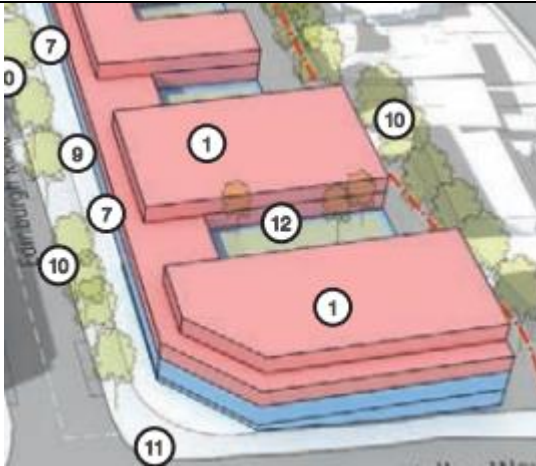


## Response matrix to Willoughby Council RFI of 30 Sep 2021

Council issue	Proposed response
Mixed use development proposed instead of residential flat building to be added to permitted land uses	<p>Wording proposed for LEP amendment, as per Council suggestion with some clarifying words (high lighted):</p> <p><b>XX Use of B1 land at 100 Edinburgh Road, Castlecrag</b></p> <ol style="list-style-type: none"> <li><i>This clause applies to land zoned B1 at 100 Edinburgh Road, Castlecrag</i></li> <li><i>Development for the purpose of residential flat building is permitted with development consent if the consent authority is satisfied that:</i> <ol style="list-style-type: none"> <li><b>Those uses at ground level facing Edinburgh Road are used for non-residential purposes and</b></li> <li><b>A minimum of 18% of the total FSR is provided for non-residential purposes.</b></li> </ol> </li> </ol> <p>18% is the nominated minimum retail component. The difference between 8,000 sqm (6,260 + 1,740 sqm) and the total GFA of 9,300 sqm is the area of corridors, etc which is not included in the figure for nett residential floor area.</p>
Height of 15.8m excessive at rear	Height at rear determined by floor to underside of structure in basement of 4.5m to accommodate garbage trucks plus retail floor to ceiling height of 3.6m.
Upper storey rear setbacks non-compliant with ADG and WDCP	<p>ADG setbacks are defined in Part 3F the principal focus of which is privacy. For buildings up to and including four storeys, the required boundary setback is 6m.</p> <p>D2.8.3, point 4 requires a rear setback of 3m for the ground floor and 1.2m for each storey thereafter. For a four storey building, this is 6.6m.</p> <p>Drawing 6010, revision 4, shows that the rear boundary setbacks are from 6.0m near the south west site corner to 9.5m at the south western corner of the western pavilion. For the eastern pavilion, the setback varies 6.0m to 7.5m, measured from the rear boundary of the houses to the south. On average, the setbacks meet the WDCP.</p> <p>Given that the southern boundary is very heavily treed, and nearly all of the trees are to be retained, the privacy of houses and town houses to the south will be more than adequately protected in terms of privacy by the foliage of the trees – refer to the sections on drawings 4000 to 4003. The small non-compliance with the prescribed setbacks will not prejudice the privacy of the dwellings to the south. Effectively, the proposal meets the privacy requirements of the ADG.</p>
Overshadowing non-compliant with ADG	<p>A very comprehensive shadow analysis has been prepared by the architects. Running to 19 drawings, shading of the slope to the south of the proposal is examined in plan and from the viewpoint of the sun. The latter analysis is best understood by noting that buildings visible in any view are in sunlight. Those obscured by any building or tree, are shaded.</p> <p>The analysis looks at three situations, that existing, that due to a building form such as that illustrated in the LCS and the proposal. The diagrams show shadows with and without trees. Whilst this is not usual, the density of the trees is such that they form a comprehensive barrier to solar access for the south slope behind the proposal. In addition to the applicant's resolve to retain the trees,</p>

	<p>Council has in place a tree preservation order restricting any tree removal. On that basis, the trees must be considered in any analysis.</p> <p>Appendix 1 of the Planning Proposal (attached for convenience) deals comprehensively with this issue. The density of the foliage is clearly seen in the aerial photo, Figure 11 on page 104. If the uppermost floor was setback an additional 3m from the boundary, as suggested in the RFI, the difference in overshadowing would be small if the foliage was excluded and negligible if the trees are included.</p>  <p>Figure 11 – Shadows existing at approximately noon, three weeks from winter solstice – courtesy Nearmap</p> <p>It should be noted that the shading of a south slope in the topography of Sydney is not unusual and similar issues are raised in the residential area south of the Chatswood Town Centre and in locations such as Kirribilli with the taller development higher up the slope.</p> <p>Of course, the impact of shading of the south slope could be reduced by siting the proposal more closely to Edinburgh Road, thus reducing the open plaza in front of The Quadrangle or by increasing building height along Edinburgh Road. These changes are not contemplated by the applicant.</p> <p>It is the applicant's position that the design by the competition winning architecture firm, FJMT Studio, is the correct balance between all of the relevant design considerations, not least the need to build on the legacy of the Griffins. This design is the basis of the PP.</p>
<p>Upper storeys be setback at least 3m</p>	<p>Item 7 of adopted strategy requires 3m upper storey setback only on front (Edinburgh Road) and not at rear. Annotation on diagram has item 7 shown only for Edinburgh Road and Eastern Valley Way frontage. The PP does not breach the requirements of the LCS.</p>

		
Revise plans to show setbacks and resultant overshadowing. Impact of rooftop structures to be shown.	Reduction of rear of topmost storey is not required by LCS. In any case, the difference in overshadowing is minimal. All rooftop structures have been modelled. Best analysis is available from diagrams taken from point of view of sun, refer to architect's drawings 6207 to 6218. The overshadowing models include analysis at the equinox at which date the rear yards and houses to the south on The Postern are well and truly sunlit. Sunlight on the downslope increases with greater rapidity as the sun moves upward in the sky and away from the winter solstice.	
SIDRA analysis not provided though relevant to DA not PP.	SIDRA analysis of the intersection of Eastern Valley Way and Edinburgh Road was carried out and reported for the earlier PP. It will be submitted with the DA.	
Small discrepancy between parking required under WDCP and parking demand in traffic report	At PP stage, plans demonstrate sufficient parking can be accommodated on site. Subject to finalisation at DA stage.	
Mortorcycle parking for 6 cycles.	Detail to be provided at DA stage.	
Whether parking for retail uses to be based on 75% or 85% of gross area.	Individual uses shown with retail area are indicative and not yet known. Exact figures to be considered at DA stage.	
Bicycle parking and end of trip facilities noted.	Detail to be provided at DA stage.	
Car egress to Eastern Valley Way.	Agreed not feasible due to traffic speed, topography and limited sight distance.	
Access and loading – concern about MRV using turntable.	Again, a DA stage detail issue. Turntable preferred to avoid truck manoeuvring conflict with pedestrians and vehicles entering and leaving parking spaces.	
Electric vehicle charging bay.	Provide detail at DA stage though not yet part of Council parking provisions.	

MN 10 Oct 2021

<https://nurban.sharepoint.com/sites/CPWActiveProjects/Shared Documents/17044FF - Greycliff Castlecrag PP/CPW reports and files/Response matrix to WCC RFI of 30 Sep 2021 v7.docx>

## Appendix 1 – Overshadowing Analysis

Built on the southern edge of the Castlecrag ridge, the site sits above the houses in the cul-de-sac part of The Postern. These houses are south and downslope of the development and the impact of the proposal on solar access to their rear yards needs to be considered. The solar impact of the proposal is the subject of 18 sheets of the 53 sheet PP set – drawings 6201 to 6218.

Sheets 6201 to 6206 show shadows in plan for the winter solstice, 21 June. Three aspects of the development are illustrated – existing shadows, the scheme shown in the adopted LCS and the subject proposal. Sheets 6201 to 6203 are conventional diagrams without trees while 6204 to 6206 show the impact of trees particularly those on the southern boundary. Demonstrating the impact of the trees allows comparison with the aerial photography from Nearmap, particularly important as the trees are evergreens and the subject of extensive commentary from Council and the community. Shadows are shown from 8am to 4pm to capture fully the day.

Sheets 6207 to 6218 also provide an analysis of the overshadowing impact of the three situations, existing, LCS scheme and the proposal, but taken from a “sun eye view”. Use of the sun eye view allows for a more extensive understanding of the impact of one building and trees on others. It also allows assessment of solar access to the proposal itself. In any sun eye view, those windows and balconies which can be seen are in sunlight. Conversely, windows and balconies not visible are in shade. Sheets 6207 to 6212 cover 21 June, with and without trees. Sheets 6213 to 6218 cover 21 March, the equinox, again with and without trees.

These drawings can be related to the two photographs below. The photos are approximations of times illustrated in the solar analysis prepared using a standard drawing system. Figure 11 can be compared with the plan view of the existing situation at noon on sheet 6205. The degree of correspondence is high. This verifies the accuracy of illustrating the tree impact on overshadowing in the diagrams prepared to illustrate the degree of overshadowing due to the proposal.





Figure 11 – Shadows existing at approximately noon, three weeks from winter solstice – courtesy Nearmap



Figure 12 – Extract from sheet 6205 of the architectural drawings

A similarly comparative aerial photo for approximately 11am at the equinox is below together with a sun eye view of the corresponding time.



Figure 13 – Shadows existing at approximately 11am, five days from equinox – courtesy Nearmap

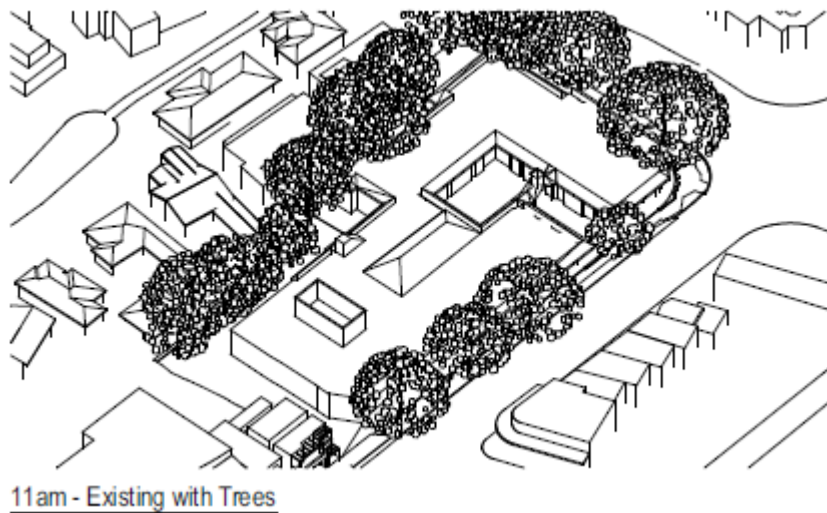


Figure 14 – Sun eye view corresponding with Fig 13. Note the extent of the rear yards visible in the diagram corresponds with the sunlit portions of the rear yards of the houses in The Postern.

The conclusions to be drawn from the extensive graphical information provided by the architect is that:



- Shadows due to the dense band of evergreen trees on the southern boundary of the site, which are to be retained as per the report of the arborist, must be considered in any analysis
- Shadows due to the trees extend well beyond the shadows due to the existing building on the subject site at 21 June
- Shadows due to the proposal, and also the comparative LCS scheme, largely sit within the dense tree shadows at 21 June
- The additional shading impact of the proposed building will be relatively minor at 21 June, the winter solstice
- There will be little overshadowing due to the proposal (or the trees) at the equinox, 21 March or 21 September.