



**LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL
TERRITORY**

**STANDING COMMITTEE ON PLANNING, PUBLIC WORKS
AND TERRITORY AND MUNICIPAL SERVICES**

(Reference: Draft variation 288: Lyons)

Members:

**MS M PORTER (The Chair)
MS C LE COUTEUR (The Deputy Chair)
MR A COE**

TRANSCRIPT OF EVIDENCE

CANBERRA

FRIDAY, 20 MARCH 2009

**Secretary to the committee:
Ms N Derigo (Ph: 6205 0435)**

By authority of the Legislative Assembly for the Australian Capital Territory

Submissions, answers to questions on notice and other documents relevant to this inquiry that have been authorised for publication by the committee may be obtained from the Committee Office of the Legislative Assembly (Ph: 6205 0127).

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Amended 21 January 2009

The committee met at 9.02 am.

WRIGLEY, MR DEREK F OAM, retired architect, solar housing researcher and consultant

THE CHAIR: Welcome to this public hearing into draft variation to the territory plan No 288. Are you having difficulty hearing me?

Mr Wrigley: I do have a hearing problem but I am managing all right. The air conditioning is a problem.

THE CHAIR: We will check to see whether we can improve that situation for you. You have got the privileges card and I believe you have read that. Do you understand the implications of the card?

Mr Wrigley: I think so, yes.

THE CHAIR: You are happy with that? That is good. That is incorporated. I believe you wish to make a statement to begin with. The other member of our committee will be here in a moment. You wish to make a statement that will take about 15 minutes, is that right?

Mr Wrigley: Twenty minutes.

THE CHAIR: Would you mind if we asked questions as you go? Otherwise, we might forget what we wanted to ask you.

Mr Wrigley: Of course.

THE CHAIR: We might interrupt as we go along. Would you like to start your statement, please?

Mr Wrigley: I am a retired architect. I have specialised in methods and techniques to increase the solar efficiency of domestic housing.

Thank you for the opportunity to speak on this issue. I will be presenting a verbal case against the status quo of the DV288. However, I think it is important that I take a wider perspective. I have a second section in my address which will deal with what happens if the multistorey project goes ahead. That to me will be serious and I think there are many arguments against it. Lastly, if there is time, I would like to make a suggestion that the consultation process as a whole, as distinct from DV288, is badly flawed and very one-sided. I am sure there is a far better way of doing it. That is a separate matter. I do not know whether or not you want to hear that. I have got it all written down and there are copies for each of you afterwards. That is not an essential part of what we are talking about.

THE CHAIR: Perhaps, Mr Wrigley, if we hear that first part, addressing the particular issues that you want to raise about this development, and then if we do not have time to go into the other part about the consultation process generally we might go back to that at another stage after we have read your documentation, which you

can give to the secretary before you leave.

Mr Wrigley: It is a separate issue and maybe it is for another committee.

THE CHAIR: Yes, quite possibly, so we could just take that on board for a later stage. Mr Wrigley is going to give a presentation for about 20 minutes but he can answer questions as he goes along.

Mr Wrigley: Thank you. Firstly, I have an explanation. I will have to read a little bit, I am afraid.

THE CHAIR: That is fine.

Mr Wrigley: The Lyons stage 2 proposal to change from three-storey zoning is not a simple matter of paper planning. There are special environmental consequences arising from the development decisions which global warming has now intensified, and that is really the essence of what I am saying. About 20 to 40 per cent of total global emissions of greenhouse gases come from housing construction and subsequent energies used in daily life. The design of our housing units sets a pattern of behaviour on the residents, which is an important factor, and this lasts for the life of the buildings.

It is incumbent on us as designers to think very carefully about the future consequences of our design decisions. Most of us have grown up to expect the benefits produced by the 20th century and we are now beginning to reap the consequences of all that, so this is really quite important. Science is telling us that if we continue along our present path our children will not enjoy what we have enjoyed. What we are talking about today is a way in which it will stop them.

There is significant inappropriate design in stage 1 of the Lyons estate, which I have commented on with no visible effect. The contract is going ahead and it will be unforgiveable, I feel, if stage 2 repeated this process. It is stage 2 that we are really concerned about today. Consequently, I feel a responsibility to point out some of the potential problems in the stage 2 portion of this project, which is not in the interests of society.

Let me deal, firstly, with natural energies. Researchers over the last few decades—and I would like to stress that the housing industry does not appear to be doing any research in this area that I know of, and this is a very serious omission—have shown that a more effective use of natural resources could be made. I am talking about solar energy particularly, buoyancy—that is, density of air, ventilation, shade—and things of this kind that the housing industry is not terribly aware of.

These indicate that the running costs of such houses that use these techniques and their carbon emissions could be reduced very significantly. I have a book here which I think you have a copy of, Alistair, which shows that some of the energy costs—running costs—of a house could be reduced by 90 per cent over what we are doing at the moment. Something is wrong when we are going along the expensive way.

This is a new direction we have to explore. As I say, in this book you will see that

there are several techniques that can be adopted. The EER, the energy efficiency rating, of houses could be significantly improved by using these techniques. I show in this book a design which is achieving eight or nine stars compared to anything under five.

THE CHAIR: For the purposes of *Hansard*, Mr Wrigley, could you read out the title of the book?

Mr Wrigley: Yes. It is called *Low energy affordable housing*. I am hoping that some of these techniques could be included in stage 2, whether it is multistorey or otherwise. But with the current orientation, the height and the solidity of the designs that are shown—you will see them on drawing B, which you have in front of you, the ones in brown—the preliminary design of these buildings shows that there is a very heavy reliance on electricity and gas for heating.

The cost of gas and electricity is bound to go up. Actew have told me this and all the evidence points to this. My basic question is this: if we are going to put people into these houses and they cannot afford to heat them, how are they going to survive in the winter if they do not have solar energy coming in through the windows? It is almost as simple as that. This particularly applies to the units in block E. They are the units fronting onto Burnie Street. Those units do not even have a window on the north so people have no possibility of warming their unit from solar energy. Those units are already under construction. This is shameful. In fact, I think it is almost a confidence trick and the Office of Fair Trading ought to be brought into this.

Let me talk about solar technology in more general terms. Stage 2 could become a model example even if stage 1 is not very good. Stage 2 could be an example of cutting-edge technology in which up to three-storey units could be designed to maximise solar passive heating and distributed generation—that is a term we are all going to have to get used to because it is critical to our survival—so that we can produce pollution-free electricity. At the moment, all our electricity comes very largely from coal, and the pollution factor is very, very high. We are forcing these people to use polluting technologies if they are going to heat their units.

The ANU here in Canberra has all the technology that we need to put into these units. I would like to know why it is not being used. The contractor, at one of the public discussions, intimated that the ANU was involved. When I inquired, it turned out not to be the case. They were involved in something else, but not in this unit. So I think there is a bit of greenwashing going on here.

And the planning study makes no mention whatsoever of all these sorts of technologies. Units higher than three storeys are unlikely to have the necessary roof area to generate enough electricity for the units underneath to use. The higher you go, the worse it gets. This is why I am arguing against multistorey over three.

MS LE COUTEUR: Is that the only reason you are against higher storeys?

Mr Wrigley: No; I have one more reason. My third point is this. As things are at the moment, we have to rely on coal-fired electricity, as I say. If we are going to put in multistorey units, then less high is an essential part of making those units work. They

consume electricity—quite a substantial amount—and this only exacerbates the problem of blackouts, which is being largely contributed to by air conditioners at the moment. We have already had some blackouts on this court and it is going to get worse. Anything that we do in stage 2 of this development should not be adding to the problem.

Past experience of lifts in multistorey housing units shows that they are invariably a major source of social and physical problems. If the old Burnie Court estate became a social problem without lifts, then, if we are going to add lifts, we are increasing the problem. Without lifts, these buildings will not work. The consumption of electricity is a critical point in the development of these multistorey buildings. If we do under three storeys, there is no great problem.

From these points of view and the lack of know-how and imagination exhibited in the preliminary designs, I do not have any confidence in what is going on. I am just stating that I am against the proposal to increase the height level in this area.

That concludes that part. I have made my case. However, I do believe that, if the decision goes against this and multistoreys are approved, we have a significant problem on our hands. I would like to talk to that, if I may.

THE CHAIR: Yes.

Mr Wrigley: I have necessarily got to refer back to stage 1 buildings to make some of my points. The planning study for this whole estate stated that the majority of units have a strong northerly orientation. This is patently untrue, so there is a bit of greenwash going on here. In the stage 1 units, only 22 per cent of the housing units have a northerly aspect; that can hardly be called a majority. And in block E, as I have previously mentioned, 10 of the units have no northern windows, so there is no possibility of those units using solar energy to warm themselves up. This is unforgivable.

MS LE COUTEUR: How many in block E have a northern window?

Mr Wrigley: There are 11 units in E, 10 of which have no northern windows. Even the one that is left over has such a small window that it is ineffective anyway; I am being technically correct in saying that it has a window. So even under normal circumstances—that is, without global warming, without any climate change in mind—these are inefficient buildings anyway. I think that could be regarded as deceptive or unfair trading.

They do have east and west windows, however, which are really ineffective from the point of view of warming these units because no provision seems to have been made for shading of these windows, which is a critical factor: if you are going to rely on east and west windows, you have to control them.

MS LE COUTEUR: I assume that they are not doing anything like a sawtooth roof so that you are getting northern sun in. No, that would be—

Mr Wrigley: This is a good point, Caroline. The drawings I have been given are very

poor drawings, and this is part of my objection to the consultation process: it is not fair; it is all one-sided.

MS LE COUTEUR: Yes.

Mr Wrigley: So I think the residents in block E will not be very happy. Stage 2 units—that is, the ones under DV288—have even less exposure to the north, only 19 per cent. I refer you now to my drawing A. That is a tentative effort by me to show that it is possible to provide high-rise buildings or multistorey buildings—every unit—with solar warming. So it is possible—under certain circumstances, of course.

MS LE COUTEUR: I guess that design has been slightly impinged on because of the current construction of the ones at the end, block E, but still that is not huge.

Mr Wrigley: There has got to be a lot of fettling, I think.

MS LE COUTEUR: There are not a huge amount of problems with it.

Mr Wrigley: I cannot present a fully argued case on this one because I do not have the facilities or the information. I am only putting up a suggestion; I believe it could be done.

MS LE COUTEUR: Yes.

Mr Wrigley: The main problem is that people are not thinking straight; they are not using the available technologies and, in this town, of all towns, if we do not use them, who will? With the ANU on our doorstep I think it is criminal that we are not

Let me proceed now to block P. That is the high rise, the 10-storey, at the northern end. If you look at drawing B the large unit is here, right on the noisy corner. I am arguing that, if you have to have a 10-storey building, and I disagree with that, it would be better down here than up here, from almost every point of view—from a noise point of view, from a solar point of view, from a shading point of view. The shading, if it were placed down here in Staverton Place, would not affect a great deal, but you would need a little bit of replanting to do it, obviously.

The other proposed stage 2 buildings, these along here, the four or five-storey units, are totally reliant on artificial heating and cooling. They do not fit in with ACTPLA's requirement that they avoid the canyon like effect in Melrose Drive. They are parallel to the street so I think they are contributing to the canyon effect and they will have many noisy units.

If I might talk about noise for a minute in relation to all those units facing Melrose Drive: noise is a problem. It is going to be an increasing problem as the traffic builds up. This will require fixed glazing which, automatically then, requires artificial ventilation inside and probably air conditioning. If the blocks were placed as on drawing A—that is, at right angles to the street—you would overcome all these problems. You would achieve 100 per cent solar access and you would avoid the noise problem to a very large extent. I am not saying you will avoid it entirely. From a planning point of view, you would reduce the noise.

THE CHAIR: Could I ask you a question about what you said about the fixed glazing. I am not technically aware of the effect of that. Why does that mean you have to have air conditioning?

Mr Wrigley: If you have a bedroom facing Melrose Drive, in summer you will probably want to open the windows at night. If you open the windows, you are letting in the noise as well. Fixed glazing is the only way out of that problem. You have got to stop airborne noise getting into the unit. That is why air conditioning or whatever comes into it.

If I might talk about distributive generation, this is an alternative way which is now creeping in by the use of photovoltaics on roofs. The planning study makes no mention of distributive generation. As I say, it is a process which we are all going to have to adopt with new buildings. No mention is made in the planning study of what is called building integrated photovoltaics. That is where you can use photovoltaic panels on the roof which act as the roofing as well as photovoltaics. It is a saving in energy, it is a saving in cost and it is the way we have got to go, I think. It is already on the market in Australia. Why aren't we using it? It is quite evident in Germany. They get only half the sunshine that we get. Why aren't we doing it? It is because our designers and our planners, our technologists, are not up to it. We have to improve. It is now possible to do all this.

The potential for retrofitting: one of the problems we are finding now with existing housing is that it is not easy to go in and retrofit because the houses are badly designed from a solar point of view. Quite often the roof is gaining a position of great importance in buildings now because of solar energy. It fits on the roof; so the roof is the area where we have to extract the maximum amount of solar radiation if we are going to use it properly. It is much more efficient on the roof than it is on the walls.

All the roofs in the Lyons estate are ineffective from the point of view of retrofitting—not all; there are some; a small minority. They have not been designed to make retrofitting easy, let me put it that way. That is a problem that we are facing now. In stage 2 we have a chance to improve this situation by thinking of it from the beginning. If we do not put the technology on now, at least we are providing the roofs on which you can do it later on, rather than cutting off the option. That is a basic problem. We should be doing it now. If we do not do it now, at least let us put on suitable roofs so that you can do it in the future. I think there will be great problems with what is proposed at the moment.

Turning to solar controlled windows, the housing industry is reluctant or it does not know anything about providing solar shading to windows. Let me give you an example. Sky Plaza in Woden, the tall building, has no sub-shading at all on any of the windows. That is criminal. It should be part of the building contract. What happens when you provide windows with no external control, no shading, is that the poor person who has bought the unit is faced with the problem of keeping out the sun, because a lot of the windows face west or east. Because of the height of the building they have to put all their techniques on the inside in the form of curtains or blinds and we all know that internal techniques are inefficient. If you are going to control sunlight on windows it has got to be done outside the window. In other words, you

keep the heat out of the window rather than let it in and try to control it then. There is a technical reason. With multistorey buildings like this the problem is really exacerbated. I do not know what the people in Sky Plaza are going to do.

I have one last point and it is on rainwater harvesting. No mention seems to have been made about this in the planning study. This ought to be automatic from now on in any development like this. This becomes less effective with multistorey buildings, of course, because the ratio of roof area to the number of units underneath is such that the higher the building the less effective it is going to be for the collection of rainwater. We all know it is getting drier and drier. CSIRO says it is going to get much worse so we are going to have to rely on the collection of water. Solar energy collection, rainwater collection and so on are going to be critical in new designs. I am hoping that stage 2 will be an improvement. Grey water circulation is mentioned in all the papers I am going to give you, so I will leave that one for the moment.

If I might come now to the proposal for consultation. I will make six or seven points. It is all written down—my suggestions as to how to improve it. The problems at the moment are that the information given to the community is chosen by the proposers, which places them in a powerful and highly inequitable position. The information they provide is unlikely to have sufficient information on which the community can base its own response. This is all mentioned. Many members of the public may not have the technical expertise to understand all the information, particularly when it is flashed on and off a screen in quick succession; you cannot absorb it. It is highly inefficient. The necessary design information can be complicated and very technical. There are still many unknowns at that time of the consultation because a lot of the details have not been worked out.

The community understanding, by its very nature, is random and highly subjective, yet local knowledge can be a valuable source of information back to the proposers. So they should be heard, but if they do not understand what they are looking at then how can they make sensible comments back to the proposers? At community meetings can they effectively absorb detailed information on which larger decisions are based? It often takes some time to understand these documents and their ramifications or consequences. Such ineffective exchanges tend to build up distrust—in other words, it is an us-and-them situation that develops; it is an adversarial position. You have only got to listen to some of the comments to understand that that is what is building up.

The community needs unbiased, holistic and professional architectural and building advice at that point. I am making some suggestions in this paper but I think it is probably the subject of another meeting because it gets down into technical details and things of that kind. I think I have made my point.

If I might show one aspect that is in this book—I am sorry if it appears that I am pushing what is in this book but I am not really; it just happens that I have done the work on it—there is a graph that shows—

THE CHAIR: For the purposes of *Hansard*, what page number is that?

Mr Wrigley: This is page 32 of the book. I have got copies here. This shows a graph of cost as against time. I am sorry that you have not got a copy. The feed-in tariff

makes quite a significant impact on this. This red line indicates the running cost of a normal house that a builder would provide. It is the sort of thing you are getting in the suburbs now. With a feed-in tariff and with the proposals that I have mentioned here in the new development of Lyons estate, we could have running costs similar to that. That is a saving, in a typical house, of about \$4,000 a year. That is pretty significant. It is \$70,000-odd in 20 years, which is the life of the feed-in tariff.

Everything indicates that we should be taking much more seriously the solar energy requirements, water and all the associated things. That is really my case. I am against the high-rise development issue.

MS LE COUTEUR: You were talking about the territory plan-type consultation, not the DA-type consultation.

Mr Wrigley: DA-type consultation, but any consultation of this kind.

MS LE COUTEUR: I would have thought that DAs were even worse.

Mr Wrigley: They probably are.

MS LE COUTEUR: This is territory plan consultation that we are doing now. With DAs, basically you do not have consultation.

Mr Wrigley: I am basing it on what happens now.

THE CHAIR: I have one question. At the beginning of your presentation you mentioned that the residents would be discouraged by the actual design and their behaviour would continue on through the night while they were living there. What were you referring to there?

Mr Wrigley: If you go into any of the houses that are being built these days, I could take you to quite a lot of houses that have been put up.

THE CHAIR: What page number is that?

Mr Wrigley: It is page 3. There are four examples.

THE CHAIR: Four examples of existing homes?

Mr Wrigley: That is correct. It all boils down to the subdivision of blocks. A lot of blocks today are very elongated, with a little bit facing north, which gives any house on that block Buckley's chance of using solar energy to warm it up. That is a typical house.

We are getting on to another topic now really with the face-the-street mentality. We have got to get away from that too. Big windows like this are designed in. The poor people who have bought that house are going to have awful problems keeping the heat out of that window. Why should they be faced with that extra cost? It should be part of the building. These are built-in or designed-in disadvantages that the occupier is faced with that the builders should have resolved in the first place. That applies to

stage 2 of Lyons estate.

MR COE: What information was available to you for your consideration of the whole proposal? In the consultation what did you actually receive?

Mr Wrigley: Very little in actual fact. There were preliminary drawings I was given. At one of the consultations, I asked, “What information is available?” “Oh, there’s plenty available; come around to our office and we’ll give it to you.” So they gave me a DVD.

MS LE COUTEUR: Did you get this, Derek? It is the ACT—

Mr Wrigley: That’s the planning stuff, is it?

MS LE COUTEUR: Yes, the ACT Planning and Land Authority report on Lyons estate redevelopment. I presume that is basically what you got.

MR COE: There was nothing further, though?

Mr Wrigley: No. I got the DVD from the Hindmarsh people. But the drawings were so tiny you could not really pick any details out.

THE CHAIR: Just for clarification, leading on from Mr Coe’s question: the DVD showed you drawings but no 3-D examples of what might be the kinds of buildings—

Mr Wrigley: Not that I could find, no.

THE CHAIR: No 3-D examples?

Mr Wrigley: No.

THE CHAIR: No actual models of the buildings, what they might look like?

Mr Wrigley: No. There is a drawing in the planning study which shows aerial views and things like that of proposals. All my information has come from these. I might add that, if my proposals for consultation are adopted, this would be overcome because you would have technical people looking at technical information by arrangement rather than at a public meeting. You cannot do it in a public meeting very easily.

THE CHAIR: With regard to the lifts, you talked about the consumption of electricity, blackouts and things like that, but you also talked about social problems. Was that based on the same kind of people moving into these units as had lived in them previously or did you have some other reason for suggesting that lifts caused social problems?

Mr Wrigley: Evidence from overseas and here indicates that lifts and the consumption of electricity do create some problems in multistorey housing units. I have no idea who is going to go into these but if, they are expensive units, are you going to be placing attendants, electronic entry or whatever into these things?

Whether you can do that with lower cost units I am not sure, but there are problems that need to be looked at.

MS LE COUTEUR: Do you have figures for electricity use for lifts?

Mr Wrigley: No, I do not at the moment.

THE CHAIR: There are no more questions. You are going to provide us with the documentation you read from and also a copy of the book, yes?

Mr Wrigley: For sale.

THE CHAIR: Have you got a photocopy there—

Mr Wrigley: Alistair has a copy.

MR COE: Yes, I am happy to give it to you.

THE CHAIR: Okay, Alistair will provide us with a photocopy. Thank you very much for your attendance today, Mr Wrigley.

JOHNSTON, MR RICHARD, President, Planning Institute of Australia, ACT Division

SINCLAIR, MR HAMISH, Vice President, Planning Institute of Australia, ACT Division

THE CHAIR: Welcome to this hearing by the Standing Committee on Planning, Public Works and Territory and Municipal Services on draft variation to the territory plan No 288. Have you read the yellow card, are you familiar with its content and do you understand the privilege implications contained within it?

Mr Johnston: Yes.

Mr Sinclair: Yes.

THE CHAIR: Would you like to make opening statements?

Mr Johnston: We did provide a written submission.

THE CHAIR: Yes. Thank you for your submission.

Mr Johnston: I will refer to that. Perhaps I will reasonably quickly go through that and pick up some of the points in there without reading it all out verbatim. I must say that I was impressed with the work that Derek Wrigley had done, and by and large I would support most of that. We might have a slight difference in terms of what is appropriate in building height, but in general I would support Derek Wrigley and encourage the committee to very seriously consider the points that he made.

In the second paragraph of our statement I have said:

PIA ACT supports the redevelopment of this site—

which is quite correct—

and the general approach outlined in the planning report attached to the original draft variation.

I would like to withdraw those comments because, looking more closely at the proposal in the planning report and listening to Mr Wrigley, I think there are some serious issues, particularly, as he has raised, about the proposal itself and the planning report. I appreciate that it is not the particular development proposal that the committee is dealing with—it is the draft variation—so perhaps we cannot go very far in dealing with the proposal, but, to the extent that it does impact on the draft variation or the draft variation reflects the proposal, there are some concerns, and I will attempt to bring some of those out as we go through.

I have just picked up a couple of paragraphs from our submission to ACTPLA. They deal exclusively with the issue of building height, but in my evidence I would like to go a bit further than that and pick up some of the issues that Derek referred to.

Our principal concerns were that—we were supporting the concept of a stepping

down of building height across the site so that there is effectively a transition from the more intense development along Melrose Drive across the site down to the Burnie Street frontage. We were recommending that the Burnie Street frontage should be no more than a two-storey height level, as opposed to the three storeys that was in the original draft variation and is still in the variation that has been referred to the committee.

We were supporting that transition. The development proposal does not quite do that. It shows—and I will talk a bit more about this further on—a variety of building heights along Melrose Drive from four storeys up to 10 storeys at the intersection with Launceston Street. In fact, quite a lot of the development of the site is shown as one-storey villas in the middle and the Burnie Street side. It is a slightly odd development and certainly does not entirely reflect the concept of a transition from the more intensive development along Melrose Drive facing the Woden town centre across to the residential environment of Burnie Street.

The second point we had was about the 10-storey building. We were not at all persuaded that it was essential to have a 10-storey building in the first place or that the location at the north-eastern corner of the site was a sensible place to put it. The last place you would normally put a high-rise building is on the northern end of the site where it is likely to maximise overshadowing over the rest of the site. So we did not see that that was a very good idea and we were advocating that, if anything, the buildings could perhaps come up a little bit along Melrose Drive and be six storeys consistently along Melrose Drive rather than step up to 10 storeys. Essentially, that is still our position.

I then go on, at page 2, to note from the ACT Planning and Land Authority's report on the consultation that clearly the 10-storey building was identified as the major issue that was raised in 20 of the submissions, including our own, and also a petition. The consultation report, in our view, deals quite superficially with this issue and, as far as I am aware, makes no change to the draft variation. So although the consultation report said this is the major issue they did not then do anything with it, which seems rather strange.

The other general concern I have, without reading all these out, is that a lot of the justification in terms of overshadowing and other so-called justifications for the 10-storey building are just statements repeated from the original planning consultant report, which of course was done to support and justify the development in the first place. So we are very disappointed that, having identified the 10-storey element as the major concern through the consultation, all ACTPLA seems to have done is to just reiterate statements from the planning consultant's report without doing any independent assessment of whether it is a good idea or not. So there are a number of examples that I have given you about statements that are unattributed and taken from the planning consultant's report but purporting, on the face of it, to be statements by ACTPLA justifying a lack of any change to the draft variation.

I note the statement—and this is picking up on some of what Derek Wrigley was talking about—in the second last paragraph of our submission on page 2, that again was repeated or in an unattributed way taken from the planning consultant's report:

... the majority of proposed units have a strong northerly orientation at the main frontage, with the remainder predominantly facing east or west ...

If you look at figure 4.5 of the consultant's report, which is the one that shows which apartments have what kind of orientation—it is page 38 of the consultant's report—it seems fairly clear, without knowing precisely the breakdown in terms of numbers, that the majority of the buildings shown there are facing east and west rather than north and south, bearing in mind again that north is to the left of the page; the north point is shown there straddling the intersection. We contest the accuracy of the statement that the majority of the proposed units have strong northerly orientation, as I think Mr Wrigley pointed out. Other diagrams also show that the 10-storey building does cast significant shadow, particularly over the open space behind it, but it casts significant shadow over buildings Q and M and the open space between them.

I particularly refer you to figure 4.6, which is the 9 am shadow, on page 39. It is difficult from that diagram to determine exactly how much of the general shadow is thrown by the 10-storey building, but I think the principle is pretty clear that the more you elevate the building on the north-eastern corner of the site the longer the shadow is going to be. In fact, the 9 am shadow in midwinter is quite extensive. The midday shadow is shown on the diagram below on page 39.

As a general rule of thumb, you can take the shadow angle above the horizontal at midday on 21 June of being about 30 degrees, so mathematically you can say that, if we are talking about, say, roughly a three-metre storey height, another four storeys over a six-storey building in that corner would be another 12 metres. The length of the shadow generated by that extra four storeys would be of the order of 20 metres in the middle of the day and significantly more either side of midday as the shadow angle lengthens as the sun reduces in height above the horizon. We believe there is a significant overshadowing issue about the 10-storey development which has been not adequately dealt with in the report.

In the last paragraph of the second page of our submission we quote the response to issue 2.2.17 "Objection to height". Again, the planning authority has relied on a statement essentially from the planning consultant report, with the addition of four words, or five words possibly, "on part of the site". The statement reads:

... allowing an increase in building height on part of the site provides the opportunity to significantly reduce the building site coverage (by approximately 25 per cent) when compared to how the site could be developed under the existing Territory Plan policies and the 2001 Master Plan, where the coverage was 40 per cent. This efficiency translates directly into opportunities for creating a high quality urban design outcome.

The implication there appears to be that raising the corner building from, say, six storeys to 10 storeys somehow reduces the site coverage overall by approximately 25 per cent, which is a nonsense, in my view. That is not possible.

One of the errors in the statement, I think, is the addition in the statement I just read out of the words "on part of the site". They were not actually in the original statement in the consultant's report, which I think was intended to relate to the question of increasing the overall building height as allowed under the territory plan currently

from, I think, three storeys up to six storeys. That is what the consultant's report was talking about in terms of allowing a reduction in site coverage. But the ACTPLA report, by the addition of the words "on part of the site" seems to be trying to infer that there is some justification for the 10-storey building in that that by itself allows an overall reduction in site coverage of 25 per cent, which is not right.

While we are talking about the 2001 master plan, it is worth actually having a look at that. There is a small drawing of that reproduced in the planning consultant's report, if you have that, at figure 3.6, page 22. I draw your attention to that. It is not a particularly attractive drawing, which perhaps does not assist the case. What you will see there is that, in the original 2001 master plan for the redevelopment of the site, essentially it has a number of east-west public streets which extend the existing street pattern in Lyons across the site. There are, in fact, some connections right through onto Melrose Drive proposed. It is a very simple and, in my view, very legible layout compared to the rather obscure layout in the consultant's proposal or in the Hindmarsh proposal. It does show a much greater degree of north-oriented buildings.

If you can make out the little cross-sectional diagram above the plan, I think what it is showing there is that it is allowing buildings up to four storeys, with parking undercroft on the northern side of those super blocks, if you like, between the new public streets and the two storeys on the southern side. I am not quite sure why they have done it that way. There might be more logic in reversing that building layout. What it does show is the angle of the mid-winter sun. They have carefully designed the four-storey buildings and the spacing between the buildings so that there is no overshadowing of the northern frontage of the two-storey buildings.

There is clearly, in that 2001 master plan, a much greater concern about amenity of the development from the point of view of solar access. There are still some east-west facing units, particularly along the Melrose Drive frontage, and some along the Burnie Street frontage but rather less than in the current proposal. There are obviously no high-rise buildings, such as near the intersection of Launceston Street.

I would contest that last statement that I have quoted at the bottom of page 2 of our submission: this efficiency of increasing building height translates directly into opportunities for creating a high-quality urban design outcome. I think that is an extremely questionable statement. It does not appear to me that the Hindmarsh scheme is, in any way that I can see, an advance on the 2001 master plan, with one possible exception: the planning consultant's report does say that they have tried very hard to retain a number of existing trees. I do not think the 2001 master plan particularly did that.

I would have to say that, from my experience, it is extraordinarily difficult to retain large, mature native trees on redevelopment sites. By and large, even if great efforts are made to try to work around them, with the huge amount of disturbance that occurs in a major redevelopment of this kind, the trees ultimately tend to fall over anyway. Although it sounds like a laudable aim to try to retain trees on site, I would not necessarily put a very high priority on that.

On page 3, the other justifications which are raised in the consultation report about the 10-storey building, which are essentially similar to the assertions made in the planning

consultant's report, are, firstly, that it is a good idea to have a building which accentuates or provides a visual marker at the Melrose Drive and Launceston Street intersection. That is a nice idea in urban design terms. It relates to high-rise buildings in the Woden town centre. It might be a nice idea but I think you have to ask whether that is a strong urban design justification for providing a 10-storey building on that corner if it is going to have negative impacts on the site in terms of the amenity of the residents of the site. I think it will, and on that basis I cannot see the justification for the 10-storey building.

It would even be preferable, as Derek Wrigley has said, to further reduce the building heights from six storeys because, even though the planning consultant has done some shadow analysis on raising building heights from generally four storeys, leaving aside what happens at the corner of Launceston Street, their scheme showed generally four to five storeys along Melrose Drive. They did model a proposal partly put forward by the planning institute saying that, if you need higher density, let us do it in terms of raising buildings generally to six storeys along Melrose Drive rather than going to 10 storeys. They did a shadow analysis of that scheme and concluded there was minimal impact in terms of overshadowing on the site, which is fine as long as those buildings are generally oriented so that their long access is running north-south. In some cases, though, the buildings turn around, and particularly at the northern end of the site they are running east-west, so the shadow behind them is going to be quite significant.

In my view, it would be preferable to reduce the height of those buildings to four storeys and go to a scheme much more closely aligned with the 2001 master plan that I was referring to earlier, which shows maximum building heights of four storeys. Derek had concerns about even going to that height, but I think you can do that. In fact, if you look again at the cross-sectional diagram on the 2001 master plan, the sort of building units they are contemplating there are more in the nature of two-storey units, two-storey townhouse kind of units, with the four-storey building being, I think, two lots of two-storey units, one above the other. This form of housing was employed quite extensively in the British new towns many years ago quite successfully. That form of housing allows you to minimise the use of lifts because the ground floor of the upper units is no more than three storeys above the ground.

I would not personally have any objection to further reduction of building heights across the development, and possibly even not pushing our concern about reducing the building height to two storeys adjacent to Burnie Street, if that was going to enable a generally lower building height right across the site.

Our last point, which was the first point in our original submission, is the one about transitioning building height across the site. At the time, the concept we had in mind was six storeys adjacent to Melrose Drive, four storeys generally across the middle of the site and two storeys adjacent to Burnie Street. But, reflecting what Derek Wrigley has said, it might be more appropriate to go for a more limited building height of generally four storeys across the site and stepping down to three storeys, as the draft variation does, adjacent to Burnie Street. That is debatable.

It would be preferable, in terms of that relationship across Burnie Street, to not have three storeys facing Burnie Street, but perhaps you could overcome that by some form

of stepping of the buildings anyway so that the immediate appearance of the buildings facing Burnie Street was no more than two storeys but perhaps could step up to include a three-storey element, virtually an attic style development. So there are ways to do that.

The other general concern about building height I did not have in the submission but when you read the draft variation it is not clear to me. The relevant provisions of the draft variation on pages 12 and 13 set out the wording of the variation and the provisions particularly related to building height. Rule 25, paragraph (a), says:

The height of any building within 50 m of the boundaries of blocks in the RZ1, RZ2 and RZ3 zones and within 40 m of the CFZ, PRZ1 or PRZ2 zones does not exceed 3 storeys.

I must admit I have not closely inspected the territory plan map to try to work out what that means. I am not too sure what the effect is of “does not exceed three storeys”. I presume what it is saying is that the effect of it is that within 40 metres of the Burnie Street frontage, or wherever the edge of the residential zones on the other side of Burnie Street, the building height does not exceed three storeys. That may be fine but it is not very clear exactly how that works on the face of it. Paragraph (b) says:

The height of any building elsewhere on the block does not exceed 6 storeys or 4 storeys where a building is adjacent to development in an RZ4 zone.

Again I am afraid I am not clear exactly what that means. You would have to really study the map to work that out. But I strongly suspect that what it would allow is a much more extensive development of six storeys across the site, across a much greater proportion of the site, than the Hindmarsh scheme shows at the moment, because when you look at the Hindmarsh scheme a lot of the development in the central part of the site and on the Burnie Street frontage is single-storey villas, which to me is a fairly absurd use of this very strategically located site. Why on earth would you put a high proportion of single-storey development on this site?

If that is what they intend to do, I think it is silly, but there is no guarantee in the territory plan that that would be the ultimate outcome. In fact, somebody else might develop the site or they might change their minds and we might end up with a predominantly six-storey development on this site, which I do not think would be a desirable outcome, mainly based on the analysis that Derek Wrigley has done. I do not think he would want to see predominantly six storeys. As I indicated, from a purely urban design point of view, a six-storey edge to Melrose Drive would not be unacceptable but to then extend six storeys further across the site would be entirely inappropriate in my view.

I think my conclusions from all that are that, firstly, still referring to the provisions of the draft variation, we would still strongly recommend the deletion in its entirety of rule 27A, which is on page 13; that is the one that allows the 10-storey development.

Secondly, we would want to have a further look at those paragraphs I was just referring to under rule 25—as to exactly what the effect of those is. And it may be more appropriate—for the reasons that Derek Wrigley has suggested and that I have

suggested, and again by referring back to the 2001 master plan—that, rather than allowing six-storey development at all on the site, four storeys should be the upper level, the maximum level of development across the site. I would now be inclined to recommend that the increase in building height to six storeys not be agreed to—that four storeys be the maximum and, obviously, that there be no 10-storey development at all.

I would be happy to leave it there at that point. I am not sure whether Mr Sinclair might wish to make any comments.

Mr Sinclair: I would only reiterate that the two key elements here are our concern regarding the height and our belief that six storeys is an appropriate maximum, not 10, and that stepping down from that is a more appropriate outcome for this site; and the other is to express our concern with regard to the planning rigour and quality and independence of the assessment before the Assembly with regard to the planning report carried out by ACTPLA.

MS LE COUTEUR: You indicated that four storeys would be an appropriate maximum. Would it be a big change to go to five storeys? I have been told by a number of builders that five storeys is financially vastly more attractive because you are committed to a lift and they thought that five storeys was, from that point of view—and I am stressing that I am not talking about solar here, which is obviously very important, but that from the point of view of lift provision they saw five storeys as being a bit of a sweet spot.

Mr Johnston: I do not have a strong concern about that. The four storeys, as I say, can work if you are trying to avoid lifts altogether. There are some serious issues about the economics of putting in lifts, and I have heard the same—that going to five or six storeys becomes much more economical than trying to put lifts into, say, three or four-storey buildings. Five storeys, as long as it is well designed to minimise overshadowing—normally what you would want to see there is some stepping back of the upper one or two levels in order to reduce overshadowing. I do not have a problem with going to five storeys, and going to five storeys generally across the site except for, say, the 40 metres back from the frontage to Burnie Street.

THE CHAIR: Mr Coe?

MR COE: No, thank you.

MS LE COUTEUR: I guess this is an unanswerable question, but to my mind we are always trying to balance the quality of the development on the individual block. Clearly a better solar orientation and effectively a lower density are going to make a much better development. The sorts of things that Derek has been talking about have got to be, in my opinion, a vast improvement on the block. How do you balance that in terms of the fact, as you mention, that this is a really good location? It is just opposite Woden. From that point of view, if you did not think about the solar aspects, you would say you would want absolutely as many people as you could because it is a really great location. How do you balance those two? I see that as planners that is the sort of thing you are doing for your bread and butter.

Mr Johnston: It is notable that, as far as I can see, in the draft variation there is no reference to density; there is no limit to the number of units. That is why I would have a concern about the way the building height provisions work—that some developer may choose to maximise what is permitted under the draft variation. Given that there is no limit on numbers, you might end up with something vastly more intensive than the Hindmarsh scheme—and picking up the point I made earlier: that a quite significant proportion of the buildings in the Hindmarsh scheme are only single storeys.

MS LE COUTEUR: It seems utterly crazy to me.

Mr Johnston: They have not maximised the density of the site. I would be quite confident in saying that the 2001 master plan may well yield more building floor area. Then it is a question of how you chop that up into units—whether you have large units or small units. You do not necessarily have to go to high-rise buildings to get quite a high density. The classic examples of those were the public housing estates in Sydney and other places where they did a whole lot of so-called slum clearance and put up massive high-rise buildings—cleared quite tightly designed one and two-storey terrace houses, or typically terrace houses, I think, to replace them with high buildings. I do not think that they significantly increased the overall density of development in doing that. It had all sorts of other negative consequences, of course. There is no necessary correlation between high buildings and high density. You can achieve quite high densities in lower rise building forms.

MS LE COUTEUR: By lower rise in this context, what sort of storeys would you be thinking of?

Mr Johnston: Predominantly up to—say four storeys: four to five storeys.

MR COE: You spoke a bit about the consultants report and ACTPLA's almost endorsement of it. How should ACTPLA be reviewing these sorts of reports? Should ACTPLA be going through them? Are they PR documents? What is the role for a consultants report in terms of a submission like this?

Mr Johnston: In my view, and I speak as an ex-ACTPLA member from some years ago, I would regard the consultants report as primarily supporting a development proposal and, hopefully in a professional way, justifying the proposal. It is more likely to err in the direction of supporting and justifying a proposal than critically examining a proposal, because, obviously, the consultant is being paid by the developer to put the best gloss they can on their development.

I am not suggesting that the planning consultant in this case or any other has been unprofessional. What we are saying is that, unfortunately—and it pains me to say this—ACTPLA has been unprofessional in its use in an unattributed way of statements from the planning consultants report and, at least in one case, has used a statement in a misleading way by adding words to suggest that increasing the building height to 10 storeys reduces the overall site coverage by 25 per cent, which is not what the planning consultant was saying in the first place.

Your question was: how should ACTPLA view a planning consultant report? Firstly,

with scepticism. Secondly, on no account just lift slabs of the consultants report without even attributing where they have come from, so that the only way you can read the consultation report on the face of it is to say, “These are ACTPLA’s statements about the development.” In our own interests, I would have thought that it would make sense to say, “These are statements from the planning consultants report. We accept those statements on their face. We assume that the planning consultants report is a professional document. We haven’t further inquired into these matters. We think the planning consultants report is an adequate justification for the development.”

I think they should have gone further. I think they should have examined a number of the statements that I have taken issue with, particularly things like “the majority of the buildings have a northern frontage”. They clearly do not. To just repeat that assertion without question is, in my view, very poor and quite unprofessional.

And there is no evidence that they have examined or even thought about particularly the issue of overshadowing. Again, they have just taken the assertions from the consultants’ report, which in my view are a bit suspect in terms of the way they have dealt with the overshadowing issue. They have relied essentially, as has the planning authority, on saying that the buildings—most of the units, most of the apartments, will satisfy the minimum standard in the territory plan, which is three hours of sunshine between the hours of 9 am and 3 pm in midwinter. You can satisfy that standard by three hours of sunshine from 9 am to 12 pm or from 12 pm to 3 pm, which means that the only sun you are ever going to see in midwinter is morning or evening.

It is pretty hard to get away from that in an apartment building. I know that Derek would have a view that that is a pretty good reason for not building those sorts of buildings, but perhaps that is going a little far. But, firstly, to say that the majority of the buildings have a northern frontage—that is pretty clearly wrong, I think. I do not have the figures, but just looking at the plan it cannot be. And I really think that the planning authority should have done more work to independently assess, perhaps through another consultant or with their in-house resources, whether a number of the assertions in the planning consultants report that they have relied on are factual.

THE CHAIR: Thank you. We will send you the transcript so that you can have a look at that and get back to us if you see any errors in what they have picked up in *Hansard*. If members have other questions, we will get those to you as quickly as possible. They may have, on reflection, especially when they look through the *Hansard*. Please turn those around in a timely manner.

The committee adjourned at 10.28 am.