



PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Midland Highway, White Lagoon to Mona Vale Safety Upgrade

*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
Mrs Taylor

House of Assembly

Mr Brooks (Chairman)
Ms Ogilvie
Mrs Rylah

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1 INTRODUCTION

To Her Excellency Professor the Honourable Kate Warner AM, 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, White Lagoon to Mona Vale Safety Upgrade

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 The upgrade between White Lagoon (Tunbridge) and Mona Vale 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 and aims to improve safety to a minimum 3 Star AusRAP rating integrated with additional safe overtaking facilities, and a staged approach to capacity improvements.
- 2.2 Between Tunbridge (north) and Mona Vale and past White Lagoon, the existing highway is predominately a two lane single carriageway with a posted speed limit of 110 km/h. Within the project site, the existing road has deficiencies in stopping sight distance and geometric alignment for a 110 km/h posted speed environment. Land adjacent to the highway is agricultural, with a number of private property accesses within the project site.
- 2.3 To achieve a minimum 3 Star AusRAP rating, the scope of the Project involves widening a 10.3 km section of the Midland Highway between Tunbridge (north) and Mona Vale to provide alternating lengths of “2+1” lane arrangements separated by a central flexible safety barrier. The Project will also include improvements to the horizontal alignment of the highway, localised improvements to vertical curves, provision of turn facilities, the provision of safer access to adjacent land, provision of new and upgraded stock runs, underpasses, and pens, and upgrades to the Tunbridge Main Road and Mona Vale Road junctions.
- 2.4 Once complete, the works will deliver improved safety outcomes by:
 - Providing additional safe overtaking opportunities through provision of a “2+1” lane arrangement;
 - Eliminating head-on collisions through provision of a flexible safety barrier within a central median;
 - Upgrading and relocating a number of property accesses, with the majority designed as left-in / left-out arrangements;

- Providing safe turning facilities designed to accommodate vehicles up to the size of 26m B-Doubles; and
- Improving the overall capacity of the highway to cater for future traffic growth and freight movements.

3 PROJECT COSTS

3.1 Pursuant to the Message from Her Excellency the Governor-in-Council, the estimated cost of the work is \$31.67 million.

The following table details the p50 and p90 cost estimates for the project:

| ID | Description | Estimate | |
|-----|---|----------------------|-------------------------|
| | | Unit | Net amount |
| 1.0 | Project Identification Services | | |
| 1.1 | Project identification consultancy | item | \$ 65,000.00 |
| 1.2 | State Growth Management (Incl. elsewhere) | item | \$ - |
| | Subtotal Identification | | \$ 65,000.00 |
| 2.0 | Project Site Investigations | | |
| 2.1 | Consultant project scoping phase activities (engineering survey, environmental and heritage investigations) | item | \$ 100,000.00 |
| 2.2 | State Growth Project Management Scoping phase (Incl. elsewhere) | item | \$ - |
| | Subtotal Scoping | | \$ 100,000.00 |
| 3.0 | Project Development Including Preconstruction Activities | | |
| 3.1 | Project development phase activities (preliminary design, detailed design, Tender documentation) | item | \$ 550,000.00 |
| 3.2 | State Growth Project Management Scoping to Development | item | \$ - |
| 3.3 | Acquisition and Utilities relocation costs | item | \$ 714,000.00 |
| | Subtotal Development | | \$ 1,264,000.00 |
| 4.0 | Contract Administration and Owners Costs | | |
| 4.1 | State Growth Project Management Delivery Phase cost per annum | item | \$ 1,554,163.37 |
| 4.2 | Contract Admin costs | item | \$ 650,000.00 |
| 4.3 | Insurances | % | \$ 80,977.53 |
| 4.4 | Final Seal (not required) and Line marking | item | \$ 50,000.00 |
| | Subtotal Contract Administration | | \$ 2,335,140.90 |
| | Total Owners Costs | | \$ 3,764,140.90 |
| 5.0 | Construction | | |
| 5.1 | PROJECT SPECIFIC ITEMS | item | \$ 897,500.00 |
| 5.2 | EARTHWORKS | Item | \$ 5,785,920.00 |
| 5.3 | DRAINAGE | Item | \$ 668,784.00 |
| 5.4 | PAVEMENT | Item | \$ 7,109,474.00 |
| 5.5 | BITUMINOUS SURFACING | Item | \$ 2,598,130.00 |
| 5.6 | TRAFFIC FACILITIES | Item | \$ 2,020,703.10 |
| 5.7 | LANDSCAPING | Item | \$ 368,280.00 |
| 5.8 | MISCELLANEOUS | Item | \$ 1,095,900.00 |
| 5.9 | PRECAST UNITS | Item | \$ 165,675.00 |
| | Total Construction Costs (TCC) | | \$ 20,710,366.10 |
| | Base Estimate (Owners Cost + Construction Cost) | | \$ 24,474,507.00 |
| | | P50 | P90 |
| | Inherent risk allowance | \$ 1,804,321 | \$ 3,893,981 |
| | Contingent risk allowance | \$ 236,237 | \$ 869,172 |
| | Base Estimate + Contingency (Inherent + Contingent) | \$ 26,515,065 | \$ 29,237,660 |
| | Escalation (Nominal - applied to base case + contingency) | \$ 1,448,248 | \$ 1,602,714 |
| | Total contingency % above base estimate + Escalation | 108% | 119% |
| | Total Out turn | \$ 27,960,000 | \$ 30,840,000 |

4 EVIDENCE

4.1 The Committee commenced its inquiry on Friday, 16 October last with an inspection of the site of the proposed works. The Committee then returned to the Ross Town Hall whereupon the following witnesses appeared, made the Statutory Declaration and were examined by the Committee in public:-

- Mr Simon Brown, Project Manager, Project Services, Department of State Growth;
- Mr Andrew Fowler, Senior Project Manager, Project Services, Department of State Growth; and
- Ms Elspeth Moroni, Consultant, Jacobs Consultancy.

Project Overview

4.2 Mr Fowler provided the following overview of the proposed works:

The key elements of the White Lagoon, Tunbridge to Mona Vale Road projects - overall, the project is around 10.3 kilometres long, I believe. The main features will be consistent with the rest of the Midland Highway safety upgrade, which is the installation of the 2.1-metre central median between opposing traffic separated with a flexible safety barrier.

The typical section we are planning to install also has two-metre shoulders, so wider than what is there at the moment, and 3.5-metre traffic lanes, typically in what is called a 'two plus one' arrangement, alternating between two lanes one way and one the other way, with some areas where there might be two lanes to fit topography and other constraints. At the moment, this section of highway has one four-lane section, with an overtaking opportunity both north- and southbound. After the works are completed, there will be two overtaking opportunities in both directions within the same stretch of highway.

Because we are planning to install a central flexible safety barrier, that will place limitations on access into properties. Fortunately, on this section of highway, there is only a small number of properties, but they are significant rural businesses. What we have done to accommodate the needs of the businesses, consistent with the safety outcomes we need to achieve, is to put in turning facilities at either end of the project. One just south of the start of the balance of the works on the highway at Tunbridge Tier Road, which is more or less opposite the existing northern access into Tunbridge. Another one towards the northern extent of the project at Mona Vale Road, for B-double vehicles to turn in.

Around halfway along the length of the project, there will be turning facilities again for B-double vehicles - what we call P-turns, which is a turning opportunity to the right side of the highway. There will be a sheltered, or channelised, right turn similar to a junction on the right side of a road, where vehicles can safely wait then turn in a gap in oncoming traffic, and then turn and head back in the other direction.

As well as that, we are planning to install what we call G-turns, which are turns on the left-hand side of the highway, which are a more compact treatment which will be predominantly to serve the needs of the properties, rather than other vehicles that would be using the more formal signed facilities, such as tourists and other traffic that might have a need to turn.

The G-turns and the P-turns will also accommodate direct access into properties, and where we could reasonably achieve it, the ability to turn not just right into a property, but right out of a property where there is a gap in the safety barrier. For obvious reasons, we want to limit the number and the length of those gaps in the barrier.

As far as environmental values go, we have predominantly higher environmental values on the western side of the highway. There is the White Lagoon precinct, and there is also some Aboriginal heritage in the area as well as environmental values. We are predominantly

widening the road on the eastern side of the highway. As I said, there is a small number of large agricultural properties that are affected to some extent. There has been quite extensive consultation with this small number of property owners in the last six months, or thereabouts, as we have developed the design with them and tried to understand and accommodate their needs as much as we are reasonably able to.

... .. There are also some existing stock underpass structures that will be widened as part of this project, and rearrangement of stock pens as needed and one further stock underpass included, so one further one constructed.

4.3 Mr Brown provided the following additional information on the project overview:

In this length of the highway, there are a couple of curves, that Andrew has mentioned, that are deficient for a 110 kph an hour speed zone. One of them is the tightest corner, I understand, on the Midland Highway. They both have a disappointing crash pattern. One of the reasons why this project is happening early in the program of the Midland Highway is because of that crash problem. Both curves are going to be addressed. We are going to significantly realign the highway at both curves. That will be comfortable for motorists to travel at 110 kph. With the widening of the road, and the central median barrier, this in combination will make it a much safer section of road.

Purpose of and Need for the Proposed Works

4.4 The witnesses were questioned by the Committee on the purpose of the proposed works. The witnesses indicated that the works were being proposed to address specific safety issues with this section of the Midland Highway, in particular the incidence of crashes:

Mr FOWLER - It might be worth mentioning at this stage that this is a safety upgrade. Across the length of the Midland Highway, 60 per cent of the fatalities that have occurred in the last decade or so have been due to head-on collisions, and there is also another significant number which are run-off-road collisions. As well as installing the median safety barrier as part of this project, we would also improve the safety of the road sides through flatter side slopes or removal of some trees or installation of barriers, again flexible safety barriers, where that was deemed to be a safer option than the environment, but typically our preference is not to have safety barriers either, but to have safe run-off areas into paddocks and the like. As well as safety, this project deals with the crash clusters quite effectively, but it is also an efficiency upgrade by having the additional overtaking opportunities.

Ms OGILVIE - On that crash clusters question and that curve that you are fixing, I think you said it was a high crash area, is that right? How would that compare to other high crash zones on the highway in the hierarchy of things, is it number one?

Mr BROWN - There are two curves that we're improving on the project. Both have a crash cluster on them and at both of them we've had a fatal crash in the last 10 years and a serious crash. In comparison to the rest of the highway, the reason we're doing this project early in the program is that it has a worse crash history than other parts of the highway.

Ms OGILVIE - Do you rate those?

Mr BROWN - Yes. In the very first year of the program, which was last financial year, we did what we could quickly that didn't require acquisition or much acquisition. Now we are getting into those projects that involve acquisition but have the disappointing crash history.

Ms OGILVIE - It is good to see that being addressed as a priority.

Mrs TAYLOR - Just to add to that safety one, I am glad you addressed that because it is certainly what I would have asked you, will this make the road safer. Does that mean that this entire section now will be suitable for 110 kph?

Mr FOWLER - Yes.

Ms MORONI - The entire road.

Mrs TAYLOR - The entire section of road?

Ms MORONI - That's our minimum design speed.

Mr FOWLER - It is a significant and important safety upgrade. It also includes other elements to improve efficiency. Additional overtaking. ... by separating opposing streams of traffic, it all but eliminates that potential for head-on crashes. There will be breaks within the extent of the project to accommodate turning and junctions, which are unavoidable. With the purpose being to improve safety, and with most fatalities on the highway being through head-on crashes, in eliminating those - certainly satisfied that.

- 4.5 The Committee questioned the witnesses on how the proposed works would cater for future growth. The witnesses indicated that the proposed works would increase transport efficiency and safety by catering for growth in traffic volumes of heavy vehicles:

Mrs TAYLOR - Can I ask, Chair, about providing for future growth, both in the lanes, the width of the road and also turning opportunities for farm machinery and heavy vehicles in case they get bigger, longer and travelators and irrigation equipment and stuff?

Mr FOWLER - The lane width we are planning to construct is 3.5 metres, which is similar to other similar highway upgrades that we are doing. It is considered to meet the requirements of what is called PBS level 3A - performance-based standards level 3A - for a bit of jargon. That then provides geometry to which manufacturers can manufacture vehicles that can fit on those roads. PBS 3A encompasses the vehicles that we have on the roads these days - large trucks with large trailers, typically the trailer is larger than the truck, B-doubles.

Mrs TAYLOR - I was thinking more about the P-turns and the G-turns?

Mr FOWLER - The P-turns that we're constructing and also the G-turns will be able to accommodate B-doubles, the biggest vehicles that we have on the highway at the moment. There could well be growth in the future, and to upgrade those P-turns if it was ever necessary would be a possibility. At the moment B-doubles aren't used by all the properties all the time, but their use is becoming far more prevalent. You can see times, although they are not convenient for all movements, they will be used more and more as time goes on.

- 4.6 The Committee also sought further information on whether the proposed works were being undertaken in such a way that would allow for further upgrades if necessary, including acquiring land for any potential future upgrades. The witnesses noted that all works forming part of the *Midland Highway Strategic 10 Year Action Plan* were being undertaken in a manner that would allow for the addition of extra lanes if traffic volumes warranted further upgrades, and that land acquisition was considered on a case-by-case basis:

Mrs TAYLOR - If the time should come when we need four lanes, does this project allow for future growth?

Mr FOWLER - The Midland Highway upgrades are all being done in such a way that as there is growth and traffic volumes increase, then extra lanes can be installed. If you take a typical cross section, which would be two lanes in one direction and one in the other, we are generally installing the median between those different directions so that is a straight alignment. It doesn't chop and change side to side, so you can extend overtaking lanes if there was a need, or we can also extend and convert a single-lane section into two lanes when there is demand to do so.

Mrs TAYLOR - I mean, in 10 years' time if you needed to do that on some sections you wouldn't have to acquire more land?

Mr FOWLER - We are looking at that on each project on a case-by-case basis to see if it is worthwhile purchasing land as part of the initial upgrade in anticipation of a future upgrade, but it becomes a matter of economics. There is quite a clear process for government to gain access to private land for road and other developments. Typically, although the cost to buy more land might not be that high in the scheme of things, if it is not going to be needed for 10 or 20 years, then it would be more economical to come back in the future and to buy that then.

The other concern is, if initial land is purchased from a property owner and not used for road construction, then it needs to be maintained. There is cost with that. Also, it is not available then for agricultural purposes, which is also not a good outcome. If there is some property that becomes apparent, through one of our upgrades, then we buy additional land and set that aside if there is some key reason. If there is a development proposed and it is seen as being wise to secure the land for future highway purposes, we might do it then. I am not aware of any instance on this project where we are doing that.

Mrs TAYLOR - None of that in this particular project.

Ms MORONI - No. The other thing that came up, because we did ask that question about potential ultimate acquisition - but because this is in the middle of the highway and has one of the lower traffic volumes, in the scheme of things, in the whole Midlands, this going to two plus two, or four lanes, is more than 20, 30 years away. It is a much longer time frame where you have your high traffic volumes at the northern and southern ends, which we would be concentrating on first. It was not seen as a high priority.

CHAIR - For the long-term four-lane Midland Highway project, this will be probably be one of the last areas that will actually need four lanes?

Mr BROWN - Yes.

Mr FOWLER - The expectation is, as there is demand and as there is growth, particularly starting from the northern and southern ends, that additional lanes will be added as necessary to get the efficiency that is needed. We expect that unless there is something unusual that happens in the way of development in the centre here - and there are small developments that will make a difference; there is a development proposed at Ross for grain storage, I believe. That sort of thing might get more movement locally, or there could be something else, or there are roads that cut across the Midland Highway, say, in the Campbell Town area, that might change traffic flow for some reason. It would be monitored over time.

Project Costs and Contingencies

4.7 The Committee questioned the witnesses on the cost of the project in the context of the overall budget for the Midland Highway upgrade program. The witnesses indicated that this project had a higher per kilometre costs than the average cost anticipated for the entire highway upgrade:

Mrs TAYLOR - Can I just ask a question about price? You know we have this \$500 million.....we said in the first year you did not get to expend the whole \$50 million for that year.

Mr FOWLER - We did not actually have \$50 million in the first year. The cash flow is up and down a bit. The first year was lower. We still came in under what our budget was for that year. We never thought we would quite get there, but we had tenders that were more competitive than anticipated. So we did have some savings in that year back into the program.

Mrs TAYLOR - My question is about this, because we have now looked at several over the last couple of weeks, and we will be looking at some more. This is a fairly major one. The Perth to Breadalbane one was a major one as well. How are we tracking in terms of budget?

Mr FOWLER - We do have fairly typical projects along the highway, and ones that are quite complex. At either end, things are very complex where there are high traffic volumes and more junctions, more properties. This one is probably midway. It has some realignments, and stock underpasses either to be widened, or a new stock underpass to be installed. The cost for this project is higher than we anticipate the average cost will be along the highway. Typically, we are aiming for a generic project to cost around \$2.5 million per kilometre. We have 157 km of highway to upgrade, or the high-speed sections within that 157 km. This is about where we are expected to be. There are contingencies in there, as we have discussed today. It is fairly likely that tenders may come in significantly lower than what we have allowed for in our contingencies there.

Mrs TAYLOR - It is of course over two years, so it is not all that one year's budget.

Mr FOWLER - Yes.

- 4.8 The Committee also sought further information from the witnesses on how project risks had been determined and quantified in the contingencies contained in the project's cost estimate. Under questioning from the Committee the witnesses provided further clarity on the specific risks associated with the project and how they had had been identified and quantified:

Ms OGILVIE - I have a specific question that you may be able to help me with. I am looking at your contingencies. You break it into inherent risk and contingent risk, which I think understand. The inherent risk seems to be larger by a factor of almost three or four. Could you explain to me why that is so?

Mr FOWLER - The inherent risk, in fairly simple terms, is the unknown cost or extent of things that you know about. I do not want to get into -

Ms OGILVIE - Things that you have already measured. So your quantity surveying stuff. As market price fluctuates, those sorts of things would be in the inherent risk.

Mr FOWLER - Exactly.

Ms OGILVIE - It seems like a large amount. Is there a reason for that? Is there a specific risk there that we could guard against? Is it about procurement of materials?

Ms MORONI - Because it is 10 km of road. Once you start, say if rates change over 10 km of road, it can make a big difference. One of the risks on this project has been rock, the amount of rock, because if we have to start blasting and excavating more rock it can be a big cost. We would put that high as a risk, because we wanted to make sure that was covered. We have done extra drilling and to try to reduce that.

Mrs TAYLOR - Are you talking particularly about the Mona Vale realignment?

Ms MORONI - Yes, especially at the Mona Vale end. We did five drill holes, which the contractor will be given.

Ms OGILVIE - To really identify what you are dealing with.

Mr MORONI - Yes, because then the contractor can really look at their pricing and say, 'We think it will take this long.' Otherwise it is guessing.

Ms OGILVIE - I assume when you go to contract, those contingencies will be part of the negotiations of the set up price with the subbie. Or is that something that you would absorb?

Ms MORONI - We have sought it out, based on now finalising our design. We have quantities for rock which, as you go further along, it should reduce. We have estimated that it should be close to the mark. It might be a bit higher, and it could be a bit lower. Often, it does not go that way. We have tried to be as realistic as possible, and with the geotech, we specifically thought it was worth spending a little bit extra money earlier on to reduce those risks.

Ms OGILVIE - And to better quantify them as well.

Ms MORONI - One of the other specific big risks is services, because you may have noticed there are power poles the whole way up the project.

Ms OGILVIE - If something went out?

Ms MORONI - If there were problems with services, or we found a few more needed to be located, as sometimes Telstra is not very accurate. We have done some more work to try to locate that. We have factored in some higher contingencies there to make sure.

Ms OGILVIE - When it comes to the contingency that you do have here, what is at top of mind in relation to that figure?

Mr FOWLER - If I can add to Elspeth's response, this is a significantly sized project as well, which carries price risks. It can potentially limit the field that we tender for the project. One thing that counters that is this project will proceed to the market, if approved, quite early. That means tenders are quite typically priced a bit lower, because they are keen to get some work early in the season, and it is a significant project over two construction seasons. There is price risk in there and it can be quite significant, so it is weighted in there.

Project Design

- 4.9 The Committee noted that the design included lighting at two intersections. The Committee also noted that this type of lighting was an aspect that had not been raised during the Committee's consideration of other Midland Highway upgrades and questioned whether such lighting would be installed as part of other Midland Highway upgrades. The witnesses indicated that lighting would be included at similar intersections as part of various Midland Highway upgrade projects, with the aim of providing a consistent treatment along the length of the highway:

Mrs TAYLOR - I just had one question about lights. I haven't noticed this raised before in any of the others we have done. You talked, I think, about the Mona Vale Road, that you were going to put lights there on that intersection where you are going to have the B-double turning circle. We haven't mentioned this before at all, to my memory, in the other projects. Do we often put new lights in?

Mr FOWLER - You are right, I don't recall us discussing it either. Along the length of the Midland Highway there are different treatments. One of the outcomes for this program is to have consistent treatments as much as possible. In the urban areas lighting is very common at junctions. Typically, in the rural areas we prefer to do that by giving advanced notice of where junctions occur, as in having advanced signage saying there is a junction coming up and signage at the junction. It is quite clear using signage. At these junctions here and potentially across the projects as we roll them out, we may be installing lighting and having a consistent treatment that way. There are arguments for and against. You want to have a consistent light level as you travel the highway, but then a light at a junction does provide a very clear pinpoint as to exactly where the junction is.

Mrs TAYLOR - How do you decide which junctions you would put them at? This is not like a high traffic road coming off - it is only property owners going on that Mona Vale Road, I think, although it is the B-double -

Ms MORONI - There is a technical reason why we have lights at Mona Vale and the northern Tunbridge intersection, and that is because there are traffic islands in the intersection. From a standard point of view, the traffic engineering branch of the department have said that is when you do intersection lights, ... it is not necessarily a hazard, but you want to be able to see the traffic island... A number of the intersections along the Midland do have lights, but it is not consistent. If you do drive up in the evening, you will see just a main light in the distance.

Mrs TAYLOR - I wondered what the criteria was, for when you put a light at an intersection, and when you do not. Whether it was heavy traffic. I understand the island in the middle of the road.

Mr FOWLER - It is something that is being discussed at the moment in the context of consistency. There may be some junctions that have lights that are not consistent with our preferred treatment, so there may be some lights that get removed. Given that they are there, and are not causing an issue they may remain. It is something that can be retrofitted, can be changed, quite readily at any time. It is something that is being looked at at the moment, as to what the preferred, consistent treatment should be.

- 4.10 The Committee also questioned the witnesses on the material to be used for the road seal, and if this would be consistently applied across the various Midlands Highway upgrade projects:

CHAIR - The gravel and the road base used. We noticed, and discussed at previous committees, the change in standards of gravel that has a higher grip for braking, but slightly more noise. We all accept that is a good thing. Is that going to continue for all of the projects, including this one?

Mr FOWLER - Yes, the one characteristic we require in our sealing aggregate is what is called polished aggregate friction value, which is the stickiness of the stone once it is worn a bit. We have a particular requirement in our specification that must be met. That does limit the amount of suppliers who can supply a compliant product in the state. The advantages are obviously very high in having a road that, when wet, or even in any conditions, is better for braking and cornering. Everyone is aware of the different treatments that are around. The 14 mm stone we use as a typical treatment is noisier, because they are a bigger stone and they are more widely spaced. It does provide a better surface that drains well, which is important under rain with wide pavement areas, so the water flows away between the stones.Where it is appropriate, using asphalt and such things - which is a much more expensive treatment - which has advantages, but a lot of disadvantages as well.

Mrs TAYLOR - As we are doing through that Bagdad?

Mr FOWLER - Where we need low noise, and where it is low speed. The friction and the reflection and such things are not such a concern.

CHAIR - For the highway, it seems to be working quite well. Is that the new standard, or it has just been a change in policy?

Mr FOWLER - I would not quite call it a standard. It is our typical preferred treatment for very good reasons. Reasons of economy, durability, performance.

Ms MORONI - By putting that seal on at the end of the jobs, like the ones we have just seen with everyone today, it means the department does not have to go back in 12 months and do a new seal. It is all delivered, what is it, 10 years, 15 years or whatever. It is a final seal. There is no temporary aspect to it.

Project Tender

- 4.11 The Committee noted that there may be a number of projects being put to tender over a limited time frame. The Committee expressed some concern that the timing of tenders may impact on the capacity for some businesses to tender for these projects. The witnesses provided further detail on how tenders would be staged and noted that there was a relatively limited pool of potential tenderers, and they were already aware that a number of projects would be released for tender:

Mr BROWN - Provided we get approval from this committee, and it looks like we will have planning approval, then we will go through our procurement approvals process - internal ones - to ensure Treasury is satisfied with our strategy. In the middle of November, we intend to advertise tendering for this project.

CHAIR - In conjunction with the ones the committee considered last week or the week before - little bit wary about making sure all tenders are not released at the same time because the smaller operators cannot tender for them all. If the committee were of the mind, and it is not up to me, it is up to the committee, to provide a recommendation for all projects on the same day - it might just be the way the reports are written - would that impact your tendering strategy? Or would you just put them all out to tender on the same day?

Mr FOWLER - It is important to note, to proceed to tender we do not need the approval of the committee. We need to advise that we do not yet have that approval.

CHAIR - That is correct.

Mr FOWLER - Before awarding that contract we would need to have that approval.

We have discussed the effect on the market of releasing a significant amount of work at one time. We are looking at a 10-year program. After this season, we expect there will be projects going out earlier. Our first season - the 2014-15 projects - were put together quite quickly. They were projects that were easy to implement. They were consistent with the strategy to provide safety outcomes, but they were fairly straightforward ones. This current round are ones that deal more with the actual crash clusters and required a bit more land acquisition, or had some environment impacts that had to be assessed and considered, and such things. They are more complicated, and they have taken a while to get out to the market. We already have a significant amount of work that will be ready to go out the market earlier than this time of year, next year. Because a lot of the projects we are putting out now, or in the next month or two, are large, then we only have a certain amount of budget for the following year. We will not be able to release everything that we have ready to go. We are hoping we will have some projects, as they say, in the drawer ready to go. We will be feeding things out on a more even basis, which will make it easier for the market to deal with that.

We consider it is important not to delay any project, but to get them out to use the available funds, to get the industry busy as soon as we can. We accept there is some difficulty to the industry if a lot of work comes out at one time. It will not be all on one day. As projects are ready, we are getting them out to the market. What we hear back from the industry, they are keen to get work out there that they can price. They are already looking at these projects. They know they are on their way.

Another Treasury innovation has been to have a more formal consultation process with the industry on projects greater than \$15 million, tenders greater than \$15 million. The industry has given us very positive feedback on that. They get good understanding of the project, the status of it, when it is likely to come to the market, and they actually get out and start pricing jobs months ahead of them going out to tender, which is good.

CHAIR - The question was - based on the answer given by Mr Brown, 'Well, we will wait for approval'. I presume the other two projects have not gone out to tender yet because you are potentially awaiting for approval or recommendation from this committee. That is what I am wary of. As with any project that can go to tender without this committee's recommendation, provided you advise that that is the case, we are not saying that it needs to be spread out over a six-month project. It is more, if you have three major road contracts that get approval say, in a month's time, they then go out and they all close within a day of each other, that becomes a challenge. If there is a week's spread, it makes it easier for the small operators. That is the point I was making.

Mr FOWLER - I am happy to respond further to that if you like. The projects that the committee has considered in recent weeks are the Bagdad component of the Mangalore and Bagdad project, the Kempton to Melton Mowbray stage 1 project, and the Perth to

Breadalbane duplication. The Perth to Breadalbane duplication is anticipated to be tendered tomorrow. We typically advertise on Saturday. We received the Australian Government approval for that project in the final budget allocation. The process would be, as we have discussed, to advise tenderers, both in the pre-tender briefing and in the documentation, that it is yet to receive the approval of this committee.

Another factor worth thinking about is, because this is Australian Government funded work on the national highway, the tenderers are required to be registered with the Office of the Federal Safety Commissioner. I believe, there are only five contractors who operate in Tasmania who have that registration. It is a limited field. They are all big operators. Even the state-based ones also operate in other states. They are big contractors, but quite often they would subcontract work, or hire of equipment, from other smaller contractors. We expect lots of people will be kept busy with this steady stream of work. It is going to be quite beneficial for the industry having such a long program, particularly once we can get work out to the market earlier, and at a steadier rate.

- 4.12 The Committee also expressed some concern about the potential for a firm to put in a very low bid in order to secure the tender, and once winning the tender, placing significant pressure on subcontractors to lower their prices in order to meet the tender price they have bid. The Committee questioned the witnesses on whether such potential actions are considered in assessing tenders. In responding, the witnesses noted that price is just one amongst a number of components in assessing a tender, and there were mechanisms in place to ensure that the winning tender must be able to demonstrate that they can deliver the project within the price they have bid:

CHAIR - What I am looking at - and I have raised it at previous public works hearings over the years - one of the things I am concerned about, that has been represented to me, is some bigger multinationals may attempt to buy contracts, and then squeeze subcontractors on their rates once they have provided that quote. We know that has happened on Tasmanian government tenders previously. We know that has happened on Tasmanian government projects.

Ms OGILVIE - Or even just putting a lot of work out in the market. It saturates the market and has an effect on price. It is a timing issue.

CHAIR - That is the timing issue. This is more about if there are certain businesses that wish to enter the Tasmanian market, they will price it accordingly. They can afford to run at a loss and then some. Not saying in this case. I have been given specific examples of previous government contracts, where once that tender has been awarded on mostly the lowest price, they have then gone back to subcontractors and said, 'If you want this work, drop your price by 20 per cent, or we will go next door to the smaller business.' That is more to do with construction than public works. Around buildings, that is what happened. What I am interested in is making sure that the departments are aware of some of these tactics or -

Ms OGILVIE - Manoeuvres.

CHAIR - Manoeuvres, you could call it. I am not saying it is legal or illegal. What I am saying is, it is concerning to make sure that the playing field is as even as possible, and those that may win on price alone are going to treat their subcontractors fairly and not expect the smaller bobcat driver, for example, to drop his rate to half, where a bit of something is better than all of nothing. That is what happens. I am interested to see whether that is considered at all in these assessments.

Mr FOWLER - We do as much as we can to maximise opportunities for local industry within the constraints of free trade and other considerations. We do not intentionally aggregate projects, unless they are very small and just get economy with small projects. We do have

the requirements of the Office of the Federal Safety Commissioner, which limits the field for who can actually tender and be awarded a project.

In my experience, it takes a project of a certain size, duration, and complexity to have a mainland company, without an existing presence in the state, to get an interest to come over. When they have, they have formed successful joint ventures with local partners, which means that most of the work is done by locals. The plant that is hired is owned by locals. The big organisation is coping with the cash flow, and provides its systems over the top of potentially multiple subcontractors, and things which benefit the project. If you look at big examples like the Brighton Bypass, both sections of that project were completed by successful joint ventures with a local partner. I am yet to see evidence, but there is nothing stopping a mainland contractor, through the national pre-qualification system that we are part of, coming in and tendering for our work. Although we ask tenderers to consider what they can do in the way of providing benefits to the local industry, there is only so much we can do with that.

CHAIR - What I am concerned about is firstly, the one that I have raised previously, where contracts are won by a bigger or more financially capable business, undercutting the market and exploiting their subcontractors to still make the margins. Others, I suppose looking at undercutting the market to win that contract, and then they will expand from there. Within the principles of free trade, there is not a lot that can or would be done about that.

I am interested to make sure there is a certain amount of management around dealing with some subcontractors to make sure that they are dealt with fairly and paid on time and not squeezed for 50 or 90 or 100 days, given that most government contracts now are on milestone payments rather than time ones. I understand the contractors provide their request for milestone payments at the start anyway. So they can manage that. That suited well for the bigger players.

The concern I have is there is a lot of work coming up across Tasmania on the Midland Highway project for the next 10 years, and some interstate operators may see that as an opportunity to enter the market, but completely undercut fair and reasonable rates for subcontractors to do that. They will use their market position to squeeze out any competition based on price.

Mr FOWLER - We certainly do not consider tenders purely on price. We consider price and non-price. These days, the local benefits test forms 10 per cent of our assessment. The price and non-price component are adjusted according to the complexity of the project. This is a project we would see as being relatively simple. It is in the centre of the state, there is not a lot of traffic, there are a small number of landowners, compared to the Brooker Highway upgrade that will happen in the same sort of time. That is a different kettle of fish.

CHAIR - That is a little more challenging.

Mr FOWLER - It is. You are right. These days, the Australian Government requires milestones to be met before payments are made. Everybody is dealing with that as well as they can. We have the standard clause that the lowest nor any other tender is not necessarily accepted. But if someone had completely undercut, and we had quite grave doubts about whether they could complete the project successfully and with the quality we require, then they would be required to demonstrate in some way and satisfy us that they could complete the project for that sort of price. There is more of an opportunity for new contractors to enter the state with some significant projects, but I do believe they probably are a bit too small for them, and there still would be local content in those contracts, through subcontracts.

There is the security of payments legislation. We also require contractors when they lodge a payment claim with us to provide a statutory declaration to say that they have paid their subcontractors and suppliers, but we do not have control over the terms they may have with them.

The best thing we can do for the local industry is to provide a steady stream of work, which this program does. It has significant safety benefits. It also has efficiency benefits, and it supports the industry in a great way through a steady stream of work. Other than that, there is nothing I am aware of we can do to discourage, and we may not want to discourage mainland players to come in. They bring things with them as well, which everyone benefits from.

Consultation

4.13 The Committee questioned the witnesses on the consultation process for the project:

CHAIR - We might continue on then with the consultation process - public consultation, stakeholder consultation and landowner consultation. Can we go through some of that?

Mr BROWN - A key stakeholder in that respect, in terms of the public, has been the landowners. The project impacts them the most. We have spent considerable time meeting with them on site, discussing what the purpose of the project is and then taking them through what the impacts of the projects are, and then listening to their needs in terms of running their farms, their farm operations. Where we can, we incorporate their needs into the project without undue reduction in us being able to meet our safety objective.

Other than that, we briefed the Northern Midlands Council before we submitted a development approval. The planning permit is currently being assessed. My understanding is there have been no representations lodged in objection to the project and the permit is due today as we speak.

Mrs TAYLOR - Where did you publicly display the plans, for how long and do you know how many people came and looked at them?

Mr BROWN - We publicly displayed the plans here in Ross at the Information Centre across the road. It was up for two weeks and it was advertised in the local newspapers. We did not keep a record of how many people came to have a look. We did a letter drop of over some 400 residents in the Ross and Tunbridge areas to ensure that they were well aware of the project. That included a brochure or a flyer, which we have attached to the report, to explain the project to them. We feel like we have been thorough in terms of letting the community know what we have planned.

CHAIR - Did you have any feedback forms or suggestion boxes? Or did you have any of your forms come back?

Mr BROWN - In this case, we did not provide feedback forms but we did provide several ways that people could contact us whether it be by email or by phone or in the mail.

Mrs TAYLOR - And you had none?

Mr BROWN - No.

4.14 The Committee also questioned the witnesses on consultation with the heavy vehicle industry, in light of the fact that they will be one of the key users of the turning facilities to be constructed as part of the project:

Mrs TAYLOR - You have talked to the transport industry about those as well? I am looking at the list of the people you have consulted. You have consulted people like RACT and whatever, but -

Mr BROWN -I have talked to, I think they are called the Tasmanian Transport Association, that represents the trucking and freight industry. They are aware of the turning facilities that we are proposing so that they can turn at either end of the job.

Mrs TAYLOR - It says on the list that is passenger transport operators. You have talked to the heavy vehicle industry? They are okay with the size and location of those?

Mr BROWN - Yes.

- 4.15 The Committee sought further information from the witnesses on consultation undertaken with landowners who will have land acquired for the project:

Ms OGILVIE - As part of that consultation process, did you have discussions around the acquisition? Were there any sensitivities around the land acquisition?

Mr BROWN - There is a reasonable amount of acquisition to be done along the highway, strips of acquisition along as we go. When we have been discussing that with landowners and we have shared with them that that is going to be an impact, soon they will receive plans that show exactly what areas are involved, but we have been able to give them plans that start to show that information.

CHAIR - Landowner feedback to consultation.

Mr BROWN - There are four landowners that are directly affected. In all cases I think they can see the benefits of the project; some of them might have a differing view on whether the purpose of the project is - what they would do if they were in charge, shall we say. But overall they could see there are sound reasons for us doing what we are doing and I think they are positive about the fact that we are looking to accommodate their needs.

Aboriginal Heritage

- 4.16 The Department of State Growth's submission to the Committee noted that a number of Aboriginal heritage sites and artefacts had been identified within the project area. The submission also noted that in planning the project the route had been designed to avoid a potentially sensitive site that had been identified during the archaeological survey. In response to questioning from the Committee, the witnesses provided additional information regarding the identification and treatment of the Aboriginal heritage within the site of the proposed works:

Mr BROWN - There is evidence to suggest there will be quite a lot of artefacts around the White Lagoon area, so closer to the White Lagoon area there must have been a meeting place for the First Peoples.

Ms OGILVIE - Are we talking about middens or stone tools?

Mr BROWN - It is generally stone artefacts. We have done a corridor survey along the highway and for a certain distance away from the highway to make sure we pick up any history and artefacts there. On the surface of course, it is just surface things that can be seen.

Mrs TAYLOR - Did you pick up any?

Mr BROWN - Yes, we have identified a number of artefacts along there. We have endeavoured to avoid the majority of them. Unfortunately, despite our best efforts there are two artefacts, that is, two single artefacts, a single stone implement at two sites.

Ms OGILVIE - Two tools?

Mr BROWN - They are single stone tools, one at each site, that is, two single artefacts that will need to be disturbed and we have applied to the interim Aboriginal Heritage Council.

Mrs TAYLOR - For a permit to interfere with that.

Mr BROWN - We have also met with them prior to submitting the permit to explain how we were endeavouring to minimise our impacts. They are currently assessing the interference.

Mrs TAYLOR - So they are still there at the moment and presuming that the Aboriginal community will remove them?

Mr BROWN - It is assumed that they will be -

Ms OGILVIE - Go through the standard process.

Mr BROWN - Yes.

Mrs TAYLOR - Everything you have said in 3.4, you have covered everything there, there is nothing left out?

Mr FOWLER - There are no other known artefacts.

Ms MORONI - There are a couple of other single ones in addition to White Lagoon as a whole significant site that we are missing.

Ms OGILVIE - So you are not touching them?

Ms MORONI - With the road design we have tried to avoid as much as possible.

CHAIR - It is heading to the east, which is away from the artefacts.

Mr BROWN - Yes.

Ms OGILVIE - You say you have done a surface survey and that is the corridor that sits alongside the road, I assume.

Mr BROWN - Either side, so we went both sides of the highway for a certain distance and we know that we have covered within where we are going to do our roadworks.

Ms OGILVIE - With those particular stone tools that are there, they would have to be moved because the road will literally go over the top of those spots?

Mr BROWN - It will be up to the interim Aboriginal Heritage Council as to how we actually treat those artefacts. They may wish for them to be left there and buried, I understand that, sometimes that happens. Or they may choose to relocate that but keep it in the landscape.

Ms OGILVIE - When you do a surface survey, and I am sure there is process and rules around which kind of surveys you do, would there be anything under the ground like burial sites?

Mr BROWN - There could be artefacts discovered underground. In our contract we have conditions that if anything is discovered, work stops. We have to engage with the Aboriginal community to determine how we are going to deal with that find.

Ms OGILVIE - Thank you very much. It sounds like you have done a lot of work on that.

Mr FOWLER - On that matter, we use the services of archaeologists. That is contemporary practice these days whenever there is a need to identify areas of likely sensitivity - not just what is actually visible but what areas are more likely to be sensitive. We try as hard as we can to avoid such areas.

Traffic Management During Construction

4.17 The Committee noted that the project would take considerable time to complete. The Committee questioned the witnesses on how traffic flow would be managed during construction. The witnesses indicated that the selected contractor would have to demonstrate how they would minimise interruptions to the flow of traffic:

CHAIR - Traffic flow and traffic interruptions during the project. It is a fairly long one. It is 12 to 14 months?

Mr BROWN - Generally, our strategy for the Midland Highway projects is to have one lane open for each direction at all times. However, there will be some sections of these projects, where we are transitioning from new works into the existing alignment, where they will have to do some of their works under traffic. In those cases, those two lanes will be unsealed for a period, but we will limit that to a month. There may be some instances where they do have to stop traffic. The contractor will have demonstrate that it is absolutely necessary to do so, and they will have to demonstrate that they can keep those delays to an

absolute minimum. It will be like, you have to get traffic moving within eight minutes and that type of thing. Generally, we are going to keep traffic moving. That is the aim. Contractually, we will set it up that way.

Mr FOWLER - Also, on this project there are some vertical realignments, smoothing out crests and the like, so that has a bigger impact. There is a need to take the seal off and lower the road over a length. There could be sections that are gravel for as short a time as we can manage. It will be a bit different to typical projects where we are just widening. In a three-lane section, for example, we can widen on the side, do half of the final highway cross section and come back and do the other half, and keep traffic on the seal most of the time, except the transition where we come back to a two-lane road will always be fiddly. There will be a need for some travelling on gravel or traffic management.

- 4.18 The Committee noted the crash clusters on the subject section of the Midland Highway. The Committee also noted that a number of these crashes are likely to have been caused by fatigue. The Committee suggested that specific signage, highlighting the danger of driving whilst fatigued, could be included as part of the roadside signage for the project:

CHAIR - The only final question I had is, we spoke very briefly out on site around signage. Does this project include signage, or does that go to DIER?

Mr FOWLER - Do you mean typical roadside signage, or project signage?

CHAIR - Yes, typical, so the project would include some signage.

Mr FOWLER - All the typical traffic safety and directional signage, where that needs to be upgraded, that is all included.

CHAIR - I would suggest possibly the department consider adding the odd - given the causes of many crashes on this stretch of highway is due to fatigue - we consider, whilst we are looking at our signage strategy, highlighting the fact that fatigue can impact. What we discussed on site was the fact that most of these accidents appear to have been caused by inattention or fatigue, possibly from drivers falling asleep. I think the committee would suggest the department look at that as part of the project. As there is a signage package, maybe there could be the scope to include that message in the program.

Mr FOWLER - Yes, that message certainly appears along - not necessarily this highway, but other highways - the simple and fairly in your face 'Drowsy drivers die' type signage. The State Roads Division within the department has a technical advisory group that considers all sorts of matters on the Midland Highway program and other projects. I am happy to take that back for further discussion potentially with the Road Safety Advisory Committee as well.

5 DOCUMENTS TAKEN INTO EVIDENCE

- 5.1 The following document was taken into evidence and considered by the Committee:

- Midland Highway, White Lagoon (Tunbridge) to Mona Vale Safety Upgrade - Submission to the Parliamentary Standing Committee on Public Works, Department of State Growth, September 2015

6 CONCLUSION AND RECOMMENDATION

- 6.1 The Committee noted that this section of the Midland Highway was subject to a relatively large number of crashes that could be attributed to fatigue. The Committee strongly suggests that road signage highlighting the dangers of driving whilst fatigued be included in this project. The Committee also suggests that consideration be given to extending signage with this message to other sections of the State road system where fatigue is a contributing factor in a significant proportion of accidents.
- 6.2 The Committee is satisfied the need for the proposed works has been established. Once completed, the proposed works will deliver enhanced safety outcomes, by eliminating head-on collisions, improving road alignment to reduce dangerous curves in the road and resultant accidents, providing safer access to properties and improving sight distances at the Mona Vale junction. The works will also improve transport efficiency, as well as safety, through the provision of additional safe overtaking opportunities.
- 6.3 Accordingly, the Committee recommends the project, in accordance with the documentation submitted, at an estimated total cost of \$31,670,000.

A handwritten signature in black ink, appearing to read 'A. Brooks', with a stylized flourish at the end.

**Parliament House
Hobart
30 October 2015**

**Adam Brooks MP
Chairman**