



PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Midland Highway Safety Upgrade – Perth Link Roads

*Presented to Her Excellency the Governor pursuant to the provisions of the
Public Works Committee Act 1914.*

MEMBERS OF THE COMMITTEE

Legislative Council

Mr Farrell
Mr Valentine

House of Assembly

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Mr Llewellyn
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1 INTRODUCTION

To Her Excellency Professor the Honourable Kate Warner AC, Governor in and over the State of Tasmania and its Dependencies in the Commonwealth of Australia.

MAY IT PLEASE YOUR EXCELLENCY

The Committee has investigated the following proposal:-

Midland Highway Safety Upgrade – Perth Link Roads

and now has the honour to present the Report to Your Excellency in accordance with the Public Works Committee Act 1914 (the Act).

2 BACKGROUND

- 2.1 This reference recommended the Committee approve upgrade works to realign the Midland Highway around Perth and provide a new connection to Illawarra Main Road.
- 2.2 The Midland Highway Safety Upgrade – Perth Link Roads project is a component of the *Midland Highway Strategic 10 Year Action Plan*, a 10-year plan with a commitment of a total of \$500 million from Australian and Tasmanian Governments to upgrade the Midland Highway.
- 2.3 The *AusRAP Star Rating Australia's National Network of Highways 2013* report found that the majority of the Midland Highway rated either only 1 or 2-star, in its 5-star safety rating scale. The key objectives of Tasmania's 10 Year Action Plan are to undertake safety improvements to provide a minimum of a 3 star AusRAP rating for the entire length of the Midland Highway, integrated with additional overtaking opportunities and a staged approach to capacity improvements.
- 2.4 The Midland Highway through Perth is a critical freight connection providing access from the southern region to the State's northern ports. It is also the major passenger transport link between the north-west, northern and southern region. The Highway also provides a commuter link for Perth and Longford residents to and from Launceston.
- 2.5 However the Midland Highway currently passes through the centre of Perth and has continuous commercial and residential accesses, frequent cross-street intersections, a relatively restricted cross section due to on-street parking and 40 km/h (school times), 50 km/h and 60 km/h speed limits. A level railway crossing with the major rail line between Western Junction and the North West is located within the 60 km/h speed limit at the northern end of the town.
- 2.6 There is also a connection from the Midland Highway to the Bass Highway in Perth, via Illawarra Main Road and Drummond Street. These roads are both two-lane single carriageway roads with a high number of direct property accesses, road intersections and an at grade rail crossing. Illawarra Main Road is part of the

National Land Transport Network and provides the link from the Midland Highway to Bass Highway for freight and passenger vehicles travelling between the north-west and south of Tasmania. As the majority of interstate and international freight moves through the two north-west ports (Burnie and Devonport), Illawarra Main Road is critical for freight.

- 2.7 Youl Main Road is also part of the Perth street network, contains numerous accesses to residences along its length and has speed limits of 60 km/h and 70 km/h accordingly. During periods of high rainfall, it is prone to intermittent minor flooding. Youl Main Road also provides a key linkage for vehicles travelling to Launceston from areas to the west of Perth.
- 2.8 The Midland Highway through Perth and the Drummond Street connection to Illawarra Main Road do not meet National Land Transport Network standards and are deficient in terms of current and future productivity needs. There are a relatively high number of direct residential accesses and street intersections, and two railway crossings. A large proportion of the crashes observed within the existing road network in the past 5 years have been associated with the high number of intersections, private accesses and commercial development. Overall, the Perth road network is deemed to be substandard and residents suffer amenity and safety impacts from traffic, particularly from heavy vehicles throughout the day and night.
- 2.9 Traffic volumes on these roads, in particular freight, are also forecast to increase significantly. Without the Perth Link Roads project, there will be significantly increased volumes of heavy vehicles on an already constrained section of road.
- 2.10 To alleviate these identified deficiencies, the Perth Link Roads project will realign the Midland Highway around Perth and provide a new connection to Illawarra Main Road.
- 2.11 The project involves construction of three new junctions and a 5 km road to move traffic from the existing Midland Highway to west of Perth on the new link road.
- 2.12 The Perth Link Roads includes two distinct sections of dual carriageway:
 - Southern Link - South Esk River Bridge to Illawarra Main Road; and
 - Western Link - Illawarra Main Road to the beginning of the Perth-Breadalbane duplication.
- 2.13 The Western Link aims to remove most of the vehicles currently using Youl Main Road, the majority of traffic travelling through Perth onto the Midland Highway, and remove a level railway crossing from the National Land Transport Network (the level crossing will still exist, but only crosses the local road).
- 2.14 The Southern Link aims to shift most of the vehicles currently using Drummond Street to the new road, along with vehicles from the existing Midland Highway through Perth.
- 2.15 Access to Perth and other destinations will be provided for in one of the three junctions. The three junctions proposed are:

- Southern Roundabout – a roundabout at the southern entrance to Perth, including local access for Eskleigh and other properties to the south of the Link Roads
 - Western Service Interchange – a grade-separated service interchange between the new junction of Illawarra Main Road and the Link Roads (Midland Highway), including on and off ramps for vehicles travelling between the north-west and south
 - Northern Interchange – a grade separated interchange, with two roundabouts to provide access from the Midland Highway to the north of Perth
- 2.16 The design also includes a pedestrian and cycle path from Drummond Street to Illawarra Main Road, which incorporates an underpass to separate pedestrians and cyclists from the new dual carriageway.
- 2.17 Once completed, the Perth Link Roads will provide a limited access 110 km/h road corridor with overtaking opportunities, thereby achieving a 4-star AusRAP rating. It will remove significant volumes of traffic from the middle of Perth and will substantially improve amenity and safety for the Perth community and road users. It will also provide for more efficient movement of inter-regional traffic, including freight, between the south, north and north-west.

3 PROJECT COSTS

3.1 Pursuant to the Message from Her Excellency the Governor-in-Council, the estimated cost of the work is \$75-84 million.

Cost Item	Estimated Value
Development Phase costs (including design, application fees and project management)	\$3,673,739
Property Acquisition (estimated value, final value subject to Valuer-General's determinations)	\$2,120,000
Delivery Phase costs (including contract management, project management, and insurance costs)	\$4,500,439
Estimated construction contract costs, including: <ul style="list-style-type: none"> • Earthworks • Drainage • Pavements • Bituminous surfacing • Bridge structures • Traffic facilities • Landscaping • Other miscellaneous project-specific costs 	\$61,124,815
State Growth supplied construction costs, including: <ul style="list-style-type: none"> • Services relocations • Street lighting • Reseal of pavements 	\$1,735,000
Expected contingency on base estimate outlined above (P50) plus Escalation	\$7,407,185
Expected project out-turn cost (P50)	\$80,562,000

The above is based on the contingency required to provide a P50 level of confidence in the cost estimate. The equivalent project out-turn cost for a P90 level of confidence is \$92,321,000.

The design and estimate have progressed since an initial cost estimate was provided in March. The estimate has increased due to refinement of civil works quantities and rates, contingent risks and scope.

4 EVIDENCE

4.1 The Committee commenced its inquiry on Thursday, 3 August last with an inspection of the site of the proposed works. The Committee then returned to the Perth Community Centre, Perth, whereupon the following witnesses appeared, made the Statutory Declaration and were examined by the Committee in public:-

- Ted Ross, Project Director, Department of State Growth;
- Craig Tarbotton, Project Manager, Department of State Growth;
- Greg McGuire, GHD Design Project Manager;
- John Stagg;
- Alf Waters, Secretary, Tasmanian Truck Owners Association;
- Des Taylor, Vice-President, Tasmanian Truck Owners Association;
- Anthony Brown;
- Dick Adams; and
- Dee Alty.

Overview

4.2 Mr Tarbotton provided an overview of the proposed works and the factors that had influenced the proposed design:

The Perth link roads project we are here to discuss is the follow-on stage, if you like, of our stage 1 project - the Perth to Breadalbane. The Perth link roads is a critical project for the Department. It is a part of a greater or broader Midland Highway program upgrade. It connects two legs of a national highway - that is the Illawarra Road and the Midland Highway. The focus of the project is to ensure and maintain transport efficiency and road safety for vehicles travelling upon that. The focus is for the heavy vehicles coming from the ports in the north-west to connect to the ports in the south. That is for transport efficiency and, of course, for motorist safety. From a road design perspective, the project essentially consists of a dual carriageway separated by a median with a flexible wire-rope safety barrier down the centre.

It is a typical cross-section all of the Midland Highway projects, or majority of them, will adopt for the median and the 2-metre wide sealed shoulders. Other elements of the Midland Highway per se may have a 2 + 1 configuration, whereas this project is a dual carriageway. The project consists of three interchanges, if you like. We have a roundabout system at the south connecting to Perth. We then have the western change, which is our major interchange, allowing connection to the Illawarra Road heading towards the west. The highway then heads north and we have a third interchange system consisting of roundabouts, allowing access back into Perth and continuing north to Launceston.

.....Throughout the design process we undertook a number of design iterations or considerations, if you like. The objective of the project is to connect the two ports - one of the key objectives is obviously to connect ports - positioned up in the north-west with our southern ports. That drove us to look at connecting back into Illawarra. At the same time we recognised that there is a significant transport route between south and Launceston, so,

again, we had to maintain that as well. The focus of the design is actually a north-south orientation - that is, Hobart to Launceston - however, the western interchange, that system interchange, allows full connectivity into Illawarra at a high speed so there is no loss of functionality or quality, if you like, if you come from the south going to Illawarra.

That has been a driving impetus for this alignment.

Southern Roundabout and South Esk River Bridge

4.3 The Committee noted there were some concerns from public witnesses (i.e. those not representing the Department of State Growth) about the southern extent of the works. These concerns primarily related to:

- Integration of the Southern Roundabout and the South Esk River Bridge;
- The need for a new dual carriageway South Esk River Bridge; and
- Accessing Perth from the south via the Southern Roundabout rather than via an overpass or grade separated interchange

4.4 The Committee noted the concerns regarding the integration of the Southern Roundabout with the South Esk River Bridge. Some witnesses questioned why the dual carriageway could not be continued past the Southern roundabout, connecting to a new dual carriageway bridge.

Mr WATERS - ... The South Esk River Bridge was another complaint. B-doubles - locking in your 60- and 65-ton range going around, say, this roundabout here - you are coming off the dual highway into this roundabout across that bridge. That really concerned us. Listening to what the committee fellas just said a while back, this plan has been on the go since 1986. Well, if it was developed in 1986, why haven't we got a bridge catered for by now to take the dual lane all the way to Hobart? And now this is what we have.

Mr BROWN - If a new bridge is being planned in so many years' time, will this roundabout be aligned in such a way that major delays will not occur in the next stage of redoing the road? In the stage being done at the moment, had they built the next bridge along in that stage, there would be fewer delays to traffic and motorists going along when that is being done up again. At the moment we are sitting through 5 kilometres of roadworks that are slowing everybody down. When the next stage starts, on the brand-new bit of highway, we are going to be back into roadworks instead of having that extended further into the paddocks so the roadworks are out of the motorists' way.

4.5 Mr Brown also suggested that having traffic merge from a dual carriageway to a single lane before the Southern Roundabout had the potential to create a bottleneck causing traffic congestion:

.....will a single lane roundabout be able to accommodate that? Will we have a problem such as that at Hobart Airport where, in rush hours, you have traffic backed up the road for 2 kilometres? The only way to fix that is to get traffic merging beyond the roundabout. You cannot have traffic merging at a roundabout; it does not work. You get a backlog because many people are not good drivers and will stop eventually in high volumes of traffic.

4.6 The Committee sought further information on the South Esk River Bridge and why it was not being upgraded to a dual carriageway bridge as part of this project. Mr Ross noted that traffic volumes did not warrant construction of a new, dual carriageway bridge. Mr Ross also noted that to undertake such works now would

have a significant impact on what could be achieved with the remaining Midland Highway upgrades to be undertaken with the funding available under the Midland Highway Action Plan, especially as the bridge still had 30 years of life remaining :

Mr VALENTINE - There was one other aspect about the South Esk River Bridge - considerations of the size of that and whatever. The score there is that that has another 15 to 30 years' life?

Mr TARBOTTON - I mean that is a slightly subjective evaluation. The bridge was constructed probably in the early 70s. We're saying there's 30 years of life left in that bridge at the moment, at which point we will start to consider the -

Mr VALENTINE - As to what you do with it?

Mr TARBOTTON - Correct.

CHAIR - Importantly, I understand - and I'd like to get this on the record - that the bridge was built for a slower speed. It was not built for a 110 kilometre speed? Is that correct? For large trucks?

Mr TARBOTTON - Correct. It's not that it wasn't built for that; it is posted at 60 because there are slight concerns for the bridge, if you like. It is better to be at 60 for motorists' safety.

CHAIR - I understand from the Breadalbane project that it was discussed that there were some projections in terms of traffic flow, as we do for the highway projects, that indicated... .. the traffic flow across that bridge space aligns similarly with when it will need replacing to increase to four lanes? Am I remembering that correctly or not?

Mr ROSS - I guess the philosophy around the project is the Department has made a commitment that, especially off the end of a dual carriageway - so the Perth to Breadalbane is a dual carriageway - and we have extended that dual carriageway as far as the township of Perth. As you get south of Perth, there is a significant drop off of the traffic volumes and it does not warrant a dual carriageway anymore. As you go south of the South Esk River, you then get into the 2 + 1-type arrangement.

We have made sure that there is dual carriageway through this project to manage the traffic volumes generated within Perth and north, and then as you head south, the traffic volumes, as I said, drop off and it does not currently warrant a dual carriageway. In a way that also fits in with the future review of the bridge - in 30 years' time, you will see how many lanes you would install and what sort of junction configuration you may have in the future at the southern end.

Mr ROSS - About the bridge: to build on our evidence as to why the Department does not consider that as a priority project, the Midland Highway is a \$500 million project, of which the \$80 million Perth link road project is our most significant project. If the Department were to spend a significant amount of money realigning and replacing the bridge, that would take away from the priority of actually fixing other areas as part of the Midland Highway Action Plan. We would have to remove areas that have already been communicated and committed to as part of that action plan between Perth and Hobart.

4.7 The Committee noted some of the public witnesses also raised concerns on the southern access to Perth via the Southern Roundabout. It was suggested that an overpass would be a more appropriate means of providing the southern access to Perth:

Mr BROWN - They have already referred to the other stuff in respect of the roundabout at the southern end. I do not think it is a good idea. You are slowing everybody down for a few people entering and exiting that intersection. At the end of the day 90 per cent of the traffic will head north - probably 80 per cent actually - because Longford traffic will have to

go south if they live around the area, but a lot of the traffic will go north. In some of the original drawings - I am not sure when they were - they had an overpass drawn into the things and at some point that has been cut out. I am hearing that is because of the reduced speed limit on that bridge.

Why do we have to slow everybody down using a roundabout?..... Why is it not an overpass anymore? That is my biggest question.

... .. If there is a roundabout there, why is there not more roundabouts down the highway? You are saying it is a safety issue to have the roundabout. Why is there not one at Leylands Road where just as much traffic goes out to Western Junction? You do not have them at Ross or anywhere down the Bass Highway - they all have overpasses. In the past you did not build roundabouts to get into towns, you built overpasses and did it properly the first time.

- 4.8 The Committee sought further details from the Department's witnesses on the rationale behind the inclusion of the Southern Roundabout rather than other options:

CHAIR - In regard to that, near the South Esk River, the placement of the roundabout, the size of the roundabout and the need to slow traffic. Could we have some discussion on that please?

Mr McGuire - Yes, it certainly has been discussed. The slowing of traffic, as we have said, from a dual carriageway highway down through that highway and onto the existing bridge is an important safety consideration. The slowing will be generally controlled through a speed limit implementation and obviously significant signage and management of information to the driving public through that system. The roundabout itself has been employed as an appropriate traffic management device for a couple of reasons as we touched on - providing that connectivity into Perth at the southern end of the project as well as slowing vehicles down before they hit that South Esk River bridge and the alignment just beyond the bridge, which is also below a 100 kilometre per hour standard. The slowing of the vehicles will be managed through signage and regulation through to the roundabout and the actual road geometry will manage the speed of vehicles through that small section.

CHAIR - The size of the roundabout is about the same size as the existing Longford roundabout. Is that right?

Mr McGuire - Thereabouts - it is potentially a little larger. The vehicles that we have allowed to run through the roundabout are the designated high-productivity vehicles. For vehicles remaining on the highway, we are allowing up to B-triple level and then for vehicles accessing Perth or our test area, B-double access. Quite high-productivity vehicles will be able to traverse that roundabout without any trouble.

- 4.9 Mr Ross indicated that other options for providing access to the south of Perth were considered but ultimately the Southern Roundabout provided the best solution. Mr Ross noted that providing access to Perth was not the only matter the Department had to consider when planning the southern end of the works. Other considerations included the risk of accidents, constraints presented by the South Esk River Bridge and the potential impacts the works would have on any future upgrade of the highway and bridge:

Mr Ross - Some questions were around why we placed the roundabout and whether we considered other treatments at that location. Early on we considered a right-hand turn slot, similar to what we have down the highway for Oatlands, Ross and other townships. They do not have the same large traffic volumes entering and exiting as this location. The roundabout performs quite well with higher traffic volumes of 10 000 to 15 000 vehicles.

Mr McGuire - That is much closer to the mark.

CHAIR - As opposed to the 1800 to which Mr Brown referred.

Mr McGuire - Generally you would expect about 10 000 a day.

Mr Ross - A right-hand turn slot at that location with vehicles having to cross over in front of another vehicle will have a higher chance of severe accidents. Where the angles of vehicles are more deflective, the severity of the type of crashes that happen with a roundabout are significantly reduced. It also provides for the connectivity into Perth as well as acting as a natural slowing down of vehicles for the bridge. We chose that roundabout because a number of considerations are at play there. It is not just to provide access to Perth residents.

We looked at different designs. In terms of the future constructions, we looked at the alignment of a future bridge. That is also one reason we used roundabout construction. If we installed a grade separated interchange at that location and then the new bridge changed that alignment, you would effectively have a grade separated interchange in the wrong location. You would have a bridge in the middle of nowhere, which would be a significant cost, as opposed to a roundabout construction, which is less cost. If you have to realign a roundabout in 30 years' time, it would be better than having to realign a whole new bridge-type construction.

CHAIR - Can you address the overpass issue? Why not have an overpass?

Mr Ross - If you installed an overpass at that location, you would have to build significant infrastructure that could in the future be in the wrong alignment and would almost require rebuilding. So you could spend \$3 million to \$4 million, for example, building an interchange at that location, but when you come to replace the bridge in the future, which might be downstream, you would have to relocate that interchange and the overpass structure at the same time.

Connectivity Between Local Communities

4.10 The Committee noted the long-standing community links between the Perth and Longford townships. The Committee was aware that there was some community concern that the proposed works would diminish the connectivity between local communities, and supported a direct link being via Illawarra Road. Mr Adams and Ms Alty raised these concerns with the Committee at the public hearing:

Mr Adams - The Longford-Cressy-Bishopsbourne outer area is pretty large; it has large farming communities and lots of industrial/rural pursuits and a lot of employment now within that area. An enormous amount, probably more than what you see. On the other side of Cressy, there is quite an enormous rural presence. There is an abattoir out there, a fish farm, which has doubled in recent times, and the grass seed industry has a large production out there. It has many other industries, such as dairy farming, which is set to increase with the irrigation taking place in those regions.

These communities have been connected with Perth through local roads since the 1820s and 1830s.

.... With these major bypasses of other communities in this area - Deloraine, Westbury and then Brighton, the most recent - I believe the continued connection of local roading has always been considered and built on. My friend on my left mentioned about overpasses. You will see that Brighton that Tea Tree, Old Beach and other communities in the region continued to be linked into Brighton when the highway has gone through; the same applies with Westbury and with Deloraine as the one prior to that. Somehow here there has been this consideration you cannot have this continued link with Illawarra Road by having the highway go across the top.

.... My main submission, as I said, is about continuing to keep communities together. Everything points to that. All the evidence says we should keep our communities together, interlinked - putting people from an area onto a national highway then driving off it again

and back in. Those communities are connected through family ties and sporting connections. I understand Mr Stagg has just given you evidence. Every time Mr Stagg has lobbied me, it has always been in the best interests of the Department. The continuation of taking people into Kings Meadows to do their shopping might be what some people consider is the connection. The connectivity is enormous between family ties, sporting and community. That should be able to continue through local connections.

I do not know what happened to the concept of the large roundabout, which would have been one engineering solution that could have solved all the problems. I have never received a proper argument about why the highway could not go over Illawarra Road, with Illawarra Road staying exactly as it is now and continuing into Perth.

Ms ALTY - I have a little bit more to add than what Dick has said. I represent the Business and Tourism Association of Longford, but I also regularly meet with nine elderly women who live in Perth who also put in an objection to the original proposal when it was first mooted. They still have concern. It is to do with the link between Perth and Longford. A lot of older women do not feel comfortable driving on highways. They tend to use the local roads wherever they can because they feel more confident in not having to deal with trucks and fast cars. I can understand that, being also a regular driver backwards and forwards from Longford and surrounds.

That link is very important. As Dick pointed out, with the roads all the way around, even up to the Devon Hills Road, it is important to be able to have those local links, as Oatlands, Westbury and various others do, where the major roads have gone through.

4.11 Mr Stagg had an alternate view, and did not support retaining a direct link with Illawarra Road. Mr Stagg noted:

.....I was a member of the 1999 bypass consultation group run by Johnstone McGee and Gandy. It was an exhaustive process that ran over four days.One thing they did can very early in the piece, and their later drawings never showed anything on it, was the link road off Illawarra Road. It was deemed back then not to be viable, so I really had some concerns when it showed up originally in the plans.

Some people - not as many as people would make out - but wanted this link road. I think if it did go ahead, it would be a complete disaster. One reason for that is that Perth people nowadays are more aligned to Kings Meadows than Longford with shopping, everything. Perth people go to Kings Meadows.

Another reason is that the Northern Midlands Council has passed its Perth structure plan which allows for 605 new dwellings in the west Perth area. If that were the case over a period of years, that would double the population of Perth. Why would you have a reasonably busy link road entering right in your highest population area of Perth? Common sense tells you they come in on each end of the main street and then traffic diverts off the main street to the various locations they want to go to in Perth.

4.12 Mr Ross confirmed that the desire to retain local connectivity was an important influence on the project design. Mr Ross also noted the Department had worked with the local community to retain connectivity while still addressing the key objectives of improved safety and transport efficiency:

Mr VALENTINE - Looking at the maps and the issue of local access at the Illawarra Road interchange - 68 per cent of respondents not wanting local access at Illawarra Road interchange and 32 per cent in favour. It is the fact that they are not getting local access at Illawarra, is that correct?

Mr ROSS - The Department has worked very closely with the community in regards to the development of this proposal. We have undertaken a number of public displays to engage the concerns and interests of the community. At the Illawarra interchange, I guess people's

concerns and the concerns raised by the community are around the connectivity between Perth and Longford. There is a very important social connection between Perth and Longford. A lot of people live in Perth and work in Longford and people who live in Perth access a lot of services in Longford.

The project has managed by making sure that the connectivity through the southern and the northern interchanges is maintained. There is still access. The concern, especially from some of the residents in west Perth, is that by having to actually travel back to the south and north ends of Perth there is some additional travel time. The Department recognises that additional travel time, but I guess it is offset by some of the other aspects that we have said around improved amenity for the residents in that area and the improvements in safety around some of the junctions.

In general also it is a direction of the flow off the highway onto the main road, which is important for business and also for direction. It also came back to the Illawarra junction. The concerns around trying to put in local access were that it would take away from the functionality of having a high-speed system interchange and would create confusion for drivers and make it less safe. It is very important and I think the project has done a good job in addressing the concerns of those residents to make sure that we still have a very good connection between Perth and Longford. It is very important that is maintained. We have also demonstrated that through the development of the cycleway and footpath, which we see in the future could be extended all the way. Again, it is the importance of the connection between the Perth community and the Longford community.

Mr ROSS -I do not think I have a significant amount more to add on the connectivity of the project because I think we have worked so hard to work with the community. Between Perth and Longford, the project has delivered on those outcomes.

The project is definitely not to create a new road between Perth and Longford. There is an existing road, Illawarra Road, between Perth and Longford. As part of this project, we are trying to make that road safer and improve its connectivity with Perth and with the highways.

I acknowledge many residents are concerned that over a longer period of time the traffic on that highway has increased and the number of heavy vehicles on Illawarra Road has also increased. That is why the Department is having to invest in this highway - to improve and make it safer for the community and more efficient for vehicles and connection with communities and landowners. There is very much a balance between doing those things as part of what we are trying to do in this project.

Over-engineering Concerns

4.13 Some public witnesses expressed concerns that the project was being over-engineered, and that some of the proposed works were excessive or unnecessary:

Mr ADAMS -There are other considerations of the over-engineering, of having two roundabouts, one as you come off the bridge and another one on the northern end of Perth to connect Perth. People are finding it difficult to understand why.

Ms ALTY -I repeat what was mentioned about the over-engineering of the roads. I have lived in Tasmania now for 40-something years and during that time, our population has not grown hugely. It has grown gradually and the roads we have been getting bit by bit have been adequate for the general growth of population. I feel that up here we have a situation

where we are dealing with another 100 years, not another 10 years. The volume is not growing any larger.

... .. The bit around Perth is really over the top for what we need at the moment.

... .. My concern is that maybe we are trying to crack a nut with a mallet because I do not think we need that much concern at the moment. It should be done gradually.

- 4.14 Ms Alty also questioned the need to meet national road standards. Her view was that it did not appear that these standards were being met elsewhere along the Midland Highway, and as such, there was no need to do so in the Perth Link Roads project:

... .. My other worry is about the national highway standards. I understand, from when I was originally dealing with something when the roads around Deloraine were being done, that they have to have certain things. They had to have the distance and the road separation and so on. It also did not have any people going in and out, off the road. It had to be on a side road.

There are a lot of things. If you look at the Midland Highway, a whole pile of people come in and off little roads. It strikes me that this is not the national highway standards anywhere along there, so why do we have to deal with it here? There is no reason why we cannot have the local roads interfacing with whatever road structure they desire to put.

- 4.15 The Committee put these concerns to the Department's witnesses. They noted that the aim was to increase the AusRAP star rating of the Midland Highway from the existing standard of 1 to 2 stars, to a minimum of 3 stars, and that the project was the best that could be achieved within budget constraints:

CHAIR - Part of Dee's question was whether the other work done on the Midland Highway targets national highway standards and has that work met those standards.

Mr ROSS - Yes. Fundamentally, what we have done on this project is to achieve that cross section we are talking about, which is 2-metre shoulders, 3.5-metre lanes and 2.1-metre median with a wire rope down the middle, ensuring we have that 7-metre width and are achieving the higher speed alignment. All those things that are a consideration - making sure we have overtaking opportunities every 3 to 5 kilometres, focusing on ensuring that heavy vehicles have climbing lanes, improving safety and working with landowners around accesses.

CHAIR - Reducing the number of accesses?

Mr ROSS - We are consolidating accesses and making sure they are safe.

Mr TARBOTTON - To support Ted, as an example, the current Midland Highway, excluding our works, has an AusRAP star rating of approximately 1 to 2, and the AusRAP star rating goes to 5. Our goal for the Midland Highway is a minimum of 3, so we are taking the existing standard, which is 1 to 2, up to 3. There will always be budget constraints, and we achieve that through the cross section Ted just mentioned. We are increasing and achieving national standards.

Mr VALENTINE - It is not over-engineering?

Mr TARBOTTON - It is the best engineering we can afford within our budget. It is not over-engineering.

- 4.16 Mr Adams and Ms Alty also suggested a large roundabout would be a better option than the Western Service Interchange, and would promote continued connectivity with Longford:

Mr ADAMS - There was one proposal some years ago to bypass Perth by having a very large roundabout somewhere on the western side of Perth... .. but there are places in the

world where enormous roundabouts exist and take a lot more traffic than will ever pass Perth - to deal with our trucking industry and all the travelling public. That idea somehow has been totally dismissed, and it hasn't come on.

... ..I do not know what happened to the concept of the large roundabout, which would have been one engineering solution that could have solved all the problems. I have never received a proper argument about why the highway could not go over Illawarra Road, with Illawarra Road staying exactly as it is now and continuing into Perth.

Ms ALTY - The bigger roundabout suggested for the bottom, so it can curve off onto the Illawarra Road at some later point, would be a lot better. I cannot see the big picture from what happens after Pateena Road because they say it is beyond their brief. That is going to lock Longford people into their town because if all this traffic is getting to Pateena Road and going to that roundabout, we are not going to get out of Longford very easily because of all the trucks going around this roundabout.

- 4.17 Mr Ross responded to these concerns, noting that the location and design of the interchange had been influenced by a number of project and land-owner constraints:

Mr ROSS - That is part of the second set of comments. As well as constraints we have mentioned working with on this project, there are also the constraints of the landowners. Some landowners have, for example, significant pivot irrigators and other things. We have attempted to limit our impact on adjoining landowners by working with them. There are substantial businesses and there is substantial employment by those businesses. Especially in that area, we have been constrained somewhat by the structure plan of Perth and also by the operation of landowners around us. That is why, with the alignment, we are largely fixed on building the road around those.

CHAIR - Specifically about the interchange?

Mr ROSS - That is around the Illawarra interchange. If you were to replace that interchange with a really large roundabout, it might go further west from where it is, and you can see you would start to impact on the farms.

Road Surface

- 4.18 Mr Brown noted that he had worked on the Perth to Breadalbane project and raised concerns about the deterioration of the road surface on this section of the highway. Mr Brown suggested that hot mix (asphalt) may be a better road surface sealing option:

... ..It is most likely that I will be working on this coming project. I am working on the current project and a lot of other projects around the area. I am also a road user. I am going to be using that road every day pretty well for the rest of my life. I have couple of concerns. I do not like spray seal - you can already see what it is doing up at the last thing, and is probably going to do it on the other projects. For the cost difference to hot mix, I am not sure of the exact numbers on it, but I know that it is not even double the price to put in. In the scheme of things, for only a sealing thing, it is not that much of a cost on the whole road.

- 4.19 Mr Ross noted there was a substantial difference in cost between spray seal and asphalt. However, Mr Ross noted that this was not the only reason the Department required contractors to use spray seal; the aggregate used in spray seal provided a safer road environment:

... .. To answer questions about the spray seal: there is quite a substantial cost difference between spray seals and asphalt, but that is not the only reason the Department stipulates spray sealing. A key reason we stipulate using a large - 14-millimetre - stone size is to provide more friction and grip on the road, which reduces the likelihood of crashes in very frosty and icy conditions, such as occurred this morning. That's why we use spray seal, as well as it being a very cost-efficient surface.

- 4.20 Mr Ross did however acknowledge there had been some issues with spray seal on a number of projects, with contractors required to rectify any defects. Mr Ross also noted that while the Department was disappointed that this was occurring, it did not represent a major risk:

Mr ROSS - I acknowledge there have been some issues recently in regard to the quality. We are working with the contractors on that. We are not happy with some of the failures, for example, that have happened recently on the Perth to Breadalbane section. We are certainly making sure the contractors fix that as part of our contract with them.

... .. Where some of those defects have occurred, the contractors responsible have had to go back and fix them at their cost. I acknowledge there are some issues with that. We are working with the industry to rectify those issues.

Mr VALENTINE - That has been happening a lot over the last few years. Is it a lack of experience with some of these companies? Is there a workshop situation to be able to work through the way they are going about this? I have talked about this before - here, at Forcett and other locations across the state, it seems the top aggregate is being stripped off the tarmac. Is it just their technique?

Mr ROSS - It is a complex procedure to undertake, but while the result of failures you see look dramatic, they are not as significant as they seem. Some of the stripping on the Perth to Breadalbane section can be easily rectified. The problem is you cannot spray seal during the colder temperatures. The inability to be able to fix it straight away is one of the issues more than it being a big problem.

Accommodating Trucks and Large Vehicles on the Midland Highway

- 4.21 A number of concerns were raised that the road cross-section employed in Midland Highway upgrades did not properly cater for trucks and other large vehicles.

- 4.22 Mr Taylor commented that the new highway cross-section was not sufficient to cater for over-size loads, which was acting as a constraint on firms tendering for work:

Mr TAYLOR - What we are seeing is from projects past and currently being worked on, particularly with the two one-lane configuration, is that there seems to be - and I can be corrected - a limited amount of space for over-dimensional loads. We can also put into that bracket oversize farm machinery, whether tractors, combines, harvesters et cetera. In the interests of safety and the design of the road structure, there now seems to be a lack of areas where slow vehicles can be accommodated - as in slow in movement or in size where they can pull off the road and let traffic flow and thus improve safety through limiting frustrations.

With the oversized dimensional load aspect, we have three roundabouts in this particular project so it becomes of some concern with limited information as far as dimensionals go, nor do we know what the size of the oversize load might be in the future.

We have come across a situation - or it is an observation - where we have an engineering works in Western Junction. It is doing fine work exporting oversize, over-dimensional loads interstate. I am not speaking for the company itself, but all I am saying from the aspect is we used to have a large engineering amount of works going on at Bell Bay, but that became restricted from road access because the railway line limited access for vehicles that travelled on there. So we cut out engineering aspect in future employment in that area. When we move onto whether engineering firms in Tasmania can tender and compete for national contracts, obviously the road system is largely responsible whether the contract can be fulfilled or not.

4.23 The Committee questioned Mr Taylor further on the impact of these constraints:

Mr VALENTINE - I am interested in the fences - the median fence or barrier and the barrier on the edge of the road. You talk about large loads and manufacturing and all the rest of it - do they ever present a problem, the height of those? Are they ever an issue for you?

Mr TAYLOR - It can be. Consequently the transport sector now - it depends on the shape of the load - has devised hydraulic platforms that can raise themselves above these barriers. Again, that all depends on the stability of the vehicle et cetera. Every over-dimensional load has different characteristics in its own right.

Mr VALENTINE - Are you aware of any major issues in relation to these sorts of things in the past where it has really been a show stopper?

Mr TAYLOR - It has been a showstopper in the respect that we cannot contract or tender because of the road access ability.

4.24 Mr Taylor also expressed a view that the Midland Highway upgrades in general do not provide sufficient areas for slow vehicles to pull over to allow traffic to pass and there are not enough places for trucks or tourists to stop and pull over:

All in the same vein as this is that we are talking about tourism. We are pretty big on tourism in Tasmania. People who are bringing caravans and motorhomes, or even hiring motorhomes in the state, need to have somewhere to move off and sightsee. If you are going down the highway, for instance, it is designed for through travel. Our highway is a clearway - near enough to clearway status - because there is nowhere to pull over.

4.25 Mr Waters also noted the there was a lack of truck stops included in the proposed works:

Mr WATERS - One thing we have not seen in this project is truck stops. There are no truck stops in here whatsoever for trucks to get right off the road. This often comes up in our meetings. When Premier Paul Lennon was about, it was right on the cards to have decent truck stops well off the road. Not on the side of the road because some blokes, after five and a half hours, have to have a decent rest and, you know, whatever. That was one of our main concerns.

4.26 Mr Waters and Mr Taylor also commented that the road cross-section presented a safety risk to truck drivers who may need to undertake roadside vehicle repairs:

Mr WATERS - When you get a blown turbo, it is instant - you have to stop. If you have B-double on, you have to take up half that road. Up against the wire rope - drivers have to get in there or the mechanic has to get in there and repair it, so then all the triangles have to come out. On the East Tamar Highway, it is really critical. It is fairly long and if ever there was an accident, geez, now there's nothing.

Mr WATERS -If you get two blokes down on either side, then you are out on the white line when you are doing mechanical work.

Mr TAYLOR - It is an interesting thing when you have a truck, for instance, in trouble on the side of the road. If you have road repair going on and you have all the flags, sticks, lollipops

and everything else, but the truck driver usually gets stuck down there on his own so it is an interesting sort of situation.

4.27 The Committee sought further details from Mr Taylor and Mr Waters on how large vehicles could be better accommodated on the highway:

Mr FARRELL - With the issues you face with slow agricultural traffic, I have also had feedback that it can be a bit of a problem because there is no space to pull over. Have your members looked at what would be the ideal gap between pull-over spaces? Do you need pull-over spaces every 10 or 20 or 50 kilometres? What would be ideal for people to check their loads or for machinery to move over? Or does that vary between different parts of the road network?

Mr TAYLOR - It varies. As you say, the condition of the network - where the fatigue stops are, where caravans can pull off - we could probably put the caravans in the same bracket as agricultural tractors and combines. When they would like to pull off, they know to pull off - that is about the size of it. Whereas years gone by, I guess we have been spoiled in essence to what we are looking at today. We have been spoiled with the ability to pull off the road. In years gone by, councils use to put a couple of loads of gravel on the side of the road - there was a pad to be able to pull off there. Of course nowadays in the interests of safety, we have done away with all these things. Now we have clear lanes in essence.

How often? A truck driver has a logbook he has to fill in - he has to stop after a maximum of five hours. Does not say what he has done in those five hours or how far he has travelled or where his five hours is limited. The authorities say the driver needs to work his time around so where he can stop for three hours, not five hours, and do his break and then continue on his way. Well and fine, but we do not know where his three hours or his four hours is going to drop in so it is a bit hard to say where the truck stops should be. The other side of it is they need to be, let's say, 50 kilometres between areas where you can pull over.

Tractors and farm machinery go from between one property to the next, so that can be far less. The common thing through all that is that we are restrained from pulling over on the side of the roads.

4.28 Mr Ross and Mr McGuire noted that the road cross section was specifically designed to accommodate very large vehicles, including providing sufficient space for large vehicles to undertake maintenance or repairs. Mr Ross and Mr Tarbotton also noted that the Department's policy was to provide regular overtaking opportunities every 3-5km in sections of highway where the 2+1 lane configuration was being employed:

Mr ROSS - On concerns raised about the heavy vehicles: as to the space we provide on the highway, we are providing a 7-metre minimum width between the wire rope safety barriers, which is to allow for the over-dimension type vehicles. It is also to provide for breakdowns and maintenance on the road as that needs to occur.

The provision of the 7-metre width, which is a 2-metre shoulder, a 3.5-metre lane and also the gap in the centre near the wire rope and also on the outside of the shoulder, means there is sufficient width to accommodate those larger vehicles.

CHAIR - Do we ever have loads greater than 7-metres wide on the road?

Mr ROSS - I guess that is the standard; similarly, some bridges over the highway are around 6.2 metres in height.

Mr McGUIRE - It is the Department's policy to allow vehicles, particularly where we are redesigning roads, 50-metres long by 7-metres wide by 6-metres high to traverse the road. Those are the dimensions we have been given for designing access on the roads. There are general access arrangements for vehicles allowed on the road at any time. Vehicles in the oversize/over-dimension space need to apply for permits, I understand, through a system and are potentially escorted through that system.

CHAIR - It is a national system now, isn't it?

Mr McGUIRE - I am not sure how the state regulations correspond to the national ones, but those dimensions are the ones we have adopted locally.

CHAIR - The width of this road is about 10-metres on the dual carriageway. Is that correct?

Mr McGUIRE - That is from side to side?

CHAIR - Yes, from side to side.

Mr ROSS - In terms of managing slower vehicles, as part of the 10-year action plan we have attempted, every 3 to 5 kilometres - around every three minutes - to provide alternating north-south overtaking lanes with the 2 + 1 arrangement. That allows slower vehicles in those zones to be overtaken.

Mr TARBOTTON - Again, I guess with tourism, there was mention of people slowing down, especially in the single lane areas, to 80 or 90 kilometres per hour. That is why we are providing those overtaking opportunities - to alleviate driver frustration. It recognises this can still occur. If you go down the highway now, in sections with long stretches of just single lane, part of the action plan is to implement additional overtaking lanes to allow opportunities to get around some of the slower vehicles.

- 4.29 Mr Tarbotton noted the witnesses concerns regarding the location and frequency of truck stops and committed to take this feedback to the Department for further consideration:

On the truck stops that currently exist on the Midland Highway between Perth and Hobart: in areas like Campbell Town, Epping Forest, Mood Food, St Peters Pass and Spring Hill, the Department has always tried to encourage, where possible, vehicles to go into townships. I will definitely take on board comments made by the trucking organisations and refer the Department to concerns about the number and location of truck stops. I am happy to take that feedback back.

Rail Crossing on Illawarra Road

- 4.30 The rail crossing on Illawarra Road was highlighted by some public witnesses as an ongoing safety concern:

Mr ADAMS -The railway crossing at Drummond Street and Youl Main Road has been probably one of the worst connections in Tasmania for 50 years. It has probably been 50 years overdue to be redone, but somehow the decision-makers have never got onto it, mainly because they were probably waiting for the bypass of Perth; I do not know. It is very dangerous and has claimed many lives over the years.

Ms ALTY -Also the railway lines - two railway lines across a national highway. Where else in the world does a national highway have a railway line running across it? There is one at Conara and one at the Illawarra turnoff at the moment. I do not know what they are going to do with it.

- 4.31 The Department's submission indicated that most of the vehicles using Youl Main Road and Drummond Street would be moved onto the Midland Highway, which would significantly reduce the amount of traffic crossing the railway. Mr Ross reiterated this and noted that the proposed works would take the highway over the railway and therefore highway traffic would not to cross the railway:

There was a question about the railway. We are going over the top of the railway. The highway will go over the top of the railway in the future, so vehicles will not have to cross over it.

Noise impacts

- 4.32 The Committee questioned the Department's witnesses on the noise impacts of the proposed works. The Department's witnesses noted that noise impact modelling was undertaken to compare current and expected noise levels. The modelling indicated that overall, the majority of Perth would experience a reduction in noise levels, but a small percentage would experience increased noise levels. Only two properties were expected to experience noise levels that would require the Department to implement specific mitigation measures:

Mr VALENTINE - My next question is about noise. I live reasonably close to the Brooker Highway, about one-and-a-half/two streets away. I know that sounds a bit odd, but there is a junction there. I notice they have mounds to project noise away from the residential areas. That works very well. Can you explain for the record how you are dealing with that noise aspect? A distant highway travelling at 110 as opposed to local traffic travelling at 50 and large trucks having to pull up and start and whatever at different intersections creates different types of noise. Could you explain how that might impact on the town? I imagine possibly in a positive way, but could you explain that?

Mr McGUIRE - As part of the analysis process for the project we have undertaken noise impact modelling. That entails originally getting some baseline data of existing noise levels and noise generated by the traffic on the existing system and then comparing that to the noise that will be generated by the proposed arrangement. Backing that from a technical perspective is a guideline that has been adopted by the Department regarding noise thresholds and potential impact on residential amenity et cetera. Throughout our study it was determined that the main road, as you would expect, would get a significant improvement in amenity - that is, Drummond Street, Youl Street and residences along there will improve significantly.

The highway will obviously generate some more noise on the outskirts of the town. The threshold levels were exceeded by two properties as far as intervention levels under the guideline. We are currently undertaking discussions around the mitigation methods et cetera, for those affected residents.

- 4.33 The Department's witnesses noted that the diversion of highway traffic around Perth and from local roads to the highway would reduce traffic and, as a result, noise on local streets:

Mr TARBOTTON - Obviously GHD - Greg mentioned that we undertook this, a baseline or a reference-level noise modelling, and then we predicted our impact upon that. The outcome of the noise modelling shows that 90 per cent of the receivers - they are the houses we modelled - will have a reduction in noise level. So, yes, there will be a change to noise levels in certain portions of the township, but a large percentage of the township will have a reduction in noise levels associated with this alignment.

CHAIR - Because of the distance away?

TARBOTTON - Mainly because at the moment there is a lot of heavy vehicles and light vehicles coming through Illawarra, Youl and Drummond. They will now use our new alignment, our new highways. Similarly, a lot of the residential - the light vehicles - for example, when a person coming from Longford heading north in a residential sector, it is

likely they will take the northern leg of our new highway. This transfer of vehicles from the local traffic onto our highway will reduce traffic noise.

Mr VALENTINE - There will be less stopping and starting, and therefore less revving and engine-breaking?

Mr TARBOTTON - Yes, and the sheer quantum of vehicles travelling through those local streets.

Does the Project Meet Identified Needs and Provide Value for Money?

4.34 In assessing any proposed public work, the Committee seeks assurance that each project is a good use of public funds and meets identified needs. The Committee questioned the Department's representatives who confirmed this, adding that the works are designed to achieve the best possible outcomes for the broader community with respect to safety and efficiency and within the constraints of funding and priorities under the *Midland Highway Strategic 10 Year Action Plan*:

Mr McGUIRE -improving road corridors is an iterative process, and each project needs to achieve the best it can in a freight efficiency and safety process within allowable budgets and constraints. It is not possible to jump immediately from a current condition to an ideal scenario. Each project needs to be a stepping stone in that process. That is what we are trying to achieve.

Mr TARBOTTON - What Ted raised before is very important. The State of Tasmania has a \$500 million program which is not indexed per year, it is \$500 million over 10 years. For every passing year, that \$500 million loses value, but we have to upgrade the entire highway. We try to manage our budget as strictly as we can. That means making fairly tough decisions sometimes. We try to consider our decisions in a broader context for the entire community. Sometimes those difficult decisions upset certain parties.

CHAIR - Are you satisfied that this project is value for money?

Mr TARBOTTON - Yes.

CHAIR - Do you believe it is fit for purpose?

Mr TARBOTTON - Yes.

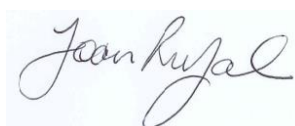
5 DOCUMENTS TAKEN INTO EVIDENCE

5.1 The following documents were taken into evidence and considered by the Committee:

- Midland Highway Perth Link Roads - Submission to the Parliamentary Standing Committee on Public Works - Department of State Growth – July 2017.
- Submission from Mr John Stagg, dated 21 July 2017.

6 CONCLUSION AND RECOMMENDATION

- 6.1 The Committee is satisfied that the need for the proposed works has been established. Once completed, the proposed works will provide link roads around the western side of Perth and a new connection to Illawarra Road.
- 6.2 This will remove significant volumes of through-traffic from local Perth roads as there are currently three key roads moving highway traffic through the township. The local community will benefit from a significant improvement in safety and amenity by removing through-traffic, in particular the growing number of heavy vehicles travelling through the township. Removing highway traffic from local Perth roads will also improve freight and passenger vehicle transport efficiency.
- 6.3 Accordingly, the Committee recommends the Midland Highway Safety Upgrade–Perth Link Roads, at an estimated cost of \$80.56 million, in accordance with the documentation submitted.

A handwritten signature in cursive script, reading "Joan Rylah", is centered on a light blue rectangular background.

**Parliament House
Hobart
25 August 2017**

**Joan Rylah MP
Chair**

