

**The Institution of Engineers Australia
Sydney Division Transport Panel
and the
School of Civil and Environmental Engineering
University of NSW**

**DELIVERING INFRASTRUCTURE : FROM IDEAS TO REALITY
(Seminar 3 September 2002)
Observer's Summary**

Introductory Remarks

The process of delivering infrastructure is a lengthy one. Many of the speakers have talked about decades: in the case of the Eastern Suburbs railway it took over a century (1873-1979) !!!

This seminar has given us speakers of an extremely high calibre and a range of different perspectives.

Keynote Address

Peter Abelson (Department of Economics, Macquarie University) started off by qualifying his comments as being those of an economist.

He then gave us an overview of the steps in the process.

In particular he reminded us that the Environmental Impact Statement is not intended to be a problem-solving document.

From reviewing projects proposed – and some of them completed – over the last thirty or so years, he concluded that:

- Road projects tend to “work” on economic criteria – the total benefits greatly exceed the total costs.
- Heavy rail projects tend to suffer from a lack of realism in the planning stages.
- Light rail projects tend to suffer from a large variety of unjustified expectations.
- Planning for a Second Sydney Airport has quite failed to address the central problem – airport capacity at KSA being consumed by too many small planes.

His experience led him to suggest a number of lessons, of which the first was to always remember that the core problem is a transport problem, not a political one. “Whatever it is” has to work as a transport solution.

Strategic Planning

John Newman (Transport NSW) took us through the various processes which can generate ideas for infrastructure. He characterised these as:

- Rational/comprehensive planning – in the past this has been described as “predict and provide”, but (observer’s comment) could also now include a “predict and prevent” approach.
- Informal consensus (observer’s comment – this seems to be a strong characteristic of strategic planning in Melbourne)
- Opportunism/reaction

He took us through an example of a new idea – the NW Rail Link.

Overall, he demonstrated that the issues are very complex.

Finding the money

The previous speaker had alluded to the failure of SATS (the Sydney Area Transport Study of the 1970’s) to produce affordable plans. Danny Graham (NSW Treasury) took us through the sources and scales of funds available to the NSW Government, which currently spends about \$4.5 billion per annum on transport.

Transport is not the biggest spender in the State budget: it is exceeded by education, health, and law and order.

He took us through the example of the Eastern Distributor, showing how a major item of public infrastructure was financed by the private sector.

The process took about 15 years, during which a range of unforeseen effects occurred, including the impact of a state election on decision-making timetables, changes in Federal Government policy on infrastructure bonds, and the pressures brought by a world-scale circus (the Olympic Games). In all, a project originally estimated at \$185 million cost about \$685 million.

Risk Allocation

Bob Morris (Leightons) started off with a number of interesting comments offered as home truths, including:

- Few proposed projects stand up to quantitative analysis
- Most proposed projects fall over at an early stage
- Only projects which can be incorporated into State strategies are likely to proceed
- Planning for development is essentially the Government’s job
- No private sector body can hope to retain control of “intellectual property rights” to public infrastructure proposals

He noted that the allocation of risk between public and private sectors is now generally a well-understood process, with the main issue of contention being how to deal with unforeseen circumstances. The development of the “Material Adverse Effect” regime seems (observer’s comment) a common-sense approach which reduces the need for contending armies of lawyers and expensive delay.

In general, each party to a deal should bear the risks in the areas which it controls. Planning risk is for government; revenue risk is for financiers; construction risk is for the contractors.

Discussion

An interesting discussion at this point included highlighting the difference between economics and finance. A project which is economically worthwhile may still fail financially by running out of money. The Airport Rail Link, in the opinion of some participants, could be an example.

Community Consultation/EIS

Mark Keogh (PPK Environment and Infrastructure) reviewed the processes by which community input to project development occurs, and in particular the EIS stage.

He concluded that the EIS process has good points and bad points, but in general tries to do too much. He advocated a phasing of approvals – first a strategic approval, then an approval for the corridor planning, and then an approval of the detailed design. The issues to be addressed at each stage would be very different. At present they are all lumped together in the one process.

This concept seemed to enjoy considerable support from other speakers and seminar participants.

Mark gave us a number of lessons (many from the example of the Cross City Tunnel):

- Political support tends to distort the EIS process, sometimes seen as a *post hoc* justification of a predetermined course of action.
- Designs continue to evolve while consultation is proceeding.
- The community has a strong wish to debate items.
- Adequate communication is essential, especially the “why not” explanations when ideas offered are not adopted.
- Early and transparent strategic planning is needed.
- The limitations of the EIS process should be recognised.

Integrating with Existing Systems

Trevor Townson (Transport NSW) is the Acting Manager of a new Project Development Unit and he described how the linkage tends to work between ideas and reality. He took us through various physical issues, network/operational issues and funding issues.

Particular points that he made included:

- Infrastructure is not the only priority : integrated ticketing is a vital ingredient in achieving an integrated public transport system.
- Factors affecting patronage forecasts emerge which it would have been impossible to take account of earlier at the demand forecasting stage.
- Risk is often overstated and viability tends to depend on the details of implementation.
- Getting hold of land in Sydney for infrastructure development is a major problem.
- Strategic priorities may change over time.

Overall, he painted the picture of a multi-faceted and barely controllable process and suggested that if a project can be brought in “near enough” to original intentions than that would be a major achievement.

Construction

John Barraclough (Parramatta Rail Link) gave us an overview of his project and the difficulties sometimes encountered on such projects as they near or enter construction. He identified that the negotiation of conditions with the contractor is the critical stage, because once that is past and contracts have been signed the scope for further changes is very limited. Further community consultation after this stage may raise false expectations as to this scope.

Conclusion

Clearly the process of infrastructure delivery is a long and complex one, involving not only engineers but planners, economists, environmental scientists, urban designers, politicians, bankers, businessmen, lawyers and many others.

In his keynote address, Peter Abelson reminded us that the core problem was one of transport function.

If today’s session reminds the engineers among us that, whatever the stage they are working on, they above all others should be concentrating on making the project work, then the Transport Panel and UNSW can be satisfied with their effort today.

Dave Kilsby
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