Kāpiti Coast District Council
Proposed District Plan (PDP)
Traffic Modelling Briefing
MINUTES

Date:	**Tuesday 23 August, 2016**
Time:	**10.00am – 12.00pm**
Venue:	Coastlands Kāpiti Sports Turf, 10 Scaife Drive (Mazengarb Park), Paraparaumu
Attendees:	*Kāpiti Coast District Council (KCDC):* • Neil Trotter (Roading Network Planning Team Leader, Infrastructure Services) - **NT** • Don Wignall (KCDC Transport Expert Advisor – Transport Futures Ltd) - **DW** • Sherilyn Hinton (s42A Report Writer / Principal Policy Planner) - **SH** • Sarah Stevenson (Manager, Research, Policy & Planning) - **SS** *Submitters:* • Coastlands Shoppingtown Limited (Sub No 218) Mr Chris Hansen **(CH)** / Mr M Georgeson **(MG)** / J Whitaker **(JW)** • Kāpiti Airport Holdings Limited (Sub No 276) Mr T Kelly **(TK)** / Mr A Collins **(AC)** • New Zealand Transport Agency (Sub No 457) Mr T Brennand **(TB)** / Mr R Harris **(RH)** • St Heliers Capital Limited (Sub No 459) Via Skype Mr J Parlane **(JP)**

ISSUES DISCUSSED

[Initial discussion of the context / scope of the briefing – i.e. KCDC required to provide information to comply with Commissioners' memo. TK sought confirmation that this was the purpose, rather than an attempt to seek any agreement on the modelling].

Background – SATURN and VISSIM Modelling

NT – Over the last few years, Council has developed the Kāpiti SATURN Model (KTM1), and updated it over a number of years for various purposes, e.g. Western Link Road and the Expressway concept. In 2010 the model was given to NZTA, to use for modelling purposes.

The KTM1 model was significantly improved by NZTA in assessing and developing M2PP and PP2O proposals to create KTM2.

Following the M2PP and PP2O Boards of Inquiries, Council resumed ownership of the model and undertook further improvements to develop the current version, SATURN KTM3.

Recent work using SATURN KTM3 has included:

- In 2014 to evaluate the Kāpiti Road Relief Route for options testing and funding application purposes.

- In 2015 for Town Centre enhancement and SH1 revocation purposes and to review the appropriateness or otherwise of Airport GFA (traffic related) thresholds.

MG –In that model have there been demand variations through KTM 1, 2 and 3 or have the same demands and forecasts flowed through from one to the other models?

DW – They are significantly different – for example KTM 1 was done by Opus in 2006, then Beca took a different approach as opposed to first principals, tied much closer to the regional model forecasts using a composite growth method (which would not allow growth to exceed 50% of full development). The difference between earlier (2006) Opus and later (2010 onwards) Beca assumptions relates to the rate at which growth is expected to occur. Most recently we have looked at testing for full development for specific zones under consideration.

TK - In June / July 2016, New Zealand Transport Authority (NZTA) and Kāpiti Coast District Council (KCDC) were to work together with one modelling base and maybe commission other runs but it fizzled out – still not clear what happened between NZTA and KCDC.

NT – A meeting was held at NZTA offices (18 March 2016) between Neil Trotter (Kāpiti Coast District Council) Tony Brennand (New Zealand Transport Agency), Tim Kelly/ Robert Binney (Kāpiti Coast Airport Holdings Ltd) and Bob Hu (Beca), to discuss VISSIM modelling. The aim of the meeting was to talk about the purpose for the modelling – one aspect of the purpose being NZTA wanting to understand Airport development and how this could be modelled, to further assess proposed thresholds in preparation for the Proposed District Plan Hearing (PDP) for the Chapter 11 Infrastructure.

However, it eventuated that the modelling was not ready in time, and Council was unable to verify the draft results of the model without revisiting some of the detailed methodology. This included problems being observed with 2015 flows on Kāpiti Road being lower than actual counts, and the lack of convergence of the 2031 models. Council could not therefore accept the results as they currently stand and therefore has not used the VISSIM outputs in any way for PDP assessment and development purposes. Instead Council has relied on earlier SATURN and SIDRA modelling which has been recently checked and updated for PDP purposes.

Key aims for the VISSIM modelling was not just for the PDP work but also for detailed revocation, Town Centre and road project development work. The earlier 2015 VISSIM model (commissioned and funded solely by Council) was peer reviewed and we had some concerns about that model going forward especially in using it for testing options. For these purposes further improvements in the VISSIM model are required. Therefore when NZTA approached Council and said they were looking at doing some modelling work to understand the Airports thresholds effect on the Expressway, Council felt it was a good opportunity to further develop the VISSIM model and also share the costs with NZTA and work on a joint approach. Micro-simulation models involve fairly significant costs and the model could be

used for Town Centres, SH1 revocation and all the other things that we want to use that model for – it had other purposes of being upgraded for our use in the Town Centre Project.

TB - On first inspection NZTA felt the VISSIM Modelling was fit for purpose for the issues it was being applied to, although NZTA accepted that the model is an approximation, it is certainly not perfect and is in development. Basically NZTA felt that the VISSIM model results showed the right kind of behaviours and were satisfied that yes, we could tweak it here and there, but it was not going to fundamentally change our conclusions.

Assumptions

SATURN Modelling

NT - The Kāpiti SATURN model (KTM3) has been in place for a while. DW has undertaken SATURN modelling to test the effects of network variations and of full development on the network at various points, including for the Airport model zones and this has been used in a more detailed SIDRA network model undertaken in July 2015.

DW – As part of underpinning the VISSIM work that has just been done by Beca – they also used a similar technique to adjust the SATURN model to improve the network representation and zonal loading points and to vary the zonal demands to be more consistent with the 2007 trip generation spread sheet. It was part of the Beca spec; to first make sure the SATURN model was appropriate, and then to develop and extend the VISSIM model.

DW – In July 2015 DW took the SATURN model and varied the matrices to make them consistent with the trip generation spread sheet, and adjusted the network to make it consistent with the current network. In other words there was no Ihakara Street extension and no other sort of uncommitted improvement - it was the Airport access for the evening peak (only) because that is, in general, the critical period. This SATURN model was operated for a number of growth scenarios at different levels of development at the Airport and for different years. Namely for the currently built and consented floor area of 23,000 m^2 and then for a series of thresholds above it going right up to full development. Demand flows were taken from the SATURN model into a network SIDRA Model and that SIDRA Model was matched to the existing network and ran the result for that. In the same way I have done the same thing for the Town Centre and for the Kāpiti Road Relief Route. The focus of KTM modelling for this particular exercise was just on the Airport.

TK - Has that work been peer reviewed?

DW - This work has been peer reviewed internally by Kāpiti Coast District Council (Neil Trotter).

NT - Earlier SATURN modelling together with SIDRA modelling is what we have used with some other background information for Chapter 11 and Chapter 6 of the Proposed District Plan – we did not use the VISSIM because of the issues as explained earlier.

NT - The spread sheet that DW refers to is that something that TK produced for the earlier (2007) Plan Change 73 hearing for the Airport. Trip generation estimates have also been used for major developments in Kāpiti. These include a series of major developments including Coastlands, wider Town Centre (including St. Heliers land) and for others, such as Ngarara Farm and Waikanae North. For all of those there is a series of spreadsheets with generation rates, of which the Airport is one. On the basis of this generation estimate modelling tests of Airport thresholds have been undertaken. The master trip generation spreadsheet underpinned all the major development assumptions used for SATURN work undertaken for the McKay's to Peka Peka Expressway and Peka Peka to Otaki Projects.

We also used trip generation estimates for the Plan Change 72A Environment Court Appeal in 2013. The traffic generation assumptions for the Town Centre and St Heliers Land were part of the evidence in that court case and all of this is publicly available.

MG – KTM1, 2 and 3 and the SATURN modelling informing the PDP notified in 2012 – where does the 2012 modelling fit with the KTM 1, 2, 3?

DW – KTM2 was effectively developed through the McKay's to Peka Peka process around 2011, and KTM3 was developed post 2014. KTM2 was therefore used to inform the PDP as notified and was based on exactly the same traffic generation we have used in KTM3. It should also be noted that Council had access to KTM2 throughout the whole period. Even though NZTA were maintaining and developing the model, they shared that model with Council continuously and so we were able to look at the impact of the Expressway and other major effects of the PDP throughout that period.

MG – Requested Council shares the traffic generation estimates for major developments in the District.

DW – This information is available, we will have to make sure it is up to date, it will basically be the master spreadsheet used for the development of KTM2 and 3.

SIDRA Modelling

NT - There are two SIDRA network models (Network Wide Statistics)

1. Town Centre and the Kāpiti Road Relief Route – along Rimu Road (between Ihakara Street and Kāpiti Road) and along Kāpiti Road (between SH1 to Te Roto Drive).

2. Airport modelling: Kāpiti Road between Arawhata Road to Ocean, Blue Gum Road and Toru Road.

The point about the SIDRA networks is they are not intended to be large assignment networks, they are meant to be fairly contained.

The Airport SIDRA Modelling was used to check and verify what was already in the PDP.

The Airport traffic related thresholds were originally established back in 2006/2007 and these have been incorporated and maintained throughout in the Operative District Plan (ODP). These thresholds have been taken forward into the Proposed District Plan, 2012 (PDP) and the Airport SIDRA modelling was undertaken to check if these thresholds were still meaningful and relevant.

Summary of Findings

Please refer Annex 1 Chapter 6 – Traffic Memo (available on the Council website; http://www.kapiticoast.govt.nz/globalassets/sev-pdp-and-utv/chapter-6-working-environment/chapter-6-working-environment-sn-42a-report-appendix-10-transport_memo_chapter-6-2016.pdf)

There are more results here that talk about district wide issues, obviously you target analysis for the purposes intended, there are other ways of handling other issues, and the Airport SIDRA modelling was looking specifically at the Airport.

The critical things we looked at in two ways, one was network speed on all links of the Airport SIDRA model to see if there was any significant change in network speed at the

different thresholds. We found there were substantial changes in network speed LOS for various levels at specific years in 2017, and we did find a significant change in level of service between 43k (m^2) and 62k (m^2). Looking further ahead at 2031 again there were changes between some thresholds and 23k and 43k (m^2) and between 62k and 102k (m^2). These are all network average speed levels of service as reported in the Chapter 6 Memo (available on the Council website; (http://www.kapiticoast.govt.nz/globalassets/sev-pdp-and-utv/chapter-6-working-environment/chapter-6-working-environment-sn-42a-report-appendix-10-transport_memo_chapter-6-2016.pdf)

There is no indication from this overall look at operational speeds if that was a result of one particular intersection or if it was it general deterioration.

The SIDRA results for the Airport were written up into a short methodology note and summary results note, and these were issued to the Airport while the core information is in the Chapter 6 Memo.

Procedurally these results should be available to all submitters – Council undertakes to provide this information *[note, it was subsequently provided on 26 August 2016]*.

REFER Chapter 6 Memo, Annex 1 (page 19) Paragraph A1.9 Intersection Performance (multi coloured diagram). What that shows is looking at each arm of an intersection of the network model, looking at what the level of service is in each case, and then just plotting how that shifts. It is again quite a high level approach but it is looking at what sort of impact the different thresholds have and in changing level of services on individual arms.

(Please note there is a correction to the title above paragraph A1.9 this it should include **"and SIDRA modelling"**).

TK - Supplementary questions would be if you are finding a failing level of service the question is then if that is something that is easily resolved? Is it one turn movement at one intersection that can easily be resolved or is it a structural network wide problem that cannot be, and at which point would more infrastructure of some sort be required?

DW - One of the reasons for the high level approach to the analysis is that in the PDP the requirement for infrastructure to be provided at the lower thresholds (43k and 62k) was decoupled from the requirements. Previously there was a requirement to provide specific infrastructure at certain levels but the most recent PDP decoupled that requirement so the onus to identify the exact measures or infrastructure required to resolve any particular problems would fall on the Transport Assessment being undertaken at particular thresholds. There is therefore no need to say exactly what sort of measures/infrastructure will be required at this stage.

TK – If I was a commissioner that would be a fairly obvious question that I would ask – "why is it failing"? "Is it easily fixable or is it a fundamental structural problem that we can't easily fix without spending millions somewhere on the network?"

TK – Essentially what you are saying is that "we are doing a fairly quick and simplistic analysis but we are leaving the emphasis of the assessment down the line to the likes of the Airport, and maybe Coastlands, to do a more detailed assessment". That results in a sort of rather piece meal approach in people doing their own assessments, if we do an Integrated Transport Assessment (ITA) at 43k m^2 for the Airport how is that going to be evaluated if you reach a different conclusion? It would be better to look at those things in the longer term now and identify what is likely to be required and work on that basis; otherwise it seems to be all quite short term.

MG – I think the flipside of what you are talking about with these averages is that it might actually be that there are issues earlier on at particular locations but it is not just the other way around in terms of where it is bad, it might be bad at one location but there might be issues earlier on as well.

SS –The panel have been quite clear that they are not interested and won't entertain discussion of modelling in draft /that is incomplete, because it is not the best evidence.

TK – If you take that forward or complete it, is it much better to inform the decision making process, or do you simply say "well we just work with what we have got"? I suspect if we work with what we have got then it is rather simplistic and if decisions are made on that basis you are opening yourself to an appeal process.

TK - This goes back to 2006/2007 and Plan Change 73, and at the time we had stages of development. We calculated the traffic generation which is the spread sheet that DW has referred to, that was created at the time. The decision was made that the volumes would be more difficult to monitor and that it would be better to have thresholds in terms of GFA. Hence back calculations were done to work out the equivalent of the GFA's were which of course presumed a mix of development at the time the best estimate from the master plan at the time. Following this the equivalent GFAs and traffic generations were worked out and that is why we arrived at the 43k, 62k and 102k thresholds so there is no magic about those numbers particularly.

MG – In the District Plan there is now a mix of floor area thresholds and traffic thresholds and I would like to understand a bit about that - as to why there is that mix but also understand in terms of the Airport - for example the traffic threshold as I understand still applies?

TB – No the GFA threshold applies.

MG – So why doesn't the traffic threshold apply? The traffic threshold applies to the working zone; the Airport is a working zone.

DW – Effectively a decision was taken as part of the Plan Change 73 process to set GFA thresholds.

TK –It had crossed my mind that we could not go back to the volume threshold if you are talking about potentially a different mix of land use? The effect is linked more to the traffic rather than the GFA and that possibly opens up a whole can of worms.

MG – Re the traffic thresholds which apply across the working zones, are there some exclusions that are applying to the Airport?

Questions asked by NT for planning team:
Which comes first the general threshold in the working zone for 200 vehicles per day - does that trigger the need for assessment? Or is the Airport trigger at floor threshold relevant to the Airport – which one do we use? So when we are looking at say Airport development and it's under threshold, we don't need to do the assessment - but then we look at the current PDP and there is a threshold of vehicles per day. Which one sits over the top, which do we look at – MG has raised this before?

SH - The Rules table at the beginning of the Airport zone rules section (like the other PDP rule tables) has a statement about application of the rules and the Airport zone. The GFA thresholds in the Airport Zone 'new buildings' controlled activity rule (Rule 6G.2.2) are more

specific than the Chapter 11 general thresholds and would therefore take precedence in relation to activities falling under this particular rule.

MG – This seem confusing to me that there are actually two numbers that seem to be informing the development for the same piece of land.

SS – Concern is noted, this is a matter that could be bought before the panel; it is matter that we can resolve through the hearing as opposed to this briefing.

MG –It would be helpful to know how these two sit alongside each other and if they were to remain as they are, what does this actually mean?

CH – There is another layer as well, and that is if you then omit part of the recommendations then that starts to question the GFA thresholds, the traffic thresholds are equally as prescriptive so I don't know how you would look at both of them and say that one is more than the other as both of them are very specific.

SS - We would be looking at having this resolved by Chapter 6 Hearing which is 12 September 2016.

CH – Is there an ability of Council to make a position statement on that now?

SS – I am not comfortable doing so, I am not in the detail, and I am not going to put it on SH to respond immediately - it will come in the next few days though, absolutely understand the issue. ***[NB: information emailed to participants 29 August 2016]***

TB – regarding VISSIM, is there no way the panel would consider that result once it reaches the state for both Council and NZTA are happy with it?

SS - From Council's perspective and in terms of its relevance to the PDP, the VISSIM Micro Simulation Modelling isn't necessary for the high level strategic modelling that underpins a District Plan. We think the PDP should rely on the SIDRA and SATURN; it is enough and is what has been used for strategic projects in the past. I think it is fit for purpose to underpin the PDP and the recommendations on it. I cannot speak for what the panel would entertain.

TK - The VISSIM model is going to be superior. It has some consistency issues however those are being worked through – are we asked to ignore model output that might be quite good and to deal with later on – is there no way the panel would consider if NTZA and council are happy with it?

We are stuck between what is relatively course modelling here and I think you have said it is really a one off run through the modelling process and we all know with models you run them, you get results and then you have questions and "what if's?" however you really haven't done any "what if's?" you have just said these are the results and that is it, and that is all we have got to work from. In my mind that is not enough for a commissioner to make a decision and in your mind it obviously is, maybe we just need more detail about what you have done.

DW – I can certainly give you some more detail.

MG – I think also what the commissioners are interested in is that all of this has been around one part of the Kāpiti District, around the Airport and I have got nothing before me at the moment to understand what other assumptions go into that modelling, about growth elsewhere in the district and so on and in tandem with what the District Plan is seeking in terms of growth and district centre and all of that kind of thing, and how that measures up

against this one part of the district. So I think yes the commissioners are interested in that but also interested in the whole in terms of the other thresholds and so on that apply throughout the district as well as enabling that wider development.

SS – Can you comment on that DW, in terms of the assumptions about growth district wide?

DW – Well the assumptions on growth are effectively two-fold; one is in the spread sheet we talked about earlier. The other is underlying growth assumptions that were done as part of the SATURN development which is the composite growth method which ties to the regional model. There is a separate issue about exactly how you identify the general PDP TA thresholds for individual developments, vehicles per day, and vehicles per hour, there is a separate issue there. But understanding the growth component should be fairly straightforward. There is another discussion that obviously needs to happen about how the different thresholds interrelate with each other.

TB – But still the question remains, and I think what both TK and MG are saying is what is going to be the basis of whatever goes to the commissioners to make decisions on some of these thresholds given that there might be intersection-specific issues?

DW – There is no need to go into individual intersection requirements in infrastructure terms – is there? Why is there a need to do that? You are not tying it to a threshold you are not saying e.g. before you develop beyond 42,000 m^2 you have to build the Hurley Road intersection or whatever, we are not saying that anymore. So why would the commissioners be interested in exactly what infrastructure is going to be needed? That is a matter for a particular Transport Assessment when they are looking at a specific phase of development.

TK - But wouldn't a commissioner ask the question that, I mean the Plan Change for the Airport obviously has been off for 8 years or something now and you have got a controlled activity up to 103,000 GFA approximately, you've done all this design and planning for the Expressway and yet the analysis appears to be telling us when there is even 40 or 60k GFA at the Airport the network can't take it, and they can say how on earth has this happened?

DW – Further data can be supplied to explain that.

MG – Where I sit on this is that I can take that a step further in that elsewhere in the district the trigger is 100 vehicles a day. What you are suggesting the modelling is indicating as the point at which some more knowledge is needed about certain developments but here in one part of the district we are saying – I don't know 10, 20 or 30 times as big as to what that trigger is. So I don't quite understand why there is that inconsistency in one part, the busy part of the network compared to elsewhere.

DW – You don't know where any given development is going to access. If it accesses on a very busy intersection or very busy road at a very difficult point then that is a completely different consideration to say a development where you know where the access is, you know what the volumes are, so you can set a specific threshold for a particular site. But where you don't know, you don't have any of the information - you have to set it at the point that it could be a very difficult location and that is why the 100 and 200 vpd thresholds came about. Look at say, the intersection of Rimu Road and Kāpiti Road that is quite a sensitive intersection, so you don't need to be that big in development terms to potentially trigger something.

MG – So the Airport relates to that intersection?

DW – Less directly. Besides we have specific assessments for the intersections more directly impacted by the Airport.

MG – The SIDRA modelling is the Town Centre SIDRA network that you have built, surely that and development within that Town Centre in terms of quantum and so on can be viewed in the same way that you have tested the SIDRA Kāpiti network for the Airport? Is that something that you have done to inform the traffic thresholds for the Town Centre?

DW – Only in terms of say Coastlands Square, where we looked at that as it was a specific issue requiring the modelling. I know that you did as well; Eliza did modelling on Rimu Road at the same time as Council. The two assessments were compared and we agreed on the 200 vph threshold. So that was a considered decision and we were reasonably sure that development could proceed to certain level without any major problems at that particular point. But that is not to say we have done that for every possible development at every single point on the network, it would be unreasonable to do that.

MG – I do understand that, although there are some quite key points in the network in terms of where you contemplate more development than others.

DW – You have always got limited resources, you have to focus on what the key issues are at the time.

MG – For Coastlands there needs to be an understanding, one of them being the desires of Council to achieve betterment in the district centre which incorporates Coastlands and that wider styled core Town Centre area. I would have thought that would have been one of the critical areas for assessment in as much as the Airport?

DW – Assessments have been done when you are looking at the different routes for the Kāpiti Road Relief Route, it was investigated whether it should go through the main retail precinct from Ihakara Street, or whether it should be on the Ihakara Street alignment. Similar tests were done there to see what would happen if full development occurred rather than composite growth. The earlier VISSIM modelling for the Town Centre was also looked at that.

MG – So full development?

DW – Sensitivity testing the Relief Route, it has looked at full development with Wharemauku Precinct.

MG – Oh just the precinct. The struggle that I am having and what appears to be quite a specific focus around the Airport and informing those thresholds versus a lack of comparative modelling for the Town Centre as a whole to inform what are tiny thresholds at the moment.

DW – You have to pick levels somewhere to require a Transport Assessment and you have to find a point on what is a very difficult locational network so it is captured.

CH – The plan is doing more than that, it is setting actual activity status as well, so as soon as you are at 200 vpd, under the 200 vpd you are fine but as soon as you are above that you are not permitted anymore, so it is not only from a traffic aspect and I think that is where the Commissioners do have a role because they are looking at the effects and everything that the plan is trying to achieve, and they are looking at what is happening down at that level down there - and they don't necessarily line up and I think that is an issue they are going to be faced with.

MG – From what I have heard, I still don't understand – how the modelling has informed, take for example the Town Centre - how has the modelling informed the thresholds in the Town Centre?

CH – As opposed to the Wharemauku Precinct Plan Change – is that what you are saying? I was involved with Eliza on that one and I think it would be fair to say that was a "best you could do at the time" type scenario, except that we were at an appeal trying to work it all out. But whether that is appropriate now that the district has a Town Centre wide level that could be what we are asking.

DW – I think it is fair to say when you look at various situations you get a feel for what the level should be for example, Bunning's which opens on to Milne Drive and Kāpiti Road was constrained to no more than 50 vehicles an hour, based on modelling. That is not untypical of a very difficult situation, a difficult junction, a very busy road and that was the limitation put on that development until such time as a Transport Assessment was done which recommended certain works to relieve that situation, and the development was approved. This is not an unusual situation and it is not particularly onerous. This is based on looking at experience of difficult sites, what you would think would be a relatively safe level to permit.

MG – so that is probably a pretty good example - so why then right immediately adjacent to the Airport – why would that threshold be any different to thresholds that we are talking about based on the floor areas at the Airport?

DW – Are you talking about the 43,000 square metres threshold?

MG – I am talking about 50 vehicles per hour versus 43,000 square metres.

DW – You've got to think since that time Kāpiti Road has since been greatly increased in terms of capacity.

MG – I don't particularly agree that Kāpiti Road has got significant increases compared to what it had?

DW – I think some of this goes back to the discussion that you were having with Sarah about how the different thresholds relate to each other and I think that is something that we probably need to discuss more.

MG – I guess what I am seeing here is that there does appear to be quite a lot of inconsistencies in the way this has been treated for certain parts of the district and I think that is what the panel is grappling with in terms of why there are all these inconsistencies in numbers and terms of parameters but also in relation to the wider objectives of the District Plan. At the moment it all appears quite disjointed and I hoped today we might have quite a bit more understanding around that, but I am still a bit lost as to why there are these inconsistences in a way which different parts of the district are being treated.

DW – My personal view is that there aren't inconsistencies but I think we should have a discussion about it and get an agreed position.

SS – Is the interplay between the Expressway and intersections around the Airport driving this perception of a recent focus on the Airport?

DW – I don't think it is a new focus, I think it has been going on consistently since 2006 / 2007 and we are talking about a very large development. It needs some scrutiny and it has received it. I don't see that there is a problem and I don't agree with MG with his inference there are inconsistencies.

MG – You make that point yes they are a very large development and so on, but so is the Town Centre, it's a very large parcel of land, very large development being enabled by the District Plan to do better and improve and so on and surely it should have had as much modelling scrutiny as the Airport?

NT – When you talk about the Town Centre MG what do you mean? Do you mean the Councils Town Centre Project or are you talking about the whole zone around that Town Centre?

MG – I am talking about the whole zone around the Town Centre of which Coastlands is a part of.

NT – So we should have a more permissive regime for Town Centre development is basically what you are seeking, for your clients?

MG – What I am saying is that it doesn't appear that the modelling informed what should be in the same way that it has informed the Airport.

DW – I find it strange that you say that. As far as the Coastlands Square goes you have modelled that and came to the certain conclusions in your Transport Assessment. Quite rightly as soon as you went above the permitted threshold you had to do a Transport Assessment that is in the process of being resolved. I don't see what the problem is, that is completely consistent.

CH – There is no certainty at all stage 2 can happen at Coastlands Square.

DW – There is no certainty anything might happen at the Airport as well.

CH – I am just saying there is no certainty from that perspective.

MG – Well that is not quite right is it, the trigger thresholds at the Airport are far more enabling then trigger thresholds elsewhere in the district in terms of providing certainty as to what level of development might be enabled there compared to elsewhere.

TK – They may be more enabling in terms of being controlled but that is precisely the problem we have that as soon as you require a TIA that creates uncertainty because who is going to interpret what are the findings going to be?

MG – We say exactly the same thing except we are right down at a tiny threshold which means as soon as that is tripped there is uncertainty about what will emerge from that, and it doesn't in our mind seem to align with where Council wants to go in terms of district development.

SS – I'd like to bring this back to a discussion about the modelling as opposed to the District Plan's approach to development. I think it is understood that Council considers SATURN and SIDRA are the models most relevant to the PDP and recommendations at the moment, regardless of other views.

MG – I am still a bit confused about the use of the modelling and it's informed the PDP. Take for example again the Town Centre and the SIDRA modelling, I presume you have run a whole lot of sensitivity tests of increased development and things like that within district centre?

DW – The Town Centre SIDRA modelling I have done is into separate sections. Some was looking at the potential impact of Coastlands Square, some was done for the Kāpiti Relief Route; I hadn't run it specifically to look at traffic thresholds in the Town Centre.

MG – About ½ an hour ago you said the SIDRA modelling was used to check for the SATURN work that was undertaken and confirming the traffic thresholds.

DW – At the Airport.

MG – So the modelling has not informed traffic thresholds in the Town Centre?

DW – Apart from the 200 vehicles per hour, apart from the Coastlands Square.

NT – So that is 200 vehicles per hour limit that is in Plan Change 72A. So that is not maintained.

SH – Recommendations have been made in the s42A Report in response to the inconsistency.

NT – Outside of that Plan Change are you are at the lower area threshold which I think is entirely appropriate for a Town Centre area with roads around it that are under pressure. If you have a small development and say no impact at all then your TA will show that, and you can scale your TA appropriately to fit that development. If it is small - such as you did for the small developments being constructed at the moment that was not a significant Transport Assessment.

MG – If you can help me out with the next step then, that if the modelling apart from Wharemauku at 200 vehicles per hour if the modelling has not informed those other thresholds what has informed them?

DW – Are you talking of the 100 and 200 per day? We referenced that in the Chapter 11 memo (available on the Council website; http://www.kapiticoast.govt.nz/globalassets/sev-pdp-and-utv/chapter-11-infrastructure/chapter_11_transport_modelling---memo-9-august-2016.pdf).

MG – What informed those thresholds?

DW – Examples from elsewhere and also general background and knowledge of the network, and other pressures on the network.

MG - You mentioned in your evidence Christchurch as one example.

NT – We are not Christchurch, it is a pretty long bow to draw comparison I think, Kāpiti Town Centre to Christchurch city centre.

SS – I am fairly clear in terms of the PDP and 42A Recommendations perspective how the modelling has fed in, (maybe not from a technical perspective) but how it has informed the plan provisions.

VISSIM Modelling

NT – The brief to Beca is available on the Council website – provided under Chapter 11 http://www.kapiticoast.govt.nz/globalassets/sev-pdp-and-utv/memoranda-and-other-correspondence/beca-offer-of-servcie----modelling-letter-10-may-2016.pdf.

MG – The reasons for undertaking the modelling didn't actually eventuate in due course did it?

NT – No it did not eventuate, the modelling wasn't complete in time and we do not agree on the modelling results. They were still in draft at the time when we went to the Chapter 11 hearing on 15 September 2016 and it is still not going to be ready in time for the Chapter 6 Hearing on 12 September 2016. The full model report was emailed to me on Saturday evening (20 August 2016) from Beca. I have not looked at it in any detail but the issues that Council raised previously are still there - no convergence in 2031, things like that.

MG – Again a procedural matter as to why that information would just go to select parties?

NT – Council have paid for it and we are not happy to release it wider than just NZTA at the moment. It is still draft and is not ready to be issued as far as Council is concerned.

SS – Council is not using this modelling to inform any analysis of the PDP and the Panel at this stage have said they will not entertain any evidence using the modelling. There is an important distinction here between NZTA as a network operator as opposed to NZTA as a submitter on the PDP.

TB – To be clear NZTA is not concerned so much about the source or generation of traffic but curbing the effect, and I think we need to be aware of that and the other thing that we need to protect is access to and from the Expressway – it is as simple as that and that is all we are saying.

NT – In terms of the next steps for that modelling, to be honest I am not sure where we go from here. When speaking to DW the gut feeling is that there is still quite a bit of work to do to get that model right which will cost quite a lot of money. There is a big question mark from Council as we need a model that is fit for that purpose and testing, and NZTA will need it for revocation testing as well.

We need to come to a point where we can agree something - that the model can be used for certain things or that it needs to be improved, or that we can get as close to being happy with it as possible. A model that does not converge is not a good thing. In the future (especially 2031) it won't be fit for purpose if we want to use it for economic analysis and for our relief route project.

TB – The issue of 2031 is simply saying to us at the moment that the network cannot cope in terms of all these ITA requirements, if we have these requirements down the line is that your intent that you will use this model?

NT – Especially for Kāpiti Road and that whole Town Centre area. We would use that model and other people could have access, through Beca obviously. Pop your development in and use the results from that in your Transport Assessment. The VISSIM model now also has a Saturday model, a factored into peak model which will give us a really good understanding of retail effects. At the moment we are just going off PM Peak assessments to which obviously we know that there is a limit.

We need to go through a peer review and formal peer review process and Council will need to talk to NZTA regarding how we do that. We have talked in the past about doing our own individual peer review, so Council would use DW.

TB – It is going to get complicated in a sense that we have one model that we are talking about, but we are going to use a different model - and so how we structure that in terms of peer review but also funding is going to be an interesting question.

NT – Optimistically the peer review process I would estimate is 4 to 5 weeks.

MG – It is not going to ready and available for these hearings so this is really for information purposes and from what I have seen so far (which may have been in Council's memo in terms of the gaps and so on) it had a long way to go. The other parties around this table, the Airport, Coastlands, St Heliers and other submitters they are going to be equally interested in how fit for purpose the model is for their needs as well.

TK – Re TB Chapter 11 evidence – it is largely based on the modelling that we have to disregard so does that mean you are now required to resubmit that evidence?

TB – That is a very difficult question, we are talking to lawyers.

SS – Procedurally it is the submitters evidence, no-one can dictate what it says, but the panel have made it very clear they won't give any weight to evidence that relies on the VISSIM modelling.

CH – In clarification as to what we were saying previously - vehicles per day versus vehicles per hour – in Chapter 11 (working zones) we still have 200 vehicles per day and in Chapter 6 we in precinct A have 200 vehicles per hour, and also in the RDA except in precinct A2 - 200 vehicles in the hour so we have dropped Chapter 11 per day and per hour so can we assume Chapter 11 will also be - we have which one?

SS – We will look at it, certainly.

ACTION POINTS

1. Share all the information related to SIDRA modelling around the Airport, with all submitters *[emailed 26 August 2016]*.
2. Look into the GFA versus the vehicle ~~movements~~movement's thresholds and which applies *[emailed 29 August 2016]*.
3. Share the zone by zone demands and generation information related to district wide development growth *[emailed 26 August 2016]*.
4. Draft minutes for briefing and provide to attendees prior to panel viewing.