

Solar Access/Overshadowing Assessment

As established in *The Benevolent Society v Waverley Council* [2010] NSWLEC 1082, the Court's consolidated and revised planning principle on solar access is now in the following terms:

- *The ease with which sunlight access can be protected is inversely proportional to the density of development. At low densities, there is a reasonable expectation that a dwelling and some of its open space will retain its existing sunlight. (However, even at low densities there are sites and buildings that are highly vulnerable to being overshadowed.) At higher densities sunlight is harder to protect and the claim to retain it is not as strong.*
- *The amount of sunlight lost should be taken into account, as well as the amount of sunlight retained.*
- *Overshadowing arising out of poor design is not acceptable, even if it satisfies numerical guidelines. The poor quality of a proposal's design may be demonstrated by a more sensitive design that achieves the same amenity without substantial additional cost, while reducing the impact on neighbours.*
- *For a window, door or glass wall to be assessed as being in sunlight, regard should be had not only to the proportion of the glazed area in sunlight but also to the size of the glazed area itself. Strict mathematical formulae are not always an appropriate measure of solar amenity. For larger glazed areas, adequate solar amenity in the built space behind may be achieved by the sun falling on comparatively modest portions of the glazed area.*
- *For private open space to be assessed as receiving adequate sunlight, regard should be had of the size of the open space and the amount of it receiving sunlight. Self-evidently, the smaller the open space, the greater the proportion of it requiring sunlight for it to have adequate solar amenity. A useable strip adjoining the living area in sunlight usually provides better solar amenity, depending on the size of the space. The amount of sunlight on private open space should ordinarily be measured at ground level but regard should be had to the size of the space as, in a smaller private open space, sunlight falling on seated residents may be adequate.*
- *Overshadowing by fences, roof overhangs and changes in level should be taken into consideration. Overshadowing by vegetation should be ignored, except that vegetation may be taken into account in a qualitative way, in particular dense hedges that appear like a solid fence.*
- *In areas undergoing change, the impact on what is likely to be built on adjoining sites should be considered as well as the existing development.*

Assessment of the Proposed Development (as amended)

Density: The development site is within the B2 Local Centre land zone [Zone E1 following from the *Employment Zone Reform in effect from April 26, 2023*], which encourages commercial and residential development that generates employment, economic growth, contributions to a vibrant and active local centre, and development that is supportive of a day and night-time economy. Given the site's context and location within Coogee and in conjunction with the developable land area of 8,501m², the

development lends itself to high-density development. Thus, it is accepted that at higher densities, sunlight is harder to protect and the claim to retain it is not as strong.

Amount Lost/Retained: The key affected neighbouring properties are 17 Vicar Street (single detached dwelling to the south-west), and 230 Arden Street (residential flat building to the south-east). Shadow diagrams, sun-eye diagrams and modelled elevations have been provided (inclusive of fencing) with the amended DA to illustrate the extent of direct solar access provided to affected southern properties.

Note: There is a minor drafting error in the 22 September 3pm shadow diagram, however 22 March and 22 September diagrams should be the same as both are “equinox”.

17 Vicar Street:

- Notably, the demolition of 15A Vicar Street, and the incorporation of an increased southern setback between the proposed building envelope and 17 Vicar Street, results in an improvement to the solar access received by the dwelling house at 17 Vicar Street, particularly to the first floor windows between 11am and 3pm.
- The exceedance to the building height standard, noting the RL matches that of the existing Boutique Hotel, does not affect the dwelling house at 17 Vicar Street, however given the additional height exceedance to the east of the development site, there is some impact to the rear open space. At least some direct solar access is maintained between 9am and 12pm (3.0 hours) on June 21.
- The private open space to the rear of 17 Vicar Street is generously sized for the siting of the dwelling, and it is acknowledged that June 21 is the worst-case scenario for the year. The Applicant has provided shadow diagrams for the equinox (22 March / 22 September) that demonstrate that the rear open space of the dwelling will receive substantial sunlight between 10am and 3pm (5.0 hours).
- Given site size (area and width) and existing surrounding development, 17 Vicar Street is likely to remain a dwelling house (or similar 'low density' residential typology).
- On balance and in consideration of solar access gained to the internal rooms of 17 Vicar and the compromised loss of solar access to the rear open space, the overall solar amenity outcome is improved as a result of the proposed development (particularly on June 21).
- With respect to the objectives of the RLEP12 and ADG, the extent of overshadowing is acceptable in this instance, as:
 - There is an improvement to direct solar access, and thus residential amenity experienced, to the first floor of the dwelling as a result of the increased separation. The design, orientation and siting of the development maximises solar access to the living areas of the dwelling (inclusive of passive daylight/ambient lighting);
 - The proposed massing balances view sharing with overshadowing and heritage context.
 - The density of development is situated to the western side of the development site, with the visual bulk from the public domain at three-storeys to integrate with the character of the area, and compatible with the heritage setting of the Coogee Bay Hotel and

Coogee Bay Road façade. Thus the development aligns with Principle 2 Built Form and Scale, and Principle 3 Density of SEPP 65 in being appropriate development within the public domain, character of the streetscape and view sharing.

- Overshadowing at the equinox (22 March and 22 September) identifying substantial solar access into the rear open space, where it is otherwise affected during June 21 (worst-case).

230 Arden Street:

- 230 Arden Street is a four storey residential flat building to the southern side of the proposed new Coogee Bay Hotel wing and the Arden Street driveway entry.
- The ground floor units with north-facing windows are most affected by the development on June 21 (additional overshadowing occurs between 9am through to 3pm).
- There is an increase to the solar access received into the rear open space at 1pm.
- 230 Arden Street is immediately south of the development site, thus the contextual relationship between the two sites will inevitably result in some overshadowing.
 - The eastern lot, with the Coogee Bay Hotel, is constrained by development due to the heritage significance of the Hotel. The massing has been subject to discussions with Council's Urban Design Team and Heritage Experts.
 - The new hotel wing complies with the maximum height of building standards.
 - The hotel lot complies with the FSR standard.
 - The new hotel wing is appropriately setback from the southern boundary (8.0m)
- The proposed hotel wing offers an amenity compromise, in that it acts as an acoustic barrier from the primary hotel (pub) and function room uses.
- The proposed overshadowing is considered acceptable in this instance given the heritage context, significant setback, and land zoning. The overall development site area (8,501m²), and preference to retain the Coogee Bay Hotel with separate proposed additions, lends itself to a higher density of development around the perimeter of the development site - thus, it is accepted that at this higher density, sunlight to southern development will be harder to protect.

Public Domain:

- Public concern was raised with respect to overshadowing over the foreshore and beach. The proposed development casts shadows over Arden Street toward the east (being direction of the foreshore and beach), however does not extend into the public recreational area itself.
- The western massing (being the primary location of exceeding building height and floor space) results in the proposal being self-shadowing in the late afternoon on June 21, rather than upon the public domain.