



APPENDIX A

CITY OF DAREBIN

Submission to

BETTER APARTMENTS

A Discussion Paper (DELWP)

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Introduction

Darebin City Council welcomes the opportunity to provide this submission to the *Better Apartments* Discussion Paper. Darebin City Council is pleased to see that the issues contained in the paper indicate an alignment between the Victorian State Government's approach to apartment design and local concerns about design quality, as evidenced through recent policy work contained in current planning scheme amendments.

In the past few years, Darebin City Council has undertaken extensive policy work which seeks to address apartment design quality, and the impact that higher density development can have on surrounding sensitive interfaces. Planning scheme amendments C136 and C137 propose Design and Development Overlays (DDO16 and DDO17) for apartment and mixed-use development proposed along St Georges Road and Plenty Road. These DDO's propose maximum building heights and attempt to deal with shortcomings in the direction of the planning scheme through specifying preferred street interface arrangements, building setback profiles, as well as guidance for the internal arrangement of apartment developments.

Planning scheme amendment C147 proposes the *Residential Built Form Guidelines*, and the accompanying Design and Development Overlay DDO18, which is intended for sites within the Residential Growth Zone. It seeks to encourage good internal amenity for apartments through considerations such as limiting apartment depths to permit good daylight access; protecting privacy with reasonable building separation distances for apartment outlooks; discouraging apartments that are located in close proximity to, and solely orientated towards side boundaries; and providing ground level setbacks capable of accommodating canopy planting. This approach to site layout does not rely on adjacent sites to provide daylight and outlook for a development, thereby 'future-proofing' residential amenity as well as helping to safeguard the development potential of adjacent sites. The resulting building typology is referred to as the Garden Apartment, its 'self-contained' approach to amenity would allow it to be replicated on adjacent lots, producing a precinct of good quality amenity development. Planning scheme amendment C147 was considered by the Residential Zones Standing Advisory Committee (RZAC), at a Hearing in November 2014, with the Report yet to be released. This submission provides Darebin City Council with the opportunity to advocate for similar design considerations to be included in future guidance.

These recent Darebin examples highlight the policy vacuum that exists through the current package of State Controls and guidelines together with a commonly held view that minimum standards allowed under the VPP's do not go far enough in delivering what is now considered an acceptable form of development.

This submission is informed by a review of recent applications lodged in Darebin and the common design concerns that they raise, and the implications of seeking good amenity for apartments for issues of housing affordability are acknowledged. Darebin City Council is in favour of an implementation method that provides effective statutory weight in seeking good design, but also allows flexibility for innovation, affordability and contextually appropriate responses.

The scope of this current Discussion Paper focuses on the internal design, amenity and functionality of apartments. Darebin City Council also recognises broader-scale design considerations such as the surrounding context of an apartment building, how it relates to other development, and the collective impacts of precincts of higher density development. Darebin City Council appreciates efforts to address apartment quality, and recommends that the scope of future guidance should be widened to provide an even more comprehensive response.

Abbreviation used in this report:

DCC Darebin City Council

Implementation

- *What is the most appropriate implementation tool(s) for the Victorian context?*
- *What are the strengths and limitations of the various approaches?*

The current approach to the assessment of apartment development applications is problematic, and can result in poor quality amenity outcomes for their future residents. This is due to a combination of factors, including:

- Planning schemes containing broad policy guidelines that do not adequately address the complex matters of higher density living;
- Planning controls for residential development that were not necessarily created to apply to apartment typologies;
- Reference documents in planning schemes that lack adequate statutory weight to produce good development outcomes;
- The 'general' nature of existing guidelines that allow room for interpretation, leading to an adversarial planning environment;
- The adversarial nature of the system can make it difficult to seek more than 'adequate' outcomes;
- A lack of commonly accepted development outcomes, or benchmarks for what constitutes 'good quality'.

DCC proposes that guidance for apartment design should focus on best practice and high quality outcomes, raising the standard for the development industry. Setting required development outcomes can help provide more certainty for developers, councils, and current and future residents, potentially reducing speculation and cost, and the adversarial nature of the planning process. The most appropriate tools for the Victorian context are considered to be a combination of mandatory and discretionary performance-based controls, implemented through the particular provisions of the planning scheme. Clause 55 should be expanded to include minimum standards and clear objectives relating to apartment developments.

Many of the development outcomes to be achieved in apartment design should be mandatory, helping to streamline the planning assessment process. DCC proposes that the following aspects should be subject to mandatory performance standards:

- Daylight
- Sunlight
- Apartment size
- Outlook
- Ventilation
- Outdoor space
- Adaptability
- Universal design
- Energy and resources
- Waste

A target performance standard should be set, along with preferred methods of achieving it, e.g. nominating maximum apartment depths. If a proposal deviates from the preferred methods, an applicant would be required to provide evidence that the performance standard is still being met, with the planning provision prescribing how this is to be demonstrated. Other aspects such as landscape, car parking and circulation should be subject to discretionary requirements, allowing for flexibility and contextually appropriate responses.

Such guidance would enable a consistent approach to apartment design across Victoria, with amenity outcomes established and understood. This may help reduce land value speculation, and shift the focus of development from quality versus yield, to providing high quality outcomes.

DCC maintains that a market-based approach to implementation would be ineffectual. Significant proportions of apartments are purchased by investors and will not be lived in by those who they are marketed to. Arguably

investors have less of a vested interest in the quality of apartments, in terms of their amenity or on-going performance. A policy-based approach to implementation is also not a preferred method of implementation. The Guidelines for Higher Density Residential Development currently exist as reference documents in planning schemes, and whilst this approach may be appropriate for more general aspects of design, DCC contends that it is too vague and principle based for the more complex and detailed requirements of apartment design.

Issues affecting amenity

ISSUE 1 - DAYLIGHT

- *What spaces within apartments are the most important in terms of access to daylight?*
- *Do you think daylight should be required in secondary spaces such as corridors and bathrooms?*

Good natural light enhances amenity and reduces the energy needed to provide light for everyday activities. The level of daylight in an apartment depends on the orientation; the depth and proportions of rooms; the size and position of windows; and the location of surrounding buildings. Apartments with non-optimum orientation and proportions, are not necessarily more affordable to purchase, and may have higher on-going running costs.

DCC sees development applications that propose apartments with:

- Borrowed-light arrangements or battle-axe layouts for bedrooms;
- Overly deep floor plans that would permit little daylight to the rear of habitable rooms;
- Small light-courts as the only source of daylight to habitable rooms;
- Tall screening, used to address overlooking and privacy issues from balconies that hampers daylight access to the adjoining living space.

DCC has sought to address daylight access for apartments through policy work contained in planning scheme amendment C147. This amendment proposes *the Residential Built Form Guidelines* which would apply to apartment developments in the Residential Growth Zone. These Guidelines, along with the accompanying Design and Development Overlay (DDO18), seek to encourage apartment depths that would permit satisfactory daylight penetration to the interior, and seek reasonable building separation distances for primary and secondary outlooks.

DCC considers that daylight access is most important for habitable rooms such as living rooms, dining areas, kitchens, bedrooms and study areas. Daylight access is preferable in secondary spaces such as corridors and bathrooms, as it reduces energy consumption for lighting. Where possible these secondary spaces should utilise external walls and roof areas for windows, skylights or clerestory windows. Habitable rooms should not rely on clerestory windows for daylight access, with such windows used only as a secondary daylight source. In 'double-banked' apartment layouts where it is not possible to provide daylight to all interior spaces, it is appropriate for habitable rooms to be prioritised. However, DCC proposes that a percentage of apartments in a development should be provided with 'ideal' daylight access to all rooms to a minimum expressed standard.

Where light courts are used to assist daylight access, DCC proposes that they should be sized and located to provide adequate amenity for a development, without the need to rely on daylight borrowed from adjacent sites. Light courts should not be used as the principal source of daylight to living rooms as they generally cannot be relied upon to provide a good quality outlook.

DCC suggests that in seeking adequate daylight access, aspects to consider include:

- Limiting room depths;
- Proposing situations where 'battle-axe' bedroom layouts and borrowed-light arrangements might be acceptable, and the form they may take;
- Optimising north orientation and minimising the amount of south-facing apartments, particularly those with single-aspect;
- Proposing appropriate areas of glazing for differing room orientations;
- The size and arrangement of light-courts;
- Providing natural light access to internal communal corridors;
- Proposing separation distances from adjacent development, and ensuring that a site can provide and 'future-proof' its own amenity;
- The cumulative effect that a precinct of higher density residential developments could have on daylight access for the buildings contained within it.

ISSUE 2 - SUNLIGHT

- *Should there be rules to ensure a majority of apartments receive sunlight?*
- *Are there other options that can provide for thermal comfort?*

Sunlight access is desirable helping thermal comfort, energy consumption and the overall feel of an apartment, but excessive solar gain can cause overheating. Thermal comfort can be provided for by incorporating passive solar design techniques which optimise winter heating and summer cooling.

DCC sees development applications that propose apartments with:

- The deeper of the floor layouts orientated towards the south of the site;
- Single-aspect, west facing layouts without shading.

DCC supports guidance that seeks to ensure a development's potential for sunlight access and thermal comfort is fully utilised. Aspects of sunlight to consider include:

- Maximising favourable solar orientation for apartments;
- Encouraging dual aspect apartment layouts;
- Limiting the amount of single-aspect, south-facing apartments in a development;
- Providing appropriate sized windows and adequate shading as suited to orientation;
- Optimising opportunities for natural ventilation; and providing appropriate thermal mass;
- Utilising landscaping and planting for seasonal shading.

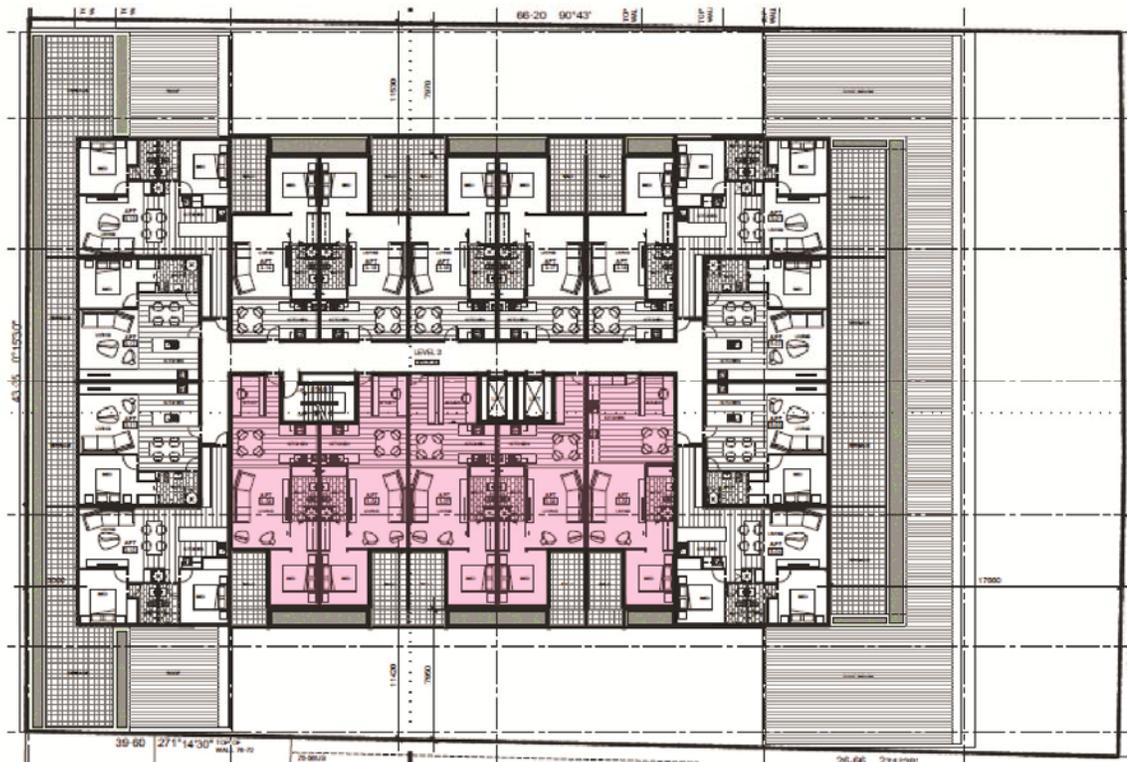


Figure 1: Proposal with deepest apartments orientated to the south

ISSUE 3 - SPACE

- *Do we need to set minimum apartment sizes in Victoria?*
- *Do we need to increase minimum ceiling heights for apartments in Victoria?*
- *Should larger development be required to include different types of apartments catering to different types of households?*

The sense of space in apartments is created by the amount of floor area, the ceiling height, and the efficient layout of space. Larger apartments do not necessarily function better if the layout is poorly designed, if a large amount of circulation space is necessary, if the spaces do not interconnect well, if the floor plan is deep with low levels of daylight penetration, or storage provision is inadequate. The size of an apartment can impact on a resident's quality of life, and the ability to accommodate changing circumstances, but it can also impact on housing affordability.

DCC sees development applications in which apartments are proposed with small floor areas. Common problems include:

- Living areas that are too small to accommodate the number of people that could potentially live in the apartment;
- Not enough space to provide adequate storage;
- Circulation routes that divide up small living areas making furniture placement difficult;
- Kitchens located along corridor spaces;
- Toilets that open up onto kitchen/dining/living spaces;
- Under sized bedrooms.

Regulating minimum apartment sizes alone do not guarantee good quality homes, with aspects such as room depths and efficient circulation also influencing good functionality. DCC recognises that the benefits of setting minimum apartment sizes need to be considered alongside the potential impact on housing affordability, and proposes that guidance should set minimum apartment sizes, address suitable room depths, and allow the potential for a limited percentage of smaller apartments in particular circumstances. 'Undersize' apartments may offer a suitable choice for affordable homes, though criteria such as good locational amenity, functionality and excellent design quality must also be identified and met.

Minimum ceiling heights should be increased to 2.7m for habitable rooms, assisting perceptions of space, allowing for more daylight and outlook, accommodating ceiling fans, as well as storage at upper levels.

Larger developments should be encouraged to include different types of apartments, contributing to housing diversity and accommodating different types of households. However the types of apartments in a development should not be a mandatory requirement, with the market allowed to determine provision.

DCC suggests that in addressing apartment size, aspects to consider include:

- Proposing maximum room depths, as they relate to daylight levels and ventilation;
- Efficient circulation;
- Providing built-in storage;
- Setting a maximum percentage of apartments in a development that can be less than the minimum size (perhaps 10%);
- Setting criteria for assessing smaller apartments, including locational attributes and facilities included in a development that may 'compensate' for size by offering differing amenity.

ISSUE 4 - OUTLOOK

- *What are the essential qualities of a good outlook?*
- *Should living spaces be treated differently to other spaces within an apartment in regard to outlook?*

The quality of an outlook can greatly impact apartment living, and homes should be provided with the opportunity to look out on and enjoy surrounding public and shared open spaces. Providing outlook for apartments however, must be considered along with ensuring a reasonable level of privacy for residents, including those of surrounding buildings. The quality of outlook is particularly important for single-aspect apartments.

DCC sees development applications that propose apartments with poor quality outlook. Common problems include:

- Apartments that are orientated towards side lot boundaries, requiring measures to overcome overlooking issues that also restrict outlook, such as obscure glazing, or tall screens to balconies;
- Apartments that have outlook only to mid-lot light-wells;
- Single-aspect apartments that face, in close proximity, similarly arranged apartments, impacting on privacy.

DCC has sought to address quality outlook for apartments through policy work contained in planning scheme amendment C147. The *Residential Built Form Guidelines* proposed in this amendment encourage site layouts which orientate the primary outlooks of apartments towards the front and rear of lots, and away from side boundaries. These *Guidelines* also seek reasonable building separation distances between the primary outlooks of apartments, and from lot boundaries to ensure that outlook does not need to be 'borrowed' from adjacent sites.

DCC considers that the essential qualities of a good outlook are:

- Being able to see the sky and weather;
- Being able to see for a reasonable horizontal distance;
- Not looking directly into another building at close-range;
- Not feeling overlooked by others;
- Having a view of landscaping and/or people and activity in public spaces.

DCC considers that the quality of outlook from living spaces should be prioritised, particularly in regard to distance, privacy and interest.

DCC suggests that in addressing the quality of outlook, aspects to consider include:

- Separation distances between different types of outlooks (primary, secondary);
- Preventing the outlook of single-aspect apartments from being curtailed by tall privacy screening and obscure glazing;
- Encouraging apartments to be orientated away from side lot boundaries.

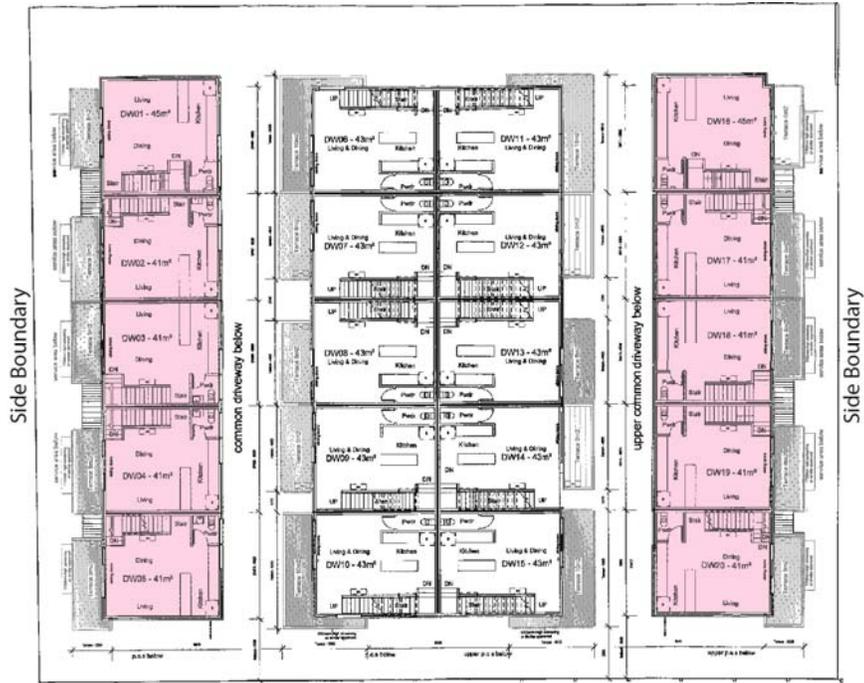


Figure 2: Side-facing apartments, requiring privacy screening to address overlooking adjacent sites

ISSUE 5 - NATURAL VENTILATION

- *How can access to fresh air in an apartment be improved?*

Natural ventilation contributes to comfortable living spaces by allowing the movement of fresh air and facilitating passive cooling.

DCC considers that fresh air access in an apartment can be improved by:

- Designing layouts to maximise cross-ventilation such as by providing dual-aspect layouts;
- Promoting shallower apartment depths;
- Minimising interruptions to air movement within an apartment;
- Selecting windows that maximise opportunity for natural ventilation by providing good-sized operable components that could preferably be adjusted to capture breezes;
- Positioning of windows to capitalise on natural convection and air pressure currents;
- Providing taller ceiling heights, with ceiling fans to circulate air.

Natural ventilation should also be considered for communal areas, with operable windows in corridors and lobbies, and vents to vehicle parking areas. In addition to comfort, this would also assist in reducing the service costs for communal areas by reducing reliance on mechanical ventilation.

ISSUE 6 – NOISE

- *Are you aware of any major issues relating to noise transfer between apartments?*
- *What are the main sources of noise that can impact apartment occupants?*

Noise transfer between apartments can impact adversely on quality of life. Noise transfer can occur between apartments, from the communal facilities of a development, and from external sources such as the street. Whilst aspects such as minimum requirements for sound insulation are covered by the *National Construction Code*, DCC considers that successfully addressing noise transfer issues also results from good design at the outset.

DCC sees development applications that propose apartments with:

- Bedroom windows that open onto narrow, deep light-courts. When replicated over a number of storeys, this arrangement would likely echo and amplify noise;
- Bedrooms that adjoin lift shafts;
- Layouts that adjoin busy roadways, but do not address the potential for noise impacts, particularly for ground floor apartments.

In addressing noise issues, aspects to consider include:

- Site and building layouts that provide adequate separation from noise sources and adjacent development;
- Layouts that locate similar uses adjacent to each other, such as living areas next to living areas. Ensure that 'quiet' areas such as bedrooms are not located next to noise sources such as lifts;
- Noise attenuation measures such as double glazing or winter-gardens with operable screening, where apartments are located in proximity to busy roadways and train lines;
- Care in locating equipment such as roller doors to vehicle parking areas;
- The potential for noise generated from servicing such as rubbish collection and deliveries;
- The potential for the impact of noise to be exacerbated in smaller apartments.

ISSUE 7 - OUTDOOR SPACE

- *What types of shared outdoor spaces do you think apartment developments should provide?*
- *Should all apartments have balconies?*
- *Is the size of a balcony important to you?*
- *Is it acceptable for air conditioning units to be located on apartment balconies?*

Outdoor space can help to enrich the experience of living at higher densities, and can be provided as both private and communal amenity space. Due to its more intensive usage, the quality of outdoor space in this sort of development is important. Shared outdoor space can provide social benefits, assisting the development of community.

DCC sees development applications in which the quality of private outdoor spaces could be improved. Common problems include:

- Balconies that are narrow, with proportions that do not allow for ease of use;
- Balconies that do not provide adequate screening for the privacy of occupants from the street, who then may add unsightly makeshift screens;
- Balcony fronts that do not conceal items stored outside, presenting unattractive views to the street and surrounding development;
- Balconies located in close proximity to adjacent development, requiring tall privacy screening which curtails on outlook.

DCC considers that all apartments should be provided with balconies of sizes and proportions that are functional. Air conditioning units are acceptable on balconies, however they should be screened from view, and the space they occupy should not be included in the area of outdoor space provided for an apartment. Aspects to consider for balconies include:

- Seeking the positioning of balconies adjacent to living spaces, allowing interior spaces to flow outdoors;
- Ensuring that balconies are sized and proportioned adequately to accommodate outdoor furniture, with a generous minimum width;
- Providing privacy from neighbouring balconies;
- Locating balconies where they have access to sunlight;
- Balancing considerations of passive surveillance and views from the interior, with privacy and screening of outdoor clutter from the exterior;
- Visually screening air-conditioning units and locating them to ensure balcony spaces remain useful.

DCC proposes that communal spaces should be provided in larger developments, with the type of space provided influenced by locality and the expected resident community. Landscaped roofs are supported by DCC, as in addition to amenity, they also contribute to local biodiversity and help off-set the local heat island effect. Aspects to consider for communal space include:

- The size and quality of shared spaces, with access to sunlight, shade and wind protection;
- The location of shared space, ensuring it is readily accessible and feels communal;
- Provision of facilities to give purpose to shared spaces, such as play equipment or communal gardening.

ISSUE 8 – ADAPABILITY

- *Should buildings be designed to be adaptable in future?*
- *Should certain floors be designed for a variety of uses?*
- *What are the important features of adaptable buildings?*

Buildings should be adaptable, allowing them to respond to economic, social and technological changes over time. Adaptability covers potential changes of use that a building accommodates, as well as the flexibility to reconfigure spaces in apartments to be used in a variety of ways.

DCC has sought to encourage adaptability in development through policy work contained in planning scheme amendments C136, 137 & 147. The Design and Development Overlays proposed in these amendments seek taller ceiling heights to produce ‘commercially capable’ ground levels, as well as shallower front setbacks in particular locations, where transition of use is considered likely.

DCC supports guidance that seeks adaptability in buildings design and construction. Aspects of adaptability to consider include:

- Providing taller floor to ceiling heights at ground and potentially first floor level, allowing for residential uses to transition to commercial uses if required;
- The relationship of ground floor frontages to the street edge, with shallower front setbacks considered where street character and location suggest the potential for future transition to commercial uses;
- Providing non-load bearing internal partition walls where possible;
- Bundling utility and service locations to minimise the cost of future alterations.

ISSUE 9 – LANDSCAPE

- *Should all apartments require some form of landscaped area?*
- *Should this vary for low, medium or high rise buildings?*

Higher density development can potentially put additional pressure on the natural environment, and increases the importance of quality surrounds for pleasant living.

DCC recognises the role of landscape in contributing to good residential amenity. Policy work undertaken by DCC produced the *Residential Design Guidelines*, which were included in Planning Scheme Amendment C147. The proposed Garden Apartment typology seeks generous ground level setbacks to provide a garden setting for ground floor apartments, and enable canopy planting.

DCC proposes that apartment developments set within residential areas should incorporate landscaping as integral to the design. This is particularly important for lower-rise developments which have an inherently closer connection to the ground. Developments set within more urban areas such as activity context may not be able to provide sizeable areas of landscaping, particularly where zoning permits complete site coverage, though the incorporation of green roofs and walls should be encouraged as a minimum.

In addition to residential amenity, DCC considers that landscape should also be encouraged to help offset the impact on development on the local environment, addressing issues such as rainwater run-off due to increased site coverage, and the local heat island effect. Aspects to consider for landscaping include:

- Requiring areas to be available for deep-root planting where basement parking is proposed;
- Encouraging the incorporation of green roofs and walls;
- Rainwater attenuation methods such as rain gardens, and the capture of run-off for non-potable uses, compensating for reduced site permeability.

ISSUE 10 - UNIVERSAL DESIGN

- *Should all apartments, or a percentage of apartments, be designed for everyone, regardless of age or ability?*

Apartments should be designed for longevity and flexibility, accommodating a range of physical abilities, possible changes in circumstances, and capable of responding to demographic changes.

DCC sees development applications that propose 'reverse living' townhouse layouts, where living areas and small balconies are provided at first floor level, above ground floor bedrooms and minimal outdoor space. This type of arrangement raises issues about good amenity and equitable access, particularly in the context of an ageing population.

DCC proposes that a percentage of apartments in larger developments should be designed for everyone regardless of age or ability. Aspects of universal design to consider include:

- Potential for internal spaces to be modified with relative ease;
- Well-considered locations for doors and windows that could allow for spaces to be subdivided;
- Rooms large enough to accommodate different types and arrangements of furniture;
- Adequate space to allow for wheelchair movement;
- Accessibility of homes arranged over more than one level.

ISSUE 11 - ENERGY AND RESOURCES

- *What environmental issues are important to residents?*
- *Should every apartment have individual metering of their utilities?*
- *Should all apartments be required to meet a minimum industry in addition to the building regulations?*

Apartment developments can be inherently more resource efficient due to their higher densities and efficient forms. Higher density residential development can play an important role in reducing energy consumption due to their potential to capitalise on 'economies of scale'.

DCC proposes that the environmental issues most important to residents are those that have cost implications, i.e. heating, cooling and lighting, and those that have comfort implications, i.e. sunlight, shading and ventilation. In order to incentivise energy and resource minimisation, every apartment should have individual metering of their utilities. DCC proposes that all apartments should be required to meet a minimum industry standard in addition to the building regulations, with post-construction monitoring of building energy performance undertaken. This is considered necessary due to industry evidence indicating that nominated energy ratings of developments are not being met. The joint Australian, State and Territory government *National Energy Efficient Building Project (NEEBP)*, led by the South Australian Government, and undertaken by Swinburne University and consultants pitt&sherry, found that NCC compliance was poor.

Aspects of energy and resources to consider include:

- Specifying energy-efficient lighting and appliances;
- Maximising the controlled use of passive solar energy and passive ventilation;
- Making appropriate use of thermal mass and insulation;
- Using renewable energy technology to supply energy for communal facilities;
- Encouraging centralised hot water production and supply to residents, utilising economies of scale;
- Encouraging green roofs for the attenuation of rainwater run-off, minimising contribution to the local heat island effect and contributing to biodiversity;
- Capturing and filtering rainwater run-off, storing for non-potable uses.

ISSUE 12 - WASTE

- *How should waste be collected from apartment buildings?*
- *Should sorting facilities be provided for recycling and where?*

The storage and collection of waste can impact on the experience of the streetscape and the amenity of the wider neighbourhood. Ground level communal waste and recycling stores can appear unsightly, as well as being potentially smelly and noisy.

DCC proposes that waste should be collected from apartment buildings by a Council-run service, rather than by private contractors, allowing collections to be coordinated and controlled more readily, minimising the number of truck journeys, cutting down on noise, pollution and road congestion. Furthermore, Council-run waste collection has been shown to increase waste recycling rates. The returns that can be made by Councils on recycled waste incentivise the education of residents.

Food waste alone comprises over 40% of household waste sent to landfill, and DCC proposes that space is allocated for food waste management, along with general waste and recycling on-site. All types of recycling and waste should be stored in the same location, providing the greatest ease of use for all types of disposal. If waste chute systems are proposed, then separate chutes should be provided for each waste stream.

Aspects of waste to consider include:

- Locating waste storage areas away from the front of buildings, where they can impact on the street, the building entrance and the experience of residents, visitors and pedestrians, but ensuring a convenient location close to shared entrances;
- Providing waste chutes in larger development, ensuring they are located and designed to limit noise;
- Ensuring all waste and recycling facilities are accessible to all;
- Providing for on-site composting, or food waste collection;
- Providing permanent, allocated spaces on-site for residents to dispose of large items;
- Considering waste compactors for larger developments.

ISSUE 13 - CAR PARKING

- *How important is a car space in an apartment?*
- *Can alternatives to car parking provision offer improved solutions? If so, what?*

Car parking provision impacts on the cost and feasibility of a development, as well as the site layout and landscaping. The amount of car parking provided is determined by the amount of apartments in the development, and should also be influenced by location and context.

DCC proposes that car parking provision should be dependent on location recognising that lesser levels of car parking provision can assist housing affordability and encourage the use of sustainable transport modes. Alternatives to car parking provision include providing good amounts of cycle parking, providing parking spaces in common property, and providing spaces for car-share schemes.

Aspects of car parking to consider include;

- Ensuring that the convenience of cycle parking is prioritised above that of car parking;
- Ensuring that car parking areas are screened from public view;
- Ensuring that basement car parking allows for areas of deep root planting;
- Providing landscaping and good quality paving to at-grade parking as appropriate;
- Incorporating charging points for electric vehicles.
- Consideration of site context and accessibility to public transport (rail & light rail).

ISSUE 14 - ENTRY AND CIRCULATION

- *Should designated areas be provided for on-site loading?*
- *Should apartment building lobbies be clearly visible from the street?*
- *Should internal corridors have views out and provide daylight?*

The design of the threshold between the street and the private areas of a development is important, affecting a resident's sense of security and connection with their home. Entrances should be of high quality, feel welcoming, provide shelter, and a sense of address to the street.

DCC proposes that entrances should be readily identifiable and secure, separating pedestrians from vehicle movement. Active frontages should be sought, with the amount of entrances maximised where appropriate by providing separate private entrances at ground level, in addition to the main entrance. The provision of high blank walls at street level should be discouraged as a means of providing secluded private open space within the front street setback (if provided). Policy work undertaken by DCC, contained in planning scheme amendment C147 and the *Residential Built Form Guidelines* embraces these aspects by seeking direct access to ground floor apartments from the street frontage, in addition to the communal entrance servicing the upper level apartments.

DCC proposes that main entrances to communal lobbies and ground floor apartments should be visible from the street, and readily identifiable. It is not necessary however for lobby spaces to be visible from the street, and the preference for active frontage in commercial areas would preclude an expanse of residential frontage at ground level. It is preferable for internal corridors to have access to daylight and natural ventilation, particularly where they are quite lengthy or serve many apartments. The ability to access natural light and ventilation would improve the experience of these communal spaces and reduce the energy requirements for lighting and cooling.

Aspects of entry and circulation to consider include:

- Illumination of main entrances;
- Minimising the distance from the street edge to the main entrance;
- Clearly demarcating the threshold between public and private space;
- Carefully considering and minimising the number of apartments that share an access core, as this has implications for the social dynamics of a development, security arrangements and resident satisfaction;
- The quality and durability of common areas, and ensuring adequate room for convenient furniture movement;
- Recognising the impact that the arrangement of communal areas and facilities such as lobbies, mailboxes and circulation can have on the social dynamics of a building, allowing space for ease of movement and facilitating incidental interaction between residents.
- Mandating articulated ground floor frontages, discouraging basement ventilation, high blank walls and fixtures that detract from the visual interest, safety and surveillance of the street.

Miscellaneous issues

With the potential implementation of apartment design guidance, it is important that medium density developments, such as townhouses, are subject to comparable standards of internal amenity. This could require the updating of Rescode to reflect aspects such as maximum room depths and preferred balcony configurations. Universal design considerations could address recent trends in townhouse development for 'reverse living' arrangements, which raises issues about good amenity and equitable access, particularly in the context of an ageing population.