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THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS MET AT ELIZABETH TOWN CAFE (ETC), MIDLAND HIGHWAY, ON TUESDAY 31 JULY 2012.

SYMMONS PLAINS RACEWAY ACCESS/WEIGHBRIDGE

Mr CRAIG HOEY, ACTING GENERAL MANAGER, **Ms DEBORAH DAVIS**, ACTING MANAGER, **Mr PETER HUBBLE**, MANAGER TRAFFIC PROJECTS, LAND TRANSPORT SAFETY POLICY, AND **Mr GUNA GINNELIYA**, PROJECT MANAGER, DEPARTMENT OF INFRASTRUCTURE, ENERGY AND RESOURCES WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR (Mr Harriss) - Welcome, everybody.

Mr HUBBLE - Thank you for the opportunity to be a part of this committee today. Wire rope barrier obviously is a key part of the Tasmanian road safety strategy, some of the projects that are being rolled out under that. I will hand over to Deb to give an overview.

Ms DAVIS - I would like to take you briefly through the outline of the strategy, the safe systems and why we think the wire rope is a crucial part of that. I am assuming you have a level of familiarity with the fact we have the road safety strategy and you've probably had some exposure in the past to what that's about. We have tried to address the major crash types. In developing our program of work we look at that. The major crash types we have for our serious crashes are run-off-road and head-on crashes, and that is particularly why the barriers are important. We have used a safe-system approach in developing the strategy. 'Safe system' is a term that's used throughout Australia, New Zealand and worldwide. It basically represents a shift in thinking about road safety where you look at the system as a whole, which involves users, the roads and roadsides, the vehicles and the speeds at which they travel, all working together to provide a safe environment. It is based on the Swedish Vision Zero and Sustainable Safety from the Netherlands, which are two of the top performers in road safety. It takes the ethical basis that nobody should be seriously injured or killed in using our roads. That is where the shift has come, to say it is not acceptable for this to happen and we should try to make the system work so that doesn't occur. It recognises that people will make mistakes - even the best drivers in the best cars will at times make mistakes - and that human bodies are frail and can only tolerate a certain amount of energy in an impact before they're seriously damaged. The idea is that the system can help to prevent those crashes occurring, but where they do occur the energy that's involved in a crash should be limited to that which the human body can tolerate. That is the basis of the safe system.

Mr BOOTH - Have you also taken the Vision Zero concept to training paramedics and other response people for that critical time after an accident before they get to hospital? Perhaps you could detail the broader response to Vision Zero.

Ms DAVIS - We've had some conversations in line with that and we know we have the emergency services and the police department as part of our Road Safety Council and we work collaboratively with them. We're trying to work more effectively with the health

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department to try to get that in place. We know those first moments after a crash are critical and it's an area where we need to do some more work. At the moment we're probably talking more within what the responsibilities of our department are, but we try to make those links with the health department. I don't think there is anything specific I could point to where we've had direct action come out of it in that respect. It is well recognised that it's very crucial to get that care quickly and that is part of the reason we have greater survivability of crashes now in that we have better and faster care.

Mr BOOTH - So your safe system is really to do with road design, furniture and things rather than how you deal with a crash once it's happened?

Ms DAVIS - I suppose the way I am speaking about it is more about the design of the system in preventing and managing those crashes and the energy from those crashes, rather than taking that broader at the moment. It is recognised that that is part of the overall survivability of a crash, but it's not part of what I am speaking about specifically today.

Mr BOOTH - Is there is a policy for safe systems you could provide to the committee that identifies the areas you are working on? I think it is very good you are doing that but unless it's a complete strategy that gets the people who have a crash to hospital and trains tow-truck drivers, paramedics and firemen in the first line of response, which is what they've done with Vision Zero. Do you have a document?

Ms DAVIS - No. You may have already seen the road safety strategy and its action plan, but it is much more within that sphere of the infrastructure department and the police department side of things. I don't believe we have a document that takes it further than that at the moment. It's probably something we are aware of rather than having formalised documentation.

Mr BOOTH - Is there work occurring within the department to try to bring that to the attention in cross-agency work?

Ms DAVIS - Probably not formally. It is probably more just through discussions at officer level and working with the police service primarily, rather than directly with the ambulance service at the moment. I think there is a recognition of it but I wouldn't be able to point to any formal work that has been undertaken in that space.

Mr BOOTH - Thanks.

Ms DAVIS - The safe system has four cornerstones, which are having safe vehicles, safe road users and behaviours on the roads, safe speeds and safe roads and roadsides. What that allows is that where you have better infrastructure you can have higher travel speeds and that is particularly pertinent with these two roads because they are high traffic volume roads. They are ones that we want to get movement through as efficiently as possible. They also carry a reasonable amount of freight and so this is a strategically important route. So if we can upgrade the infrastructure to allow for safer travel at higher speeds, then that is part of the reason for having the barriers in place. We know from research that if you have, for example, a head-on car collision, 70 kilometres an hour is the travel speed at which you can survive but anything greater than that survivability rate is very low just because of the energy that is presented in that crash.

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Mr BOOTH - That's a head-on?

Ms DAVIS - Yes, a head-on.

Mr BOOTH - So two at 70 kmh is 140 kmh.

Ms DAVIS - I believe it is two at 70 kmh. Obviously it is lower than that if you have an unprotected user, such as a motorcyclist or pedestrian.

Mr BOOTH - Does that mean if you hit a tree at 140 kmh you would be okay?

Ms DAVIS - No, a car hitting a tree is 40 kilometres an hour. I suppose in a vehicle-to-vehicle crash both vehicles absorb some of the energy of the crash, whereas a tree or a pole doesn't absorb any of the energy.

In terms of barriers in that safe system road design, the idea is to allow for higher speeds where it is safe to do so, to reduce the risk of the crashes occurring but then to manage energy in those crashes. So the barriers are very important because they separate the opposing traffic and they protect from roadside hazards such as trees, poles and ditches. If we have that infrastructure in place we can allow the higher travel speeds and know that people have a greater chance of surviving should anything occur. That is particularly important where we have head-on and run-off-road crashes, as we have a history in Tasmania.

When we developed the action plans under the road safety strategy we had some modelling done by an independent body - Monash University. They said that if we went down the path of putting in median and side barriers that we could get probably a 5 per cent saving in our serious casualties every year. That is why the road safety strategy is targeting that and the road safety levy funds are being put as much as possible into that type of infrastructure to consistently deliver year on year when that infrastructure is in place.

In terms of the types of barriers, the issue for road designers and engineers in designing projects is to think about the most appropriate response to the problem in that area. We know there are different types of barrier systems available but the flexible safety barriers, or the wire rope, have been proven in the majority of cases to have the best responses. I think it is an 85 per cent to 90 per cent reduction in serious casualties where they have put them in place. I believe that is because they absorb more energy in the crash because they are flexible compared to steel railings, which will absorb some energy of the crash, or a solid barrier like concrete which doesn't absorb the energy. They also retain the vehicle within the space rather than bouncing it back into other traffic. I think that is a reasonably accurate description of why they are used.

It is recognised throughout Australia that the motorcycling community has concerns with wire rope barriers but we haven't been able to find any evidence that shows that they are more damaging than another type of barrier. We are not saying that they are better for motorcyclists than another type but we don't think that they are worse. The research evidence that we have been able to find says that they don't demonstrate any worse outcomes from having a wire rope barrier than from having a solid barrier or armco-type steel barrier.

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Mr BROOKS - Did the motorcycle groups accept that?

Ms DAVIS - I think in some cases there is a growing acceptance of that but it is one of those situations where certain locations have greater risks for motorcyclists than others and that is where we would like to target our efforts, to put in the most appropriate infrastructure in those locations where there is greater risk.

We have regular discussions with the Tasmanian Motorcycle Council. We are trying to work collaboratively with them to address this issue, so we are looking at the types of crashes that they have. It seems to be the posts that are more of an issue than the wire rope, which is probably different from what the general community would believe to be the case.

Mr BOOTH - The Tasmanian Motorcycle Council has certainly been lobbying myself, and I am sure other members, with regard to wire rope barriers, which is partly why we were concerned about the work that was being done on the West Tamar Highway. It is really good that you have responded to that report, and I thank you for that. Are you saying that the Tasmanian Motorcycle Council is no longer representing the position that they want the barriers torn out? They provided evidence of other jurisdictions - and I can't recall where they were.

Ms DAVIS - I believe there is one in Europe.

Mr BOOTH - Yes, where they have made a decision to take them out. But you are saying that the council is now working with you and is satisfied with the approach you are taking with the barriers, provided you fix the post issue.

Ms DAVIS - I wouldn't like to speak on their behalf; I can only speak of the conversations that we are having with them and it is moving in that direction. I wouldn't like to say that they have made a formal decision as a council to change their position but we are working towards getting a memorandum of understanding with the Tasmanian Motorcycle Council which will represent the approach they will be taking. Peter, would you like to explain what that position would be?

Mr HUBBLE - Our last meeting was last Thursday and we agreed to a memorandum of agreement of where we should use safety barriers. There is now an acceptance by the Tasmanian Motorcycle Council that safety barriers are necessary on the road network. The question then is what type of barrier should we use? It has now been agreed that on very tight radius curves we probably would consider using a steel beam, fitted with a rub bar. The rub bar is an extra piece that fits along the bottom of the W-beam and prevents a motorcyclist who loses control from hitting the post. Then on sweeping curves we would use padding -

Mr HALL - The Victorian approach.

Mr HUBBLE - Yes. I presented a pamphlet of the padding that provides protection. On long straights, wire rope would be appropriate and so we are working with that. That is based on research. We did a review of all motorcycle crashes over a five-year period and that report is published on DIER's website, dated June 2010. In summary the report

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indicated that although motorcyclists represent only 4 per cent of the travelling fleet, they are over-represented in serious casualties. Sixty-three per cent of casualties are single-vehicle crashes, meaning the motorcyclist has lost control, and only 7 per cent of serious crashes involve hitting a barrier. Of the crashes we looked at, there were only two that hit a wire rope barrier. We have provided some evidence to the Tasmanian Motorcycle Council on the crash types. That is where our agreement has grown and matured over the last few months, on their recognition that safety barriers are an important part for all road users. But we understand their concerns and put in measures to try to reduce the severity regarding some issues.

Mr BOOTH - What about risk to decapitation from the wire - something they have raised?

Mr HUBBLE - They have raised that, called the 'cheese-cutting' effect.

Mr BOOTH - That is right, yes.

Mr HUBBLE - That has been dismissed now, Australiawide. The issue now is the posts. They get more serious injury from the posts - arms and legs that may hit the post - and as a consequence of that we are providing some padding on curves.

Mr BOOTH - On those tight curves you talk about, the small radius things, you would be putting in potentially a solid barrier?

Mr HUBBLE - A W-beam. An example of that is part of the new Brighton bypass. As you are travelling north and reach the bypass from the old road to the new road there is a very tight curve and we've put in a steel-beam barrier there with a rub rail.

Mr BOOTH - In hindsight then with the West Tamar road, where this issue was raised in the report, if you constructed that today would you use a solid barrier on tight curves?

Mr HUBBLE - No, they would still be considered sweeping curves, not tight curves.

Mr BOOTH - Is there a radius?

Mr HUBBLE - That is what we are working on with the Motorcycle Council. We haven't worked out what that radius will be; it may be 100 metres radius or 150 metres, but we need to still work on that. We want to work out a dimension - if it's a 150-metre radius that that will be W-beam, greater than that would be padding, and if it is straight sections then we wouldn't provide anything but additional padding.

Mr BROOKS - Will that form part of the MOU as well?

Mr HUBBLE - Yes. We are happy to provide that on our website.

Mr HOEY - I attended a meeting last week with Shaun and I thought it was a very positive way forward in developing an MOU with some sort of standard around that in terms of the radius of the curve and giving an agreed position. I thought he was very positive in the way forward.

Mr BOOTH - It's an evidence-based thing?

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Mr HOEY - Yes. As soon as we did that analysis and showed the results of the crashes, that makes it a more meaningful discussion.

Ms DAVIS - That is what we wanted to put forward, the context within which we were proposing to have barriers and wire and the reason why the flexible barriers are seen as the best option in most cases, but that will be considered depending on the location and the usage of that road. If we know it's more of a motorcycling route then we will take more consideration of that and obviously the radius of the curves. Primarily on a lot of these longer, higher speed, straighter sections of roads the flexible barriers are preferable because they absorb that energy and prevent the cars from going out of control either across into another vehicle or off to the side of the road.

CHAIR - Is there anything else on overview as to the specific project on the Midland Highway?

Mr BOOTH - Could you detail the prioritisation of how these areas were chosen and on what basis you decided you would fix up the Symmons Plains thing and the Elizabeth Town weighbridge et cetera.

Mr HUBBLE - We are constantly monitoring crashes and we have done an analysis of crash types. We have done analysis of loss of control on curves and head-on crashes and from that we have identified and prioritised locations that have no representation of crashes. We have then targeted each of the locations to see what the crash types are, why they occur and what is an appropriate counter-measure. The head-on crashes report is also on our website; I think we have done about eight or nine now. We have also done motorcyclists, pedestrians, heavy vehicles, head-on, loss of control and cycling locations. From that report we have come out with some projects and today we have these two projects for head-on crashes - Symmons Plains and Gannons Hill. It is evidence-based.

Mr BROOKS - One incident that takes me back was young Jesse Crack who was killed at Parramatta Creek in 2009. It was determined by the coroner that he probably fell asleep, swerved onto the wrong side of the road and killed another driver. Do you feel that would not have happened if there was a safety barrier in place?

Mr HUBBLE - Yes. This is what the safe system is all about. When a person falls asleep, makes a mistake or inattention there is a system there that will provide some support. If a vehicle leaves the road to the left, if there is a barrier obviously he wouldn't hit a tree. The same thing with a median barrier; it would prevent a person from crossing onto the wrong side of the highway and into opposing traffic.

Mr HALL - So even though you've identified those two areas, the existing road design has not been the cause of some of these accidents. It has been purely driver error, fatigue or whatever?

Mr HUBBLE - That's correct. Crashes are complex. For a crash to occur a lot of things have to happen and it's very difficult to understand why a crash occurred. You need to put a safety net around a driver to ensure that if he does make a mistake he doesn't pay with his life, that he would be able to walk away from the crash.

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Mr BOOTH - While we are on these safety issues to do with pushbikes, do you have a standard width? Are you doing anything special with these road widenings and so forth with regard to cyclist safety? I am also interested in the type of tarmac you put to the left of the white line in the notional cycle area; is that exactly the same as the rest of the surface? You so often come across a cyclist who has a metre of tar to their left but they're sitting to the right of the white line and it appears it's because the road surface seems a bit smoother than the bit on the left. Is there any factual reality to that?

Mr HUBBLE - We haven't had conversations regarding that. As has been instanced on the West Tamar Highway where there is a significant cycling recreational and training circuit, we have recognised that they use the road shoulders there. Where there are opportunities we will make it smoother and we will also go through there and sweep the edge on a more regular basis to try to remove the debris and improve the situation. On these roadworks we are making the shoulders wider.

Mr BOOTH - What is the surface going to be?

Mr GINNELIYA - It is the normal seal, but we will come back after 12 months and put on another seal to make it a bit smoother. The normal seal is a 10 mm primer seal. It will stick to the gravel and part of it will roll nicely into the apron and become a smoother surface. The duration of that seal is 12-18 months. It is called a 'temporary seal'. Then we come back 12 months after that and put on another coat of seal, which will then give a duration of maybe 8-10 years, sometimes 12 years. That will make it slightly smoother.

Mr BOOTH - But will it be as smooth as the road?

Mr GINNELIYA - Yes, it will be the same seal right across. There is no special treatment; it is the same seal across the entire width.

Mr HALL - So that is going to be an ongoing policy of the department. When you do a new project such as this you're going to have that two-metre wide

Mr HUBBLE - Yes, that's correct. On the National Highway we're even considering, possibly not for cycling but for general use, it may be increased to 2.5 metres.

Mr HALL - I ride this highway quite a bit and it's dodgy and narrow and there is always a lot of detritus on the road and I have never seen it swept yet. Often you have to swerve out into the traffic lane, and that has been an issue. I point out from a safety point of view, as a cyclist, that it is quite dangerous to ride along that road. I am pleased to hear what you are doing, even though that is only going to be short stretches and then it will be back onto the same conditions that we have always had.

Mr HUBBLE - We understand cyclists' concerns and we try to deal with them on a case-by-case basis. We also need some policy overall to deal with it. Craig is a cyclist so he is obviously pushing that way as well.

Mr HOEY - As you said, Greg, debris on the side of the road can build up and sweeping that

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Mr HALL - Punctures.

Mr HOEY - Yes.

Mr BOOTH - Has that policy developed or are you looking for a policy?

Mr HUBBLE - There was a document released on Thursday or Friday, which was sent around the department - a draft document for comment - regarding cyclists on rural roads. Unfortunately I have not had a chance to read that at this stage but there is some move there. We have a cyclist position within the department looking at improving cycling facilities on the network. We are working towards that area.

Mr BOOTH - That would be on all roads? I recall a couple of years ago having a conversation about these major highways and it was considered they weren't really cycle routes anyway.

Mr HUBBLE - It is a difficult concept regarding a safe system with vehicles travelling 110 kilometres an hour and cyclists travelling at 20-40 kilometres an hour. We have to try to provide as wide a surface as possible. It is an issue we have to come to terms with regarding cyclists travelling along a high-speed road.

Mr BOOTH - But you now accept that they do.

Mr HUBBLE - We accept it is occurring and therefore we need to provide our infrastructure to cater for that. It is not going to happen overnight but we recognise it and will provide improved safety facilities.

Mr BROOKS - Would it make a difference if you build the shoulder to that standard? Obviously there will be a lot heavier and higher volume on the road part; would that make it smoother or would it make the shoulder surface of the road worse over a period of time? If the shoulder has 20 bikes on it a day compared to 6 600 cars a day, obviously it would have a different impact on the road. Does it make smoother or not?

Mr HUBBLE - Traffic on the road doesn't make the road smoother - yes, you are correct. So if there is no-one travelling on the shoulder then that doesn't deteriorate. As long as we put in a reasonably smooth surface in the first instance, then it won't deteriorate. The other issue that has been raised is the collection of debris and loose gravel which we need to ensure is swept away.

Mr BOOTH - Do you have a strategy in terms of the road maintenance for the new works that you are doing?

Mr HUBBLE - We maintain our shoulders on a two to three times basis a year, so they do get swept.

Mr BOOTH - So even though Greg has never seen it, it does occur?

Mr HUBBLE - Yes, it does occur. If it is identified that there is a significant movement of cyclists on the West Tamar Highway, then we recognise that it needs to be swept more

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often, or we have said to them, 'You let us know when it's really bad and we'll clean it up'.

Mr HALL - So the Bass and Midland highway verges are both swept three times a year?

Mr HUBBLE - Twice or three times a year; I couldn't tell you exactly when.

Mr HALL - It is not just road cyclists of course, it's also for tourists; you see them with their big saddlebags on. Sometimes whilst you might choose a cycle route which is off the highway, often you have to connect via the highway, that is just the simple way it is.

Mr HUBBLE - We will talk about project. Section 1 introduces the project and location. In this case it is Midland Highway and what is known as Symmons Plains. At the moment there is one lane in each direction. The report recognises that this is in the Northern Midlands Council and the project is 4.5 kilometres long.

The project objective under section 1.3 is to improve road safety by preventing head-on crashes and reducing the severity of loss-of-control crashes. Section 1.4 is the project justification. The department did a review of serious and fatal head-on crashes in Tasmania in March 2009 and found the most serious type of crashes were head-on crashes. Through our analysis we found that Symmons Plains was over-represented and had a cluster of head-on crashes. The median barrier has been known to provide the best outcomes and we can achieve a 90 per cent reduction in the severity and number of crashes occurring.

This project is being funded by the Tasmanian Road Safety Levy and has a benefit-cost ratio of 2:1, which will deliver significant savings in road safety.

Mr HALL - Is there federal funding in this project at all?

Mr HUBBLE - There is no federal funding of this project at all.

Mr HALL - In either project?

Mr HUBBLE - In either project.

Mr HALL - It comes out of the levy?

Mr HUBBLE - Yes.

The project is to widen the road to accommodate a median barrier and provide a two-plus-one lane configuration, meaning the highway will be upgraded to three lanes with a median barrier down the middle. In one direction there will be two lanes and one lane in the opposite direction, but that would change throughout the project. Generally speaking, the change between the two and the one occurs approximately every 1.5 kilometres. That is to maintain overtaking manoeuvres.

Section 1.4 indicates why we are not providing a dual carriageway in this location. The report indicates that currently the traffic volume on the Midland Highway is around 6 000

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vehicles per day and the justification for dual carriageway doesn't cut in until you have traffic volumes over 15 000 or more.

Mr HALL - I want to ask a question which is generic to both projects. Having spoken in the first instance to landowners in both cases, they are very happy with the way the department has done the mediation and sorted all their problems out, but why aren't you going to do four lanes instead of three? You put some answers down there but particularly with the bit near Symmons Plains we already have four lanes to the south, we have existing four lanes to the north, so why would you not, in terms of road safety, just go straight through? You say it is almost double the cost. You might be able to explain to me why it is almost double the cost when you have all those other existing project costs in there anyway - land acquisition and everything else. It seems to me, as a layman, just some more pavement. You probably don't need the wire-rope barrier down the middle because a lot of our four-lane roads don't have that. You talk about vehicles per day. If that is the case, what is the justification for having the existing four-lane sections anyway on both those highways?

Mr BROOKS - The feedback I have received has also been questioning why we are not getting a four-lane carriageway. You have based the Midland Highway on a traffic flow of 6 000 but you've based the Bass Highway on 6 500. Are you saying there is more traffic on the Bass Highway than the Midland Highway?

Mr HUBBLE - That is correct, definitely. I thought there would be community concern about not providing a four-lane highway because over the last couple of years it has been put in the public arena. As I said, based on traffic volumes, a four-lane highway in both locations is not justified. The Midland Highway from Hobart to Launceston is a single-lane carriageway, but we have provided overtaking lanes or climbing lanes. South and north of this project are locations where we've provided overtaking lanes and it is just coincidence that the overtaking lane in the northern and southern directions occur in the same locations, so that's why you have a four-lane section. The overtaking lane is to allow vehicles to overtake a slower-moving vehicle.

We did some calculations regarding the cost. This project is being funded by the road safety strategy, so we are very cautious about what money we spend, because we have limited funding. We did some analysis and, believe it or not, the cost would be double to do a dual carriageway. Normally we have a 15-metre wide median to separate the opposing traffic lanes and that impacts on the cost and the amount of land we need to acquire from the landowners.

Mr HALL - Is that a new standard?

Mr HUBBLE - No.

Mr HALL - You can see existing parts where you don't have that 15-metre bit on the Midland Highway. I can think of plenty where there is virtually nothing.

Mr HUBBLE - Our policy is that if the median is less than 15 metres, we have a barrier. A dual divided carriageway would have more impact to the landowners because we have to acquire more land. If we were upgrading the highway through there, in an ideal situation you would like to make the road straighter and take the curves out. That would be an

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additional cost, have more impact on the landowners and would segregate the landowners' holdings by having the road go through there. We have limited funds and the best option at this stage is the concept of the two-plus-one, and that means we have other funds we can use to treat co-locations.

Mr HALL - Had you had adequate funds, would you have gone for a four-lane option?

Mr HUBBLE - No, because it is not justified under these traffic volumes.

Mr HALL - I take your word saying it's double the cost, particularly when you have all those commonalities of having to shift Aurora services, but I wouldn't have thought the land acquisition would be that much more significant, if you look at the Elizabeth Town side. I notice one of the minutes asked why you wouldn't have taken more land on the western side, for example. I think the answer was that there was some native bush along there - ovata, which you can buy out of a nursery and replant. I am a bit bemused by it being double the cost. Do you have anything you can demonstrate to the committee that it is double the cost?

Mr GINNELIYA - I wouldn't say exactly the double the cost, but we may have to realign the curve just south of the Symmons Plains raceway access if we have four lanes. Somebody may think that by adding on a 3.5 metre lane width you get a fourth lane but it's not that simple. Widening of the structures, stock underpasses - it is not necessarily just the cost of land. The cost per hectare may be \$20 000 to \$25 000, but the injurious effect on top of that will be horrendous. That's how the value is calculated. It is not only the land value; it is the injurious effect on farming operators and that will add up significantly.

Mr BROOKS - You said it wasn't a dual-lane carriageway; it is two separate overtaking lanes.

Mr HUBBLE - Correct.

Mr BROOKS - What's the case then for, say, the Bass Highway from Devonport to Ulverstone? Is that just a long overtaking lane or a dual carriageway?

Mr HUBBLE - Which one?

Mr BROOKS - The four-lane highway from Devonport to Ulverstone and then through Burnie.

Mr HUBBLE - That's justified on traffic volumes. I think that would be around 16 000 vehicles a day.

Ms DAVIS - From what I've seen in the past with both highways, the closer you are to the urban centres you get those higher traffic volumes, so it's justifiable. In the Midlands part the traffic volumes drop off, so the Midland Highway on the Launceston and Hobart ends has much greater traffic volumes. In the middle you have much lower, and I believe it is similar for the Bass Highway. You may be able to justify because of traffic volumes to get that traffic through efficiently to have four lanes at either end, but in the

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middle the traffic volumes drop off significantly and the justification isn't there to warrant having that volume of traffic going through there.

Mr BROOKS - Unless of course it's too hard and too much of a goat track to worry about driving on, so some people don't bother. I suppose if we want to look at the whole issue, including freight and travel issues on the arterial roads of Tasmania, is the traffic flow low because people don't want to drive on it?

Ms DAVIS - I would imagine a lot of it is to do with where people work, and there is a certain distance they are prepared to live away from where they work. Given that most people probably work around those centres, there is a certain distance out where you get a lot more traffic that is work-based rather than freight. That is my understanding of why you get heavier traffic at those ends near the urban centres.

Mr BROOKS - When was the last time the traffic flow was done on both these sectors?

Mr HUBBLE - They were done within two to three years. Our traffic data is updated on a yearly basis.

Mr BROOKS - You do that by putting those tubes down on the road?

Mr HUBBLE - Yes.

Mr BROOKS - So that was done a couple of years ago?

Mr HUBBLE - I wouldn't know but we try to update within two to three years.

Mr BROOKS - Can you advise the committee when that was done?

Mr HUBBLE - Yes, we can.

CHAIR - My recollection is that current state government policy is to, wherever upgrades to the Midland Highway are being considered, where possible expand to four lanes.

Mr HUBBLE - Where funding allows it, we will upgrade to as many lanes as we can. At this stage, based on the funding profiles of the road safety strategy we have limited funds, so we need to ensure that the funds are spent as best we can. That is why we need to limit the works to what the current project is.

Mr BROOKS - But you haven't asked for extra funding?

Mr HUBBLE - We only have limited funds.

Mr BROOKS - Did you ask the government for more money, though?

Ms DAVIS - I'm not sure if the benefit-cost ratio still stacks up once you go to the four lanes, because of the additional cost. You start looking at the benefit-cost ratio dropping.

Mr BROOKS - So you didn't?

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Mr HUBBLE - This project is funded by the road safety strategy and they are the funds we are using at the moment.

Mr HALL - Would there have been an opportunity for you to put in your quantum of money and, because they are both federal highways, then ask the federal government to top up to make it a four-lane highway?

Mr HUBBLE - We did consider that. Both the Bass and Midland highways are part of the AusLink network. These projects would have to compete against all other safety projects in Australia. While these two sites are high in crashes in the Tasmanian context, they would be relatively low compared to mainland crash rates. I suggest this project would not compete highly for federal funds.

Mr BOOTH - Do they have strict criteria for federal funding?

Mr HUBBLE - They use a benefit-cost ratio as well, and as I said before this project has at the moment a benefit-cost ratio of 2:1.

Mr BOOTH - So the 6 000 vehicle count or whatever it was, as opposed to the requirement of 15 000 before you can -

Mr HUBBLE - Before a dual carriageway, that's correct. That's the same figure they use nationwide. We couldn't go back to the feds and ask them to upgrade to a dual carriageway, given the volume.

Mr BROOKS - Did you approach the state government?

Ms DAVIS - These projects were put forward to the Road Safety Advisory Council to be funded from road safety levy funds and the council believed that there was sufficient benefit in supporting the use of those funds for these purposes. There was some discussion at that time about whether it should be a two-plus-one or some other option, but the council, which involves a number of key stakeholders, were convinced that this was an appropriate option and an appropriate use of the funds. It recommended that to the minister for approval for the use of those funds. It didn't ask for additional funding to be sought from somewhere else or for the nature of the project to be changed, so it was put forward on that basis, given that the advice from the department was that this was an appropriate way to go, given the traffic volumes.

Mr BROOKS - Who's the minister?

Ms DAVIS - The Minister for Infrastructure, Mr O'Byrne. The Road Safety Advisory Council provides recommendations to the minister on the appropriate use of road safety levy funds and then the minister, under the act, empowered to approve the use of those funds.

Mr BROOKS - Can he amend or add to it?

Ms DAVIS - Potentially he could ask for further advice from the department but this was accepted through both of those bodies.

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Mr BROOKS - You didn't do that, I presume?

Ms DAVIS - No, we took the advice of the council.

Mr BOOTH - The analyses are based on safety and traffic volumes rather than election promises?

Mr HUBBLE - That's correct.

Ms DAVIS - The other thing is that the council considered this in terms of the amount of money that it has at its disposal to recommend for use and saw that these two projects together were considered to be the best use of those funds to get the greatest safety benefit across the network from the available funds. That recommendation was accepted by the minister.

Mr HALL - Whilst you take that purely statistical quantum of vehicles, do you also take into account - and all of us are road users with three or four of us travelling up and down all the time - the huge increase in the number of B-doubles and other heavy vehicles on those roads and the additional impacts they have in terms of safety and everything else. Do you take into account those figures as well?

Ms DAVIS - I believe that the traffic data allows for that. There is an annual increase that is projected forward.

Mr HUBBLE - The tubes on the road count the numbers of vehicles and also classify the types of vehicles. We know how many vehicles use that road as well as what the heavy vehicle content is. We could find out how many B-doubles use that road.

Mr HALL - On the same matter, I notice from one of the submissions - from M & M Bennett from Ashgrove - that traffic can build up behind slow moving vehicles travelling north. That is from here to Devonport and people from Deloraine who travel to Devonport often notice that. The passing lanes going north - they are making an observation - should be two-thirds the total distance. There are good passing opportunities north of the site for southbound vehicles, if you know the road.

Mr HUBBLE - Yes.

Mr HALL - There is nothing after this section for northbound vehicles until Latrobe.

Mr HUBBLE - We have considered that and we think the proposal maximises efficiency in both northbound and southbound directions. That is the concept of the two-plus-one, that we have two lanes travelling in one direction and that ensures overtaking possibilities. At the moment on Gannons Hill you have to rely on picking a gap in opposing traffic so therefore you are not assured of an overtaking manoeuvre through that section. But with the two-plus-one project we have, it assures people can overtake in a northbound and southbound direction.

Mr HALL - You talked about a warm dry summer, and we are coming up to an El Nino, so you should get things done pretty well -

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Mr HUBBLE - We're hoping to, yes.

Mr HALL - How much traffic disruption will there be whilst you are doing those two sections?

Mr GINNELIYA - There would be minimum disruption because we can maintain two lanes of traffic -

Mr HALL - That's what I was getting to.

Mr GINNELIYA - It would reduce speed limits, especially if we have a contractor working adjacent to a traffic lane, but in the other direction we can maintain traffic speeds and there would be barriers separating the work.

Mr HALL - There won't be stops that you know of?

Mr GINNELIYA - No.

Mr HALL - There won't be 15-minute delays?

Mr GINNELIYA - It may happen when we are extending the stock underpasses, and there is a creek crossing we have to extend. If the contractors are doing concreting work we may have to slow down for that section only but while we are doing the roadwork we can maintain a floating interaction with very minimal disruption. With that in mind we should be able to get most of this work completed by six months.

Mr HUBBLE - We move to section 1.4.3, casualty crash clusters. On Symmons Plains, the 4.5 kilometres section, has had 11 reported crashes in five years compared to the preceding and following locations which have only had one crash. That provides justification to say this section is a cluster. Section 1.4 is the use of flexible barrier and 1.4.5 concerns motorcyclists. At Symmons Plains, with the sweeping curves we will be providing some padding to the posts. Section 1.4.6 - cyclists; we acknowledge that cyclists will be users of the highway and we will therefore be providing wider, more consistent two-metre sealed shoulders, which will be an improvement for cyclists. Section 1.4.7, the Midland Highway partnership agreement talks about the provision of a dual four-lane highway. That is considered to be an aspirational, long-term goal, while in the immediate term we are talking about location clusters where we need to do some treatment immediately. This is one of the locations where we need to provide some improvements on a small scale instead of the aspirational four-lane dual carriageway.

Section 1.4.8 talks about access to Symmons Plains. The project is not trying to make raceway access more difficult, but it is not improving the access itself except for providing a dedicated right-turn lane into the access. Section 1.4.9 talks about the safety benefits and what we are proposing. It is the vision of the painted median and tension wire-rope safety barrier separating opposing traffic lanes to prevent head-on crashes; the provision of road safety side barriers to reduce severe crashes of loss-of-control vehicles; the provision of sealed shoulders to provide additional recovery of space for errant vehicles; provision of right-turn lane at the Symmons Plains raceway. The project will include audible lines on the edge of the roads.

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Mr BOOTH - Is that a standard now where you do line replacement or only in certain areas?

Mr HUBBLE - On our high-speed, high-volume or strategic roads we are tending to go to audible edge lines as a policy decision.

Mr BOOTH - They are very good, I think.

Mr HUBBLE - Section 1.4.10, the road safety user benefits - the two-plus-one concept is providing assurance for overtaking manoeuvres.

Mr HALL - On these generic projects, in the single-lane portions will you be confined by a barrier on both sides?

Mr HUBBLE - Not the whole way. There will obviously be a barrier on the median, so as you are travelling it will be on your right-hand side and on the left-hand side depending on the roadside environment. It is not the concept of having a barrier all the way down, only if it's a roadside hazard.

Mr HALL - If there is an accident, a nose-to-tail accident, how do you get access? Is there enough provision to get access by emergency crews into that single-lane corridor?

Mr HUBBLE - The distance between the median barrier and the outside barrier, so there's a median barrier and a side barrier, will be a minimum seven metres on that one way. That will allow other vehicles to get around any vehicle that has broken down or had a minor accident. They can pull to the side and allow enough road room for through traffic.

Mr HALL - We may as well stick two lanes down that part while we're at it.

Mr HUBBLE - When we started developing a two-plus-one concept, which is some two-and-a-half years now, we spoke with the emergency vehicles people - ambulance, fire brigade et cetera. We are providing gaps or safe places for the emergency services to turn around, if there is a crash in the single lane, to get access to the site. We are providing a gap every three kilometres so they can reach the incident site relatively quickly. If it happens on the one lane then they can stop on the second lane and treat the person through the barrier. We have had conversations with them and they are more than happy with the concept because they believe the median barrier outweighs the inconvenience there may be for emergency services.

Section 2 talks about existing conditions. Under table 1 we note the percentages of trucks, which is 17 per cent. That projected data is based on data from 2008-11, so I am assuming the latest traffic data at that location is 2011. I think it is important to note section 2.3.1, the historic crash rates, where we have indicated this is a cluster or a black spot. Section 2.3.2 talks about the reoccurring crash types: 12 of the 21 reported crashes between 2007-11 have been due to loss of control and/or encroachment into the adjacent travel lanes.

Mr BOOTH - Peter, going back 2.1 it says 'current speed zoning through the project site is 110 kph. The existing road geometry is quite undulating in parts and makes achieving this speed limit as an operating speed marginal for some vehicles'. Does that mean that potentially some of these crash statistics - we talk about people losing control of their

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vehicles and so forth - are as a result of the inappropriate speed limit on that section currently?

Mr HUBBLE - We have done an analysis and we note you can travel through there at 110 kph; the alignment is suitable at 110 kph.

Mr BOOTH - For some vehicles?

Mr HUBBLE - For all vehicles, but it is marginal if you're doing an extra 20 kph over that speed limit.

Mr BOOTH - Like 130 kph?

Mr HUBBLE - Yes, that's where the difficulty comes in. The alignment currently is suitable for 110 kph for all vehicles.

Mr BOOTH - Just quoting your own documentation, it says 'achieving the speed limit as an operating speed is marginal for some vehicles', so what sort of vehicles would it be marginal for? You don't have to tell me what sort of car or a golf cart or something like that, but we have a history of mortality and accidents on that road, so with a 110 kph zone might it not have been appropriate to reconfigure the speed limit there?

Mr HUBBLE - That was considered. We don't want to reduce the speed limit for chop-and-change factors. There will be a difficulty if you had 110 kph and then drop it down to 90 kph for five kilometres and then back to 110 kph. That would rely on voluntary compliance and that location will be difficult to enforce because it is so remote from the Launceston base.

Mr BOOTH - But as a general principle, notwithstanding that you can lead a horse to water but you can't make it drink, and nobody can force you to stick to the speed limit, but in this case people are apparently hitting trees and having head-on accidents as a result - potentially. Ought there not be some sort of policy that warns drivers at least. If you are doing 110 kmh you assume it's not going to be marginal for your vehicle; you would expect a fair margin of redundancy in that.

Mr HUBBLE - Yes, one option was to reduce the speed limit and do nothing else, and we thought that wasn't an option.

Mr BOOTH - I am not suggesting you not do anything else; I am thinking of the interim period. It is identified in this report that it is marginal, so doesn't that say that the speed limit must be reduced on areas that are identified as marginal in the interim period?

Mr HUBBLE - We could look at that; yes, I take your point on board.

Mr HALL - Would you concede that by going with the two-and-one principle, on that single lane there will be some frustration felt by quite a few motorists who previously would have been able to pass.

Mr HUBBLE - If no other vehicles were coming the other way.

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Mr HALL - Yes, that's quite a good point. Sometimes when people feel confined they do slow down if they are in a single-lane situation. Any of us who have travelled will recognise the wide-lane syndrome. Somebody is doing about 80 or 90 kilometres per hour - you see it all the time going to Hobart - and as soon as the four lanes come up, away they go and they are up to 110 kmh and you have to do 120 kmh if you want to pass them, so illegally you have to break the speed limit. There is a frustration factor.

Mr HUBBLE - It is important to recognise that we have just upgraded the East Tamar Highway through Dilston; we put a new bypass there and that bypass is based on a two-plus-one concept. I don't believe we've had any negative responses on the concept of the project. The concern you have raised, Greg, hasn't been raised to us before.

Mr HALL - That's a totally new bit of road, though.

Mr HUBBLE - Yes, that is a new bit of road.

Mr HALL - We are reconstructing an existing corridor.

Ms DAVIS - I think at the moment people recognise they may have an overtaking opportunity on that length of road if there is no traffic coming but otherwise they are not able to overtake safely on that stretch of road. This configuration will allow them a dedicated overtaking opportunity within that stretch of road that they don't currently have, in a safe environment.

Mr HALL - Going in one direction; in the other direction you can't.

Ms DAVIS - But it swaps to the other direction, so you whether you are travelling north or south you will still be provided with a dedicated overtaking opportunity which doesn't currently exist. In that respect we believe we are improving the operation of that part of the road by providing a safe overtaking opportunity which doesn't currently exist for people travelling along that section, in both directions. That is why the two-plus-one works, because it swaps to provide an opportunity for both directions of traffic.

Mr HUBBLE - With the Dilston experience we haven't had a situation where people have said to us that they feel constrained in the configuration. Both sites here are reasonably flat so we expect people wouldn't be going any slower than what they are doing now. I did some calculations. For a vehicle travelling at 110 kmh and another vehicle travelling at 80 kph for 1.4 kilometres, it is 19 seconds of inconvenience.

Under section 3 we have the project and the proposed works - to widen the current carriageway to accommodate a 1.8 metre median and to allow for the tension wire-rope safety barrier. We are providing breaks in the median at Symmons Plains and at the Childers dairy. We are providing U-turn facilities at either end of the wire barrier. We are providing roadside barriers on the side, where appropriate, to reduce the exposure to roadside hazards.

Section 3.1.1 describes the overtaking lanes and the configuration of the two-plus-one where it swaps. Table 2 talks about the design element. We are having 3.5 metre lane widths, two-metre shoulders, table drains et cetera. Under section 3.3, the project also provides widening structures. I think there are two.

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Mr GINNELIYA - There is one bit at Four Mile Creek and then we have a double stock underpass and another stock underpass.

Mr HUBBLE - Section 4 is the construction program and cost. We are hoping that we can go to tenders in August. We have an estimated cost - a P90 estimate - of \$7.8 million. Section 5 is on environmental and social implications.

Mr GINNELIYA - Our consultants, GHD, have done an assessment on the impact on flora and fauna. Two threatened species were found - chocolate lily and variable raspwort. We have had discussions with the DPIWE's threatened species unit and were able to get their approval to destroy some of those threatened species.

In terms of fauna, there was no significant impact by this project. We have had discussions with Aboriginal Heritage Tasmania and they have indicated that we are not required to do additional test pitting before the digging, based on historical evidence, because this area has been heavily disturbed by farmers. They have no objection for us to proceed with the project.

We have done a European heritage assessment and based on that some pioneer trees were found. Those historical records showed the current layout of the trees and found that impacts were minimal or nothing because some of the locations are far away. I have a report from our consultants who did the pioneer tree size assessment saying that the works would have minimal impact on that. Had we decided to do the road widening on the eastern side it would have significant impact. That is the very reason why we changed the widening to the western side, to avoid the impact on the cluster of trees.

This project's initial planning and concept commenced in mid-2010 and we have had a number of consultations with farmers and local residents, and a number of issues arose through those consultations. One of the key issues was having a break for Mr Childers dairy access, which we were able to accommodate. The other issue was providing improved access to the Symmons Plains raceway, which we have done. We also had discussions with Mr Maxwell, at the southern end. His concerns were about the overhead powerlines, which we agreed to relocate to the eastern side to allow him to maintain his private airstrip. We are also relocating the stock run for Mr Childers on the western side so he can maintain cattle movement during the construction. We have had discussions with service providers such as Aurora, Telstra and gas. The optical fibre line has to be relocated, which we are going to do. There are a number of power poles that have to be relocated. We have had discussions with the Fonterra milk company and they were concerned that we have to provide improved access to the dairy accesses so that the B-doubles can turn easily, which we are doing as part of the roadworks.

We have had discussions with Northern Midlands Council. There was some misunderstanding initially and our plan was refused. DIER decided to appeal against the council decision. We were at the tribunal once and then we were asked to exchange our submissions. During that process the council came back to us and said it was happy to negotiate and the council consented to agreement as per our revised plans. Then that process went ahead, so finally we were able to get the consent memorandum between DIER and the council, accepting provision for the break for Mr Childers and also the improved access for Symmons Plains raceway. So we are nearly there in terms of

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council approval. Once this consent memorandum is ratified by the tribunal, it will be okay.

Mr BOOTH - That agreement with the Northern Midlands Council based on their requirements for the break and so forth, as you described, does that compromise the safety of the design by having to accept a change to a controlled access point?

Mr GINNELIYA - Yes, we would like to have breaks ideally situated - and left turn in and out only - but you have to have significant farming operations. It's a sort of compromise situation.

Mr BOOTH - What is the safety compromise there?

Mr HUBBLE - Our preferred position would be no break. We wouldn't accept breaks on a curve because that's where there is a higher propensity for people to lose control. This is on a straight section of road and in that location there wasn't a high history of crashes. It's a position we can tolerate and have minimal risk.

Mr BOOTH - Do you have the technology to do that? It's one thing to say it will be right, but there must be some empirical basis with which you determine this?

Mr HUBBLE - It is based on a risk assessment.

Mr BOOTH - Can you tell us what that risk assessment showed? Was it, say, 10 per cent more dangerous or just as safe?

Mr HUBBLE - We believe overall it will be safer because the break is going to be a minimal distance. The break in the median will be reduced to some 15 metres, so we will only have a 15 metre gap. Based on that the likelihood would be very low for the person to get through.

Mr BOOTH - Across to the other side?

Mr HUBBLE - Yes.

Mr BOOTH - But what about the egress onto the road, crossing the road, the fact that on a main highway - I understand one of the reasons you bypass towns and reroute highways is to be able to control access points.

Mr HUBBLE - We looked at the crash types before we considered this and there have been no incidents in that location of an accident involving a person leaving and accessing the roadway at that location. We therefore considered there will not be a higher risk if we leave a break.

Mr BOOTH - Well, if people cross the road as well using that break. There are two issues and I'm not quite sure you understand what I was saying there. There are the people crossing the road, so it's a collision point, and then you also have the break in the wire barrier, which, as you have described, presents not much chance for a car.

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Mr HUBBLE - Minimal chances, yes. That is why we have the U-turn facility - the G-turns. The G-turn means that vehicles travelling have to go to the left and then straighten up and then they cross straight across and therefore we can reduce the amount of gap in the median break. That also allows people to turn out of their driveway to turn left or right, but we don't believe that the break is a compromise to that.

Mr BOOTH - No, but you wouldn't respond to drive your road design by people whingeing about the fact they can't cross a road?

Mr HUBBLE - No, absolutely not.

Ms DAVIS - The preference is you don't have breaks because then you have a greater safety level but there is recognition that for certain needs, particularly where there are businesses involved, there may be a need to consider providing a break, depending on its location, the history of crashes and the usage of different vehicles at that point. I think there has to be consideration of the needs of the local businesses in that area, but starting from the point that we would prefer no breaks. If they are provided it is on the basis of a very strong argument for that break being provided and ways to limit the risk of having that break there, so the risk assessment would involve the crash history and the usage and then maybe limitations even put on how that break could be used.

Mr BOOTH - Just to reinforce that, if it was on a bend or somewhere where you just couldn't, you wouldn't allow it?

Mr HUBBLE - No, we wouldn't allow it.

Mr BOOTH - So you would appeal on that basis, would you?

Mr HUBBLE - Yes.

Mr HALL - I suppose the biggest issue with both locations, with the Bennetts and the Padmans up this end, are the B-doubles - and also the Childers on the other side. The main issue would be the B-double milk tankers having to turn in and come out and you're happy with the safety aspect of that?

Mr HUBBLE - That is correct.

Mr GINNELIYA - The sight distance when the vehicle is coming out of their driveway, the access to the left and the right, is adequate. We cannot have a break unless there is adequate sight distance in both directions. With Mr Bennett and Mr Padman there is adequate sight distance in either direction to find a gap and do a right-turn when they are coming out of their driveway.

Mr BOOTH - And time for something the size of a B-double to get across the road - straddling both sides of the highway - and accelerate away with cars going in both directions.

Mr GINNELIYA - That's why we have done that lane configuration in such a way. When the truck enters it gets into the slow lane. We have made sure there are two lanes where there are gaps.

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CHAIR - The process for the consent memorandum, I think you said that once the council had rejected the application it then approached you and said they had changed their mind, or did you approach them with further information to clarify issues you thought were relevant?

Mr GINNELIYA - We did clarify with further information but it appears that message wasn't received. We had a meeting with the council planners -

CHAIR - After the council had rejected it?

Mr GINNELIYA - No, before, but it was just before a sitting of the full council. It appears that that message was not given to the councillors or somehow there was miscommunication between the planner and the councillors, or they didn't understand our message. Somehow something happened. That was the reason for councillors rejecting or refusing our proposal, and then DIER decided to appeal against it.

CHAIR - Okay, so once the appeal was lodged the council became aware of it and they were satisfied with some further information. Did they seek that information from you once they became aware of your deal?

Mr GINNELIYA - Yes. We discussed it at the time we were providing the information and then everyone was reasonably happy. Then the council had second thoughts and said they were happy to compromise too.

Mr HUBBLE - I think it is important to indicate that the planning officers supported the proposal; it was only the elected members who opposed it.

Mr GINNELIYA - We will be acquiring land on the western side. It is of varying width; sometimes 10 metres, 12 metres, 15 metres, depending on the [inaudible] and the width requirement. They will be compensated for those acquisitions of land and any injurious effect. If they can prove there are delays of stock movement or any other delays, they will be able to get compensation for those injurious effects. There are a few unauthorised accesses in this section of the highway. With the highway being a limited-access highway it is not possible for them to be allowed to maintain those unauthorised accesses. They will be closed, but they are aware of that and none of them have any concerns. They understand some of those accesses are unauthorised. At the same time, those authorised accesses will be improved for them to do a left turn in and out safely. As I said before, we have had consultation with service authorities. We are required to relocate the optic-fibre cable and power lines at an extensive cost. There are no services for Ben Lomond Water or Tas Gas. That is basically the project proposal.

CHAIR - We have examined this proposal as we have worked through this systematically and we will make our deliberation about that at a later time.

We will now move on to the Bass Highway project. Is there anything in particular you need to draw to our attention, Guna?

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Mr GINNELIYA - I need to draw to your attention that we have received Meander Valley Council's approval. At the time of this report we didn't have that, so I can table that approval.

Mr BROOKS - I noticed in the previous report you said the statistics were based on a 2008-11 study of road traffic use. That was in the Midland Highway one, but in the Bass Highway report, in table 1, it says there is no record of when those projections were made. Could you provide to the committee now or at some point in time just what data that was based on?

Mr HUBBLE - We are more than happy to do that.

Mr BROOKS - I was more than happy with the conclusion made in the Midland Highway one and the total one, at footnote 1. Was that data done in 2007 and is then the projection for 2008-11? When did you have the strips on the road?

Mr HUBBLE - On that footnote, it would have been done in 2008 and then redone in 2011.

Mr BROOKS - It says 'projection', and that's the question. I know we have moved on from that report, but on the Bass Highway one there is no such footnote or mention of any data.

Mr HUBBLE - We will provide up-to-date traffic volume data to the committee.

Mr HOEY - We have some crash history data at table A1, which is in appendix A. That is on the crash history, not the volume.

CHAIR - Thank you all.

THE WITNESSES WITHDREW.