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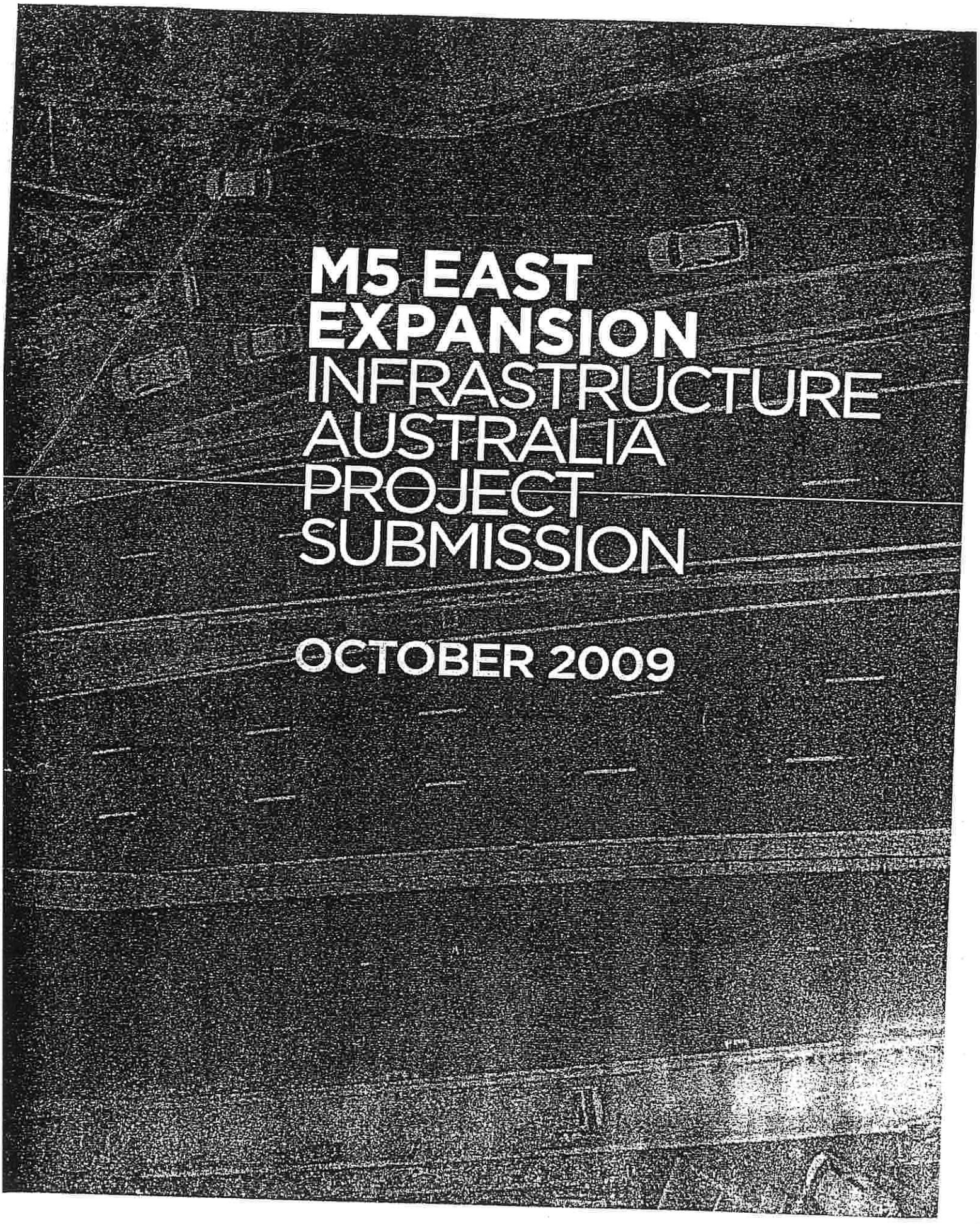

M5 EAST EXPANSION INFRASTRUCTURE AUSTRALIA PROJECT SUBMISSION

OCTOBER 2009

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1 INTRODUCTION

1.1 BRIEF DESCRIPTION

1.1.1 Overview

Recognising the national significance of both Sydney Airport and Port Botany, the NSW Government is putting forward the $4 billion M5 East Expansion proposal for delivery in partnership with the Australian Government to substantially enhance landside access to Sydney's international gateways. This investment in landside infrastructure is critical to Sydney's ongoing success as a global city in the Asia-Pacific Region and its prominence for the nation.

The M5 East Expansion is a key part of the NSW Government's landside servicing strategy for Sydney's international gateways over the next 25 years.

More than $2.2 billion is being invested to upgrade Sydney Airport and Port Botany in the immediate short term to meet the growing demands for passenger and freight movement through the sector. This comprises $1.2 billion over the next five years in Sydney Airport terminal and operation improvements and $1 billion at Port Botany to reclaim 60 hectares of land and construct five new container berths.

These investments will result in increase freight movements through Port Botany to around three million containers by 2021 and a doubling of the passenger and freight movement through Sydney Airport by 2029. Even with a 40% movement of containers by rail there will remain 1.8 million containers that need to be moved by road along with the significant increase airport movements over a similar period. Parallel landside infrastructure investments in both road and rail will help to ensure the benefits of the investment and growth at these international gateway precincts is realised.

The proposal seeks to duplicate the capacity of the existing M5 East tunnel within the M5 Corridor to a total of eight lanes between Beverly Hills and Kyeemagh and provide a new four-lane north-south link between Kyeemagh, Mascot and inner southern Sydney.

The M5 East Expansion complements a range of other initiatives within the NSW Government's ongoing landside servicing strategy for Sydney's International gateways. These include:

1 The recent upgrade of the East Hills Line to four tracks, extension of the East Hills Line westward to Campbelltown, opening of the Airport Rail Line and strategic bus corridors and services focussed on connecting to train stations;

2 The construction of the $309 million Southern Sydney Freight Rail Line;

3 The proposed $150 million Enfield Intermodal Terminal;

4 The current consideration of a Moorebank Intermodal Terminal within the M5 Corridor;

5 The proposal to widen the M5 South West Motorway to three lanes in each direction between Prestons and Beverly Hills which is the subject of negotiations between Roads and Traffic Authority and Interlink Roads to deliver the widening as a variation under the existing motorway deed.

1.1.2 Scope of Works

The M5 East Expansion proposal comprises:

1 Duplication of the M5 East Freeway from King Georges Road, Beverly Hills to Marsh Street, Arncliffe:

- Providing new twin two lane westbound tunnels, with entry and exit portals in the vicinity of the current portals at Marsh Street and Bexley Road.
- Providing four lanes eastbound by retaining the existing eastbound tunnel and converting the existing westbound tunnel to eastbound.
- Retaining two lanes in each direction from the Marsh Street portals to General Holmes Drive.
- Providing two lanes in each direction from the Marsh Street portals to the new South Sydney connection.
- Widening to four lanes in each direction from the Bexley Road portals to King Georges Road.
- Providing three lanes in each direction under King Georges Road.
- Widening Marsh Street to generally three lanes in each direction between the portals and Airport Drive.

2 Provision of a new South Sydney connection from the M5 East Freeway at Arncliffe to Mascot and St Peters:

- New surface and elevated road with two lanes in each direction generally along the F6 corridor.
- Single lane ramps to provide access between the South Sydney connection and Qantas Drive.
- Signalised intersection at the junction of the South Sydney connection, Campbell Road and Euston Road with a link to Gardeners Road at Bourke Road.

Figure 1 provides the regional context and Figure 2 provides details of the initiative.

The capital cost of the M5 East Expansion is estimated at $4 billion in 2008 dollars.

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Figure 1 Regional Context for M5 East Expansion

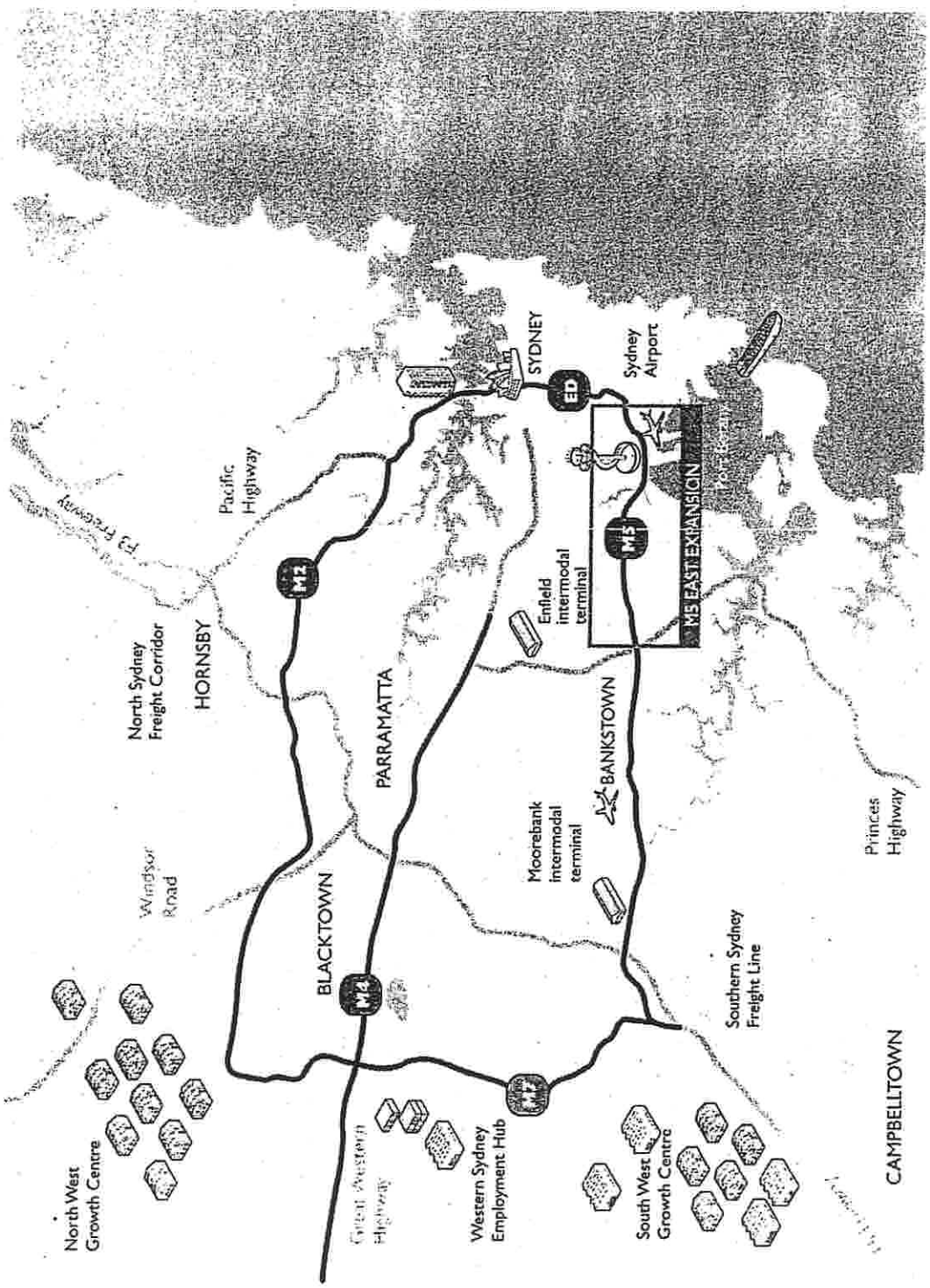

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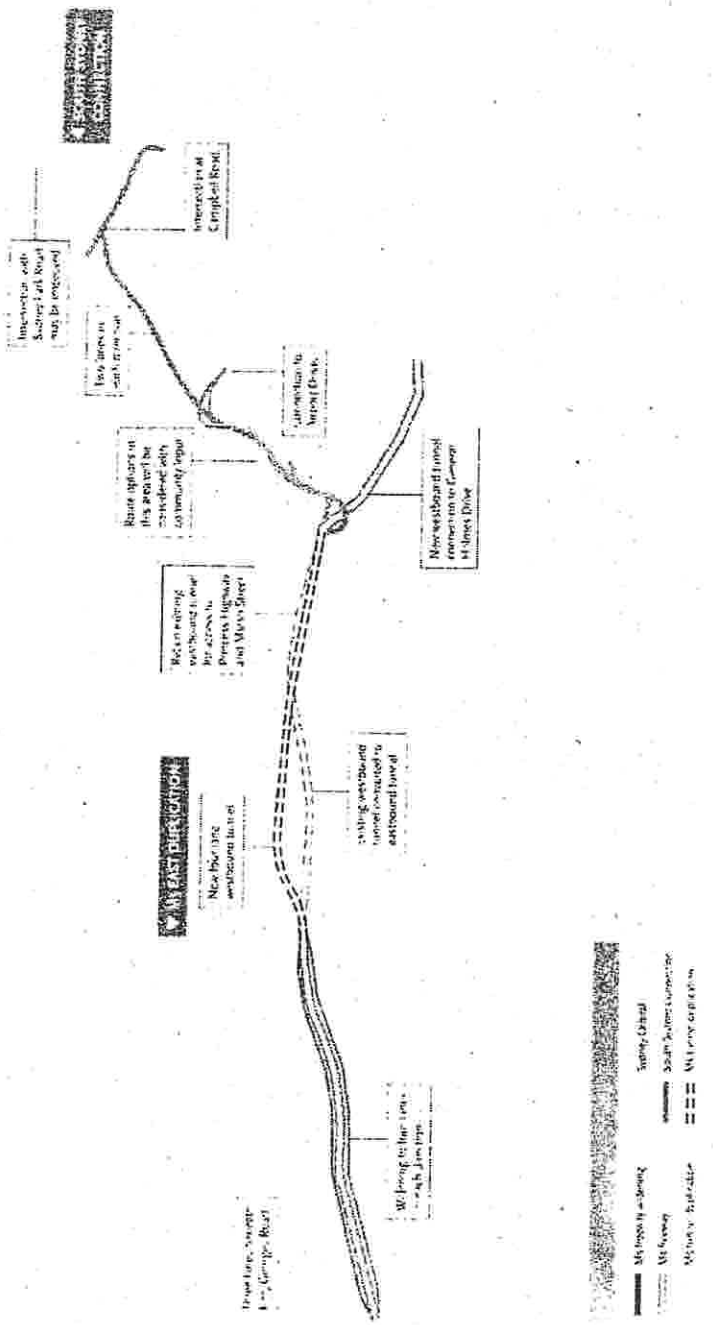
Figure 2 M5 East Expansion



1.1.3 Benefits

In addition to improved access to Port Botany and Sydney Airport to cater for increased transport demand and capture new economic opportunities created by these expanding centres the proposal would deliver the following additional benefits:

- Increased capacity along the M5 transport corridor to meet existing and future transport demand generated by planned intensification of residential and employment growth.
- Reduced congestion on the M5 East Freeway and the surrounding arterial network, providing more efficient movement of goods and people.
- Improved travel times for individuals and businesses using the corridor, particularly during the AM and PM peaks.
- A high quality, well integrated and reliable transport network which supports economic development and future improvements to the rail freight network.
- Support for the prosperity, economic productivity and competitiveness of Sydney as Australia's only global city.
- Meeting demand for trips that are not well served by public transport and which are dependent on an efficient road network including catering for employment located outside key centres and shift workers.
- Enhanced access to health, education and leisure facilities.
- Reduced greenhouse gas emissions from vehicles.

1.1.4 Status of Project

A preferred option has been identified and endorsed by the NSW Cabinet. Further planning work is being undertaken to obtain planning approval for the project.

The next steps include a public announcement of commencement of an environmental assessment, consultation on the preferred option, submission of a Part 3A Project Declaration followed by the submission of the Project Application to the NSW Department of Planning.

1.1.5 Indicative Delivery Timetable

A conventional delivery timetable could see the project opened to traffic in approximately seven years.

Fast tracking the delivery could shorten the timetable by one to two years, depending on the availability of funding which could enable fast tracking of delivery.

1.2 BACKGROUND TO THE PROJECT

As outlined in the Sydney Airport Master Plan 2009, Sydney Airport Corporation Limited (SACL) will continue to develop its airside infrastructure and operations to meet in excess of a doubling of passenger and freight demands over the next 20 years. The Master Plan clearly outlines (p89) SACL's position on landside infrastructure investment. It sees Sydney Airport's ongoing private investment being supported by parallel investment in off-airport infrastructure by the NSW Government – with Australian Government support as appropriate through the Building Australia Fund.

Similarly, Sydney Port Corporation with stevedores P&O and Patricks will continue to develop its seaside infrastructure and operation to meet the demands of a trebling of containerised trade over the next 20 years. While Sydney Port Corporation is working on a Port Botany Landside Improvement Strategy its scope is limited to develop, agree, and commence implementation of road transport related efficiency improvements in Sydney Ports' Port Botany precinct itself but not beyond.

Funds were allocated by the Australian and NSW Governments for a feasibility study to examine potential improvements to the M5 Transport Corridor linking Sydney Airport and Port Botany with south-west Sydney.

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On 13 May 2008 the Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon. Anthony Albanese, announced $5 million funding in 2007/08 for the feasibility study. On 14 May 2008 the then NSW Premier, the Hon. Morris Iemma, announced a further contribution of $10 million.

The feasibility study has been developed under the governance of a Steering Committee, chaired by David Richmond, comprising representatives from Federal Government's Department of Infrastructure and key State Government agencies.

The study commenced in July 2008 and undertook a number of investigations as part of the development, assessment and evaluation of strategic options for improving the corridor. The outcome of these investigations was the identification of a preferred strategic option which was subject to further feasibility assessment and development.

The M5 Transport Corridor Feasibility Study Preliminary Overview Report was completed in May 2009. This report detailed a preferred option for improving the corridor. The report concluded that the indicative preferred option met the study objectives and represented a feasible solution for improving the operation of the corridor.

The preferred option can be broadly separated into two parts. The first is the widening the M5 South West Motorway from Prestons to Beverley Hills. The M5 South West Motorway is owned and operated by Interlink Roads Pty Ltd, under an existing Build Own Operate and Transfer Deed. The RTA is in negotiations with Interlink to deliver the widening of the Motorway as a Variation under the existing Deed.

The second part is the M5 East Expansion, which includes the duplication of the M5 East Freeway from Beverly Hills to Arncliffe and the provision of a new South Sydney connection from Arncliffe to Mascot and St Peters. It is this project which is the subject of this submission to Infrastructure Australia.

The NSW Government provided several submissions on the M5 East Expansion to Infrastructure Australia between October 2008 and January 2009, seeking funding under the Building Australia Fund. The May 2009 Federal Budget did not include any funds for the M5 East Expansion project under this program, although funds remain from the previous allocation for ongoing development work.

A letter dated 12 June 2009 was received by the NSW Department of Premier and Cabinet from the Infrastructure Co-ordinator, Michael Deegan, advising that further submissions to Infrastructure Australia to determine readiness of pipeline projects identified in the "National Infrastructure Priority report" and other initiatives would be required by end of October 2009.

On 7 October 2009, Infrastructure Australia published updated submission guidelines and requirements on their website.

2 STRATEGIC AND CORRIDOR CONTEXT

2.1 THE PROJECT CONTEXT AND INTEGRATION

NSW's policy program is addressing a similar array of challenges to that outlined by Infrastructure Australia through its existing and evolving policy and strategy framework. The framework applies across all Government agencies and informs priorities for investment and policy initiatives in relation to transport and infrastructure. It includes:

- The NSW State Plan (2006).
- The Metropolitan Strategy (2005).
- The Regional Strategies (2006 – 2009).
- The State Infrastructure Strategy (every two years from 2006).

The NSW Government's Metropolitan Strategy, Cities of Cities: a plan for Sydney's future (December 2005) sets out plans and strategies for sustainable growth and development of Sydney over the next 25 years.

Expansion of the transport network along the M5 Corridor would support the Metropolitan Strategy in the following ways:

- Development of the South West Growth Centre. A total of around 155,000 new dwellings and 80,000 new jobs are planned in the South West Subregion. Progressive land release has commenced with Edmondson Park. Growth in the south-west would rely heavily on improvements to the M5 Corridor to access parts of Sydney to the east.
- Planning to connect regions and economic gateways to provide a more efficient connection between the Goulburn/Melbourne corridor to Sydney and the South West Subregion to the Port, Airport and CBD.
- Intensification of employment lands along the Liverpool to Port Botany corridor including Milperra/Bankstown Airport, Moorebank, Ingleburn, Minto and Campbelltown. This will place associated traffic demands on the M5 Corridor and arterial roads in the vicinity of Port Botany and Sydney Airport.
- Maximising the efficiency of freight transport and serving intermodal terminals. Terminals at Enfield, Ingleburn and possibly in future Moorebank will rely heavily on the M5 Corridor for major access.
- Supporting strategies for bus planning in the Liverpool to Port Botany corridor. Several of the Unsworth Strategic Bus Corridors run along Canterbury Road/Milperra Road/Newbridge Road, and would benefit from traffic reductions resulting from improvements to the M5 Corridor.

The Urban Transport Statement and the State Infrastructure Strategy follow on from the plans and strategies set down in the Metropolitan Strategy, Cities of Cities and outline a number of Sydney's travel and transport challenges and the infrastructure being delivered and planned to meet these challenges.

A new framework for transport planning in NSW is now being established, key in this process is *Connecting NSW: The Transport Blueprint*. The Blueprint articulates the outcomes required of the transport system through to 2036 to support the economic development of Australia, NSW and major centres.

Throughout the Government transport planning framework, the M5 Corridor is identified as playing a key role in Sydney's inner west and south west. It services local, regional and national travel demands, and provides key connections for freight, commercial and commuter traffic.

Over the last decade, demand for all forms of travel within the corridor has increased substantially, resulting in the rail and road network operating at or near capacity, particularly during the morning and evening peaks.

In the coming years, this situation will be compounded by significant development of residential and employment land uses, a large proportion of which will be new development in the existing urban areas of south west Sydney.

Future transport demand is therefore a significant challenge for Sydney and the NSW Government across all transport modes. The following details the key drivers of growth in transport demand in coming decades, current and future initiatives to meet this demand and the need for significant investment in improving existing transport infrastructure and expanding the transport solutions.

2.1.1 Port Botany and Sydney Airport

The efficient operation of airports and ports is a critical success factors for Sydney as a global city. Sydney is the international gateway for importing and exporting goods, business travellers and tourists.

Both Sydney Airport and Port Botany are forecast to experience significant growth in the next two decades. Passenger and freight levels at these gateways are predicted to more than double. This quantum of growth will place significant pressure on Sydney's road and rail network and is likely to be felt greatest on the M5 South West Motorway, the M5 East Freeway and the Botany Goods Rail Line.

Eighty five% of the containers transported through Port Botany contain cargo, which has originated from, or is destined for, locations within a 40 kilometre radius of the port. Even with the NSW Government's goal to increase the movement of containers by rail to 40% within the next decade, with the total containers through Port Botany predicted to reach 3 million Twenty Foot Equivalent Units (TEUs), up to 1.8 million port related containers will remain on the road.

2.1.2 Development of the Transport Network

A number of road and rail initiatives and infrastructure improvements have taken place in recent years which have improved the operation and movement of freight, commercial, commuter and passenger travel within the corridor.

Completed and current initiatives include:

- Botany Goods Rail Line – A dedicated freight line, which has been upgraded and duplicated at various points to increase its capacity. Further upgrades and duplication between Port Botany and Cooks River are proposed in the longer term to more than double its capacity from 0.5 million containers to some 1.3 million containers.
- Enfield intermodal logistics centre – Containers will be transported by rail from Port Botany to the Enfield centre. These containers are then unpacked and the goods transported by road to other parts of Sydney and NSW. The proposed facility will have the capacity to move over 60,000 containers per year. The Enfield centre will be part of a network of existing and planned intermodal facilities in Sydney (including at Moorebank and Eastern Creek) and will service around a quarter of the total intermodal demand.
- Southern Sydney Freight Line – When completed, the Southern Sydney Freight Line will be a 30 kilometre single track railway line running parallel to the Main South Line between Sefton Station and Macarthur Station. The Southern Sydney Freight Line was granted approval from the Federal Government in 2008 and construction of the line began in 2009. On completion, the new line will separate passenger and freight services which currently share the same track, ease pressure on the network and provide additional freight capacity, deliver improved reliability and provide direct access between key freight centres at Chullora, Enfield and Port Botany.
- East Hills and Airport Rail Lines – Since the late 1980s, a number of improvements and upgrades have been made to the East Hills Line, including duplication through to East Hills and an extension to Glenfield. In conjunction with the construction of the Airport Line – which has stations at Green Square, Mascot, domestic terminal and international terminal – the East Hills Line was extended to Campbelltown and quadruplified between Wolli Creek Junction and Kingsgrove, resulting in additional capacity.
- Rail Clearways program – An initiative of the NSW Government to improve capacity and reliability on CityRail's Sydney suburban network. Due for completion in 2010, the Rail Clearways program comprises 15 key projects that will separate the network's 14 metropolitan rail routes into the five clearway routes: Eastern Suburbs and Illawarra, Bankstown, Campbelltown Express, Airport and South and North West. The 15 Rail Clearways projects will remove train bottlenecks

and improve junctions, reduce congestion and delays, and allow for simpler timetables for more reliable and frequent services.

- Delivery of the Rail Clearways program will mean an incident on one part of the rail network will have a limited effect on services on other clearways. It will also increase the capacity of the CityRail network to meet continuing growth patronage from both suburban and intercity areas. The key Clearways project within this corridor is the quadruplication of the East Hills Line between Kingsgrove and Revesby, which was approved in 2008 and is due for completion in 2013.
- The Sydney Orbital Network – A 110 kilometre motorway orbital which circles Sydney. It was completed in March 2007 with the opening of the Lane Cove Tunnel. The orbital runs north from Sydney Airport, beneath the CBD to the North Shore, west to the Hills District, south to Prestons and east – along the M5 South West Motorway and the M5 East Freeway – to reconnect with Sydney Airport, Port Botany and the Eastern Distributor. Since opening, the orbital has opened up access to major industrial and commercial centres, including Port Botany and Sydney Airport, reduced traffic congestion in residential areas, improved traffic flow and removed heavy vehicles from key local roads.
- Westlink M7 – A 40 kilometre motorway linking the M5 South West Motorway at Prestons, with the M4 at Eastern Creek and the M2 at West Baulkham Hills. The Westlink M7 was developed to meet the increasing travel demand generated by employment and population centres within and around the M5 Transport Corridor. Since opening in 2005, the Westlink M7 has improved travel times within the corridor, reduced the amount of traffic using local roads and enabled the generation of new land development adjacent to the corridor.
- Widening F5 Freeway between Camden Valley Way and Narellan Road – the F5 Freeway is connected to the Westlink M7 and the M5 South West Motorway at Prestons. To cater for current and planned traffic volumes, the RTA is widening the freeway to eight lanes between Camden Valley Way, Prestons and Brooks Road, Ingleburn. Work on parts of this section – Camden Valley Way to Brooks Road – was completed in 2008. Work on the remainder of the route – between Brooks Road and Narellan Road – began in 2009 and is due to be completed in 2011. When complete, the widening will deliver long and short distance travel time savings, improve the flow of traffic, and alleviate congestion in the local area.

2.1.3 Planned Initiatives

The following government planned initiatives are proposed to meet the future transport demand and support further predicted growth at key centres across Sydney.

- Northern Sydney Freight Corridor – The Federal Government has provided funding for a feasibility study for the Northern Sydney Freight Corridor, which is designed to address freight capacity and reliability needs along the Sydney-Newcastle rail corridor. This program of works is planned to extend the availability for freight paths throughout the day, increase capacity to meet peak freight demand and provide improved reliability for freight services using the corridor.
- Moorebank Intermodal logistics centre – A facility is proposed at Moorebank which has access to the regional road network (M5 Motorway and M7 Motorway) and the Southern Sydney Freight Line. It is anticipated that the site would be developed by the private sector with a capacity of at least 500,000 containers.
- Sydney Metro network – A critical part of the government's targeted investment plan to improve Sydney's transport network. The CBD Metro will form the foundation of the Sydney Metro network and is scheduled to commence operation in 2015. Planning approval for the West Metro, the first extension to the CBD Metro is anticipated in 2010.

Together the CBD and West metros will introduce fast, frequent and reliable metro rail to the city, with services arriving every two to three minutes in the peak, relieve road and rail congestion by extending rail access to additional areas of Sydney, giving more commuters the choice and opportunity to use public transport, support expected growth along Sydney's busiest transport corridor, particularly at Parramatta, Sydney Olympic Park and Burwood, provide the opportunity to generate additional capacity on the CityRail network by using Central Station's under utilised country platforms as a gateway for the metro and reduce greenhouse gases by providing an alternative to the private vehicle.

In the longer term, a broader Sydney Metro network is planned, including extensions to the north west and south east. Combined, the Sydney Metro network will link Sydney's key urban renewal centres, improve access to jobs, reduce travel times and emissions, and relieve congestion on the rail, road and bus networks.

- South West Rail Link – the link will provide new rail services to the outer metropolitan area and maximise access for new communities located in the South West Growth Centre. The rail link is being delivered in two stages, Stage 1 comprising a major upgrade of Glenfield Station, additional commuter parking facilities and grade separation of Glenfield North rail junction. Stage 2 of the works comprises a 13.2 kilometres of twin electrified track, passenger railway from the upgraded Glenfield station to a new stabling facility at Leppington. Major construction is due to commence on Stage 1 later this year while Stage 2 has concept approval from the Department of Planning.

2.3 SUMMARY OF RATIONALE

Predicted growth at Port Botany and Sydney Airport will significantly increase the demand for the movement of freight and commercial, commuter and passenger transport. Other growth areas, which will increase transport demand, include the inner southern Sydney corridor, the South West Growth Centre, the Western Sydney Employment Hub and the M5 Corridor.

Based on transport needs, it can be concluded that existing and future transport demand represents a significant challenge to Sydney and NSW across all transport modes in the M5 Corridor.

Rail and road infrastructure improvements have been provided and initiatives are continuing to be delivered to support planned growth.

While some of this demand can be catered for through upgrades and improvements to freight rail services currently being undertaken within the corridor, it is clear that the quantum of growth planned will require parallel improvements to the existing road network.

4 IMPLEMENTATION AND DELIVERY ARRANGEMENTS

4.1 ENVIRONMENTAL APPROVAL STATUS

Further planning work for the M5 East Expansion is being undertaken to achieve planning approval for the project.

Further design and engineering is under way to advance the preferred option to a stage where an environmental assessment can be undertaken. This includes concept design refinement, traffic modelling, tunnel design and ventilation, geotechnical investigations and construction methodology.

The next steps include submission of a Part 3A Project Declaration followed by the submission of a Project Application to the NSW Department of Planning, formally commencing the environmental assessment under the NSW Environmental Planning and Assessment Act.

The environmental assessment will consider key environmental and social issues arising from the project and identify measures to mitigate and manage these impacts. The key issues include changes to traffic flows in and around the corridor, air quality, noise and vibration, energy use and greenhouse gas generation, contaminated soil and spoil removal, visual amenity and urban design.

4.2 COMMUNITY AND STAKEHOLDER CONSULTATION

During the M5 Transport Corridor feasibility study the community engagement has been limited to consultation with key stakeholders, generally Government Authorities, in the vicinity of the project. This has included the Sydney Airports Corporation Limited to provide input to the development of the indicative preferred option. A process of mapping community issues has also been undertaken for the feasibility study to identify key community and stakeholders.

A community consultation strategy has been developed in the lead up to a project announcement late in 2009. The M5 Corridor Expansion Summary Booklet will be released, commencing public consultation on the need for expansion and the preferred option. A project website is also being established.

The community and stakeholder consultation program will extend through the environmental assessment and detailed information will be provided as the preferred option is developed.

4.3 LAND ACQUISITION ARRANGEMENTS

The construction of the existing M5 East Freeway defined a motorway corridor between King Georges Road and Bexley Road with significant open space land which remains under the management of the NSW Roads and Traffic Authority. As a consequence widening of this section of the Freeway will not require acquisition of surface properties.

At the tunnel portals and the western approaches to the tunnel some acquisition from local and State Government authorities will be required.

Construction of the new westbound tunnel beneath existing properties may require subsurface acquisition as the tunnel follows an alignment separate from the existing M5 East tunnels.

The South Sydney connection will generally be located with the existing road reservation, zoned under the Marrickville Local Environmental Plan. Although property acquisition will be required from some commercial properties these have been identified as affected by the F6 corridor reservation since the 1950s.

All surface and subsurface property acquisitions will be undertaken in accordance with the RTA's Land Acquisitions Policy (just terms).

During the detailed concept development phase properties to be affected by the proposal will be clarified and an acquisition schedule prepared for the environmental assessment and delivery of the project.

4.4 COST PLAN

At this strategic stage of the project development, the capital cost of the M5 East Expansion is estimated at $4 billion in 2008 dollars. A summary of the cost estimate is contained in Table 7 below.

Table 7 Summary of strategic cost estimate

ITEM	ESTIMATE (2009$,000)	CONTINGENCY		ESTIMATE (2009$,000)
		%	AMOUNT ($000)	
Project Development	$62,778	25%	$15,695	$78,284
Investigation and Design	$55,196	35%	$19,318	$74,514
Property Acquisition	$307,981	53%	$161,952	$469,934
Implementation	$2,279,292	40%	$903,694	$3,182,986
M5 Duplication	$1,556,176	39%	$606,614	$2,162,790
South Sydney connection	$723,116	41%	$297,081	$1,020,197
Finalisation	$1,077	34%	$588	$2,294
TOTAL	$2,706,955	41%	$1,101,248	$3,808,505

The updated estimate suggests that the identified scope of the M5 East Expansion could be delivered for $3.8 billion in 2009 dollars. Notwithstanding this, an estimated capital of the project is $40 billion in 2008 dollars has been maintained for the economic assessment. The difference represents a modest buffer against changes in scope which may occur during ongoing project development, such as:

- Changes in environmental standards during the environmental assessment, e.g. air quality requirements more stringent than those applicable to the latest Sydney road tunnels.
- Ancillary works identified as necessary during community and stakeholder consultation.

4.5 DELIVERY AND STAGING

The planning work currently being undertaken and specifically the environmental assessment allow for delivery of the project by a number of different procurement methods. The procurement options range from using a privately funded PPP contract to a fully government funded alliance contract.

Procurement via a PPP using private finance (albeit with a significant government contribution) would reduce the up front cost to Government and transfer maximum risk to the contracting party, but it would also incur a longer overall delivery time.

Procurement via a fully government funded alliance contract would reduce timeframes by enabling the early engagement of a private sector design and construction partner and progression of environmental assessment and project development in parallel with design and construction planning. Government would retain a greater proportion of risk with this approach.

The final procurement model will be selected to suit the funding arrangements.

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4.7 GOVERNANCE

Each different procurement option includes an appropriate governance model designed to create the right incentives on all parties, allocate risks to those best placed and incentivised to manage them, align ownership and leasing with risks and incentives and ensure that the ownership structure drives delivery and operational efficiencies.

It is proposed that the NSW Roads and Traffic Authority as the key stakeholder would manage the construction, operation and maintenance of the project on behalf of the Federal and NSW governments.

RTA has delivered eight significant road infrastructure projects through PPP procurement agreements over the past 20 years. This achievement demonstrates a proven capability, contractual maturity and experience which, if a PPP model is adopted, will be critical to the successful governance of this project.

It should be noted that PPP delivery policies in NSW are constantly being reviewed and improved to incorporate lessons learned on previous projects and in response to construction industry feedback, public submissions and current financial market conditions.

RTA also has an extensive track record of successful delivery of significant infrastructure projects through other procurement methods including Design and Construct, Design Construct & Maintain and alliance contracts.

5 CONCLUSION

5.1 OVERVIEW OF THE FINDINGS/DIRECTIONS

The proposed M5 East Expansion is key initiative in the NSW Government's transport planning framework *Connecting NSW. The Transport Blueprint* and supports Infrastructure Australia's theme to provide competitive international gateways. The M5 East Expansion supports this theme by providing improved land transport systems to cater for the increase in freight movement which will result from the expansion of Port Botany. The following outlines the performance of the project against national goals and strategic priorities.

5.2 PERFORMANCE AGAINST NATIONAL GOALS

- Increased economic standards of living for Australians.
  - Improves access to Port Botany and Sydney Airport.
  - Caters for existing and future transport demand in the M5 Corridor.
  - Reduces congestion in the M5 Corridor and on surrounding arterial network.
  - Improves travel times for individuals and businesses using the corridor.
  - Delivers a high quality, well-integrated and reliable transport network which supports economic development.
  - Supports the prosperity and economic productivity of Sydney as Australia's only global city.
- Environmental sustainability and reduced greenhouse gas emissions.
  - Reduces greenhouse gas emissions from vehicles.
- Better social outcomes, quality of life, and reduced social disadvantage in our regions.
  - Enhances access to health, education and leisure facilities.
  - Caters for demand for trips that are not well served by public transport.
  - Reduces congestion on the road network in the M5 Corridor and surrounding arterial network.
  - Improves travel times for individuals and businesses using the corridor.

5.3 PERFORMANCE AGAINST NATIONAL STRATEGIC PRIORITIES

5.3.1 Expand Australia's Productive Capacity

Both the M5 South West Motorway and M5 East Freeway currently play an important role in the Sydney motorway network and from a national perspective, the AusLink National Network. The two roads are key routes within the M5 Corridor and connect Sydney Airport and Port Botany with the wider Sydney road network.

The expansion of the M5 East Freeway will provide the necessary infrastructure to support the growth of Port Botany and Sydney Airport that are major contributors to the Australian economy and the intensification and agglomeration of employment lands along the M5 Corridor. In particular the proposal will result in a reduction in overall travel times and costs, not only increasing the efficiency of transportation of goods and people, as well as increasing productive capacity through:

- Removing the transport bottleneck along the M5 Corridor between Port Botany/Sydney Airport and Western Sydney that has considerable economic cost in terms of lost productivity, particularly with regards to the movement of freight.

- Improved connection between Port Botany/Sydney Airport, freight distribution centres and the National AusLink Network.
- Enabling expansion of business clusters along the corridor by encouraging trade between markets in goods, services and information.
- Linking Western Sydney (third largest economy in Australia) with Port Botany, Sydney Airport and the Sydney CBD.

5.3.2 Increase Australia's Productivity

From a productivity perspective Sydney is of national significance as it is the business hub of Australia and a leading centre in the Asia Pacific. Sydney is Australia's global city and Western Sydney is Australia's third largest economy after Sydney CBD and South East Queensland. Sydney contains 20% of Australia's population and similarly 20% of Australia's jobs. Further, Sydney accounts for almost 25% of Australia's total annual production of goods and services. Fundamental to increasing Sydney's economic productivity, competitiveness and prosperity is the efficient movement of goods and people. Continued investment across all of Sydney's transport systems is required to ensure high quality, well integrated and reliable services are delivered across the Sydney region.

Investing in infrastructure that will result in more efficient use of existing assets within the M5 Corridor will not only improve the functionality of Sydney, it will increase the productivity of Australia. This increased productivity will principally be achieved through:

- Improved transfer of freight from Port Botany and Sydney Airport to the logistic centres in the Western Sydney and beyond.
- Improved distribution of goods from the logistic centres and intermodal terminals at Enfield and Moorebank to the wider Sydney area.

The improved traffic flow will also enable:

- Better utilisation of existing land in the M4 and M7 Motorway corridors.
- Improved connections with markets between and along the corridor from Western Sydney to the CBD that will promote greater competition.
- Opportunities to utilise the corridor for installing communication infrastructure and other ancillary services.

Provision of the South Sydney connection between the M5 East Motorway and inner southern Sydney will provide increased capacity to the transport corridor and provide alternative routes during incidents and periods of heavy congestion, assisting to improve productivity.

5.3.3 Diversify Australia's Economic Capabilities

Through increased transport efficiency and improved productivity gains the M5 East Expansion will open up opportunities to encourage diversification of Australia's economy, not only goods but also in the knowledge-based services industry sector. In particular the expansion will achieve this diversification by:

- Improving connectivity between major importing centres such as Port Botany and Sydney Airport that can deliver a wide range of goods for various commercial entities.
- Improved access through reduced travel times between importing centres and growth centres such as the Western Sydney Employment Hub that has the potential to generate more than 1,000 net hectares of additional employment land and the South West Growth Centre that would help to stimulate the services economy.

5.3.4 Build on Australia's Competitive Advantage

The efficient operation of airports and ports are critical success factors for a global city like Sydney. An increase to the capacity of the M5 transport network will support Australia's global competitive advantage by improving the efficiency of access to key centres within the corridor and across broader Sydney. This will be achieved by:

- Supporting the predicted future development of Port Botany and Sydney Airport that will result in a significant growth in freight movements through the corridor and passenger movements throughout Sydney.
- Improving access by providing high quality transport links to freight distribution and warehousing centres along the M5 and M7 Corridors including the Western Sydney Employment Hub and the proposed intermodal terminals at Enfield and Moorebank.
- Improve connectivity to markets along the eastern seaboard by improving access to the National AusLink Network at the junction of the M5 Corridor with the M7 Motorway and F5 Freeway.
- Improved access from Western Sydney and Sydney Airport to the Global Economic Corridor along eastern and northern Sydney.

Potential opportunities for export of high value products may also increase utilisation of better technology and highly skilled labour force.

5.3.5 Develop Australia's Cities and Regions

The M5 East Expansion will not only relieve the existing congested travel conditions it will also cater for future demand on the corridor, between the CBD and Western Sydney as well as providing allowances for future M4 and F6 proposals. The M5 East Expansion will provide an efficient and well functioning transport network that will encourage continued growth in population and trade in and between the key centres of:

- South West Growth Centre.
- Sydney CBD.
- Western Sydney, particularly Bankstown, Moorebank, Liverpool Ingleburn, Minto and Campbelltown.

The expansion will also provide opportunities for improved:

- Public transport through and across the M5 Corridor.
- Social equity through access to jobs and services, higher property values and greater social inclusion.
- Urban form along the existing M5 Corridor and the surrounding road network.
- Employment distribution across Western Sydney and the CBD for local populations.
- Access to and from Sydney Airport, supporting Sydney as the major gateway to Australia for overseas visitors and trade.

At a more regional level, the M5 Corridor is a key route in the Auslink National Network as it provides the link between the key economic centres of the port and airport, to distribution centres in the west and south west and the AusLink National Network routes along the eastern seaboard routes, namely the F5 Freeway and Hume Highway to the south and the M7, F3 Freeway and Pacific Highway to the north. These routes not only service the other major cities of Melbourne, Brisbane and Canberra but also provide access to large regional/rural centres, adjacent to these corridors.

Key industry stakeholders such as the Sydney Airport Corporation Ltd, Sydney Chamber of Commerce, NRMA and the Greater Western Sydney Economic Development Board all provide in principle support of the M5 East Expansion in improving Sydney's transport network and supporting the growth of Sydney's surrounding regions.

5.3.6 Reduce Greenhouse Gas Emissions

One of the primary objectives of the M5 East Expansion is the delivery of a sustainable transport system that minimises its environmental cost, and contributes to the reduction of greenhouse gas emissions.

Congestion has the potential to double the output of greenhouse gas emissions from a stream of vehicle traffic. Thereby removing the existing congestion problem, the M5 East Expansion aims to reduce vehicular greenhouse gas emissions, particularly from heavy vehicles by:

- Improving road conditions and minimising the potential for crashes that lead to unexpected congestion.
- Improving network reliability allowing freight and people to get to destinations on time.
- Facilitating freer flowing traffic conditions along the M5 Corridor.
- Improving traffic flow along the M5 Corridor.
- Improving conditions for increased public transport usage through bus patronage.
- Reducing the gradient of the road surface.
- Supporting the intensification of employment and residential lands with the M5 Corridor.

The M5 East Expansion also provides greater opportunities for promoting pedestrian and cycle facilities along the M5 Corridor that contribute towards greenhouse gas reduction. The preferred option includes the provision of an amplified share path along the northern side, as well as new underpasses at King George's Road improving the efficiency of the existing pathway.

In addition to reducing vehicular emissions, a number of measures to minimise construction and operational greenhouse gas emissions will be investigated during the design of the M5 East Expansion, these include:

- Use of renewable energy sources for lighting and ventilation.
- Use of materials with recycled content, in particular steel and cement.
- Use of energy efficient lighting fixtures for tunnel lumination.
- Design of the tunnel configuration to minimise excavation and spoil removal (ie reduce fuel usage from vehicular movements and equipment usage).

These measures will also be complimented with the incorporation of low emission targets and policies into project planning and delivery.

5.3.7 Improve Social Equity and Quality of Life in Australia's Cities and Regions

Two of the primary objectives of the M5 East Expansion are to provide better and more equitable access to key centres and activities, as well as contribute to the improvement of quality of life for people in Sydney.

As a result of the M5 East Expansion, improved community wellbeing is anticipated as motorists will receive travel time benefits from the expanded capacity. Overall, approximately $6 billion of travel time savings over the 30 year assessment period that would be achieved as a result of the proposed improvements.

More specifically, the following significant benefits are anticipated that will improve the social capital and quality of life along the M5 Corridor and the greater region:

- Reducing noise and improving air quality due to the reduced congestion.
- Catering for the predicted increase in transport demand through the corridor will reduce the potential for encroachment of vehicles onto the surrounding surface arterial road network, particularly heavy vehicles.
- Travel time savings and reliability for transport on the corridor will result in health and well-being benefits for local and regional transport users.

- Maintaining current access to local business on the surrounding arterial road network.
- Increasing opportunity for promoting pedestrian and cycle facilities in the corridor that would enhance healthy lifestyles and reduce car dependence.
- Lowering vehicle operating costs from less stop start and better flow that would assist in reducing vulnerability to changes in oil prices and other living expenses.
- Lowering crash rates on freeway conditions.
- Increasing labour force productivity and participation.
- Improved accessibility and connectivity between residential areas and centres of community/leisure activity such as the eastern and southern beaches, public open space and educational and health facilities.
- Increasing access for residents of southern and south western Sydney to higher value employment centres around Sydney Airport, Port Botany, Sydney CBD, North Sydney, Chatswood and Macquarie Park.

Assisting the rail network that is currently at capacity during peak periods and increasing the mix of transport options available.