NSW Roads and Traffic Authority's and Infrastructure Australia's guidelines.
- *Conclusion*: The proponent states the benefit-cost ratio is 3.32. The economic appraisal appears sound and conforms to Infrastructure Australia's requirements and demonstrates the strong economic benefits of the project.

DELIVERABILITY

Infrastructure Australia Deliverability Assessment Summary:

- *Risk:* Further information needs to be provided to confirm that adequate risk assessment has been undertaken and that the provision for risk in the cost estimate is appropriate. ACT advised in March 2011 that an independent review of the estimate is being conducted.
- *Need for public/Commonwealth funding*: The ACT Government engaged Ernst & Young to conduct a procurement options analysis that concluded a private public partnership (PPP) option was not appropriate.

  The justification for Australian Government funding is that this proposal links National Highways – a Commonwealth responsibility. The ACT submission states that it has funded complementary work, although the value of these works has not been included.

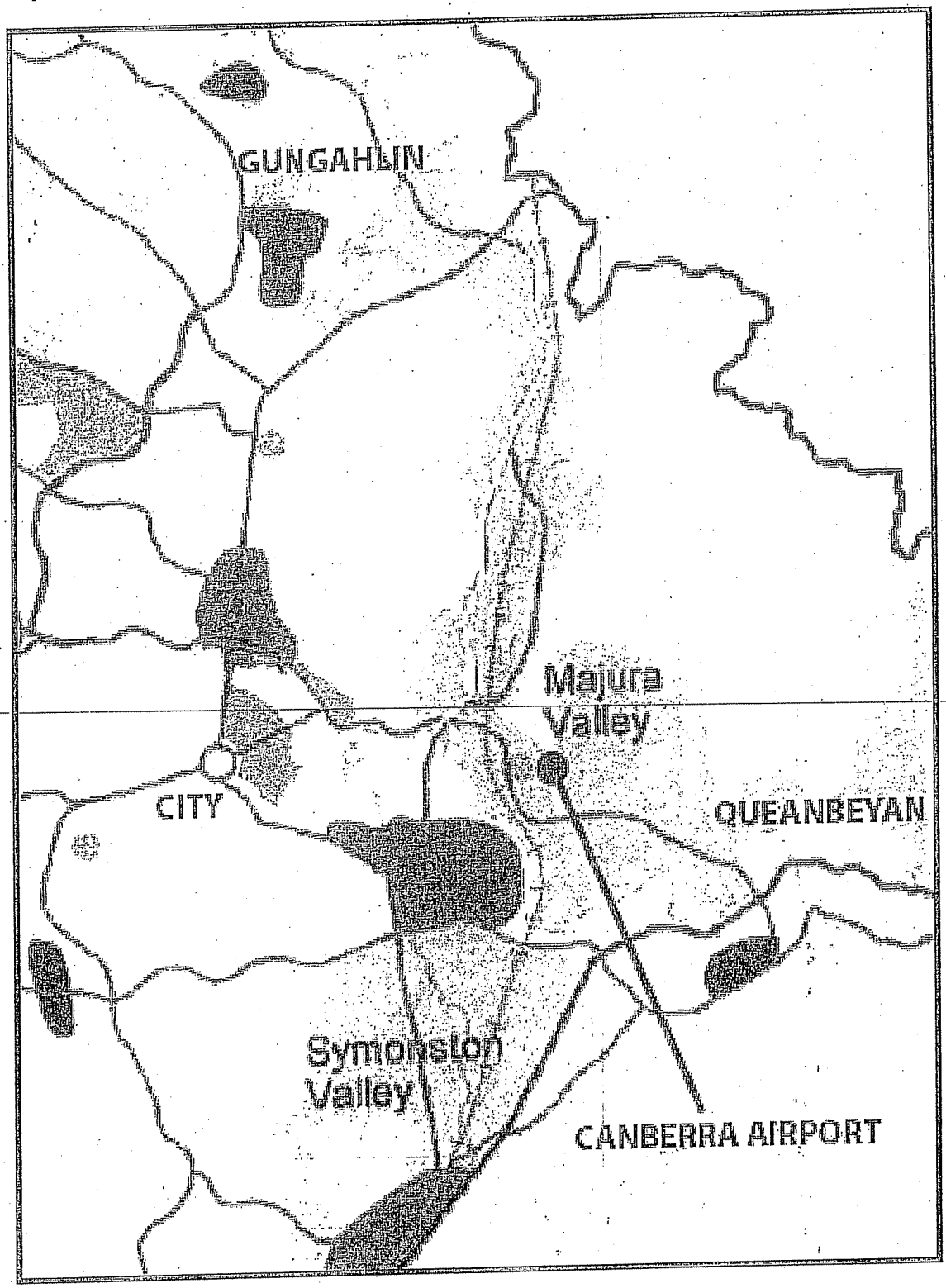
  Capital costs are being revised, which may increase the level of funding required. However, the proponent is proposing to take on upside capital cost risk.
- *Delivery* strategy: A delivery strategy has not yet been determined. Ernst & Young has recommended a two-package contracting strategy using design and construct or construct only contracts for both packages.
- *Governance*: Governance arrangements for delivery have yet to be proposed. The proponent maintains that this will be influenced heavily by the preferred procurement strategy.
- *Conclusion*: A more detailed development of risk management, options for cost recovery, delivery strategy and governance should be made available.

OVERALL RECOMMENDATION

Infrastructure Australia Priority List Recommendation:

- It is recommended that the initiative remains in the Infrastructure priority list as a 'Ready to Proceed' project. The initiative makes a clear and positive contribution to Australia's policy priorities. It demonstrates long term national benefits (economic benefit-cost ratio significantly above 1:1) and a robust delivery mechanism. Conditions on Infrastructure Australia's support for the project include:
  - The road be configured to high productivity vehicle standards and the ACT Government be required to enter an intergovernmental agreement with the Commonwealth for High Productivity Vehicle Access (HPVA);
  - The road be tolled, with a view to ensuring that a reasonable proportion of capital costs, and all of the road's operational and maintenance costs, are recovered through tolls;
  - The ACT government continue to undertake project development work to provide further confidence that the project will be completed within scope, and on time and budget; and
  - The ACT Government agreeing to undertake an agreed post-completion evaluation of the project:
    - Upon completion (e.g. to test whether the project was completed within scope, on time and on budget); and
    - At agreed future intervals, to assess whether traffic projections underpinning the project's development were robust, and whether other project benefits have been realised.

Majura Parkway – Local Context



Source: ACT Government submission to Infrastructure Australia

Proposed Majura Parkway Alignment

Source: ACT Government submission to Infrastructure Australia

(S1)

Stravens, Helen

From: Guthrie, Marsha
Sent: Tuesday, 28 June 2011 1:01 PM
To: Roe Paul
Cc: Kennedy, Floyd; Gill, Tony
Subject: RE: infrastructure priority list - assessment/CBA analysis material for public release [SEC=UNCLASSIFIED]

Paul

We have been through the additional information provided by IA, and generally agree with the approach and the information included in the analysis/assessment document.

As previously discussed we do not agree with the recommendation that the road should be tolled, in line with the conclusions provided by Ernst and Young in its independent assessment of this issue. We are concerned that by tolling the road, users would choose to alternative in NSW and Canberra City routes, which is counter productive to congestion reduction on other major inner city routes, with the delivery of the Parkway. The Majura Parkway would also be the first toll road outside of the Sydney metropolitan area in NSW, also leading to significant patronage risks.

In relation to your initiative assessment brief, the ACT's preference is that the conditional support related to tolling be removed.

We also seek your agreement to amend the statement on Page 1 of the Appraisal document around the cost of upgrading the existing road, compared to the Parkway option.

The appraisal – Overall Summary – reads 'The option of upgrading the existing road is not considered and could represent a more reasonable base case. Although the submission notes that upgrading of the existing road and associated linkages would have a similar capital cost to the project case. Additional information provided by the ACT Government in the feedback session provides further explanation for using a do nothing base case. ACT state that upgrading the existing road was not considered because it believed that the associated costs and negative impact would be larger than the proposed project case'.

It would be helpful if this paragraph could be amended to reflect the fact that our submission (December 2010) did say, in reference to upgrading Majura Road (page 22, Stage 5 – Investment Options) – 'The Majura Road is a single lane rural road. A safety audit recently completed identified significant deficiencies of the road. Upgrade of the road to a standard capable of accommodating heavy vehicles would require costs comparable with the costs associated with the Parkway construction as a result of extensive pavement improvements and linkages required to support the outcome'.

Upon request for additional information (feedback session teleconference, 11 February 2011) on the base case details, we also provided the following –

'The existing Majura Road...is currently experiencing heavy congestion and safety risks...and does not have the capacity to cater for future growth...The existing Majura Road meets the case of existing, or minimum, level of service...previous studies found that the cost of associated impacts of upgrading the existing Majura Road alignment meant that it was more feasible to construct the Majura Parkway along a new alignment. Based on these studies, it was felt that there were no feasible "do minimum" option other than leaving Majura Road as it currently is... Any additional work aimed at meeting near term capacity demands would require road geometry and capacity improvements (additional lanes)...the existing alignment does not make provisions for a future high speed rail as is the case with the proposed Majura Parkway alignment...In terms of construction, any upgrade to the Majura Road would require at least six signalised intersections along its alignment...that would limit the seamless flow of north south traffic resulting in increased travel times and congestion as a result. The costs associated with these works may address short term traffic needs but would inevitably require a major upgrade to the alignment in the medium term thus limiting the benefit that could be derived from such an exercise'.

Suggested re-wording for Economic Appraisal, page 1, first paragraph of 'Overall Summary':

Explanation around the option of upgrading the existing road was considered in the submission, noting that upgrading the road to a standard capable of accommodating heavy vehicles would require costs comparable to the parkway case, without delivering the same result or benefits. However, after a request for additional information about the do nothing base case, the ACT Government outlined that the cost of associated impacts of upgrading the existing road meant that it was more feasible to construct the Majura Parkway along a new alignment, thus it was felt that there were no feasible 'do

minimum' options rather than leaving the road as it currently is and that in the medium term, a major upgrade to the alignment would be required, therefore limiting the benefits that could be derived from such an exercise.

The upgrade the existing alignment would also require additional signalisation, limiting the seamless flow of north/south traffic, not provide the connections required from the Federal Highway to the Monaro Highway. These together with the High Speed Rail alignment provisions, proximity to the Canberra Airport and the Obstacle Limitations and surface requirements for runways and flight paths are the primary reasons why this option has never been developed in detail.

Happy to discuss

Marsha

From: Roe Paul [mailto:Paul.Roe@infrastructure.gov.au]
Sent: Monday, 27 June 2011 11:45 AM
To: Guthrie, Marsha
Cc: White Victoria; White Donna
Subject: infrastructure priority list - assessment/CBA analysis material for public release [SEC=UNCLASSIFIED]

Hi Marsha

As discussed, attached is an electronic version of the letter sent to the Chief Minister on 17 June enclosing assessment briefs and appraisal analysis for the Majura Parkway (also attached) that will be publicly released at the same time as IA's report to COAG. Please let me know if you have any questions about this material.

Many thanks

Paul Roe
Infrastructure Australia
Telephone: (+612) 8114 1914
Mobile: (+61) 434 564 104
Fax: (+612) 8114 1932
Email: paul.roe@infrastructure.gov.au

(S2)

Stravens, Helen

From: Guthrie, Marsha
Sent: Monday, 4 July 2011 10:31 AM
To: Peters, Paul; Gill, Tony
Subject: FW: Infrastructure Australia Report to COAG [SEC=UNCLASSIFIED]
Attachments: IA release of assessment speaking points.doc; IA release of assessment brief (1).dot; Majura Parkway Procurement Options Analysis - EY.pdf

Here is the briefing we did last week on the Majura Parkway Assessments (which we got to see prior to the release of the report).

I have also attached the EY Report that was done, which recommended that the road not be tolled.

Will review the report now for further briefing (please let me know if there is anything from your end).

Thanks

From: Guthrie, Marsha
Sent: Monday, 4 July 2011 10:26 AM
To: Purtill, Garrett; Smithies, Megan; Peters, Paul; Gill, Tony
Cc: Thompson, Kirsten
Subject: FW: Infrastructure Australia Report to COAG [SEC=UNCLASSIFIED]

FYI - see link to IA Report below.

Within the main report Pages 72, 78, 81, 97 and 102 provide references to the Majura Parkway (and yes, the recommendation that the road be tolled remains).
Only Page 76 has a reference to the Northbourne Transit way

Please also note that project assessments are attached (for Majura Parkway only - as per our previous brief),

Our actual submissions to IA have also been released for both projects (along with every other jurisdictions).

Marsha

From: Roe Paul [mailto:Paul.Roe@infrastructure.gov.au]
Sent: Monday, 4 July 2011 10:17 AM
Cc: White Victoria
Subject: Infrastructure Australia Report to COAG [SEC=UNCLASSIFIED]

Good morning

As discussed, the June 2011 report was publicly released at 10am this morning as well as relevant assessment information. The information is available through the what's new box on the IA website at www.infrastructureaustralia.gov.au

Thanks for assistance and cooperation. Please let me know if you have any questions.

Many thanks

Paul Roe
Infrastructure Australia

Telephone: (+612) 8114 1914
Mobile: (+61) 434 564 104
Fax: (+612) 8114 1932
Email: paul.roe@infrastructure.gov.au

SPEAKING POINTS

Infrastructure Australia (IA) – Release of assessment of the Majura Parkway project

- IA has released assessment information of the Government's submission in support of the Majura Parkway.
- The IA assessments are positive and conclude that the information provided by the ACT is sound. IA has recommended that the Majura Parkway remains in the National Infrastructure Priority List (as a 'Ready to Proceed' project, noting that it:
  - makes a clear and positive contribution to Australia's policy priorities; and
  - demonstrates long term national benefits and a robust delivery mechanism.
- IA has further concluded that its support is conditional on the Parkway being tolled.
- The ACT Government does not support tolling the road, which would be counterproductive and undermine the project's objectives.
  - The issue of tolling was considered and assessed by the Government as a matter of course during the project development phase. Ernst & Young (EY) were commissioned to provide independent expert advice.
- Ernst and Young essentially concluded that tolling this road was neither an appropriation financing approach, nor a relevant demand management tool.
- IA's Suggestion appears to be based on the principle of road pricing promulgated in the Henry Tax Review.
  - Any consideration of future road user charging within the ACT should be in the context of broader reforms, which are yet to be settled, rather than in consideration of individual projects.

ACT Government
Treasury

MINUTE

SUBJECT: **Infrastructure Australia (IA) – Release of its Report to COAG on Nationally Significant Infrastructure**

To: Treasurer

Critical Date for consideration: URGENT - For information

Purpose: **To advise you of the impending release of IA's Report to COAG, including its assessment of the Majura Parkway proposal.**

Key Points:

- The National Infrastructure Co-ordinator, Mr Michael Deegan, wrote to you on 17 June 2011, advising you of Infrastructure Australia's (IA) intention to release its Report to COAG. In consultation with IA, it is understood that this release will occur later in the week of 27 June 2011.
  - This includes the release of IA's assessment briefs and appraisals for the Majura parkway Project.
  - Mr Deegan's letter and IA's assessments are at Attachment A.
- The ACT Government's 2010-11 Submission to IA included two projects the Majura Parkway and the Transport for Canberra Transit Way Program. The latter was included as an 'early stage' project, therefore the assessment material released by IA only relates to the Majura Parkway (which has been classified as 'ready to proceed').
- While the IA assessments are broadly positive and conclude that the information provided by the ACT is sound, two key issues are raised, which may draw public attention.
  - Firstly, that IA support for the Majura Parkway project is conditional on the road being tolled.
  - Secondly, IA has raised concerns that upgrading the Majura Road on the existing alignment be used as the base case in the assessment of the project, rather than the *Do Nothing* case which was included in the ACT Submission.
- IA has also flagged its intention to release submissions made to Infrastructure Australia in 2010-11, other than that material that was identified as commercial in confidence.

Contact: Floyd Kennedy Position: Senior Manageer Extension: 70234 File No.:

Road Tolling

- The issue of tolling was considered and assessed as a matter of course during the project development phase, in line with IA's requirements. Ernst & Young (EY) were commissioned to provide a *Procurement Options Analysis* for the Majura Parkway project (Attachment C). In regard to tolling EY found that:
  - "The relatively short distance covered by the Majura Parkway, coupled with current levels of congestion in the ACT and the absence of any other toll roads means that implementing tolls on this particular project could have a significant impact on demand for the route, adversely impacting on the achievement of the project objectives"; and
  - ".....there are relatively high costs associated with establishing a toll arrangement on new infrastructure, including but not limited to infrastructure costs, legislative costs and the costs related to the establishment of the required administrative mechanisms."
- Based on EY's assessment it was concluded that tolling is neither an appropriate financing method, not a demand management tool relevant to the circumstance of this project. Indeed, the costs may be higher, and there may be demand management risks for other roads, and patronage risk for the parkway.
- This is also confirmed by an article appearing in the Australian Financial Review on 24 June 2011 which notes that patronage estimates for Australian toll roads have been 45% below forecast in the first year of operation and in some cases 19% below forecast after year six. There is an increased risk in this regard for the ACT, due to the absence of any other toll roads in the region.
- Treasury has provided the following comment to IA in relation to the content on tolling in its assessments:
  - "As previously discussed, the ACT does not agree with the recommendation that the Majura Parkway be tolled, in line with the conclusions provided by EY in its independent assessment of this issue.
  - We are concerned that by tolling the road, users would use alternative NSW and Canberra City routes, which is counter productive to the projects objectives, including congestion reduction on other major inner city routes, with the delivery of the Parkway. The Majura Parkway would also be the first toll road outside of the Sydney metropolitan area in NSW, which could lead to significant patronage risks.
  - In relation to your initiative assessment brief, the ACT's preference is that the conditional support related to tolling be removed."
- IA has not provided any evidence based advice in support of its argument for tolling Majura Parkway. Its position, however, appears to be based on the principle of efficient pricing for road use.
- The Henry Tax Review foreshadows changes to road user charges. The report states that moving from indiscriminate taxes (e.g. fuel taxes and registration fees) to efficient pricing regimes for congested roads would allow Australia to leverage the value of its existing transport infrastructure. Any consideration of future road user charging within the ACT should be in the context of broader reforms, which are yet to be settled, rather than in consideration of individual projects.

Base Case

- The *Working Assessment for BCR Moderation* document (at Attachment A2) state in the Overall Summary section that 'use of the *Do Nothing* option is the main concern with the BCR information provided by the ACT in support of the Majura Parkway and that upgrading the existing alignment could represent a more reasonable base case.
  - The detailed analysis notes the ACT has provided a reasonable explanation in support of using the *Do Nothing* option as the base case, and the arguments for not using the upgrade of the existing road appear to be reasonable'.
- It appears that the ACT's argument was accepted. Treasury has asked the IA to reflect this in the appraisal and assessment documents.
- Treasury has also asked that the point in this section relating to the costs of upgrading the road being similar to the Parkway Project be amended. There is no doubt that an upgrade would be cheaper, however, the connection, traffic flow and alignment benefits would not be realised. There are also limitations associated with the Canberra Airport and surrounding Commonwealth Land.
- Speaking points (Attachment B) have been prepared for your use, in the event that you would like to comment on the release of the IA assessments.

Recommendations:

- That you note the above.

Marsha Guthrie
Director, Budget Coordination and Reporting

June 2011

Noted / Please discuss
Katy Gallagher MLA / /2011

(53)

Stravens, Helen

From: Guthrie, Marsha
Sent: Monday, 4 July 2011 10:26 AM
To: Purtill, Garrett; Smithies, Megan; Peters, Paul; Gill, Tony
Cc: Thompson, Kirsten
Subject: FW: Infrastructure Australia Report to COAG [SEC=UNCLASSIFIED]

FYI - see link to IA Report below.

Within the main report Pages 72, 78, 81, 97 and 102 provide references to the Majura Parkway (and yes, the recommendation that the road be tolled remains).
Only Page 76 has a reference to the Northbourne Transit way

Please also note that project assessments are attached (for Majura Parkway only - as per our previous brief),

Our actual submissions to IA have also been released for both projects (along with every other jurisdictions).

Marsha

From: Roe Paul [mailto:Paul.Roe@infrastructure.gov.au]
Sent: Monday, 4 July 2011 10:17 AM
Cc: White Victoria
Subject: Infrastructure Australia Report to COAG [SEC=UNCLASSIFIED]

Good morning

As discussed, the June 2011 report was publicly released at 10am this morning as well as relevant assessment information. The information is available through the what's new box on the IA website at www.infrastructureaustralia.gov.au

Thanks for assistance and cooperation. Please let me know if you have any questions.

Many thanks

Paul Roe
Infrastructure Australia
Telephone: (+612) 8114 1914
Mobile: (+61) 434 564 104
Fax: (+612) 8114 1932
Email: paul.roe@infrastructure.gov.au

If you have received this e-mail in error, please notify the Department on (02) 6274-7111 and delete all copies of this transmission together with any attachments.

+ This document is a working appraisal of the proponent's cost benefit analysis of the proposal. As the project has developed, more information has been provided, which may supersede or respond to questions arising from earlier assessments. This working appraisal was prepared in January 2011 as an input into the Project Assessment Brief prepared by the Office of the Infrastructure Coordinator.

WORKING ASSESSMENT FOR BENEFIT COST RATIO MODERATION (2010/11 Submissions)	
Project name	Majura Parkway (Federal Highway – Monaro Highway)
Brief project description	The project involves the upgrade of the existing road link between the Federal Highway and the Monaro Highway and consists of construction of an 11.5 km limited-access four-lane road and grade separated interchanges with the Federal Highway, Fairbairn Avenue and Monaro Highway.
Reported BCR @ 7%DR	3.32
Capital cost total – undiscounted, outturned	$288 million
% costs bid for (where relevant)	$144 million
Source documents for review	December 2010 Submission to Infrastructure Australia Majura Parkway February 2011 Feedback Session on the ACT Submission for the 2011 Infrastructure Pipeline
Date of review	24 Jan 2011
Review conducted by	
Key changes from previous submissions	The key changes to the submission include: • Further explanation as to why the Do Nothing base case was used • Further information on the demand modelling outputs have been provided • Maintenance cost have been updated from $28 million to $46 million based on recent Whole of Life cost analysis • Further information on how benefits for generated traffic are calculated have been provided

OVERALL SUMMARY

Overall summary (2-3 paragraphs on overall robustness of analysis and major points raised)

The overall appraisal appears to be robust. The main concern is the use of a Do Nothing base case. The base case assumes a Do Nothing scenario where travel time goes from 15 mins in 2009 to 40 mins in 2031. The option of upgrading the existing road could represent a more reasonable base case, .although the submission notes that upgrading of the existing road and associated linkages to a standard capable of accommodating heavy vehicles would have a similar capital cost to the project case as a result of extensive pavement improvements and linkages required to support the outcome (although a detailed breakdown of these capital costs has not been provided in the submission). Additional information provided by the ACT government in the feedback session provides further explanation for using a Do Nothing base case. ACT state that the associated costs and negative impact of upgrading the existing road would be larger than the proposed project case. Other supporting evidence given is that upgrading the existing road could trigger Federal Environmental assessments that would impact on the outcome of the proposal. Furthermore, it would only represent a short term solution and would cause congestion on other parts of the network. The arguments given for not using the upgrade of the existing road appear to be reasonable.

Other concerns include the treatment of accident costs and how the residual value is calculated. There could be double counting in the accident costs calculation. Accident costs are included in both the calculation of accident cost savings and the benefits from diverted traffic. This could result in the accident cost savings been counted twice in the BCR. However, any double counting would have a minor impact on the BCR because accident cost reduction benefits represent only around 1% of the total benefits. The residual value has been calculated by using the present value of the future benefits from year 30 to 40. Ideally the residual value for the road and bridge component should be calculated separately using different economic life assumptions. This is particularly relevant given that residual value represents 10% of the total benefit. Removing this benefit would reduce the BCR from 3.32 to approximately 3.0. This however could be difficult to do given that the residual value is calculated using present value of benefits from year 30 to 40. Additional information provided by the ACT also shows that bridge capex cost of the project represents approximately 30% of construction costs. Based on this it appears reasonable to assume a project life of 40 years.

Additional information provided by the ACT show that the maintenance costs has been updated from 28 million to 46 million (a 65% increase). This difference is likely to result in a 65% increase in the present value of maintenance costs. This would result in the present value of maintenance cost increasing from $9.5 million to $15.5 million. Preliminary estimates indicate that this would cause the BCR to go from 3.32 to 3.25. Further information on the demand modelling outputs has also now been provided. This provides clarity on the AM peak share of the traffic under the project case and base case.

+ *This document is a working appraisal of the proponent's cost benefit analysis of the proposal. As the project has developed, more information has been provided, which may supersede or respond to questions arising from earlier assessments. This working appraisal was prepared in January 2011 as an input into the Project Assessment Brief prepared by the Office of the Infrastructure Coordinator.*

Guidance	"Cut and paste" text from proforma if possible	List supporting materials not included in proformas but included with bids (formally and informally)	List all information requested by IA, please note which materials were, and were not provided by jurisdictions. Also list areas to follow up / potential questions	See below	Insert the explanation of any differences or issues with theory, methodology or data used by the jurisdiction	Use this column, if required, to explain any reasoning for making an assessment of the scale of impact on the BCR, using figures if possible	Please insert one sentence summary of argument and conclusion reached	Significantly overstated, slightly overstated; broadly neutral; slightly understated; significantly understated.
Robustness of demand forecasts								
Has demand modelled in a robust and bottom-up manner?	Strategic transport modelling of the whole Canberra and Queanbeyan urban area, using TransCAD, was initially conducted to produce the demand matrix used for micro-simulation modelling of the study area in Paramics.			• Has demand been modelled by a reputable transport modelling organisation? • Evidence of use of a city wide travel model which adds the proposal as a new option & measures diversions • How close to capacity is the service in the high AM peak hour • Have different fare levels & elasticity been evaluated & will service offer customer VFM against alternatives?	The demand forecast has been estimated using a bottom-up approach.	Demand modelling for different scenarios have not been conducted.	The demand forecast have been estimated using a bottom-up approach	Broadly neutral
Are the underpinning residential, employment and economic growth figures robust?	The ACT Government, through ACTPLA and TAMS, has provided the consultant with the latest updates on land use projections for the forecast years 2006, 2011, 2021 and 2031.			• Are current State or ABS projections used? • Are central growth forecasts used? • Are the transport demand forecasts directly linked to this data?	The land use figures used are from the ACT government.	This is envisaged to have a moderate impact on the BCR.	Land use projections are consistent with ACT government forecasts	Broadly neutral
Achievability of the demand forecasts	Vehicle kilometres travelled is estimated to increase from 24,505 kilometres (AM peak) in 2011 to 33,940 kilometres in 2031 for the base case. For the project case, vehicle kilometres travelled is estimated to increase from 37,009 kilometres in 2011 to 62,795 kilometres in 2031.			• Is the forecast justified by an in-depth analytical paper? • Is the forecast endorsed by independent Expert Peer Review? • Does forecast feature a gradual ramp-up (i.e. >4yrs)? • What % of patronage is induced demand (should typically be <20%) • Forecast patronage has been benchmarked to be broadly consistent with outcomes achieved on similar services? • Has the proponent factored the costs of greenhouse gas emissions into their economic planning, including obligations under the Carbon Pollution Reduction Scheme?	The substantial different in vehicle kilometres travelled in the base case and project is due to the Do Nothing base case. Further information was provided in the feedback session, explaining why the Do Nothing base case was used. The ACT government states that the upgrade of the existing road was not considered because it believed that the associated cost and negative impact would be larger than the proposed project case. Another supporting argument given is that the upgrade of the existing road could trigger Federal Environmental assessments that would impact on the outcome of the proposal. Furthermore, it would only represent a short term solution and would cause congestion on other parts of the network. The explanations appear to be reasonable.	The Do Nothing base case has a significant effect on the BCR	Substantial difference between base case and project case vehicle kilometres travelled due to using a Do Nothing base case	Broadly neutral based on information provided in the new submission

+ This document is a working appraisal of the proponent's cost benefit analysis of the proposal. As the project has developed, more information has been provided, which may supersede or respond to questions arising from earlier assessments. This working appraisal was prepared in January 2011 as an input into the Project Assessment Brief prepared by the Office of the Infrastructure Coordinator.

4. Sensitivity of BCR to demand	No sensitivity analysis for changes in overall demand has been conducted			• Does a 30% drop in demand significantly alter the BCR?	Ideally the submission should include sensitivity analyses for different demand scenarios. The submission uses a decrease in total benefits instead.	Sensitivity analysis for different demand scenarios has not been conducted.	Decrease in total benefits has been used as a sensitivity test instead of changes in demand.	Insufficient information
5. Is the base case realistic and fundable?	The base case used in the appraisal is a Do-Nothing Option. The feedback session provides further explanation as to why the upgrade of the existing road has not been considered as the base case or one of the options.			• What is Base Case patronage growth – is it in line with historical trends? • From the available information, is the base case capex and patronage a likely scenario, or is it overly loaded or light?	The submission states that the Do Nothing Case is not considered a viable option. The Do Nothing Case is not viable as the travel time is expected to increase from around 15 mins in 2009 to around 40 mins in 2031. A more realistic base case could be the upgrade of the existing road. This could have the following advantages: 1) it could represent a more realistic base case and 2) it would compare constructing the new road to upgrading the existing road. In the feedback session, the ACT government states that the upgrade of the existing road was not considered because it believed that the associated cost and negative impact would be larger than the proposed project case. Another supporting argument given is that the upgrade of the existing road could trigger Federal Environmental assessments that would impact on the outcome of the proposal. Furthermore, it would only represent a short term solution and would cause congestion on other parts of the network.	The Do Nothing base case has a significant effect on the BCR. ACT provided a reasonable explanation as why the Do Nothing base case was used in the feedback session.	The ACT government has provided a reasonable argument to why it used the Do Nothing as the base case.	Broadly neutral
6. Does hourly patronage profile match conventional AM & PM peak flows	1825 AM Peak and annualisation factor is used in the submission. The expansion factor is estimated by applying the existing peak hour to daily flow ratio. Recent 24 hour traffic count data collected for Canberra Airport Group along Majura Road provides a basis for estimating the peak hour to daily traffic flow. Further information provided by the ACT government in the feedback session shows share of the AM peak traffic under the project case and base case.			• Is the model scaled up to full year in a justifiable manner (e.g. annual patronage is normally 250-300 times AM high peak hour)?	In the submission, hourly patronage profile was not explicitly shown. The submission only indicates that the annualisation factor is 1825, but does not indicate the time or length of the AM peak analysed. Furthermore, the annualisation factor used is derived from data related only to one road rather than the whole network and may therefore be deceiving. The ACT government provided further details in the feedback session that shows the share of the AM peak traffic in the base case and option case.	The annualisation factor is envisaged to have a large impact on the BCR		Broadly neutral

+ *This document is a working appraisal of the proponent's cost benefit analysis of the proposal. As the project has developed, more information has been provided, which may supersede or respond to questions arising from earlier assessments. This working appraisal was prepared in January 2011 as an input into the Project Assessment Brief prepared by the Office of the Infrastructure Coordinator.*

5a. Robustness of cost forecasts	The capex cost for the project $288 million. This is a P90 cost estimate of the project design and construction costs			• Is the capex estimate supported by significant in depth work? • Was it produced by a reputable independent organisation?	The estimate is subject to further detailed design. However the P90 offers a conservative estimate of the cost.	This is envisaged to have a medium to large impact on the BCR.	The capex cost could change subject to further detailed design	Broadly neutral
5b. Robustness of cost forecasts	In the original submission, the cyclic maintenance was assumed to occur every 5 years and was estimated at 0.5 of the construction cost for the first application and then 1% for the remaining application. Similarly for annual maintenance, its cost was estimated as 0.125% of construction for the initial years of application prior to the first cyclic maintenance, and is then raised to 0.25% of the construction cost. In years that the cyclic maintenance is applied, annual maintenance is assumed to be 0. Updated information provided by the ACT government shows that recent Whole of Life costing of the project indicates that the expected maintenance costs are expected to be $46.298 million instead of the $28.076 million.	No supporting information was given in the original submission		• Is the opex estimate supported by significant in depth work? • Was it produced by a reputable independent organisation?	No supporting information was giving given in the original submission. However, maintenance cost represents only a small proportion of the costs. The 18.222 million difference in maintenance cost would have a small impact on the overall economic performance of the project. The ACT government notes that this difference is much smaller than the increased costs in the sensitivity test 6 which gave a BCR of 2.77.	This is envisaged to have a small on the BCR	Increase in maintenance cost unlikely to have a large impact on the BCR	Broadly neutral
6. Consequential Costs	No evidence of consideration of consequential costs.			• Are consequential costs to other parts of the network or other stakeholders taken into account? • E.g. land acquisition, higher costs due to the need to maintain service continuity & / or constructing around live traffic	No evidence of consideration of consequential costs.	N/A	N/A	N/A
10. Revenue treatment	No revenue generated directly from the project			• Is the treatment according to ATC guidelines and in line with best practice?	N/A	N/A	N/A	N/a
11. Construction cost inflation	No construction cost inflation has been indicated	N/A	N/a	• Is the construction cost inflated by a margin above CPI (e.g. construction cost CPI)?		N/A	N/A	Broadly neutral

+ *This document is a working appraisal of the proponent's cost benefit analysis of the proposal. As the project has developed, more information has been provided, which may supersede or respond to questions arising from earlier assessments. This working appraisal was prepared in January 2011 as an input into the Project Assessment Brief prepared by the Office of the Infrastructure Coordinator.*

Key methodological questions								
4.1 Inflation rate	No inflation rate has been indicated	N/A	N/A	• What inflation rate is assumed and are any costs or benefits escalated by a different rate? • Do values reflect realistic real wages growth (e.g. 1.5% per year)?	N/A	N/A	N/A	No moderation of BCA required
4.2 Time period used	30 years			• Is the period of assessment valid given the lifespan of the project assets?	The analysis timeframe starts at the first year of construction instead of the first year of operation, thus the actual timeframe assessed is only 28 years. The method used to calculate the residual value means that this has little impact on the BCR.	The method used to calculate the residual value means that this has little impact on the BCR.	The method used to calculate the residual value means that the time period of analysis has little impact on the BCR.	broadly neutral
4.3 Residual value	The economic life of the project has been assumed to be 40 years. The feedback session provides further explanation to this assumption.			• Are residual values given when appropriate? • Are the values used justified?	This assumption has been made as the ATC guidelines recommend a 30 year life for road projects and a 'much longer life for bridges'. Ideally the residual value should be calculated separately for the road and bridges using different economic life assumptions. The residual value (valued at $705 million in 2042) is calculated using the present value of benefits from year 30 to 40. The 2010 submission shows that the bridge capex cost represents a significant proportion of the project's construction cost (around 30%). Based on this, it appears reasonable to use a 40 year life for the project.	The residual value of the project is around 10% of the project. This is calculated as the net present value of the benefits from year 30 to 40.	The 40 year life is based on the project having a significant bridge component.	Broadly neutral
4.5 Staging and timing and phasing	Construction starts in 2013 with the project opening at 2015.			• Does benefit stream period start at the commencement of operation and cost stream at first expenditure? • Are construction costs ramped up in according with standard construction timetables?	No information has been provided.	No information on phasing has been provided	More information needed	More information needed
4.6 Benefits included	The benefits identified are as follows: 66% VOC saving (includes time savings), 1% accident cost savings, 16% generated traffic benefits, 2% environmental cost savings, 5% carbon cost savings, and 10% residual value			• Is the rule of half correctly applied (e.g. to benefits from existing PT users who change modes)? • Are all significant benefits identified? • Are all beneficiaries identified (e.g. benefits of roads to non road users?)	The magnitude of the benefits appears to be within expectation.	N/A	The benefit allocation of the project appears to be within expectation	Broadly neutral
4.7 Sensitivity analysis – Costs – Capital costs – Construction duration – Operating costs – Discount rate – Changes in VKT – Changes in value of carbon	Sensitivity analysis has been conducted for changes in heavy vehicle mix, changes in discount rate, increases in costs, decreases in benefits, a worse case where costs increases and benefits decreases, and changes in the value of carbon			• Do the reported sensitivity tests, for instance to the price of oil, suggest significant risks surrounding the central case? • How significant are +/-20% construction cost variations? • Does economic viability become negative at a 10% discount rate?	The submission conducts a wide range of sensitivity analysis. The BCR are all above 2.17 even for the worst case scenario.	This is expected to have a small impact on the BCR.	BCR is above 2.17 even for worst case scenario	Broadly neutral

18. Other methodological issues?	None identified			• Any there any other issues regarding the accuracy of methodology used that may significantly impact on the comparability of the BCR?	None identified	None identified	None identified	Broadly neutral
Values benchmarking								
19. Value of time savings: business, non business, freight and Vehicle operating costs	The value of time and the VOC for existing traffic is calculated together using the Road User Cost (RUC) values by Austroads Generated traffic benefits are derived by calculating the consumer surplus of the diverted traffic. In the feedback session, additional information and algorithms have been provided in relation to the calculation of VOC and accident costs for generated traffic.	Austroads		• Are the values used recommended by the ATC? • Are these constant real through analysis period or do they factor in real growth (i.e. caution if real growth is >2%)	The consumer surplus for generated traffic is calculated by obtaining the difference in perceived price (assumed to be the sum of VOC and AC) for the base and project case. The inclusion of accident cost (AC) may be double counting the benefits as they are already included in accident costs. However, double counting accident costs would only have a small impact on the BCR. Additional information was provided by the ACT government in the feedback session. This shows how the calculations have been conducted. The methodology appears to be robust.	This is expected to have a small impact on the BCR.	Accident costs could be double counted in the BCR	Broadly neutral/slight overstate
20. Value of carbon emissions	The price of carbon is assumed to raise from $10/tonne CO@-e in 2011 to $80/tonne CO2-e in 2040 (2011 dollars)	Not sourced		• Is there a nexus with the patronage forecast? • Are the values used recommended by the ATC? • Has the proponent calculated the direct emissions of their proposal? (i.e. include all carbon emissions from the construction or operation of the structure • Has the proponent calculated indirect emissions of their proposal?	The reduction in carbon emissions was calculated using the total fuel consumption for the Canberra and Queanbeyan urban area from the strategic transport model using Austroads fuel consumption equations.	This is expected to have a small impact on the BCR.	The method that has been used could result in double counting of the benefits	Broadly neutral/slight overstate
21. Death/injury/crash costs, physical fitness and health impacts	Accident costs are calculated using an accident cost per Million VKT by road type.	The parameters are sourced from the Economic Analysis Manual with the base case accident rate based on historic data		• Are the values used recommended by the ATC?	The approach is reasonable. There is an accident cost saving as the new road is assumed to be a freeway, which in general has a lower accident cost per million vehicle kilometres when compared to other road types.	This is expected to have a small impact on the BCR.	This appears to be reasonable	Broadly neutral
22. Noise, particle emissions and other environmental pollutants (NOX, NMVOCS, SOX, CH4, N2O) Noise impacts	The externality values are calculated for diverted traffic only. The values used are sourced from the RTA's Economic Analysis Manual.			• Are the values used recommended by the ATC?	The submission states that it is hard to calculate the externality costs for existing traffic. The submission states that externally costs are a function of not only kilometres travelled but also speed. Externalities increases with vehicle kilometres but decreases with speed. Thus it would be inappropriate to use the RTA values to calculate the change in externality costs. Externalities are calculated for diverted traffic as it is assumed to be diverted from more urbanised areas. The externality costs are assumed to be higher in urban areas were average travel speed is lower.	This approach makes economic sense however it is not a common approach. The common approach is to estimate the externality costs based on vehicle kilometres travelled. If the common approach was taken, this would likely have a negative impact on the BCR. However, externalities only account for 2% of the benefits and a change in approach would not have a significant impact on the BCR.	The approach taken is reasonable but it is not the conventional approach	Broadly neutral

2010-2011 Project Assessment Brief

Current Status:	Ready to Proceed
Status in June 2010 Report to COAG:	Ready to Proceed
Initiative Name and IA ID No.:	Federal Highway Link to Monaro Highway - Majura Parkway (10-035-01)
Location (State/Region/City):	Australian Capital Territory, East Canberra
Proponent:	ACT Government
Project Description:	
The project involves the upgrade of the existing road link between the Federal Highway and the Monaro Highway and consists of construction of an 11.5 km limited-access four-lane road and grade separated interchanges with the Federal Highway, Fairbairn Avenue and Monaro Highway.	
Capital Cost by Proponent Outturned ($M):	$288M (previously estimated at $250M in the ACT's 2009-10 Submission)
Contribution sought by Proponent including requests for project development funding ($M):	$144M (50% funding by ACT Government).
Start/Completion by Proponent (month/year):	Not stated (2013 and 2014 construction years in economic analysis)

PROFILING

Infrastructure Australia Profiling Assessment Summary

- *National Significance*: The project is the main freight route linking the regions north and south of the Australian Capital Territory. It would form part of the Territory's arterial road network, improving north-south transit, particularly to the Airport and eastwards towards Queanbeyan.
- *Alignment with Infrastructure Australia's strategic priorities:* The initiative would make a contribution to the 'Increasing Australia's Productivity' and 'Developing Our Cities/Regions' priorities. The potential to sustain these priority objectives into the medium and longer term may be compromised if the freight benefits of the project are impacted by growth in passenger car volumes.
- *Application of Infrastructure Australia's Reform and Investment Framework:* The initiative has a long history of being considered in strategic planning for the ACT. Both the *Territory Plan* and the *General Policy Plan* of the *National Capital Plan* refer to the future construction of the road.
- *Conclusion:* Majura Parkway is a nationally significant project that aligns with a number of Infrastructure Australia's strategic priorities. The project is a priority in ACT planning documents and a funding priority, which is supported by willingness of ACT to offer 50% funding.

APPRAISAL

Infrastructure Australia Appraisal Assessment Summary

- *Depth of supporting information*: The economic analysis report is thorough and benefit calculations and parameter values are outlined.
- *Demand*: Demand estimates have been derived from Quadstone Paramics model. The projections seem reasonable and the associated details have been provided.
- *Capital costs/operating costs*: The final design continues to be refined and capital costs could therefore change, although significant changes are not expected. Capital costs have been provided on a P90 basis. The ACT has advised that it has engaged a consultant to update the cost estimates based on a more detailed risk based approach. The results of this more detailed analysis will be available late 2011.
- *Quality of economic assessment methodology*: The economic assessment methodology is robust and consistent with the NSW Roads and Traffic Authority's and Infrastructure Australia's guidelines.
- *Conclusion*: The proponent states the benefit-cost ratio is 3.32. The economic appraisal appears sound and conforms to Infrastructure Australia's requirements and demonstrates the strong economic benefits of the project.

DELIVERABILITY

Infrastructure Australia Deliverability Assessment Summary

- *Risk:* Further information needs to be provided to confirm that adequate risk assessment has been undertaken and that the provision for risk in the cost estimate is appropriate. ACT advised in March 2011 that an independent review of the estimate is being conducted.
- *Need for public/Commonwealth funding*: The ACT Government engaged Ernst & Young to conduct a procurement options analysis that concluded a private public partnership (PPP) option was not appropriate.

  The justification for Australian Government funding is that this proposal links National Highways – a Commonwealth responsibility. The ACT submission states that it has funded complementary work, although the value of these works has not been included.

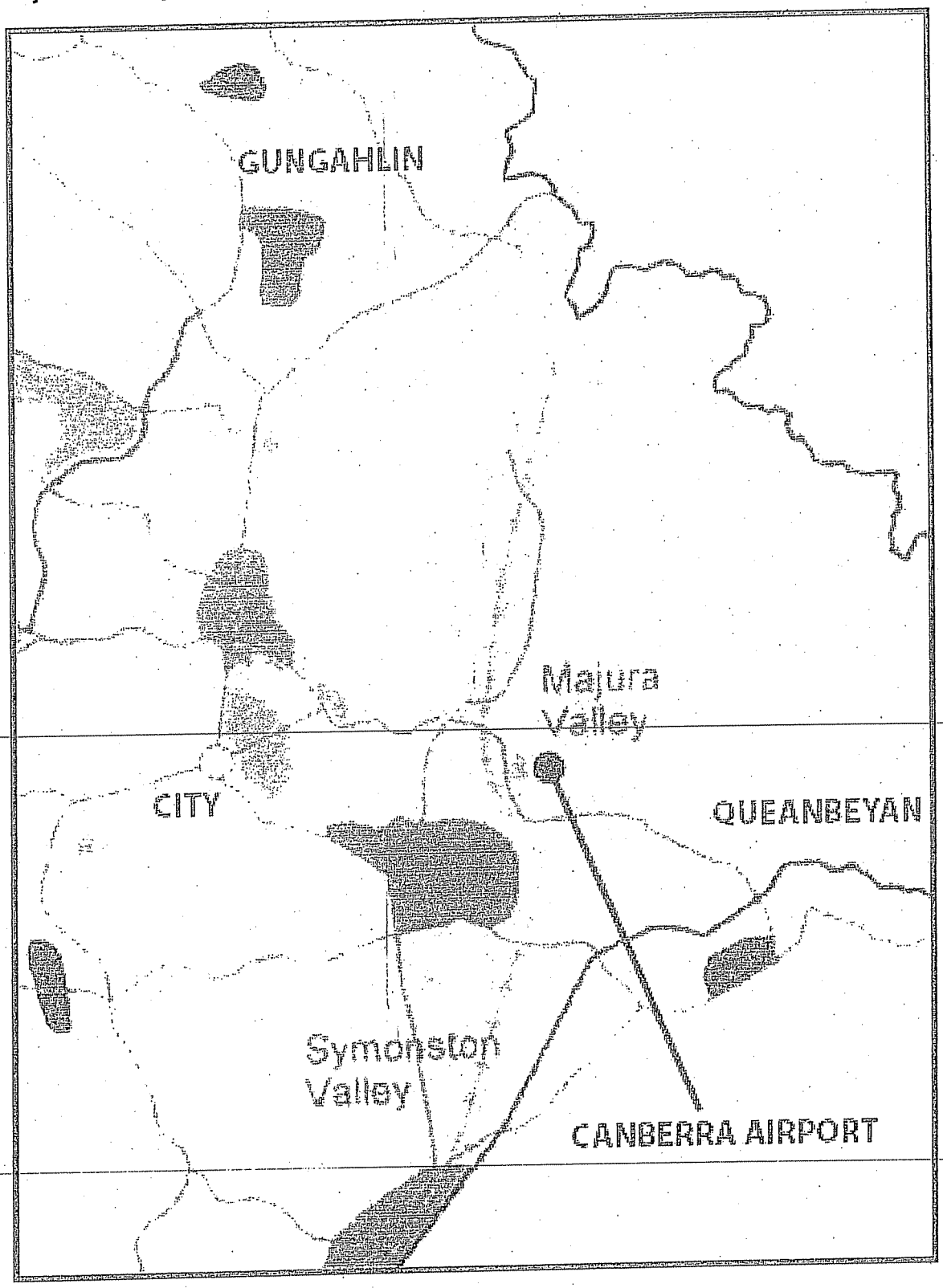
  Capital costs are being revised, which may increase the level of funding required. However, the proponent is proposing to take on upside capital cost risk.
- *Delivery* strategy: A delivery strategy has not yet been determined. Ernst & Young has recommended a two-package contracting strategy using design and construct or construct only contracts for both packages.
- *Governance*: Governance arrangements for delivery have yet to be proposed. The proponent maintains that this will be influenced heavily by the preferred procurement strategy.
- *Conclusion*: A more detailed development of risk management, options for cost recovery, delivery strategy and governance should be made available.

OVERALL RECOMMENDATION

Infrastructure Australia Priority List Recommendation:

- It is recommended that the initiative remains in the Infrastructure priority list as a 'Ready to Proceed' project. The initiative makes a clear and positive contribution to Australia's policy priorities. It demonstrates long term national benefits (economic benefit-cost ratio significantly above 1:1) and a robust delivery mechanism. Conditions on Infrastructure Australia's support for the project include:
  - The road be configured to high productivity vehicle standards and the ACT Government be required to enter an intergovernmental agreement with the Commonwealth for High Productivity Vehicle Access (HPVA);
  - The road be tolled, with a view to ensuring that a reasonable proportion of capital costs, and all of the road's operational and maintenance costs, are recovered through tolls;
  - The ACT government continue to undertake project development work to provide further confidence that the project will be completed within scope, and on time and budget; and
  - The ACT Government agreeing to undertake an agreed post-completion evaluation of the project:
    - Upon completion (e.g. to test whether the project was completed within scope, on time and on budget); and
    - At agreed future intervals, to assess whether traffic projections underpinning the project's development were robust, and whether other project benefits have been realised.

Majura Parkway – Local Context



Source: ACT Government submission to Infrastructure Australia

Proposed Majura Parkway Alignment

Source: ACT Government submission to Infrastructure Australia