

12 May 2025

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Dear Eliza

Subject: 124 – 126 Bull Street, Newcastle West (MA2024/00381)

I am writing regarding modification application MA2024/00381 at 124-136 Bull Street, Newcastle West and the meeting held between the applicant and the City of Newcastle (CN) and the chair of the Newcastle Urban Design Review Panel held on the 9 May 2025. During the meeting it was discussed that anomalies were discovered in relation to solar compliance of the proposed development. The following information is provided in response to the matters discussed within the meeting.

Background

In May 2025 when converting sun-eye view diagrams to REVIT in response to a CN Request for Additional Information dated 6th March 2025, it was discovered that the previously issued sun-eye view diagrams, created in ArchiCAD were not matching the new REVIT diagrams. A forensic review of the ArchiCAD files dating back to 2018, and the original DA Approval, revealed that the previously documented sun-eye view was set up incorrectly. The resultant error is a 15 degree shift in the angle of the sun, rotating anti-clockwise around the site, therefore reducing the available morning sun by approximately 1 hour.

It was discovered that the error existed within the original modelling impacted on both the approved development and approved modification. The approved modification modelled 70% of apartments receiving no less than 2 hours of direct sunlight to their primary living area and private open space in mid-winter. Application of the correct solar coordinates identified only **35%** of the currently approved apartments receive at least 2 hours of sunlight.

Upon discovering the issue within the modelling, the applicant immediately communicated the issue with CN.

Implication for the current application

The implication for the current application is that whereas it was believed that 69% of apartments received at least 2 hours of sunlight, in fact **32%** of apartments achieve a full 2 hours of sunlight to their primary living area and private open space in midwinter.

Applying the Apartment Design Guide (ADG)

Parts 3 and 4 of the ADG apply to development applications. They contain different topic areas and within each topic area there are various objectives that describe the desired design outcomes. Most objectives are accompanied by design criteria which provide the measurable requirements for how an objective can be achieved. Each of the design objectives is also accompanied by design guidance that provides advice on how the objectives and design criteria can be achieved through appropriate design responses, or in cases where design criteria cannot be met.

As such, it can be seen that the ADG is a performance-based document which is not intended to be, and should not be applied as, a set of strict development standards according to the (now) Department of Planning Housing and Industry in Planning Circular PS 17-001. This was recently affirmed in the case of *Construction Development Management Services Pty Ltd v City of Sydney* [2023] NSWLEC 1620.

Relevant to this application is ADG Objective 4A-1 which is:

To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.

The relevant question then is notwithstanding the departure from the numerical design criteria, has the number of apartments receiving sunlight to habitable rooms, primary windows and private open space been optimised.

Solar access has been optimised

Solar access within the development is constrained by the site orientation, street frontages and the pedestrian through site link (Memorial Walk) on the eastern boundary which dictate the current site planning.

Nevertheless, the original approval sought to optimise solar access by locating the primary living areas on the building façade and incorporating innovative and generously sized saw-tooth balconies which maximised solar access and captured northerly views.

The current modification application further enhances solar access by:

- Improving communal open space areas and providing an additional communal open space rooftop area, with full solar access, to the top of Tower B. This modification provides an additional 1,426m² of communal open space across the development.
- Addition of saw-tooth balconies to Tower B to improve solar access and maximise views.
- Maximising east and north facing glazing on Tower B.
- Reconfiguring bedrooms and living rooms throughout Tower B to optimise solar access.
- Using strategically placed north-east facing full height glass panels on the balconies to capture the sunlight.
- Refined the orientation of living areas on the facade face to maximise sunlight.
- Adjusting the design of the balcony AC plant enclosures as illustrated in Figure 1 below to increase sunlight access to the balcony and adjacent habitable rooms (bedrooms). It is noted that this design feature was suggested by the chair of the UDRP at the 9 May 2025 meeting to improve the solar access to the bedrooms and living room. Half hourly solar analysis of the proposed design adjustments has been included within Attachment 1.

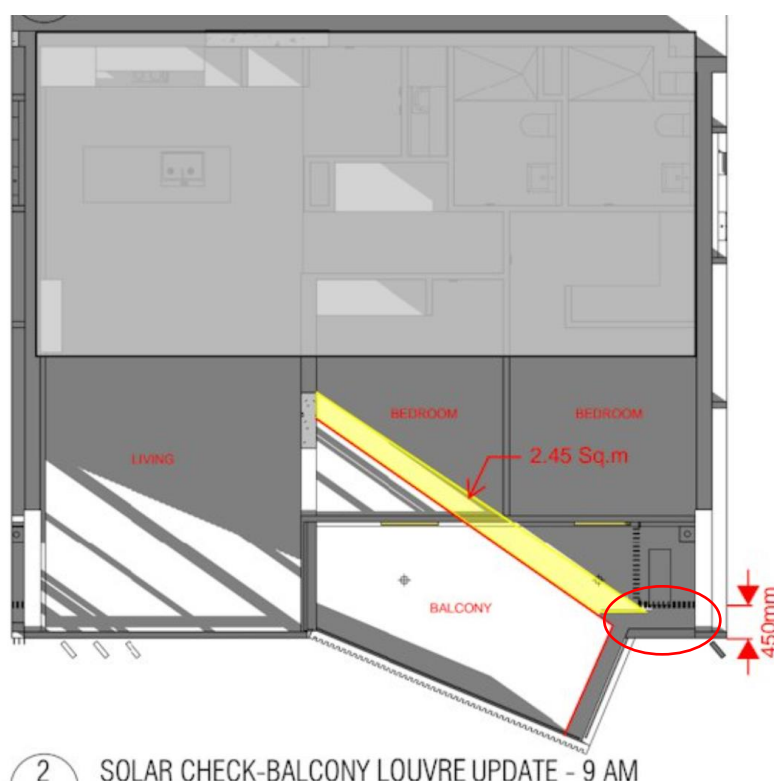


Figure 1 Proposed design adjustments to the AC plant to improve sunlight access to the balcony and habitable rooms.

It should be noted that the design criteria to Objective 4A-1 (% apartments receiving at least 2 hours sunlight) is a binary measure that gives no indication of the amount and nature of sunlight access that will be enjoyed by apartments that fail to achieve 2 hours to primary living areas and private open spaces.

The following measures demonstrate that the proposed apartments will enjoy a high standard of amenity and that solar access has been optimised:

- 72% of apartments that will achieve at least 1.5 hrs of direct sunlight in mid-winter, 69% of apartments achieve 1.45 hrs of direct sunlight in mid-winter.
- 32% of apartments that will receive more than 2 hrs of sunlight during daylight hours in mid-winter.
- 84% of Tower A apartments and 79% of Tower B apartments private open space enjoys more than 2hrs sunlight of direct sunlight in mid-winter
- Only 7.5% of apartments do not receive sunlight in mid-winter (compared with 15% allowed by the ADG).
- Other than the 1-bedroom apartment in Tower A, all eastern facing balconies receive the minimum 6sqm of direct sunlight in mid-winter.
- 92% of the proposed apartments enjoy significantly oversized balconies (compared to the ADG standards).

Furthermore, Table 1 identifies design responses to the design guidance established within Objective 4A-1 demonstrating that solar access has been optimised:

Table 1 Design Responses to ADG Design Guidance

ADG Design Guidance – Objective 4A-1	Design Response
The design maximises north aspect and the number of single aspect south facing apartments is minimised	The design has sought to orientate apartments towards a north aspect. 28% of apartments receive more than 6 hours of direct sun from the northern aspect. Only 14% of apartments are facing due south.

ADG Design Guidance – Objective 4A-1	Design Response
Single aspect, single storey apartments should have a northerly or easterly aspect	The design sought to prioritise the orientation of single aspect apartments with 114 (40%) single aspect apartments face North and East. 28 (10%) of the single aspect apartments are south facing.
Living areas are best located to the north and service areas to the south and west of apartments	Living areas are given priority in the apartment floor plans by being positioned on the facade in all apartments to maximum solar access.
To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: <ul style="list-style-type: none"> • dual aspect apartments • shallow apartment layouts • two storey and mezzanine level apartments • bay windows 	The design sought to optimise utilisation of dual aspects apartments, with 38% of apartments having this feature.
To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m ² of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	This objective provides guidance to analyse the benefit to residents of the additional direct sunlight within living rooms and private open spaces. The proposed modification delivers 1:30 hours of solar access to 79% of apartment's private open space and 1:30 hours direct sunlight to 72% of apartments living rooms during mid winter.

As demonstrated above, the modification delivers a high standard of amenity across the proposed amendments., the proposed development includes multiple design features to ensures solar access is optimised to habitable rooms, primary windows and private open space. This response demonstrates that, despite not achieving strict adherence to the numerical design criteria established within the ADGs, the intent of Objective 4A-1 has been met.

If you seek any additional information regarding this matter, please contact Robert Bisley, Senior Associate on robertb@gyde.com.au

Yours sincerely



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