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Dear Sirs,

DV 346 - RESIDENTIAL SOLAR ACCESS PROVISIONS

The Griffith Narrabundah Community Association (GNCA) does not think that Draft Variation 346 - Residential Solar Access Provisions (DV346) should be proceeded with in its current form. It proposes changing solar access provisions for all residential blocks in Canberra, whether new or existing, and whether compact ($<250\text{m}^2$), midsize ($250\text{m}^2 < \text{block} < 500\text{m}^2$), or large ($>500\text{m}^2$). This is to resolve a problem of unknown magnitude but which even the proponents of the change agree appears to be limited to compact blocks. Consequently the GNCA believes that DV 346 should be withdrawn, or significantly amended to address the issues discussed below.

Recommendations

The GNCA believes that the current Draft Variation should be withdrawn and rewritten to give effect to the following recommendations

- 1) Prior to the development of any replacement Draft Variation to deal with the solar access provisions, Environment and Planning Directorate should publish reliable quantitative data on the scale and distribution of any problems with the solar access provisions as introduced by Variation 306 (V306);
- 2) Any proposed solution(s) to problems identified under Recommendation 1 should be (a) proportionate to the magnitude of the problem (b) equitable to all residents of Canberra and (c) directed at resolving any problem where it is most prevalent [taking into account size of block, location of block and whether it is an existing or new block];
- 3) Any proposed solution(s) need to recognise that the V306 solar access improvements were “purchased” with setback concessions and consequently these latter should be unwound or “reimbursed” in lock step with any rollback of V306 solar access rules;
- 4) The currently allowed horizontal and vertical tolerances of 340mm should both be reduced to 50mm;
- 5) Rooftop equipment should not be permitted to protrude through the building envelope, or if it is felt that some latitude on this is essential, any protrusion should be limited to 150mm; and

- 6) The “reasonable access to direct sunlight” criteria in both Rule R37A (*Single Dwelling Housing Development Code*) and Rule R57 (*Multi Unit Housing Development Code*) be withdrawn and both rules made mandatory.

Discussion

The current solar access rules were introduced as part of V306 in July 2013. The GNCA’s position has been to generally support the solar access changes introduced by V306. The GNCA’s submission in relation to DV306 was 14 pages long and devoted two of its 21 recommendations to solar access issues. Recommendation 17 urged that further consideration be given to the possible need to adjust some of the rules relation to the need to address the street if houses in “Solar Efficient Subdivisions” were to be optimally oriented for solar access, while Recommendation 18 urged the retention of the 3 hours of sunlight rule (which appears to have been heeded). No doubt the submission could and would have said more if volunteer time and the length of the submission had permitted this. Our ongoing interest in this issue is demonstrated by GNCA attendance at the March 2014 Solar Access Workshop, and GNCA representatives also took part in the Working Group meeting of November/December 2015.

DV346, which emerged from this Workshop/Working Group process, potentially reduces solar access for all residential blocks, of all sizes, whether new or existing, to resolve a problem which is anecdotally reported by developers as existing on compact blocks in a few newly developed suburbs such as Wright, Coombs and Lawson. DV346 proposes to enlarge the allowed building envelope by amending Rule R7 and Criterion C7 of the *Single Dwelling Housing Development Code* and Rule R26 of the *Multi Unit Housing Development Code* by changing the height of the solar fence in the Primary Building Zone from 2.4 metres to 3 metres and in the Rear Zone from 1.8 metres to 2.3 metres. It also proposes to replace the current mandatory requirement for 3 hours of access to sunlight in Rule R37 (*SDHDC*) and Rule R57 (*MUHDC*) with a new Rule R37A (*SDHDC*) and amended Rule R57 (*MUHDC*) by requiring “at least 4 m² of transparent unshaded north facing glazing”. Unfortunately this new rule will not be mandatory but will be reduced to unenforceability by a new Criterion C37 which will only require “reasonable access to direct sunlight”.

The policy basis for this global approach to reduction of solar access is not apparent. During the Working Group meetings the GNCA pointed out several times that the proposed approach was inappropriate and that if there was a problem with the application of the V306 solar access rules to compact blocks then the solution should also target compact blocks, not all blocks. Unfortunately the Draft Variation which has emerged from the Workshop process does not reflect, or even make reference to, the views of community representatives or those attending architects who place a strong emphasis on sustainability.

What is the size of the problem?

At the Workshop in March 2014 developers reported various adverse outcomes from application of the V306 rules. These included claims that houses had to be ‘dug in’ to avoid overshadowing, increased cost and design complications to comply with the rules. These problem sites appeared to be clustered in Wright, Coombs and Lawson. The developers present at the Workshop did not contest the characterisation of the problem as localised to compact blocks in new suburbs.

The GNCA is disappointed that EPD has made no effort to quantify scale of this problem or problems. This might appear excessively sceptical but it will be noted that the reported “problems” are identical with those predicted by the construction industry in their determined opposition to the introduction of the changed solar access rules through V306, and there is a possibility that the real problem is an ideological opposition to these solar access rules rather than a problem for the residents. Alternatively it may be that compact blocks are just too small to allow for the construction of separate free standing family homes with the same solar access as is achievable on larger blocks, in which case the solution might be for the Government to alert people that living on such a block will require acceptance of a town house or terrace house living style.

EPD was asked, at an early stage of the Working Group process, to advise the Group about distribution of block sizes in Canberra. However no information was provided on this issue. The GNCA believes that this is unfortunate, and that a fully informed decision about any appropriate response would require such information, broken down by suburb, as: How many housing blocks are there in Canberra? What proportion of these blocks are compact, midsize and large respectively? How many are blocks alleged to have solar access problems, what are their sizes, and in which suburb are they located? In addition EPD should establish a register of details of the problem(s) for each “problem” block to determine if some solar access induced problems are more common than others, and to prevent developers from registering whole suburbs as having problems without any supporting detail.

Only when this information is available can a solution to any real problems that emerge be formulated, and targeted to solving it while imposing as little disturbance and loss of amenity as possible to all those householders who do not share the problem. Consequently the GNCA recommends that **Prior to the development of any replacement Draft Variation to deal with the solar access provisions, Environment and Planning Directorate should publish reliable quantitative data on the scale and distribution of any problems with the solar access provisions as introduced by V306.**

Nature and scope of solution

The solution proposed by DV346 appears to the GNCA to be ill considered and unreasonable. To resolve a problem which, even the proponents of the change agree, appears to be limited to compact blocks by changing the solar access provisions (through changes to the building envelope) for all residential blocks in Canberra, whether new or existing, and whether compact, midsize, or large, appears to raise equity issues. It appears that the

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consequences of this change will be that there will be a net loss of amenity for most existing block owners and the owners of new compact blocks

Because DV346 will apply to existing blocks as well as new blocks, every block owner in Canberra with a neighbour on their northern boundary is threatened with the potential loss, at any time in the future, of at least some of their existing solar access, if the property on the northern boundary is redeveloped. While the necessary shadow modelling is beyond lay people, the GNCA has been advised by an architect with the necessary skills that the increased building envelope permitted by DV346 could have a significant effect on a building to its south to the extent that a dwelling, which now complies with the Building Code of Australia's mandatory 6 star energy rating, would lose this when overshadowed. In other words a redevelopment over the northern boundary could make a dwelling non BCA compliant.

In addition, the Government would be a loser under the proposed DV, as attempts to encourage passive solar design, and encourage uptake of active solar technology would be undermined. The loss of certainty about the degree of solar access available in the future will clearly act as a disincentive to those planning to modify their home to improve its passive solar performance, or too install energy saving active solar technology such as hot water panels, photovoltaic panels or solar panels for hydronic domestic heating. And this slowdown in uptake would be a setback for Government's policies of increasing sustainability, and reducing Canberra's energy footprint.

So what sort of policy should be adopted? It is difficult to say at this juncture, in the absence of any information about the incidence and location of solar access problems. Determining the nature and scale of any problem will dramatically simplify the problem of determining which solutions promise the best outcomes with the least cost and disutility to those not affected. And it needs to be remembered that it may be that a wind back of the V306 solar access rules may not actually be the best policy response. If it is determined that all the reported problems are associated with compact blocks, other solutions might be considered. For instance, perhaps the Government could reconsider whether releasing blocks of less than 250m² for single free standing family homes was appropriate. Or perhaps special steps could be taken to ensure estates with such small blocks were properly designed to ensure that every house would have appropriate solar access. Alternatively the Government could change the planning rules to ensure that only contiguous dwellings such as terrace or town houses could be built on such blocks.

Whatever the solution eventually adopted, if the problem lies with compact blocks, the solution should be restricted to compact blocks. This can easily be done through the Territory Plan with particular provisions for complex blocks, or, if it is desired to restrict a solution to particular suburbs or portions of suburbs, through the application of a specific suburban precinct code.

Consequently the GNCA recommends that **any proposed solution(s) to any problems identified under Recommendation 1 should be:**

- (a) proportionate to the magnitude of the problem;**
- (b) equitable to all residents of Canberra; and**
- (c) directed at resolving any problem where it is most prevalent, taking into account size of block, location of block and whether it is an existing or new block.**

Changes to setbacks in V306 associated with the changes to solar access rules

As “compensation” to developers for the introduction of enhanced solar access provisions, V306 reduced the required setbacks for houses. This seems to have been forgotten by those now demanding that the solar access changes introduced by V306 be rolled back. This appears inequitable. If the Government believes that there should be some reduction in solar access, then this should be balanced by a commensurate increase in the setback requirements.

The GNCA recommends that **Any proposed solution(s) need to recognise that the V306 solar access improvements were “purchased” with setback concessions and consequently these latter should be unwound or “reimbursed” in lock step with any rollback of V306 solar access rules;**

Horizontal and Vertical Building Tolerances

During the Working Group process it was pointed out that Schedule 1A of the *Planning and Development Regulation 2008* permits a horizontal siting error tolerance of 340 mm and a vertical height error tolerance of 340 mm. These tolerances are clearly far too large for the present day, and indeed rules in other part of the *Planning and Development Regulation 2008* require an accuracy of within 50mm. Thus it seems that it is accepted that it is not unreasonable to believe that the industry can, and in these cases should be able to achieve an accuracy of within 50mm. Consequently the GNCA recommends that **The horizontal and vertical tolerances of 340mm currently allowed under the *Planning and Development Regulation 2008* should both be reduced to 50mm.**

The GNCA realises that a Draft Variation can only be used to modify the Territory Plan, and that any change to the Planning and Development regulations would involve an amendment to the *Planning and Development Regulation 2008*. Nevertheless the GNCA believes that it would be appropriate for DV346 to canvass this issue and to foreshadow that it was the Government’s intention to amend the *Planning and Development Regulation 2008* to achieve these changes as soon as possible. Indeed it would be within the Government’s power to arrange things so that this amendment was debated at much the same time as DV346.

Rooftop Equipment Protrusions through the building envelope.

A further issue that came to light was that skylights, external shade devices, air conditioners, evaporative coolers, solar water heaters or photovoltaic panels and any associated support structures of any of these devices are currently permitted to protrude through the building envelope as a consequence of the provisions of sub-regulations 1.26, 1.26A, 1.27 and 1.27A of the *Planning and Development Regulation 2008*. The GNCA believes that it would be

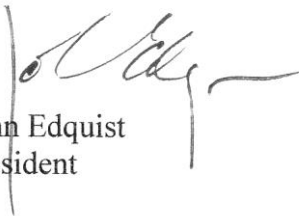
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desirable for these devices to not be permitted to overshadow neighbouring blocks. If the Government feels that it is essential that these items are permitted to intrude through the building envelope, the GNCA believes that this intrusion should not exceed 150mm. The GNCA realises that this would involve amendment of the *Planning and Development Regulation 2008* as discussed under the previous item. The GNCA recommends that **Rooftop equipment should not be permitted to protrude through the building envelope, or if it is felt that some latitude on this is essential, any protrusion should be limited to 150mm.**

Replacement of the 3 hours of sunlight rule with the 4m² north facing glazing rule

The GNCA recognises that the proposed addition or amendment of Rule R37A (*SDHDC*) and rule Rule R57 (*MUHDC*) simplifies implementation of the rule guaranteeing access to sunlight. However the GNCA is concerned that the effect of these rules has been significantly weakened by changing their status from Mandatory to subject to a criteria that merely requires “reasonable access to direct sunlight”. Who can know what “reasonable” means in this context. In the interests of keeping the planning rules simple, comprehensible and enforceable the GNCA recommends **that the “reasonable access to direct sunlight” criteria in both Rule R37A (*SDHDC*) and Rule R57 (*MUHDC*) be withdrawn and both rules made mandatory.**

Yours faithfully


John Edquist
President

6 April 2016