



PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Tasman Highway Intelligent Transport Systems

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

MEMBERS OF THE COMMITTEE

Legislative Council

Mr Valentine (Chair)
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House of Assembly

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Mr Ellis
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1 INTRODUCTION

The Committee has the honour to report to the House of Assembly in accordance with the provisions of the *Public Works Committee Act 1914* on the -

Tasman Highway Intelligent Transport Systems

2 BACKGROUND

- 2.1 This reference recommended the Committee approve works to install an On-Road Traveller Information System (OTIS) at various locations around greater Hobart, and a new Lane Use Management System (LUMS) for the Tasman Bridge.
- 2.2 In recent years Hobart has experienced unprecedented growth and greater economic activity, which has impacted on traffic congestion and the ability to provide reliable travel time predictions. To reduce delays it is important to advise motorists of the condition of the network to allow users to make more informed decisions.
- 2.3 Currently information about traffic conditions is provided through regular timetabled morning radio announcements, supported by available CCTV footage and AddInsight, a program that measures travel time, in real-time. There is no Advanced Traveller Information System in Hobart available to the general public. This is inhibiting efficient travel for commuters across the Greater Hobart area, with compounding economic impacts.
- 2.4 The OTIS component of the Tasman Highway Intelligent Transport Systems project aims to address this problem by providing real time traffic information displayed on Variable Message Signs (VMS) at 13 strategic locations around Hobart, including Kingston, Glenorchy, Lindisfarne and Mornington.
- 2.5 VMS are expected to deliver a more efficient and reliable network by allowing State Roads to convey messages to road users who are already on the road, advising of current traffic conditions and, in the event of an incident, give directions or advice to road users as appropriate. When not required for incident response, the VMS can display pre-approved road safety messages, or current travel times to key destinations as determined by the AddInsight travel time monitoring system.
- 2.6 The OTIS component also includes the installation of additional traffic cameras. Expanded traffic camera coverage will provide State Roads with a greater visibility of prevailing traffic conditions, which is expected to improve situational awareness, thereby enabling Traffic Management Centre operators to adopt an appropriate response and monitoring of incidents (including advice to Tasmania Police and government towing services) and other events.
- 2.7 OTIS is expected to deliver a range of benefits including:
 - Improved network reliability by conveying messages to road users who are already on the road, advising of current traffic conditions and, in the event of an incident, give directions or advice to road users as appropriate;

- Improved travel time estimates once on the road, where incidences may increase the expected travel time of road users, allowing users to better manage than their estimated time of arrival, or make detours as required;
 - Improved travel times by displaying pre-approved road safety messages, or current travel times to key destinations;
 - Improved network efficiency through an expanded traffic camera coverage, providing greater visibility of prevailing traffic conditions, and improve situational awareness that will allow Traffic Management Centre operators to adopt an appropriate response and monitoring of incidents and other events;
 - The ability to limit the use of drivers' mobile phones to obtain traffic updates whilst driving, decreasing the potential for all crashes, and subsequently decreasing the risk of increased congestion.
- 2.8 The Tasman Bridge is one of the most critical roads in Tasmania and carries the highest daily volumes of any road in the State. The current Lane Control System (LCS) on the Tasman Bridge, used to manage the contraflow lane, has passed its serviceable life and requires urgent replacement. It is reducing network reliability and is posing a serious safety and operational risk. In addition, the existing method of transitioning between the morning peak and “normal” configuration of the Tasman Bridge and Tasman Highway is cumbersome, time consuming and requires significant manual intervention by ground crews, which poses a potential safety risk.
- 2.9 A new method utilising supporting infrastructure and removing manual intervention by road crews is required. The LUMS component of the project will apply to approximately 3 km of the Tasman Highway/Tasman Bridge and is expected to involve the transition to an automated system providing substantial safety and efficiency benefits.
- 2.10 The new LUMS is expected to deliver a range of benefits including:
- Improved travel time prediction reliability and resilience, and greater operational flexibility to allow different responses to incidents and other events;
 - Improved vehicle travel time during the lane changeover periods, through increased efficiency;
 - Expanded traffic camera coverage providing greater visibility of prevailing traffic conditions, and improved situational awareness that will allow Traffic Management Centre operators to adopt an appropriate response and monitoring of incidents and other events;
 - Improved messaging to motorists through additional electronic signage;
 - Improved road user safety, by providing a level of automation to the current tidal flow transition process, and improved messaging to motorists;
 - Improved Work Health and Safety outcomes, by providing a level of automation to the current tidal flow transition process, and reducing the need for workers to be positioned on the roadway;

- Mitigated safety risks for those workers positioned on the roadway being struck by vehicles, decreasing the likelihood of a fatal or serious injury to workers; and
- Increased employee productivity, with employees currently completing the manual components of the tidal flow transition process being able to be deployed to other areas.

3 PROJECT COSTS

- 3.1 Pursuant to the Message from Her Excellency the Governor-in-Council, the estimated cost of the work is \$23 million.

The following table details the current P50 and P90 cost estimates for the project:

	P50 (\$m AUD)	P90 (\$m AUD)
Base Cost Estimate	20.3161	20.3161
Contingency	1.07885	2.42435
Total Project Cost Estimate	21.39495	22.74045
Escalation	0.22505	0.25955
Total Outturn Cost Estimate	21.62	23.00

4 EVIDENCE

4.1 The Committee commenced its inquiry on Tuesday, 23 February last with an inspection of the site of the proposed works. The Committee then returned to Committee Room 1, Parliament House, whereupon the following witnesses appeared, made the Statutory Declaration and were examined by the Committee in public:-

- Tim Bickerstaff, Project Sponsor, Manager Network Performance, Department of State Growth;
- Suk Maan Kong, Project Manager, State Roads, Department of State Growth; and
- Ian Booth, Project Management Team Leader, Department of State Growth.

Overview

4.2 Ms Kong provided an overview of the proposed works:

Ms KONG - this project is part of the Greater Hobart Transport Vision under the Hobart City Deal. This project comprises two main components - OTIS at various locations around Greater Hobart, including variable message signs and new traffic cameras, and for the Tasman Bridge, LUMS to replace existing lane control system.

The objective of the project is aimed at improving travel times and network efficiency and improving the work health and safety outcomes of the user management of the traffic flow system, including tidal flow transition.

The project will make the network more resilient and able to accommodate changes in traffic conditions that may arise due to crashes, breakdowns or other unplanned events.

This project is jointly funded by the Australian Government and the Tasmanian Government, and the available budget is \$23 million. The delivery of the project will be across two financial years, which is financial year 2021 and financial year 2021-22.

The stakeholder engagement will be a critical part of this project. The project is high profile as the Tasman Bridge is the highest volume road in Tasmania. The locations of the OTIS signs have also been chosen to maximise exposure to our users.

Some of the key stakeholders for this project are listed here. The Tasmanian Government and the Australian Government are the funding sources for this project and the project is a part of the Hobart City Deal. The Department of State Growth is the state road agency and is the asset owner of the Tasman Bridge and the state road network. Emergency Services are important only as road users and in incident response, but Tasmania Police also has infrastructure on the Tasman Bridge that will need to be retained, including speed and surveillance cameras.

TasPorts has a range of assets on the Tasman Bridge, including navigational aids. They also have the ability to stop traffic on approach to the bridge, which they do when large ships pass underneath.

Various local government authorities are involved, particularly in relation to the OTIS component of the project, with some of the proposed sign locations on council-owned roads. The Tasman Bridge and many of the other roads affected by this project are key public transport routes.

Finally, the general public is one of the most important stakeholder groups as the ultimate beneficiary of the project, but also as a group with significant potential for disruption and impact during the construction and commissioning of the project. Management of these impacts will be critical tasks during the project.

The map now being presented shows location of the proposed OTIS signs. They span across multiple municipalities, which are in Hobart, Glenorchy, Kingborough and Clarence. This is a detailed list of the indicative location of the proposed OTIS signs.

Here are some examples of the type of signs we are anticipating. The specific type of sign will depend on a range of factors including the speed, environment and number of lanes. The key objective of all the signs will be to display travel times, but also messages related to incidents when they occur.

Tasman Bridge lane use management system - this is the LUMS part. The Tasman Bridge links the Tasman Highway from Queens Domain to the Eastern Shore in Hobart, Tasmania. It is one of the most critical roads in Tasmania and carries the highest daily volumes of traffic of any road in Tasmania. The existing gantry locations can be seen in the slide: starting on the western shore, gantry 1 is located near the intersection of Tasman Highway and Davey Street and the project extends past gantry 13 to the East Derwent Highway interchange and Tasman Highway.

The bridge consists of five lanes, the middle lane of these changes direction of traffic flow to provide additional capacity for inbound traffic during the morning peak period weekdays and is referred to as 'tidal flow control'.

The existing version of the legacy lane control system dates back to the early 1990s and is bespoke, unsupported and gives limited operator flexibility. The new system delivered through the project will provide a level of tidal flow automation, a new tidal flow methodology, more flexibility, say, for operations, more reliability and a better road user experience.

The Tasman Bridge LUMS project corridor will be a fully managed intelligent transport system solution with CCTV, AID [Automatic Incident Detection], OHVD [Over Height Vehicle Detection], VMS [Variable Message Signs] and LUMS [Lane Use Management System] in key locations. There is also work on ITS [Information Technology System] cabinets and electrical and communications cabling.

This is an example of the existing lane control system which we saw in the site visit earlier. The current tidal flow and lane control system incorporates a range of devices that advise operators of the middle lane availability, and includes overhead gantries that show static traffic signs and physical delineation barriers.

The Department of State Growth engages the services of a contractor to provide installation of physical traffic control barriers for tidal flow control every weekday. In this slide you can see how the current system displays the lane available at gantry 8 heading east. The centre lane has a sliding sign that changes between the directional signage at 'No Entry'. All lanes on this gantry have lane control symbols.

Here is another example of the existing lane control system and the gantry. There are differences between gantries along the Tasman Highway and the bridge corridor. In this slide you can see gantries 7 and 6 only in the eastbound direction. The gantry on the left has a sliding sign and lane status symbols, whereas the gantry on the right has only lane status symbols.

Here are some key dates for the delivery of the project. The project is currently being advertised and will close in March. It is anticipated that the contract will be happening in April, with the design commencing shortly after that. We expect the construction and installation of OTIS signs later in July and the construction and installation of LUMS in late 2021. The project will be completed in June 2022. That is the end of my presentation, thank you.

Need for the LUMS and OTIS

4.3 The Department of State Growth's submission to the Committee highlights the need for the LUMS and OTIS:

The current Lane Control System on the Tasman Bridge, used to manage the contraflow lane, has passed its serviceable life and requires urgent replacement. It is reducing network reliability and is posing a serious safety and operational risk. In addition, the existing method of transitioning between the morning peak and “normal” configuration of the Tasman Bridge and Tasman Highway is cumbersome, time consuming and requires significant manual intervention by ground crews, which poses a potential safety risk.

A new method utilising supporting infrastructure and removing manual intervention by road crews is required. The LUMS component of the project will involve the transition to an automated system providing substantial safety and efficiency benefits.

In recent years Hobart has experienced unprecedented growth and greater economic activity. Traffic congestion and reliable travel time predictions are growing issues. To reduce delays it is important to advise motorists of the condition of the network to allow users to make more informed decisions.

Currently information about traffic conditions is provided through regular timetabled morning radio announcements, supported by available CCTV footage and AddInsight, a program that measures travel time, in real-time. There is no Advanced Traveller Information System in Hobart, available to the general public. This is inhibiting efficient travel for commuters across the Greater Hobart area, with compounding economic impacts. The OTIS component of the project will address this problem by providing real time traffic information displayed on Variable Message Signs (VMS) at key locations around Hobart.¹

4.4 The Committee sought further information on how the need for the works was determined:

CHAIR -... .. For clarity, was there a feasibility study in relation to this project?

Mr BICKERSTAFF - No. The upgrade of the lane control system is something that we need to do to maintain its operation, and the OTIS elements were something identified as a way we can manage the network more efficiently.

Mrs PETRUSMA -... .. In regards to the current lane control system - when you talk about the contraflow lane and how it is has passed its serviceable life and requires urgent replacement, can you please explain more?

Mr BICKERSTAFF - The software that runs the system is on Windows 95 and is an operating system developed for the department back in the 1990s, and it was quite good then. It does not meet contemporary practices and standards for a lane control system. The infrastructure in terms of the lights and things are also aging, so there are more frequently occurring minor faults indicative of needing to make sure we replace it to avoid those sorts of faults occurring in the future.

Mrs PETRUSMA - Also, because it is a safety issue in conjunction with the lane control system, it is also a fact before 7 o'clock in the morning that you have somebody going along and manually putting the barrier in the road and then at 9 o'clock going through again. Can you explain what hopefully the vision might be in the future or what would road users experience at 7 and 9 o'clock in the morning under this new system?

¹ *Tasman Highway Intelligent Transport System*, Submission to the Parliamentary Standing Committee on Public Works, Department of State Growth, 22 December 2020, page 9.

Mr BICKERSTAFF - Hopefully road users do not experience too much change at all, but the efficiencies will be how quickly we can make that transition from one tidal flow state to another. It currently takes about half an hour; we are hoping we can reduce that time and also reduce the manual involvement of workers on the road during that transition time.

Mrs PETRUSMA - Somebody will not be physically going along and putting the barrier in the road?

Mr BICKERSTAFF - We need to wait to see what the tenderers put forward, but it is our hope that we do not have that exposure to live traffic.

CHAIR - It is an interesting issue. How you do that transition, because at the moment you have people physically on the truck putting in the candy sticks or whatever they call them? No doubt with an automated system you have traffic that is already on the bridge and having to cope with that, so you have to shut off first one end and then presumably wait.

Mr BICKERSTAFF - It is a very complicated process.

CHAIR - It is not a small procedure and potentially quite a dangerous circumstance if not done correctly.

Mr BICKERSTAFF - Absolutely, and that is part of the planning in process.

Benefits of OTIS and LUMS

4.5 The Committee questioned the witnesses on what benefits the OTIS and LUMS would generate for road users. The witnesses highlighted a range of benefits, including helping to reduce traffic congestion, promoting informed trip planning, and greater flexibility to respond to incidents and traffic conditions:

Mrs PETRUSMA - ... I live on the Eastern Shore in Lauderdale, so each day I can choose to go by either the South Arm Highway or the Tasman Highway. For somebody who lives on the Eastern Shore, what is the main advantage of these new systems? What is the benefit going to be to road users?

Ms KONG - We have a few signs on South Arm Highway and a couple of them on the Tasman Highway. As you approach from either way, you will have an early warning telling you whether there are any incidents, along with traffic conditions and travel time.

CHAIR - Where on the South Arm Highway is that?

Mr BICKERSTAFF - It would be prior to the turn off at Shoreline. You have the option of deciding to continue on the South Arm Highway or potentially travelling on the Tasman Highway.

CHAIR - As we heard during the onsite briefing, a kilometre from that point, maybe there would be a sign?

Mr BICKERSTAFF - I am not sure of the exact distance, but it is plenty of time to make that decision.

CHAIR - And change lanes if necessary.

Mr BICKERSTAFF - The key benefit of all the signs is the information they provide to motorists that allow you to understand what conditions you might be encountering on your journey. It is to explain any delays you might be experiencing and to give you that information and peace of mind that you are not just sitting in traffic for no reason.

Mrs PETRUSMA - Do you perceive it will help with congestion? We are one of the most congested cities in Australia, so how do you think this will help smooth traffic flow?

Mr BICKERSTAFF - There are a number of elements to that. We can provide information to people when an incident has created congestion, and that can allow people to decide to change their behaviour to avoid adding to that congestion. They can take an alternate route

or perhaps decide to turn around and try again a bit later when the conditions have cleared. That is the OTIS, the On Road Travel Information Service. The LUMS will allow us greater control over the way traffic flows over the Tasman Bridge, which is a highly susceptible location for crashes, and will allow us greater control of what happens. When an incident does happen, we have greater control of how we can manage traffic to flow past or around that incident to minimise the delays they might experience.

Mrs PETRUSMA - With the new lane use and management system on the bridge, we have the current situation where at 7 a.m. it changes to three, then after 9 a.m., it changes to two. If some accident happened later on in the day, would it now be more flexible in the future where, say, if there is a backlog all the way through to Hobart, you could potentially open up four lanes if needed to get people across? It probably wouldn't work at the end, but it allows more flexibility during the day, instead of only being restricted between 7 a.m. and 9 a.m., if need be, to clear congestion, wherever it may be?

Mr BICKERSTAFF - Absolutely. Yes, the system as it is at the moment is fairly limited in how we can apply it. The new system will give us a lot more flexibility, subject to detailed planning and business rules around what scenarios we will permit and can do safely - but yes, there will be greater flexibility to respond to conditions as they arise.

4.6 The Department of Stage Growth's submission also highlighted the benefit of expanded traffic camera coverage:

Expanded traffic camera coverage will provide State Roads with a greater visibility of prevailing traffic conditions, and improve situational awareness that will allow Traffic Management Centre operators to adopt an appropriate response and monitoring of incidents (including advice to Tasmania Police and government towing services) and other events.²

4.7 The Committee sought further detail on how expanded traffic camera coverage might benefit other agencies, and in particular, Tasmania Police:

Ms BUTLER - In relation to the expanded traffic camera coverage, is there a possibility that other agencies may also be able to access that expanded camera coverage, such as Tasmania Police when undertaking investigations and so forth? Could that be a benefit across government?

Mr BICKERSTAFF - Absolutely. Our traffic cameras are at the moment made available to Tasmania Police, so they have access to them in real time. We do not record our traffic cameras at the moment, and that is a policy decision we have taken for now. In order to record, there are a few things we would need to do, but it is something we have considered.

Ms BUTLER - Quite a horrible incident happened in Davey Street, but they went over the Tasman Bridge on their way there. Police being able to tap into an expanded camera system to see where things are happening could be of benefit as well.

Mr BICKERSTAFF - Yes, absolutely. Certainly, we are working closely with Tasmania Police. In their radio room, they have vision from all our cameras up on their wall, so they are seeing what we are seeing.

Ms BUTLER - So there will be more?

Mr BICKERSTAFF - In real time, yes.

² *Tasman Highway Intelligent Transport System*, Submission to the Parliamentary Standing Committee on Public Works, Department of State Growth, 22 December 2020, page 5

The Operations Management and Control System (OMCS)

4.8 The Committee understood that the current Operations Management and Control System had the capacity to integrate control of a range of traffic systems onto the one platform. The witnesses noted that this capability would not only facilitate the OTIS and LUMS upgrades by enabling them to be seamlessly integrated, but would also support integration of other systems in the future:

Mrs PETRUSMA - Chair, it says -

“The OMCS used by State Growth is based on the Transmax STREAMS product ...”

Can you explain what that is, please?

Mr BICKERSTAFF - Sure. Transmax is a subsidiary company to the Queensland Government in fact. Streams is a software it has produced, and it's a way of bringing a whole lot of different systems together into one interface that allows for integration and efficiencies in the way those are operated from one location, rather than having to go to several different applications to run.

Mrs PETRUSMA - Does that mean it's something that can be used now and in the future? If it's owned by the Queensland Government, it will probably stay timely and up to date - is that what your rationale is?

Mr BICKERSTAFF - Yes, it's widely used around Australia. As a department we've used the software for several years, and we continue to expand our use of it. This system is facilitating the upgrade of OTIS and LUMS.

CHAIR - ... Presumably the STREAMS product has quite a few aspects in terms of traffic management. Would you like to explain?

Mr BICKERSTAFF - STREAMS is a software that brings together lots of separate systems. The systems that run the speed limit signs go into STREAMS. The traffic lights talk to STREAMS; our cameras can go through STREAMS. It is just a way of coordinating.

Mr ELLIS - ... Chair, I imagine there'd be efficiencies to be gained by bringing the OTIS and the LUMS systems together on the same software, and the ability to talk across the networks about the status of both?

Mr BICKERSTAFF - Absolutely. The value of the OMCS as a system is that, with a single click, we can control a number of different systems, and do that very quickly and efficiently. In an incident response that's very helpful. We don't have to think about what message we put on this VMS while we think about the message. We've already planned that out.

We press one button and all the messages are deployed based on a predefined response plan, and each system and device talks to the OMCS, so we know when it's malfunctioning or when it has a fault, and we can respond to that as well.

CHAIR - ... You actually make a statement the OMCS has the capability to integrate with various systems currently used and other systems in the future. Do you have any other systems you can tell us about today that might be on the drawing board?

Mr BICKERSTAFF - The Lane Use Management System is the main one that we do not know what system that will be. One of the requirements of the tender is that it does integrate with the STREAMS product.

VMS Locations and Use

4.9 The Committee questioned the witnesses on how the VMS locations had been determined:

Mrs PETRUSMA -how will these final 13 locations be selected. Is it to allow an approximate kilometre distance before the next available route change?

Mr BICKERSTAFF - Yes. The process of identifying locations was one of thinking through, what are the key arterials and roads that are used by people travelling around that network? Where are locations where they might want to be able to take an alternative route? The signs we've identified create opportunities for people to have that information before they reach a decision point.

In a perfect world, you might have information on every single block, but that becomes too much for motorists to deal with, so we've tried to be strategic in providing information at key locations where those major decision points are.

Ms BUTLER - For the record, why is there the turn-off at Granton, where the Brooker Highway meets the Lyell Highway, just before the Bridgewater Bridge - that's a really congested area around there. Is that because Granton is just outside the Glenorchy City Council cut-off? Why wasn't that on here?

Mr BICKERSTAFF - I guess the current planning and ultimate construction of the new Bridgewater Bridge will change arrangements in that area, and that project may have similar sorts of facilities for providing information as part of that project.

- 4.10 The Committee was aware of the importance of locating the various VMS so that drivers had sufficient time to make decisions based on the information they had received:

CHAIR -To recap again, what is the distance time to read? You were saying roughly a kilometre before the decision point needs to be made.

Mr BICKERSTAFF - Generally we have tried to locate them at locations where there is space to place them, but also to give drivers opportunities to respond to any messaging they might receive and change their route as they need to.

- 4.11 The Committee noted that a number of the VMS would be near residential areas and sought to understand if there would be any adverse impacts on adjoining properties. The witnesses noted that this was unlikely as the VMS brightness was adjustable, and the works were being undertaken in the existing road reserve and on existing infrastructure:

Ms BUTLER - Would there potentially be some of those sign sites that may be really close to residential properties, causing a visual issue if they were on during night-time?

Mr BICKERSTAFF - Some of them may be relatively close to residential properties. The brightness of the signs is adjustable based on the ambient light, so they become less bright at night.

CHAIR - Just like your iPhone?

Mr BICKERSTAFF - Yes. We would hope that any of those sorts of visual impacts to non-road users would be minimal, but that is something the contractors will work through as they design these sites and seek the relevant approvals for them.

Mr ELLIS - Would it be fair to say that because a lot of it is existing infrastructure that there are not too many compliance issues in terms of heritage or environment, noise and those kinds of things?

Mr BICKERSTAFF - We are anticipating that to be the case, yes.

4.12 The Committee sought further detail from the witnesses on the messaging capabilities of the VMS and what types of messaging were envisaged:

Mrs PETRUSMA - The first dot point under OTIS talks about conveying messages to road users. How many words or sentences can be written on the board do we think? Will it be somebody who makes that decision as to what they type up, or is it going to be automated messages, or can somebody individually type an important message depending on the circumstances at the time?

Mr BICKERSTAFF - Each of the signs will have capacity to display at least three lines of text and each line will have at least 18 characters. The messages will be a mixture of preset messages that we have determined, and the operator in the traffic maintenance centre will have the ability to develop their own message depending on the situation as well.

Mr ELLIS - I noted the section about offsetting the use of mobile phones. Is that essentially to provide people with the information in their road environment so they can access that safely rather than going on their phone while they are driving to figure out what the traffic is like?

Mr BICKERSTAFF - Absolutely.

Ms BUTLER - Would the signage be able to alert if there were emergency vehicles coming through such as fire trucks or ambulances and so forth? Is there a mechanism for that? I know the Brooker Highway can get really congested.

Mr BICKERSTAFF - Yes. We are able to tailor the messaging that we put on those boards. What we can say in order to provide information, and how we can say it, will depend on the situation. It might be something like, 'Tow truck or fire truck approaching'. It may be something we can do, depending on the situation.

Ms BUTLER - Other countries and other locations use that signage for those kinds of messages and it works quite well, doesn't it?

Mr BICKERSTAFF - I am not sure. In theory it sounds like a really good idea. It's something we will explore when we have these signs and are using them.

Mrs PETRUSMA - In New Zealand, I saw they had signs like 'Traffic accident ahead, 40 kilometres per hour' that sort of thing, so people knew the reason why the traffic is travelling along really slowly.

Ms BUTLER - Or 'Make way for emergency vehicles', or something like that.

Ms KONG - The signs will definitely have that ability, and as Tim said, will be subject to business rules. We'll have preset messages and work out what kind of scenarios could happen.

CHAIR - Presumably, if you're travelling from Kingston up to town, and you get towards Mount Nelson and there's been an accident on the downhill side going into Hobart, they could simply say, 'Turn left to Proctors Road to avoid ...'

Mr BICKERSTAFF - Yes, those are the sort of situations we can direct people to go a certain way, or even, despite the queue they might be in, that it's actually going to be quicker to stay on the Southern Outlet, for instance - so providing that information to them, rather than leaving it for people to make their own judgment.

CHAIR - It might give an estimated delay time, perhaps?

Mr BICKERSTAFF - Yes.

Ms BUTLER - Do you also do public safety-style messaging, such as making sure people don't drink when they drive, or 'Is your seat belt fastened?' Is that kind of messaging also available?

Mr BICKERSTAFF - Absolutely. We can show standard messages on these signs, yes.

CHAIR - It is an interesting thing, isn't it? I suppose the more non-traffic-related messages there are, the more people get a little bit immune to reading them.

Mr BICKERSTAFF - That's right. There's a balance between what we show, how many different messages we show, the wording we use. We need to make sure we don't create confusion, so we want to be quite clear in what we're saying on those signs.

- 4.13 The Committee recognised the driver frustration stemming from the need for TasPorts to close the bridge to allow ships to pass. The Committee sought further information from the witnesses on what information the VMS would provide to help mitigate this frustration:

Mrs PETRUSMA - Chair, where it says 'Provide access for the TasPorts Control Room to remotely access signs to enable closure for shipping', will TasPorts be able to have access to put a message up, like 'Bridge closure for seven minutes' so that people who can see the ships going underneath it know they only have to wait seven minutes, two minutes, whatever, so they know it is not forever?

Mr BICKERSTAFF - We will certainly have that potential to do that, and we will work with TasPorts to make sure we can have an appropriate message for people.

Mrs PETRUSMA - Yes. If you are coming from the Eastern Shore, people can see 'Oh the bridge is only closed for the next seven minutes', so they know that it is not forever and they know it is not a serious accident or anything. It will help keep people a bit more patient.

Mr BICKERSTAFF - Absolutely.

Over-height Vehicle Detection

- 4.14 The Committee recognised the importance of protecting the integrity of bridge infrastructure from damage by over-height vehicles. The Committee sought to understand how this would be managed:

Ms BUTLER - I found the information you provided to us earlier this morning in relation to the sight distances with trucks going underneath the bridge quite interesting, with the signage alerting them to whether the truck is too high to go under that infrastructure.

Mr BICKERSTAFF - Sure. That was talking about over-height detection. For the protection of some of the structures on the bridge where traffic has to pass underneath another part of the road, we want to be able to alert any over-height vehicles that do make their way onto the bridge, that they are over-height and to guide them to take an alternate route that doesn't mean they clash with the bridge.

CHAIR - Would that include, for instance, as you are going under where the lower Domain Highway commences, so you are coming down the bridge and you do not go left at the lower Domain, you are going underneath; there are two separate heights there? The inside left lane has one height and the right-hand lane has another - would you expect those signs to be sophisticated enough to say use the right-hand lane, for instance?

Mr BICKERSTAFF - We will have to wait to see what comes through from the tenders. Certainly, we want to protect the lower height - that is critical. If we protect that, we are also doing the higher height.

CHAIR - I wondered whether it might give directions to use an alternate lane as opposed to taking an alternate route?

Mr BICKERSTAFF - Yes, we will have to wait.

CHAIR - You are not sure at this point.

Mr BICKERSTAFF - No, not at this early stage.

Tender Process

- 4.15 The Committee understood the project procurement approach was a design and construct method. The Committee sought to understand why this was the preferred contracting approach:

Mr ELLIS - *The single design and construct contract approach - is that because there's a limited number of firms around the world that have a speciality in this kind of thing, so it's better for them to do start to finish?*

Mr BICKERSTAFF - *That's right, yes.*

- 4.16 Noting that there was a limited pool of potential contactors, the Committee questioned the witnesses on how local firms might be engaged in the project:

Mrs PETRUSMA – *Do you still expect our local contractors to benefit, even though you might just have one head contractor? Do you expect local electricians and other businesses to benefit from the contract?*

Mr BICKERSTAFF - *Yes. There's a lot of different elements to this project that will require a number of different subcontractors and a lot of local knowledge and local involvement.*

CHAIR - *Does the tender documentation indicate that Tasmanian firms are to be used if possible, or don't they go that far?*

Ms KONG - *As a requirement?*

CHAIR - *Yes, in the specifications of the tender.*

Ms KONG - *Yes, it is one of the evaluation criteria that will be scored against local SMEs.*

Stakeholder Consultation

- 4.17 The Committee questioned the witnesses on the range and level of engagement with stakeholders in designing the OTIS and LUMS:

Mrs PETRUSMA - *Chair, looking at the list provided, are organisations like the RACT and Metro involved at all, and other emergency services like Tasmania Ambulance and Tasmania Fire Service, as well as Tasmania Police? I am interested in stakeholder engagement.*

Ms KONG - *At that point we submitted the submission, it has not been listed among our key stakeholders, but we can take that into consideration.*

Mrs PETRUSMA - *The RACT is very interested - whether it is ferries or other congestion measures - and Metro, our major transport provider.*

CHAIR - *It raises a question about public input. I notice it is considered a low risk in Appendix A. Given the fact that you are expecting the public to respond to this, what sort of interaction are you going to undertake with members of the public to gauge their acceptance or otherwise of it?*

After all, while it may be low risk in relation to the technical project, it may not be low risk in relation to whether they accept it or not, and you might have a big outcry. I am not suggesting there will be, but I am asking whether you have considered that. Why is the public considered a low risk?

Ms KONG - *It is the Government's commitment to have this project delivered. At this point, we have decided that the members of the public will be informed on the approach. We will work closely with our preferred contractor as design and construction are progressing, and develop our stakeholder engagement plan. That is a live document that we will update progressively.*

CHAIR - Would you expect that, for instance, it might involve a website where information is put up for public consumption, and members of the public are invited to comment? Is that the sort of thing that might occur?

Ms KONG - That is one of our standard approaches, but we will be working in conjunction with the contractor. At this stage, it is our standard approach, but it will be up to the contractor to propose that to us, and then we will work together.

CHAIR - You are working with each of the individual councils, The submission says under section 7.2, Type of Consultation -

“Individual online meeting with stakeholders - City of Hobart, City of Clarence, Glenorchy City Council, Kingborough Council, Tasmania Police, TasPorts”

Would you expect that each of those councils would be communicating with their communities to provide feedback into this or not?

Ms KONG - I cannot speculate on that but we would definitely keep them informed and then it is up to the individual council as to how it wants to communicate to members of the public.

CHAIR -... .. any questions that have not already been asked with respect to the appendix to do with the Stakeholder and Community Engagement Plan? That is where I picked up on the members of the public being a low interest and low influence with level of engagement inform stakeholder or classification other . It seems they are going to receive information as opposed to having the opportunity to be consulted. That is why I asked the earlier question. I do not want to put words into your mouth, but it might be up to the councils to consult with the people. Is that what you are saying?

Ms KONG - At this time, the plan is not to consult with members of the public because we are not expecting the public to have input into the technical side where we are now.

Does the Project Represent a Good Use of Public Funds?

4.18 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 witnesses who confirmed that the project provided value for money in using public funds and would address recognised needs:

CHAIR - Do the proposed works meet an identified need or needs, or solve a recognised problem?

Mr BICKERSTAFF - Yes.

CHAIR - Are the proposed works the best solution to meet identified needs, or solve a recognised problem within the allocated budget?

Mr BICKERSTAFF - Yes.

CHAIR - Are the proposed works fit for purpose?

Mr BICKERSTAFF - Yes.

CHAIR - Do the proposed works provide value for money?

Mr BICKERSTAFF - Yes.

CHAIR - Are the proposed works a good use of public funds?

Mr BICKERSTAFF - Yes.

5 DOCUMENTS TAKEN INTO EVIDENCE

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

- *Tasman Highway Intelligent Transport System*, Submission to the Parliamentary Standing Committee on Public Works, Department of State Growth, 22 December 2020.

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 a new Lane Use Management System (LUMS) for the Tasman Bridge and an On-Road Traveller Information System (OTIS) for road users in greater Hobart.
- 6.2 The proposed works are expected to assist in the delivery of a more efficient and reliable road network in greater Hobart. This is expected to be achieved by the proposed works contributing toward making the road network more resilient and adaptable to changing traffic conditions from a range of causes, such as crashes, breakdowns, other traffic incidents and both planned and unplanned events.
- 6.3 Accordingly, the Committee recommends the Tasman Highway Intelligent Transport Systems project, at an estimated cost of \$23 million, in accordance with the evidence received.

**Parliament House
Hobart
30 June 2021**

**Hon Rob Valentine MLC
Chair**