AUSCRIPT AUSTRALASIA PTY LIMITED
ACN 110 028 825

T: 1800 AUSCRIPT (1800 287 274)
E: clientservices@auscript.com.au
W: www.auscript.com.au

TRANSCRIPT OF PROCEEDINGS

TRANSCRIPT IN CONFIDENCE

O/N H-955894

CITY OF PARRAMATTA COUNCIL

RECORD OF COUNCIL MEETINGS

PANEL MEMBERS:

DAVID LLOYD QC
DAVID RYAN
ALF LESTER
ANNE SMITH

RYDALMERE OPERATIONS CENTRE

3.40 PM, TUESDAY, 17 JULY 2018

MR D. LLOYD QC: All right. I think we can begin. Good afternoon, everyone. I will declare this meeting open. In doing so, on behalf of the council, I should acknowledge the Burramattagal clan of the Durag, the traditional custodians of Parramatta, and pay respects to its elders both past and present. The next thing I should do is allow us, the panel members, to introduce ourselves so that you know who we are. I'm David Lloyd. I'm a lawyer. I'm a QC with a current practising certificate. I am a former judge of the Land and Environment Court. I'm a former acting judge of the Supreme Court. I'm currently a professor of law at Western Sydney University and I chair – not Sydney University, Western Sydney University – and I currently chair three other local planning panels. Mr Ryan? Yes?

MR D. RYAN: Thank you, Mr Chair. Yes. My name is David Ryan. I'm a consultant town planner. I likewise sit on various panels, including this panel. Former local government planner, registered planner – fellow of the Planning Institute, former president of the Planning Institute. 35-odd years experience as a planner and also I dabbled as a lawyer for a little while until I discovered that wasn't a very good idea and turned back to a planner.

MR LLOYD: Mr Lester?

MR A. LESTER: My name's Alf Lester. I'm an architect and a town planner and urban designer. I also sit on the Hills Town Planning Panel. I'm a member of about five design review panels, including Rouse Hill Town Centre since it started, Bayside Design Review Panel, Liverpool Design Review Panel, Waverly Design Review Panel, plus one or two others, but that's my background. And I run an architectural and urban design firm as a director of LFA.

MS A. SMITH: My name's Anne Smith and I'm the community representative on this panel.

MR LLOYD: All right. I should advise that this meeting is being recorded. The recording will be archived and available on the council's website. All care is taken to maintain your privacy; however, if you are in attendance and you wish to speak, you may be recorded. I should also advise that you should be respectful when speaking. The council is not liable for defamation; you are. With that, the next item is apologies and there are none. Next, declarations of interest, and there are none. So with that, we can move to the first of the development applications that we have to consider. The first one – item 5.1 – is the application for modification of the development at 14-16 Murray Street, Northmead. In this matter, the modification seeks the deletion of two conditions of consent which were inadvertently or unintentionally included.

The panel is unanimous in adopting the recommendation and grants approval to the modification application, as recommended in the report that we have before us. And that is easily dealt with so we can move on to the next item – 5.2. This is the dual occupancy development at 32 Leamington Road, Telopea. I can advise that the panel

inspected this site earlier in the day; in fact, we inspected all the sites earlier in the day. This is a section 8.2 review of an earlier refusal of this application. The applicant has now resubmitted the application, taking note of the grounds of refusal, and it is now satisfactory. There are no objections to this and the panel is minded to grant the approval in accordance with the recommendation in the report. So that's item 5.2.

Item 5.3 is the development of a canopy at Rosehill in the Rosehill Industrial site – in the Rosehill Industrial Estate. It's for James Hardie Australia Proprietary Limited. It's the construction of a sealed canopy roof over two existing concrete silos. The only reason it has been referred to the panel is because of the infringement of the height control. In this case, the height will not be observable from outside the industrial estate and the panel is prepared to vary the height control in this instance and grant consent in accordance with the recommendation. So that's item 5.3. Item 5.4 is the development at 55 South Street, Rydalmere. We note that Mr Brad Delapierre is here, but I can advise that, having inspected the site and reviewed the material, we are inclined to accept the recommendation to approve this development, and again unanimously.

The building is otherwise compliant with all the relevant controls. I'm sorry, it's not quite compliant. There's an infringement of the height control, but we are happy with the variation of the height control in this instance. We're prepared to approve the variation and approve the development in accordance with the recommendation.

MR B. DELAPIERRE: Thank you.

MR LLOYD: So we come now to item 5.5 – the development at 12 Shirley Street, Carlingford. I note there are a number of people who wish to speak on this. Who wants to go first? Please sit down. And if I can cut things short here – if I can cut things short, first of all, who are you for the record?

MR M. SONTER: Sorry. Good afternoon, panel members. My name is Matt Sonter. I'm a partner at Mills Oakley in Sydney, in a planning and environment practice. I'm here on behalf of the applicant for a number of reasons. The primary reason is to present before you today to formally request a deferral of the application, and there are a number of reasons for that, and if you will humour me I will just take you through them. The first is that the application and the assessment report wasn't provided to us until yesterday, so my client has had little or no time in order to consider it and respond to it, prepare submissions to you about the veracity of the report, and also anything that we could do to the proposal to change it.

Now, as I understand it, Parramatta Council's policy provides for publication of the report one week prior to the meeting to allow for people to consider it on a procedural fairness basis, basically. The second reason I'm here seeking a deferral is that, as you may well know, the application is now the subject of a class 1 appeal in the Land and Environment Court. The application has been to the Design Excellence Assessment Panel, who provided commentary about the application and

recommended some design changes be made. The assessment by the Design Excellence Assessment Panel was a green light, not an orange or red. It recommended approval, commended the design, commended the built form.

As part of the class 1 proceedings, we've appeared before the court and we've obtained an order that we file any amended application by next Tuesday. The reason for the delay in filing that application is so that we're able to be furnished with this report so that we not only understood the Design Excellence Assessment Panel comments, but also the council comments in relation to the proposal. Now, fundamental to those amendments will be some amendments to the southern façade of the building. Now, when you read the report, I assume you've read we no longer need the through-site link through the site. This is news to my client as of yesterday. In every meeting that's been undertaken between my client and the council, as far back as the pre-DA, my client was encouraged to provide the through-site link on the site, and also encouraged to provide the upper level of the building in compensation for the additional setback and the provision of a public benefit on the southern façade.

Notwithstanding that, the assessment report from council yesterday identifies that through-site link as something that it would like to see gone. Of course my client is happy to accommodate that – more than happy for the through-site link to be accommodated on the RE1 land that adjoins our site – but this is not something that should be held against my client; this is something that was done at the behest of council's planners and falling in line with it. So the reason I'm here seeking a deferral is firstly, we haven't had time to consider the assessment report and the recommendation; the second reason is there are matters that are identified by the Design Excellence Panel, but also in council's own assessment report, that are simple matters that can be resolved very easily through the provision of amended plans.

I have a requirement that I file those amended plans with the court next Tuesday; that will formally amend the development application. So what I'm seeking is a deferral for four weeks to come back before the next panel meeting. That will allow me to amend the plans in the court next week; that will allow council two weeks to prepare their assessment, which is what this – which is the timeframe in which this assessment report was prepared; and then it will allow one week publication of the report before we come back to the panel. Now, my pitch on this is that there's no downside in terms of an assessment process that would allow sufficient time for my client to respond to concerns identified by the council. We're in court anyway; we've got an order that we're required to amend the plans.

As part of the affidavit that supported that application to the court, I identify that the amendments are, in fact, responsive to the DAP comments. They're the direct instructions to the architect. So, look, I'm happy to take you through council's assessment report because I've got up to it – got on top of it since yesterday. My primary submission is this is an application that warrants deferral for one month on the basis that we haven't been given adequate time to consider the assessment report that conflicts with council's own DEAP assessment minutes. The second reason is

that we're prepared to and we are, in fact, in the process of amending the plans to respond to the comments of the DAP, and also council's assessment report provided yesterday.

If you're not with me on that, I'm happy to make submissions to you about the DA as it currently stands, but on the face of it, this is one that I really think warrants refusal for the reasons that I've identified – sorry, warrants deferral. I will change that. Just make that clear for the record.

MR LLOYD: All right. Well, I can tell you that we have, after visiting the site, discussed this amongst ourselves, and I can tell you that we're not altogether unhappy with this proposal. But I can also tell you that we are not – if we were to consider it, we would not be prepared to vary the floorspace ratio control; neither would we be prepared to vary the height control. If you could make the building compliant with those two controls, we would be inclined to consent. That's our pitch to you, so you can take that for what it's worth. So - - -

MR SONTER: Thank you. I appreciate the feedback and that's definitely something we're going to take away and consider. Can I just ask for one clarification in relation to the height. The site – when you were on-site you would have seen this – has a fall of approximately six metres.

MR LLOYD: Yes.

MR SONTER: The building as it's proposed – you see, the area of noncompliance is actually significantly less than even the amount of the fall across the site. We're just wondering, in terms of height noncompliance - there is likely to be, at a minimum, some areas of floorspace or elevator overrun that will be over the height control. Is that something that you've considered in your assessment? Just by dint of the fact that this is your classic clause 4.6 – sloping site, top of the building's benched at a particular level. The leading edge of the building is over the height control not by dint of the fact that it's excessive and bold; simply by dint of the fact that the way in – the point at which it's pitching from is on a sloping site.

MR LLOYD: Well, I can tell you that if you were to comply with the floorspace ratio control, you would also comply with the height control because you would have to remove the top element, so anyway, they're our thoughts. I will just consult with the panel as - - -

MR SONTER: Sure.

MR LLOYD: Do you agree to defer?

MR RYAN: I'm happy to defer, but I would also say that – personal opinion – I think if there are minor elements above that – not floorspace, but - - -

MR SONTER: Yes.

MR LLOYD: A bit of tweaking.

MR RYAN: That would be - - -

MR SONTER: .....

MR RYAN: In that sort of context - - -

MR LLOYD: A bit of tweaking. That's all it needs. Mr Lester?

MR LESTER: I just suggest that there are design solutions to sloping sites with roofs that might slope as well.

MR SONTER: Yes.

MR LESTER: And therefore keep you within the height control and possibly maximise the rooftop proposal for communal open space, rather than having a mixture of residential space as well as, which is what the current proposal contains. So I think if it was fully exploited as an asset and was carefully reflected in stepping in the form, then there could be many benefits that would flow.

MR LLOYD: Well, do we agree to defer? Do we agree? All right. Well, then, all we need hear – do now is note the applicant's request that this application be deferred for one month. That's all we do.

MR SONTER: If it please the panel.

MR LLOYD: Yes.

MR SONTER: I suppose.

MR LLOYD: But I can tell you if you can make it compliant with the floorspace ratio and height, and minor tweaking, we would be happy with it.

MR SONTER: Sure. Just in terms of the design comments, does the panel embrace the comments from the assessment report in terms of the through-site link? So we have amended plans that show that – show that element or that boundary of the building as fully landscaped, as opposed to having a pathway.

MR LLOYD: Yes.

MR SONTER: That's something the panel adopts as a good recommendation; something we should – you would like to see undertaken?

MR LLOYD: Yes.

MR SONTER: Okay.

MR LLOYD: All right.

MR SONTER: Fabulous.

MR LLOYD: Thank you.

MR SONTER: See you in a month.

MR LLOYD: All right. Next is number 22 Kandy Avenue, Epping. This is an application for subdivision in two stages. Mr Kim I think is here. Mr Kim? Where's Mr Kim? Not here? He's not here. Well, it's just an application for subdivision and for tree removal. The panel is again inclined to grant consent to this application, as recommended. I will just get the papers. This is a large block in a residential zone. The development is permissible in the zone. It's a subdivision firstly into three lots, and then into four. The panel adopts the recommendation in the report and is prepared to grant consent in accordance with the recommendation. Next is Keeler Street, Carlingford. I might come back to Keeler Street, Carlingford. Is Mr Bewsher here? Mr Bewsher?

MR D. BEWSHER: Yes.

MR LLOYD: We want to ask you a few things, so we will stand you down until after the next matter and go straight on to number 36 Keeler Street, Carlingford, item 5.7. This is a recommendation for refusal. In this case we note there are a number of people who wish to speak against this development, but before we do that because it's a - - -

MR DELAPIERRE: I think it's item 5.8, Mr Chair.

MS SMITH: 5.8.

MR LLOYD: 5.8?

MR RYAN: Yes.

MR LLOYD: Pine Street? I'm sorry. You're right. 5.8. Because there's a recommendation for refusal, I think we should hear Mr Delapierre first.

MR DELAPIERRE: No, I haven't registered to speak in regard to 5.8.

MR RYAN: No, that's 5.7. It's 5.8.

MR LLOYD: No, it's down here. I'm looking at the wrong item.

MR RYAN: Speaking in favour.

MR LLOYD: Is anyone here representing the applicant or the owner? No? Well, in that case, I don't think we need hear from everyone because the panel is unanimously of the opinion that this application should be refused for the reasons set out in the report. All right? That's the determination. All right.

MR .....: Hallelujah.

MR LLOYD: Well, then, there's no need for you to stay while we deal with the last matter. You can stay if you wish.

MS .....: .....

MR LLOYD: That's it. That's the determination. The application is refused for the reasons set out in the report.

MS SMITH: Thank you for coming. Thank you.

MR LLOYD: Okay. Now we can come to 36 Keeler Street. Mr Bewsher and Mr Delapierre. Who wants to go first?

MR DELAPIERRE: Mr Bewsher can go first, or I will – whatever works for the panel.

MR LLOYD: The real problem here is the floodway issue. We note that Mr Bewsher has furnished a report, which we've got, but which we haven't had the time to really absorb. Could you summarise it for us?

MR BEWSHER: I can very briefly, Mr Chairman. I've got a short PowerPoint. It won't take more than two minutes.

MR LLOYD: That will be good.

MR BEWSHER: Goes through the key things. So my practice is based in this area. I know – I've worked actually in this catchment at Keeler Street for about three decades. Just keep going, thanks, Joy. Just two clicks, thanks, Joy. And the next one. In terms of the DCP, the key requirements – it has to minimise the risk to life, property, the environment and flooding, and in terms of the prescriptive matters, have to have a comprehensive flood study, which I believe the applicant has done and the council's accepted that. It's got to address the provisions of the LEP; that's the critical thing. It complies with best practice and any overland flow is maintained - the flood study demonstrates that happens – and the habitable floor levels have to be half a metre above the 100-year flood level, and the carparking, which is actually by right of way to the property next door, has to have .3 of a metre freeboard above the 100-year flood level, which it does. Yes, please, Joy.

So in terms of clause 6.3, there's five items there that the concerned authority has to be satisfied with before it can grant consent. The first one – it has got to be

compatible with the flood hazard. That's the key issue on this site. Is this site appropriate for R4 – typical R4 development? Whether it significantly affects flood behaviour – don't think there's any doubt about that. The flood model has shown that there's no impact on adjacent properties. The third thing – incorporates appropriate measures to manage risk to life. That's probably the second-most important issue. The fourth one – significantly affect the environment and not result in unsustainable social and economic costs. I don't think those issues are being debated, so – yes, please. So this is the key diagram.

MR DELAPIERRE: On page 4 of the submission from Mr Bewsher.

MR BEWSHER: Yes. I've actually put this together using the information that's in the applicant's flood study. I don't think the information was necessarily very clearly presented.

MR DELAPIERRE: No. Just got a black and white version. The colour's easier to interpret.

MR BEWSHER: I do have some - - -

MR LLOYD: You've got colour versions?

MR BEWSHER: - - - colour copies if that's - - -

MR LLOYD: Thank you.

MR DELAPIERRE: Sorry, Alf.

MR BEWSHER: If I can explain by looking at it here. I've put this together using the applicant's information. The site is the red one. The picture here is the Nearmap picture – essentially what's there on the site now. The yellow is the extent of high hazard as defined under the floodplain development meaning. Now, when the council's done their assessment, they've used another assessment of hazard, so they've got a different view about hazard. I think that issue's fundamentally the difference between what the council has assessed and what I've assessed in my report. There is a 900 mil diameter pipeline which goes next door, and the low point is actually next door, but these blue lines show the extent of flooding is a wide overland flow path.

The bulk of the floor is on next door, but yet, in terms of numbers 36, virtually the whole site is inundated, albeit shallow in some places, and as you get closer to this western boundary, deeper ..... water, and it's actually high hazard as you go this way. The – you see these yellow boundaries here? That's the cadastre. I've downloaded that from LPI, so this is the latest land and property information cadastre. But if you just have a look, you will notice – you can see it - the thickness between that red line – really the cadastre, relative to the photo there's a slight shift, so it's about that much. That would produce even slightly more high hazard than shown on the photo.

But in any event, my assessment – well, the site's - only about 20 per cent of the site is high hazard, whereas in the council's report, if you've read it, they've said virtually the whole site is, or most of the site is. So that's the difference.

Probably in terms of flood risk, the most important thing is in the 100-year flood this corner of the site is not flooded, and that's the point with the access - if you've looked at the architecturals, that's where you get in. The building's really elevated up on piers. The overland flow path goes underneath the building, so they're maintaining the overland flow path as one of the DCP requirements, and everything's going to be elevated above the floodwater. But in the 100-year flood, you can walk out without getting your feet wet. The driveway by 34 is free of inundation in a 100-year flood. I've had a look at what's the case for the probable maximum flood and the most improbable flood that could ever happen, and even then this access would be wet, but I still – still would be – able-bodied adults could still get in there.

Not kids, but certainly in terms of emergency services personnel - in this one-in-a-million type event, the firies could walk in and the ambos could walk in because the people that are in there are supposed to be just staying in their house – in their building. So – next one. Last. So in terms of my flood risk assessment, a 2D flood model has been established and there are no off-site impacts, so it's satisfied that requirement of the DCP. The site is affected by overland flows; there's no doubt about that. Most of the site is flood prone in a 100-year event. But less than about 20 per cent of the site is high hazard under the definition that's in the manual. Importantly, because we're dealing with the Hornsby LEP, that clause – 6.3 – actually says hazard - which says if any of these flood terms are not defined, use the definitions in the flood plain development manual, so you have to use the hazard definition that's in the manual if you want to apply to the LEP.

So there's flood-free pedestrian access; there's flood-free vehicle access. Now, in Parramatta and Hornsby there would be hundreds – there would be thousands of residential properties that don't have that luxury. I'm not saying that's necessarily a justification to be intensifying the use on this site, but it's not an uncommon situation. The principal flood risks, in my view, are the risks in the open space areas, not the building. It's the common open space around it on the western side. In a 100-year event that will be a dangerous place and you wouldn't want anyone to be there. However, in my view, that area can be managed by fencing, gates, access arrangements. A flood emergency response plan would be typical for a building like this. There will be access for emergency services personnel in the PMF, and having looked at all those issues, I think that intensification of the use, as they've proposed – 16 units instead of one house – is appropriate.

If you look at the one house that's there now – I haven't been inside it, but supposedly got three or four bedrooms. But I know its floor level. It's actually well underwater in a one per cent event and the people who are in there can't get out. If supposedly in the middle of the night the water came up, they may not be able to get out. It's a rare event – a one per cent event – but if you compare that with what's

proposed, which is a number of storeys – 16 – I think on the ground floor there's three two-bedders and one one-bedder. I think the risks are acceptable.

MR LLOYD: Panel, any questions?

MR RYAN: Yes, I do ..... Mr Bewsher, does the building of the basement car parking to the boundary, particularly on that western side, have any impact on what you've just described? Does it make it any worse or does it make no difference?

MR BEWSHER: Can you - could you just put that up again, Joy - just the photo.

MS .....: ..... sorry.

MR BEWSHER: It's just the third one is the photo. The base - the car park is underground, essentially, so you will see - - -

MR .....: Yes.

MR BEWSHER: You will see the house that's there now. These waters here can't actually go through there unless we go in the front door and out the back door. What the applicant is proposing - they're actually proposing to have an undercroft where the water could go through, so they're actually bringing more water on to the site than currently happens, if that makes sense. So will the basement have an effect? Because it's underground, no - below the ground level - but in terms of the effect on flood flows, if anything, they're taking a bit of this ..... water and bringing it over here. It will actually be able to flow under the - - -

MR LLOYD: What is the height of the undercroft above ground level?

MR .....: It varies. The architect here .....

MR BEWSHER: I think it's - at its far end about one - - -

MS .....: Far end about two - two - just ..... two metre on the – on the front end facing Keeler Street is about - under a metre. So it would be - it would be suggested in the stormwater report that it would have pool ..... fencing all around the rim of the undercroft, so it - stop excess into the undercroft area.

MR .....: Pretty much follows natural ground level.

MR LLOYD: And how would that area be maintained? I mean, there will be debris accumulating there in a flood event. It - if allowed it to stay there, it would block the floodwaters. What's happening with it for that?

MR DELAPIERRE: Yes, well, the intention would be that there would be an access gate to allow maintenance people to go in once the storm event is finished and remove the debris, replacing panels that were damaged during the event, etcetera, so

it's the intent that - now, obviously there will be some pipes, plumbing in there to access as well, so there would need to be occasional access, but I guess the - from a flooding perspective, the idea is to minimise that access and control that access.

MR BEWSHER: And the - Mr Lloyd, there would be some potential to catch debris and for the blockage to happen, but even if it was entirely blocked, it won't be any worse than it is now. At the moment there's a house right across that flow path, so - - -

MR LESTER: Does the Q100 model that you put up - the one in 100 year flood - reflect what's there now or in terms of the obstruction of the present house, or is it assuming - - -

MR BEWSHER: Yes. Yes.

MR LESTER: That does reflect what's there now?

MR BEWSHER: Yes. So they - - -

MR LESTER: So that would change, then, if - that would change under a free flow.

MR BEWSHER: Yes. So I didn't prepare the flood model; the applicant's engineers prepared it.

MR LESTER: Right.

MR BEWSHER: They've run a existing and a proposed case - the normal practice - and the changes to building forms between - - -

MR LESTER: Has there been a proposal - has there been a modelling of the proposal as it is now with the building propped up and what impact that has?

MR BEWSHER: Yes. Yes.

MR DELAPIERRE: So is this diagram that we keep referring to - - -

MR BEWSHER: Yes.

MR DELAPIERRE: Does that show the existing scenario or the scenario taking into account the three-storey building?

MR BEWSHER: ..... That picture there is the existing scenario.

MR LESTER: That's what I thought.

MR BEWSHER: Sorry.

MR LESTER: So that presumably would be reduced in terms of its extent because you're allowing the free flow rather than obstruction, which you get with the present house under a Q1 event - Q100.

MR BEWSHER: The blue lines?

MR LESTER: Yes.

MR BEWSHER: Yes, they - - -

MR LESTER: Would shrink.

MR BEWSHER: There will be a slight reduction, but I think more - it's more - be more that the higher velocity flows which are on number 38 - - -

MR DELAPIERRE: The western property.

MR BEWSHER: - - - the western property, there will be a bit more of that now on number 36 going under the building.

MR LESTER: Some of the information the panel has sighted indicated under a Q100 event, a one in 100 year event, there could be up to .8 of a metre in height of water.

MR BEWSHER: Yes.

MR LESTER: It seems extraordinary but is that consistent with - - -

MR BEWSHER: Yes, that's right. Particularly - - -

MR DELAPIERRE: ..... was suggested on the western boundary?

MR BEWSHER: On the western boundary and down in the rear - I would certainly expect that to be ..... Or in terms of the Floodplain Development Manual, .8 of a metre, if the velocity is still water, is the limit of high hazard flooding, so once you've got above that, it would be high hazard. If you've got some velocity, then the high hazard would occur at a shallower depth with some velocity.

MR LESTER: What sort of calculations suggest - what is the velocity of water coming across the road - Keeler Street.

MR BEWSHER: Okay. I can't - there are velocity maps in the - and they're hard to read, but for there - so the model is prepared on a two-metre grid, so all the way Keeler Street every two square metres there's a velocity and a depth calculated, and the applicant - his engineer has presented it with these little arrows - these arrows that you see, and the arrows relate to length, but it's hard - it's hard to interpret. There's - - -

MR LESTER: But you also raised an issue about the definition of hazard.

MR BEWSHER: Yes.

MR LESTER: Can you explain a little bit more about the two forms of hazard definition just so the panel has a better perception of what - - -

MR BEWSHER: Yes. Yes.

MR LLOYD: And you've set this out in your report, have you?

MR BEWSHER: Yes. So ..... it's page 11 of my report, probably the second-last, third-last page.

MR LLOYD: I see.

MR BEWSHER: This is a direct extract of the 2005 manual, which has the velocity on this side and the depth across here.

MR LLOYD: All right.

MR DELAPIERRE: So what's the manual you're referring to, just ..... the panel understands the ..... manual.

MR BEWSHER: Floodplain Development Manual - the New South Wales Floodplain Development Manual. So there's also another guide which is used in stormwater drainage called the Australian Rainfall and Runoff. The 1987 version of Australia Rainfall and Runoff talked about, in relation to streets, the limiting product of depth and velocity that might destabilise pedestrians, including young children, and there's a value, velocity times depth - we call it the VD product - of .4, so one metre a second, .4 of a metre deep, or the other way around, you will get a velocity depth of .4. That's actually a commonly used standard for sort of the - the minimum sort of water depth and velocity conditions that might cause a problem for people, and that's actually the definition that the council staff have used.

They've said in their report, actually, that's what high hazard is. It is a measure of hazard. I would say it's more a measure of stability. Young children in floodwater - I think in terms of hazard, according to the LEP, according to the manual, it's actually that that should be used.

MR DELAPIERRE: You're saying that, based on the statutory controls, and noting the fact that we're in the former Hornsby LGA, that the definition from the manual is the applicable manual based on the plain control?

MR BEWSHER: It is because the LEP specifically refers to the manual as its basis for flood definition.

MR LESTER: But if the panel had to have regard to real risk and effective risk - - -

MR BEWSHER: Yes, which you do.

MR LESTER: - - - it would still need to consider - - -

MR BEWSHER: Which you do absolutely need to do, and there are safety risks in the common open space area. I mean, any development in a floodplain there are risks. The issue is not are there risks; the issue is are the risks acceptable having regard to normal practice? So my view on that is that there are risks, there are safety issues because that velocity depth product of .4 will be exceeded in those open space areas. There were even some of the areas that will be high hazard under the manual. The issue is is the development appropriately mitigating those safety risks, and I believe they can do through fencing, and that's what's normally done in residential development.

Those overlaying flow bars or high hazard areas, council will normally require them to have some sort of swimming pool type fence that still allows water to flow through as a means of controlling access. If you had been to the site, you would have seen immediately across the roads there's the council park, playground and equipment. I mean, it has a fence around it too. Supposedly young children, mum and dad, will let them in.

MR RYAN: So are you saying there are plenty of precedents for this in this sort of situation?

MR BEWSHER: Yes.

MR LLOYD: Can you point to areas or sites where this is the case?

MR BEWSHER: Absolutely. In terms of residential development that has its open space area high hazard, yes.

MR .....: Or parts of it high hazard.

MR BEWSHER: Or parts of it high hazard.

MR RYAN: And do we - sorry.

MR LLOYD: No, that's all right. Yes.

MR RYAN: Do we have enough information before us - because that sounds like it's a critical thing - if we were minded to grant approval for this, I think I would want to be upon reasonably solid ground that I had conditions or information that would satisfy me that that risk is ultimately mitigated. Do we have that before us?

MR BEWSHER: So - - -

MR RYAN: Or, you know - or you say, "We can just condition it and put a pool fence around it and she will be right".

MR BEWSHER: So, look, I'm here as an independent body. I didn't prepare the application. I'm acting independently. You should give the council officers a chance to respond to what I've said.

MR LLOYD: We will. They're sitting down the back listening you, yes.

MR BEWSHER: And I expect them to.

MR LLOYD: Yes.

MR BEWSHER: But certainly from my opinion, I think you have enough information to make that assessment right now.

MR RYAN: It's not so much the assessment; it's the - if we were to agree with you, the conditions that would satisfactorily manage the risk that you said is there would be critical to us even contemplating granting approval.

MR BEWSHER: Yes. Yes. I didn't - I didn't specify those conditions in my report - I did implicitly, but those conditions would relate to the controlled access to the open space area, which is fencing, the gate arrangement - the first thing. The second thing is a flood emergency response plan, which is essentially a document that the body corporate would have and maintain that's a common sort of document that forms part of these types of development. It actually tells people what to do in a flood - how to prepare for a flood, what to do in a flood, what to do after the flood, and - - -

MR DELAPIERRE: Certainly in my experience as a town planner, it's not uncommon for conditions to be imposed that require those documents to be satisfied by a concerned authority through the stage of development, so I would expect that council would have some standard style conditions that, if the panel was of a mind, that could reassure that the development, as it progresses through the construction of each stage, could meet those criterion and set out the parameters for the emergency response plan, etcetera, etcetera.

MR BEWSHER: The emergency response plan needs to be finalised - prior to occupation is the best time, so that you've - if there are any changes, it's all in there. Often it gives you an opportunity to actually include the right phone numbers and so on in the document because it will become a document that's owned by the body corporate. They maintain it, look after it and implement it. It's in a sense nothing to do with the council staff. Council are not going to come and look at it.

MR RYAN: This area needs to be pretty uninviting. You would generally have it not accessible - - -

MR DELAPIERRE: It would mainly - - -

MR RYAN: An accessible part of the site.

MR DELAPIERRE: It would mainly be the western - - -

MR RYAN: Yes, the western - that's what I'm assuming .....

MR DELAPIERRE: Yes, you're right. That's, if you want to use another expression, the hostile part of the site, or - you're right - the part of the site you want to infrequently visit. It's not the area where you would want to be kicking a soccer ball around on a rainy day.

MR BEWSHER: It's - the time of rise in this catchment is a relatively short - short in hydrological terms. I mean, you're not going to be walking out the back yard, it's a lovely day, and there's a flood there. You know, it's - it's going to be - in this environment, a horrendous thunderstorm and within a few minutes - maybe within 10 minutes, you would start to see some water on the site. I mean, no - children aren't going to go playing there like they would play on the swings. Kids will go there because it's fun, you know, and whatnot. Now, that's the danger of these sorts of situations, but - could happen anywhere. They could go - if they want to really see some fun, they could go around to the low point in Carlingford Road there. I mean, it's probably more interesting to go around - - -

MR DELAPIERRE: But you are saying the controls would mainly be needed within 10 to 20 minutes of a significant thunderstorm or storm event is when the water was rising quickly?

MR BEWSHER: The controls? Yes.

MR DELAPIERRE: To prevent someone "kicking my soccer ball" down that western side would be most needed, you're suggesting, within 10 to 20 minutes of a significant - - -

MR BEWSHER: If - if they're swimming pool type fences - I mean, there's no young child going to get - who can't get into a swimming pool won't be able to get in there without mum and dad being there. That - I mean, just imagine there's a swimming pool in the back yard, and it's full of a water. You know, there's much more danger that someone would drown in a swimming pool than they would drown - they would be drowned by water in a flood in this development. I think that's probably quite obvious, and the community accepts that a swimming pool type fence around the swimming pool, provided - go through all that rigmarole that you have to do now for the pool - that is an acceptable level of risk prevention. Putting those type of fences around the open space areas of this yard certainly mitigate the risk much more than if there was a swimming pool.

MR LESTER: I presume you would almost certainly need to put some form of protective device - at the entry point for water coming across the street - anybody being swept with debris under the building as well?

MR BEWSHER: There - yes. The - the fences ..... actually fencing to do that.

MR LLOYD: Well, I think we would like to hear from the council engineer at this point. Can you come - can you come forward? Please stay where you are, Mr Bewsher. Mr Bewsher has explained what's in his report, which I admit I have not read, but it seems to be a good summary of what's here. Would you like to comment on what has just been put to us by Mr Bewsher?

MR CLARKE: Yes - excuse me. I suppose the first thing I would say is that computer modelling is a great tool, but it's not 100 per cent exact or accurate, and it's important to try and realise what is actually happening on this site under those conditions. It - the - kind of looking at a line on a printout and saying, "Well, that's exactly what's happening within that line or that side of the line," isn't actually real. You know, the modelling can be plus or minus three hundred .... to start with. Then there's the unevenness of the surface over which the water is following. For instance, a lot of the surface is actually, as planned, under the building, you know, within the undercroft area, so to me the idea of your high hazard area is only there or it's there doesn't quite stack up. There's - yes, there's a margin of uncertainty around that.

So you've got to kind of look at, you know, what does that translate to for particular occupants. Then the other aspect is we're not dealing with the water; we're dealing with water carrying debris, and this continually changes the way you think about what's going on, so if you have any obstruction to flow or partial obstruction, the water may get through, but the debris won't, and very soon you've got a blockage. So we have pool fencing, which might be, you know, great for keeping children out, but it also is a perfect trap for debris, so next thing that comes about - then two things could happen: it falls over - sometimes we design it to fall over, or the water goes off somewhere else. You know, the same with protecting the flow into the undercroft area - I mean, to me that's a trap.

You know, people could get caught up and carried into that. You know, there's - it's very difficult to kind of deal with that if you - if you should get washed down there. It's an unsafe arrangement, so my philosophy about this is surely we can design something to avoid all those sort of problems as much as we can up to a reasonable standard of risk rather than seeing them in advance and setting them up knowing that those things are going to happen, so what can we do to design it to accommodate both water and debris to allow for the uncertainty and to protect the people who are in the area, either in the grounds or in the street or whatever, because with this - I mean, it's flash flooding, and everyone has sort of accepted there's a very short warning time between rain up in the catchment, which isn't very far, and the big surge of water coming through here.

So, you know, you don't get a lot of rain - the sort of normal response that you might have when there's even an hour's warning or half an hour's warning, you don't have here - it's just going to happen, so - but hence my caution - you know, my concern how - how could we make this development comparatively safe and not make things risky for the people, especially where we're planning to bring a lot of people to live here, have their children play here and all the rest of it. So, you know, I'm not theoretically disputing what Mr Bewsher is saying, and you can go through all those points and, in a sense, they're absolutely right, but in a sense, it doesn't put the whole thing back together as - sort of holistic view, what we are creating here for those people.

At the moment, I don't think we've succeeded in creating something that's reasonably safe. It may be possible, but I don't think we've got there at this stage, and I wouldn't want to support it as it is now, especially the fact that water goes under the building, and there's also that flood path along the side of the building. Those two spaces to me are quite hazardous and not something that we should be creating, and it's unfortunate because, you know, it's the nature of the site. There is one house there and another house is in a very difficult situation, but if we're going to - you know, the thought about how you would redevelop it - it's quite difficult. It's quite difficult. It may be possible. It may - I'm not saying it isn't possible, but as it is at the moment, I don't think we've got there.

I - yes, we're - if we were going to do anything, it would need to accommodate the - what appears to be the flow and debris and not create something that people got caught up in or were exposed to - that would be the design crunch area. I've had thoughts about that. We haven't come up with anything definite, but we've had thoughts, but that would be perhaps an interactive process, so - which may have architectural and planning consequences. I would like to see a much smaller footprint at ground level and then a very good clearance above the flow path; another site has revised for four metres in this sort of situation. That could vary here, but those are the sort of criteria I - I had in mind, and that gives you plenty of scope for things being carried down like in, you know – and maintenance - all those aspects.

You haven't created a nasty little area of the building no one can maintain or it's - who knows what goes on in there, so that kind of thing I think might get us somewhere more positive, but that still doesn't address the idea of increasing the number of people on the site in that hazardous situation, and that would have to be something that would be carefully addressed - sort of a risk analysis I guess. Maybe that could be done. Do you - do you sort of - does that makes sense, what I just said?

MR LLOYD: Yes. I will ask Mr Delapierre a question. Having heard what has just been said by the council's engineer, have you considered an alternative design?

MR DELAPIERRE: It's - look, it's certainly a challenging site. We've certainly - this is the - I guess the feedback we're hearing for the first time that there's a possibility of - council may - council staff may support a proposal if it had a -

effectively a four-metre undercroft. My - look, my planning thoughts are if you start from the fact that, you know, this is part of Hornsby Council's housing strategy - so they up-zoned this area, I think, 2005; I could be wrong. As part of obviously an LEP to increase densities, etcetera, they looked at constraints and opportunities at the site. It's - there's a council pipe there. I don't think it's unknown that the precinct has some, you know, flooding constraints.

There would have been the opportunity as part of that initial up-zoning to look at, if it's as bad as it's being made out to look at creating a drainage reserve through this site rather than having an - apartments on there. My planning view is that, you know, from my point of view - I'm not an engineer, obviously; I'm a town planner - is that there seems to be a solution for the site. Hornsby Council started to consider the issues when it approved the adjoining building at 30 to 34 Keeler Street. It set up a requirement to put vehicular access in from that site to address the issue of water entering a basement car park for this site. I certainly - I've, you know, noted the comments of both flood engineers. I guess from the applicant's perspective that there is, you know, flood free vehicular and pedestrian ingress and egress above or to the site and the building.

If you look at the existing building now, if one engineer says it's unsafe, there's an issue. The same issue applies to the townhouses. The same issues apply to the park across the road. This development acknowledges the constraints of the site and ensures that future occupants can - you know, their floor levels are above the one per cent ARI level, they can walk into and out of the site, you know, without having to go through floodwaters, so, yes, if we look at every possible impact, if there's - if there's debris, if someone is walking down the street following that - that big thunderstorm, can they get washed the building? You know, yes, it obviously is a possibility; the same could happen now with existing house and townhouses.

There's fences in there now. There's no gaps at the bottom of fences. There's blockages. There's a whole lot of issues that are there. It seems to be, from what I'm hearing, that the council is suggesting the site should either be completely cleared and have nothing on it, or if it - based on the comments from Mr Clark just then, or be a cantilever building that seems to have a lobby on the ground floor and - and, you know, around three and a half to four metres below the slab, so that would effectively be looking at either removing the whole ground floor apart from the lobby and having the levels that are currently above it or lifting the whole building up on stilts.

Now, you know, I'm - my planning view is that, yes, we lodged an initial application with council. There were some concerns expressed. We, as the applicant's team, we got that reviewed by Mr Bewsher. Mr Bewsher has been engaged by developers and councils, including Parramatta and Hornsby councils, to provide flooding advice before, so he's typically what I would suggest as a planner, what I would, in inverted commas, call a "conservative engineer". He's not a radical engineer. He's - you want to use the term "gun for hire" - he's not that kind of person, so I was very

comfortable as a planner when Bewsher has came on board and said, yes, we can, you know, support this development subject to the clarifications around the access.

So in my mind that's a positive, so - and that was, I guess, a vindication of our initial engineer who said, yes, the site can be developed, and I again come back down to that there is that flood-free and pedestrian - or flood-free pedestrian and vehicular access provided to the development, and we seem to be talking about what happens if debris built up on the fences, what happens if someone gets swept under a building, those kind of issues that are much harder to manage and can occur in many parts of Sydney where you have channel - channel-wise, concrete creeks or easements with large overland flow paths and short warning too. It's difficult to stop every eventuality, but I think on the balance that the - if you're talking, you know, danger to life and limb, that I think this development is an appropriate response to that and certainly improves the existing situation and provides and appropriate level of protection for the future residents.

MR LLOYD: Does the panel have any questions? Anyone?

MR RYAN: Could I just pose a question, Mr Bewsher. In looking at the design of the building, would you see any opportunity for redesign, taking into account Mr Clarke's suggestions, that might improve the situation?

MR BEWSHER: You ..... asking a surface water hydraulic ..... so I make these comments in terms of reduction of flood risk.

MR RYAN: They don't ..... design the roof of the building or anything like that. It's just purely from a - - -

MR BEWSHER: In terms of reduction of flood risk. The ground floor level half a metre above the 100 year flood level – that's the accepted standard for New South Wales as an acceptable risk for property damage. You know, flood risk is risk to property and risk to life. Properties built to the hundred year flood level are ..... to get flooded, you know, because floods bigger than the hundred year occur but that's an acceptable risk. So I don't have any problem that this building is half a metre above the hundred year and it doesn't need to go higher in terms of risk to the property, flood risk to property. The issue is risk to life. Would it be safer to have risk to life to have the building up higher? The way the fencing would be designed is to stop people getting washed under the building. Say some pedestrian, a kid, deciding he would like to take his surf board across the low point in Keeler Street and gets washed down, the fencing within the development would prevent the person getting washed into the undercroft.

Even if they did - even if they did get washed into the undercroft, the undercroft is not an area that gets narrower and narrower and narrower, it actually gets wider and wider. So I don't see those risks as being particularly significant or significantly mitigated by having the undercroft way off the ground but there would still be fencing there. You would say the fencing might block debris and divert water into

neighbour property, yes, but it won't - it couldn't do it any more than the existing house does so I don't think that's a concern. You could say, "Well, the fencing might fall over. The load is so high, so much water debris", but that could be a matter for condition and we can easily build barriers that don't fall over. Sort of vehicle restraints that are on the side of freeways only require some very strong cables locked in, so it - I'm sure a condition could be that the fences that - - -

MR RYAN: Are structurally adequate.

MR BEWSHER: - - - are structurally adequate.

MR DELAPIERRE: And would you say there's risk right now if someone's riding their boogy board in the flood, although there's fences, there's houses, there - - -

MR BEWSHER: Of course.

MR DELAPIERRE: And now I am not trying to put words in your mouth but asking your opinion, so would the scenario we're looking at doing reduce the risk from what's there currently now?

MR BEWSHER: Okay. So in terms of - we're talking about the best drownings on Keeler Street certainly would because there will be fencing there, whereas now we get washed down, so it would be safer for pedestrians on Keller Street. In terms of the population that's in the house at the moment, obviously it has to be safer for them but now we're got, instead of one family we've got four families on the ground floor and these multistories but they all have floor - they have flood free access. In a one per cent event, they have flood free access. Even in this monster ..... event there's still - there is wadeable access for an able bodied adult to get out. I mean, that's - - -

MR DELAPIERRE: As well as, I guess, refuge on site, as you said. They can - - -

MR BEWSHER: And they can wait on site for the tens of minutes that would be required before the pathway out. It doesn't have any more .....

UNIDENTIFIED SPEAKER: Can I respond?

MR LLOYD: Yes.

UNIDENTIFIED SPEAKER: There's different things all getting tangled up and I did emphasise debris and the reason for an undercroft, essentially - a high undercroft, not a little one - is to provide a flow path that doesn't get obstructed by debris, by water borne debris. And what I was thinking of was only, say, half the width of the building so you've reduced the footprint by about half. It wasn't just have a lobby or have it on columns off the ground. So you would have half the building and then you would have your quite substantial flow path with part of the building cantilevered over that. So that, to me, removes the issue of water borne debris. It means the water is going to be gone out of the way. There's no nasty undercroft area

to maintain beneath the building. The only other issue remaining then is - which is a very big issue, is how you keep people safe both within the property and on the street. You've got a more refined flow path, I suppose a narrower flow path, and I suppose it's, you know, within our capacity between us to devise ways to keep people safe in that general area, either in the private recreation area or whatever - open safe area and in the street but that sort of brings it down to that kind of issue, whereas the other way it's - there's a lot of uncertainties around that undercroft area which I think is just undesirable, unworkable, and will - it will just get - it will get closed off, I'm sure, and then you've got a dam and, you know, then you've got water going in all directions. So just - I just wanted to respond to that.

MR BEWSHER: Yes.

UNIDENTIFIED SPEAKER: It's not quite - - -

MR BEWSHER: Can I make just one more comment? It's interesting, you know, in many areas of risk management there are clear sort of ..... you know. This is the number in this area and it's the way the government framed their flood prone policy back in 1984. It is a merit assessment, though they said clearly, you know, "You don't want any flood risk, don't build inside the PMM. Just stay out of the water" but they didn't say that. They said it has to be a merit decision because - and you've got weigh up the flood risk on one side against the social and economic cost and sometimes environmental cost to come up with a merit decision because you can't just say, "Let's not have any risk". You know, there is risks everywhere. The issue is, is it an acceptable risk and if you had someone that's a key safety issue that you have to address but in terms of how much safer should you make it, there's economic and society issues associated with that. It's a part of a merit assessment that you gentlemen and lady are tasked with making assessment of. Certainly in my experience as a surface water hydrologist looking at these sorts of developments everywhere, around Sydney and around New South Wales, I don't think this is particularly - think the flood risks at this site are acceptable for the type of development that I've seen in the plan. Five minutes on my computer I could show you some examples of others that are - - -

UNIDENTIFIED SPEAKER: What? They've been approved but have a high risk? Is that one way of putting it?

MR BEWSHER: Absolutely.

MR DELAPIERRE: And I don't think we're - we're not saying that at all. We believe, as the applicant's team, that - we acknowledge there's a risk. It's a bit like, in my mind, if you talk about a child crossing a road, a pedestrian crossing is better than no crossing. A traffic light is better than that, an overpass or an underpass is even better. At what level of flood protection are we talking? You know, I think - are we talking about someone running across a road with - arterial road, I don't think we are. You know, does it need the complete overpass with lifts, etcetera, to use that analogy, I don't think it is, so I think that, you know, Don keeps - sorry, what Drew

keeps saying is that, you know, the thing in his mind, from a flood engineer, is the flood free pedestrian and vehicular access is a great thing to have from a flooding perspective. People aren't - they're not trapped on a site in an up to one per cent event. There's even the ability during a, what, PFM or Noah's Ark, whatever you want to call it, but for an adult to be able to wade out or to, you know, remain on site, not going to be isolated for days or even hours. It's a short term event. You know, yes it's increasing density but that - the density has been increasing, people are living above flood levels, they're not in a flood channel, they can get in and out. So, yes, that's what I keeping come back to as a planner. It's an R4 zone site, it's considered an appropriate site to increase densities. Yes, there is a flooding risk but applicant's experts are saying that it's appropriately mitigated. So - but I understand that council has got a different view and, as we said, the panel has got a difficult position to make about (a) or (b).

MR LESTER: ..... question but - well, what would porosity of the enclosure - you could vary the porosity. I mean, we talked about it, ... some form of protection. There has been valid comment about the negative impact of the undercroft space. I am mindful of some other projects in which I've seen where the porosity of the wall was designed to allow water to get in and get out over time, is that another possibility by manipulating and obviously looking at, as you increase - decrease the porosity you're going to increase the flow around the building but you're not negating some movement through it. Is that another way of, in a way, closing out this concern about a large dangerous unsightly undercroft by basically enclosing it with some sort of porous structure. It might be block work, brick work, whatever, but there are examples that I can think of where that would work but I don't know from the studies that are being done whether that is something that would be such that it would impact adversely the flows to the point where it would create another risk in itself.

MR BEWSHER: Yes. So it depends what you mean by cross .....

MR LESTER: .....

MR BEWSHER: I mean, one thinks of hit and miss brick work and that sort of thing.

MR LESTER: Yes.

MR BEWSHER: I don't think that would be appropriate because it's got to have a flow of water but there's a range of options that - you know, I'm not a hydrologist, I'm an architect, but there's louvres and there's all sorts of devices that allow the flow but still retain some aesthetic appearance and so on. So there's a lot of options but hit and miss brick work I wouldn't support that. There needs to be a flow of water because that's what the applicant's done .....

MR DELAPIERRE: So your suggestion would be it needs to be something with a similar, I guess, openness .....

MR BEWSHER: Yes.

MR DELAPIERRE: So that there might be - - -

MR BEWSHER: Flow through would be the engineering jargon that would be being used.

MR DELAPIERRE: So you would acknowledge that the volume of water requires increased openness rather than, you know, brick work with gaps or, you know, that kind of stuff?

MR BEWSHER: Yes.

MR DELAPIERRE: So it's more - it's unfortunately the case of what I ..... before where the engineering's wagging the tail and you've got to put the engineering stuff in front of the architectural presentation of the building, given what we've been talking about, the potential risk to human life. But you're right, there's certainly - even with a pool style fence are options to have a more attractive fencing scenario than the standard pool fencing from Bunnings.

UNIDENTIFIED SPEAKER: So all of this where, if you're talking about water, but we're not talking about water and as I keep playing back to you ad nauseam that we're talking about a mixture of water and all kinds of stuff and, you know, everything you can imagine coming down with the water, you know, that you've got to design for that as well. So, I mean, the modelling is great for water, the pool fences are great for water but the real stuff is - you know, that's where we have this continual problem, how you can let what's really coming down through without going too far out of control. Did you see the pictures from Japan? The amount of debris that was being moved around there is unbelievable, unbelievable. But anyway, sorry.

MR DELAPIERRE: You did mention it's a small catchment.

MS SMITH: Well, I have a question. We've talked about debris and we're talking about volumes of water. I want to know is there a solution that would slow that water down and collect that debris in a more natural manner in that site?

UNIDENTIFIED SPEAKER: Well, in that sense, you would have to looking at management of the catchment and where in the catchment you could have things like ponds and water sensitive design on the creek system. We're out doing that actually in places but I don't know .....

MS SMITH: But we're not up to a micro design, which is .....

UNIDENTIFIED SPEAKER: We haven't got that here. No.

MS SMITH: No. Okay.

UNIDENTIFIED SPEAKER: But it's absolutely correct thinking. That's what we should be doing everywhere, gradually swaying the waters out, calming the whole thing down again

MS SMITH: So if this building was on stilts, given that it's, I'm going to use the technical term, got a coffin car park, but if it was on stilts could we have something in that space that would slow down water?

UNIDENTIFIED SPEAKER: Planting.

MS SMITH: So a sort of gravel planting, reed, thrushes?

UNIDENTIFIED SPEAKER: Yes. Landscape, tree.

MS SMITH: Small bushes.

UNIDENTIFIED SPEAKER: Well, trees are better than bushes but, yeah, I mean, planting, landscaping.

MR BEWSHER: The normal - the normal mitigation measure that's used in those environments ..... called a detention basin, which is actually about half a kilometre downstream in, you know, Don Russell Park where there is a large detention basis which was built - which Hornsby Council built after the 1988/1990 floods. So when you're on the downstream side of that, you're in a much better situation than you are on the upstream side but you need a lot of space and - - -

MR DELAPIERRE: Pocket Park across the road's not big enough?

MR BEWSHER: No. No. It would help a little bit but not very much. The other issues that - because it's about flow conveyance, if you slow the water down it actually gets higher, so you've got to do it in a location where you're not going to have third party impacts. So you usually need a fair bit of space.

MR LLOYD: Right. Well, we will retire and consider it and hopefully we can come to a decision sooner rather than a bit later but we will have to talk about this amongst ourselves.

MR DELAPIERRE: If I could say one more thing if you will ..... Mr Chair is that certainly on behalf of the applicant's team, if the panel considered there was some benefit in the - you know, what I'll call the three experts, being the two engineers and counsel's engineer, participating in some joint discussions to clarify their issues and possibly identify some mitigating measures, as the applicant would be comfortable to encourage the panel to suggest participation in that.

MR LLOYD: Well, we've heard from both sides so we will go and think about this. We will take an adjournment.

ADJOURNED **[4.56 pm]**

RESUMED **[5.24 pm]**

MR LLOYD: The panel's decision is unanimous. We think that there is merit in the parties' respective hydrological engineers getting together. We disagree that this site is not developable. We think it is, with an appropriate design. We are uncomfortable with the present design, so what we have decided is this and I will ask for this to be put up on the screen. Paragraph 1, the panel is generally supportive of the fact that this site - supportive is wrong.

MS SMITH: Yes. .....

UNIDENTIFIED SPEAKER: We get the gist.

MR LLOYD: That this site may be developed for a residential flat building and that there is an opportunity to undertake ameliorative flood control measures - ameliorative. Anyway, you can correct the spelling later. Paragraph 2, the panel is not satisfied that the flood management measures, on the present proposal, are fully resolved. Paragraph 3, the panel has, therefore, determined that this application be deferred to enable the parties' respective hydraulic engineers to confer - hydraulic is wrong but anyway, to confer with a view to reaching possible agreement on appropriate flood management measures. (4) In particular, that the applicant prepare appropriate flood management measures for the open spaced areas. (5) That the council prepare appropriate conditions of consent in the event that the flood management measures are resolved. (6) That any necessary amended plans as a consequence be prepared. Does the panel members - does the panel have any comment on those? All right. Everyone happy? All right. Well, that's the determination and with that we can formally conclude the meeting. We hope that you can resolve it because we would not like to see the site sterilised and anything better than leaving the existing house there is an improvement. All right. Thank you very much.

ADJOURNED **[5.28 pm]**