



13 April 2007

Hon Ms Mahla Pearlman AO
Chair
The Independent Review of the F3 to M7 Corridor Selection
PO Box 593
CANBERRA ACT 2601

Fax: 02 6274 6916
Email: reviewF3toM2@dotars.gov.au

Transurban Limited

ABN 96 098 143 410

Level 37 Gateway
1 Macquarie Place Sydney
NSW 2000 Australia
Telephone +612 9254 4900
Facsimile +612 9254 4990

email@transurban.com.au
www.transurban.com.au

Dear Chair

Transurban is responding to the call for submissions from interested parties to the 2007 independent Review of the F3 to M7 Corridor Selection.

The Cross City Tunnel had a profound effect on public perception of motorways and PPP roads policy in NSW. Community reaction to the Cross City Tunnel demonstrated heightened awareness of invalid traffic assumptions and criticism of a project which engaged poorly with users. The preferred option for the F3 to Sydney Orbital link needs to be based on accurate traffic forecasts and must be a link that meets the needs of its intended customers.

The strategic importance of this proposed link road and the significant cost involved in delivering this project requires detailed government, industry and community consultation on the nature of the new link road.

Transurban

Transurban is a Top 50 Australian company listed on the Australian Stock Exchange. Transurban has an ownership interest in and operates electronic tollroads in Melbourne (CityLink), Sydney (Hills M2, Westlink M7) and the US. Transurban has a unique approach to managing tollroads as a long-term investor and operator. Transurban's core competencies include in-house traffic modelling, customer service management and active asset management.

Transurban currently has an ownership interest in and operates 60 km of the 110km Sydney Orbital Motorway network. Transurban is also the tag and pass provider for the Lane Cove Tunnel and has developed a strong understanding of existing and future traffic issues concerning the Sydney Orbital network. Transurban is in the process of completing its merger with Sydney Roads Group (SRG), which owns 71 percent of the Eastern Distributor and 50 percent of the M5 Motorway and M4 Motorway. This merger will provide Transurban with the opportunity to make real traffic and tolling improvements to the Sydney motorway network.

Importance of the Link

*"The need for an F3-M2 link is apparent to anyone familiar with traffic on Pennant Hills Rd ... [AusLink] money remains unspent and traffic volumes on Pennant Hills Rd are increasing."*¹

As a long-term owner and manager of motorways, Transurban supports the development of long-term corridor and network strategies to understand and plan improvements to transport issues. A thorough corridor analysis enables the efficient and safe movement of people, goods and services along an economic spine and delivers enhanced customer and local community outcomes.

¹ Nick Berman, Mayor of Hornsby Shire Council, 17/01/06 Hills Shire Times, "Link is missing"

The impact of congestion on Sydney's road infrastructure can be seen in the annual cost of congestion – currently around \$6 billion, and expected to reach almost \$9 billion by 2015². The transport network is set to come under increasing pressure with the forecast high rate of population and economic growth over the next twenty-five years³.

In 2004, regional traffic linking Sydney to the North Coast and Central Coast was found to be travelling in peak hour on both Pennant Hills Road and Pacific Highway at an average speed below 25 kilometres per hour and often be as low as 14 kilometres⁴. Pennant Hills Road and Pacific Highway crash rates are also higher than the Sydney average arterial road crash rate⁵. Provision of a high quality connection (motorway standard) between the F3 and the Sydney Orbital is crucial to improve the safe and efficient movement of people and goods in the corridor.

Demand not sufficient at this time for F3 to M7 Link

Long-term population growth and regional economic forecasts identify the need for a far-sighted strategy incorporating a western connection between the F3 and M7. At this time, however, Transurban's analysis indicates that there would be insufficient traffic to support a project of this scale.

A direct F3 to M7 link would not satisfy current freight and commuter requirements on Pennant Hills Road and Pacific Highway, therefore it would not replace the current requirement for an F3 to Sydney Orbital link. The proposed F3 to M7 link forms part of a longer-term requirement for a Sydney bypass. In the same way that Government planners showed foresight in reserving the corridor for the M7 motorway over 40 years before its completion, the corridor for this link should be reserved for future generations to deliver the infrastructure solutions to support future growth.

Third-party endorsement

There is industry consensus on the need for a link road between the F3 and the Sydney Orbital. Most recently, the NRMA reiterated the need for the route to be finalised and the project to proceed, with President Alan Evans stating the motorist advocacy group "supports the construction of a new road linking either from the M2 motorway or from the M7 to the F3 freeway. In a submission to Government in 2004, NRMA supported a far-westerly route option from the M2 to the F3. An alternative route from the M7 motorway to the F3 has since been suggested. NRMA calls for the route to be finalised and funding committed so that the project can proceed."⁶

In addition to the NRMA, the NSW Road Transport Association (26 April 2005 letter to Infrastructure Taskforce), Infrastructure Partnerships Australia (2007 NSW Election Submission) and Property Council of Australia (NSW) (Media Release 17 May 2006 *10 NSW infrastructure priorities to boost economy by \$8.8B*) have all called for the F3 to Sydney Orbital link to be constructed as a matter of priority.

Assumptions and data used in the original SKM Link study

A number of key assumptions were not considered by SKM in the *F3 to Sydney Orbital Link Study 2004*, which would provide a more complete and accurate solution for the Sydney road network.

Sydney orbital solution

Provision for east as well as west Sydney directional traffic is vital to the link's integration with the Sydney orbital. This would ensure the motorway system provides adequate connectivity for interregional transport and long distance trips. One of the shortcomings of the current preferred proposal for this link is lack of connectivity for movement from/to the eastern part of the orbital. In the current form traffic from the east has to use the Pennant Hills Road signalised ramps to get access to the link. SKM's "Purple" option fails to provide an eastbound connection to the M2. The M2 distributes traffic east to west to the Sydney Orbital network and the absence of an eastbound connection undermines the system.

² Port Jackson Partners, *Reforming and Restoring Australia's Infrastructure*, March 2005 prepared for Business Council of Australia

³ Sydney Metropolitan Strategy forecasts 1.1m extra people to 5.3m, 500,000 new jobs and 640,000 new homes by 2031

⁴ SKM, *F3 to Sydney Orbital Link Study*, April 2004

⁵ SKM, *F3 to Sydney Orbital Link Study*, April 2004

⁶ Alan Evans, Remember the Roads on Election Day NRMA, 15 February 2007

Toll collection impact on project

SKM acknowledged the M2 toll as an influence on performance and patronage levels of the F3 to Sydney Orbital link, but the report did not consider how the complete Sydney Orbital network would operate once several major links were open to traffic. For example, it is likely that by the end of 2007 more than half of the Sydney Orbital network will be cashless. Westlink M7 and the Lane Cove Tunnel are both cashless motorways and the Hills M2 is likely to convert to cashless tolling in 2007, subject to Government approvals. Likewise, the NSW Government has stated its intention to convert the Sydney Harbour Tunnel to cashless tolling once tag penetration reaches 90 percent, which could occur as early as this year.

Flexible tolling scenarios

The SKM Link study was undertaken when there was limited opportunity for integrating the tolling regimes between various motorways. Sydney's motorways, traditionally considered as separate entities with travellers forced to pay a fixed toll when crossing each motorway, should increasingly be considered as part of an interconnected network. The SKM Link study attempts to demonstrate the sensitivity of the performance of each option to different tolling regimes on connecting motorways (particularly M2), but does not take this into account in its ranking of the alternative routes. In Section 16.4 of the Traffic Working Paper (Working Paper no 4), SKM demonstrates that under alternative toll scenarios the performance and hence ranking of the options would change. SKM did not consider potential flexible tolling arrangements made possible by cashless tolling when forming its final ranking of options.

Focus on benefits to the road network

The SKM Link study was focussed on reducing impacts on Pennant Hills Road rather than benefits for the network as a whole. The criteria should focus on identifying the best design arrangement for connecting the F3 to the Sydney Orbital. Any benefits to Pennant Hills Road are an important consideration, but the road must take freight traffic and commuters where they want to go.

Transurban has undertaken its own, as well as independent, traffic studies in relation to the "Purple" and "Yellow" route options. This analysis shows that approximately 50% of the traffic travelling down the F3 utilises the Pacific Highway. The link, therefore, would be more successful in reducing congestion on local roads if it followed the Yellow alignment, by taking traffic off the Pacific Highway as well as Pennant Hills Road.

This indicates that the Yellow option should be considered as a viable alternative because this route alignment provides benefits to the network as a whole, which includes deferring the need to upgrade the Pacific Highway to relieve already congested conditions.

Significant changes affecting land use and transport flows in Greater Sydney

There have been a number of changes to land use and transport flows since the SKM Link study was undertaken. Just as the M7 impacted on westbound flows within the north-west corridor, the new Lane Cove Tunnel will impact on eastbound traffic flows for F3 traffic. The completion of the Sydney Orbital Motorway Network means the city now has 110km of continuous freeway linking Greater Sydney.

Changes to M2 motorway

The change in ownership of the M2 motorway has also had an impact on traffic flows in Sydney's north-west with Transurban demonstrating its active management through the construction of express lanes shortly after completing the acquisition in 2005. Motorists no longer have to slow down or stop to pay the toll. One fully electronic toll lane can process at least 2,000 vehicles an hour, while a cash-only booth can handle around 400. The tag only lanes have improved the performance of the M2.

Transurban recently completed an interim lane widening project which was proactively implemented in partnership with the RTA to relieve a notorious westbound pinch point ahead of the opening of the Lane Cove Tunnel. The impending move to cashless tolling, subject to Government approvals, will also see significant improvements to the operation of the M2, which is now directly connected to two fully electronic roads – Westlink M7 and Lane Cove Tunnel.

These improvements to the operation of the M2 provide significant benefits to users of the motorway network.

Growth in Western Sydney

The M7 has been a magnet for economic development in Western Sydney, fast tracking commercial and residential development that will drive more traffic on the road network. More than 665,000 square metres of industrial land is being developed along the M7 corridor. The 2,450 hectare Western Sydney Employment Hub, which sits at the junction of the M7 and M4 motorways, is planned with the potential to create up to 36,000 jobs when fully developed. Westlink M7 also links the two largest greenfield residential developments – the North West and South West Growth Centres. Around 160,000 new homes will be built over the next 30 years and will accommodate more than 350,000 people.⁷

In March 2007, the Government released its Employment Lands for Sydney Action Plan which sets out its strategy to secure up to 7,500 hectares of additional employment land in Greater Sydney by 2031. Significantly for Western Sydney, the Plan will investigate the release of a large area of land stretching from the Western Sydney Employment Hub south to the South-Western Growth Centre. This growth will have a significant impact on freight and commuter flows around the Sydney Orbital.

Growth on eastern side of Orbital

The east-side of the Orbital network is also crucial to Sydney's future economic development as it includes the "global economic corridor" identified in the NSW Government's Metropolitan Strategy. This corridor stretches from Macquarie Park in the city's North-West, through the CDB and encompasses the Sydney Airport and Port Botany precinct.

Around 700,000 of Sydney's jobs are located in the global economic corridor and it is expected that another 150,000 new jobs will be added within this corridor over the next 25 years, which makes up 30 percent of total Sydney jobs growth over this period. Currently access to this corridor from the F3 is via the Pacific Highway and Ryde Road, which are struggling to accommodate current commuter flows.⁸

Port Botany container throughput is expected to increase by approximately six percent each year to 2025. With the expansion of port facilities currently underway, industry experts expect the Sydney freight task to double within the next 7 years, placing increased pressure on infrastructure connecting to the port and driving freight trips around the entire Orbital network.⁹

Sydney Airport forecasts passenger numbers will grow from 26 million passengers in 2001 to 68 million passengers in 2024, which is a 4.2 percent increase per annum.¹⁰ With no plans to build a second international airport in Sydney's west, an eastbound connection from the F3 to the Orbital will be required for trips from north of Sydney to the airport.

The importance of this growth on the eastern side of the Orbital must be considered when deciding on the preferred alignment for the F3 to Sydney Orbital Link to ensure an optimal network solution is reached.

Changes in TPDC forecast land use data

According to analysis undertaken by Transurban, and confirmed by MWT's desktop review, there is a large discrepancy in the trip tables used by SKM in its original study and more recent data made available by the Transport and Population Data Centre (TPDC). SKM based its analysis on 2001 TPDC data while the 2005 release saw a significant growth in forecast employment across Greater Sydney and specifically along the Pacific Highway and Ryde Road corridors and to a lesser extent, Pennant Hills Road.

Along the Pacific Highway alignment, 40,000 additional jobs are forecast in employment centres by 2011 under the 2005 land use scenario, over and above the 2001 series. The Ryde Road alignment is forecast to accommodate an

⁷ NSW Department of Planning, *Sydney Metropolitan Strategy*, 2005

⁸ NSW Department of Planning, *Sydney Metropolitan Strategy*, 2005

⁹ Freight infrastructure Advisory Board, *Railing Port Botany's Containers*, July 2005

¹⁰ Sydney Airport Corporation Limited, *Sydney Airport Master Plan*, March 2004

extra 18,000 while the Pennant Hills Road alignment is forecast to grow by a more modest 6,000¹¹. This indicates that under the 2005 scenario there will be more activity along the Pacific Highway and Ryde Road alignments, placing even more pressure on these already congested arterial routes. Implementation of the Yellow option with an easterly connection to the Sydney Orbital will take pressure of these increasingly important links.

Any assessment of the link must take into account forecast growth across greater Sydney and ensure that the F3 to Sydney Orbital connection provides both east and west connectivity to the Orbital network, thereby addressing the impact on both Pennant Hills Road and Pacific Highway.

Impact of changes in Government Policy

SKM's report on route options for the F3 to Sydney Orbital link was released in April 2004. New Government policies in both Federal and NSW jurisdictions highlight the need for a review of the preferred route option for this important link road.

The AusLink Program

July 2004 marked the commencement of AusLink - the Australian Government's new corridor approach to land transport investment. According to the Government's website, "*The AusLink Network is based on national and inter-regional transport corridors including connections through urban areas, links to ports and airports, rail, road and intermodal connections that together are of critical importance to national and regional economic growth development and connectivity.*"

Freight flows through Sydney use both Pennant Hills Road and Pacific Highway to access the Sydney Orbital network to and from the F3. A solution for the F3 to Sydney Orbital link must address the impact on both roads and the preferred solution should provide connection to the Sydney Orbital for movements along both roads. As the SKM route options assessment predates AusLink, its focus is limited to Pennant Hills Road / National Highway route and not the strategic freight and commuter corridor which includes Pacific Highway from Wahroonga to the Gore Hill Freeway.

NSW Government Motorways Review (Richmond Review)

The Richmond Review was released on 14 December 2005 in response to issues arising from the opening of the Cross City Tunnel and associated road closures. The NSW Government promptly adopted all recommendations contained in this report. A number of these recommendations impact on the SKM assessment of route options for the F3 to Sydney Orbital link.

SKM's preferred route option of a through traffic tunnel under Pennant Hills Road assumed the closure of existing traffic lanes on Pennant Hills Road to encourage through traffic into the tunnel. However, an application of the Richmond Review recommendations would require all existing traffic lanes on Pennant Hills Road to remain in operation. Any changes to existing traffic conditions should not be for the purpose of directing traffic onto the toll road. Under this scenario a tunnel under Pennant Hills Road with only a western connection would have less patronage than estimated in the SKM report.

Changes based on current data & assumptions

A preliminary analysis of the traffic and revenue characteristics shows that taking into account a broader network view, changes in transport flows and land use since 2004 and consideration of alternate pricing regimes, the following observations can be made with regards the selection of the preferred route:

- The new link between Sydney Orbital and F3 should provide full freeway to freeway uninterrupted flow conditions for both east and west movements. The current Purple option does not accommodate this.

¹¹ MWT, *Interim Report – F3 to Sydney Orbital Corridor Review*, March 2006

- Cashless tolling provides the opportunity for developing an optimum tolling regime that can maximise financial viability, transport system efficiency and social benefits of the proposed link. The performance of each option is highly sensitive to the tolling regime on adjoining motorways. Therefore, selection of a preferred option should incorporate the optimum tolling scenario for the network.
- Under a flexible network tolling regime, there is scope to provide congestion relief to Pennant Hills Road and Pacific Highway while minimising the total vehicle kilometres travelled (VKT) within the northern triangle (area between Pennant Hills Road, Pacific Highway and M2).

Transurban analysis highlights that the Yellow option would provide improved results for motorists, better network outcomes and potentially a lower subsidy requirement from Government based on the higher traffic utilisation.

Conclusion

While Transurban believes both the Yellow and Purple options identified in SKM's *F3 to Sydney Orbital Link Study* would be a significant improvement to the connectivity and performance of the Sydney motorway system, Transurban believes the optimal network solution would be the Yellow option. The F3 to M7 corridor should be reserved for the provision of a future link when demand justifies.

The Yellow option provides a superior connection between the Sydney orbital and F3, addresses the north-south freight and commuter route currently provided by the Pacific Highway and provides an east-west connection to the Orbital network. Under a flexible pricing regime, it is considered to provide equal benefit to Pennant Hills Road as the Purple option, with additional benefits for Pacific Highway. With an integrated tolling regime the Yellow option could also deliver a better financial position for the AusLink partners.

Thank you for the opportunity to provide input to the review of the F3 to M7 Corridor Selection. Please contact Oliver Barbagallo in my office on (02) 9254 4914, if you would like any further information.

Yours Sincerely



Lisa Hunt
General Manager NSW & QLD