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## **Issues and Conclusions**

### **Design Detail**

- 3.1 Two of the three public submissions received in relation to the Lee Point proposal criticised the level of detail provided by DHA in respect of the nature of the proposed development. The Northern Territory Chapter of the Royal Australian Institute of Architects (RAIA) observed that the proposal was

...at the preliminary stage only and lacks the required detail to enable comment on the design merit or otherwise...<sup>1</sup>
- 3.2 At the public hearing into the work, the Chair concurred that the project presented to the Committee was a “broad macro plan”. Whilst recognising that further detail would not be available until after the selection of DHA’s joint venture partner, the Chair observed that the paucity of information was a matter of concern to the Committee.<sup>2</sup> In view of this, the Committee requested that DHA provide it with regular updates as the project progresses through its major milestones.<sup>3</sup>
- 3.3 The DHA assured those present at the hearing that all issues raised in the public submissions would be addressed during the planning approval process, which would be the next phase of the project.<sup>4</sup>

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1 *Volume of Submissions*, Submission No. 4, page 1

2 *Volume of Submissions*, ibid and Submission No. 8

3 Appendix D, Official Transcript of Evidence, page. 2

4 Appendix D, op cit, page 33

### Recommendation 1

**The Committee recommends that the Defence Housing Authority furnish it with updated information regarding the design and costs of the proposed Lee Point development after the selection of the joint venture partner, following the completion of the planning approval process, and thereafter upon the completion of major project milestones.**

## Development Objectives

- 3.4 According to the DHA's statement of evidence, there are fifteen development objectives/principles which have been "mandated for the site".<sup>5</sup> Whilst acknowledging the listed objectives as commendable and desirable, the Royal Australian Institute of Architects expressed concern that eight of the listed items were described as measures which "should" – rather than "will" - be incorporated into the development. This concern was echoed by Committee members, who sought assurance that the listed objectives would be key features of the development rather than optional extras.
- 3.5 The DHA assured the Committee that the listed objectives would be implemented as far as practicable, adding that they reflected the requirements of the Northern Territory Government (NTG), which is the consent authority for the development.<sup>6</sup> The DHA subsequently provided the Committee with a revised list in which the objectives were expressed in mandatory, rather than discretionary, terms.<sup>7</sup>

## Quality of Development

- 3.6 At the public hearing, the chief spokesperson for the DHA stated that the Authority was
- ...very conscious that this development must be a quality one.<sup>8</sup>
- 3.7 Public submissions received by the inquiry, however, expressed concern that the quality of the development may be diminished by factors such as

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5 Appendix C, op cit, paragraph 4.3

6 Appendix D, op cit, pages 4 and 5

7 letter from Mr Keith Lyon, Managing Director, DHA, 29 July 2004

8 Appendix D, op cit, page 2

the proposed 600 square metre minimum lot size and the lack of facilities and services.<sup>9</sup>

## Lot Size

- 3.8 In its submission, the Planning Action Network Incorporated (PLan Inc) categorically rejected the notion that DHA's design objectives can be achieved on lots of 600 to 700 square metres. The submission expressed the view that the smaller lot sizes within the development will make it a "poor neighbour" to nearby suburbs where the average lot size is 800 square metres.<sup>10</sup>
- 3.9 At the public hearing, the Darwin City Council (DCC) confirmed that the minimum lot size in the Darwin town plan is 800 square metres, unless a waiver of the lot size has been granted. The spokesperson for the DCC stressed that lot size was a matter of amenity, especially considering that:
- Many people in Darwin have an outdoor lifestyle – open windows et cetera – and noise does travel.<sup>11</sup>
- 3.10 The DCC explained that while the NTG was the consent authority for the work, the Council had two elected members on the consent board, and that they
- ... would not support lot sizes below 800 for single dwelling residential developments.
- The Council stated that it had gained public support for its objections to smaller block sizes and opined that the interest in pursuing smaller block sizes originated with developers rather than the community".<sup>12</sup>
- 3.11 In view of the evidence received, the Committee sought to determine whether the proposed minimum lot size of 600 square metres was in keeping with local standards and expectations, and to discover if a DHA development with similar lot sizes at Palmerston had proven successful.<sup>13</sup>
- 3.12 In response, DHA stressed that the proposed Lee Point development would contain a mixture of lot sizes, but added that a trend towards smaller residential lots in new developments was occurring in most Australian capital cities. Based on its experience Australia-wide, DHA attested that 600 square metre lots were within the usual range for
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9 *Volume of Submissions*, Submissions No. 3, 4 and 8

10 *Volume of Submissions*, Submission No. 3, page 5

11 Appendix D, op cit, page 14

12 Appendix D, Op cit, pages 15 - 16

13 Appendix D, op cit, page 5

residential developments.<sup>14</sup> DHA reported further that it conducted annual tenant surveys which showed that satisfaction levels exceeded 90 per cent for its houses in Darwin, including the 600 dwellings at Palmerston.<sup>15</sup>

## Access to Facilities and Services

- 3.13 A map appended to the DHA's statement of evidence indicated that the proposed development is 1.2 kilometres from the Casuarina shopping centre and within close proximity to suburban shops at Tiwi and Wanguri. However, PLan Inc submitted that the absence of a local bus service, and the harsh weather conditions, would make it difficult for Lee Point residents without cars to access these retail centres. PLan argued that the new development should include basic amenities such as a shop, chemist, doctors' surgery and community centre.<sup>16</sup> At the hearing, representatives of the DCC echoed the hope that the proposed development would incorporate some community facilities, such as a local shop.<sup>17</sup>
- 3.14 Similarly, the DHA submission indicated the presence of several schools in the vicinity of the proposed development, namely Dripstone High School and Wanguri Primary School. However, PLan Inc expressed the view that the development should include a primary school due to:
- the closure of nearby Tiwi Primary School;
  - the fact that Nakara Primary School can only be reached by crossing a major road; and
  - the additional burden placed on local schools.<sup>18</sup>
- 3.15 At the hearing, a spokesperson for the DHA explained that:
- The provision of schooling and community services, such as transport, are matters for the Northern Territory government and are being addressed.<sup>19</sup>
- Advice from the NTG had indicated that existing schools in the area had adequate capacity to accommodate children from the new development. DHA added that there may be some opportunity to include a pre-school.

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14 Appendix D, op cit, page 5

15 Appendix D, op cit, page 6

16 *Volume of Submissions*, Submission No. 3, pages 7 and 9

17 Appendix D, op cit, pages 18 - 19

18 *ibid*, page 6

19 Appendix D, op cit, page 2

- 3.16 In respect of public amenities, DHA stated that the Tracy Village Social Club, which provides recreational and sporting facilities, would be incorporated into the new suburb. DHA added that it was working with Tracy Village management to investigate how the venue may be reoriented to better serve the development. The Committee was of the view that the needs of new-comers to Darwin might be better served by a facility that would provide a meeting place for families and promote a sense of community. To this end, the Committee requested that DHA explore the possibility of providing a community centre in addition to the existing recreational facilities.<sup>20</sup>

### **Recommendation 2**

**The Committee recommends that the Defence Housing Authority explore the possibility of including a purpose-built community centre within the proposed Lee Point housing development.**

### **Developer Contributions**

- 3.17 The Committee wished to know whether the DHA would be obliged to make development contributions to local government, in the form of cash or the provision of open space.
- 3.18 The DHA stated that there was a local requirement that ten per cent of any residential development should be set aside as open space and gifted to the DCC, along with a financial contribution to ensure the ongoing maintenance and operation of the area. DHA added that the financial contribution may be used for road works or similar local services, and was calculated as a percentage of the total development cost. In respect of Lee Point, the exact figure will be negotiated during the approval process.<sup>21</sup>
- 3.19 This was confirmed by representatives of the DCC, who explained that
- ...when developments are put forward, Council can comment on the provisions for infrastructure or ask the developer for a contribution towards different types of infrastructure that are not put in place immediately. Roads are a good example of that. The Council may ask for a monetary contribution because a development may impact on roads to a certain degree but not to the point where work needs to be done immediately. That also

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20 Appendix D, op cit, pages 36 - 39

21 Appendix D, op cit, page 8

takes into account the more strategic approach to the whole area and other developments that could take place.<sup>22</sup>

The Council stated that at the current stage of project development, it was difficult to calculate the contribution required from DHA in relation to Lee Point, but added that it would expect a contribution towards road works if the development should reduce the service level of existing infrastructure.

## **Environmental Considerations**

### **Ecologically Sustainable Development and Energy Conservation**

3.20 DHA's written evidence identified energy conservation as a prime design consideration for the development, stating that all DHA houses will be required to provide optimal passive solar performance and achieve a minimum 4-star energy rating.<sup>23</sup> Specifically, the DHA intends that:

Lot size and orientation should include consideration of energy efficiency concepts and initiatives such as cross ventilation, natural breezes and sufficient space to allow for shading of western and eastern walls.<sup>24</sup>

3.21 Submissions from both the RAIA and PLan Inc expressed concern that the proposed minimum lot size of 600 square metres would be too small to allow for optimum positioning of dwellings to maximise cross ventilation and provide for sheltering trees.<sup>25</sup> At the public hearing, the Chair emphasised the importance placed upon energy use reduction by the Commonwealth and asked DHA to explain how this would be achieved at Lee Point. DHA responded that it was particularly conscious of energy use in its houses, and of the associated cost to Defence Force occupants. DHA assured the Committee that every effort would be made to insulate and ventilate houses to minimise reliance upon expensive air-conditioning. <sup>26</sup>

3.22 The DHA's main submission also stated the intention that:

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22 Appendix D, op cit, page 8

23 Appendix C, op cit, paragraph 15.1

24 Appendix C, op cit, paragraph 4.3 (b)

25 *Volume of Submissions*, Submission No. 3, page 4 and Submission No.4 pages 1 - 2

26 Appendix D, op cit, page 3

Infrastructure design should be such as to reduce servicing costs per dwelling and encourage Ecologically Sustainable Development (ESD) principles.<sup>27</sup>

- 3.23 Considering the misgivings expressed by the RAIA and PLan Inc, the Committee wished to know whether DHA had undertaken studies to determine whether ESD principles could be implemented within the proposed lot sizes. The DHA replied that investigations undertaken in this context had considered

...the preservation of flora and fauna, habitat corridors, connection with additional reserves, water sensitive urban design and orientation to address energy efficiency, provision of public transport, provision of community facilities and a range of housing lot sizes within the 600 square metre range.<sup>28</sup>

- 3.24 In its submission, the RAIA observed that:

ESD design is generally regarded as more costly and yet the objective suggests that lot servicing costs will be less<sup>29</sup>.

The Committee was therefore interested to learn how the DHA intended to balance these two objectives and whether it anticipated any difficulties in achieving both aims. The DHA expressed the belief that it could comfortably satisfy both objectives within the proposed lot size and yield.<sup>30</sup>

## Air-conditioning

- 3.25 In its submission, the RAIA observed that in recent years the DHA has tended to construct masonry-type housing in Darwin, which requires air-conditioning for year-round comfort. The submission stressed that:

Unless designed appropriately for the climatic conditions, houses will require air-conditioning and will in fact use substantially more energy than those houses designed to incorporate passive cooling techniques.<sup>31</sup>

- 3.26 At the public hearing, a representative of the RAIA explained that the four-star energy rating system identified in the DHA submission was the
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27 Appendix C, op cit, paragraph 4.3 (j)

28 Appendix D, op cit, page 10

29 *Volume of Submissions*, Submission No.4, page 2

30 Appendix D, op cit, page 11

31 *Volume of Submissions*, Submission No. 4, page 2

Nationwide House Energy Rating Software (NatHERS) model, which is appropriate for air-conditioning but

...is not appropriate to assess a passively designed house that may incorporate air-conditioning.

He added that there was currently no commercially available rating system developed specially for tropical conditions.<sup>32</sup>

- 3.27 DHA explained that while it made every effort to insulate, ventilate and site its houses to minimise the use of air-conditioning, there was an expectation among Defence Force members that this feature would be provided in DHA dwellings in tropical regions. The expectation is such that Defence personnel have advocated for subsidies associated with the operating cost of air-conditioning in these areas.<sup>33</sup>
- 3.28 The Committee was concerned to learn that there was no nationally agreed rating system for the energy efficiency of tropical homes and requested that DHA examine more closely the issue of air-conditioning with a view to minimising its use. DHA responded that it had commenced a study of the issue and was hoping to achieve greater efficiency through research and improved insulation.<sup>34</sup>

### **Recommendation 3**

**The Committee recommends that the Defence Housing Authority continue to investigate and utilise all possible design measures to facilitate the minimal use of air-conditioning throughout the Lee Point housing development.**

### **Recommendation 4**

**The Committee recommends that Defence Housing Authority develop and implement energy efficient measures specifically designed for use in tropical regions.**

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32 Appendix D, op cit, pages 23 - 24

33 Appendix D, op cit, page 12

34 Appendix D, op cit, page 37

## Water and Flooding

- 3.29 DHA's statement of evidence recorded that significant habitats within the development site include a small stand of mature eucalypt forest on the northern border and a strip of riparian vegetation along the creek which runs through the centre of the site. As this creek feeds into the Casuarina Coastal Reserve, there is potential for disturbance to impact negatively upon the conservation values of the reserve.<sup>35</sup> DHA stated, however, that
- ...work on the site will take into account that development will have direct impact on the current flows and water regime of Sandy Creek.<sup>36</sup>
- 3.30 A local resident appearing at the public hearing expressed concern that the proposed development would impact adversely upon the Sandy Creek catchment area by exacerbating high wet-season flows. He told the Committee of two occasions in the past on which flood waters had cut off the only access road to the Royal Darwin Hospital, preventing the ambulance from delivering casualties.<sup>37</sup>
- 3.31 DHA responded that it was conscious of the need to address the issues of water management and flooding. To this end, modelling had been conducted for a one-in-one-hundred year storm event, based on the total development of the site. Local water management practices and the incorporation of water sensitive urban design measures had also been examined. DHA added that it had consulted with the Royal Darwin Hospital regarding access, and that an alternative route from Lee Point Road would be provided. DHA confirmed that discussions with the hospital regarding access and water management issues would continue.<sup>38</sup>

## Protection of Local Flora

- 3.32 According to DHA, a single vulnerable plant species (*Cycas armstrongii*) was identified at the site, and that a permit would be required should removal of any specimens be necessary.<sup>39</sup> At the hearing, DHA's consultant explained that a detailed flora and fauna assessment of the site had been conducted and that appropriate preservation measures and buffer zones would be implemented on the basis of this information. The

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35 Appendix C, op cit, paragraph 5.5

36 Appendix C, op cit, paragraph 18.5

37 Appendix D, op cit, page 31

38 Appendix D, op cit, pages 34 - 35

39 Appendix C, op cit, paragraph 5.4

consultant added that, where necessary, *Cycas armstrongii* plants would be transplanted to areas unaffected by development.<sup>40</sup>

## Heritage Considerations

3.33 According to DHA's statement of evidence, the Lee Point site

...falls within the traditional territory of the Larrakia people and is currently under Native Title Claim (Claim No DC96/7).

DHA maintains, however, that it has received legal advice to the effect that native title has been extinguished over Lots 9774 and 9779.<sup>41</sup> When questioned by the Committee, DHA stated that this legal advice had been obtained from the Australian Government Solicitor.<sup>42</sup> A copy of the advice was subsequently supplied confidentially to the Committee.

## Site Considerations

3.34 The Committee was concerned to learn whether site considerations such as maintenance of the Sandy Creek catchment area, traffic management, access to the Royal Darwin Hospital, the buffer zone between the development and the Tracy Village Social Club, and the requirement to incorporate the mandated design principles, may reduce the area available for development. DHA responded that while there is always a risk that this may occur, comprehensive studies of these issues had been undertaken by DHA's consultants.<sup>43</sup>

## Defence Radar Facility

3.35 According to DHA's main submission, there is a Defence radar facility to the north of the Lee Point site, which is expected to remain operational for two to three years.<sup>44</sup> At the hearing, the Committee sought to ascertain whether the continued use of this facility would have any adverse impact on the proposed residential development. DHA replied that Defence

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40 Appendix D, op cit, page 11

41 Appendix C, op cit, paragraphs 10.2 – 10.3

42 Appendix D, op cit, page 9

43 Appendix D, op cit, page 11

44 Appendix C, op cit, paragraphs 6.2 and 18.1

intended to relocate the facilities, which would have no impact on the residential development in the intervening period.<sup>45</sup>

## Access to Royal Darwin Hospital

- 3.36 The Lee Point site is bordered to the west by the Royal Darwin Hospital, Menzies School of Health and Darwin Private Hospital. DHA reported that the hospital wished to retain emergency access through the development site from Lee Point Road.<sup>46</sup> At the public hearing, DHA stressed that alternative access to the hospital was a mandatory requirement of the development, which was guaranteed by DHA's control of the final site design and lay-out of the site.<sup>47</sup>

## Public Consultation

- 3.37 A submission made by a local resident was critical of the public meeting on the proposed development, conducted by the DHA on 22 June 2004. The author described the process as being "hastily arranged" and "hurried" and characterised the meeting as an "information session" rather than a consultative forum.<sup>48</sup> At the hearing, the witness added that the meeting had not provided sufficient information in respect of the development.<sup>49</sup> This view was echoed by the representative of PLan Inc who stated that public consultation had been inadequate and that the nature of the meeting had been

...to gather information rather than have a discussion.<sup>50</sup>

- 3.38 DHA responded that during the early planning phase of the project it had conducted "extensive bilateral consultation" with the key parties involved in the approval process, and some community consultation. DHA added that it intends to embark upon a comprehensive public consultation program when the joint venture partner is selected and detailed plans for the site become available.<sup>51</sup>
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45 Appendix D, op cit, page 6

46 Appendix C, op cit, paragraph 18.4

47 Appendix D, op cit, page 11

48 *Volume of Submissions*, Submission No. 8

49 Appendix D, op cit, page 31

50 Appendix D, op cit, page 25

51 Appendix D, op cit, page 35

- 3.39 In order to improve public access to information, the Chair requested that DHA place planning details on its development web site and that these be updated regularly as more information becomes available. Further, the DHA made a commitment that it would undertake an appropriate public consultation process.<sup>52</sup>

### **Recommendation 5**

**The Committee recommends that the Defence Housing Authority place details relating to the planning and execution of the Lee Point development on its project web site, and that these details be updated regularly as further information becomes available.**

### **Recommendation 6**

**The Committee recommends that the Defence Housing Authority undertake a comprehensive program of community consultation through which members of the public may have input into the Lee Point housing development proposal.**

## **Opportunities for Local Industry**

- 3.40 At the public hearing the chief spokesperson for the DHA stated that an important element of the proposal

...will be to ensure that those businesses and skilled trades which are represented here will have a real opportunity to contribute to this project. This has been made a requirement in the joint venture selection process which is now under way.<sup>53</sup>

- 3.41 The Committee asked DHA to elaborate on the extent and nature of the role envisaged for local business in the execution of the development works. In response, DHA explained that it would be looking to smaller, local construction companies; typically those with the capacity to construct between 20 and 30 houses.<sup>54</sup> DHA also tabled a detailed

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52 Appendix D, op cit, page 38

53 Appendix D, op cit, page 2

54 Appendix D, op cit, page 37

Industry Participation Plan, formulated in the context of the NTG's *Building Northern Territory Industry Participation* framework. The Plan outlines:

- how services, suppliers and labour will be utilised;
- measures to enhance local business and industry capability;
- regional economic development benefits;
- proposals for indigenous participation;
- a community strategy; and
- the manner in which progress in these areas will be monitored and reported.<sup>55</sup>

## **Selection of Joint Venture Partner**

3.42 In its submission, the RAIA expressed concern that the evaluation criteria outlined in DHA's *Request for Expressions of Interest*<sup>56</sup> are

...biased to management skills and successful financial outcomes  
with no reference to the ability to design appropriately.<sup>57</sup>

The RAIA asserted that the design skills of the joint venture developer would be vital to the success of the proposed development and recommended that this be clarified during negotiations with prospective partners.

3.43 When questioned about this point by the Committee, DHA explained that the selection process for the joint venturer comprised two stages, in which the first stage was based on capability and contained as one of its criteria the capacity for innovative design.<sup>58</sup>

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55 Exhibit 2, *Industry Participation Plan, Lee Point Project, Darwin*

56 Appendix C, op cit, Attachment 2

57 *Volume of Submissions*, Submissions No. 4, page 3

58 Appendix D, op cit, page 12

## Value for Money

- 3.44 DHA's intends that the Lee Point site will yield 725 lots at an average size of 638 square metres. At the hearing DHA elaborated on its intention to produce a mix of lot sizes, ranging from 600 to 800 square metres.<sup>59</sup>
- 3.45 In respect of this proposal, the Chair stressed the Committee's role in ensuring value for money in the expenditure of Commonwealth funds, both in terms of public amenity and financial benefits, and observed that the maximum yield of lots in a development was not always equivalent to maximum value. To this end, the Committee requested that the DHA provide it with a confidential analysis showing yield and dollar value for different combinations of lot sizes, including lots of 800, 750 and 650 square metres.
- 3.46 The DHA agreed to provide the information in two stages; after the development of a plan with the joint venture partner; and upon the completion of the approval process.<sup>60</sup>

### Recommendation 7

**The Committee recommends that the Defence Housing Authority conduct a thorough analysis of the projected yield and value of the Lee Point site using different combinations of lot sizes, and that this information be provided to the Committee upon the completion of the development plan and upon finalisation of the planning approval process.**

### Recommendation 8

**The Committee recommends that the proposed development of land at Lee Point, Darwin, for Defence and private housing proceed at the estimated cost of \$41, 381,480 pending the fulfilment of the preceding recommendations.**

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59 Appendix D, op cit, page 10

60 ibid

Hon Judi Moylan MP

Chair

8 December 2004



