



PO Box 261 Singleton
AUSTRALIA 2330
Phone
(02) 6571 1208
Email
lep@calli.com.au

Director, Codes and Approval Pathways
NSW Department of Planning and Environment
GPO Box 39, Sydney, NSW 2001

codes@planning.nsw.gov.au

Dear Madam/Sir

Draft Medium Density Design Guide - Submission

I have reviewed the draft Medium Density Design Guide exhibited for public comment by NSW Planning and Environment.

The design guide is an important initiative, and includes many good objectives, criteria and guidelines. The attention given to natural ventilation in design is welcome when compared with past guidelines.

However, in relation to the achievement of ecologically sustainable development (ESD) the draft guide perpetuates current bad practice within the housing industry, and is not appropriate in providing guidance for the challenges to be faced over coming decades. In particular, the guide is silent on carbon emissions to the atmosphere from medium density developments and should instead be leading the transition to carbon neutral development.

The draft guide also falls short in not addressing the environmental impacts of earthworks associated with medium density development, and is deficient in relation to criteria for effective stormwater management to maintain pre-development hydrological characteristics. Biodiversity impacts associated with intensification of urban development are also not considered but are a key issue at the metropolitan, regional, state and global scale.

Specific matters that should be included in the final Medium Density Design Guide are as follows:

1. Design elements and principal development controls should give more emphasis to sustainability. Additional design elements should be included, namely health, biodiversity, water, waste, and energy (not energy efficiency).
2. A group of additional design controls should be added under the heading 'Construction' relating to materials, earthworks and construction waste.
3. Principal development controls for materials should provide guidance in relation to matters such as building design life, durability of materials, and reparability of dwellings, and thermal properties and efficiency. This is particularly important given the emphasis on universal and adaptable design. For example, buildings should be expected to have a minimum design life of 50 years and be constructed accordingly.
4. Materials used in the construction of buildings should be 100% recyclable to ensure waste issues over the full life cycle of the building are recognised. Thermal properties of materials and roof surface reflectivity are important considerations for new buildings.
5. Principal development controls for earthworks should limit cut and fill and support controls for landscaped area and site permeability.
6. In the environment section of the design guide, separate headings should be included for site permeability, biodiversity, and building construction waste. The latter should be included as a separate heading to domestic waste which is already included in the guide.
7. Relying on the provisions of BASIX is not adequate to ensure appropriate consideration is given to achieving ecologically sustainable development.
8. A core principle of the guide should be achieving carbon neutral building construction, and at least carbon neutral building operation in terms of heating, cooling and electricity generation.
9. Design element G should be changed to 'orientation, siting and shading' to recognise that building shading through measures such as eaves and shade structures is an essential part of building design to control heat gain and ensure thermal building efficiency.
10. More attention must be given to maintaining the permeability of sites to maintain groundwater, through use of suitable materials, landscaped area, landscaping, etc. This is a key design criterion which should be numerically expressed in the guide for all types of medium density development.
11. Landscaped area and % permeable site cover are key issues which warrant more detail and stricter numerical and performance based control.
12. A sustainability assessment specifying site water balance, construction energy use, operational energy assessment, and carbon footprint assessment should be mandatory for all new development proposals. This should be included as both an objective and design criteria in Sections 3.1, 3.2 and 3.3 X, Y and Z.

From the comments above, it is clear that more emphasis should be given to the functionality and environmental impact of new buildings, not simply aesthetics and amenity.

It is also interesting to consider the historical development of the control of residential development in NSW recognising that many of the standards adopted in the guide are the result of past practice rather than necessarily being appropriate for the future.

Planning Control of Residential Development (NSW Planning and Environment Commission 1976) introduced the concept of density zoning and many of the criteria included in that document continue to be applied (eg minimum area per dwelling, minimum dwelling size, minimum landscaped area, boundary setbacks). Although these are still relevant, more important criteria on which future development should be assessed are minimum unpaved and water permeable area and infiltration rate, thermal reflectivity and absorption, construction design life and material recyclability, and carbon neutrality standards for building construction and operation.

The guide must recognise that to be effective, it must complement local planning controls and not work against them. There is a need for more appropriate local planning controls than are included in the standard instrument provisions if the issues facing housing and urban design in the future are to be adequately addressed. In particular, there is a need to integrate with local planning controls in LEPs and DCPs and especially, increased attention on subdivision provisions to provide incentives to amalgamate lots and improve inappropriate current boundaries and lot size, thereby allowing more site responsive residential design.

I hope that these comments will assist in finalising the Medium Density Design Guide and ensuring it contains relevant provisions that will contribute towards achieving the NSW Government policy of a zero carbon emissions future.

Thank you for the opportunity to make a submission. If you have any queries in relation to the details of the submission, please feel free to contact me on Tel 6571 1208.

Yours sincerely

Martin Fallding
Principal, Land & Environment Planning

9 November 2016