

LEGISLATIVE ASSEMBLY

Standing Committee on Public Works

Conference Report

13th Annual Conference of Public Works and Environment
Committees of Australian Parliaments 2008

New South Wales. Parliament. Legislative Assembly. Standing Committee on Public Works

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STANDING COMMITTEE ON PUBLIC WORKS

Terms of reference

That:

A Standing Committee on Public Works be appointed to inquire and report from time to time with the following terms of reference:

- (1) As an on-going task, the committee is to examine and report on such existing and proposed capital works projects, or matters relating to capital works projects, in the public sector, including the environmental impacts of such works, and whether alternative management practices offer lower incremental costs, as are referred to it by a Minister, or by resolution of the Legislative Assembly.
- (2) Such committee consist of seven members of the Legislative Assembly.
- (3) Mr Baumann, Mr Borger, Ms Fardell, Mr Khoshaba, Mr McBride, Mrs Paluzzano and Mr Page be appointed to serve on such committee.
- (4) The committee have leave to make visits of inspection within the State of New South Wales and other states and territories of Australia. ¹

¹ Resolution passed 21 June 2007, 54th Parliament, Votes and Proceedings No.14, Item 13, Pages 169-170

Foreword

I am pleased to present this report to the House on behalf of the Standing Committee on Public Works. This is the Committee's report on the 13th Annual Conference of Public Works and Environment Committees of Australian Parliaments which was held from 23 to 25 July 2008.

The Committee had the pleasure of co-hosting this year's conference along with the Standing Committee on Natural Resource Management (Climate Change). This reports covers the sessions of interest to public works committees. The Natural Resource Management (Climate Change) Committee will report on environmental sessions.

The theme of this year's conference was "Sustainable Urbanisation", a topic which merged the intersts and focus of both the Public Works and Environment Committees. As we look towards the provision of future infrastructure, sustainability will be a key requirement. Already we are seeing this reflected in public developments such as the new Justice Precinct in Parramatta. During the conference we had the privilege of hearing from some of the country's experts from academia, industry and government on infrastructure, planning, the environment and climate change. I would like to thank all the conference speakers for their excellent presentations.

In keeping with the conference theme the site inspections also focussed on the issue of sustainability with a visit to the Parramatta Justice Precinct and a briefing on the proposed Civic Place Redevelopment. Afterward, delegates travelled to Katoomba where they received a briefing by Blue Mountains City Council on their Blue Mountains Sustainability Activity Model with examples of best and poor practice catchment and a discussion of other Council run sustainability programs. This was followed by a visit to Scenic World which provides an excellent example of eco-tourism infrastructure.

I would like to thank Parramatta City Council, State Rail, the NSW Attorney General's Department and Blue Mountains City Council for making the site inspections so informative and enjoyable.

I would also like to thank the Hon. Rodney Cavalier, former NSW Minister for Education, Finance and Energy and the current Chair of the Sydney Cricket Ground for his erudite address on sportsground administration at the official conference dinner.

Last, but not least, I would especially like to thank the staff at Parliament House, the attendants, catering and the secretariats without whom this conference would not have happened.

I look forward to attending the 2009 Conference which will be hosted by the Tasmanian Parliament.

Ninos Khoshaba MP Chair

INTRODUCTION

- 1.1 The 13th Annual Conference of Parliament Environment and Public Works Commitees was held in Sydney over three days from 23 July to 25 July 2008. More than 60 delegates from Australian Parliaments attended. This Conference is the key opportunity for the NSW Standing Committee on Public Works to meet with similar committees from other Australian jurisdictions and to discuss issues and exchange ideas.
- 1.2 This year the Conference was hosted jointly by the NSW Standing Committees on Natural Resource Management (Climate Change) and Public Works. The Conference was organised by a steering committee chaired by Mrs Karyn Paluzzano MP, then Chair of the Natural Resource Management (Climate Change) Committee and Mr David Borger MP, then Chair of the Public Works Committee.
- 1.3 The theme of the 13th Annual Conference was "Sustainable Urbanisation". The Conference sessions examined the theme of sustainable urban design and development infrastructure development with a focus on challenges for sustainable growth and renewal.
- 1.4 Key themes of the conference included:
 - Sustainable urban design and architecture within environmental planning and management in a way which improves living conditions and addresses issues of inequity and exclusion;
 - How to achieve sustainable design in urban areas and how to plan for 'smart growth';
 - Improved energy efficiency in buildings and clean energy technologies as a response to climate change.
- 1.5 The Conference sessions consisted of an opening keynote panel on the topic of sustainable public infrastructure. The delegates then broke into environment and public works streams for three separate sessions, two on Wednesday and one on Friday. The conference ended on Friday morning with a joint discussion of the lessons learnt in the parallel streams.
- 1.6 On the middle day of the conference, delegates travelled on two field trips for the separate environment and public works streams. The public works stream visited Parramatta City Council and Blue Mountains City Council to examine the transport interchange, the Justice Precinct and to be briefed on the Parramatta Civic Place redevelopment. The delegation then travelled to Katoomba to examine the special challenges of locating infrastructure in a World Heritage area, which also feeds into the Sydney water catchment.
- 1.7 The remainder of this report summarises the key points in the two joint sessions and the three public works sessions and describes the public works stream's field trip. The report also includes the transcript of the sessions described and a list of conference delegates.

DAY 1 WEDNESDAY 23 JULY 2008

Conference Opening

- 2.1. Mr Tony Stewart MP, Deputy Speaker of the New South Wales Legislative Assembly opened the conference. He discussed the importance of the conference's theme of sustainable urban development for the future well-being of the nation.
- 2.2. He then introduced the co chairs of the conference, Mrs Karyn Paluzzano MP, Chair of the Standing Committee on Natural Resource Management (Climate Change) and Mr David Borger, Chair of the Standing Committee on Public Works who each welcomed the delegates to the conference.

Session One – SUSTAINABLE PUBLIC INFRASTRUCTURE

Mr Martin Butterworth - Managing Director, Space Syntax

- 2.3. Mr Butterworth discussed the work of Space Syntax which maps the way pedestrians actually use public spaces to travel to attractive destinations. He argued that such empirical evidence as the basis of infrastructure planning is far more effective than the notion of "build it and they will come" which can create under-used public spaces. He provided several examples from around the world where mapping of the routes people used improved potential designs.
- 2.4. Combined with an understanding of how communities and local economies interact, the outcome would be to produce resilient local economies for more efficient ways to deliver sustainable cities. Building greater productivity would be made viable by discovering new urban value in "movement" economies.

Mr Mark Kirkland – Rouse Hill Town Centre Project Director, General Property Trust Group

- 2.5. Mr Kirkland described the Rouse Hill Project. It is a 120-hectare master planned community 35 km north west of the Sydney central business district. It has zoning approval for 100,000 square metres of retail and 100,000 square metres of commercial and up to 1,800 residences. The new Rouse Hill is a joint venture between Lend Lease and GPT, in conjunction with the New South Wales Department of Planning and Landcom.
- 2.6. Mr Kirkland explained with the Rouse Hill Town Centre project they tried to create a sustainable urban design, efficient use of energy, resources and materials and a living town where people can work as well as live, incorporating leisure and entertainment. In other words they tried to break out of the mould of simply building a big shopping complex that did not incorporate community or living into its plans.

Professor David Richmond - New South Wales Coordinator General for Infrastructure

2.7. Professor Richmond, the final speaker, spoke about how an infrastructure upsurge is occurring at a time when other issues such as climate change are becoming

- increasingly important. These issues need to be incorporated into planning infrastructure projects in the future. He highlighted that one of the biggest challenges in regards to infrastructure and metropolitan growth, is how to achieve sustainability and strike a balance between economic, social and environmental considerations.
- 2.8. Professor Richmond described how infrastructure planning required long term thinking and decisions made today might not lead to results for several decades. He explained that the New South Wales government was now making up for a backlog in long term planning in its recent infrastructure announcement such as the North West metro line.
- 2.9. Professor Richmond encouraged delegates to learn from positive examples of strategic infrastructure planning in other parts of Australia. He thought that the public sector could learn from the private sector at times, especially in the commissioning phases of major projects. For instance it was not noticed until very late in the delivery of the Parramatta to Rouse Hill Transit way that there were no plans to sort out bus timetables and explain how the new infrastructure would work to the public.
- 2.10. He concluded the presentation by emphasising the role that State governments can play in relation to expanding and widening the scope and coverage of public transport. This widening not only plays an important part in city growth but also assists in addressing some of the environmental challenges we are now facing.

Session Two – JURISDICTIONAL COMMITTEE REPORTS

- 2.11. Delegates were then given the opportunity to make brief jurisdiction reports on the work of their respective committees during the previous year.
- 2.12. There were five committees represented:
 - The Standing Committee on Public Works (Commonwealth);
 - Public Works Committee (Queensland);
 - Public Works Committee (South Australia):
 - The Joint Standing Committee on Public Works (Tasmania);
 - The Standing Committee on Public Works (New South Wales).

Commonwealth - Mr Mark Butler MP

- 2.13. As most public works expenditure takes place in the states and territories, 85 to 90 per cent of the Committee's focus is on defence spending. Commonwealth public works over \$15 million cannot proceed until they have Parliamentary approval. However, \$15 million is still quite a low amount for Commonwealth public works.
- 2.14. A few weeks previously the Committee handed down a report related to seven different inquiries into defence public works, totalling \$1.1 billion. A lot of this money was spent refitting and refurbishing existing defence facilities. Mr Butler observed that it seems an anomaly that there is parliamentary oversight of defence expenditure on public works but not of spending on equipment.
- 2.15. A number of recent inquiries have been referred to the Committee such as a proposal for a \$49 million DFAT pavilion at the next World Expo in Shanghai, a \$111 million telescope and a \$115 million new headquarters for the Australian Federal Police.

Day 1 Wednesday 23 July 2008

- 2.16. A number of issues have recently arisen. Recently a department breached the legislative provisions by signing a construction contract before the project had come before the Committee. There was a distinction made between the infrastructure being constructed to house equipment (new helicopters) and other infrastructure such as latrines and mess halls. There has also been an instance of significant cost overruns by the Department of Immigration.
- 2.17. The current Committee has started reducing the size of its reports due to the fact that transcripts and submissions are being placed on its webpage.

South Australia - Ms Vini Ciccarello MP

- 2.18. South Australia's Public Works Committee examines all public works where the construction costs exceed \$4 million and construction of these works cannot commence until the Committee tables a report in Parliament.
- 2.19. There is no mechanism to adjust the referral threshold for inflation and inflation in relation to construction costs has increased more than 70 per cent since the legislation was introduced. Ms Ciccarello believes that the low referral bracket distorts the intent of the legislation and imposes significant avoidable delays for projects that should not have been captured by the provisions.
- 2.20. The Committee is also concerned about the often large variation between the estimated and actual costs of projects due to poor early stage project planning processes. The Committee has recommended changes to the government's project implementation process, which were endorsed, leading to sufficient funds being made available at an early stage to avoid unclear project briefs.
- 2.21. Last year the Committee considered a \$10 million pilot plant for a desalination facility which has been extremely controversial. It also considered an expansion of tramway system into the Adelaide CBD. In 2009 the Committee will consider the new Royal Adelaide Hospital project.
- 2.22. The South Australian Government's Budget Capital Investment Statement requires that any project that now comes before the Committee must demonstrate how it fits in with the State Strategic Plan.
- 2.23. Ms Ciccarello suggested a sharing of common issues by the Committees prior to the Conference to allow for greater discussion of pertinent themes.

Queensland - Ms Barbara Stone MP

- 2.24. The Committee is not part of the public works project approval process in Queensland. Since the last Conference the Committee has completed three inquiries: the Tugun Bypass Project; the Suncorp Stadium Project; and the Redevelopment of the Townsville Correctional Centre.
- 2.25. A number of key issues have arisen: project timeframes; consultation with end users; and post-occupancy evaluations. The Committee is concerned that fast tracking of projects to meet deadlines may lead to compromised planning and project delivery. Up-front investment and planning is necessary to ensure good long-term service delivery.

- 2.26. It is also necessary that a wide cross section of end users of the project are consulted during the design phase.
- 2.27. In Queensland, government departments are required to undertake building performance reviews for high-risk and/or significant government building projects and for a representative sample of repetitive government building projects such as prototypes and standard building types. The Committee is keen to ensure that these reviews are as effective as possible. Therefore the Committee believes that the review phase needs to be an integral part of the project. There needs to be a standard evaluation process that provides clear and informative feedback that is widely available.

Tasmania - The Hon Paul Harriss MLC

- 2.28. The Committee has jurisdiction over any projects over \$2 million which Mr Harriss considers too low. The Tasmanian Government set up an economic and social infrastructure fund some years ago and, while it funds projects from this, they do not come under the jurisdiction of the Committee. The committee is concerned about this lack of accountability.
- 2.29. The main projects that the Committee look at are road construction projects or school construction. A major future project will be the proposed new Royal Hobart Hospital.
- 2.30. Mr Harriss was very supportive of the proposal that all the Committees discuss common problems such as thresholds and cost overruns. The Committee sees very little value in delaying much needed projects but is frustrated at its lack of powers to address what they view as deficiencies in project proposals.

New South Wales – Mr David Borger MP

- 2.31. Like Queensland, the New South Wales Committee does not have a project approval role. Mr Borger spoke on two of the Committee's recent inquiries: local government partnerships for asset redevelopment and the provision of arts and cultural infrastructure outside the Sydney CBD.
- 2.32. The Committee is in the process of finalising its inquiry into local government partnerships with the private sector. It has found that most councils do not feel confident entering into such partnerships without external assistance. The Committee is considering ways to provide councils with better resourcing to handle PPPs.
- 2.33. The Committee's most recent inquiry into arts and cultural infrastructure will focus on how to encourage cultural asset growth in suburban and regional areas.

General Discussion

2.34. The Hon Sue Napier MLC from Tasmania raised the issue of scrutiny of Commonwealth road construction. In Tasmania there is more money spent on Commonwealth Roads than State roads and the Tasmanian Joint Standing Committee on Public Works has no oversight role in relation to this. Mr Butler responded that the Commonwealth Public Works Committee also does not scrutinise these.

Day 1 Wednesday 23 July 2008

- 2.35. Mr David Pisoni MP from South Australia asked how cost overruns are referred to the Commonwealth Committee. Mr Butler responded that this operates according to Department of Finance Guidelines but is essentially an "honour system" with no real enforcement. Mr Pisoni believes that the Committee should be involved at an earlier point in the process. When they are notified of overruns most of the money on the project has been spent. Ms Ciccarello said that this was also an issue the South Australian Committee had faced a number of years ago. The Committee now requires a quarterly report from any project that it has considered. The Hon Peter Slipper MP expressed the view that the Executive largely treated the Public Works Committees as a "rubber stamp" and that cost overruns over a certain amount should perhaps be required to be referred back to the Committee for approval.
- 2.36. Discussion followed regarding how the different Public Works Committees operated around Australia. A resolution was made that each of the Committees should forward outlines of important issues prior to the next conference with a view to a plenary session being held to discuss them.

Session Three - FINANCING PUBLIC INFRASTRUCTURE

Mr Mike Schur – Deputy Secretary, Office of Infrastructure Management, NSW Treasury

- 2.37. Mr Schur discussed the strategic context for infrastructure expenditure in New South Wales and the various methods for capital procurement, how unsolicited private proposals are dealt with, and some of the key principles regarding privately financed programs and projects and the results achieved.
- 2.38. New South Wales has 34 State Plan priorities and 60 State Plan targets. Treasury report on these priorities and targets through priority delivery plans and a dedicated committee of Cabinet monitors progress in relation to the delivery of the State Plan. Government agencies report on their service delivery of State Plan objectives through their individual Results and Services Plans.
- 2.39. Government infrastructure spending in New South Wales has increased 47 per cent between 2002-03 and 2007-08 and is due to increase by 23 per cent in 2008-09. The greatest share of this will be in transport and the second highest in electricity.
- 2.40. Treasury now does major advance planning for major procurements including requiring agencies to provide mandatory business cases for all large, risky capital projects. A number of agencies have also been given accreditation for managing construction projects. A 10 year State Infrastructure Strategy has also been incorporated into the annual budget process in an attempt to better understand the relationship between the medium and longer term project commitments beyond the forward estimate years.
- 2.41. Mr Schur explained that when the decision is made to procure capital works through a privately financed project or a public private partnership the key driver is value for money. This begins with a competitive tender process. A public sector comparator is extremely important to provide a risk adjusted costing of the most efficient public sector delivery of a project.

Mr Greg Incoll – CEO of Incoll Management Pty Ltd

- 2.42. Mr Incoll said that the private sector is now very focussed on the environmental sustainability of infrastructure projects. While there is large costs involved in bidding for PPPs, figures show that there are still healthy profits to be made for the private sector. In the past 12 months there has been in a change in project financing from bond mechanisms to debt markets. There is more groups of banks rather than single entities taking project risk and competing market pressures for funds. From the client perspective the two current issues are the costs of capital and the quality of patronage.
- 2.43. There needs to be a continuing trend towards PPPs to deliver public infrastructure. Before a business case goes before Treasury market advice needs to be sought about the best way to structure the debt and equity in a public sector model. The complexity of contracting and bidding also needs to be resolved.
- 2.44. Mr Incoll concluded by saying that he believes that greater sustainability will be demanded of all new infrastructure projects.

Dr Patrice Derrington, Director Queensland Urban Futures Board

- 2.45. Dr Derrington spoke on various funding options for public infrastructure including government issued bonds and tax increment financing. She believes that there are some simple rules in selecting the best options.
- 2.46. To begin with there are a number of things that need to be considered. Firstly, it must be understood that there is no single solution for all possible services and projects. Secondly, a decision must be made regarding the cost of making or buying a delivery ie whether to do this internally or outsource it. Thirdly, it must be remembered that continual outsourcing actually reduces the leverage for being able to provide viable alternatives. Fourthly, products and processes are often interconnected. Lastly, is the engagement of the community required?
- 2.47. Dr Derrington also spoke about the importance of government retaining responsibility for policy and determining best practice and the outcomes required. Financial and social risks should also be appropriately allocated. There is also no solution that does not require continual up-skilling in government management. It is simply too costly to underwrite private contracting to achieve many very complex and hard-to-define outcomes.
- 2.48. When governments do outsource, management and oversight of private providers must be strengthened. Better up-front planning will more closely specify the outcomes expected.
- 2.49. Questions put to Mr Schur, Mr Incoll and Dr Derrington can be found in the Transcript of Proceedings in Appendix One.

DAY 2 Thursday 24 JULY 2008

Morning – VISIT TO PARRAMATTA

- 3.1. Delegates for the Public Works Committees visited Parramatta for inspection and briefings regarding a number of key infrastructure projects.
- 3.2. Firstly the Committees inspected the Parramatta Bus/ Rail Interchange. This \$105m interchange was opened in 2006. The multi-modal public transport interchange accommodates the rapid bus transit ways that focus on Parramatta Station, the new Parramatta Rail Link to Chatswood and expected growth in bus services to and through the city centre.
- 3.3. This was followed by an inspection of the Parramatta Artists Studios. The Parramatta Artist Studios are funded by Parramatta City Council to provide affordable accommodation to both emerging and established professional contemporary visual artists.
- 3.4. The delegation then walked through the Parramatta Council Pedestrian Mall. Like many councils in the 1980s, Parramatta City Council created a large pedestrian mall in its CBD, which ultimately introduced issues of safety, lack of retail vibrancy etc. Council has now partially re-opened parts of the mall to traffic and introduced other strategies in order to revive the area and increase pedestrian economy.
- 3.5. This was followed by an inspection of the Justice Precinct. Completed in 2007, the \$330m Justice Precinct consists of the Sydney West Trial Courts, the NSW Metropolitan Children's Court and Justice Precinct Offices Building which house most of the agencies under the Attorney General's Department. The Precinct site featured a number of important heritage features that needed intelligent and sensitive management and there is a strong focus on sustainability in the Precinct's newer spaces.
- 3.6. The delegation was then addressed by Mayor David Barber regarding the Civic Place Redevelopment. The largest urban revitalisation project undertaken in NSW this decade, the \$1.4 billion Civic Place Redevelopment is being undertaken by Parramatta City Council in private partnership with Grocon and will deliver an integrated mix of retail, commercial, civic, community and residential facilities. It comprises a three-hectare city block consisting of both council and privately owned land.

Afternoon – VISIT TO BLUE MOUNTAINS

- 3.7. The group then travelled to Katoomba for a briefing by Mr Geoffrey Smith, Natural Systems Program Leader, Blue Mountains City Council on the Council's sustainability projects.
- 3.8. Mr Smith explained that the Blue Mountains and Banff in Canada are the only two cities in the world completely surrounded by World Heritage areas and the Council is very conscious of the need to reduce the impacts of the urban development on the neighbouring bushland. Particular problems are caused by impermeable surfaces such as sealed roads being near waterways. Most development is on top of the ridges so water runs off at speed causing erosion and depositing sediment in streams and pools. This then reduces biodiversity in the aquatic environment.

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- 3.9. The Council worked to reduce the build-up of rubbish by installing stormwater rubbish catchers in drains. These can be difficult and unpleasant to maintain as the material putrefies in wet environments. The Council has installed a Barramy dual vein catcher that separates rubbish from the high volume storm water flows. It deflects water in a basin for long enough to catch sediments. It is much easier to maintain as the rubbish has a chance to dry out and the sediment can be collected with earth moving equipment. The Council estimates that 500 cubic meters of soil has been collected from this device over the nine years since it was installed
- 3.10. The Council educates school groups about sustainability by using their Blue Mountains Sustainability Activity Model. This model shows the water cycle, comparing the effects of traditional and sustainable water management in residential, farming and industrial areas. Water is poured as "rain" over the model and it passes through the different areas to a stream at the bottom. On one side, where practices encourage erosion there is turbid water whereas the other side is clear.
- 3.11. Delegates then travelled to Scenic World to examine the World Heritage Area bushland. A National Parks Wildlife ranger lead the delegates down through temperate rainforest below and then delegates returned by the Scenic Sender.

DAY 3 FRIDAY 25 JULY 2008

Session Four – GOVERNMENT URBAN PLANNING STRATEGIES

Professor Chris Johnston – Executive Director of NSW Planning

- 4.1 Professor Johnston discussed the history and future of city growth and planning in various places around the world including the trend toward polycentric cities.

 Demographic and social changes emphasise the need to achieve balance and variety in the provision of housing in urban areas.
- 4.2 Sydney's greater metropolitan region spreads from the Sydney CBD, south to Wollongong, West to Penrith and North to Newcastle. With over five million people this metropolitan region needs to be structured not as a monocentric focus on Sydney itself but more as series of polycentric regional city centres each with its own catchment area. During 2006 and 2007 a program that developed new city centre plans for the six regional cities around Sydney was focused on driving new jobs in each of the city centres.
- 4.3 However the City Centre Plans were about much more than only driving growth, importantly the design character of each city as a place that citizens would be keen to visit was an important driver of the planning process. Using Parramatta City Centre as a case study Professor Johnston discussed how the success of the program depended on many planning factors that ranged from broad scaled economic issues right down to the character of footpaths and street trees.

Mr Angus Dawson - CEO, Growth Centres Commission

- 4.4 Mr Dawson explained how the Commission has a strong role in coordination. The Commission gives resources to local councils and assists them in rezoning decisions. At the same time the Commission works with state agencies to forward program the major infrastructure that will lead to release of the land. As the Commission has the power under its legislation to take coordination away from key agencies if necessary, it has been able to achieve some very good outcomes in its first two years.
- 4.5 Over the next 30 to 40 years the Commission will be working on 181,000 lots of land and approximately \$7.5 billion in infrastructure projects. However, it will recover only about \$4 billion in levies.
- 4.6 There is a broad structure plan for Sydney's two growth centres. The Commission broke this land into 33 precincts and sequenced out the precincts, which average about 4,000 lots a precinct, using the cheapest method of funding infrastructure. The Commission has also planned out the infrastructure needed for the next 40 years for the two growth centres and ensure that they are in the total asset management plans of the relevant agencies.
- 4.7 Biodiversity considerations are addressed through the Threatened Species Conservation Act 1995.
- 4.8 Questions put to Professor Johnston and Mr Dawson in the Transcript of Proceedings in Appendix One.

Session Five – SUMMARY OF CONFERENCE

- 4.9 Mrs Karyn Paluzzano, Chair of the Natural Resource Management (Climate Change)
 Committee and Mr David Borger, Chair of the Public Works Committee reported back to
 delegates on the major themes that emerged from the conference.
- 4.10 Mrs Paluzzano recounted the expert presentations that were given regarding energy efficiency in buildings. She was especially pleased that that the presentations could be tied to what delegates saw on the field trips. She made the correlation between the energy efficient Joan Sutherland Theatre in Penrith and the work undertaken by James Mcgregor and Robin Mellon. She also linked what Tim Beshara's work on the urban heat island effect in Western Sydney to the increase of temperature she has noticed in the Western Sydney suburb of Penrith where she has been a long time resident. Mrs Paluzzano saw the increase in urbanisation as the cause of the warmer climate in areas that were previously farmland and nature reserves.
- 4.11 Mrs Paluzzano also recapped on the field trip that was taken by delegates to Penrith and the Blue Mountains where both councils are tackling the issue of sustainability in different ways to suit their different communities
- 4.12 She also recounted the last session that included Dr Nikki Williams, Professor Bruce Thom and Mr John Connor.
- 4.13 Mr Borger then described what the speakers in the Public Works streams discussed. In the jurisdiction report delegates exchanged information about their different functions. Some committees have a role in approving public works projects in advance while others do not, although a common problem was that these committees could not review cost overruns. The members then discussed the perennial problem of the division between executive and parliamentary oversight.
- 4.14 The session on Wednesday heard from Mr Mike Schur, New South Wales Treasury, who talked about the strategic context of infrastructure in New South Wales and how the State negotiates public-private partnerships. Dr Patrice Derrington talked about funding options and discussed what issues governments, Parliaments and departments need to recognise before they enter into wholesale privatisation of their functions in terms of delivering infrastructure. Finally, Greg Incoll of Incoll Development, talked about public-private partnerships and his experience of them and his suggestions for the future.
- 4.15 Mr Borger discussed the merits of the delegate field trip where they visited Parramatta, a city that is trying to encourage the growth of Parramatta as a second city in order to alleviate congestion and pressure on Sydney. They viewed the \$105 million redevelopment of Parramatta railway station, the Parramatta Artists Studio and the Parramatta Justice Precinct.
- 4.16 Public Works delegates heard from Chris Johnson, a former government architect and Angus Dawson of the Growth Centres Commission, for the final session. Mr Johnson discussed the Sydney Metropolitan Strategy and discussed "polycentric" cities. Mr Dawson talked about his experiences as a private-sector developer and how this helped him in his role as a government planner trying to coordinate land releases and infrastructure provision.
- 4.17 Mr Borger surmised that the main theme for the public works committees was that urban planning and infrastructure projects need to stimulate job and housing growth and to create a more sustainable environment and communities.

Wednesday 23 July 2008

Conference Opening

Mr TONY STEWART: Welcome to the New South Wales Parliament, the mother parliament of Australia. I acknowledge also the traditional owners of the land on which this Parliament sits: the Gadigal clan of the Eora nation. My name is Tony Stewart and I am the Deputy Speaker of the New South Wales Parliament. It gives me great pleasure to have so many members of Parliament in one place during the winter period. Despite what the newspapers say, we are all here working very hard. I understand we have representatives from all Australian jurisdictions apart from the Northern Territory. A snap election was called in the Northern Territory, which means its members of Parliament could not attend.

I particularly acknowledge Mrs Karyn Paluzzano and Mr David Borger, who are the Chairs of the respective committees and the co-Chairs of this conference. I know the conference will be successful for everyone because much work has gone into its organisation to make sure it delivers all your expectations. Present today are 45 members and staff from the various parliaments. The conference theme this year, as you know, is sustainable urbanisation. During the conference the New South Wales Public Works committee and the Natural Resource Management (Climate Change) committee intend to examine sustainable urban design and the development of infrastructure, focusing on the challenges of sustainable growth and renewal, which, of course, are so important today in community expectations, government focus and government policy. You will examine these issues over the next $2\frac{1}{2}$ days.

I understand that there will be a field excursion to Parramatta, the electorate of David Borger. I am sure he will be able to provide you with a fair idea of some infrastructure issues you will confront and examine for sustainable development. I believe you will be attending the Blue Mountains area also, which is an area on the edge of Sydney. You will see some environmental issues that Karyn Paluzzano and her committee have been examining and will assist them in the context of what you are doing in your States and territories.

The key themes are sustainable urban design and architecture within environmental planning and management. These will be examined in a way that improves living conditions and addresses issues of inequity and exclusion, how to achieve sustainable design in urban areas and how to plan for smart growth. Given the urbanisation issues with which we are confronted at the moment and the density of urbanisation around most of our city areas, it is particularly important how we deal with those issues in a sustainable way. You will look also at improving energy efficiency in buildings through clean energy technologies in response to climate change issues.

Of course, that is something we have been working on very solidly in New South Wales, as you have been doing in your jurisdictions. We urgently need to put our heads together and come up with a common perspective. They are issues of critical importance to everyone and we cannot escape them anymore, particularly given the timely release of the Garnaut report and the Commonwealth Government's subsequent initiative regarding the emissions trading scheme, which is now being examined and debated in our communities.

They are controversial issues and we need to tackle them. We need to be bold and we need to understand that to have a sustainable future we must make the decisions now for our children to have an adequate future and to ensure that the environment is protected. The decisions must provide a full opportunity for other governments to build on the blocks you are putting in place now. What you are doing is of paramount importance. This was discussed at the recent G8 Summit. The comments of the Prime Minister made it very clear that the Commonwealth Government is not going to deviate from the need to have sustainable development put in place within the parameters of what is occurring with climate change issues.

You have a really big challenge ahead of you, one I do not envy but which I know you will tackle adequately because together you will be able to network your decisions and come up with consensus options that will make Australia a better place for us today and for our children in the future. I again welcome you to the New South Wales Parliament. I am sure you will enjoy our amenities. This is the oldest Parliament in Australia and the

one from which all other parliaments have sprung. We are very proud to have you here. We know that over the next 2½ days you will make a difference for the better of this country.

Mrs KARYN PALUZZANO: As Chair of the Standing Committee on Natural Resource Management (Climate Change) I welcome all members from the environment committees. Welcome also to members of the public works committees, as I am also a member of the New South Wales Standing Committee on Public Works, and have been since 2003. I know you are not pilgrims, but you are World Youth Day pilgrims with a passion with a passion for the environment and public works.

As you are aware, last week Sydney hosted World Youth Day; it was a week of much celebration in Sydney. It was also a week during which many people visited local Op shops. I was at my local parish when the Polish delegation arrived early in the week and a van pulled up from the local Op shop. People were trying on the smallest beanies and jackets because they clearly had come quite unprepared for our weather. We welcomed the world last week and this week we welcome parliamentarians from across the various jurisdictions. Hopefully you can share some of Sydney's warm weather with the cooperation of the solar radiation!

I also acknowledge the Gadigal clan, the traditional owners of the land and waters, and pay respects to their guardianship and to their elders past and present. I am proud to be co-hosting the Thirteenth Annual Conference of Public Works and Environment Committees of Australian Parliaments. It is important that as parliamentarians, and also the secretariats who are present, that we tackle and discuss those issues that are both common to us and different to us in our jurisdictions. We have chosen the theme of sustainable urbanisation because although most of us are from the urban areas of our cities, and some are from rural areas, we all visit urban areas. Therefore, the issues we confront with urbanisation hopefully we will put in a sustainable context as we move forward this century.

During my time as Chair of the climate change committee I have been able to bear witness to the increasing public perception of climate change. Our Deputy Speaker alluded to that sudden interest. The Australian Government has just launched its campaign "Think Climate Think Change Think Now" and also its green paper. Climate change has been the focus since the Federal election last November. Climate change has been an issue also that our local communities have been discussing. It will be interesting to see how we address the issue with practical solutions. Over the next few days hopefully we will be able to contribute to the debate with the guest speakers. Our priority is to mitigate the effects of climate change and improve our cities.

Amongst our guest speakers on the environment theme will be representatives from Greening Australia, the New South Wales Minerals Council, the Climate Institute, the Wentworth Group of Concerned Scientists, the CSIRO and the Green Building Council of Australia. I am excited also for the environment strand in that we are participating also in field trips. As the Deputy Speaker alluded to, we are going west and getting out of Sydney heading towards Penrith, which is my electorate. The Penrith electorate is 55 kilometres from where we sit now. It is at the edge of the Sydney central business district or metropolitan area. My electorate has two local government areas in it. The Penrith local government area is about the fourth largest in New South Wales with 200,000 people.

The electorate boundary also takes in the lower Blue Mountains, which is part of the Blue Mountains electorate. Within those two local government areas we have the natural assets of the Hawkesbury-Nepean river system and a world heritage national park. So, we have our urban fringe coexisting with those two wonderful assets. The Hawkesbury-Nepean river system supplies water for most of the Sydney area. So, if you turn on the tap this morning, the water will have come from the Hawkesbury-Nepean river system via the Warragamba Dam.

It is an area with quite different challenges. You will hear from the Penrith City Council. When I was a member of the council in the year 2000 we initiated a Sustainable Penrith program where we adopted a number of policies and practices to move towards a sustainable city. That started in 2000 and in 2008—eight years on and I am not a council member anymore but I am there in spirit as the local member—we have a number of programs and policies. You will hear about the Sustainable Cities program that takes in the Sustainability Street program, some of you may know of that. We now have Sustainability Schools. We also have smoke-free parks, where the community is not allowed to smoke within a certain area of local playgrounds. So there are a number of initiatives to make the city more sustainable that will be discussed when we go to the Penrith City Council tomorrow on our field trip.

We will be going to the Joan Sutherland Performing Arts Centre—the only performing arts centre named after Dame Joan Sutherland. The centre is situated near the Civic Centre of Penrith. It was built by Phillip Cox in 1990 and has recently had a \$14 million extension with sustainable building designs and codes. I cannot describe it but when you visit the centre you will be able to experience it. We will also be visiting Penrith Lakes. The Penrith

story is about rocks. People think the Penrith story is about football, sport and natural assets; the real Penrith story is about rocks. We have the biggest quarry in the southern hemisphere that quarries rocks and crushes them. The sand and the gravel are taken somewhere else and you probably drive on the bitumen, and the buildings you see here in Sydney, and probably elsewhere, have been made from the cement and the aggregate of the Penrith Lake's system. It has been a quarry for almost 100 years. It is adjacent to the Nepean River and is on the flood plains. Previously it was very good soil and had many dairy farms. It was discovered 100 years ago that the rocks could be crushed and made into roads and building materials. They have been doing this for almost 100 years but a large hole and subsequent holes have been left as a result.

In 1980 the Premier at the time, Barrie Unsworth, and the then Planning Minister, Bob Carr—you might know of those two names—decided to sign a deed of agreement between the State Government and the quarry men. The deed of agreement said that once the quarry finished they would remediate the land and have a lakes system. The site covers 2000 hectares and 80 percent of that site will be a lakes system—it is huge. For those of you that have been to Sydney and seen the rowing or the Whitewater stadium during the Olympics, or subsequent to the Olympics, you will know that is where Penrith lakes is but it is only one-tenth of what will be developed in the future. So the Environment Committees will have a look at that. It still has the rowing and Whitewater stadium. I was there yesterday with the Minister for Gaming and Racing, and Minister for Sport and Recreation, as we met the Nepean female pair rowers and wished them well for Beijing. It is also used for skydiving and many cultural and social activities. It has an environmental education centre on site as well. It is used not only by just elite athletes but also by the community generally. After that we will be going to the Blue Mountains to look at what the Blue Mountains City Council does in relation to the urban natural environment interface. We will also be looking at the ecotourism that has been developed in the Blue Mountains.

If you have opened your bag this morning you will probably wondered about the glass bottle that is included in there. You have probably scratched your head as to why has David Borger, Karyn Paluzzano and the Public Works and Environment Committees given you a bottle of sake. It is not to make the networking that is going on easier but to explain two things about Penrith. Firstly, we have O-I Glass. The sake bottle is manufactured in Penrith. O-I Glass is one of the largest bottle and glass manufacturers in Australia. The site was chosen by the Japanese as a site for a sake brewery because of the water from the Hawkesbury-Nepean system. The brewery uses the Hawkesbury-Nepean water; they brew their rice and make sake. It is the only sake brewery outside of Japan in the southern hemisphere and it exports to the world. So it is a little gift from Penrith to you.

If you look at the back of the pamphlet about the brewery, the location of the brewery is fairly significant. It is located at the base of the lakes system. The river bends around and the bend is the boundary of the head of the Lakes Development Corporation. The brewery is at the base of the lakes system, it uses our water and in the future it will be at the gateway of the lake system. The lakes will eventually be used not only for recreational activities but also as an urban area and the Penrith Lakes Development Corporation is in the middle of the planning process for that urban landform. So it is a pretty exciting time to be the local member but it is also a very interesting place for you to visit. I will now hand over to David Borger, who will deal with the public works aspect.

Mr DAVID BORGER: I also acknowledge the traditional owners of the land, the Gadigal people, and thank them for their custodianship of this country. On behalf of the Public Works Committee of this Parliament I would like to welcome you all to the conference. My colleague, Karyn Paluzzano, referred to the environmental challenges we face in the future in our various environments, particularly in Penrith. I would briefly like to touch on an issue of sustainability that is often not covered. When people talk of "sustainability"—I know it is a very overused term—they are mainly talking about the purely environmental aspects of sustainability. But there is another dimension: how do we have sustainable neighbourhoods, towns and cities? In fact in New South Wales one of our big challenges has been how to decentralise some of the good things that happen in the centre of the city with jobs and housing and get them out to where the people are starting to be?

Tomorrow we are going on a brief tour of Parramatta. I urge you to come, particularly if you are in the public works stream. Parramatta is the most successful example of government office decentralisation in Australia. It has been a very conscious policy of the State Government, and much earlier the Federal Government, to move some of the jobs from Sydney out to where the people are. The whole police centre of New South Wales has been shifted out there now. The administration of justice takes place from Parramatta. There are a number of big projects. I guess the issue in Parramatta is showing how government investment, government jobs and public works can stimulate investment in the private economy and lead to job and housing growth and urban renewal that we are all looking for in our cities and neighbourhoods. I really urge you to come. We are going to go for a walk and look at our new \$150 million railway station and some of the new buildings that are housing some of those government departments. You will see how that is starting to revitalise that city.

The other issue I briefly wanted to touch on is the issue of public works in the cultural realm. We are starting an inquiry in our committee on the distribution of cultural funds across New South Wales. It seems that the great cultural institutions of the State: the Art Gallery, the museums, the Sydney Theatre Company, the Museum of Contemporary Art, the Conservatorium and all those great cultural institutions that every State probably has, were constructed in the very centre of the city. Obviously that has always been very important to the States but since that time there has been huge growth of people and jobs, there has been decentralisation and the city has spread—we are now a metropolis! There are two million people living in Western Sydney, for example, and many other people living in regional areas. The question is whether the State or the private sector or local government can work together to invest in the sort of cultural infrastructure that those areas that are decentralising need, and how do you make that happen? That is an important issue for public works committees across the State, as well as for Ministers who cover those portfolios.

Western Sydney is home to two million people. It has one of the largest economies in Australia, outside Sydney and Melbourne. Parramatta is the sixth-largest central business district in Australia. However, there is rarely any discussion about building the type of cultural infrastructure in Western Sydney that will help to reverse the shift of young, creative and talented people to the urban village of the Sydney central business district and help to create a sense of place and identity for Western Sydney residents. The sorts of things we will be trying to do there are to provide facilities for artists, writers and performers as well as attracting film makers, designers, architects, multimedia and technology companies to the area as a way of stimulating a creative economy for the region. The local council, Parramatta City Council, has achieved this despite housing one of the largest Westfield shopping centres in the southern hemisphere. Another challenge for cities as they grow is how do they compete in the mainstream in the downturn against the global pull of the huge black box shopping centres? That is a challenge for State and local governments.

I would like briefly to mention some housekeeping issues before I introduce the first speakers for today. I remind people that you should wear your passes when you move around Parliament House. This will save you having to go through security every time you come in. Will you please let Catherine or one of the staff of the secretariat know today, if you have not already, whether you will be attending the lunch in the parliamentary dining room on Friday, so we can finalise the numbers for catering.

Please remember to wear warm clothes and flat shoes—Parramatta does not look like what is shown in that slide—to the Blue Mountains tomorrow. I remind you that both buses will be departing the Sofitel and Marriot hotels at 8.00 in the morning. Unfortunately, rain is forecast for tomorrow. If you do not have any wet weather gear and need to borrow an umbrella or something, please let the secretariat know and we will see what we can do. I think there are about half a million plastic ponchos left over from World Youth Day. Dinner tonight will start at 6.30 p.m. at the Australian Museum, at the corner of College and William streets, so please use the William Street exit.

I will now introduce the speakers in our first session. We have tried to get speakers who may not have the same world view, which I think is always useful. Our first speaker is Martin Butterworth. Martin is the managing director of the urban, economics and strategic design company Space Syntax. Across the world the firm provides critical knowledge links between economics, planning, transport and architecture. It forecasts the consequences of urban infrastructure planning to help build local movement economies. Its evidence-based approach helps to improve the economic and social performance of cities and to attract public and private investment opportunities with reduced risk.

I have worked with Martin before, in Parramatta and other places. Anyone who is interested in public works or who may go on to become a Minister or to lobby Ministers in various jurisdictions to get things done needs to be aware of these sorts of issues. Essentially, a lot of public works projects take place and we do not always think about the consequences to the pedestrian economy around major projects, major street systems and transport systems. The sort of work Martin does is a way of minimising risk to government, so when you build the great Taj Mahal or the new highway or freeway or whatever, that you do not destroy the local economy of a place by changing those critical pedestrian links in the process.

I thank you for coming.

Session A—Sustainable Public Infrastructure

Mr MARTIN BUTTERWORTH (Managing Director, Space Syntax): Good morning, everyone. Last week I was at a conference and we were discussing cities and their performance. Commercial gain and public good were seen as opposites. I ended up listening to that debate and then posed the question for today, in one sense to lead into what I am to speak about. It seems a reasonable response is, if we build movement economies, which I will explain a little later, we can improve economic performance of cities. So, how do we look at these questions in detail? What are the types of comparisons we can make? If we look at a place in Western Sydney called Auburn and compare it with central Melbourne. There are major attractors in central Melbourne, of course, and none, at the time we looked at our work, in Auburn.

Auburn looks like this, as shown on the slide. It could be any Australian country town or any Australian suburban centre. Flinders Street, the famous railway station, is the busiest railway station in the country, and good public transport is on hand. Auburn sits on a railway line. It has major roads near it. It has a river to the west. It has Sydney Olympic Park to the north. Its town centre is in that position and its busy high street, called Auburn Road, sits there, as shown in the slide. We are going to compare it with central Melbourne, the one-by-two kilometre grid of the city.

Auburn has a pedestrian study done. Its railway station sits there and has about 8,000 per day. Its busy high street has about 1,100 pedestrians per hour per weekday. That means very little until we make a comparison. If we average that over a year, about 2.1 million people use that street. If we compare that with central Melbourne—the Hoddle grid and the CDB—there are two major railway stations with 170,000 people using them per day, major redevelopment and investment of \$15 billion over some 15 years—Docklands and Southbank. Flinders Street is where the railway station is that we are going to compare. We are going to look at the busiest part of Flinders Street in the city, and there are 1,100 pedestrians per hour per weekday. This adds the question, is part of Western Sydney, a small suburban centre, performing beyond its measure? When we look at the performance internationally—and various pundits are claiming that Melbourne is the most liveable city in the world—we can start saying there are some things in our cities that we have not tapped into and that may be a social and economic performance that we need to have a look at. That was the reason I was interested in the debate in the conference last week as to why commercial good and public good cannot be reconciled and they are the same thing.

To make it a bit more problematic for the example with Melbourne, Melbourne has major attractors, as I mentioned, and Auburn's high street meets all of those streets in Southbank and in the lower part of the central business district of central Melbourne. So, none of the bridges across the Yarra come up to the rate at which Auburn's high street works. It is really an attractors only system. Its urban layout does not work as powerfully as it may or is more efficient or productive as it may be by having these new public and private investments. If the layout itself is working well we start to see the new thing, or the thing we used to have in cities, and that is high economic and social performance.

When we look at urban cohesion—this is a slide of Berlin in 1940. You can see the buildings define the movement pattern. This slide is 50 years later. It is not after the war, the bombing that is, but this is adding that local space into the system and replacing certain buildings. The fragmentation has occurred so the movement patterns are not intelligible enough for people to use them in the same way as they did some 60 years earlier. We see these types of occurrences when we invest in places like Macquarie Park, one of the largest office parks in the country. So, the sparse layouts and attractors do not maximise economic and social performance. So, it is this problem of creeping underperformance that we are wanting to address in some of the aspects I want to talk about today.

So, how do movement infrastructures improve economic and social potential? Around the world our work looks at and finds that attractors account for only 20 per cent of movement, whereas urban layout is some 70 per cent plus. If we spatially integrate those properly—we looked at an earlier example in Berlin—we start getting the economic and social multipliers that we once had in cities. Investment, in itself, starts stimulating a productive local economy. The objective evidence is about natural movement. That is the key to how buildings and cities work. Spatial layout is the key to how natural movement works—an issue that I will explain in more detail later.

The investment points of view are that the public sector will improve accessibility to those facilities. For example, in Western Sydney, in Western Melbourne, and in all the areas of Brisbane and other capitals, we invest enormous amounts of money to try to provide facilities so that local residents can go to them without having to go to urban centres. However, they need local urban centres in order to do that. In the private sector we are finding that we can realise new economic potential when we start looking at untapped value in our urban fabric.

A local movement economy involves a combination of a number of things: a relationship between the ease of access of urban layout, the numbers of pedestrians, vehicles and public transport, and the distribution of land uses. We do not want certain land uses in places that are not busy and we do not want to call them retail and hope that they will work. The build-it-and-they-will-come principle does not necessarily help us to produce the powerful economic and social centres that we once had.

Let me go to an example rather than talking about some abstract issues. In central Parramatta council and the private sector are investing some \$1.5 billion in Civic Place to try to produce a new development that has some 40-storey buildings. The land use is cultural, residential and commercial, it will have public facilities, and it will be water sustainable. The buildings on the public site are shown in the green outline on this slide. Public open space is also shown, and there are a number of squares. Our modelling allows us to predict the likely movement patterns—in this case just pedestrians, as we did not look at vehicles. Where there are red lines there is high pedestrian movement, and where there are blue lines there is low pedestrian movement, and there are various grades in between.

This is not doing counting; it is simply stating that the spatial layout is easier to get to in the red lines than it is in the blue lines. The \$1.5 billion redevelopment is reflected in the dotted line on this slide. We say that the routes that go through there are base routes, and we call that nought movement. If we look at what was produced in 2005—the designer's new pedestrian infrastructure—we see some blue footprints and those footprints are for the new routes. We have improved those routes by some 27 per cent. What we did in the space index—although we came in late in the process—was to add different routes from our understanding, not just from within the site.

We brought the local urban fabric into the site to form a part of it. We brought thoroughfare movement into an area that needs to have more pedestrians for the land uses for which it has been prepared, so we improved it by some 200 per cent. Council can then go and say to the developer that it might have an unexpected increase in its return. This slide depicts the new routes within and outside the site and it also depicts two new routes that have some public land available—which are possible ways for us to improve it even further. Sydney's sustainable future on a very large scale is dictated by the City of Cities concept, which we are doing in all our major urban and metropolitan strategy planning.

This slide, which I prepared a little while ago, shows the whole of the Sydney Basin up to the Blue Mountains, or to the Nepean River in the far blue-green area. You can see on this slide the road systems, the parks and the large areas where the urban centres exist. This slide depicts the new growth areas and seven urban centres that have been suggested at different times. Some are located in the old areas of Olympic Park, in the green square, and the rest are new. Let us look at a five-kilometre radius from each of these urban centres and say that that is the sphere of influence, and nothing more.

In the eastern older part of the city, all the way up to the northern beaches and down to the bays beyond Botany Bay, there is a dense arrangement of urban centres. However, in the south-west and in the north-west we do not have them. Let us take this slide as an experiment and say, "If we had urban centres at the same rate of density we would probably need another 30 centres in the next 20 or 30 years." When we are talking about 30 centres that sounds as though it is an enormous task for the private sector and the public sector to work together to produce such a thing. We find it very hard to produce even one centre.

Perhaps we need to look back at what happened in Auburn. Auburn is not big but it seems to compete effectively, so there might be some reason to build some smaller urban centres as well as larger urban centres and then major infrastructure projects such as ports, roads and rails can be integrated effectively across the system. Rather than selecting certain parts to be improved we can improve the entire city, and we can do this across our capitals as well as in our townships. This is the way in which we look at a key linking of infrastructure issues. This slide shows an investment model of regional public infrastructure in Britain. It tells us where we can start experimenting and whether there is a likely investment profile that might not necessarily be seen in the usual fashion.

These maps show the ways in which people move around the system, how they are made productive or unproductive, and they might work in a pattern to help growth. London, which is a part of this system, is 50-kilometres wide. The slide also depicts a number of other cities across an area of 330 kilometres. To give you some sort of scale, Britain is next to Europe. We have mapped and modelled that part of the system and we have continued across the entire British Isles. In New South Wales, Sydney is literally the distance from Canberra to Newcastle and Auburn in between. In that 50-kilometre area of central greater London we can look at a much more effective integrated transport and land-use model than we had in the past because we are looking at the whole system and all its constituent parts—from important bits to unimportant bits.

The global London map on the left-hand side of the screen depicts central London, vehicle infrastructure and vehicle movements, and the map of central London, which covers an area of 800 metres, depicts urban villages and the way in which they are integrated. We can look at pedestrian infrastructure models in lower Manhattan in New York. This slide shows the World Trade Center and some initial work that has been done by British architects. Going back to Parramatta, we can look at the pedestrian infrastructure—the peak central business district is again is depicted in red—and we can compare it to the vehicle infrastructure.

I am sure you can start to see how powerful these tools are in helping us to forecast likely performance when we put projects together. These tools also enable us to compare project systems by looking at the accessibility network. We can also link infrastructure to land-use patterns. This slide shows part of a city in Saudi Arabia—the port city of Jeddah. We can link infrastructure to building densities and we can link transport infrastructure with port infrastructure. This slide shows the same city and its port facilities. We can link infrastructure with urban safety—this slide shows a study of some 20,000 cases of burglary in south-western Perth—and we can find the hot spots and very low movements in urban sprawled areas.

To show you our experience, the largest task to date is a city that is sustainable in its economic and social performance and also in its environmental performance The city of Jeddah, which sits on the Red Sea, is some 70 to 100 kilometres from the great sacred cities of Mecca and Medina and has a population of four million people. It is about 50 kilometres along—about from here to Penrith—and it is slightly thinner. By 2020 the intention is to treble the population from four million to 12 million people and to double the footprint from 750 square kilometres to 1,300 square kilometres.

This slide shows the proposed plan and some of the initial work that we have done. We have strategically redesigned the city based on movement infrastructure and understanding movement economies so that we have an accessible, polycentric city. Because of massive transport costs around the world people need to be able to get to facilities that are provided for them without having to go to major centres. Rather, they require a choice of centres.

So we can look at the public infrastructure actual productivity. If we are putting in one part of the city a proposed motorway on the western side, we can make that work and improve rather than produce a barrier causing greater urban growth in that part of the system.

Unlocking economic potential in a smaller and much more appealing way—in three dimensions—is how we put these attractors in the urban task. This slide shows a city centre with a redevelopment site and busy roads. The task was to include two storeys of retail with some commercial towers above. The analysis showed high movement in two streets, indicated by the warm colours, and very low movement elsewhere except down to the south. The slide indicates either side of the street, the pedestrian crossings and a pedestrian structure. That is normally thought of as an adjunct rather than the centrepiece of a way in which we as human beings work cities in all parts of the world, irrespective of cultures.

The analysis suggested that we should not interrupt movement along the major businesses, so we multiplied it. We also brought business throughout the potential site. The result is that we can tell which routes perform well and the percentage increase—that is, from 10 per cent to 113 per cent. These are the desire lines; they are not made up because I thought it was a good idea at the time but based on objective evidence and empirical studies of pedestrian movement around the site. The circles represent public spaces or potential public spaces because they have movement through them back out into the urban fabric. They are therefore likely to have multidirectional movement rather than simply be placed next to something we hope works.

We sculpted the movement system for the two storeys of retail in orange to suit the movement. We actually integrated the two attractors with the movement infrastructure. There were suggestions about unused or underutilised spaces a little further away and in parts of other buildings. We could improve that and the clients liked it enough to suggest that they buy another site and see how that can integrated. We were involved in some other projects nearby. In the English project we can cover the retail section with a glass roof and see whichever tower for the commercial formation is effective according to the investor's financial understanding.

In a sense, we have made two new routes in the urban fabric. Unlike master planning, which tells us what it looks like from a balloon passing over, people do not look at plans, cities, buildings and projects from an aerial perspective, although we have to draw them way. We look at them from ground level. If we know where we have been—hopefully—and where we are going then, because the route is simple and direct, there is the likelihood that people will browse and buy rather than avoid the area. These are the two new routes from a pedestrian viewpoint.

We then even further removed ourselves from the way in which some of our abstract analysis looks at things and got down to the way in which, no matter who we are, we intuitively use space. This slide shows the strategic design of movement in Trafalgar Square in London. It is defined by buildings, two fountains and a column. The back has a retaining wall and there are two dogleg staircases at either end. This slide was taken a number of years ago. There are iconic representations including a tall column with Lord Nelson on the top. It was built in the 1840s. Four years ago we found that there were few people but lots of pigeons. When we went to the busier areas—that is, where the people were—we found there were more pigeons than people, but still there were more people. We noticed that they were not wearing suits, so we knew they were not Londoners. These were tourists. Most people who go to London go to Trafalgar Square, but Londoners have not been using the square effectively for 160 years. I will provide an explanation for that in a second.

Some people suggested that the pigeons were the attraction for people coming to that part of the square. To allay the fears that we needed pigeons in our public spaces we asked the seed sellers to move to the south western part and the pigeons went there and the people stayed put. The other feature was that large numbers of people loved crossing these roads, which have very fast traffic. Again, there were no suits, or very few Londoners—it was mainly tourists. They liked to go in large numbers to, of all things, traffic islands. We thought that traffic islands were not the reason Trafalgar Square was the most attractive place to be or that had attracted huge numbers of people from across the world annually for 160 years.

We thought about how we could explain this unusual behaviour and try to improve it. If we stood in the middle of the square—the yellow dot represents that—the view field in all directions is the pink area, afforded by the buildings that are in the way. That is what you can see of London. The blue dot is the most popular of all the traffic islands. If you move to there you can see most of London, or that part of London. So we great people who design public spaces did not quite capture what everyday people actually knew—that it was cleverer to go to a traffic island to find out where you are and therefore visit other facilities. This is the way we as human beings across cultures—even more fundamentally than cultures—find out how we use the system. If the facilities are available to us—as you might say in Darling Harbour or parts of Docklands in Melbourne—you will find that there are great facilities but it is hard to get to them. The facilities have the problem that we see as creeping underperformance.

How do we maximise this performance in cities, both socially and economically? If we can have urban centres that are highly accessible then they will be great trading centres. If those centres are great trading centres they will have lots of people. The local community will actually be socially cohesive. You can put the social and economic performance in the one basket and start making cities as we used to understand them. These are the parts of the world we like going to; we like going to the parts of cities that work.

In this analysis we followed people on the blue lines—which indicate that not many people crossed the square. The red dots represent people stopping for encounters, whether they be important or unimportant. It shows that people use the space. The green lines indicate average movement and crossings over weeks. We modelled it either side of the street and included the underpasses and overpasses. The slide indicates that most movement occurs not through the square but down to the south. One small example of reiterating from one point of view is that if we went from the church to the arch, there would be five changes of direction, but if we used the square there would be 14 changes of direction. Unless someone is coming to the square to see it and to celebrate London, they will use the square no matter how difficult it is to get there. However, Londoners tended to do the first task and miss the entirely.

We did not build another attractor; we simply suggested the design for a staircase. That is the blue part on the slide. Therefore, a new staircase was installed at the back the square where there was a retaining wall. To change this we had to persuade English heritage—the great unmoved mover—to more complicatedly accept changes in the arrangements, and perhaps to introduce legislation in Parliament, that one of the world's most famous squares could be changed and improved from the original design.

This was the solution at one point. We improved movement through the square by 1,300 per cent. Now Londoners and tourists use their famous square. It is celebrated not only at party time when the British football occasionally wins a game but also throughout the day and every day. That is what we are finding in our cities that we have new areas that are not used except at weekends as attractors, but we need to get them to be used during the week by both vehicles who bring pedestrians from a distance, and when you de-civilise those vehicles so that they do not cause the congestion that we do not want in cities, and we also need to have the local people using them.

So this is the photo collage that we thought would occur with the new staircase, and this is a photograph taken after it was opened. It cost \$A42 million to put a staircase and do some changes for some retail but that was because it was such an important square and it had to be very carefully designed. So in a sense we analyse, we go out and observe and then we do our strategic design and forecasting and so there is a solution for a particular urban problem.

So if we go back to Parramatta and have a look at not just what we have been speaking about, the predictive model, and have a look at what other things in detail we need to understand, before we actually make these changes, and see the consequences economically and socially. We looked at pedestrian movement from 6.00 a.m. to 8.00 p.m. weekday and weekend, and you can see Church Street is the street in the middle that has high movement all the time. We had the summary of pedestrian flows. We looked at workers, locals and tourists as a split so the workers in the blue during the week, and they evaporate on the weekend. So it is really a local system that has been working, added to during the week. And there was only 1 per cent of tourists there. We looked at some 55,000 people and that is split, as I said, between locals, tourists and workers.

We looked at ground floor land use patterns, and first floor. We looked at building frontages whether they were active or blank. We looked at building entrances as the public go into them or had you controlled entrances as you do to come to Parliament House. We looked at the urban block size because the smaller the block the easier to get around so that the pedestrian system can actually be a functioning infrastructure. We looked at way finding from the transport interchange so that the red lines show you the routes that are 2.5 minutes away, yellow are 5 minutes away, green are 10 minutes away and blue are 15 minutes away. Then we looked at the public car parks and how that serviced the system. We looked at how the bus routes were compared with the pedestrian infrastructure. Is it better to put that bus route down this route so you will get more people using it or is it simply because it is equally distant between that bus route and that bus route and over here?

We finally looked at the vehicle infrastructure. Twenty years ago Church Street was closed, as a number of streets in our major cities were closed, to vehicular traffic on the pretext that it would produce a pedestrian heaven. If you went down Church Street before part of it was opened recently you would have found that some of the major buildings were \$2 shops, so the idea of closing off systems to vehicular traffic which brings pedestrians from a distance, if you remember, is itself fraught with concern, and we need to see what the consequences are. So that is the closed to the vehicular part, and there is the solution of opening it fully and seeing what the consequences are, and we can go into it a bit deeper.

When we have a look at unlocking again in some recent projects, the economic and social potential, I will just lightly touch on Green Square in Sydney which is a \$1.5 billion redevelopment by the Government. You can see that Green Square lies in that circle in the middle, and to the north the older areas of Newtown, Chippendale, and Surry Hills—this is the pedestrian infrastructure by the way—are very productive and efficient movers of people with the pedestrian routes. But the likelihood of getting pedestrian routes through this area here is concerning. So the DCP that came out a number of years ago has these pedestrian routes. The concern is how do we make those more effective so that they match in some fashion Surry Hills, Chippendale and Newtown, and therefore, the investment profile of what the private sector are wanting to put in there is actually going to be realised. This is the existing vehicle infrastructure which is much more powerful as it goes past the site in some way and that may be one of the reasons that we are not looking as carefully as we might.

Finally, Macquarie Park in Sydney, a major redevelopment is occurring there. It is one of the important office parks in Australia. It is part of a knowledge corridor for the Metropolitan Strategy. It has the Macquarie University to the northern end. Its pedestrian infrastructure is efficient, and you can see the problem of all these attractors with a movement pattern for pedestrians in the blues and greens of quite low movement. So what happens is people tend to hop in their cars to go from one part to another rather than walk because the box is so big and the distances are so great. By the way, the Government is investing and will be opening soon \$2.2 billion worth of public infrastructure for rail in those three sites linking Epping with Chatswood. So the Master Plan suggested routes, you can see they have improved. Our concern was that the blocks are still very big, and that we could improve that even more and produce an urban centre, so this is one of our solutions and that is not moving any of the existing buildings but providing routes through the sometimes public and sometimes private sectors land, and then having negotiation between the two.

So building movement economies is part of what we consider is sustainable infrastructure. So we analyse urban options and their layouts—these three general types. If we take a more obvious one, the grid, we can determine our block sizes and shapes. We can look at and forecast the movement potential. We can then look at the land uses and allocate them so that high movement is associated with high land use requirements, like retail is the highest, for example, and residential is the lowest land use in terms of movement, but we do have to remember

in residential, we do not need it too low so that it ends up becoming unsafe. And then we can look at distributing the FSRs and the building forms.

So we provide, in one sense, movement economy databases. This is Boston. So instead of just simply seeing the buildings, you can see that the buildings are overlaid on the pedestrian movement pattern, itself a public infrastructure force of economic and enormous social importance. So our objective evidence helps with investment by unlocking value. It helps with strategic design by forecasting the economic multipliers and it helps with providing independent advice for public and private arrangements. So if you are in planning, it helps you to determine land uses based on movement infrastructures. And if you are in transport, it helps you integrate road and rail with pedestrians. If you are in Treasury, it helps you evaluate public infrastructure and expenditure. If you are in investment, it reduces risk and as parliamentarians you can have more confidence in your decisions. Thank you for your time.

Mr DAVID BORGER: Thanks very much Martin for your insightful address and if you are worried about dead beat towns, or main streets that do not work or pedestrian malls that are unsafe or various other issues in your electorates, the Space Syntax website is very insightful. I encourage you to look at that or give Martin a call if you need any further assistance. We need to move along quite quickly now, as we are running a little short on time.

Our next speaker is Mark Kirkland. Mark is the development project director at Rouse Hill town centre for the General Property Trust [GPT] group. He was responsible for the project's delivery in Rouse Hill, Sydney. Mark played an important interface role there between the retail, residential, commercial, civic and educational components of the Rouse Hill town centre. Mark has 14 years of industry experience. Prior to joining the GPT group he held construction, project and development management roles working on a number of major retail developments such as Sunshine Plaza, Erina Fair, Penrith Plaza and Bluewater in the United Kingdom. Would you please give Mark a warm welcome.

MARK KIRKLAND (Rouse Hill Town Centre Project Director, General Property Trust Group): You have probably gathered that I am one of these dirty developers from the black box shopping centre world. Be kind. We are trying to break out of the mould. Thank you for giving us the opportunity to come along and present today. I had the opportunity to be project director on Rouse Hill Town Centre, which is a little different. Our company perspective looks at these types of things as large pieces of community infrastructure so I plan to talk about infrastructure in the broader context of what we have done around this project.

We did a case study of Rouse Hill Town Centre and what we tried to achieve from the point of view of sustainable urban design, efficient use of energy, resources and materials and I will give a little bit about the social outcomes of what we set out to do, how we manage to achieve it and some of the challenges we have struck along the way.

For those who are not familiar with it, Rouse Hill is 35 kilometres north-west of the Sydney central business district. It is one of those identified major growth centres that was touched on in the earlier presentation. The land for the site was purchased by the Government in the 1980s, so it has been sitting there identified as a new regional centre for Sydney for quite a while. Rouse Hill Town Centre, which is what I was more directly involved in, is the centrepiece of a broader urban development called new Rouse Hill, which is basically a 120-hectare master plan community. It has zoning approval for 100,000 square metres of retail and 100,000 square metres of commercial and up to 1,800 residences.

The new Rouse Hill is a joint venture between Lend Lease and GPT, in conjunction with the New South Wales Department of Planning and Landcom. In early 2001, 2002 and 2003 the Government went through a process of putting the opportunity out to the development market, calling for expressions of interest, shortlisting people, and the Lend Lease-GPT consortium was ultimately appointed in 2003.

The overall site of 120 hectares consists of a number of residential precincts. There is a significant expanse of open space, which is mainly along the Cattai Creek corridor, an existing creek that runs through the centre. There is an education precinct with a primary school and a high school. The Rouse Hill Town Centre sits at the heart of that. There is a future commercial development area that has a mixed use commercial-residential-retail zoning across it and this is Windsor Road, which links back to the M7 and M2 and back to the central business district. It is also on a bus transit way that has recently been developed by government. It is also earmarked as the end station on the future north-west rail link.

This is a shot of the town centre in March this year when we opened stage two. You can see some of the residential infrastructure being developed. You can see the Resi display village and the creek and you can see the

primary school that opened 18 months ago. You can see Windsor Road, the bus interchange and this is the future development area for further retail and commercial use. Around the perimeter of the town centre are a number of sites that have not been built on. That was part of the urban planning principle of trying to leave some areas for sleeving of the retail boxes, which I will touch on shortly.

I will do a quick overview of the town centre and what we have done from an urban design, resources and social perspective specific to the town centre. The town centre project is a \$470 million greenfield development consisting of 65,000 roughly retail spaces. Retail is the big commercial driver for the town centre. It is made up of 200 specialty shops, five big major anchor tenants. The thing that is a bit different about this project compared to a more traditional shopping centre, apart from the urban design, is the other mix of uses that were introduced through the project. A number of apartments have been built along the main street through the joint venture. Working with Baulkham Hills Shire Council, it has developed a library and community centre that sits in the heart of the town square and a range of other learning and community spaces have been developed as part of the project. We are still procuring tenants for those, as well as a significant amount of public realm.

We opened in two stages—in September of last year and March this year, having started project construction in April 2006. It has taken just under two years to build this project. From an urban design point of view, one of the fundamental things in the big documents from government was that it wanted to see a very different model and a town centre model, not a shopping centre model. For us it was: how do we turn the whole thing inside out and make a genuine, authentic town, which is something that is quite challenging when you think that towns grow up over hundreds of years and we were trying to do it in a two-year period.

The whole notion of trying to maintain the strong retail fundamentals that we needed to get the thing working commercially but mixing through this whole layer of other uses and activities—and a lot of that was about making it a living town where people can work as well as live, incorporating leisure and entertainment to give it the longer life that we expect to find in a town as opposed to a shopping centre—and even things like learning and community facilities such as adult education classes that run through the evenings and council facilities that run to midnight with rooms that people can hire out for events, to try to broaden the spectrum of uses and hours of activity of the place.

The challenge was trying to deliver strong retail fundamentals in a town model, not a closed-in shopping centre. We positioned all the major boxes on the corners, which gave us the strong pedestrian links, where we more typically put the specialty shops that run between the majors. The reddish coloured area was the pedestrian-only circulation pattern. Then that was bisected by Main Street and Civic Way, with the town square right in the centre and the library building sitting on that. We have a mix. Whilst those are privately owned, they operate like any other road in any other town; they are open 24:7. People can come and go as they please. They have onstreet parking. The addresses for the residential apartments come off the main street.

There is quite a complicated layering of the subdivision pattern, the structures and the ownership through the town, when you take all that stuff into account. Then these are the sleeve sites. Between the outside of the retail and the perimeter road system, the master plan allowed for future development that would then give the opportunity to begin to sleeve in some of the big retail boxes and create some outward focused activity onto these perimeter systems.

The planning is around more commercial type uses at this end, closer to Windsor Road and the transit interchange, and maybe more residential at this end, which gets down closer to the creek and looks down over the bushland and the waterways. Of the 100,000 square metres of retail and commercial that is zoned for that space, we have built just over 71,000 with what is there today and there are 104 apartments along Main Street but ultimately this can take 400 to 500. That gives you a rough indication of the quantum of what can still go in terms of future growth on to that site.

One of the fundamental shifts, one thing that is quite different from a normal shopping centre is that all the parking is underground. That was strongly driven from an urban design perspective, so you do not see any car parks. You might have noticed in the earlier aerial photo there were one or two ongoing parking areas but they are really future development sites that will ultimately be built over. This is a good and a bad thing. From a commercial point of view it created a lot of challenges but the flipside was it was highly accessible for visitors to the town. They park and are taken straight up into the centre of town through a whole lot of different vertical circulation points. From an access and amenity point of view it was great. I will touch on it again later but it created a few challenges from an environmental sustainability point of view. There are some instances when the situation is a trade-off between urban design principles and environmental sustainability principles.

This photo is a layering of the other mix of uses I was talking about. Predominantly it happens along Main Street, which is the main area. On the northern side of Main Street there is a single level of commercial space, which is really where some of the learning-type uses will be housed. The apartments are up to eight storeys high on the south side of Main Street so they do not shadow the street; they get the northern aspect out over some of the bushland and the creeks, not only to deliver a planning strategy but also to try to give some genuine scale and authenticity to that as a street environment. There are various models around where people have tried to do street-type retailing in recent developments but the thing that makes this a bit different is having that genuine mix of uses on the upper levels, which you do not see quite so often. The library and community buildings sit in there and some of our commercial office space, which fronts onto Windsor Road and the transit interchange.

I am just going to flick through a few photos so that you get the flavour that it is still a strong retail environment. It is a regional size shopping destination, but hopefully you will get a sense that whilst we have areas with differing degrees of cover, from the full roof that you see, it is still open to the elements. There are no sliding glass doors. Areas that are pedestrian only have a more traditional street-type response to the weather with a typical three-metre wide awning on either side to provide protection to the shops. This photo shows a large internal space that more typically you would call a food court. We have tried to go a bit beyond that. One of the interesting things is that we have a big screen down the middle of it, which is basically covered out because of the master plan of the overall 120 hectares. There is a strong pedestrian route that comes up from one of the residential precincts to the town square and comes through this space, so we had to design it so we could move all the tables and chairs and secure them out of hours but still have it open as a safe environment when those residents start to want to use that access way.

This photo is of Main Street and you can see the apartment buildings up above, retail below and on-street parking. We went to a fair bit of trouble to design the streets as low traffic flow. All of the car parking entries and exits come off the perimeter roads so you do not actually need to drive up and down Main Street to access the main car parks. The idea here was to try to create an environment of quick-stay parking if you want to quickly pop into the bank or the post office; this is all 30-minute stuff. So we wanted to generate turnover and low traffic flows and make this as pedestrian friendly as we could.

This photo is the other end of Main Street, which is a bit more vibrant. It is more the nighttime leisure and entertainment area, with cinemas above and some of the restaurant precinct below. This photo is interesting because it shows a bit of a hybrid. It is an area that is open to the sky with typical three-metre wide awnings on either side. There are various areas through the town centre where we have additional layers of operability. The idea of these high-level awnings is that at certain times of the day they come out to protect the retail shopfronts from sunlight, because retailers hate their merchandise being faded—obviously it is a more critical issue if it is food. The awnings come out if it is raining or hot to help temper the weather conditions a little. We have put a highly intelligent building management system through the whole place where we have lots of these operable elements to try to get the right balance between something that does not have a roof on it permanently and being able to create the right level of amenity for visitors and for people who have businesses there to be able to function in most weather conditions.

This photo shows the heart of it all, the town square. I touched on this at the start when I said we like to think of these places as bits of community infrastructure. It was great within a day or two of opening to see people turn up with their kids with towels over their shoulders obviously coming to have a splash around and cool off and run through the fountains. You can see the residential buildings flank town square on either side. You cannot see the one on the other side of the image but they overlook Town Square. This is the council's library and community building. It is a great space; you go there at seven o'clock in the morning and people have got their coffees and are sitting around watching and enjoying themselves. The community response to what we have been able to achieve has been fantastic.

This is another area we have put a lot of focus into. There is a younger family demographic out there and we really put a big focus into giving something back. We have created an area that we think is quite popular and has been well received. It is a bespoke play area, which is always full of kids and mums with prams. We put a big focus on the whole precinct. The amenities and the parents' facilities that go with it are just across the way; they are not stuck down a back corridor. They are close to the public space. We have tried to make those best-in-class facilities. There is a coffee shop where mums sit with their prams while their kids have a play. It is a space they can come along to and enjoy. We find that a lot of people just come to do things with their kids and they do not necessarily always shop or buy anything every time they come. They just come because it is a great place and they enjoy it.

This is an area called Market Square, which is between the town centre, Windsor Road and the transit interchange. This is an area that has been set up as a multipurpose community space. When we opened the second stage we ran things like outdoor cinemas as part of the promotion. We get people like the Buick Car Club turning up to do a concourse of 12 cars. We get people wanting to do sporting registration sign-ons. We have monthly growers markets there with Hawkesbury Harvest, a collective of growers in the Hawkesbury-Nepean region, which have been really popular. It is more about trying to give something back to the community so they feel like it is their town centre, not ours. That is the ultimate success for us, I suppose. We feel we have done a pretty good job in trying to change the shopping centre paradigm. I suppose we are biased, but a great bit of news for us was to hear at the weekend that the architectural team won the Lloyd Rees urban design award of the Institute of Architects. They will go into the national awards for their design of the town centre.

I have touched on some of the challenges, but the basement parking was one. From an urban design point of view it was desirable for everyone involved with the project to have the parking underground but when we did the analysis from an environmental point of view we figured out something like 30 per cent more energy would be consumed by virtue of having to dig the hole and create the basements and then ongoing operationally having to light them and ventilate them. That is an example where sustainable urban design and sustainable environmental design do not necessarily always go hand in hand and you have to be conscious of those sorts of trade-offs.

The other one from the design point of view, obviously we wanted to try and create the diversity of a town with the diversity of materials that go with that and it was challenging quite often to get stuff that had the right long-term durability and maintenance requirements and stuff like that. Sometimes we are a bit limited in some of those areas

An interesting one: I think one of the themes or something mentioned in the conference papers is the issue about access and equity for people and we had a wad of dialogue with council and they pushed us quite hard, which was quite good in hindsight, about what is the whole philosophy for how you manage and use privately owned public spaces. So the two roads in particular through the middle of the town, what is my right if I want to go along and hand out religious leaflets or political pamphlets or have a protest about something, because typically in a town you would not have anyone managing that or controlling that. So we put a whole structure around that; we looked at the way it is done in places like Sydney Olympic Park and the Foreshore Authority and Sydney City Council and we sort of adopted a model. We have never gone beyond that even, because a lot of those areas sometimes say these are the only types of things you can do. There is no documented right of appeal if you get rejected; there is no guarantee of approvals; and with issues of a whole lot of things like that we think it gives us a pretty robust framework and seems to be working so far.

From the resources and environment perspective, at the time we embarked on the project some of the star rating tools were around in commercial office type projects but there was not really stuff so readily available for retail. So we embarked on a route of looking at our eco-footprint rather than star rating tools. I mentioned we had a number of objectives in the framework of how the project was awarded from government, so we benchmarked our eco-footprint. If you look at the red on the screen it would be what a typical enclosed shopping centre of the same size would represent in terms of ecological footprint. At the time we were awarded the project with all the initiatives and things that we had to deliver to government we were sitting in the yellow territory. So we were at about a 19 per cent reduction already.

Post-completion we are saying we are at about 25 per cent, which is the green, and the big inroads we have made predominantly have been the work we have done with tenants, because in a shopping centre environment tenants definitely use about two-thirds of the energy of the place. So it is very easy as a landlord to put all the smart stuff around the base field in the common areas that you control; it is much harder to try and get tenants to engage in that. I will just touch on each one of those axes in a little more detail.

Biodiversity, compared to business as usual, got about a 50 percent better result, and that was just through the opportunity—we had the space there—to introduce things like bio-swales and to introduce a lot of native planting around the perimeter sites—something like 130,000 trees and plants have gone into it. The whole focus across the whole project was about water sensitive urban design; it was not just about us capturing all the rainwater off the roof to reduce water consumption; we were making sure we were putting the right flows back through the creek system as well to ensure the ongoing sustainability of that—rooftop gardens and things like that.

There were some challenges, and they were not major, in trying to create diversity and vibrancy and the like in the town centre. We probably wanted in a few instances to use species that were not necessarily indigenous because we wanted to get the change in colours through the seasons and trees that lost their leaves so that we had a better response to the environment in letting sun in in winter and things like that. Also, the underground

parking: While they probably allowed us to build the whole project on a smaller land footprint than what we normally would, there was the trade-off from the energy consumption perspective that we talked about earlier.

Materials: We did a whole load of stuff but this is just some of the headlines. There was a big focus: a lot of the road base and sub base all came from recycled sources; all the non-structural concrete—blinding, slates and things—have a higher recycled content. There was a lot of focus on reducing the cement component in concrete and using more fly ash, lots of recycled content in the structural steel and the reinforcing and even through other metals like aluminium and stuff that we used through the project. Timber was an interesting one because when we started to do some of the timber selections there seemed to be a whole range of different types of accreditation programs, and digging behind all that and finding out the ones that truly were the most sustainable was an interesting challenge.

Fit for purposes was probably one of the biggest challenges we had because whilst we were trying to choose materials that had a high recycled content or low embodied energy or whatever, at the end of the day we still needed to make sure it was durable and had a longevity to it. There are some instances where you do not really have a choice, you just have to use a particular type of material, like restaurants, for example: from the health point of view their kitchen equipment really needs to be stainless steel; there is probably not another material you can choose. So I suppose it is just recognising some of those constraints and also where the market was up to in terms of suppliers and how much information they could really give you about what embodied energy there was in the product or how much recycled content, and when you dig behind some of that sometimes it is not that easy to get behind it all.

Energy and greenhouse emissions: Again, quite a significant reduction, and that is largely because of the open street environment, so we have not actually got a lot of common areas we have had to air-condition. Since we were air-conditioning we put a highly efficient central plant system in there. Quite often the major tenants, like the Woolworths and the Coles and the Targets, they want to have their own air-conditioning plant, but we managed to get all of them to go on the central plant as well, which made it a lot more efficient. We invested a lot of money in the technology in the metering so we can trend how we are going against our forecast. So if we see a spike in energy consumption we know something is not commissioned properly or is not switching itself off as it should be, so we can catch the problems upfront before they happen.

A lot of work has gone into the solar design strategy, so getting the building height and massing into the right spots—the bits that operate so we can let sun down into the spaces in winter, that we can keep the heat down in summer, all that type of stuff. Lighting was a big one as well. Obviously, first of all, getting the lighting that was right and not overlighting it; then achieving the lighting with very efficient fittings, and then, thirdly, make sure you only have lighting there you want, so a lot of back-of-the-house areas and things need motion detection and that type of stuff through it. That was really through the retailers as well.

Challenges: Retailers love lights and the more they can put in the better, and quite often when they are designing their fit-outs they will get an architect to do it and they will not necessarily get a specialist lighting designer. So they tend to be on the conservative side and put too much lighting in there. That is part of the engagement with the retailer design processes that is a bit of a challenge. At the time we started the project we knew there was constrained electrical capacity out in the north-west sector generally, so a lot of this stuff we had to do because if we had to consume like a normal shopping centre would, we would not have the power to do an open project. So there was sort of a business imperative to achieving some of this as well.

The last point—it is not really so much in relation to this project but some other things we are looking at. At the moment we are looking to put a coach in and things like that. We are halfway between two markets: we are trying to get gas into one of our projects, and the smaller retailers seem to be quite well protected with some of the legislation, or if you are a big industrial conglomerate consuming a lot of gas you have a different negotiating position. We are stuck in the middle. So it is quite difficult if the infrastructure is there to actually get it into your projects in some instances so you can use some of these technologies to save energy.

Water: Whilst that says 47 per cent, that is from an eco-footprint point of view. We have actually reduced our water consumption by about 60 per cent compared with a typical centre of the same size, and I think that is even about 20 per cent better than Sydney Water's current best practice guidelines. We think we have done pretty well there. Within that, out at Rouse Hill Sydney Water has a recycled water system, so we would manage within that reduction. A high component of what we are using is from the recycled system rather than the potable system.

I will go through some of the things we have done. Firstly, with regard to cooling towers, the bleed water from our cooling towers goes through a chemical treatment process and gets reused—which has been done before

in a commercial office building context, but we think it is the first time it has been done in retail. As I touched on earlier, rainwater collection was tempered by making sure we were still keeping good-quality flows through the creeks. With respect to metering, historically we have gone back into other centres and we have retrospectively done sub-metering. If you have a toilet block or a leaky cistern, or something is leaking in a plant room, the metering system can pick that up straightaway so you reduce a lot of wastage.

With regard to green leases, we did not say to retailers, "You have to reduce by X amount"; we went a step further and recognised that they would not necessarily have the background or the skills to figure out how to get there on their own. We were quite specific in saying, "You must do this, this and this, and you cannot do X, Y or Z." That was embedded in the leases, so we have the right, if they do not do the right thing, to go back and rectify some of that sort of stuff.

I will talk about some of the challenges. Obviously, getting the retailers on board again was a big thing. I suppose a pet gripe I have, working in the development industry, is the way some of the infrastructure charges work around water. We have forecast that we are achieving that 60 per cent reduction, but we do not get any acknowledgement for that, in the way that the head works, charges and so on get calculated. From our point of view, we would be quite happy to invest that money into other technologies and try to make even further savings, but it is just not quite there at the moment from a legislative point of view.

With regard to transport, we have a pretty strong green travel plan out there. Obviously, being located on the T-way, that is a good thing, and ultimately with the trains coming at some point in the future, which is currently earmarked for 2017, that will help increase that reduction even further. There is an integrated network through the town centre in the broad approach, which ties back into the regional cycleways and pedestrian ways.

We have put a lot of investment into a car park management system, which some of you may have seen on other projects. Basically, it has a little red or green light above every car parking space, so it very quickly and efficiently guides people to a vacant space. The consultancy had done a study on a previous project, and they reckoned it reduced movement through the car park by about 55 per cent. The exhaust gases and the need to ventilate that, and so on, obviously has some environmental benefits.

Whilst we had a really good partnership with the Government and the parties involved, and everyone worked together collaboratively, at the end of the day it was probably an easier challenge to get Windsor Road upgraded than it has been trying to get additional bus services. Even though the funding is there, it has been a slow process to try to improve some of our public transport infrastructure.

As I said at the beginning, the tenant aspect is probably the area where we have made the biggest inroad from the point that the project started. There has been about a 42 per cent reduction in eco-footprint compared with business as usual. We built an eco-footprint calculator, so that every tenant, when they lodged their design, had to run their design through the calculator and we had pass or fail criteria. We gave them all sorts of guidelines which we developed, about where to go to find sustainable materials and materials with low embodied energy, as well as stipulating quite clearly what the minimum water and lighting requirements were, and all that was embedded in the green lease. But also, they have to participate in travel surveys, the green travel plan, waste management strategies, and those types of things.

From a social perspective, we also had a big focus on what are the social outcomes we can deliver around the project. The whole concept of life-long learning was a big thing that was part of our discussions with Government and it goes across the whole project. We obviously have things like the more formal learning opportunities, with the council and the library being in the heart of the town centre, and there are other spaces that we are leasing to learning-type providers, such as community colleges and those sorts of people. There is a secondary, less formal layer running through all of that, where we have invested in public art and interpretive strategies, and even a little eco-footprint trail, to get our message out to the community and to get a bit of a ripple effect off the back of the good outcomes we have managed to achieve.

The other great social aspect was from a job point of view, when we opened the 170,000-page views we had on our website. We had all these retailers needing to employ staff and a heap of people in the local community looking for jobs, so we became a portal in between, through our website, to put the two in touch with each other. Quite a few positions have been placed through that. I would be happy to answer questions. Thank you.

Mr DAVID BORGER: I now introduce the third speaker, Professor David Richmond. Professor Richmond is the New South Wales Coordinator General for Infrastructure. He has a distinguished career, which is well regarded by the private and public sectors, both nationally and internationally. Professor Richmond was

responsible for the delivery of all facilities for the Sydney 2000 Olympic and Paralympic Games. Planning and developing major urban land projects, hospitals and urban renewal projects are also in Professor Richmond's curriculum vitae. Such projects include John Hunter, Fairfield and Sydney hospitals, and also the Paddington Green and Newington residential developments. Until recently Professor Richmond chaired both the Sydney Olympic Park Authority and the Redfern Waterloo Authority, where the total new, developed and contracted infrastructure expenditure now exceeds \$1.3 billion. Welcome, Professor David Richmond.

Professor DAVID RICHMOND (Chair, Redfern Waterloo Authority): Thank you very much, David and Karyn. It is a pleasure to be here today. I may have drawn the short end of the stick, because you have had all these classy presentations but not very much time left at the end. So I will try to not talk for too long, so that there is a bit of an opportunity for questions.

The theme of sustainable public infrastructure is a very topical one at this point in time. I think it is relevant to note that across Australia at the moment governments are investing in infrastructure in a manner that we have not seen for some decades. In New South Wales, for example, in the next four years the expenditure under the Government's capital works program will be 58 per cent higher than in the previous four years. This year New South Wales is mounting a program of \$13.9 billion, and similar programs are being mounted across Australia at the moment. So it is an opportune time to start thinking about how we maximise the benefits of this investment.

This infrastructure upsurge is occurring at a time when we are wrestling with some fundamental issues in terms of climate change and global warming, and how in the future we deal with these great challenges that are upon us in terms of the ecological environment. So it is a critical period to be thinking about how we develop infrastructure in a sustainable manner. It is very important that we remind ourselves that sustainability is not just an environmental concept; it is about economic and social sustainability as well. No matter how much better we get at measuring, understanding and appreciating some of the environmental impacts of development, we will still have to make trade-offs between the environmental, social and economic objectives that underpin the idea of sustainable development. Of course, that is one of the great challenges for governments. But those who are passionate about the environmental sustainability issues, those who are passionate about the social sustainability issues, and those who are passionate about economic sustainability will not always be in unity.

That is a really big challenge for governments. It is as minor—and I am not suggesting we try it as an example—as the example that we heard about stainless steel in the kitchen. That is just one simple example of the thousands of trade-offs that need to be made in developing infrastructure between what might be regarded as social sustainability, that is, public health issues, and environmental sustainability in terms of the use of materials. It is very important that we do not lose sight of that because a lot of the growth in knowledge will inform those issues but it will not be a substitute for decisions. The decisions will be made by and large by officials who will be better informed. It will not take away the need to make those sorts of judgements.

Listening to the speeches this morning there are two things that came to my mind which again I would reinforce. One is that many of the things that we are dealing with in our lifetime, in our working lifetime, have long lead times. If you talk about the example that we heard from the first speaker in the welcome of the Penrith Lakes scheme, what was the critical date? It was some time in the early 1980s. You heard about Rouse Hill. What was the critical date? It was some time in the 1980s. It is a very big challenge, particularly I think for the politicians because we are talking here about quite long-term activities that will not bear fruit for a couple of generations. It is very important when we are looking at infrastructure that we do not lose sight of that. There is enormous pressure for instant gratification, instant results, but these are long-term issues. Unfortunately, one of the great tragedies that has beset the Western world, and we are no different, is that in the last 20 years to a large extent we have lost sight of the idea that we do have to plan 20 years ahead. We are scrambling at the moment to make up in many places for that lack of foresight. Again, it is an important thing. These are long-term projects and issues.

From that there is another point—you do not have to get everything right and resolve everything and complete everything now. That is another important issue. We need to think about where we want to get with the project in the long term, our best guess at what would be desirable in a couple of decades, and think about what we do in the interim period. We need to be thinking in a bit more creative way. A simple example of that is that in the south-western part of Sydney, one of the growth centres, we will go out to tender in the next few weeks for a major extension of the south-western railway, part of our major investments in the rail link. There will be a place where we need to stable the trains. That is significant for running the railway because like horses trains need to stay overnight and be looked after and start out again the next morning. That place will also be a place where in the long term, in 20 years, there could be a Rouse Hill-type town centre. The question that I want to get people to answer is: What do we do between now and then? One of the things that we do to make that a sustainable and sensible place for people as a start out is a car park where commuters come to get on the train at the end of this

rail line. As a start out some very limited convenience capability, shopping and things like that. If it does happen, there is no reason for that to always stay there. So there is this issue of thinking these things through into the long term.

The other thing that is very important for Australians is to look around Australia. Last year when New South Wales was starting its successful attempt largely, as it has turned out, to reform its land use planning laws, I spent a fair bit of time with the New South Wales planning Minister going to other States to look at what was going on there. The thing that struck me was that we can talk today about Rouse Hill and Parramatta and all the things that are happening in Sydney, but so can every other State. Many of the great lessons about how we do infrastructure well, how we address these issues of sustainability, are already there with us as living examples. That does not mean it is not important to get knowledge and skills from overseas. But one of our problems is that we do underestimate the extent to which we are addressing these challenges and how much there is to learn across the State borders.

It is something that has always surprised me as to how little we do learn from each other because every State has comparable examples of good practice, interesting and innovative approaches to urban development and there is a lot to learn from what we do. We should not have too much cultural cringe about what we do. In fact, when you look around the world and you go to those places where there is significant growth, quite often it is the case when you get into those environments you will hear that familiar accent. There is an Australian there. We are very critical of what we do. In fact, we are doing very well in a lot of areas. We just need to build on those achievements and understand a bit better what we are doing.

The question of sustainability has been quite well addressed in two presentations. You have seen different elements of it. I do not want to go into it in great detail. What I do want to talk about is the importance of thinking through the issues of environmental, social and economic sustainability through all the phases of the delivery of infrastructure and not losing sight of that as you progress through the phases. Just because you think you have solved the problem in the planning phase, do not assume you do not have to do other things later on. One of the things that particularly the public sector is not good at is that end-to-end approach to these issues—starting with the broad policy and strategy, getting that right and then moving to the more detailed planning phase, the way in which we deliver the project.

One of the things that we are very poor at is commissioning the project. That is something in major public infrastructure, particularly where you are trying to address these three themes of economic, social and environmental sustainability, that becomes very, very important. Unlike the private sector, we do not spend enough time thinking about how the opening and the delivery of the project, the commissioning phase if you like, will actually impact on the users. A simple example of that, there was a reference in the Rouse Hill presentation to the transit way which runs from a wonderful place called Parramatta, which you have heard about, through to Rouse Hill. We looked at the transit way as it was nearing completion. Golly gee, there was nobody in charge of commissioning and there was no money for commissioning. That is fairly typical of a lot of government projects.

We put half a million dollars into that commissioning phase. The commissioning was about sorting out the relationship between the bus timetables and the use of this new piece of infrastructure, the need to have lots and lots of people on the ground so that the consumers to whom this was directed actually got first-hand information in those early couple of months so that the social outcome in this case and the environmental and economic outcome of getting more people to use the buses actually had a chance of happening. Even though there was a lot of thinking done in those pre-phases, it is very important to make sure that that thinking is sustained right through the project. Of course, once you have commissioned the project there is the operating and maintenance. Again, the Rouse Hill example is an interesting way in which the public sector can learn from the private sector about that.

Of course, the final phase—what are you going to do about the thing in the end—is also an interesting phase. One of the great benefits of the use of public-private partnerships for the public sector has been that it has forced our mind to what happens at the end of the 30-year concession, or whatever the concession period might be. A minimum position, of course, is that we want it back in a proper condition. That is a big advance on where we would be if it were just a government project, if I could use that term. In other words, we do need to think much more in pursuing these objectives of sustainability about even that final phase—what is actually going to happen with the project. An interesting example of that will be Sydney's new North West Metro rail link, which will be the first urban metro rail in Australia. It will go from the CBD to Rouse Hill—to come back to Rouse Hill—and we will commence construction in 2010. My personal challenge from the Premier is to see if we cannot start in 2009. We will do our best.

That project straightaway raises these sorts of issues. Sure, it has also sorts of attractive criteria in terms of environmental and social sustainability because it addresses issues about moving people through public transport and all the attendant benefits of carbon reduction, but we also need to address funding issues: What are we planning and building for? Is this going to last 100 years? Will it last 30 years? These are questions that we will ask the Government to answer at the end of the year when we develop the final definition report.

These are really important issues that we need to wrestle with in relation to the sorts of projects: It is important to take a long-term perspective. That does not mean that you will always get the long term right—indeed, often you will not—but at least there is some thinking and at least there is a benchmark for others when they come along to evaluate your view. They will be able to say that 20 years ago these people thought this, and why they thought this. What has changed? Why will we not take a different perspective? It is very important to keep that long-term perspective in the provision of infrastructure. Too often we have forgotten about that, particularly in New South Wales, dare I say. We sort of lost the capacity for a while to do long-term planning. We are really working very hard to make up for that at the moment.

It is terribly important that governments maintain their ability to identify, if you like, the property rights and infrastructure that are needed, particularly in major urban areas such as Sydney. We have seen a resurgence of urban planning at strategic level in recent years right around Australia in attempts to do that. Projects like the North West Metro, which are designed to cope with long-term population growth and start a new era in terms of delivery of rail in Australia, probably will be the first of a number of metro rail projects, which we are all familiar with when we travel but have never seen in Australia. We hope that after this we will have money from the Federal Government for an inner west metro study, which we are about to embark on from the CBD to that wonderful place called Parramatta. It is a great place, Parramatta.

The significance of that is that I am sure it will start a pattern in other places across Australia, but it sets the scene for a very different approach to urban transport in Sydney in the decades ahead. These are some of the things we need to be contemplating as we deal with the issue of sustainable development. These are some messages that I put to you that you may respond to, accept or reject, which is fine. One of the biggest challenges is the challenge of growth in our metropolitan areas. The big challenge, aside from coping with the scale of growth, is the fact that, in settling in Sydney in most places where the growth is likely to occur, we have run out of infrastructure. We have run out of infrastructure that was provided by our forebears. There are limits to how much our heavy rail system can be expanded, which is why we are going in overload in the long term to a fast metro rail across Sydney.

There are limits to extending the sewerage system further, which is why we have a very massive program of sewage treatment plants and major works in sewers. There are limits to the electricity distribution system, which is one of the reasons we have had such a massive program of maintaining, improving and expanding that system. We are at that fairly critical point, so there is that challenge; but there is the overriding challenge too of managing our growth in a sustainable manner. One of the big challenges as we look at metropolitan growth is how we get the sustainability we have spoken about and strike a balance between economic, social and environmental considerations. That is a very significant issue as we move forward.

The other important matter is the balance across the region and the outcomes for quality of life and wellbeing of people generally. We have a strong tradition in Australian cities of distributing much of the social capital fairly well, in my view, particularly recreation-based social capital. Of course, we had that very special period in Australian history where the national government in the seventies, the Whitlam Government, initiated an enormous number of programs right across major urban areas, of which we are still very significant beneficiaries. It is important that we do not forget those lessons. It meant that people all over Sydney received significant upgrading of recreational and other facilities, let alone sewerage, at the time. It is a very important tradition to maintain that kind of spread of social capital. How we balance the gains from urban development across the regions is very important.

At the risk of taking a slightly different view to that of the previous speaker and one of the co-chairs, be very careful about interpreting that as facilities in place. In other words, it may be very important to have certain things in place so that local people can use them, but in a global city, and in a city particularly like Sydney but also in some of the other Australian cities, it may often be much more important to ensure that people can get to places than it is necessary to provide facilities where people live. Having said that, there is obviously a balance, but it is very important that we do not get too carried away and think that we have to duplicate everything in particular locations.

Australia is a very mobile society in every sense of the term. Notwithstanding the impact of petrol prices, it will continue to be that way if for no other reason than that we are a very dynamic entrepreneurial economy and we

have hundreds and hundreds of thousands of costs centres of individual employers and small businesses. That is not going to change; in fact, it might intensify. That means that people are moving around a lot, so let us be realistic about what it is we provide in place locally and what we provide elsewhere. The important thing is that people have access in the future to the range of benefits they have now in terms of living in the city.

The other big challenge is a perennial one, and that is linking investment decisions to land use planning decisions. One of the major themes of State government over 50 or 60 years is how you do that and how you make sure that when people make land use planning decisions we get a strong link with investment decisions, particularly around infrastructure. That is now more complicated because we feel it as, in very simple terms if you like, the urban space about us. We have to have much more regard to the environmental impact of decisions and to reconciling the need to maintain not only population growth, infrastructure supporting it and investment in that but also environmental sustainability and the ability to ensure that vegetation is protected. All of those considerations place a greater challenge on government and on the community in forming linkages between land use planning decisions, investments in public and private dollars, and environmental decisions.

One of the keys to environmental sustainability and social and economic sustainability in my view is the commitment which I think is now strongly embedded in a number of State governments, but certainly in New South Wales, to expanding and widening the scope and coverage of public transport, and how important that is to the growth of cities and, of course, how fundamental that will be in addressing some of the environmental challenges. Things like the North West Metro and the future metro programs in Sydney are a very important part of that, but in our type of cities the other thing that is very significant is the expansion of the bus networks, bus priority systems and those kinds of things that we are seeing in a number of cities.

If there is one thing that I see as underpinning sustainability in the urban environment it is widening the scope of public transport systems in an appropriate manner, which does not necessarily mean building railways or light rail everywhere; very often it will mean buses and accessibility for buses. That probably is one of the major challenges that we face in our urban cities at the moment, hence the State Government's funding in New South Wales of the North West Metro, the funding of a feasibility study for the inner west metro from the Commonwealth and State governments we are about to start on, and the funding of a major study for what we call our M5 corridor, which is the corridor from the airport to Campbelltown in the south west. These are all symptomatic of the need to improve access, but at the same time extend and widen the coverage of public transport. I think that is as strong a message as any that I can suggest to you and that I would leave with you.

Mr DAVID BORGER: Thank you very much, David. We very much appreciate your comments about the challenges for us as politicians and representatives in terms of the longevity of the big infrastructure investments. Projects that are proposed by us now may come to fruition under future governments and representatives. It reminds me of when I was Lord Mayor of Parramatta at the young age of 29. I spent most of my first year opening projects that I did not agree with and did not want to take place that had been worked on by other people. In years hence I then had the indignity of seeing the things that I believed in passionately being opened by people who opposed them. I also thank the other speakers. We are running a little behind time but I will ask our three wise men to take a seat on the stage and answer some questions from the audience.

The Hon. SUE NAPIER (Tasmania): Thank you very much to the speakers. If you overlay the ageing demographic on pedestrian patterns and the way in which suburbs and precincts are being designed and also look at the implications in terms of public transport, quite often an older person can drive—not necessarily safely but more safely—at least to the shopping centre whereas they cannot walk even to get to public transport, let alone try to connect with some of the pedestrian spaces that are being discussed here. What structures are being built into planning in order to deal better with the ageing demographic?

Professor DAVID RICHMOND: It is a really important issue, and it underlies the significance of not getting too carried away with particular solutions. The importance of the motor car to many older people is sometimes very much ignored by planners. The assumption that somehow it is all ambulatory access can have a very significant impact on the quality of life of people with disabilities and older people. Certainly in New South Wales there is an ageing strategy that is being developed that is an attempt to try to make sure that as much as possible across all areas of government the impact of the ageing population is factored into what we do. That can range from, "How big is the ambulance?" because very often you will not be taking just one person but the carer and the patient. There are so many issues that need to be looked at as we respond to an ageing population.

In terms of the issue of urban planning, it comes back to the point about balance. You need to be able to get both. You need the outreach of public transport but many people need much more the ability to use either their own vehicle or some form of door-to-door transport. In my view, one of the things that we have let lapse in our

social policy area—which is linked to this—is the whole question of how effectively we use the community transport sector. I think that is a very important factor that we must regenerate in the dialogue around urban amenity. It tends to be a sector that suffers fairly severely in budget-constrained times, which is not a good thing.

Mr MARTIN BUTTERWORTH: I agree with David. If you look at old parts of our cities you will find that you still use cars even though it is a walkable world. It is that judicious combination that is important—David is nodding in agreement. I live in a part of Sydney called Potts Point, and we do not have car parking at Woolworths. But that does not stop people walking there. Of course, other services are at a distance and, whether you are old or young, you need cars to access and use those facilities. In new areas you have literally no choice but to use the car. If you look at some parts of the Gold Coast, you cannot get to many facilities without using a car. Therefore, that sparse development rather than denser development—and I do not mean tall by dense—has an enormous number of lessons that we can learn from. I do not see why we do not put that in our master planning and in our general planning for infrastructure across cities.

The Hon. BOB SUCH (South Australia): I think it was you, David, who mentioned having foresight. I have introduced a bill into our Parliament to create a foresight committee—not a saga but a committee. I have not got it up yet. As I understand it, the British Government set one up within the bureaucracy—I believe it should be within the Parliament—to look at issues, not crystal ball gazing, 20 or 30 years down the track. Recently southern Australia was caught out by the water shortage, and Sue mentioned the ageing of the population. You can apply it to all sorts of areas. I do not know what the panel thinks about establishing a committee specifically to look at issues down the track rather than the current committee system that looks at today's or yesterday's issues.

Professor DAVID RICHMOND: I am not here to encourage parliamentary committees; I am a bureaucrat and it makes more work for us. However, I think one of the things we lack in Australia is that quality of discourse around these issues that is provided in other countries. In the United States it is often provided by right-wing, leftwing and middle-of-the-road foundations and research institutes. We do not have that in Australia, and I think it is a pity. There is indeed scope for mechanisms that start to address some of these issues because, in spite of what some people will argue, most of this is predictable in the sense that you can predict it will be an issue. You may not predict exactly what form the issue will manifest itself in, but it was pretty obvious that there were going to be long-term issues in relation to water in Australia, for example.

The embedded changes in the population were there 30 years ago. We knew that ageing was coming and we could watch other societies age. So it is not about, as you say, being all that speculative; it is about just looking at the trends, postulating some of the scenarios and forms they might take and getting people ready to address them. You do not necessarily have to come up with a solution; it is about getting people to start to think and get ready. So I think that sort of idea is good. I am not going to say that it ought to be a parliamentary committee. But, if it were, I would say sunset it because what you probably need is new blood coming on in a few years to start a new generation of thinking about the same issues.

Mr DAVID PISONI (South Australia): The examples we saw today were mainly on almost greenfield sites. I wonder whether you have any examples of redevelopment in older, heritage areas and how well you were able to implement policies and strategies that you have outlined today and still maintain the character of those areas. Can anyone shed some light on that issue?

Mr DAVID BORGER: Parramatta is one of the oldest parts of Australia—in fact, it houses the oldest building in the country, Elizabeth Farm Cottage. Do any speakers wish to respond?

Professor DAVID RICHMOND: It is a big issue. There is almost a contradiction in the concept of being able to maintain the character because any significant intervention in the existing urban environment will change the character. It does not mean you change it totally; the challenge is how to maintain the better features of the social and economic environments of a locality and still achieve some broader objectives. In recent times most of the development in what we refer to as the brownfield areas of Sydney has been on cleared industrial sites and things like that. So the challenge has not been as acute.

More recent activities such as Redfern-Waterloo, in which I was involved as chairman of the authority, are an example of a real attempt to try to do a number of things to address employment growth in the area with buildings, particularly office accommodation, and to make use of old buildings that have become public buildings, which served a function in the past that no longer is appropriate such as an old inner city hospital, an old inner-city school that had become redundant, trying to find ways of recycling those in a context of a community that has very significant social problems with low-income public-housing tenants and a very significant, very active and quite volatile Aboriginal community.

That has been a very interesting exercise in trying to introduce new urban forms, build up densities, particularly in the commercial office sector, so we can get some employment, and also bring in high-tech firms. But it is very early days. There are not a lot of examples of significant development in Sydney where you actually have changed the character. Most of that occurred 20 or 30 years ago and then was stopped. What we have increasingly done is try to enhance the existing character of urban areas. As we develop along the major corridors, particularly, say, along the Parramatta Road corridor leading out to Parramatta, the North West rail corridor but mainly the areas between here and places like Chatswood, that will become a big challenge. But in order to get some of the sustainability benefits from the \$12 billion investment in the rail we are going to have to look for higher densities and changes in some of those urban areas. It will be something to watch.

Generally, what Sydney has tried to do is avoid wholesale redevelopment and upgrading of densities in many existing urban areas and focused on those corridors and centres to get the benefit. I actually think that is a good policy because I would hate to see Australia lose some of the character and real benefits to Australian households that come from many aspects of our low-density lifestyle. I would hate to see that disappear. We have the great opportunity to show people how in an inner city like Sydney or Melbourne you actually can have both and they both work very well.

Ms JOANNE DUNCAN (Victoria): Mark mentioned something about headway costs; I assume that it is like developer levies. You said that legislative changes might be required for that. Could you elaborate?

Mr MARK KIRKLAND: I think it is just the way the structure for the Independent Pricing and Regulatory Tribunal [IPART] works. As I understand it, Sydney Water puts its pricing structure together and that goes through the independent review process, but it does not really differentiate between a development that may be using half the water of an equivalent project up the road: you still get charged the same on a site-area basis. It almost works against you as a disincentive to actually try to go the extra yard to do something that is sustainable. On something like Rouse Hill in a retail context, we could get it to work commercially because it was a greenfield environment and we had to set up all the lease structures and things. But if you are in an existing centre, the way the outgoings recoveries work, as an owner, a lot of those operational savings go back to the tenant. So, the only incentive really is capital cost savings if you are redeveloping a centre and doing water-saving initiatives. I just think there are probably other more efficient ways to look at it to try to encourage the industry to do more.

Mr RAY WILLIAMS (New South Wales): Mark, you were very humble and downplayed the significance of the parking area at Rouse Hill. Given the technology and the wonderful advances we have made there, you might explain it to the audience. Whilst you spoke of the obvious downfalls in digging out that underground site, I believe the future incentives from not getting emissions pouring out of cars while they are running around searching for a parking spot are very significant. Would you elaborate on that?

Mr MARK KIRKLAND: As I touched on in the presentation, each parking bay has a little LED light above it. As you are driving along at the end of an aisle it will have a little sign that says there are 20 empty spaces down at aisle. As you turn down the aisle you can see the 20 green lights to identify where they are. It gets people very quickly from the outside road system straight to an empty car space without constant circulation through the car park. Along with the backyard play area it is probably the other thing that has had the most positive feedback from the community in the range of things we have delivered at Rouse Hill Town Centre.

Mr DAVID BORGER: The Rouse Hill Town Centre is not on the list of places we will visit tomorrow, but if people are staying longer in Sydney and would like to see the town centre, you can catch a train out to Parramatta and then take the David Richmond rapid bus expressway, which will take you directly to the Rouse Hill Town Centre. I thank everyone for attending today, and the three wise men for their contributions. They have all added some insight, wisdom and knowledge from years of experience in the public and private sectors. I ask everyone to join me in thanking our panel Martin Butterworth, Mark Kirkland and Professor David Richmond, as well as our committee staff and Hansard reporters for their contributions this morning.

(Session A concluded at 11.30 a.m.)

Session B—Jurisdictional Committee Reports

Public Works Committees

Mr DAVID BORGER (New South Wales): I welcome everyone to this session, where we will have a chance to learn about what other States have been doing—and the Commonwealth committee is also represented here today—and what inquiries we have been undertaking. I understand four committees, other than the New South Wales committee, are represented here today. They are the Commonwealth Parliamentary Standing Committee on Public Works, the Queensland Public Works Committee, the South Australian Public Works Committee, Tasmania's Joint Standing Committee on Public Works and Victoria's Environment and Natural Resources Committee. There is no fixed order for giving reports so I call for volunteers from the chairs of committees. I am happy to give the New South Wales report at the end. Is there a chair of one of those committees who would like to present first?

Ms VINI CICCARELLO (South Australia): Most people know that South Australia's Public Works Committee examines public works if their construction costs exceed \$4 million, and construction cannot commence until our report has been tabled in Parliament. Happily, this significant power has never been used to delay a project for partisan purposes, as members have never allowed political differences to jeopardise timely delivery of projects. Any particular disagreements have been expressed through minority reports and they have never delayed the scheduling of public works.

Unfortunately, a different story of delay is occurring because there is no mechanism to adjust our \$4 million referral threshold for inflation, and inflation on construction costs has exceeded 70 per cent since the legislation was enacted. This referral bracket creep distorts the intent of legislation and imposes significant avoidable delays for projects which should not be captured by its provisions. A bill to change this lapsed during the last Parliament and the committee has been unable to agree on administrative measures to achieve the same ends. I find this unfortunate, as previous committees have made recommendations that led to significant improvements in the capital works process. For example, several years ago we required sustainability futures to be considered in the early concept and design stages of buildings, and these have been enthusiastically embraced. Looking at the financial aspect, I think most people who are building a house or even doing renovations will know that a \$4 million threshold, these days, is very low.

Similarly, we were concerned about the often large variation between the estimated and actual costs of projects because of poor early stage project planning processes. This led us to recommend changes to the Government's project implementation process, which were endorsed, and now sufficient funds are made available at an early stage to avoid unclear project briefs, with all of the costs and shortcomings they might cause. Looking back over the past year, there is an increasing focus upon infrastructure projects and being smarter. We have seen major urban redevelopment initiatives in our northern suburbs as well as the confirmation of an expressway to better link them, our port and the growing defence presence.

Water is a major issue throughout the country and last year we considered a pilot plant for a desalination facility with a full project to be completed next year. That has been fairly controversial. The pilot plant cost \$10 million and the reason for the project is that our gulf is quite shallow and we rely heavily on the fishing industry. We want to be sure it is sited in the appropriate place, that the salinity of the gulf is not negatively impacted upon or that we experience an increase in temperature. Residents in the area where the desalination plant is being constructed have been protesting. Most committees would find when looking at major projects that it is not always easy to get them done because although they may be seen to be for the greater good there are always local communities and we must consider their opinions.

The State's 2008-09 budget capital investment statement focused on strategic and social infrastructure being rebuilt and expanded, and that will give the Public Works Committee plenty to do. Any project that comes to the committee must normally state how it fits in with the State strategic plan. South Australia has a strategic plan with 98 goals. Therefore, nothing can come to the committee and be considered unless the proposal states its benefits.

Resources have been announced that provide for the transition of Adelaide's existing public transport services into a modern, integrated mass transport system to trigger major urban regeneration. An electrified and expanded rail system will deliver faster and more frequent public transport within major transport corridors. In addition, the city's tramway system is to be extended. The Public Works Committee also considered a project to extend the tramline down the centre of the city. No-one wanted it, but since the opening there has been a huge increase in patronage. It is about what we like to achieve for the greater good and how it is seen by some in the community.

Adelaide's major teaching hospital—the Royal Adelaide Hospital—is to be replaced by a new hospital located in the CBD and delivered under a public-private partnership procurement model. We may well see the first stages of the project come to us in 2009. South Australia is experiencing expansion in the resources sector, the defence industry, transport and urban developments. I have no doubt that these will bring new and interesting projects before the committee.

I thank the organisers of this year's conference for their warm welcome and look forward to the interesting program that they have worked so hard to provide. We have a particular interest in these conferences. In 2002 we decided to hold a conference in South Australia that merged the formerly separate public works and environment conferences, and we are delighted to see that practice continue. As in years gone by, it has been interesting to observe how each jurisdiction brings its own flavour to this broader and more holistic approach.

South Australia has suggested over the past few years that it would be useful if a month before the conference all the committees could put forward some of the projects and issues they are working on. By the time we arrived at the conference we would be aware of some of the issues we are facing. We will be visiting interstate and people will come to see us and it would be useful to have sessions at the conference during which we can debate the issues. The speakers are interesting, but often we do not have the time to examine the issues that might be pertinent to all of us. We had question time, but it had to be cut short because of time constraints. That might also help with the long-term planning we all want to do and ensure that, instead of reinventing the wheel, we can do proper strategic planning, which affects the entire country.

I welcome Mark Butler from South Australia, who is now the chair of the Commonwealth Parliamentary Public Works Committee. South Australia will be very well represented. We know that organising conferences is not easy, but I am delighted to acknowledge the splendid way in which this conference has been organised and look forward to the next couple of days of this interesting program. Thank you.

Mr MARK BUTLER (Commonwealth): I am the new chair of the Joint Standing Committee on Public Works in the Commonwealth Parliament, which is probably the newest committee given the most recent change of government. Our committee has a different role from what appears to me to be the role of the state committees in the sense that much of the money the Commonwealth Government spends on build is ultimately spent by State governments—that is, your committees do much of the work. The exception is defence, which probably occupies 85 per cent or 90 per cent of our work. It has occupied all the work that we have done since the federal election.

Our threshold is \$15 million. That was changed in 2006 from \$6 million—and you do not get a lot in defence for \$6 million—to \$15 million. Even that is a quite low threshold for Commonwealth public works. We approved \$3 billion of public works last year. I handed down a report a few weeks ago to pull together seven different inquiries in Defence worth \$1.1 billion, I am happy to say, including \$623 million at Edinburgh in the north of Adelaide. A lot of that is about refitting and refurbishing existing defence facilities, which are getting a bit tired. Many of those facilities were built in the 1950s but a good deal of it is to do with change in operational requirements in defence, for example, a new fleet of multirole helicopters dealing with the new airborne early warning and control [AWAC] aircraft, which have been purchased by the Commonwealth and also some shifting around of infantry. For example, we are taking a 1,200-member battalion from Darwin to Adelaide that needs to be housed at Edinburgh.

The lot of this is new build while some of it is knockdown, mainly mess halls and latrines. One of the curious things I have found as a new Chair of Public Works is that the Parliament has no oversight of the Commonwealth decision, for example, to spend many billions of dollars buying a new joint Striker Fighter but the Parliament does have very strict oversight of the mess halls and the latrines that the pilots who will fly those fighters or pilot those submarines use during their off time. Anyway, that is a matter for people well above my pay grade.

We have a number of inquiries that had just been referred to us—the next World Expo is being held in Shanghai and there is a proposal from the Department of Foreign Affairs and Trade for an Australian pavilion that will cost \$49 million that we are going to have a look at in the abstract—we are not going to Shanghai obviously—a new telescope worth \$111 million and the Australian Federal Police, who built a new headquarters only four to five years ago have outgrown that and want a new one worth \$115 million, and there are a range of other Defence inquiries we are undertaking, for example around the Super Hornets that we are keeping now for many more years.

Our powers are properly similar to the State committees. Public works are not able to proceed until they have parliamentary approval but I am not aware that parliamentary approval has been withheld. Parliamentary approval has been granted by the committee on conditional bases. One of the things that the last committee did

very well under Judi Moylan's leadership was to work through, with the Department of Immigration, some improvements to the immigration detention centre layouts, things like square metreage access to toilets, privacy requirements particularly for women and children in those centres; and through the process, which was not about refusing approval but about negotiating changes to the plans, the Public Works Committee through those years played a very constructive role in the construction of those public works.

I will outline a couple of issues that have arisen recently. We had an instance of a department breaching the Act in the last couple of months where a contract for construction was signed by the department which, under our Act, constitutes approval of a public work and that had not come to the committee. That highlights the difference between equipment acquisitions over which we have no oversight and constructions of public works very nicely. We had a whole facility being constructed to deal with the new multirole helicopters, the MRH90s that are being purchased. All the mess halls and latrines were under our inquiry and being oversighted by the infrastructure department within Defence but the helicopter simulators were equipment acquisition over which we had no oversight and the part of the department buying that piece of very sophisticated equipment also signed a contract for the construction of the building to house the piece of equipment without having our approval. That highlights, as I diplomatically say, a curious distinction between acquisitions and public works or mess halls and latrines.

We have also had an instance of quite significant cost overruns. A lot of that is due to some of the trends out in the construction sector that Vini referred to. Generally, this differs from place to place. For example, we are doing significant construction in Katherine in the Northern Territory where construction costs are rising very significantly but we are generally finding a 6 per cent to 8 per cent increase per annum in construction costs that we are encountering mainly in Northern Australia where the defence bases all are.

Notwithstanding that, which is generally factored into the proposals before us, we have, for example, a 43 per cent cost overrun in the construction of the Christmas Island immigration detention centre, which is pretty much empty now as well, of about \$120 million—from about \$180 million to almost \$300 million. One of the jurisdictional quirks that we have—and I am not sure whether the State committees have this as well—is that the guidelines under which government departments are expected to construct these public works, require them to come back and tell us about any significant departures from costs. That is not a strict legal requirement; it is a guideline and there is no real definition of "significant departure", although I would have thought anyone would find 43 per cent increase or \$121 million to be a significant departure.

We have had the Department of Immigration before us in a public hearing over the last few weeks trying to explain how you arrive at a \$120 million cost overrun for one facility. In addition to the about \$15 million threshold, we also have a notion—and I am not sure whether other jurisdictions have this—of medium works, where departments are required to notify of a medium work, which is a work between \$2 million and \$15 million. That does not require an inquiry unless we want one. I think probably in 90 per cent of the cases at least we approve the medium work without one, but the intention of it is to try to prevent departments from breaking up works that would otherwise come within our jurisdiction into works that all fall below that \$15 million threshold; for example, a shed here, a mess hall and a latrine there when really they are all part of the same work. That has been a convention of the committee. It is not set out in the legislation, which might at some point in time become a difficulty. It is also something that requires a fair bit of the administrative work for the committee and the secretariat.

We have a number of copies of the reports here, particularly the last report, the \$1.1 billion of defence facilities we handed down some weeks ago, as well as our annual report. The new committee has tried to start reducing the size of its reports—and I am sure other committees are doing this as well. This is because all of the evidence, both written submissions and oral evidence at public hearings, is placed on our website. We are trying to have thinner written reports, which simply refer people to the website if they want to take further time to analyse the evidence. Thank you. It is lovely to be here for my first conference.

Ms BARBARA STONE (Queensland): I may have a tenant for Christmas Island for you. His name is Dennis Ferguson. You may have heard of him. We are always looking for a place for Dennis Ferguson. It is very nice to be here in New South Wales. First of all, I want to acknowledge my Deputy Chair, who is here with me, the Hon. Kev Lingard. I will give a brief background on our committee. Unlike other committees, the Queensland committee is not part of the project approval process. Therefore, we do not actually have a threshold value for projects that we inquire into, nor does it matter where that project stage is when we are selecting committees.

The period since the last conference, though shorter than usual, has been a productive one for the Queensland Public Works Committee. We have completed three inquiries: the Tugun Bypass project, the Suncorp Stadium project and the redevelopment of the Townsville Correctional Centre, and we are currently looking into the \$300 million prep school capital works project and the \$1.2 billion south-east desalination project.

Rather than take you through the inquiries individually what I would prefer to do is outline a number of issues that have arisen and may be of interest to your committees. These matters we believe to be better managed in many projects. The issues are project time frames, consultation with end users and post occupancy evaluations. The committee continues to see fast tracking of projects to deliver within allocated time frames and the committee is concerned to ensure that the deadlines for the various stages of the projects are reasonable. While there is immediate demand for improved infrastructure and services, it is worth ensuring the planning and project delivery is completely correct, and I am sure we all around this table have felt the pressure on having those demands met when delivering infrastructure projects.

Up-front investment and planning can help ensure a project delivers the best value for money in terms of both cost and quality. Decisions made during initial planning stages are most critical and will affect service delivery for many years. It is easier and more cost effective to implement the changes at the earlier stages of the project. I think the last speaker certainly showed the investment that should be made in long-term planning. That certainly was identified in his speech.

It is estimated that approximately 80 per cent of the cost-related decisions are made within the first 2 per cent of expenditure for a major project. Making changes when design is advanced or construction has commenced is extremely difficult and expensive, and often leads to delays. Compression of time frames for the construction phase can also introduce unnecessary risks to a project, particularly in the present climate where the construction industry is operating at near-full capacity and facing growing demand.

The second issue related to the first is the involvement of the end users in the design phase of the project. While it seems obvious that end users be consulted, this is not always done in the best way. There is a range of possible reasons for this, including time pressures, cost and effort required. As a result, the common issue seems to be a narrow selection of end users is included in the consultation process. For example, with house facilities one would expect it reasonable to consult with not only the managers but doctors, nurses, allied health and other operational staff. Likewise, with school buildings not only should it be the school principals but it is also the teachers who are actually doing the work in the classrooms and along with them the teacher aides and even down to the point where we have a lot of volunteer parents in our classrooms these days that can add a valuable contribution to some of these designs.

We sometimes hear the first time staff and other end users are consulted about a project during the postoccupancy evaluation, and our committee tries to review projects from a wide selection of departments as practicable in a variety of locations throughout Queensland and the differing cost and scale at various stages of implementation. In reviewing these projects in various stages of implementation, reviewing projects that are in the planning stages right through to the completed projects, an important part of this process is the faced occupancy evaluation or building performance review, the main objectives of which are to assess the suitability of the asset to meet service delivery objectives, assist continuous improvement by identifying positive and negative aspects of an in-service facility, and prepare defect action plans at an operational level.

In Queensland, government departments are required to undertake building performance reviews for highrisk and/or significant government building projects and for a representative sample of repetitive government building projects, which may not be high risk or significant projects; for example, prototypes and standard building types. The committee is keen to ensure that these reviews are the most effective they can be. To this end, the review phase needs to become an integral part of the project. Designers and engineers are generally projectbased and tend to move on to the next job as soon as the project is physically completed. There needs to be a standard evaluation process that can produce a database that is clear and informative. End users need to be included in the process in a meaningful way. The results should be available widely ensuring the reviews do not just sit on the shelf.

Looking forward, the committee has an interest in environmentally sustainable development. We are about to launch an inquiry into an office building project in Cairns where we will place emphasis on the impact of the work on the environment. It has been quite interesting for the committee where we have travelled to others States and seen some of their air temperature cooling-type systems, which of course in Tropical North Queensland certainly would not stand the test. We certainly face challenges in Queensland that other States do not have to face when they are looking at environmentally sustainable buildings.

In closing I want to thank the members and the staff of the New South Wales committee for hosting this conference. I certainly am looking forward to the program; it looks very interesting, especially tomorrow. I am looking forward to having a look at the Justice Precinct. That is a trip I will certainly be taking, and to Rouse Hill. I

have got to find out how to get there because I would like to go there on Saturday and have a look at that because, particularly in my area, we want to revitalise our CBD and rural town centre area and for Springwood. I also take this opportunity to thank the staff of the committee. Rob McBride is here with us today and the others are back in Queensland. Often we do not get an opportunity to thank them very much and they work really hard. I know they make my job just so much easier. I want to put that on record here today. I look forward to meeting you over the next two days. Thank you.

The Hon. PAUL HARRIS (Tasmania): As in past years, particularly the last three or four conferences, we have essentially picked up South Australia's challenge to some extent. Normally these sessions are done together, and it is probably a good idea to separate us today. We have people on our Public Works Committee, like Sue Napier and me, but we have others who are jointly on the Public Works and the other committee, the environment committee. We have seen a bit of a challenge in these sorts of sessions in the past where a presentation of projects which we might have underway is just a sharing of information, if you like. That is without being critical, but Vini's suggestion earlier, and it has been ongoing for a number of years now, for us to submit—

Ms VINI CICCARELLO: I promise not to raise it again.

The Hon. PAUL HARRIS: I think it is a really valid one because we have had some discussions in our group as to whether a report session like this gives a lot of value to where we go or whether with getting information earlier we can have a plenary session where we share the issues of real concern to our jurisdictions. So we have not prepared, as we have not in the past four years or so, for presentation to you about the projects which we have been involved in this year. But essentially, the projects we have jurisdiction over are any projects above \$2 million. That is a pretty low threshold. I think in today's environment it is probably too low. The Treasurer and I have had some recent discussions about that and we have some of the challenges associated with that.

The Government some years ago set up an economic and social infrastructure fund to which it contributes millions of dollars, if not hundreds of millions of dollars. The Government is at liberty to then trickle out funds from that—it could be \$2 million, it could be \$5 million, it could be \$10 million. Normally a project of that magnitude, of under \$2 million, would come within the jurisdiction of the Public Works Committee. But because the money sits in a different fund and not under the jurisdiction of the legislation under which we operate, the projects do not come before the committee. The committee has on occasions threatened, if you like—as committees do—the Government with some sort of accountability. We have said okay, we will come in with a private member's bill to amend our legislation so we pick up all of those. I do not know whether any jurisdiction confronts similar sorts of issues where the government of the day—be it Labor or Liberal—can do that sort of manipulation of the public account.

It is on those kinds of issues that we would appreciate as a State some general and broad-ranging discussion amongst these groups as to how we resolve those kinds of problems. But essentially, the projects that we get involved in in any year would be mainly road construction projects or schools—whether we are talking about major renovation or extensions of schools or a couple of major greenfield sites or greenfield projects. And of course, you may have heard in recent times the Government intends, quite rightly I think, to visit the issue of the Royal Hobart Hospital.

The current site is fairly constrained. So the Government is looking at spending over probably a 10-year period around about a billion dollars on the establishment of a brand new Royal Hobart Hospital. That is going to be a significant project with significant infrastructure regarding rail and road transport hubs, which need to be developed not far out of Hobart. They are fairly major issues. But we would value a broader debate, discussion, an idea-sharing exercise of the problems that confront public works committees—and the environment committees can speak for themselves—in the various jurisdictions. We have similar sorts of problems in Tasmania. Once we have approved a project we have no jurisdiction to revisit cost overruns. We can flick a reference to the public accounts committee and get them to at least challenge the government department. Barbara mentioned consultation, which occurs most often after the project. We have had numerous projects that have come to us where we have been critical of the department promoting the project for not having consulted broadly—in a school community, in a school for the disabled. It hardly consulted a school community.

As a committee we find that really challenging and we challenged the department at the time. We could delay consideration of the project, but what does that achieve when you know the project is desperately needed? Again, we have no authority to amend a proposal that is before the committee. We can only approve or reject. Certainly in my seven or eight years on the committee, and I think history would prove likewise, the committee has never rejected a proposal because in the interests of ensuring that decent or much required infrastructure is progressed the committee does not play party politics with the issues. On occasions we have used some muscle

and negotiated and made it very clear to the department that the submission was deficient and it had better get back to the drawing board before we further consider the matter. Delegates, I do not want to say any more than that as a broad overview. We share the views that South Australia has articulated over a number of years for a different structure. It may not be the desire of this forum. But if it is the desire of this forum, let us move rapidly to advance a method whereby we can all learn from the challenges of other jurisdictions. If Tasmania is hosting this year—and I think it is probably our rotation, we are a couple of years out of whack already—we would be more than happy to try to facilitate that slight change of direction, if that is the desire of the delegates.

Mr DAVID BORGER: Thank you, Mark, Barbara, Vini and Paul for your overviews of the various jurisdictions, including the Commonwealth. It is interesting that Prime Minister Kevin Rudd has established a new fund with the \$20 billion government surplus, through Building Australia Fund. As I understand, in March next year the Government is going to consider funding for various proposals from all of the States for essentially infrastructure projects for the benefit of the nation's future. We may have some feedback next year about that. The New South Wales committee does not have a project approval role. I suspect that one time it did because the public works committee was an important committee to Parliament. It was very important at one stage. In fact, all of the furniture in this room was built by the public works committee. It played an important role in the life of the Parliament in the early days. We do not have a project review role. We undertake inquiries, we subpoena witnesses to give evidence, we deliberate on various issues and we make recommendations on reports that are tabled in Parliament and considered by Ministers. It would probably be very difficult in this day and age to try to turn this committee into a committee that had project approval status. Even though that may be a good thing, governments move on, unfortunately. It is probably unlikely that change would take place in New South Wales. Our main focus is on policy matters and investigating issues that we believe are relevant.

I want to speak about two inquiries that the New South Wales standing committee has been undertaking. The first is on local government partnerships for asset redevelopment. The committee is currently in the process of finalising our report. The second inquiry is on the development of arts and cultural infrastructure outside the Sydney CBD. The committee has only just begun this inquiry. In addition, we have made some inquiries about school maintenance systems, in particular, looking at the decentralised system of Victoria whereby individual principals are given a budget to undertake maintenance that they determine priority on in consultation with their school boards. In New South Wales it is a much more centralised role. Both systems have advantages. We have been to Victoria to seek the views of the education bureaucrats there.

In terms of the public-private partnership [PPP] inquiry, essentially the view of the committee members was that local government seems to have some lazy assets—often land in town centres in strategic locations. It does not always utilise those assets in an efficient manner and the community does not always get a high rate of return from the assets that local government holds. Local government seems to be relatively slow, certainly much slower than the private sector, to realise the value of those assets for their communities. Tomorrow we are heading out on a field trip to Parramatta. The council there is undertaking a \$1.5 billion redevelopment, a PPP in partnership with Grocon from Melbourne, to redevelop an entire city block next to the railway station. That is a huge project for a local government to undertake. It is very uncommon in New South Wales. It is a huge undertaking that has required a large administrative and financial commitment from the council in tandem with the guidance of several external consultants.

While the New South Wales government PPP projects, such as the Cross City Tunnel, have been independently scrutinised many times, the only real prior scrutiny of New South Wales local government PPPs has been via an inquiry into a failed Oasis project undertaken by Liverpool City Council. That PPP involved quite a lot of community land and the Bulldogs football club. It was a proposal to redevelop to provide various public benefits at the end of the project. It was obvious during the inquiry that the elected members were not apprised of what was going on and were making decisions without having the requisite knowledge. The financial deal was not very good for the community of that area and there was not any transparency. As a result of that failed PPP guidelines were introduced aimed at clarifying requirements and providing greater certainty for councils in relation to PPPs. Two committees at the State government level were established to vet local government PPPs.

The concern is that rather than encouraging more PPPs or the opportunity for them to occur, there has been a surprisingly low amount of PPPs subsequently submitted to the project review committee of local government for assessment. Before a project can proceed it has to get not necessarily an endorsement but it has to go through the Department of Local Government committee before it can actually happen. This signalled to the committee that many of the key impediments to local government PPPs were occurring at the front-end stage of developments. Councils appeared to be struggling to bring those types of proposals even to a concept stage. Although the Department of Local Government now scrutinises all PPP proposals to ensure they adhere to the guidelines, there is currently little information or training for councils who decide to enter into partnerships with the

private sector. Other jurisdictions, particularly Victoria, currently seem to be providing more assistance to their councils in regard to these projects.

The United Kingdom is considered to lead the way, lead the field with two agencies—Partnerships UK and the Public Private Partnerships Program. One of the key issues the committee therefore considered was the possibility of creating a new agency or better utilising an existing one to provide education, training and expert advice to councils to assist in developing skills and closing the knowledge gap. Further, the whole PPP process probably should form part of the broader long-term management. During the process we asked the question: Why are there not more PPPs? The answer is that PPPs are only a very restricted development vehicle for councils if they want to unlock value and realise new public benefit for their community from land they own in strategic locations.

There is a whole range of other arrangements with different names, such as barter schemes and so. The issue was one of asset management. Councils can have up to 40 different service areas and are doing a lot of different types of things. When it comes to managing your assets and working out the rate of return on them for communities there is not much room left to develop that capacity internally. That seems to be the challenge. We probably posed the wrong question. During the inquiry we realised that it is a broader issue about asset management and how you encourage local government to look at these opportunities more and how they get that skill involved.

The committee has come up with the idea—the recommendations should be tabled fairly soon—that essentially a panel should be developed in the Local Government and Shires Associations that represents councils. We are very keen for Treasury to participate on that panel as well as other councils with experience in this area. Essentially, councils that have ideas, proposals or suggestions can take them to a group of people with capacity, knowledge and skills and get some feedback at a fairly early stage in the process. I served on a council for quite a long time and it seems that councils often would like to do something with these lazy assets—not all councils have lazy assets but many do. They will often go for periods of up to 10 years wondering what they can do with them and how they can deal with them. They deal with proposals from private developers and perhaps sometimes do things that do not realise good value. The intention behind the inquiry and the recommendations is to improve that capacity level.

We have issued a discussion paper and we have asked a bunch of questions of councils and other stakeholders and developers regarding local government PPPs. We called in witnesses, various experts, professors, and State and local government bureaucrats, and canvassed a range of possible options and solutions. They included the possibility of bundling projects together across council boundaries, the creation of a new agency to educate, train and provide access to external expert advice—which was popular but no-one would pay for it—the creation of one central New South Wales Government agency that would assume responsibility for coordinating and managing all other State Government agencies involving PPPs, the need for councils to adopt total asset management systems, and whether the Department of Local Government guidelines should be reformed because they are about stopping projects at the end rather than encouraging local communities to consider options, opportunities and whatnot. The private sector told the committee that it did not feel confident dealing with councils for much the same reasons. It is hard to find a fixed point of responsibility within a council. You are not quite sure who is making the decision—whether it is the elected representatives or the administration and who in fact in the administration is the fixed point of responsibility. So the private sector had various issues about taking projects forward.

The second inquiry that we have just commenced is the development of arts and cultural infrastructure outside the Sydney CBD. The membership of our committee is fairly diverse. We have members from regional areas, a lot of members from Sydney and some from coastal areas. There are some very powerful and long-lived cultural institutions in the centre of Sydney—there are six or seven of them—that account for the lion's share of all State funding each year. There is then a quite small Cultural Grants Program that covers the entire State. The question is, with all the various metropolitan plans for the future growth of Sydney and various corridors around Sydney and regional areas, how do you encourage the requisite job and housing growth and urban renewal in those places when most of the cultural assets are in one area? The concern is about things such as the talent drain of young, bright, creative people out of suburban areas and the regions to the inner city of Sydney. How might some of the new centres—Liverpool, Penrith, Parramatta, Gosford, Newcastle, Wollongong and other regional centres—encourage some talented youngsters to stay in those areas and add more value to their economy and their identity?

That is what we are looking into. The inquiry has just commenced and we have just set our terms of reference. We hope during that inquiry to try to understand a little more about how those regional cities can

develop the cultural infrastructure that cities have always had that attracts a more diverse workforce that gives a place some depth, character and interest outside being simply shopping or commercial areas. We are just starting down that road, and everyone is quite excited about looking at new opportunities. The other issue is how to encourage private benevolence to build these cultural assets. Everyone talks about sponsorship, but does it really happen? We know that there have been many wonderful bequests to the big institutions—hundreds of millions of dollars—in Sydney and Melbourne but how might that happen in future in other places where the population has moved? How do we build that rapport and that connection between the community and the institutions? The committee's terms of reference are very broad—they might be too broad—but we are keen to get some answers for our communities and make some recommendations to Parliament. That concludes the report from the New South Wales committee. We have about 25 minutes until we break for lunch. I suggest that we sit around the table and discuss Vini's ideas for next year's conference and so on.

The Hon. SUE NAPIER (Tasmania): I want to raise something with Mark. It is an issue that we have been trying to deal with in the Tasmanian Public Works Committee. None of the Federal road projects get examined by our Public Works Committee. A number of issues arise in the context of dealing with the safety of intersections, connecting communities and so on that we certainly deal with as individual members trying to represent the needs of our constituents, but there is no public overview of Federal Government road projects in Tasmania.

Mr MARK BUTLER: There is certainly not at a Commonwealth level. Even the Commonwealth roads, such as AusLink roads, are not considered public works. I guess we assume that if there is any parliamentary oversight it will be done at your level.

The Hon. SUE NAPIER: You have answered one of the questions we have been asking: Who was looking at these roads?

Mr MARK BUTLER: Not us.

The Hon. SUE NAPIER: There is more money spent on Commonwealth roads in our State than is spent by the State Government. There are major infrastructure investments and questions about some of the things that are being done, and there is more to come. That highlights that issue again.

Mr DAVID PISONI (South Australia): Mark, I am interested in how overruns are referred back to the committee. I think you mentioned that in your report.

Mr MARK BUTLER: We do not know I guess is the honest answer. If you look at the Act you will see that we are effectively functus officio after we have approved a project. So if it blows out by 5 per cent, 100 per cent or 200 per cent we, strictly speaking, do not have any power under the Act. There are guidelines that I think operate under the Department of Finance—Public Works Committee guidelines—that expect departments to report back to the committee on significant cost overruns. It is essentially an honour system. We do not know how many do that and how many do not. The example I gave was of the Department of Immigration and Citizenship reporting back on the 43 per cent overrun on Christmas Island. But that was something that came to our attention only about two years after the approval.

A lot of the cost overruns started to happen after the approval. Some were unavoidable. For example, the only crane on Christmas Island broke and it took six months to fix. Some of them were construction cost overruns that are happening pretty much everywhere. But some cost overruns—and this is on the public record—were just very bad planning by the department on this project. We will do something on that. It is not quite decided yet, but at the very least we will be writing to the Minister indicating that we are pretty unhappy about some of the avoidable cost overruns. Hopefully, then there will be some executive decisions about how the department plans projects such as that.

Mr DAVID PISONI: So, your expectation is that the directive to go back to the committee would come from the Minister?

Mr MARK BUTLER: Yes, back to the Executive. I think I am right about this, being a new chair, there is no parliamentary thing we can do. I guess we could try to seek leave to make some specious statement but we have not done that. Our thinking about this—and I am very conscious of David's point that to a degree government has moved on from being comfortable with parliamentary oversight perhaps—is probably the problems are at the front end, not the back end. Nowadays we do not get these projects until, in some cases, they are 50 per cent planned and in other cases as high as 80 per cent planned. By that time, particularly when you are talking about multihundred million dollar projects, the department has spent millions and millions of dollars just getting to that 80 per

cent planning point. So, it is a big thing for us to say why do you not think about that and that? I guess our thinking about this is really to stop those cost overruns and some of the other issues about suitability. Our involvement should be earlier than by the time the department has spent \$10 million or \$20 million getting to the point of an 80 per cent planning point.

If we had done that, for example, in relation to Christmas Island or the Australian Federal Police headquarters that were approved in 2003, after September 11, knowing there was going to be a big jurisdictional shift to the Federal Police, in hindsight they did not cater for the growth in their numbers that was always going to happen. It is probably about trying to get in early to prevent the back-end problems but executive Governments are going to be resistant to that.

Ms VINI CICCARELLO: That was one of the issues we were facing up to a couple of years ago. The committee had raised this. We require a quarterly report from any project that comes to us and that quarterly report is supposed to indicate how the project is proceeding, if there are any cost overruns and if there are any justifications for that. Sometimes there are justifications because of tender processes or materials having gone up. We then had Rod Hook, who is in charge of a lot of the infrastructure in South Australia, and they put in place a project implementation process and that is at the front end so they can ensure as much as possible when costs are put in place or tenders that they are as near as possible, taking into consideration contingencies and so on, so that they come up with a fairly reasonable figure for that project.

I guess it has been alluded to by other people that one of the problems at the moment is the tendering process is also very difficult because there are demands in every State and some of those costs are now necessarily much higher than they might have been in the past because of not having enough people to do the work required and a few large companies might be operating in different States, and that in itself causes problems when there is so much focus on infrastructure now which there has not been in the past.

The Hon. PETER SLIPPER (Commonwealth): I was Parliamentary Secretary in the former Government that put through major promotions in relation to public works. I knew that executive Governments on both sides looked upon the public works committee as a bit of an irritation, a process to have been gone through, and the fact there is a cost overrun, we do not necessarily know about it. I believe therefore that departments do not go out of their way necessarily to give us an accurate indication of what is going to be spent because they know that once we have ticked it they can essentially have a blank cheque to do what they want. It probably is fairly unsatisfactory and possibly our standing orders should be amended that in the event that an overrun goes more than a certain figure it is mandated to come back to the public works committee, but I just think the public works committee has been around forever. We are looked upon as part of the process. I think largely we are treated as a rubber stamp and I think that is regrettable. I hope our colleagues in the States are treated better by executive Governments then successive executive Governments have treated—I am trying to be non-partisan here—the Federal committee.

The Hon. KEV LINGARD (Queensland): Being an old Speaker, I wonder whether members of Parliament understand the standing orders. When a report is made to Parliament, I guarantee that 90 per cent of parliamentarians would not know that when reports are made—and they are usually made quickly, just before question time in our case, in a rush—that they can stand and say, "I move that the debate be now adjourned," and then move that the debate be made an order of the day for the following Thursday. There would not be many parliamentarians who understand they can do that, and I guarantee that probably 90 per cent of Queenslanders do not know it. That allows an Opposition member to move that that report be debated. If there is an overrun or if there is a concern, that has to be debated. Being an old Minister, I guarantee I would not want the Opposition to know that. Not many people in Parliament would know it. If, as a Opposition member, you do not ask for that, all of those reports will just be accepted by Parliament.

The Hon. PETER SLIPPER: In Federal Parliament, when the Parliamentary Secretary moves the expediency motion, it is possible for any member at that time, on either side, to make a contribution, but because overwhelmingly public works committee reports tend to be unanimous—and that is a good thing—there is not a lot of controversy. What I used to do, where there was a government member in whose electorate public work was going to take place, I would often phone that member and point out how much money the Government was going to spend and say to that member that you have the opportunity of jumping on this issue. I have done it to some opposition members as well. That is a good opportunity for members to talk about good news. But, Kevin, I think you would be right, the same provision would apply in the Federal Parliament with respect to an understanding of the standing orders, but anyone can talk. It is sort of an unlimited debate. Anyone can talk, possibly other than the member who was affected.

Mr MARK BUTLER: Everyone is at dinner when we do ours.

Ms VINI CICCARELLO: When a project comes to the Public Works Committee we inform the local member where the project is going to be taking place that the committee hearing is on and that member is invited to come along and to make a statement. They cannot ask questions of the committee but they can certainly make a statement. They can also use the provisions of their own members, by slipping them a note and saying can you ask about this or ask about that? When the report is tabled in Parliament anybody can speak to it as well.

Mr DAVID BORGER: Can I just clarify, for those jurisdictions where there is an oversight role before project approval can take place, what happens? Does the budget pass, with a bunch of public works projects, and then they come to the committee for review at that stage? Or does that happen prior to the budget being passed?

Mr MARK BUTLER: At the Commonwealth level the money has to be approved by the Executive for a particular project, so it is either an existing budget item or it is approved by Cabinet—in some cases just by the Prime Minister. But then the project is costed and goes to public works, so it is all contingent.

The Hon. PETER SLIPPER: Often these are not part of the budget and a special appropriation is made as a result of the motion moved by the Minister in the area of finance. He moves that the House authorise the expenditure.

Mr DAVID BORGER: Does the Executive believe that public works committees with the project oversight role delay the implementation of these projects, if there is an efficiency cost?

The Hon. PETER SLIPPER: I think so. We used to have an argument with Judi Moylan when she was the chairman of the Public Works Committee. The committee would take period to go through its process and then make a recommendation. I would stand up immediately after the report was tabled to move that the debate be suspended. The committee would get very upset because they obviously kept the Government informed about what they were doing. However, it made the whole process of consideration of committee reports a sham when the Minister moved that the money be spent the moment of chairman of the committee sat down in the House.

The Hon. KEV LINGARD: Each State is different. Queensland is different because we select which projects we wish to investigate. The Government has a four to three majority on the committee. If the Government does not want to investigate such and such because it is controversial, clearly its members will vote against it being investigated.

Ms VINI CICCARELLO: Our projects come to our committee having been to Cabinet and we have a full hearing of witnesses. Members of both the Government and the Opposition are pretty diligent in asking questions. There have been times when the item has been deferred and witnesses have been called back the following week if the committee was not happy with some of the answers and wanted further information. At the same time we have tried to expedite things.

We can also electronically approve a project if something is not controversial and we are satisfied that it is fine rather than having the committee come back. We normally meet on Wednesday mornings and we also have a country member. We can see the report electronically and send back any concerns or queries through to the committee secretary. If there are none it can be ticked off and tabled. We are pretty responsible and I do not think we see ourselves as a rubber stamp. At the same time, if a project is worthy it should go ahead because it has been through a long process. I understand about consultation and ensuring that everyone has an opportunity to present their point of view—particularly the local member. We want to get on and get projects done for the benefit of local communities.

Mr MARK BUTLER: In answer to David's question about the degree to which we are loved in the executive wing of government, I suspect that bureaucrats do not embrace the idea of a public works committee. However, we have a functional relationship with the sections of the bureaucracy that we deal with all the time—for example, infrastructure in defence, which probably involves 85 per cent or 90 per cent of our work. They build our committee processes into their time frames and, because they are defence projects, we always try to ensure that we expedite them.

I suspect that the bureaucratic level and even some Ministers do not embrace the idea. However, there is a level of government, particularly given the breadth and size of the Commonwealth—and I refer in particular to the Minister for Finance—that does like the fact that we are there because there will be a range of projects that people at that level do not have their head around. They do not have the capacity or the time to inspect them, to cross-examine bureaucrats or to check any traffic or environmental issues. To have a committee that can raise problems

is embraced at the top levels of the Government because it is a check that otherwise would not be there and they would be relying wholly on the bureaucracy to get it right.

Mr DAVID BORGER: One of the things that concerns me is that because our committee does not have that role we do not have the same opportunities to investigate. In theory we could investigate any matter that relates to public works within the terms of reference of the committee. However, in practice and from looking at previous reports, they have tended not to be about individual projects but about general issues.

I have some concerns about the impact of individual government public investment decisions about public transport and major facilities. Sometimes large interventions occur and there is a dramatic the impact on the local neighbourhood or the economy. The leaders in the bureaucracy are focused only on their core responsibility of moving people through rather than the potential for investment to build up around a rapid bus way, a railway station or a major hospital redevelopment. That linkage is often unfortunately lost in government. At Westmead we have the largest hospital complex in the southern hemisphere comprising four hospitals. It is an enormous place but it has only a couple of roads leading into it. The value of having 15,000 people working in the hospitals is lost because of the framework around it.

Do delegates wish to raise any other issues? Ms Ciccarello suggested that prior to the next conference individual jurisdictions present written information to all members.

Ms VINI CICCARELLO: A month or so before the conference the various States might forward issues that could be common to all or issues of interest to us. That could be circulated so that when we get to the conference we know the issues and are prepared to discuss them. Some prior research could be done.

Mr DAVID BORGER: We can think about that over the next day or so and before the conference finishes we can draft a resolution about the scope of the exercise. We do not want people to send in great lumps of reports.

Ms VINI CICCARELLO: We have normally had this discussion on the last day and half of the delegates have left. It would be good to see what the other committee thinks and come to an agreement before the last day. If Tasmania is to hold the conference next year, perhaps some of those things can be put and we can appoint people to liaise.

The Hon. PAUL HARRIS: This forum has been a very good precursor. We do not usually sit around and shoot the breeze after presentations. This has been a good bounce in that direction because it gives us that opportunity to discuss the ideas and problems that others are having.

Ms VINI CICCARELLO: It could also help the Commonwealth. I am sure it knows the issues, but we might be able to raise other issues. If the Commonwealth suddenly realises that something is an issue and it should consider it, it would be helpful for long-term strategic planning.

The Hon. KEV LINGARD: I do not see any need for further discussion on this. As far as I am concerned, we should resolve to do it and someone should draft a resolution and present it during the week.

Mr DAVID BORGER: The resolution should state that each of the committees should forward to the organising State concept outlines of important projects.

Mr SHANE DONNELLY (Tasmania): It should relate to issues of concern.

Mr DAVID BORGER: Fine.

The Hon. KEV LINGARD: It should not be too hard to identify them before a conference.

Mr DAVID BORGER: I note the consensus about that.

Mr KEITH BARRIE (South Australia): The idea was to encourage the organising committee to receive jurisdictional reports about a month in advance and then perhaps to act as a rapporteur, to go through them and pick out major issues that might be of interest in this kind of plenary session and to feed them back a week before the conference with the agenda. For example, it might be that we are all interested in the role of public works committees rather than hoping that an idea will pop up on the day.

Mr DAVID BORGER: I note that everyone agrees. I thank everyone for this session and the good idea for the next conference.

(Session B—Public Works Committees—concluded at 12.58 p.m.)

Session C—Financing Public Infrastructure

Public Works Committees

Mr NINOS KHOSHABA (New South Wales): Good afternoon to you all. For those of you who do not know me, my name is Ninos Khoshaba. I am the State member for Smithfield, and I am also the Deputy Chair of the New South Wales Standing Committee on Public Works. Firstly I would like to welcome you to this session on Financing Public Infrastructure. We have a distinguished panel to address us today: Dr Patrice Derrington, Mike Schur and Greg Incoll. We have two hours for the session, so we should have plenty of time to get through the presentations and also for some questions and discussions at the end.

Our first speaker is Mike Schur. Mike is the Deputy Secretary of the Office of Infrastructure Management, New South Wales Treasury. Mike joined Treasury in 2006 and has extensive experience in privately financed projects in South Australia, and with the Royal Bank of the United States at a senior executive level.

Mr MIKE SCHUR: Thank you very much for the opportunity to address you this afternoon. I am conscious of the fact that I have some detailed slides and a fair bit of technical detail to share with you, so I would rather go through them quite quickly and leave some opportunity for questions.

I would like to touch briefly on the strategic context for infrastructure expenditure in this State; talk a little about capital procurement, the various methods we have, and some budget rules and principles concerning capital procurement; speak briefly about unsolicited private proposals and how we deal with them; and then talk a little about our privately financed projects and programs, some of the key principles and the results we have achieved.

Let me start by talking about the relationship between the Government's fiscal strategy and our capital program. Very simply, the aim of our fiscal strategy is to provide approved and affordable services to the public. The State Plan provides us with a framework for determining service priorities, and the capital requirements to support the service priorities are determined by an individual agency's results and services plans. These are high-level service delivery and funding plans that are prepared annually by government agencies as part of the annual budget process.

I think it is important to stress that our capital requirements are not driven by the method of procurement. In other words, when we choose to do private financing we do so not because it is a means to expand government's finances but because it provides us with value for money. I will elaborate on what I mean by that.

To give you a sense of the line of sight between the State Plan priorities and the budget process, we have 34 State Plan priorities and 60 State Plan targets. We report on these priorities and targets through priority delivery plans, and a dedicated committee of Cabinet has been set up to monitor progress in relation to delivery of the State Plan. The relevant contributing services and assets that support State Plan Priorities are articulated in individual agencies' results and services plans, which is their service delivery objectives plan, as well as their total asset management plans, which detail the asset management strategies that support those service objectives. In other words, the results and services plans define what it is that we want to achieve through service delivery. The total asset management plan explains how we are going to manage our assets, in support of what it is that we want to achieve, and then we use business cases and other project documentation to identify the projects we need to implement our asset strategies.

I want to give you a sense of what has happened to our capital expenditure program, going back to 2002-03 to the end of the forward estimate period. In the four years to 2007-08 total State infrastructure spending was up by around 47 per cent over the four years prior to that. In 2008-09 total State infrastructure spending is estimated to be \$13.9 billion, an increase of about 23 per cent on the spend in 2007-08. Of the \$13.9 billion expenditure, \$5.5 billion will be in the general government sector and about \$8.5 billion will be in what we call the public trading enterprise sector. In the four years to 2011-12 total State capital expenditure is estimated to be \$57.6 billion, a record level of capital expenditure. This represents a 58 per cent increase over the level of expenditure in the four years to 2007-08.

Where is the funding going? Not entirely surprisingly, the larger share is in transport, about \$4.4 billion. You would be aware of the announcement about the North West Metro, the South West Rail Link, the Rail Clearway's Program, and our rolling stock acquisitions, bus acquisitions and depot upgrades. In terms of roads, most of it is for continuing upgrades of highways, as well as an expansion to Port Botany and the Enfield Intermodal Logistics Centre.

You may be surprised to see that the second highest sector is electricity. Despite the Government's intentions with regard to generation and retail, we have a massive expenditure program in the components of the energy sector that will remain in government hands—in other words, the poles and wires business, the transmission and distribution assets, for which the expenditure in 2008-09 is \$3.5 billion.

To give you a sense of the real step change increase in capital expenditure over a longer period of time, it is useful to see historically what the average has been and where we are going with our capital expenditure. In real terms, the level of total State capital expenditure in 2008-09 is more than double the average of the 1990s. For the PTE sector it is 169 per cent higher than the average for the 1990s; in the general government sector it is almost 70 per cent higher. How do we fund our capital program? Essentially, we fund our program through our operating surpluses, asset sales, and an increase in net debt. Anything we cannot cover through operating surpluses means we have to take on more debt to fund the capital program.

The sources of funding over the next four years for the total State program of \$57.6 billion includes operating surpluses of \$31.6 billion, asset sales of \$4.1 billion—and these are not the asset sales associated with the energy sector, for example; these are the ongoing regular annual asset sales, the disposal of assets that are underutilised, such as government-run holdings, accommodation, and so on—and, most importantly, an increase in net debt of \$19.5 billion.

In the general government sector, which is what we have here in this table, in the four years to 2007-08, 80 per cent of general government capital expenditure was funded out of our operating surpluses. In the four years to 2011-12, only 66 per cent of general government capital expenditure will be funded from the operating surpluses. This affects the relationship between our recurrent expenditure program, our revenues and our ability to fund the capital program. Increasingly, as our recurrent spending pressures, particularly in the health sector, come to bear, it makes it more difficult to fund the capital program without raising more debt and clearly the role of the Federal Government in relation to its Building Australia Fund and Infrastructure Australia is going to be very important in going forward to fund our capital program.

. What have we done to manage the risks associated with a capital program of this size? A whole series of things and changes to procurement policies introduced in July 2004, but the most important difference really has been better front planning for major procurements. The most important change has been the requirement for agencies to provide us with what we call mandatory business cases for all of their large, risky capital projects and for those business cases to be subject to an independent gateway review to assess the risks associated with the procurement

Other relevant measures include accreditation schemes. We have a number of agencies that are accredited for managing construction projects and we also have put in place enhanced Treasury monitoring procedures for construction projects in particular. Most importantly, we have begun to incorporate the 10-year State Infrastructure Strategy into the annual budget process. Some of you would be aware that we released the updated publication of the State Infrastructure Strategy for next 10 years the week after the budget, which identifies a \$140 billion program over the next 10 years.

In a sense, this is an attempt to understand the relationship between the medium and longer term and the more medium term associated with the forward estimate years. Given the nature of some infrastructure investments, the fact that infrastructure investments, particularly in the public trading enterprise sector, are very lumpy investments, it is important to have an understanding of our commitments beyond the forward estimate years. To understand the fiscal pressures and fiscal constraints associated with our capital program, we need to be able to model the consequences of our capital program on our fiscal targets beyond the forward estimates period and we now have in place some procedures that allow us to do that.

To get back to the point I was making earlier about the procurement method, we have a very important principle in this regard and that is that our budget process distinguishes between the decision to invest, which is always the prior decision, and then the method of financing or the procurement decision. It would always be very tempting to say, "Oh well, we can get the private sector to fund this, so let us proceed with this investment". But as a discipline, it is important for us to understand that we have to decide whether the project is worth pursuing in the first place.

That has to be the primary consideration and we make that assessment independent and prior to any decision about procurement. In other words, we use business cases and standard cost benefit analysis and we look at prioritisation in the context of the State Plan to decide whether this is a good investment or not. Only once Cabinet has made that investment decision do we consider the methods of financing and for that we are interested in value for money and the public interest associated with the procurement method.

If we do decide to procure a capital works through a privately financed project or PPP, then the key driver is value for money. What is it that drives value for money? The first thing is the fact that we have competition in the tender process, so we have several bidders competing for what could be an exclusive right to deliver a road infrastructure, for example, or a series of schools, a hospital, et cetera. The fact is that we have an ability through a PPP to integrate the design, construction, operation and maintenance through a whole-of-life costing; an ability to transfer appropriate risks—not all risks but appropriate risks—to the private sector through the PPP structure and to ensure a more efficient use of the infrastructure.

I cannot overemphasise how important in this context the public sector comparator is. The public sector comparator is a risk adjusted costing of the most efficient public sector delivery of a project and we use that as a benchmark against which we assess bids that come in from the private sector. It is a rigorous assessment. The private sector has maintained for a long period of time that we set the bar too high with regard to the public sector comparator. On the other hand, the unions have argued that we set the bar too low, so we reckon we probably have it just right. We have had situations in which bids have come in that have not met the conditions of the public sector comparator and on that basis we will not proceed with the PPP because it is not deemed to provide us with value for money.

In terms of the range of private sector participation options, you can see from the chart, first of all, that we would be open to the whole array of procurement methods all the way, from conventional procurement through to privatisation and everything in between. Obviously as you move from the left to the right of the page you get increasing private sector participation and usually increasing private sector taking on key risks in the project

Are we prepared to entertain unsolicited proposals? The answer is yes, but there is a very tight process for considering unsolicited proposals from the private sector and they have to comply with our working with government guidelines. While we believe that there are circumstances in which unsolicited proposals can provide us with innovative ideas that are worth considering, all unsolicited proposals are still subject to the same rigour and discipline that is associated with a competitive procurement process.

We have a fairly extensive framework of guidelines and procedures for privately financed projects. All of this is on our website. We have our working with government guidelines, which have been updated fairly recently, to deal with submissions, and we also have new guidelines that deal with accounting treatment of PPPs. More recently, we have come up with what we call our commercial principles document, which articulates Government's preferred position with regard to the allocation of risks in a typical PPP project. That provides some certainty to the market as to what our position is and we do not have to negotiate these things as if they are entirely unique each time we enter into a PPP project.

The other jurisdiction that has a very advanced policy framework for PPPs is Victoria. In fact, earlier today we sat with them going through our respective commercial principles and it is fair to say that there is probably an 80 per cent overlap in terms of consistency of approach. We are working together with the Federal Government now to develop national standards for a PPP framework that would apply across-the-board in Australia. What have we done in the area of PPPs? We have several projects under construction. We are in the process of awarding a couple of projects right now and we have some projects that are completed and operational. Again, I am sure you would be familiar with some of it.

What does the future pipeline look like? Pretty robust and healthy. As I said, we do not pre-empt the investment decision on all these things. Take the M4 East as an example, we will not entertain it is a PPP until we entertain it as the right project to invest in in terms of its overall costs and benefits. Only then will we consider how to procure. But on the basis that it would be approved for investment purposes that is the type of infrastructure that would lend itself logically to a PPP structure. That is all I have formally. I am happy to take any questions that you may have.

Mr NINOS KHOSHABA: Thank you for that insightful address. I know Mike is pressed for time so if there are any questions maybe you can ask Mike now before he goes

Mr KEITH BARRIE (South Australia): I am wondering how longstanding these rigorous rules you have been describing are because as an out of New South Welshperson the impression I have gained is that these tollway roads you have got around the place have been unbelievably unpopular and may be unfinancial for the private operator. I am just wondering, if these are longstanding procedures what went wrong?

Mr MIKE SCHUR: There have been lessons from the Cross City Tunnel that came out in, I think it was called, the Richmond review into motorways. I think the key lesson out of that was not necessarily critical of the PPP model but rather suggested that the idea of requiring the winning bidder to put an upfront concession payment on the table was not necessarily the best outcome because at the end of the day in order to make that back the concessioner was going to need to pass it through the tariff. There was a parliamentary inquiry into PPPs in this State and you will find that there have been a whole series of reviews of individual projects, of the model, et cetera, and there is yet to be any view that has been clear about the model not working.

I think the issue with the road project, the Cross City Tunnel or the Lane Cove Tunnel—which, if you read the press it suggests there are some problems—if you were very cynical about it you could say well, this is, in effect, how the PPP model works: you transfer risk to the private sector; if they are unable to manage that risk properly they get liquidated. You would argue, I think more appropriately though, that no-one—this Government included—would want to see any investor in a project lose a substantial part of its capital. But if you look at what happened in reality with the Cross City Tunnel, the concession company went bust. I believe there were up to 20 consortiums that expressed an interest in buying the project from the liquidated company. I think the whole thing was sorted out in two or three days. There was not one day on which the tunnel had to be closed; it remained operational. That was a contractual requirement: it remained operational.

I am in regular contact with the existing owners of the infrastructure and they are pleased with their investment and they are satisfied that they have made a good commercial investment. Could we have done better in forecasting the traffic? It is hard to say. There is potentially what is called winners' questions; in other words, there is a tendency to overestimate what the traffic volumes might be. On the other hand, we have a whole network of roads that are managed on a concession basis that bring fantastic returns to shareholders and are also extremely beneficial to the users of the road. I think the debate will continue, but I think it would be premature to call the Cross City Tunnel, or the Lane Cove Tunnel for that matter, a failure.

The Hon. SUE NAPIER (Tasmania): With particular reference to hospitals and schools, my understanding is that the advantage of the PPP is in the context of if the main responsibility is continued with a private owner operator you can actually end up with an enhanced capital infrastructure investment, which will reduce the potential recurrent maintenance ongoing costs. What has your experience been in trying to look at that kind of model and how do you deal with industrial issues associated with that, particularly in terms of recurrent services that might be considered to be offered by the private operator?

Mr MIKE SCHUR: I think in terms of the model it does exactly what you say. In other words, because you integrate the design and construction with the long-term maintenance of the hospital you have a whole-of-life costing view and I think what you do have at the end of the concession period and over the concession period is a better managed facility and allows the health service to focus on its core commitment, which is the delivery of public health services, and I think that is a good model. We have seen this all over the world. My first experience of this was in South Africa and we saw the difficulties, for example, of bringing in a PPP partner into a hospital that had already been built under conventional procurement. And the reason for that was because it was built in a way that was not mindful or considering of the maintenance implications of the project, because although it was a small component of the project, the facility's management part nearly made the negotiations fall over because there were some fundamental issues around maintenance and maintenance risks that the facility's management company were not prepared to take because they were not involved in designing the hospital in the first place

So I think the model is actually a good model for hospitals as well as schools, because essentially what you are doing is saying leave the facility's management issues to the private operator and let the health administration look after the health services. In terms of industrial issues, I think simply the Government does not use PPPs as an attempt to deal with industrial issues; I think that would be the wrong approach, and that does not work when you attempt to do that. Obviously there are times when you have to work around existing industrial issues to make a project work and sometimes that adds a layer of complication. But again the rule would apply. Given the existing labour arrangements or the industrial issues, do we still get value for money by outsourcing components of the contract to the private sector? If the answer to that is no then the conventional procurement approach would be applied.

Mr DAVID PISONI (South Australia): Your example of an existing hospital with a PPP project is the reverse of that. If you put your tender out and they all know that it is going to be run by the public sector, you may not necessarily get the best possible design for the best staffing model.

Mr MIKE SCHUR: Could you repeat the last part of your question?

Mr DAVID PISONI: In reverse to what you said earlier, if the PPP consortium knows that they will not have the responsibility of staff management, how do you know you are getting the best possible design building to fully utilise modern staffing procedures or practices? To use that example of privatisation coming in on an existing built hospital or school, would it not be the same in the reverse?

Mr MIKE SCHUR: Yes. The example I was referring to was a South African example where the hospital was built conventionally but had no staff. Then the private consortium was being brought in to run the facilities management, the IT and so on.

Mr DAVID PISONI: What you are saying is it was half-half?

Mr MIKE SCHUR: Yes.

Mr DAVID PISONI: What I am saying is you flip the half around. Do you not have the same risk?

Mr MIKE SCHUR: Yes, you would, which is why I think the emphasis is often on the design, the build, the construct and the operate. So you get those linkages between construction and construction risk and associated long-term maintenance, particularly in facilities management projects.

Mr DAVID PISONI: If the PPP partners are not operating it, are you saying you are not getting the best benefit?

Mr MIKE SCHUR: If they are not operating the non-clinical services rather than the clinical services it can still work. That has traditionally been the model here and, in fact, in most jurisdictions I have ever worked in. In other words, the private sector responsibility begins and ends in the delivery of the non-core hospital services—laundry, cleaning, catering, facilities management, security, et cetera. There are variants. In some examples you have some of those components but you do not have catering included, possibly because of existing industrial arrangements. Then you work around that. It is not necessary to have the core services, the clinical services being delivered by the private sector because what you are paying the private sector for in a sense is an availability charge. Is the hospital available? Can I as a doctor walk into the hospital and is it available for me to practice the core clinical services? If it is not and the contract is detailed in enormous detail as to what "unavailable" might mean—it might mean the ambient temperature in the operating theatre is not a particular temperature because of some problem with the airconditioning unit—there would be penalties associated with the availability payment. The availability payment would be the maximum charge payable to the private consortium, subject to meeting the availability measure as defined by, if you like, a component of the hospital, whether it is the operating theatre or other parts of it.

Mr DAVID PISONI: What about a prison model? Where would the cut-off point be for public and private employment?

Mr MIKE SCHUR: You have got both examples. In the United States, for example, in the United Kingdom, even in South Africa now you have models where it is a full-service model. In other words, they literally build and operate the prison. They provide the ward services and the correctional services as part of their responsibilities. My understanding across Australia is you have mixed models. So their responsibilities would end at actual direct interface with the prisoners. That creates some interface risks, which you would have to again manage. That might be in place because of some pre-existing industrial arrangements. As long as you can be comfortable that those interface risks can be managed and you can still get value for money, then it makes sense to proceed with the model. You probably cannot determine that in advance without actually doing a detailed exercise around the public sector comparators and saying is this going to work? In theory you could have both models.

Mr NINOS KHOSHABA: I take this opportunity to thank you, Mike, and present you with a small token of our appreciation.

Mr MIKE SCHUR: Thank you very much.

Mr NINOS KHOSHABA: I now introduce Mr Greg Incoll. Greg is a director and Chief Executive Officer of Incoll Management Pty Limited, a company he founded in 1993, which has since grown to become one of Australia's leading independent project management firms with offices in all major capital cities. With 23 years in the industry, Greg has an unparalleled depth of experience in project planning, value-added design and construction management of major commercial and infrastructure projects.

Mr GREG INCOLL: Good afternoon, I will start by offering a few alternates to that given by Mike, perhaps maybe to wake you up this afternoon and to give you a few thought-provoking ideas before I talk about private financing of public infrastructure. Put our minds forward say 20 years. We are seeing the environmental movement gathering such great force at the moment and we are seeing projects like Sandon Point in New South Wales and the Carlton United Brewery site project, a \$2.5 billion project, almost stopped because of environmental compliance reasons. I put it to you that sustainability and environmental compliance will be the pre-eminent and certainly the initial consideration before major projects go forward, particularly infrastructure and property with a 50-to 100-year horizon, which have the greatest impact on the environment.

When Mike says that the capital program is important or that the whole-of-life costs are important, in fact what will come first, I believe, will be triple bottom line accountability. Projects like the M4 East will not get to a Treasury business case unless they actually pass the environmental hurdle first. So going forward with infrastructure projects, particularly with the private sector looking at long-term finance and horizons and given your theme of sustainable urbanisation, the sustainability of infrastructure projects will be a primary consideration in the medium to long term and most of the private sector, which is my specialty, will be focused on that. Mike indicated that they would evaluate the commercial principles at the Treasury level. What I believe they will firstly deal with is the non-commercial principles and establish a framework of those before they go forward with the business case. I will come back to how I think that shift over the next 10 to 20 years can possibly be dealt with.

Back to financing on public sector infrastructure firstly, I come from an environment where we act for government and we act for the development consortiums or the SPDs or in more cases than not we act for the finance syndicates in terms of providing an overview of the structures. In the time frame I am allowed I want to give you a quick picture where I think that market is and where potentially government can fit in. The infrastructure market we always qualify into four areas. One is the infrastructure market, which is basically road, rail, ports—the bigger meaty chunks. The second is the utility infrastructure market—energy, water and in some cases communication. Certainly energy and water will be the major areas of change over the next 20 years. Thirdly is the soft or social infrastructure market—health, education, correctional facilities, the ones that have the patronage counts that can be more readily financed under an infrastructure process. The fourth area is the urban infrastructure market—the council areas, the public buildings, the urban domains. I will touch a little bit on those.

The Allen consultant report quoted that \$400 billion will be spent on infrastructure in Australia in the next 10 years. That is a massive amount from public and private sectors. In 2005-06 the private sector outlays exceeded public sector outlays in all States other than New South Wales. There has been drag in New South Wales for some years—or certainly, on the other side, an ease to spend in the private sector, particularly in Victoria. There is growing use of private-public partnerships, which I think we are all aware of, effectively because they are a way of getting projects away in a quick, measurable and particularly transparent sense. The key theme is sharing decision making and sharing the risk reward profiles. Although they make up only about 10 per cent to 15 per cent of the current marketplace, there is certainly more impetus for them in the medium to longer term.

The main drawback of those is that there is a lack of expertise—technical and government expertise—in the marketplace across Australia. Certainly you will have seen from Wal King and others commentary in the media that the cost of bidding for some of the PPPs is quite large, and probably a balance has not yet been found between the amount of work that needs to be done to win a competitive process versus the value of that project going forward. That is an area for refinement. But PPPs have been measured over the past 10 years as being quantifiably beneficial in terms of cost—between 11 per cent and 30 per cent—and there are time savings of up to 25 per cent compared with either a traditional project or a public sector comparator analysis. So there is value in the PPPs style of infrastructure delivery going forward.

In recent times, particularly in the past 12 months with the credit market change, there has been a change in the way that projects are financed. Certainly in the previous 10 years bond structures were used as common financing mechanisms, particularly by the private sector. That has all changed in the past 12 months, particularly back to the debt markets. Government funding is a strong trend at the moment. With such a shortage of capital and such demand for competitive capital, there is a tightening of the regime that analyses infrastructure projects particularly in terms of the amount of risk involved, the means of syndicating projects—we are seeing more groups

of banks rather than single entities taking project risk—and competing market pressures for funds. From the client side, the two key issues at the moment are the costs of capital—where the capital comes from—and the quality of patronage and certainty related to a particular project they might be involved in with the public sector.

In respect of the cost of capital, the spread between the cost at which the private sector can acquire capital for debt and the public sector has widened, certainly over the past 12 months. On a weighted basis between equity and debt, there is a growing awareness that government needs to be involved in the funding structures for projects going forward. At the end of the day, even under a conventional or traditional delivery method, the cost overruns are effectively taken by government risk anyway, so there needs to be found some identifiable means of using the cost difference between government funds and private sector funds to deliver projects. I will talk to you about a project we are working on—the south-east Queensland education project—as perhaps one way of doing it.

In respect of the patronage certainty—which has been an issue for many projects, including the Lane Cove and particularly the Cross City tunnels in Sydney—the real issue from the private sector's point of view is how to get that certainty measured. It is much easier on a hospital or education project; it is far more difficult on a transportation project where massive changes occur to the infrastructure network. At the end of the day that is going to be reflected back when government pays in any event. So while it may not be seen externally that government paid for the Cross City Tunnel in Sydney, for example, what happens out of that is the market re-rates those sorts of projects, builds in increased risk and increased funding costs and indirectly over time a premium gets built into the project that covers those sorts of failures. So government, in the longer term, pays for projects that do not meet the expectations of the private sector. That is worth considering when future projects are structured.

Some of my experience with PPPs extends across the sectors. Parramatta Civic Place, which is a local government project, is effectively a mix between the public sector requirement for new facilities—and this occurs in projects that we are doing across Australia—versus the private sector need for them to take risk. So the public sector entity in that case has land that it wants to convert into new facilities and it takes the risk that it should properly take—which is the planning risk that it can manage from a local government point of view, the community consultation risk, perhaps planning amendments and land acquisitions. Then the private sector comes in and takes all the delivery risk—the marketing, financing, construction and on-sale risks. That is a fairly common model being adopted now at the local government level across Australia.

In the education sector we put together the winning bid for the New South Wales model for schools, which was a whole-of-life proposition where the private sector, based on known patronage, could form a view of the design and construction and maintain over 30 years, and in fact—to go back to your question—capital enhancement of the project over the 30-year concession period. That has proven to be quite a valuable model. We are now doing a derivation of that in Queensland. In the south-east Queensland schools project with QTC we have changed the model. We are using what is now called a "secured debt model", which we have developed with QTC, where government, because it can offer funding at far less than the private sector, will take 70 per cent of the debt on completion of the project. The private sector will fund a capital project as it would normally but at the point of completion of each of the stages, or each of the schools, the Government will then take up 70 per cent of the debt and sit there as effectively the primary lender to the long-term concession of the project. They will provide that debt over a 29-year period—one year less than the concession—effectively getting repaid on an annuity basis.

That offers a number of benefits to that project. There is obviously bankability from a public sector point of view. It is innovative and reduces the overall cost of the project. Government provides that at a time when the facility risk is quite low and the actual buildings are completed. They effectively have 29 years to occupy, and the risk of any defaults is very low. It is a model that if, as we believe, QTC gets it to work will probably be utilised on a broader basis in Queensland. So I think there is a lot of thought going into how we change these models to accommodate different costs of funds of each of the projects. These are derivations of the very early models of privately funded infrastructure. To use one example, Parramatta Police Centre, which was done maybe seven years ago, was just about government relocation as a precommitment. The private sector designed, constructed and financed the building based on a certain precommitment level. That was a way of moving the Government closer to its core base of clients.

More recently, we have been involved in correctional facilities. The Long Bay forensic and prison hospital is again a structured PPP. It is much like a school project except you have prisoners—actually it is probably more similar to a hospital project in terms of the services. The consortium provides the facility, finances the facility, and manages the facility on a 25-year concession based on a certain availability payment. That PPP structure has worked very well against a comparator. It will be delivered early and it will be delivered under budget—on capital cost terms anyway. They are the sorts of things that are happening.

On future ways of delivering public infrastructure there needs to be a continuing embrace but development of the PPP model and derivations of it, depending on the type of product that is going to be delivered. To that end advice needs to be given to the various parties at the pre-Treasury stage about how to put these projects together. So, before you go out with a business case with Treasury, some sort of market advice as to the best ways to structure the debt and equity in a public sector model. The complexity of contracting and bidding needs to be resolved. It is still not at an equilibrium between the private sector bidders and the public sector who are preparing the documents. You will continue to see some backlash in the popular press until that is levelled out. The PPP delivers much better transparency of outcome and process than perhaps the traditional government models. That is a benefit that needs to be maintained.

Partnerships or alliances are particularly used in the civil sector and are being developed more in the building sector to cope with ways of government sharing some of the risk and therefore sharing some of the return in incentive structures. The Building Australia Fund that has been announced by the Federal Government—\$20 billion—will obviously go a long way towards addressing some of the infrastructure shortfall, although the time frame for that is still a little unclear. Bundling of projects, particularly the smaller projects, is important. It is probably not done enough in Australia. The smaller water projects and local government projects have to be bundled into sizeable enough chunks and then they become viable from a PPP perspective. There needs to be potentially more focus from a government level on the two major project success drivers, which are momentum and certainty—ensuring momentum in a project by being very definitive about dates and achieving them and giving certainty in outcome, which effectively means you get a very competitive pricing structure.

Going back to what is sustainable urbanisation and how the private infrastructure funds fit, to generate greater sustainability, which I believe future infrastructure projects will have to do—in fact, I think it will be mandated or legislated in the Environmental Planning and Assessment Act or other Acts around Australia—it will become a premium requirement for projects from a government and, particularly, from a financing point of view. We need more efficient use of resources, a better utilisation of resources, delivery by the parties best able to manage the risk—and that is generally done well but sometimes quite poorly—and a higher value placed on lifecycle costing and triple bottom-line accountability rather than capital costs. In that area then needs to be a seismic shift. In other projects we do for government they have a tender analysis where the capital costs or the bid price is perhaps 40 per cent of the evaluation. That is going to have to change into a broader triple bottom-line accountability outcome for projects so there is a true environmental and social measure coming in the bid offers.

I said I would come back to where I think those steps need to be taken. In generating sustainable infrastructure there needs to be incentive structures to encourage urban consolidation rather than spread. At the moment it is a pricing structure in costs of transport or cost of living in the outer suburbs, but there needs to be more incentive to generate urban consolidation. There particularly needs to be expedition at government level of financial measures in the two key sectors—energy and water. Most of the big urban developments—I mentioned we are doing the Carlton and United Breweries redevelopment in Sydney—are moving towards on-site generation of power through cogeneration, and black water treatment. Neither of the pricing structures of selling power back into the grid or utilisation of the existing water infrastructure is well resolved such that a developer or the private sector can provide leased facilities. If you get these facilities provided on these sites, the requirement for large infrastructure facilities at the edges of the cities, or new power stations or new water treatment, will disappear. It may not interest the utilities but in a holistic community the provision of water and power will change dramatically as that infrastructure solution is unveiled, and the pricing mechanism. Generally there needs to be more focus on outcome-related contracts. A lot of the contracts we see are specification or process driven. Particularly in the next 10 to 20 years—the environmental age—it will all be about outcomes.

Mike made some comments about unsolicited private proposals to government. Our experience is that there have been fewer and fewer of those, particularly because the private sector is worried that a good idea will then be put to market. More learning needs to be done on encouraging private innovation proposals. I cannot really remember where the last big one in Sydney has arrived—perhaps Transfield with its proposal for the cross-harbour tunnel many years ago. Since then very few intellectual property proposals have been put to government and been protected.

Finally, I think there needs to be, from an evaluation point of view, far more of a balanced scorecard evaluation put on proposals rather than costing evaluations such that environmental sustainability and social sustainability are weighted on an equivalent basis to financial returns on a capital or life-cycle cost. I suppose that should come from the public works areas of various governments, but in that way the environmental returns would be placed on an equal footing by the parties who evaluate the process rather than by agitated third parties or

environmental groups. It will have to happen; better that it is done by government. So, they are my broad views on the financing proposals.

Mr NINOS KHOSHABA: Thank you, Greg. I now introduce Dr Patrice Derrington, a recipient of the prestigious Harkness Fellowship. Patrice studied for her PhD in architecture and civil engineering at the University of California, Berkeley, adding to her Bachelor of Architecture degree with first-class honours and the University Medal from the University of Queensland. She serves as an independent director on the board of the listed property trust Charter Hall, maintaining her strong interest in the built environment and associated public policy. Patrice serves as a director on the Queensland Urban Futures Board and as chairman of the Brisbane Inner City Advisory Committee, reporting to the Lord Mayor and Brisbane City Council.

Dr PATRICE DERRINGTON: My first memory of infrastructure, being born and spending the first 10 years of my life in Rockhampton in Queensland, is a big, straight, unsealed road between Rockhampton, Emerald and Cloncurry. To me, that was infrastructure, combined with some of the cattle stockyard structures along the way. Adding to that, as a trainee architect at university, I worked in the Queensland Public Works Department for Gary May. Gary was my boss. Rob Schwarten is the Rockhampton representative, and is still doing roads.

As you might have seen in my biography, my most recent infrastructure job was a \$21 billion revitalisation of lower Manhattan post September 11. So, the leap from my early understanding of what infrastructure was to the challenges I faced in trying to bring back lower Manhattan after the devastation that was caused is certainly a journey that has taken me back and forth between the private sector and the public sector in trying to deliver infrastructure in the community, predominantly around property but often with a community sustainability focus. Therefore, I am going to speak a little about the options for funding for public works going back and forth, using that experience back and forth. Hopefully, some of it will be useful to your decision making. Obviously it is very different from the Treasury approach earlier, but you will see many items of support for what Greg was saying.

I will quickly run through some of the funding options. Of course, we have pure public funding. I will expand that a little from the typical budget-line approach. Of course, that involves Treasury analysis. There are also the possibilities of doing it through government agencies. We have the Sydney Harbour Foreshore Authority and the Moore Park Trust—a slightly different model but, once again, a government-supported agency that is focused on a particular task. In lower Manhattan it was the New York and New Jersey Port Authority, which jointly shared both the ownership of the World Trade Centre site and the trains that came from New Jersey and New York—that is, the infrastructure delivering the employees to that area. Agencies can exist like that; they can be government agencies but have as their jurisdiction both property and the services that deliver the economic vitality to that property.

The United States also has government-issued bonds. We also do government-issued bonds, but the United States' bonds are specifically for projects such as a powerhouse, an urban development project and so on, and they are given tax-exempt status. I think we should all contact Mr Swan and try to get municipalities providing or being able to issue bonds with the tax advantage. That would help with savings as a nation and in terms of double taxation. Then we have government-sponsored enterprises. Fanny Mae and Freddie Mac have implicit government backing. It is a great idea, but unfortunately there will be bumps along the road. The lack of oversight and management of Fanny and Freddie are not a result of it being the wrong model; it is the result of there being unsatisfactory and inefficient government oversight. Fundamentally it is a great model and Greg Incoll mentioned that in terms of the Government stepping in in south-east Queensland schools and taking the debt. It may not even need to take on the debt; it could simply guarantee the debt. That would provide a lower cost of funding. There are variations on the theme of what governments can do.

There is also tax increment financing whereby the tax stream is hypothecated to specific projects. Rod Eddington is talking about that in Victoria. The important thing is not to add yet another tax levy that becomes a disincentive but rather to look at the streams of tax revenues and identify those that will be beneficially supported by the proposed infrastructure and hypothecate some of the upside on those revenues to pay for the infrastructure.

Of course, we also have the great PPP, or public-private partnership. We have heard a lot about that today, so I will not go through the list of options. They vary from outsourcing all the risk, such as BOOT schemes—build, own, operate and transfer—to build, own and operate forever. That is the case in South Australia with the water treatment plant, which is under perpetual ownership and is operated by a private entity. At the other end of the scale is cooperative arrangements, which are really incentives for the private sector to do things, such as build more energy-efficient housing, install solar panels or provide low-income housing. In effect that is a PPP.

How does the public works department go about selecting the best option for funding its public works? Treasury has obviously developed a very inefficient process for the way in which it will view the expenditure of its

money. All delegates are involved in public works committees and other agencies are ringing you and saying that they need another hospital, another school and so on. Government is not only about the expenditure of money and evaluation to determine the best expenditure. The funding decision is all about the total provision of a government service. Greg Incoll talked about some of those things being environmental, and I will expand on that.

There are three simple rules in going through the selection of the best option. The first thing is that one must remember that there is no single solution for all possible services and projects. It is not a question of public or private, now and forever and for everything. You go through the evaluation with respect to some specific things. What is exactly being provided? That is the first question. Public works knows what it is being asked to provide. But generally there is an interdepartmental link about the various other social benefits flowing from that public work.

Let us compare the publicly operated and managed postal service and FedEx, which is a private provider of mail services. FedEx is a private entity and is effectively able to cherry-pick who it serves. It has decided that it will not deliver every piece of mail between A and B. It goes for the corporate, high margin, high expectation, high reliability and willing to pay market. It can go for the higher margin activities within that array of services. As we know, the post office is financially burdened by having to provide equitably to all citizens in the Government's jurisdiction. That is, it must deliver mail out to the most remote areas and so on. That debate is also going on about Telstra and the notion of providing equitable services to country regions and remote areas. We elect the Government to represent all people, so there will be that notion of social equity.

However, the post office can be more efficient in that it can also deliver other government services, such as passport renewal. We cannot necessarily ask a private entity to do that. We could, but it would charge and there would be no economies of scale. Finally, post offices in country towns and remote areas—certainly some that I have visited in Australia—are a hub of community activity. They can be an emergency call centre and so on. That is another sort of community service or social benefit provided by some of these bodies. Quite rightly, a private entity focused purely on profit and the bottom line would not necessarily be willing to provide those services. One of its employees may have a generous spirit, but it will not be the role of that entity. The same applies to education, health services and so on.

There is no one solution, but sometimes we must think about the additional social benefits or the collateral benefits. When there is only little social equity or collateral community benefit involved—such as a toll road, although we could argue that given the high-profile challenges in New South Wales lately—the private sector is more effective at profit maximising and delivery of that narrowly specified piece of public works. However, it must be a situation where there is very little social equity at issue and very little collateral community benefit.

The second part of the evaluation is, of course, the cost of making or buying a delivery; that is, doing it internally within the public works department. Queensland is blessed by still have day jobbers, so it has the work force, the capability, the corporate knowledge and so on. On the other hand, the service can be outsourced—that is, the delivery can be bought elsewhere.

For any outsourcing decision, whether it is by Public Works or by a private entity, a full range of transaction costs must be taken into account in making a comparison. It is not just the cost of service; it is the actual transaction: firstly, coordination and alignment with other activities to achieve the primary objective. How do you tease out that specific service or piece of infrastructure and say, "That is the defined piece; it has no relation to anything else."

As an example, it is not really a public facility but you might remember Value Jet, a low-cost American airline that grew to fame and was in much use in the nineties because of its low fares. It outsourced its maintenance activities. Those maintenance folk used to have to take the spent oxygen cylinders that they used for maintenance from the planes and put them back on planes to go back to the hub. In 1996 in Florida there was a minor incorrect storing of those spent oxygen canisters. Consequently, the plane blew up over the Florida aerobase and there was a tragic loss of death.

The outsourced service provider was eventually fined, after a long case, going back and forth over the contract, as to who was responsible for what. Irrespective of that, if you think outsourcing is the end of your worries and you can go to bed at night, Value Jet's reputation was significantly damaged and it eventually went out of business and many lives were tragically lost. These are the intangibles that we have to take into account as a transaction cost in outsourcing.

I go back and ask Treasury: Are these included in the public sector comparables—maybe, maybe not. If they are not yet, they should be somehow. The second thing is that the cost of specialised services or unique

projects cannot be spot market priced. The lengthy process of specifying outcomes, repricing unforeseen contingencies and closely monitoring the hard-to-define quality for the outcome can add significant cost to a tender price. We are starting to see that. The Cross City Tunnel was certainly challenged by the projections. The Space Syntax show that Tom did this morning demonstrated how there are much more efficient ways to go about determining usage, circulation and connectivity. That sort of preplanning goes a long way to more clearly defining your outcome.

Mostly the outcome for social services is a hospital, particularly if it is going to be long term; an educational system, which we know is going to change, with various developments in educational theory. How do we predetermine the outcomes of these things? Therefore, we cannot spot price them, so there is always going to be an added premium to the cost. Projects cannot be self-specified as you go and the contract you put in place is certainly not self-enforcing.

The third thing is that continual outsourcing actually reduces the leverage for being able to come up with a viable alternative. If you continually outsource something you lose the internal corporate knowledge within Public Works or the government department and that outside contractor gains market strength in terms of negotiating any future renewals. For instance, New York City as a public school bus system, which it has had in place for about 22 years. It has now no way to go out and purchase a viable alternative. It is stuck with those contractors because those contractors now have every available bus driver, every available bus and all the infrastructure such that they are going to beat any start-up or even the New York city council trying to do it themselves. It is important to remember that the shelf life of outsourcing is limited. Take on outsourcing: beware of losing your leverage in getting a good market price for it.

Fourthly, product and processes are often interconnected. Earlier you asked an important question about how do we distinguish between what is delivered with a hospital, its maintenance and the actual activities there? How do you ensure that the best practice is achieved without someone who is not focused on that same objective, but may have a profit maximisation motive, in delivering what essentially is a public hospital service. They are not distinguishing between who is providing me with my health service and who is providing me with the hospital and whether it is clean or not? It is very hard to tease out these things.

Not only does it make it difficult for the Government to provide the consistent and high quality of service that is expected of it, it also does not allow the Government any flexibility in dealing with the private contract that is already in place and it has to work that way. The Government sometimes can utilise this to its advantage. Let us take a motor fleet. If a motor fleet is run by Public Works, as I think in Queensland, you have the fleet, the assets and the maintenance crew both internalised. You have the choice of whether they are both internalised. Sometimes it is good to keep the fleet older because you do not have room in your budget for major capital expenditure and you are willing to spend a little bit more on maintenance because you may be able to put more people to work because unemployment is rising in the State.

To have this opportunity to go back and forth between your assets and other things integrated with it, such as operations and maintenance, often provide the Government with flexibility to achieve its broader mandate.

Finally, the question is: Is the engagement of the community required? If community engagement is important to the quality and adoption of the outcome, because of the community do not like to have anything thrust upon them, they will accept something less if they have been part of the decision making. It is just so obvious and so time worn, such an outcome. Government is in the best position to do community engagement because they are seen as the elected representatives and supporting bureaucracy of their own wishes and desires.

To outsource that community engagement does not mean you do not bring in community engagement consultants. To outsource the direct responsibility for it is really regarded as an implicit dismissal of the value of the community's contribution and I warn you very much against it. In Brisbane I chair the Brisbane Inner City Advisory Committee, which is the mechanism from bringing in the inner city community groups. It is terribly important that they feel they have direct contact with their elected representatives and with council that makes the decisions.

That is the first rule. There is no singular decision. The second rule is that no solution is made in heaven. No matter how many protocols you put in place for determining the contract or the specification of the project, there is always going to be some residual risk and certain public costs. In entering into engagement with private entities or private finance, it is very important to address a couple of things: Firstly, the relationship is to be made explicit, limited to the existing contract. Sometimes people think that they have a contract for a certain thing—it may be for collecting garbage and that will enable them to then distribute water or something like that. It is very important for a government to make that explicit.

With respect to resourcing, when you enter into these things, sometimes there is a sense that the private sector has all the skill. The minute a PPP is envisioned, the private sector strides in and says, "Leave it all to us. We are going to do the planning. We are going to make the decisions that are best for you." Absolutely wrong and unsupported. It is very important for the government to retain the responsibility for policy and for determining what is the best practice required or the outcome that is required. It should go about hiring its consultants in determining the specifications, not leave it to the private sector to go out and really create the structure. Once again, you heard about that this morning in the discussions.

Then, of course, the important thing is that the financial and social risks are appropriately allocated, and that includes the cost of failure. We know that in the end the chickens come home to roost with the government and that you will have reputation at risk, you will have political issues at risk where governments are up for election every three or four years, and then, finally, of course, you will have increased costs in any future contracts by the private sector because of that risk. That risk premium goes immediately in on top of the tender.

Finally, the other aspect is continuity. Therefore, knowing that there is some risk when you enter into a contract, determine ways for resolving issues down the way. We should not have waited for the Cross City Tunnel to go into receivership or something to be done; there should have been a much better mechanism that would have reduced the amount of value lost by being able to address the issue early in the process. The third rule: there is no solution that does not require continual upskilling in government management; that is, public works and other governments that deliver these services. The public sector does persist as a fundamental provider of public goods and services because after comprehensive analysis and much historical proof—governments have been doing it since the aqueducts and so on—it is simply too costly to underwrite private contracting to achieve many of these very complex and hard-to-define outcomes.

If it were very simple you could get those idiots down at Macquarie Bank to do it all for you, but you do not. Government is complex. It is messy, but it requires not just trying to flick it out in pieces to the private sector but in fact it requires the government to retain the final responsibility to the community for the provision, the certainty, the quality, the continuity, and if there is one thing government should take to heart in this notion of failed PPPs and so on is to continue to build its own efficient delivery. There are alternatives. Governments have been doing it.

Secondly, when you do outsource, strengthen the effect of management and oversight of these private providers. The Treasury processes one way of oversight of a financial contract, but you need project managers who are really good and know what is happening. You also need better planning upfront so that you more closely specify the outcome. Therefore, in addition, it has been repeatedly found that of course understanding your employees and the critical experience that is there, the corporate memory that resides there and so on, they should be engaged in the decision-making process about how to effectively engage the private sector—yes or no—and then the process of oversight in order to deliver the required public amenities.

In conclusion, the existential question: to PPP or not to PPP? There is no consistent answer, of course. In lower Manhattan I had \$21 billion from federal government, but we had \$86 billion of demand for projects. That was not just the World Trade Center site; that was a whole other insurance package; this was a loss of jobs; 70,000 jobs disappeared in lower Manhattan and there was tremendous destruction to the rail, the subways, community services and the community itself. How to bring that back was a question of not only one answer but so varied I have not even begun to list all the mechanisms we used. But it was always about the focus on achieving the outcome, that outcome being full of that known social benefit or determined or perceived or forecast social benefit.

You have got to be aware of not only your known unknown but also some unknown unknowns that will eventuate when you are thinking about building a city or building an infrastructure; it will change over your next 20 years. So firstly, therefore, I think you just go through evaluating what are the options with respect to the comprehensive decision for the outcome, and that is, of course, just to restate, the public services and works that achieve the required standard of best practice consistently and continually. That is inclusive, of course, of the intangibles. Second, enable government to maintain responsibility for policy. You start to let a private entity choose who gets to use what roads then you are losing the responsibility for transportation policy within your jurisdiction.

Thirdly, are these funded economically? Not necessarily the most cheaply, not necessarily just economic value for money, but are they, as Greg said, meeting the triple bottom line? And I include those social intangibles. Finally, of course, maintain the social equity and keep the community engaged, because they will be pleased if you give them a sandwich in a paper bag as long as you have asked them what they want. Thank you very much.

Mr NINOS KHOSHABA: I will now open the session for questions. Do you have any questions of Dr Derrington or Greg Incoll?

Mr DAVID PISONI (South Australia): As politicians obviously our role is the delivery of services, and your presentation had the appearance of suggesting that the private sector cannot deliver those services as effectively or, alternatively, that if the private sector is delivering those services the government loses them or control of them or consequently loses that from the community. But what about the argument that they are out there in the private sector, they are still in the community, and the community is made up of the people that are outside the government, but the government is there to serve the community? I am a little bit playing the devil's advocate here.

Your example of the post office, that they are the hub of the community in a lot of communities; a lot of communities have privatised post offices and they are still very much the hub. As a matter of fact, they are often an even bigger hub of their community because there are other enterprises connected with them. Then on your ValuJet example—

Dr PATRICE DERRINGTON: Except you have got to make sure that the government in allowing them to be a private entity is now aware of what other public services they are offering.

Mr DAVID PISONI: But anything can be written into a contract.

Dr PATRICE DERRINGTON: Anything can be written into a contract.

Mr DAVID PISONI: It is up to the government to manage that contract.

Dr PATRICE DERRINGTON: It is.

Mr DAVID PISONI: Not through the public service.

Dr PATRICE DERRINGTON: No, you are absolutely right. It is what is written in the contract, how the contract is monitored and managed and so on.

Mr DAVID PISONI: That is all the government's responsibility, regardless of whether the public servants are delivering the service or the private sector is delivering the service.

Dr PATRICE DERRINGTON: I agree. That is precisely what I said.

Mr DAVID PISONI: Ultimately the government is responsible; the Minister that signs off under the Cabinet is responsible.

Dr PATRICE DERRINGTON: Yes.

Mr DAVID PISONI: In your outsourcing example with ValuJet I was a little bit confused as to what the relevance of that was because a mistake can be made by an employee of ValuJet as well and if it were a government entity again the same mistake could be made, but I suppose the difference in that instance is that there was a private entity that could be sued and the taxpayer did not have to fork out for the compensation for the victims.

Dr PATRICE DERRINGTON: Both entities were private. It was really about the outsourcing dynamic. The point was the focus on the ultimate safety principle. You here had an airline that was focused on that safety principle tried to write a contract whereby a maintenance crew also delivered in accordance with that safety principle but were able to step across it for some reason. Whether someone was not managing the contract or whether the contract was not clearly defined, they were able to get away with inadequately storing the canisters. So it is not really about who can be sued or what is government and what is not, it is really about outsourcing and the vulnerability of a contract.

Mr DAVID PISONI: I am not sure how it would have been any different if they stored their own canisters or did their own maintenance. It is a management issue, the type of management.

Dr PATRICE DERRINGTON: No, there was a focus on different objectives. Maintenance was to maintain and get it done as quickly and effectively as possible, get rid of those canisters because they did not own them.

They wanted to get them on a plane and off as quickly as possible. Whereas the airline would have been focused on safety. So a maintenance crew that is constantly barraged by the airline to be focused on safety may not have gone overboard in the storage of those canisters.

Mr DAVID PISONI: Does that not highlight a fault in the contract?

Dr PATRICE DERRINGTON: As I said, it was pointing out the vulnerability of breaking out integrated services. That is what I was saying. I was saying if you try and break down, tease out the provision of your health service versus the provision of your hospital, how much can you write in a contract that is foolproof, how do you maintain or manage that contract and how do you provide oversight of that contract? I am not saying it cannot be done and it should not be done. I am saying there are issues about the joining of objectives and motivations and the vulnerability of the contract and the oversight of the contract, which goes again to support my belief that no matter what the government does, outsourcing things and so on, it has to continually upskill and be good managers and good contract writers.

Mr DAVID PISONI: Would you also comment on my earlier comment about the community still retaining those skills, they are just not being provided directly by the government? They are available to the government through the private sector.

Dr PATRICE DERRINGTON: The post office, you mean?

Mr DAVID PISONI: No, I am talking about, for example, the bus service in New York City.

Dr PATRICE DERRINGTON: It is able to use it, but when it goes out to renew the contract it says, "Per kid what is it going to be—\$5,000 a year?" They say, "No, we think it should be \$10,000", and New York City has no choice.

Mr DAVID PISONI: We had a situation in Adelaide where all the bus services in the 1970s were privately run. It was a very efficient, effective bus service. It was nationalised by the State Government and became very industrialised, heavily unionised and we saw bus drivers wages go from average wages to teachers' wages. The government's choice then was to cut services because it could not afford it.

Dr PATRICE DERRINGTON: There are plenty of stories about government inefficiency, which is why we have come up with this PPP thing as being the panacea for all of that. Just as there are many stories demonstrating government inefficiency, I believe there are stories of government delivering efficiently in terms of the comprehensive needs of what the outcome is. As I said, you have plenty of instances where governments are not doing it efficiently. That does not mean the private sector is better. The government may just have to get better at doing what it is doing, manage its people better and so on.

The Hon. SUE NAPIER (Tasmania): My question is to Greg. You raised the question of private proposals and said that currently they tend to result in a good idea going out to public tender. What can be done to avoid the perception otherwise that it is just jobs for the government's mates?

Mr GREG INCOLL: There is a fine line with private proposals being adopted as jobs for the mates. It is a matter of creating a balance. My experiences particularly in New South Wales are that there is not a forum that genuinely looks to encourage private sector proposals. There is more a focus on the glass is half empty approach of ensuring that if a private proposal comes in it goes through all the steps and checks and balances and has to jump through all the hoops before it can get underway. In some cases those proposals have not got underway and ended up going out later as competitive market proposals by government. I think the private sector has a suspicion that if they come up with a good idea it will not be dealt with equitably by government. I think more of an encouragement for people to come forward with proposals will generate better structure outcomes.

The Hon. SUE NAPIER: How do you deal with the issue of whether the government is seen to be fair and reasonable and not doing a deal on the side? How do you demonstrate that you are getting best value for a project? If it is building public infrastructure or delivering new infrastructure or services, how do you demonstrate that this idea that a particular private sector has come up with—and often there is a right of access or right of land as part of the deal—is the best use of the public dollar and why that private sector should have the advantage?

Mr GREG INCOLL: There is a question personally as to whether there is the use of the public dollar or whether it is a totally private sector provision. You have to have a value comparator, which is probably an

assessment by both the public and private sectors as to the inherent value of the proposal as against not doing the proposal. For instance, if there were an infrastructure proposal put forward, a private and public sector team could evaluate it on the basis that if it is intellectual property does it add value to the State or jurisdiction as against not proceeding with it, rather than letting it lapse and perhaps letting a similar sort of proposal emerge a month, a year, or five years later. It is an intangible but it needs to be measured probably by both public and private sector in terms of value.

The Hon. SUE NAPIER: It usually cannot be done in the public eye.

Mr GREG INCOLL: It is innovation. How do you encourage innovation? You need to have a mechanism for encouraging innovation rather than a structure that discourages and makes you go through a whole lot of hoops. The two things that are in very short supply particularly here are innovation and, because of the current world market, capital. Capital moves very quickly. It will move to the areas where it gets the best return for the lowest risk. We are seeing that more so in the last 12 months. Innovation is a similar thing. Innovation will move to areas where it can be accepted and where the benefit is realised. If you do not encourage innovation you lose it. You get the people going into other areas. Australia's brain drain in scientific terms to the US is a case in point. That is a separate issue. In infrastructure we are not encouraging innovation and we are not encouraging the Transfields of the world to come up with another cross-harbour tunnel. We are not providing a mechanism that if you have the right idea and you can show us why it works and why it is of benefit to government we will encourage it to go forward and encourage you to put it forward. That is where the mechanism needs to shift from one of protecting government processes and being concerned too much about making sure there have been no behind-the-scene deals to one of encouraging within a framework new innovation.

Mr KEITH BARRIE (South Australia): I am a bit intimidated, Patrice, asking a question of someone who channelled Donald Rumsfeld's unkown unknowns. What are the skill sets needed to make these choices, as traditional skills from public services are outsourced or cherry picked by private sectors? Is all you need at the end a bunch of financial analyst boffins in Treasury or can you get to the situation where you have the right skill sets to be a wise buyer or chooser?

Dr PATRICE DERRINGTON: I think you have not been helped by the 16 years of continued prosperity in Australia and the private sector certainly going into the stratosphere in terms of profitability. That has been unusual, and I think society and the economy will balance out a little bit. There will be some pain around that, but it will balance out. When you think about the provision of public service and the skills involved, usually people who elect to do it are capable and confident and they also typically see some other reason to be there. Sometimes it can be the more progressive employment policies that the Government has. That is a benefit that is non-financial. Sometimes it can be the doing good—the warm and fuzzy feeling about contributing to the community. In fact, studies have shown that public servants are not the avaricious, corrupt and incompetent people that the press sometimes like to focus on. In fact, studies have shown that they are significantly more focused on contributing to the community.

A study found that 70 per cent of public servants had within their top three objectives in life contributing to community, versus a private sector grouping that did not even include it in their top 10 priorities in life. That is a very significant characteristic of people who go into the public service. They do not want to be paid for that because that takes away the feeling of doing good. So you cannot say. "Let's just equate salaries". What I think has to be done is that the public service has to basically corporately revitalise. Corporations revitalise their spirit: they see what they are about and what their employees like about being there and make sure that that is what they are getting. I think that is probably what the public service has not done. It has been bashed and battered and so on. The private sector, as you say, has taken a lot of good projects and a lot of people. So the public sector is left saying, "What are we about?" It is about the progressive aspect of our community—as I said, it is usually at the forefront of employment policy—and about doing good. If the people can go into the public service every day feeling that they are seeing results for their efforts in community provision I think it helps.

Karyn Paluzzano is not here, but I worked on a big project in Penrith. We had to deal with lots of people from the local council and State agencies. Whenever anything happened—a road was opened, we did some historical stuff and so on—I said to people from the offices, "I know it is a long way out to Penrith but I would really love you to be here and see the results of your efforts. We will make a day of it and give you lunch, and so on". I believed that when I worked in the public service. I like to see what I am delivering, and I do not think the public service does that enough. So I think you have got to build upon your intangibles, such as the social benefits of being in the public service, and make a very good effort to try to get people in. I have applied for a job in the public service and been knocked back, so I do not know what is happening there in terms of employment! I think it is up to the service to reach out, polish itself up and attract good people.

Standing Committee on Natural Resource Management (Climate Change)

APPENDIX ONE - TRANSCRIPT OF PROCEEDINGS

Mr NINOS KHOSHABA: There being no more questions, I take this opportunity to thank delegates for their contributions and participation. I especially thank Dr Patrice Derrington, Mike Schur and Greg Incoll for their presentations this afternoon. I would like to offer you a small token of our appreciation.

(Session C—Public Works Committees—concluded at 4.15 p.m.)

Friday 25 July 2008

Session E—Government Urban Planning Strategies

Public Works Committees

Mr CRAIG BAUMANN: For those of you who do not know me, my name is Craig Baumann. I am the member for Port Stephens and a member of the New South Wales Standing Committee on Public Works. Welcome to this session on Government Urban Planning Strategies. We have a distinguished panel to address us today, with very senior representatives from the New South Wales Department of Planning and the Growth Centres Commission. We have an hour and a half in this session, so we should have plenty of time for both those presentations as well as some discussion at the end.

Our first speaker is Professor Chris Johnson. Chris is currently the Executive Director of the New South Wales Department of Planning. Chris was also the New South Wales Government Architect and the General Manager of the Government Architect's Office for 10 years. He is a member of the Heritage Council of New South Wales, the Central Sydney Planning Committee, and the Board of Architects (New South Wales Chapter). Chris chairs the Sydney Harbour Design Review Panel and is an adjunct professor for the University of Sydney and the University of Technology.

Chris has written a number of books, including *Shaping Sydney—Public Architecture and Civic Decorum*, *Australian Architecture Now*, *Celebrating Sydney 2000* and *Greening Sydney*. Chris has also recently undertaken a major legislative overhaul of the New South Wales planning system. I would like you to welcome Chris Johnson.

Professor CHRIS JOHNSON: Thank you very much. In the interests of saving time, I will move through this presentation fairly quickly. This is a general talk about the structuring of metropolitan regions. It focuses on a program of work we have undertaken in New South Wales, particularly around the greater metropolitan region of Sydney, to look at growth and how the structure should work in those sorts of areas. What I have coined as a term for this is "polycentricity". It has the word "city" at the end but it is about polycentric, or about multiple centres. As we go through the presentation you will see that this is very much a theme, not just here but around the world, about the development of cities.

It is always dangerous to show these sorts of things at breakfast time. A fellow called Cedric Price in the United Kingdom referred to cities and used the analogy of the egg. He talked about the ancient city with the world around it, rather than the city contained within the world, as being a bit like the hard-boiled egg: you got it all contained, and outside that all the crops were grown, the food was grown, and the city was quite happily contained in a fairly urban sense. But from the early 1900s onwards we moved into the garden city movement, into suburban sprawl, and suburban development occurred a bit like the fried egg, spreading out from the centre of the city. So we would have an urban centre and a suburb, and the edge going on for enormous distances outside that.

Cedric Price's thesis was that this is setting up a duality that is not really the best way forward for a city, that you really need something that gets the vitality of the city not just in one place but in many places. His analogy for that was to use the omelette as the vision of what the city should be like: you get the richness of the urban parts spread throughout the city, but preferably with a series of centres. So bits of onion, potato, mushroom, or whatever, start becoming sub-centres within the whole complexity of the urban metropolitan region. I think this is a fairly positive way forward, to think of cities not as big, high-rise urban centres with lots of suburban edges around them—the fried egg—but as something that gets a much more dynamic mixture of work, densities, including lower densities, and greenery, et cetera, within the city. The omelette is not a bad image for that.

It is also interesting to look at the evolution of cities from being very simple systems to complex systems. People like James Gleick, who has written quite a lot on chaos theories and things like that, talks about the evolution from a simple monocentric system to a complex system, with complexity ultimately being about multiple centres. This is a diagram of a more complex system. You could even relate this to an aerial view of a city and see that omelette-type structure evolving from, let us say, Sydney, as the eye of that whole structure, to sub-centres such as Parramatta, Penrith, Liverpool, and so on. Complex systems often develop these more interesting structures that have a variety of centres within them.

Many cities around the world have developed in exactly this way. This is the city of Vancouver. On the left-hand side is the main centre of Vancouver, sitting not to dissimilar to Sydney. The black dots indicate regional centres and job focuses relative to that city. This is the plan for Shanghai for up to 2020. The regional city, which is circled, is still contained very much as the urban core. Shanghai was a city that had many overlays—the French quarter, the American quarter, et cetera. It now has a series of satellite cities around it, which are shown by these smaller dots, providing foci around the major centre. As Shanghai has become a more complex system, it has also developed these secondary centres.

The cities of Basel, Mulhouse and Freiburg all operate as one economic zone; they are actually working together to promote industry that is to the benefit of these three cities. The interesting thing here, however, is that Basel is in Switzerland, Mulhouse is in France, and Freiburg is in Germany. So we are now starting to get urban systems crossing national boundaries. A city system can, in some cases, be more relevant and more important than the country itself. When we look at the power of somewhere like London, New York, Shanghai, et cetera, these cities become major drivers of economic development.

Some time ago—and I know that there are people here from Queensland—Brisbane went through a process of looking at something called CityShape. It was about the next million people to come into Brisbane as a city. There was a well-organised participatory program, both electronic and through public meetings, to get people's impressions and suggestions as to how the city could accommodate one million extra people. Four options were given: a compact city, that is, that all development would occur right in the middle of Brisbane; more high-rise right in the middle but it would not impact on any area, and about 17 per cent of people supported that; the dispersed city, which was where basically every street would start getting some three-storey apartments and density would be spread across the whole metropolitan region, which was supported by about only 5 per cent of people; and what people preferred was either a corridor city or a multi-centred city where they could have their cake and eat it—where they could still keep the low-rise suburban areas but the density, jobs and dynamics of the city centre were not so remote from them as the city spread and bits of that were closer to them.

This concept of a multi-centred city or a corridor city that balanced the side of suburban lower densities with the broader structure of the city seemed to be quite a positive way to go. The next slide, which is a diagram by Professor Peter Newman from Western Australia, is an overlay of Sydney picking up on reconstructing an automobile city. He did this some years ago, but if one looks now at rising fuel prices and other things it becomes even more relevant. His concept was to have a series of major city centres at the centre of each of those rings on the slide. We could imagine those rings as being almost Olympic rings. The big white dot on the right-hand side is the Sydney central business district and then there are a series of centres, for example, Parramatta, Penrith Liverpool, et cetera. Each of those centres has a diameter of about 20 to 30 kilometres, a one-hour wide diameter, so a radius of about half an hour. He then suggested bus and light rail movements back into each of those cities and then a broader connection between them.

The diagram that seems to be emerging quite a bit around the world is one of city structures being polycentric, or having multiple centres. One of the major drivers of the State Plan of New South Wales is to get jobs closer to where people live. The concept of jobs closer to home is a fairly important thing. A lot of statistics and demographic data support many of the changes from the broad suburban urban model to the more mixed up model of an omelette. By 2031 household size, for example, would go from an average of 3.75 people down to about 2.3 people, which is almost half. We have had to build many of the houses for that reason alone. It is not because of an increasing birth rate or increased immigration; it is just that there are fewer people in each household and that means we have to build for more of them.

In 1947, 40 per cent to 50 per cent of households had couples with children. It is projected that by 2031 only 24 per cent of households will have couples with children. That means that three-quarters of households, or 75 per cent, will have either one or two people in them. So only 25 per cent—24 per cent according to Bernard Salt—will have a mother, father and children. That results in our questioning a little the total reliance placed on the suburban housing model. We need a balance and we need variety in how we provide households within urban areas. Bernard Salt projects that as a result by 2031 detached houses will go from 70 per cent down to about 55 per cent. Fertility rate seems to be going down. Births by mothers under 30 used to be 63 per cent, but that has been projected down to about 40 per cent. The average age of a first marriage was 23, but that figure has gone up to 32. People are having kids later.

The 10-year period from 2022-32 will become one in which people live different lifestyles, often closer to the centres of cities. At the other end, life expectancy has also changed dramatically. Since 1947—a period of about 75 or 80 years—men and women are living 18 years longer, which is a pretty dramatic shift over that period.

That means that household types have to respond to that. Many older people do not necessarily want to spend their time in retirement homes on the edge of cities; they want to be closer in to where the action is, for example, lifts and single level housing. Those things obviously are fairly attractive for aged populations, and I think there are interesting messages in that. People born overseas—and these are Sydney figures—was 9.8 per cent. That figure has gone up to 25 per cent so we are getting a much more multicultural mix of people within our cities.

From the United Kingdom and Europe, which is where most of the migration occurred, the figures have gone from 88 per cent down to 40 per cent by 2031. I think that demographic diversity needs to relate to an urban form diversity. There is no "one size fits all". I think that cities need to go back to the omelette model and offer the variety and dynamics that provide for all the diversity that comes out of those statistics. This slide shows the growth of Sydney. It is interesting that in 1917 there were just under one million people, and there was almost no development on the North Shore. Sydney Harbour Bridge had not been built and the development was really all on the south side of the harbour. By 1945, when Sydney Harbour Bridge had been completed, the whole of the North Shore was suddenly opened up and major developments started occurring. Parramatta was growing at a fairly fast rate. By 1975, big development started to spread out, picking up Liverpool out towards Penrith on the route up towards the Blue Mountains.

In 2005 we had a population of 4.2 million and that figure has increased to 4.3 million or 4.4 million within the city, with major growth occurring. That was when the Metropolitan Strategy was done to work out where the next million people should be living in Sydney. The solution was to get two versions of how development could occur. The two shapes at the top and bottom of the slide represent the growth centres, about which Angus will be talking later, where 30 per cent or 40 per cent of these new populations will be living. But the asterisks on the slide represent the city centres and where, over the next 25 years or so, the other 60 per cent or 70 per cent of the population will be within the existing boundaries of the city, with many of them responding to some of these demographic changes and living in different ways to perhaps some of the previous suburban models.

As part of this, the New South Wales Government gave us a particular focus to try to reinforce this more polycentric structure of the city; to try to reinforce centres like Parramatta, Penrith and Liverpool; and to try to get more people living in them but, more importantly, to get more jobs into each of those centres. I was asked by the Minister to head up a cities task force to try to drive more growth within each of those centres—not just those three centres in the city but also within Gosford, Newcastle and Wollongong because the greater metropolitan region works as one integrated system. We were asked to set up a program of city centre plans that would analyse these areas, look at growth relative to our broader 25-year strategies for the regions—the Hunter the Central Coast, the metro region and the Illawarra—and out of that extract ways forward.

The next slide shows broad regional planning targets: Metro Sydney, 1.1 million with 500,000 in employment; figures for the Illawarra, Central Coast, Lower Hunter; and giving total for population and employment targeted over the next 25 years. Behind this metropolitan strategy is a lot of quite detailed work and studies. This strategy and the others in the Hunter, the Illawarra and the Central Coast were predicated on a hierarchy of centres. In the column on the right-hand side of the slide you can see growing dots moving up and down in size, representing a hierarchy of centres to get people working and jobs and development occurring in those centres. The three that stand out are Penrith, Parramatta and Liverpool as part of that total program. We then targeted about 64,500 new people as living in each of those centres and about 81,000 jobs in each of those centres.

The numbers are shown on this slide as 6,000, 10,000 in Wollongong, 20,000 in Parramatta, which is the biggest, and 30,000 new jobs within the centre of Parramatta. We then did a calculation as to averaging square metres for a household—100 square metres for two people, or 50 square metres per person. We worked out a similar rate of 20 to 25 square metres for commercial space and multiplied that out, and we needed of the order of 5.5 million square metres across the whole structure of those cities.

But you obviously need much more capacity than that. You are not going to just shoe horn into every square metre available in the actual space. So we then set out an analysis of each of those city centres and calculated the current capacity is about 6.9 million, but to really get our targets we needed to really double that. We really needed to get up around 13 million square metres of space so we have flexibility to be able to get development where there were bigger lot sizes and where we could get appropriate that to allow buildings to occur. There are heritage buildings and various sort of complexities in cities that means you are never going to develop every site to the maximum.

So our program was to add those amounts of square metres to each of those city centres—so an uplift of 6.4 million square metres across those six centres, averaging approximately 1 million in each of them. Our estimate of this was the increase in floor space of 6 million square metres would increase land value in the order of

\$3 billion. This was a fairly clear signal to the market place that if land value was going up these were the sites to develop: these are the ones where a focus would actually create a movement pattern that was going to be positive. We did this by developing four planning documents for each of the cities.

We produced a vision document that set out the broad structure. The vision looked at demographics, growth and the particular characteristics of that city. We did a LEP—a local environmental plan. This is a statutory planning document that then rezoned land, looked at floor space ratios, looked at heights and all those issues and became the legal statutory planning document. We did a DCP—a development control plan—which moves into the next level of detail: modulating the size of streets, the heights next to streets, the distance between towers and the character of the city. Finally, we did a CIP—a civic improvement plan. Because we were almost doubling the development potential in these city centres we took a small levy of about 3 per cent off to put into civic improvements so that the city gained from the economic development but also gained from having money put back into redoing the foreshores, upgrading the streets, landscape throughout the city, and public amenities that were seen as being important for that city.

We did that across the six cities. So we produced 24 planning documents. This whole program was done in a period of about seven months so it is a fairly fast-tracked approach to working in conjunction with each of these cities. We set up the task force as 50 per cent being State Government and 50 per cent being local government. We set up a special work space. We worked both in the city here and in each of the centres and had a series of meetings, about 25, in each city with the local council, local people, community groups, set up reference panels and worked out of that whole process a series of developments.

But in a little bit more detail, the vision document looked at the characteristics of each city. So, for instance, Wollongong is a city between the ocean, the waterfront and the mountains. There is a beautiful escarpment behind it and we wanted the city to build up from one to the other to reflect the topography of the whole city. Crown Street, which is the spine, we picked up the need to build up the heights along there but to get the highest heights where the railway station is. This is the principle about transit-oriented development to really try to get densities around transport nodes. We took the very centre of the city where there is a fairly outdated mall with a big bird cage type structure done in the 1970s across it; that the mall does not have any traffic running through it and becomes very unsafe at night time and we have lobbed into the city the thought that we should be upgrading this. Coincidentally, the building on the right hand side, which is GPTs Crown Central major retail centre then started talking about upgrading that as well. In fact, it has recently got approval for a concept plan to spend \$400 million on upgrading the building alongside the mall and on the other side of the road just at the top right hand side of that image there. So as well as working with the civic domain we are encouraging development within the marketplace.

Penrith is an interesting city in that it is on the edge of our metropolitan area on the way up to the mountains. The city sees itself as half country, half city. The characteristic it is very keen to get is one of a garden city. At the moment there are very few parks or gardens in the city. This space on the image where we have shown a park is a bitumen car park at the moment. So we have restructured where parking can occur in the city and proposed a new urban park for Penrith. In fact, we have developed the whole concept of Penrith as a series of contained parks so the character of the city is this half city, half country.

We also did a lot of demographic research from the Bureau of Statistics on what sort of people lived in city centres. The green is Wollongong City Centre. The pink is the local government area. The blue is the greater metropolitan region—Wollongong to Newcastle. What stands out dramatically in the city centre is that green spike showing that the 20 to 29 year old population seemed to like being in a city centre. That is quite an interesting signal as to what sort of characteristics should be in a city centre. This is a regional city centre, not the Sydney CBD. You start thinking universities would be pretty good, for instance, to be in a location like that. This is looking across the six of them but you can see that the green spike of the 20 to 29 year olds is pretty consistent across all of them—more dramatic perhaps in Wollongong but certainly Gosford and Parramatta. The 30 to 39 year olds picks up a bit in Parramatta as well, and in Liverpool. But there generally seems to be a skewing towards younger people in city centres, partly this demographic as well of people having kids in their early to mid 30s so living in the city centre and not being out in the more suburban area.

We also looked at employment and did some very detailed analysis of the employment circumstances in each city. This is looking at Gosford and the big green spike, which is the city centre, as opposed to the local government area and the greater metropolitan region. That green spike there is because there is a hospital right in the middle of Gosford and that becomes a major employer for that city. We have looked across all of them. Wollongong also has a fairly big health spike. Parramatta does not because the hospital is not in the middle of the city but its retail is quite high. Penrith has a very strong retail—that big green for Penrith is about retail because the shopping centre is in the middle of town. But if you look at the equivalent for Gosford it is way down because there

is no retail centre in the middle of Gosford, it is on the outskirts and that has taken life away from the city centre of Gosford. We then started modelling the characteristics of each of these cities.

Newcastle, for instance, has a lot of heritage buildings, particularly out near the beach and in the centre of the city. In discussion with the council and the people of Newcastle we decided that growth should not occur in the east or the centre of Newcastle but to the west of Newcastle. In fact, there is a major railway station here and we decided we would build the densities around that major railway station. It is also a fairly degraded area. There is not a lot of development that has happened. If we could get that to occur and we could step that development down to the waterfront where a government agency, the Hunter Development Corporation owns land, we could actually use a Government initiative to also react to getting the development actually happening around the railway station.

In each of the cities we tried to develop a form of the city that represented the characteristic of that city. So Wollongong you can see on the top left picks up the feeling of the mountains and the escarpment and runs along the spine. Parramatta is more bell shaped, sort of, trying to relate the city to the adjoining parklands and give densities there. Gosford has two hills on either side and we tried to develop a bit of an amphitheatre of buildings that respond to that. Penrith you can see we tried to have a series of garden spaces within courtyards, so you had a city of gardens interacting with the buildings. In Newcastle trying to keep the buildings away from the more heritage and more precious areas to the area around Wickham station which is where the development could occur.

Each of those was driven by that vision and idea of the city centre having that number of jobs and that number of residents planned over the next 20 years or so to really activate those as centres and part of this development of a more polycentric approach to the whole city. We also developed the statutory document, the local environmental plan, and that looked at, for instance, in Parramatta, we took the current floor space ratio, that is, the amount of development you can do relative to the existing size of the site, 5:1. You could do either a five story building over all of it or 10 stories over half of it, and we actually doubled it.

We were fairly robust. We said, "Let's go from 5:1 to 10:1 in the centre of the city." This was a fairly strong statement that the Government was looking to increase development in the middle of the city. On average we have doubled floor space ratios across each of these centres and we have increased heights dramatically, but we modelled all this to make sure that there would not be overshadowing problems and this would work comfortably in terms of the city itself. We went from 72 to 120 metres here, in Gosford from 30 to 72 metres and in Newcastle from 36 up to 90 metres. These are really quite bold moves to lift heights. We did not just want development; we wanted to make sure the character of the city was well managed in terms of design excellence. We said, "You have to have architectural competitions for projects above a certain height"—35 metres in Wollongong, 24 metres in Penrith, 55 metres in Parramatta, and 48 metres in Newcastle—so that design excellence would occur that would then result in better quality buildings.

If there was a successful competition and the quality resulted, you could get an extra 10 per cent in height and 10 per cent in floor space. So there was a fairly significant bonus and incentive to the marketplace to want to be part of this process. Indeed, we are up to the sixth competition in Parramatta at the moment. The market seems to have responded very well and the designs are quite different from any of the previous designs that have come forward in Parramatta. There is a new breed of architects and designers getting involved in Parramatta and three-quarters of the current competition projects are commercial—all about jobs. It seems to me that the whole process is starting to work quite positively.

The third document is the development control plan. This is moving down from the issue of height and floor space to the character of the city. How high should the street wall next to the street be? We do not want a giant tower coming right down next to you in these regional cities that have had a tradition of being a fairly comfortable sort of scale. In Parramatta we are defining a minimum setback of at least eight metres from a 20- to 24-metre height. This is looking at existing buildings and trying to make sure they will be compatible. We then defined a range of street heights and setbacks across the whole area. This diagram shows Church Street, which has a lot of old heritage buildings, so we have kept a two- to three-storey scale running through there setback quite a long way so that we keep the character of the street. This is finetuning within the broad structure of the planning documents that moves down to more detail.

In Wollongong we looked at solar access to parks, public spaces and public squares and defined solar access planes that affected the heights of buildings relative to that. In Penrith we needed to handle car parking in a way that enabled us to get public spaces turned into parks, but because of watertable problems we could not put too much underground. We have worked out ways that car parking can be accommodated within the structure

economically but not dominate the streetscape and the city. We defined where active frontages should occur in each city—that is busy shops and openings and activity, not just blank walls—where awnings should be placed to protect people from the sun and rain. We defined the principles of a podium and tower for these cities and that there should be a lower scale podium relating to the street and the character of the city, because these are cities that are evolving over time. A lot of the buildings still will be the height of the podium and you can still then get the high-rise setback behind that and have a city in transition that can still feel very comfortable.

We built in a lot about energy and water and minimising their use. We then modelled all these cities and tested our rules on different sites to see what we could get. How high would it be and what would happen about the street wall? You can see on the Parramatta picture there is solar access back into spaces. In Gosford, people did not want towers too close to each other because they wanted to see the two hills either side, so we pulled back the distance and said there has to be 35 to 40 metres between towers so that they are not too close, whereas in other cities it was done differently. We did a lot of modelling in each of these cities. This is Newcastle, where you can see the difference between the tower and the podium: the white colour is the tower and the brown colour is the podium. This is testing whether these planning rules are likely to lead to successful solutions, and not just looking down at them from above but looking at them from the street. This is one of the lower density parts of Newcastle, moving into some of the higher density parts where our rules about defining the edge apply and we are trying to get the dynamics of the city working and to reach a positive solution. In doing this we have had a lot of dialogue with our reference panels, councils and community groups so that they understood what we were proposing. What also happened was that by putting this out on public exhibition, a whole lot of developers who owned land could test these rules and come back to us to say that this will or will not work. Then we could make modifications if we thought that was necessary to make sure that this whole package of planning rules would be successful.

In Parramatta at the moment is a two-storey concrete council car park along the waterfront, not the best thing to put on a riverside facing due north. We have developed a project that could get bustling activity there, with restaurants and people living and working there, building up the scale of the city back to where the railway station is located. Parramatta is a very good diagram for a city centre because the railway station is to the south. Our highest buildings can be there and they can be stepped down to the north so that we maximise solar access and access to the river. At the moment the river is not really being used fully and a lot of things could occur that would help this.

This is the land in Newcastle that a government agency, the Hunter Development Corporation, owns. Angus was in charge of this area for some time. Proposals are occurring to develop this area but it can step up to the developments back to the railway station so people can arrive at the station and transfer to the waterfront area. That would be a positive development. In Gosford, we are looking at the width of the street and the scale and height of buildings next to it. We are trying to get the best sort of character for that city. We are looking at the importance of activities at ground level, not just thinking of cities as being blobs but about how people interact as they walk down the street. How wide should footpaths be? How many street trees should we have? Where should the active uses be? We are even dealing in these documents with signage and how it is managed in these areas.

The final document is the civic improvement plan. We looked at taking a small levy—on the basis that we have doubled floor space and dramatically increased heights—to fund various civic projects that would improve the character of the city. There is a three percent levy in Wollongong and Parramatta and four percent in others. We have negotiated these with each of the councils on the basis of what they thought would be appropriate and developed a bit of a shopping list. This shows Parramatta public domain projects such as a river foreshore park. These are proposed over a period of time, 20 to 25 years. Funds can go towards providing improvements for the city centres.

In the civic improvement plan we also developed a lot of important structures for the city: what sorts of trees should be in particular streets? In Wollongong there is a major project to upgrade the mall and, in a generational sense, to rethink what is happening there. In Penrith the proposal is to get the parks in the middle of the city. We established reference panels comprising groups such as the Property Council, Throsby Community Group, Newcastle Inner Residents Group, the University of Newcastle and the Heritage Office. It was a mixture of people that would have interest and concern about how cities developed. This is the publicity that occurred in Wollongong. It refers to "Our new city centre—a place to live". The banner at the top of the page refers to special reports on pages 2-10, so all those pages in a local newspaper in one of these cities were devoted to saying "Hello to the future", "Open city mall to vehicles".

We even developed new housing and commercial building types. In Wollongong we gave preference to commercial development by doubling the floor space for that type of development. This has led to projects such as the one on the screen where the bottom half of the building is 10,000 square metres of commercial space and the

top half, where you get the views over the ocean, is 10,000 square metres of residential space. This is helping to get more commercial space back into those areas. In Gosford, there is "Great New Start"; in Parramatta, there is "Sydney Look Out". These are the sorts of headlines we wanted. These regional centres are becoming important centres in their own right. Getting jobs into the sorts of centres is really what we are going to be doing.

In conclusion, I will show the before and after shots of each of the cities. We are looking down into Wollongong and its development into its new future. The city of Parramatta is starting to become quite a major city as it evolves into its higher rise and more contained development, but still with all the parklands on either side of the city. We see the beautiful hills on either side of Gosford and its location. We are trying to build it up in a way that responds to the landscape. Liverpool has its site alongside the river and we are trying to protect some of the inner centre parts of that. In the city of Penrith, we are trying to get this sort of half-city/half-country sort of deal by enclosing gardens and courtyard spaces within the city itself. In Newcastle, we are protecting the more heritage-related and lower scaled areas to the east and to the centre by building to the west around Wickham station. It also happens to be the area that is best in terms of mines subsidence. Mining did not undermine the railway line itself.

All of that is contained in the websites. We were very interactive in using technology in this whole process. We have many dialogues on websites. We have public meetings where we have interaction and feedback. We have built it up in quite a positive way. Community response seems to have been very positive. Where we have got to now is a variety of take-ups. The most successful, as one would expect, has been Parramatta where we have had up to the sixth competition, with quite dramatic new 30-storey towers and commercial space being proposed in Parramatta. Development is moving in the right direction to get those extra 30,000 jobs into Parramatta, which helps polycentric structuring of the whole metropolitan regions so that we do not have everybody streaming right into the middle of Sydney. On that note, I will conclude.

Mr CRAIG BAUMANN: Professor Johnson, thank you very much for that very interesting address. Our next speaker is Angus Dawson. Angus is more than just an expert in fixing development. He has been the chief executive officer of the Growth Centres Commission since September 2005 and is charged with overseeing the development of new communities in north-west and south-west Sydney that will accommodate 30 to 40 per cent of Sydney's long-term housing growth. Angus has had 25 years experience in the public development and commercial construction industries, including senior posts in both public and private organisations such as the Honeysuckle Development Corporation, to which Professor Johnson in some respects referred in his address, Urban Pacific Limited, and Lansdowne Homes. I ask you to welcome Angus Dawson.

Mr ANGUS DAWSON (Chief Executive Officer, Growth Centres Commission): I thank Professor Chris Johnson for a great lead-in. Chris has just been talking about their six cities and where the New South Wales Government is going with our future population. The Growth Centres Commission is the next level down. We have touched on the Honeysuckle Development Corporation and now the Hunter Development Corporation, which is the next step again. The Commission is making a coordination body, and I will explain that a little more later, to try to pull all these things together. It is probably best described as is seeing our role as getting down there in the bottom. It is not in too many of our pamphlets, but we get as much land on the market as quickly as we can with the best use of government resources. That is what we do.

We are not a developer—we leave that to the government's development agency, Landcom—nor are we a product implementer as the Honeysuckle Development Corporation was, although we are under the same Act, the Growth Centres Act 1975. We are about getting this land out to the market and as quickly as we can. I will explain that. Chris talked about that. We are looking at 181,000 new dwellings and associated employment, land and centres in those two areas and targeting about 30 or 40 per cent of the population growth in Sydney over the next few years. I can tell a story of what we are trying to do. When my parents bought their first house on the edge of Sydney in 1961 or 1962, they had a quarter-acre block. They were very lucky because their street was bitumen and they had kerbing and guttering. They had water to the house. In those days there was no sewer. The topsoil had been taken away by the developer and stockpiled down the road and he was selling it back to the punters. Mum and dad bought a three-bedroom brick veneer house and they set about their dream as it was in the sixties and seventies.

Since then communities have said to government in those 45 for 47 years since that happened and have put pressure on governments by saying that they want more and more land but that they wanted certain things to come with that. Now when you buy a house in suburbia or anywhere in any one of our cities, that house is likely to have government imposed infrastructure because it has been community imposed. That infrastructure will include roads, transport, a sewer, recycled water, freshwater and all of the bits and pieces that go with that. Also we have become very sophisticated in government about planning for the increase in population with schools, hospitals, emergencies and all those sorts of things.

In my experience before I came into the government there was, as everyone knows, an enormous uplift in land value between rural land and residential land. That uplift in land value has become greater and greater since infrastructure came in to provide more value in land and also as land has become more and more scarce because of the complexities in delivering it to the marketplace. Part of what we have done is recognise the complexity in delivering. We have become a coordination agency that is responsible for unlocking those complexities and have tapped into some of that uplift in land value to pay for some of the infrastructure that caused some of that uplift in land value. We will talk about that in the discussion time, if you like. I hope we will have some time at the end of the session for questions and things like that.

Our real role is one of coordination. The buck stops, if you like, with me in New South Wales in getting land in those two areas out to the marketplace. Rather than come in as a State Government and walk over the top of councils, we go to councils and with resources and assistance to get things through. In the old system of rezoning in New South Wales, with all those complexities I was talking about and what we commonly referred to as concurrences, as you do land-use planning, you are doing concurrences with things like the Threatened Species Act, the rivers and foreshores Act and all those other things. The local councils, when they are dealing with an area of 12,000 lots, are trying to rezone that sort of stuff but then are dealing at mid-level with state agencies and trying to resolve issues there.

What happens with us now is that we give resources to local councils and we sit with local councils on the rezoning process within our areas. When there is a blockage in the system anywhere, whether it is in the State Government, local government or anywhere else, it is our job to go and unblock that. At the same time we are working with state agencies to forward program that major infrastructure which will release that land. Probably we are best described as a coordination role, but we have, under legislation, the ability to take coordination away from anywhere and do it ourselves, if we have to. That stick has been, so far in our first two years, enough to get some really good outcomes in what we are doing.

As Chris explained, the Metropolitan Strategy concerns 1.1 million people. We are looking at 30 or 40 per cent of those. Chris has explained those and you can see the context of the two growth centres in that area. Over the next 30 to 40 years we will be working on 181,000 lots and approximately \$7.5 billion in infrastructure through which our levies, which are capturing that land value that I was talking about, will recover only the late \$4 billion, approximately \$4.8 or \$4.9 billion. The Government will produce about \$7.5 billion in today's dollars, but the levies will recover only a small amount of that. We are looking at about 12,000 develop-able hectares and 2,500 in

employment. Exactly in line with what Chris was just talking about in terms of the six cities, if you come down to two growth centres, our intention under the structure plan done by the Department Planning to provide enough employment and other land uses within our land so that the population that is there stays there. It is a bit like the Vancouver model that Chris showed you. We are not looking at creating dormitory suburbs for the city and sending them into the CBD or Parramatta: We are looking at trying to create those places where people will stay and live there, and with up to half a million new residents.

With strategic planning, we pick up from the State, from the work Chris and his colleagues have done. Effectively, there is a broad structure plan for the two growth centres. That is depicted under our State environmental planning policy, known as a SEPP here. Our Queensland friends here will remember Forest Lake 18 years ago, which I started off when I was a young upstart and upsetting bureaucrats and politicians in those days. Now I upset developers, it is much more fun. We did exactly the same thing we did with a master plan development like Forest Lake: we looked at that south-west growth centre. We looked at it from a whole-of- government perspective: where the sewer was, where the water was, where the roads were, what transport was needed. The Department of Planning had already done that. We completely reviewed it: we started with a clean sheet and completely reviewed it. I am very pleased to say my colleagues from the Department of Planning had it bang on; they were absolutely right about the fastest way.

We broke the land down into precincts. We then looked at what was the cheapest way for government to get as much land out as quickly as we could. We sequenced out the precincts, which average about 4,000 lots a precinct, in the cheapest funding for infrastructure. So, while we are collecting on average \$23,000 a lot to contribute towards what probably will be about \$70,000 a lot, or a little more, for infrastructure, the Government will actually go into a substantial amount of debt during our program before it starts recovering the funds it has put out in the paddock. It is just like any other development: the money has to go out first to get it rolling. This is important for land release because it is really hard for governments to look at this.

We ignored, if you like, the siloism of agencies. We just simply looked at it as a whole-of-government approach and said, "What is the fastest way to get land out?" I will give you a really good example of that here. If I can just divert for a minute, as you would have seen, that south-west growth centre, the main city of metropolitan Sydney, is up in that direction. Some might say, "Why then", as you will see in a minute, "did you release the first two precincts down the southern end of that?" It is perfectly reasonable, when you work through the whole thing. If you talk to the State road agency, it will say, "Well, that's not so flash for us" and if you talk to local government, they will say, "Well, that's not so flash for us" but the reality is that a sewage treatment plant in New South Wales cost about \$200-\$350 million. It takes four years to get through the planning process to get out. There was no sewer capacity for any of this new release area. All the sewer capacity had been taken up. A new sewage treatment plant is required in these three places.

This area was already rezoned and underway and that sewer was going towards the east. We could have jumped on Sydney Water and got it to build that sewage treatment plant, thinking that is 2006, so by four years, 2010, we will have our first lots out. However, Sydney Water told us that there was a 4,000-lot capacity in the Camden West sewage treatment plant. At the same time RTA recognised that this release area here, known as Narellan and Currans Hill, was extending the road network from the F6 through to here and the Government was looking at extending the railway line through here. By tapping in with a rising main to there very cheaply, we could bring forward land release by two years by tapping into 4,000 lots there while Sydney Water built this. We got 12,000 lots rezoned there. The first 4,000 will be tapped in on that temporary access way and the sewage treatment plant will take that on and we can then gradually progress down here and up there, and no longer is that land dependent on sewage treatment.

That was the sort of exercise we did to make sure we were getting land to the market as quickly as we could. I am sure there are no developers in the room, are there? I would rather enjoy it if there were; I am having lunch with them today. There is one developer in the room sitting just to my right, he is not putting his hand up: he is pretending he is not a developer. While we were doing that exercise my friends in the industry said to us, as they always do—remember I am one of them—"Just rezone the land, we'll do everything else. It's okay." Has anyone heard developers say that, "Just rezone the land. We'll pay for everything"? Fantastic.

So the Government came up with this thing called the precinct acceleration protocol. We have these 33 precincts in two areas. We have said to the industry, "That's fine. We've got our sequence of land based on the best exposure, the best and most responsible use of government funds to get this land out quickly. If you disagree with us or you think you can go faster, that's fine. You make an application under the precinct acceleration protocol to bring a whole precinct forward, not just your land but a whole precinct, and you forward fund it. You pay for all the infrastructure. We'll reimburse you as we collect the money, but you fund it, you do the planning." The whole

idea is no cost to government. We have had probably about six applications. Three of them have got to the second stage and one of them has just been released: I will talk more about that in a minute.

The structure, if you like, or the planning around where we are, we run to the growth centres State environmental planning policy—that is, the structure plan developed by the Department of Planning for us. It is a bit like Chris's work in the six cities. We then prepared a growth centres development code, and that is an outline document that explains our system and how we take that structure plan and precinct by precinct to do what we call a precinct plan, which is a package of rezoning and other things, which I will talk about in a minute. We have also looked at the infrastructure plan or the practice note. We have planned out all of that infrastructure for 40 years over those two areas. They are on the State infrastructure strategy. Then we work month in, month out to make sure they go in to each of those agencies' total asset management [TAM] plans, as they are called in New South Wales, which is their forward capital works program for 10 years. So we make sure that the roads we need are in those plans and we go forward. If there is a dispute with my good friends at RTA, we take that position to the Coordinator General and if that cannot be resolved there, we go to Cabinet and we work it out, and that is pretty easy.

In regard to biodiversity certification, we have a wonderful piece of legislation in New South Wales called the Threatened Species Act. It is a good piece of legislation looking after biodiversity across the State. That piece of legislation's interaction with the development process has been difficult from time to time because it comes in at the three levels of delivering land. It comes in at the local environment plan [LEP] level, it comes in at the development control plan [DCP] and it comes in again at the development application [DA] plan. If you take the Growth Centres Commission, we have about 30,000 current landholders in the growth centres turning to more than 181,000. If there are threatened species within that area, probably about 30 per cent or 40 per cent of those 30,000 lots have a recognised threatened species or a list of threatened species on that.

As you went through your DA process, despite the LEPs and DCPs being done, you would again have to go back to the Threatened Species Act and deal with that threatened species. Now that might be a group of three trees or one small colony of a threatened species, which is then dealt with at that very micro level at that site level. So, we have been working very closely with the Department of Environment and Climate Change and we have come up with this thing called biodiversity certification. What we have done is looked at the whole of the two areas of the growth centres, identified what under the Threatened Species Act would be important and what should be conserved: this works reasonably well particularly in vegetation. We have then looked at the development constraints of those areas like flood plains and other things and thought, great, all of that stuff is going to stay. We have looked at important ecological communities that cannot be ignored. We have identified them and said they are there and they stay.

Then we have looked at the rest of it and while particularly vegetation being dealt with on a 1-in-30,000 lot time over 40 years might be protected but then might end up surrounded by urban form or might end up getting cut down by kids with tomahawks and other things, we looked at that and said it is going to be really hard to keep, it is going to be really hard to manage. So, if we take that away, can we offset that somewhere else in the Sydney basin with the same sort of stuff that is more manageable and better? So, we have put in \$530 million over the 40 years for those offsets, for acquisition of stuff that has to be kept within the growth centres and also for offsets in the Sydney basin outside that area. The whole principle based on that is the biodiversity principle of improve and maintain. We have achieved that and got that through. Now the whole of the growth centres is certified for biodiversity. In effect, when you do your DA on one of those 30,000 lots, unless you are identified as an area that has an issue, the Threatened Species Act has been dealt with and everyone is happy with it; it works very well.

The Hon. SUE NAPIER (Tasmania): What are your offset ratios?

Mr ANGUS DAWSON: Off the top of my head I cannot tell you exactly. I will have to go back to the model. I will take that question on notice and provide that to you. So, in the first four years the market in western Sydney is between 7,500 and 8,500 lots per year. In the first four years of operation we will have about 40,000 lots rezoned to the market through nine precincts with the infrastructure investment matched to the pace of development. The way we plan that is we do it by lot production as opposed to by date—because the market will wax and wane—and we line that up and review it every year as part of the budget process.

In the south-west growth centre, these are the precincts I was just talking about those two in the south that were the first to go: Oran Park and Turner Road—Edmondson Park was already there. We went back with Liverpool council and rejigged Edmondson Park. We probably do not have time to talk about it today but there are some issues there with fragmented land. Do not let planners tell you that fragmented land is hard to develop: it is not. Just a quick earshot for you on that one, if you look at Blacktown, Quakers Hill, Liverpool and Fairfield, in a

similar market to what we are in now, between 1992 and 1996 and 1998, Blacktown I know was producing over 1,000 lots per year out of fragmented land very well because of the way the planning was done and because of the flexibility that council and the Department of Planning allowed in terms of infrastructure and access.

In the north-west growth centre, we have got probably about another 20,000 lots coming of that total of 40,000 lots. Colebee, the small odd-shaped one in the south, was already rezoned when we were established. North Kellyville has just come off exhibition and the others will be on exhibition by the end of the year. We are about to now go back to the Government and suggest the next tranche of releases. So we will keep rolling on with these packages as we go into the future.

As I say, we cannot do our job—the Growth Centre Centres Commission is an agency of 40 people. We have taken a project management view to rezoning of land rather than, if you like, the way that professionals like to do it is to segment it by operation. We have put a project manager on each precinct and their job is to partner with council, use council resources and augment them if necessary to get these rezoning packages done. We do all that background analysis. When we finish a precinct plan—I might be anticipating myself here—we not only provide a single rezoning; we provide a rezoning for between 5,000 and 7,000 lots, a State infrastructure package, a section 94 plan as I said there, which is a local government infrastructure package, the council's development control plans and in those development control plans we have worked up a complying development code for single dwelling housing. All of that goes into one package so that on the day that is released—normally those other things after rezoning take another two years to come through. So in less than 18 months we can produce what used to take 7 to 11 years. That is really just through focused coordination and administration.

That is probably fairly irrelevant to all of you but considering that we started on all of those precincts in July 2006—we haven't actually started on area 20 yet—that is where we are up to in terms of that whole package process in getting that through. It really comes down to the focused agency that the commission is. Our job is simply rezoning and that is it and that is all we do. So that is what we are working on and that is why they are coming out so quickly.

I think we have already talked about these. The consistency as we go through the precinct planning with those three levels at the moment of guidelines. Of course, it all looks good to start with but once you get right down we do an enormous amount of community liaison with local government and work with local government. Once we get down there things change slightly from the structure plans but generally speaking once we get them out on exhibition we are doing all right. North Kellyville, for example, fragmented landowners—the first fragmented land ownership that has been through this process—that is over to the extreme right of your screen. That has just come off exhibition with 100 submissions for 5,000 lots. We are reasonably pleased with that and there has been an extensive promotion of that exhibition. Having 100 very sharp submissions, or just over 100, we are pretty pleased with. It is not overly concerning and it means people are paying attention. So will go through those very carefully in the next few weeks.

I think this is probably fairly irrelevant to most of you from interstate but that is where we have been in the last few years. Although we have been around for three years we have actually only been operational for two years. We spent the first year doing the business plan, getting the programming right and doing all that. When we pressed the button in July 2006 I think we had a total staff of three at the time and we now have about 37 and we are working very well. We are pretty pleased with how things are going.

This is North Kellyville. I talked about how it has just come off exhibition. I will just touch on it, if I may, in view of the timeframe. I have talked about the partnerships and I have talked about all those other things. You cannot quite see it on this slide because it is not quite big enough but what we did there in conjunction with Baulkham Hills Shire Council is—that whole area is mainly five and 10 acre rural subdivisions—run the infrastructure, and particularly the local road network, along the cadastral boundaries of those subdivisions. We have worked with council—and I say "with council" it was very much working with council—on allowing temporary access and other things so that those five-acre parcels did not need to be acquired, the developers did not need to acquire 10 of them to be able to develop one thing. A developer can acquire one or a person who owns one of those five acres can do it and they can have half road construction, temporary access, we can get lead-in infrastructure like water, sewer and power into them and it can come out reasonably quickly and reasonably well. It was that method that was used in the late 1980s and early 1990s in places like, as I said, Blacktown and Fairfield and Liverpool, and despite people saying these days that it gives you a hotchpoch and bad urban outcomes if you have got your planning right and you have got this right it actually works very well for both sides. You can take yourself around to the centres of Quakers Hill and Green Valley and other places and for the then good urban design that was reasonably good stuff but I think this will come out a lot better.

Oran Park and Turner Road, I talked about the release of that down to the south. You can see the existing urban form creeping north from Currans Hill and Narellan. If you look at those dark colours of the map they show the employment lands in those areas. Even on a precinct-by-precinct basis, not just on a growth centres basis, we are looking at trying to maintain employment and other things. One of the things we have done down there too—and this comes from our attitude that planning is planning and reality is reality—it is very easy to draw pink bits on maps but that does not create jobs. Like Chris Johnson was talking about with his incentives in his plans, we have tried to provide some incentive to get those areas going. Where industrial development does create jobs, you get about one job per 500 square metres; retail and commercial give you far more jobs. So in that area under our levying system we do not levy for projects that have retail or commercial components or have retail and commercial in them, which is a fairly big incentive for developers. For example, in the largest area of purple and green down there, the developer was trying to sell that land even before we got to the rezoning, which we looked on very poorly. But there was a lot of interest in that area and it looks like we will get a lot of production of jobs and other things in there.

We have talked about the infrastructure. I had better wrap up because you are supposed to be out of here by 10.30 a.m. but, as I have said, of the \$7.5 billion we will recover about \$4.8 billion of that in the levies—that is in today's dollars and obviously it has escalated. The way we work that now is that we have our broad infrastructure plan, which is in the State infrastructure strategy. We now coordinate with those agencies and get it in there total asset management [TAM] plan. So we sit by Treasury and do that. We are also working up a fairly broad but common scheme across the whole of the growth centres for works in kind. It is amazing when you get into this Greenfield development how many pieces of infrastructure developers would like to control, and they would like to control the timing of it. From the State's point of view if you can get a commercial arrangement with them for works in kind that is clearly open and transparent, you will often find that the developers will forward fund the infrastructure and the State Government does not have to come up with the cash and borrow it.

For example, in Oran Park and Turner Road the developer is going to fund about \$55 million worth of roads in there, for which they will get a credit against their levy. From the Government's point of view that is a great outcome because we will get the road to our standard, the Roads and Traffic Authority will govern the construction of that road, and the State Government or the Treasury does not have to come up with that \$55 million—the developer will put it in the paddock and we just take that out of his levies as he develops further on. Those developers in New South Wales, like Mr Baumann would know, that is exactly the same as the works in kind principle from Sydney Water or section 94 but just on a much larger scale.

Local infrastructure: I said we work with councils on doing their local plans that are known in New South Wales as section 94 plans. We do not get too excited about it. We understand it, they understand it and we work through them but one of the things we can do is give a regional view on that thing and look at how that is going to fit in to the whole of the growth centres and that helps a lot. Non-Growths Centre Commission infrastructure of water, sewer and power—we still have very close relationships with those agencies that are state-owned corporations and they run commercially but they are very pleased with us because we can forecast for them what is going to happen.

The other thing I should say about the infrastructure is we deal with it on a right on time basis. It is not about putting eight lane roads into the middle of a paddock or railway stations rolling through dairy farms; it is about understanding when the infrastructure is really needed and understanding when the best time is for the Government to spend its money. For example, land acquisition is very good early on because you do not have to go back and reclaim houses but you do not necessarily have to build the F6 freeway on day one—you can build that probably in 20 years. As I spoke about with regard to Forest Lake, you can have the whole road planned, designed and costed, but you only build two lanes on one side for the first 10 years because you will probably only have 10 cars on it for the first three years. You can do those sorts of things, and that is what we do.

I have spoken about the precinct acceleration protocol. In the interests of keeping on time, I would be happy to answer questions about that. I have also spoken about what we are up to for 2008. This is our website. As I said, I am very happy to answer questions. In the context of what is happening here, I have been contacting my counterparts around the country – the GAA in Victoria, the Department of Infrastructure in Queensland, the Planning Commission in Western Australia, and a similar agency in South Australia. We are going to start having annual meetings to compare notes on how we are doing this and what we are doing, to see if we can get a State Government best practice and share that information. Thank you very much.

Mr CRAIG BAUMANN: Thank you, Angus. I should mention, Angus was very well known in the development industry; he has since gone to the dark side. If he can get that philosophy throughout New South

Wales, I am sure it will really speed up the development process. It is now time for questions. If you have questions of either Chris or Angus, please give your name and jurisdiction for the benefit of the Hansard reporters.

The Hon. SUE NAPIER: Could you clarify where the private landowner fits in this? Presumably, a lot of the land you are talking about is privately owned?

Mr ANGUS DAWSON: All of it is.

The Hon. SUE NAPIER: Could you explain what the relationship is?

Mr ANGUS DAWSON: As I said, within the growth centres at the moment there are about 30,000 landowners. They range from our largest land owner, who is fairly well known, a fellow called Tony Perich, the largest dairy farmer in the southern hemisphere, who probably owns about 25 per cent of the south-western sector—that is by chance, not by design—right down to people who own 300-square metre blocks in the scheduled lands areas in the north-west, which are in an 1880-capped subdivision, which are very difficult.

So the landowners' involvement in that process is like in any other rezoning process—probably anywhere in Australia, but indeed in New South Wales. They are now earmarked for land release. They know that that is coming. We have worked through a public process and a transparent process with government. The landowners usually only get involved when we go to public exhibition, because trying to manage the landowners is difficult. Having said that, in both Oran Park and Kellyville we had a lot of meetings with the community as we were going through the planning process. We put up ideas and got feedback on them, and then put all that together and got—like to use the old science term—the line of best pitch. You never please everyone, but we tried to get the best result in the context of what we were trying to do in accommodating the population of New South Wales and what the local people wanted and their comments on the structural plans.

The landowners rarely drive it. Of course, when you are in the box seat with a precinct acceleration protocol, they are driving it until release. But then the governance of those sorts of things where they are funding that work—we do a two-tiered government thing where we have a project control group, which is chaired by one of our staff and has us as counsel on it, and underneath is the project working group where the landowners and their consultants can feed information in. But the decisions are made by the project control group, and the landowners and consultants are not represented on that group.

Mr KEITH BARRIE (South Australia): Angus, it is hard to pick up a newspaper nowadays without reading about a housing affordability crisis. A lot of the blame is being put on the cost of land, and that in turn is blamed on the cost of infrastructure for that land. I wondered whether there is anything in your model that addresses that issue, in relation to the way infrastructure is being provided.

Mr ANGUS DAWSON: We are trying as much as possible to mitigate the cost of land, and also meet the supply and demand principle. But there are a few things that are sometimes difficult to understand, particularly in greenfield development markets. As I explained earlier, there is that enormous uplifting of land, from rural land to other things. As Mr Baumann said, I am an ex-developer. I can probably lay claim to about 4,500 houses between here and the United Kingdom that I developed before I came into government, and that is from raw land through to the end product. I enjoy myself at lunches, such as the one I will go to today, where developers say, "Your levy is adding \$23,000 to the cost of every house." I give myself the freedom to say to them, "That's great. Let us just say that I am the New South Wales Government at the moment and I abolished that levy. Are you going to reduce your prices by \$23,000?" The answer is, they will not. The reason they will not is not that they are greedy developers, but they will sell a product for what they can sell it for. The definition of a sale of a retail property—or any property in Australia, indeed in the western world—is a willing buyer and a willing seller. That is what sets the price. The cost then ends up coming off the raw thing at the bottom. That is how it works. When you have a huge uplift in land value—which in some cases can be as much as 300 per cent; in tight markets like this it gets a lot tighter—as I explained, the levy is taking part of that uplift in land value to fund part of the infrastructure that causes some of that uplift in land value.

So governance can be very easily blamed for adding these things. The point I was trying to make at the beginning is that it is actually communities that have said to government, "We want these things", and there is a reasonable expense in producing land on the fringe of our cities. That is why 70 per cent of our focus is going into the work that Chris has been doing in getting them to where the infrastructure already exists. It is an interesting and

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APPENDIX ONE - TRANSCRIPT OF PROCEEDINGS

complex debate; it is hard to turn into 30-second grabs. But the market works, and we understand that market and we are working closely with it.

Mr TONY O'GORMAN (Western Australia): You have not mentioned where you go from affordable or social housing, and also you have not mentioned anything about building social infrastructure to meet the community's needs. Does that come into the equation at all?

Mr ANGUS DAWSON: Yes, it does. As governments, we are going from housing companies that can build between 10 and 2,000 blocks of units a year dealing with government infrastructure, whereas at Honeysuckle or Landcom we were actually there on the ground. We are two levels up from there. We have to understand what we can do as a Growth Centres Commission. Our biggest contribution to affordability is to get out as much land as we physically can, meet that market demand, and stop the lack of supply pushing up the prices. At the same time, we adopt the broader New South Wales planning principles and the standard local environment plan template, which allows for all those components of affordable housing and other things.

Having said that, I have been in deep discussion with a local member of ours, who is well known to Chris and me, John Aquilina, who is also the Leader of the House. John Aquilina has addressed with me other issues, such as focusing zoning onto things like caravan parks, which provide those sorts of things. That is something that we will talk about closely with the Department of Housing. But we have to follow the broader government policy, which attacks the affordable housing issue and breaks it down into where it can contribute to it.

For example, Chris and I look at getting land and product to the market as quickly as possible, which keeps the supply down. You then get down to Landcom and agencies like Honeysuckle. Honeysuckle provides about 4 per cent of its housing stock as affordable housing. It was actually taken off the land value and given to housing associations. In the case of City West Housing in western Sydney, levies taken from developments contributed to that. That also goes down to section 94 payments on local government plans. In some areas they used to do that in terms of affordable housing, and the Department of Housing has a number of issues with that. The New South Wales Government is doing a lot of those things.

In terms of social structure, I listed very quickly what I would call hard infrastructure. The stuff that gets land to the market—roads, soil and other things—we are recovering 70 per cent of that cost from the levy basis. With regard to the softer infrastructure—things like hospitals, schools, community facilities and emergency services—the Government made a decision last year that it would fund that itself, that it would take that out of the land uplift, and that would reduce the levy by about 35 per cent.

On top of that, we have a broader program within the growth centres of setting up some community growth packages and other things. We are doing some research at the moment into older release areas like Glenmore Park, as to how that community has "performed" and how it has knitted. When you bring a whole lot of people into a new place, it is very hard to get them to knit.

Big developers like Stockland and Delta are good at doing what we call in the industry force funding. They get Julie Anthony and the big green dragon to sing to people on rugs on a Friday night. However, that helps in getting people to meet a challenge. We are looking at programs to do that. We are talking to local government about how to do that with it and we are trying to establish from where we can fund it. I do a lot of it at Honeysuckle in Newcastle with a great model called Life Science. We dug into the underground culture of performing arts in Newcastle.

Rather than going to a performing arts organisation, giving it \$5 million of government money and saying, "Here, build a shed, become building manager, and do your thing", we gave it \$5 million to find performing artists, match them with Newcastle performing artists, do stuff in the street and get people in Newcastle to come into the street and realise that they have new places and new spaces to enjoy. Those are the sorts of things that we are working on. However, they are a long way off. If you get rezoning you will not get a house in 14 months or 18 months. We are probably four years away from those programs, but they are in our budget. I gave you a long answer, but that is a good thing to do.

Mr KEITH BARRIE: You have many more millions of people to deal with here and they live in much bigger cities than we have in South Australia. Is there no scaling down of the model? Is it so ambitious and so detailed that it requires a certain critical mass?

Professor CHRIS JOHNSON: You are spot on; it can be scaled down. In fact, a number of people from the South Australian headland have been talking about exactly those issues. I think that, as part of the current planning reforms in South Australia, there is a move towards more strategic planning in metropolitan areas as well as some of the stuff that is required to comply with such development. I think the same model of trying to get a series of centres focused works in that hierarchy right the way down. I am involved in a big metropolis that is looking at world cities. I have been over to Mumbai in Delhi where they have 20 million people in the city, which represents the population of Australia. They need to develop these same sorts of multiple centres, but they need to zoom right down to smaller-scale areas.

You will see in our metropolitan strategy that we have a hierarchy of those areas. We have centres like Granville, which is an important place. While we have given a big focus to Parramatta, our next focus is to get to places like Granville, which is not far from Parramatta. That equally needs to be energised within this hierarchy as a place to work and as a centre that has its surrounding areas. I think the same diagram can apply upwards to mega cities and downwards to broader areas. Certainly cities like Adelaide and some of other major South Australian cities can also adopt this hierarchy.

Mr CRAIG BAUMANN: Once again I thank Professor Chris Johnson and Mr Angus Dawson for their presentations today.

(Session E concluded at 10.43 a.m.)

Conference Conclusion

Chairs of Public Works and Environment Streams report back on key issues and points of discussion raised in sessions and 2009 Conference Discussion

Mrs KARYN PALUZZANO: In our final session I will give a briefing on the environment strand and Mr David Borger will give a briefing on the public works strand. Due to the wet weather we will hold our briefing on the innovative sustainable principles in Parliament House in the Jubilee room. What has been happening with the three environmental stream sessions and the field trip to Penrith and Penrith Lakes and in the Blue Mountains? A number of sessions were held and chaired by the Mr Thomas George, Mr Ray Williams, Mr Gerard Martin and myself. There were three sessions: session B jurisdictional committee reports, session D on improving energy efficiency in public and private buildings held on Wednesday, and session F on energy challenges of climate change. I will also talk about the field trip to Penrith yesterday.

From the jurisdictional reports eight committees made presentations: the Australian Capital Territory Standing Committee on Planning and Environment; the South Australian Environment Resources Development Committee and the Natural Resources Committee; the Western Australian Environment and Public Affairs Committee and the Community Development and Justice Committee; Tasmania's Joint Standing Committee on the Environment, Resources and Development; Victoria's Environment and Natural Resources Committee; and finally the New South Wales Standing Committee on Natural Resource Management Climate Change. Transcripts will be available on discs.

In relation to session D, three experts spoke on improving the energy efficiency of buildings. First, James McGregor, the Energy Systems Manager of the CSIRO Division of Energy Technology, Mr Robin Mellon, Executive Director of the Green Building Council of Australia and Mr Tim Beshara from Greening Australia. Mr McGregor gave a detailed and fascinating presentation on cutting edge renewable energy work done by the CSIRO and how to improve the energy efficiency of office buildings with such things as cold beam air conditioning—only heating and cooling air where the people are and using natural ventilation. Yesterday we saw an example of that the at the renovated Q Theatre at the Joan Sutherland Performing Arts Centre which does not have a conventional air conditioning unit. The theatre draws in the air and heats or cools it. John Kirkland said it is an automated system that can be overridden manually. He said he looks at the actions of the 300 people in the theatre to see whether they are demonstrating being hot or cold and then he can override the system to use the cool air beam technology.

Robin Mellon has a passion for sustainability and has many years experience in the international property market and in landscape management. He spoke about the Green Star program for rating buildings and how he was trying to get the top 25 per cent of industry to apply for accreditation as leaders. While it was one thing to develop new buildings with improved energy and water efficiency, it can be more difficult to retrofit solutions to existing commercial buildings. Robin is currently steering the development of green rating tools for existing commercial, institutional and residential buildings. He also teaches the Green Star accreditation professional out forces held around Australia. Finally, Tim Beshara gave a presentation on how to address the urban heat island effect. Yesterday in Parramatta or Penrith in Western Sydney the Public Works and Environment committees saw the area that attracts the heat island effect which is caused by hard surfaces, road or rooves, or by the reduction in the number of trees. The Hawkesbury, where my colleague Ray Williams lives, suffers the same effects. Members would have noted the number of houses in the Rouse Hill development from Richmond to the M7.

Probably 10 years ago—Ray will correct me if I am wrong—that was farmland. There has been a sudden and massive change and it is increasing the temperature. As a resident of Penrith I know that on New Year's Day two years ago the temperature reached 47 degrees and rising. It was a shocker. We just sat there watching the temperature from the airport weather station. It was a horrific day in Penrith but, as Greening Australia outlined, solutions can be rolled out. We have had a response from a major roof manufacturer, Bluescope Steel, about what they are doing with their roof colours and paints in relation to heat absorption and retention. They are doing research to find out whether, even if the roof is a darker colour, it might reflect more heat than absorb it. There is still more work to be done but groups such as Greening Australia are bringing that phenomenon to the fore and making policy makers aware of it so that we can increase sustainability. This aspect promoted a lot of discussion in the group.

We had a field trip yesterday to two councils, Penrith City Council and Blue Mountains City Council. Both groups of delegates went to the Blue Mountains City Council. Penrith City Council has a sustainability program and I said to my colleagues last night that these two councils that adjoin each other have similar as well as different

passions about sustainability. Penrith City Council looks at strategy and programs and Blue Mountains City Council has practical programs relating to its gullies and swamps. Penrith City Council is excellent at strategy and picking up programs and getting grants to deliver those programs. The impact of both councils can be the same but the community passion might be slightly different. My electorate covers both those city councils' boundaries and it is interesting to see how the constituents of both areas respond to climate change and environmental programs. It is quite good to have strategy development but we also need those works on the ground—those models—to show schoolkids what happens with such things as runoff in sensitive urban areas. As you know, all the towns in the Blue Mountains are straddled by the World Heritage listed area. As was noted yesterday, only two cities in the world have that—Banff and the Blue Mountains. They are totally enclosed by World Heritage listing. That is an important aspect. We also visited the Joan Sutherland Performing Arts Centre at Penrith City Council, which is a \$14 million upgrade using sustainable principles in the building. John Kirkland outlined not only the environmental sustainability but also the cultural sustainability of the area. Making the Q Theatre larger allowed more programs to come to Penrith and saved people from having to spend their cultural dollar outside Penrith.

We also visited Penrith Lakes, with Colin Gibbs and Amanda Walmsley. As those who were on the bus will attest, Penrith Lakes is a large hole in the ground at the moment. Lots of rocks are being dug up by really big machines. As they outlined, about 85 per cent of Sydney's sand and gravel is taken out of those holes in the ground. One part of Penrith Lakes is not a hole in the ground—the Sydney International Regatta Centre and the Penrith Whitewater Stadium. We had a look at the regatta centre and it was quite different from what was across the fence. We were driving around in a 12-metre pit and right next door, across the fence, Olympic athletes were training. It is quite an interesting phenomenon for the community to have 10 per cent of a lakes system developed. At the moment there is no urban development on site. The Penrith Lakes scheme is still in private ownership but the deed of agreement signed in the 1980s stated that it would be given back to the people of New South Wales. The planning is in process now for what will go on the 20 per cent that is not lake. What is the balance of urban development? Will it be commercial, retail, or whatever? Those decisions are being made right now. The quarry has about five to eight years of life remaining, so we have five to eight years to make the right decisions for Penrith Lakes. The lakes scheme is as big as the area from The Heads to the Harbour Bridge. It is a huge water mass visible from the Blue Mountains. Unfortunately the mist made it impossible for us to see anything from the Skyway, so we must return on a bright day.

During the last session today we heard from Dr Nikki Williams, who is the chief executive officer of the New South Wales Minerals Council. She outlined her organisation's view of the European Union's emissions trading scheme, the biggest con, as her response to the green paper. She also gave us the coal industry's response to climate change, which is carbon storage and capture. We also heard from Professor Bruce Thom who spoke about the challenges of climate change for coastal councils and coastal erosion. He outlined the challenges of climate change and made recommendations on what he thinks committees should do. His comments will be available in *Hansard* and we will be able to read what he thinks we should do to improve coastal areas of Australia, our mitigation efforts, and our reduction in our need for non-renewable energy.

Mr John Connor, who is the chief executive of the Climate Institute, spoke about adaptation to a low carbon economy and discussed the institute's response to the Federal Government's green paper on emissions trading. He examined the concerns associated with emissions targets and referred to the need for investment in renewable and low emissions technology. He also advocated linked research in those areas. I now invite any of my colleagues in those sessions to add to the report.

Mr MICK GENTLEMAN (Australian Capital Territory): I might draw members' memories back to the first presentation we had by Martin Butterworth on planning for buildings and commercial zonings while thinking about pedestrian and transport issues at the same time. He mentioned Trafalgar Square and told us about the work that was done there in providing a better thoroughfare through it. I was one of those people who walked to the traffic island in the middle of the road to get a better view of where I was in London. I thought his was a fantastic presentation. If you were to follow those guidelines and get Space Syntax in to do some of the planning before we put buildings in our cities or regional areas, we would be one step ahead of the others. I really wanted to just draw members' memories back to that presentation, which I thought was fantastic.

I was excited about the presentation by Mr James McGregor from the CSIRO on renewable energy and the different ways in which we can reduce our use of energy. I was excited to hear about organic photovoltaic arrays: I had not heard of those before. Colleagues to whom I have spoken over the past couple of days will be aware that I brought in a renewable energy law in the Australian Capital Territory—a feed-in law, which is probably the most generous feed-in law we have in Australia. I am very keen to see new and exciting ways to develop photovoltaics or renewable energy systems. I thought the presentation from CSIRO was great. I thought all the presentations were very good. I also enjoyed the trip very much.

Mrs KARYN PALUZZANO: As there are no other aspects of the Environmental Session to discuss, we will move on to Public Works.

Mr DAVID BORGER: I will recap some of the things that happened in the Public Works Session to confirm the presentations in people's memories before we open the forum for discussion again. As Mick Gentleman mentioned, the first presentation was quite impressive. I have seen it quite a few times. Martin Butterworth from Space Syntax spoke about the importance of building and movement economy in towns, centres and neighbourhoods that we are all trying to improve and provide good government for. He mentioned just how important those movement patterns are to creating economy and safety, which we are also looking for.

His studies have been informing a whole bunch of public and private projects across this country as well as in Europe and the Middle East. Mick Gentleman is right: he would argue that that layer of information and knowledge needs to be fed into any consideration of expenditure on public infrastructure, particularly at a spatial dimension. The second speaker was Mark Kirkland, who works for the General Property Trust which developed the Rouse Hill town centre. I do not know if our Queensland friend has had a chance to see that yet.

Ms BARBARA STONE (Queensland): No, not yet. We are going tomorrow.

Mr DAVID BORGER: Rouse Hill is an amazing new shopping centre that delivers on a whole range of environmental outcomes in a much better way than has been done in the past. It is very interesting how they have been able to deliver in effect a fully intact town centre within a four-year or so period whereas it might take 50, 60 or 100 years traditionally to build that up. It is interesting to look at that project in the context of the first speaker because although it is a much better shopping centre and it has some civic elements to it and could save public spaces within it, I think it is sort of a hybrid between a traditional town centre and a shopping centre. It is not quite there with all the benefits that you get in terms of being able to walk around and people being able to move into there—one of the main streets stops in a cul-de-sac—but I think there are some other opportunities that could have been utilised at Rouse Hill, and you might have a look at that when you go out there.

Mr RAY WILLIAMS (New South Wales): It is only the first stage.

Mr DAVID BORGER: That is right. It is certainly much better than what has been done in the past. The company involved is now moving to Newcastle. The development has a pedestrian mall but unfortunately it has lost economy. It has high rentals and high vacancy rates, and in the evening it has a lot of crime issues with lots of licensed premises. They are now looking at transforming that city centre by opening up that central passageway.

We also heard from Professor David Richmond, who is the Coordinator-General of Infrastructure in New South Wales. He reminded us of some useful points. One is that unfortunately the community or the world at large has come to believe that very major transformative infrastructure projects can happen in very quick time frames. That has probably never previously been the case. He said that if we engage the private sector appropriately at certain points, we can accelerate the timeframe of delivery for major infrastructure, but there is probably a gap between the expectations of what is possible and what can be delivered.

He also reminded us not to underestimate ourselves in Australia. We are doing quite well in a whole lot of areas concerning sustainability and infrastructure delivery, but there is a tendency to knock everything continuously—which those of us who have tabloid media in our electorates would be aware of. He also reminded us of the importance of thinking through issues in terms of environmental, economic and social sustainability and how there is probably a tendency for experts and advocates in each of those individual areas to believe that each particular sub-issue is the most important issue when determining public policy, infrastructure and the delivery of it. They were all issues to be taken into account, but they have to be balanced by discretion, judgement and good governance. That is an important point not to lose sight of. He mentioned that the public sector is not generally good at an end-to-end approach starting with broad policy and strategy and then moving to a more detailed planning phase. Unlike the private sector, the public sector does not focus enough on the opening and delivery of a project.

We had jurisdictional reports, and Vini Ciccarello from South Australia gave a very detailed report highlighting some of the problems of their particular committee, such as the \$4 million threshold for the examination of public works projects which probably has not kept pace with inflation. That was interesting because New South Wales and one of the other States—possibly Queensland, although I am not sure—does not have a project approval role for committees. Essentially we are there to inquire into matters that we think are important, according

to broad terms of reference—matters that, in a sense, affect the policy for delivering various infrastructure projects—rather than actually signing off on scrutinising individual projects.

Mark Butler from the Commonwealth spoke about the \$15 million threshold that applies in the Commonwealth and the unusual distinction between defence projects that happen on land and defence projects that are equipment purchases and procurements. They deal with latrines, but not the acquisition of military hardware—and there is some irony in that. Barbara Stone from Queensland talked about the issues of project time frames, consultation with end users and post-occupancy evaluations, and how it is important for committees not to lose sight of those things.

Paul Harris, Chair of the Tasmanian Joint Standing Committee on Public Works, raised the issue of having plenary sessions rather than jurisdictional report presentations. I think Paul and the others found it quite useful to have a discussion in a roundtable format rather than presentations like I am doing now. Tasmania has a threshold of projects over \$2 million, which is extremely low and presents many challenges for the role of the committee there. Also, the Tasmanian Economic and Social Infrastructure Fund is used to bypass Public Works Committee scrutiny. It is a problem that, once the committee has approved a project, there is no ability to revisit cost overruns. So there is accountability at one level but perhaps not on the other side of the equation.

Public works committee members then discussed common themes, such as cost overruns and the perennial problem of division between the executive and parliamentary oversight and scrutiny. We did not make too much progress, but we all agreed. All committee delegates present then passed a motion to try to make these conferences more meaningful and to get more out of them. We agreed that before we meet next year detailed papers about issues of interest and concern, cost issues in various jurisdictions, the challenges we face and issues that we would like to highlight to other delegates should be forwarded to the secretariat of the host State. By getting that information in advance we will be able to absorb it and perhaps have more interesting and meaningful discussions.

The final session on Wednesday was about finance and public infrastructure, and we had three speakers. Mike Schur, the Deputy Secretary of the Office of Infrastructure Management in New South Wales Treasury, talked about the strategic context of infrastructure in New South Wales and outlined the way in which New South Wales makes decisions about whether to enter into public-private partnerships to deliver infrastructure. Dr Patrice Derrington, a Queenslander who had worked previously on the Penrith Lakes scheme and the lower Manhattan redevelopment project, talked about funding options and, in a detailed and comprehensive manner, mentioned some of the cautions that governments, Parliaments and departments need to recognise before they enter into wholesale privatisation of their functions in terms of delivering infrastructure. She gave lots of examples, good and bad, that governments should be mindful of. She said that it must be remembered that continual outsourcing actually reduces the leverage to come up with a viable alternative as you lose internal skills and corporate knowledge. Finally, Greg Incoll, who has been an adviser on many major redevelopment projects across Australia, and particularly in New South Wales, talked about PPPs, his experience of them and his suggestions for the future.

Yesterday Public Works Committee members went to Parramatta to look at a city that is renewing itself. Much of the urban renewal has essentially been spurred on by government. There has been a planning policy for about 30 years to try to encourage the growth of Parramatta as a second city in order to alleviate congestion and pressure on Sydney but also to try to connect people more closely with jobs near where they live. We looked at a few major projects, such as the \$105 million redevelopment of Parramatta railway station. That was interesting not just because it is safe and attractive but because it has been sleeved into one of the oldest railway stations in the country. Parramatta station was the second station built outside Sydney 153 years ago, so during the build phase they had all that history and historical buildings to work around as well as the difficulty of maintaining the fourth busiest station on the network.

If people visit Rouse Hill in future they might meet at the station to jump on a bus at the interchange. Another interesting feature of that station is that they have incorporated the new bus interchange—quite a lot of buses come to Parramatta. Before the station upgrade, buses would come in at various points of the city but now they are centralised. Not everyone thinks that is a good idea, but it is certainly convenient for commuters, who know where to go. The final dimension of that station upgrade is the linkage that has been created between the station and the Westfield shopping centre. Most commuters find that very useful—although there are always issues with the big black box shopping centres sucking life off the streets of traditional town centres, from activities and so on.

We then went for a walk and looked at the Parramatta Artist Studio, which is a State and locally financed project to provide opportunities to 20 full-time professional artists to develop their skills and their trade. They each

have a small room in the centre and there is a small gallery at the front of the building. We heard from a local artist who told us how great it was to have a space in which to develop his art and keep noxious fumes away from his children, his family and his local area. We then walked through the newly opened pedestrian mall, and there was some explanation about how closing the main pedestrian and road arterial 23 years ago led to some safety issues at night, and certainly a loss of trade and economy in shops. But new development applications have been lodged and passed, and the community certainly believes it is a safer place.

Then we arrived at the Parramatta Justice Precinct. The planning policy that the Government has had in place for a long time is now being backed with an infrastructure plan that is being rolled out to try to relocate government offices and public facilities and services in order to encourage private investment in that town centre. We looked at the new trial courts located there and visited a courtroom. That was most interesting. We looked at some of the environmental benefits that have been incorporated into the design of the building, and the challenges the project faced of separating the jury, staff, members of the public and the accused from each other at various points in the building—not an easy job. We also visited 1,100 employees of the Attorney General's Department of New South Wales who have been moved from the CBD to Parramatta. There were mixed views about that among staff. People who live close to the facility think it is great, people who live a long way away were not so convinced, and there is a big group in the middle who remain unconvinced. But many who have relocated there realise that it is a great purpose-built facility and certainly accommodation much superior to their former location.

We then walked past Church Street to the town hall, where we were met by the Lord Mayor of Parramatta, Councillor Paul Barber, who gave a presentation about Parramatta and its history—it has the oldest building in the country, Elizabeth Farm Cottage—and some of the major new projects that are starting to renew the economy of the city. These are not just big public sector projects but also major private investments in high-rise residential developments. Some financial services have also moved to the city in the past few years. I did not join delegates on the bus trip to the Blue Mountains—sorry Karyn!

This morning we heard briefly from Chris Johnson and Angus Dawson. Chris is the former government architect in New South Wales and now works in the Department of Planning. He was one of the chief architects, along with Professor Ed Blakely, of the Sydney Metropolitan Strategy. He talked a bit about that and about polycentric cities. For many years Sydney was a city that grew to its outskirts and beyond without a great deal of thought. The Metropolitan Strategy for Sydney is a plan to try to impose an urban structure on the city so that people and jobs do not grow like Topsy in unsustainable locations. There is a focus on centres and being close to public transport that is connected, and so on. Angus Dawson is head of the Growth Centres Commission, which is a new government commission responsible for delivering a bunch of new land releases in two very large major growth portions for the city in the south-west and the north-west. He talked about his experiences as a private-sector developer and how he was using them as a government manager in that process. He talked also about the various issues of trying to get infrastructure in place prior to the land release that is taking place.

Mr Dawson explained how, because most of the land in that particular area is privately owned, the private sector was being utilised. As there is quite a lot of up-zone value—300 per cent in some cases—some of that value is being used to offset the cost of providing infrastructure, although not all the infrastructure. The Government has decided to pick up the bill for all traditional developments in centres. Schools, hospitals, ambulance stations and police stations are not being paid for by the private sector, but roads and that type of land-based infrastructure are.

There was a strong flavour, I guess, of urban planning and how infrastructure projects are needed to stimulate job and housing growth and get the economy moving, but also to try to shape the pattern of the growth so that it is more economically sustainable. If anyone wishes to provide further comment on any of those sessions, you are welcome.

The Hon. PAUL HARRIS (Tasmania): Karyn has invited me to give a bit of a snapshot of what we believe might happen next year. Clearly, it is a fair way off. Obviously, it depends on sitting schedules, but we are thinking either the week commencing 14 September or the week commencing 21 September might be a window. Obviously, it is all problematic and involves coordinating the various State sitting schedules. We have not even addressed our minds to broader issues of the theme the conference might take, but we have a few thoughts.

There is much discussion around the country about the sustainability of forest practices generally on environmental impact and the like. There is a lot of misconception as to what happens in various jurisdictions. We believe we have a lot of cutting-edge material we can showcase in one area. That is just one component of environmental/public infrastructure development and the like, coexistence of tourism with our forest industry and so forth. If we can pool together some components of our conference centred on that, we believe we can provide some fairly interesting opportunities for you—the sorts of opportunities you might not get elsewhere.

I guess the challenge for us is to grab the right time. We are thinking that maybe around September at the commencement of spring would be just a little more pleasurable for you than in the middle of winter. So, we will try to swing it around them. There is not too much more we need to contribute at this stage. With other jurisdictions in the past couple years being prepared to jump into the loop—we have had a couple of conferences in the Northern Territory in the past seven or eight years—we are back to our rotation and we are happy and look forward to hosting the conference next year.

Mrs KARYN PALUZZANO: Thank you. That leaves us with those members wishing to look at our buildings sustainable program, our green program, for the New South Wales Parliament. We will now return to the Jubilee Room. Lunch is that 1.00 p.m. in the Members' Dining Room.

Mr GERARD MARTIN: If anyone wishes to look at our very modest members' facilities, I am happy to make my office available on level 12. It has a good view of Sydney Harbour.

(Report back concluded at 11.55 a.m.)

(Conference concluded.)