APPENDIX B - Plans and Elevations









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APPENDIX C - Urban Design Assessment of Building Height Report

MILLER UNION DEVELOPMENT Union Street, Cooks Hill, Newcastle Urban Design Assessment of Building Heights

Miller Union Development SYU-002519 Urban Design Assessment of Building Heights – Issue B 5.05.2011

	Date of Issue.	Revision Description.	Author.	Checked	Approved
A	05.05.11	Final	GB	MM	GB
B	05.05.11	Final	GB	MM	GB

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1.0 INTRODUCTION AND PURPOSE

This report presents an urban design assessment of the heights of certain buildings within a proposed development known as 121 – 123 Union Street, Cooks Hill in the Newcastle City Council Local Government Area. The proposal has been submitted to Council for development approval – reference DA 10/1511. Certain portions of the buildings exceed Council's height limit for the site and this report addresses the question raised by Council in a letter dated 2 March 2011 as to whether the height limit applicable to the site is unnecessary or unreasonable.

2.0 THE SITE AND ITS CONTEXT

The subject site comprises two parcels, Lots 1 and 2 in DP 1050041 and the street address is 121 – 123 Union Street, Cooks Hill. The site is roughly square in shape, with a total area of 10,329 square metres, as shown on Figure 1. It was previously low-lying swamp lands and currently contains a building and associated works which will be demolished to make way for the proposed development. The site is flood affected and the whole of the site is in a flood storage area. These physical constraints impact on the proposed building heights and are discussed further in Section 6.3.2 below.

To the north-west, the site fronts Union Stroet and beyond that National Park, which comprises in its entirety active recreation facilities including netball courts and sports fields.

To the south-east, the site is bounded by Corlette Street. On the opposite side of this street are one and two storey attached dwellings (Figure 2).

The properties immediately to the north-east of the site are single storey detached dwellings in a heritage precinct (Figure 3). Their rear yards adjoin the subject site.

Immediately adjoining the site to the south-west is Newcastle Grammar School, comprising one and two storey buildings and various outdoor facilities. Beyond the school is a privately owned boarding house on the corner of Parkway Avenue and Corlette Street (Figure 4) and "social" housing along the south-west side of Parkway Avenue (Figure 5). These are three storey buildings with pitched roots. On the elevations which comprise part of the Development Application, the height of the building on the corner of Parkway Avenue and Corlette Street is shown as RL 16.40m and that of the building on the corner of Union Street and Parkway Avenue as RL 14.05m. Building heights for the proposed development range from RL 13.2m to RL 17.3m.

3.0 THE PROPOSAL

The proposal is for the:

- Demolition of all existing structures on the site;
- Construction of a residential flat development containing a total of 107 units, being:
 - » 91 one bedroom units ranging from 50sqrn to 54sqm
 - » 6 two bedroom units ranging from 80sqm to 90.5sqm
 - » 10 three bedroom units ranging from 109sqm to 134sqm
- Construction of a boarding house containing 112 bedrooms and a managers residence
- At grade and basement car parking for a total of 153 vehicles

Figure 6 shows the five buildings proposed for the site. Buildings A and B comprise three habitable floors above semi-basement parking. Building C comprises four habitable floors above at-grade parking. Building D comprises three habitable floors above at-grade parking. Building E comprises three habitable floors above a zone for floodwater storage.

4.0 RELEVANT DEVELOPMENT CONTROLS

The local planning controls applicable to the site are set out in detail in the Statement of Environmental Effects accompanying the Development Application. The site is currently zoned 2(b) Urban Core Zone, permitting multi-unit residential development with consent, and will be zoned R3 Medium Density Residential under Council's new LEP. An FSR of 0.9:1 and a height limit of 10m will apply to the site under the new LEP. Under the applicable State Environmental Planning Policy, the boarding house portion of the development has a maximum permissible FSR of 1.4:1.

The site also immediately adjoins the Cooks Hill Heritage Conservation Area to the north-east. The rear yards of the nearest dwellings within the heritage conservation area abut the north-east boundary of the site.

Under Newcastle DCP 2005, the site is subject to:

- A 10.0m height limit
- street setbacks of 0.0m to a height of 3.0m, 2.0m to 6.0m and 4.0m above 6.0m
- side sotbacks of 0.0m to a height of 6.0m and 4.0m above 6.0m

The site is included within the 'Substantial Growth Precinct' mapped in DCP2005, encouraging the redevelopment of the site for urban housing at higher residential densities.

Council's Draft LEP, being a conversion to the Department of Planning's Template LEP, has simply proposed the adoption of the existing heights contained in the DCP, consistent with the approach the Department of Planning has been following.

It is clear however that the DCP provides opportunity for development to step outside of controls where it is appropriate to do so, evidenced from the following note to the DCP as it appears on Council's web site.

"......However, some local circumstances may apply to any particular development site or proposal that warrant separate consideration outside the framework of NDCP 2005. Accordingly, compliance with the provisions does not guarantee development approval, nor will non compliance with the provisions necessarily result in refusal of an application."

This report considers the merits of the "local circumstances" that support an acceptable variation to the height control within the DCP.

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5.0 ASSESSMENT METHODOLOGY

This analysis examines two primary types of issues related to the proposed building heights:

- Material impacts overlooking and overshadowing
- Visual impacts the perception of increased height

Material impacts generally relate to immediately adjoining neighbours. Because the development shares two side boundaries with neighbours and Council's height limit permits development to a height of 10 metres and relatively small side boundary setbacks, it is to be expected that there will be some potential for overlooking, given the density of development permitted on the site. Similarly there will be source degree of overshadowing of the neighbour to the southwest under Council's controls.

An important consideration for both overlooking and overshadowing is the degree to which they are increased by the portion of the proposal which exceeds Council's height limit and more generally whether the proposed impacts are acceptable as measured against ostabilished standards. Visual impacts relate to the way the building will be seen from surrounding areas and generally focuses on impacts from the public realm. The issue again is the degree to which visual impacts are increased by that part of the proposed development which exceeds Council's height limit and whether they are acceptable.

6.0 ASSESSMENT OF PROPOSED HEIGHT INCREASES

The two proposed buildings along Corlette Street (Buildings D and E) generally lie below the 10m height plane. The only exception is a small number of units on Level 2 of Building D which penetrato the height plane by a maximum of about 400mm. None of these units face the boundary so there are no overlooking issues, there is no ovorshadowing because the neighbours are to the north east and this minor height overage will not be noticeable from any street or public place.

The following assessment of height impacts is thus largely confined to Buildings A, B and C.

6.1 MATERIAL IMPACTS

6.1.1 Overlooking

North-east Side Boundary

The north-eastern boundary of the site adjoins single story detached houses with pitched roofs which front Tooke Street or Union Street.

The proposed development has given careful consideration to potential impacts from overlooking of the existing adjoining properties. Satisfactory outcomes have been achieved through the combination of building setbacks (in all cases beyond that required by the DCP), landscaping including deep soil zone landscaping, building offsetting as well as appropriately positioned privacy screening consistent with the objectives within Council's DCP. The proposed additional height has been managed in the same way and so also has no unacceptable impacts.

South-west Side Boundary

The South-west boundary adjoins Newcastle Grammar School. The school's site layout includes a number of buildings along the boundary and three permanent shade cloth structures, so the areas which can be overlooked are limited.

Whist the sensitivity of overlooking to the south west is considered to be less due to the land use type, existing position of school buildings, shade cloth structures and landscaping, the proposed development responds to its neighbour through the same measures that are adopted to the north east: attention to appropriate setbacks, landscaping and screening. The additional height near this boundary has been managed in the same way and also has no unacceptable impacts.

6.1.2 Overshadowing

The critical time of the year to examine shadow impacts is the winter solstice, June 22, when shadows are longest. Overshadowing caused by the proposal in mid-winter between 9.00am and 3.00pm is limited to the site immediately to the south-west of the subject site (occupied by Newcastle Grammar School) and Corlette Street and a nogligible portion of some front yards on the opposite (south-east) side of Corlette street between about 2.30pm and 3.00pm.

The approach adopted here to assessing overshadowing impacts is similar to that for overlooking. The degree of overshadowing caused by a development which complies with Council's height and setback controls is compared to the degree of overshadowing caused by the proposal.

Figures 7 – 13 show shadows at hourly intorvals between 9.00am and 3.00pm in mid-winter. Shadows cast by the proposed development arc shown in dark grey. Those cast by a similar development which extends further south-wost towards the school, but is within Council's height and setback controls, are shown in orange. The latter building envelopes are actually well within Council's controls, with a setback of 4m from ground level to 10m and gaps between Buildings B and C and C and E equal to those of the proposal. (A complying development could extend to the boundary line up to a height of 6m before setting back 4m and could extend along the full length of the side boundary, minus the front setbacks required at Union Street and Corlette Street.)

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At every hour, between 9.00am and 3.00pm, the proposed development results in less overshadowing of the school than a similar complying development. The degree of difference increases during the day. Between midday and 1.00pm, when pupils are most likely to be outdoors, the difference is quite apparent (and as noted above would be more so if a complying option extended along the full length of the boundary).

It is also noted that much of the school site adjoining the side boundary is occupied by buildings and shade structures, trees planted within the school's land and a wide sealed pathway. Little useable external area is impacted by overshadowing.

Mid-winter shadow impacts on Corlette Street Itself begin about 11.00am and reach a small part of the front yards of a small number of properties opposite the subject site between about 2.30pm and 3.00pm. Buildings D and E, which cast these shadows, are generally a little under Council's 10m height limit. As expected, 10m high buildings with the same setback from Corlette Street as the proposal would cast longer shadows. Again, the proposed development results in lesser overshadowing than a complying building envelope. (The difference would be even more pronounced if the complying envelope came closer to the street boundary, as permitted by the DCP controls.)

In summary, the proposal causes less overshadowing than would a development adopting Council's height and setback controls. The additional height of the proposal beyond 10m has no adverso overshadowing impacts.

6.2 VISUAL IMPACTS

This part of the height assessment focuses on the visibility of the portions of the proposed development which exceed Council's 10m height limit. It has to do with the perception of height and how an observer might feel about any increase in height above the 10m limit.

A complex set of hydrological constraints operate on the subject site and these have a direct bearing on the overall height of the proposed development. These constraints are detailed in Section 6.3.2 below. It is clear from Council's inclusion of the subject site within its 'Substantial Growth Precinct' and the applicable 0.9:1 FSR that Council envisages a substantial level of development here. It is understood that under the hydrological constraints which impinge on the site and Council's 10m height limit, it would not be feasible to achieve the tovol of development contemplated by Council's precinct and density controls. Given the hydrological constraints and expected density of development, it is considered unreasonable to apply the 10m height plane to the proposed development. This consideration should be borne in mind when reading the following assessment of view impacts.

6.2.1 Proximate Views

Union Street

The facades of Buildings A and B facing Union Street extend beyond Council's 10m height limit by approximately 1.5m. Council's DCP 2005 does not specify numerical standards for street setbacks in the Substantial Growth Precinct in which the proposal is located. It states that "the setbacks of buildings are related to their height and to the width of the street, in such a way to ensure pedestrians do not feel buildings are overbearing." The facades could be brought closer to the street boundary so that, from the Union Street footpath adjoining the site, the upwards viewing angle would be steeper and the additional facade height may be less noticcable. A reduction of the front setback would have other undesirable consequences, however, and it is considered that with the current arrangement, from the adjoining footpath the additional facade height above 10.0m will have negligible visual impact.

From the footpath on the opposite side of Union Street, the additional facade height will be detectable (Figure 15). (Note that the origin points of all the computer-generated images in this section of this report are shown in Figure 14 and that fences and existing and future vegetation, which will have

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additional screening effects, are not shown in the images). The increase is not considered visually significant, however. At a distance of about 30m, the building facades will not be overbearing. The visual impact of the facade heights above 10.0m will additionally be mitigated by the separation of the built form into two masses (Buildings A and B) and the articulation of the facades.

The top floor of Building C will typically not be apparent from either side of Union Street opposite the proposed development because of the screening effect of Buildings A and B. There are two minor exceptions. Standing on Union Street directly in front of the main entry to the proposal, a small portion of the top floor of Building C will be visible between Buildings A and B. This will occur for a distance of about 17m on the near (south-eastern) footpath and 30m on the opposite (north-western) footpath. From locations on Union Street to the south-west of the site potions of the top floor of Building C will be visible botween Building B and the Grammar School buildings (Figure 16). These are more distant views and seen in a broader context are also considered to be relatively insignificant.

The visual presence of the proposed development from Union Street is related to the fact that there are no buildings on the opposite side of the street. The street feels more open than it would if it wore flanked by buildings on both sides. This is a significant consideration in arriving at an assessment of the acceptability of the fact that the proposal includes some 1.5m of additional height on Union Street. It also relates directly to Council's DCP 2005 statement that height and setback should be configured "in such a way to ensure pedestrians do not feel buildings are overbearing."

National Park, the open space opposite the development, is an active recreation facility with multiple sports fields and courts. The portion of the park opposite the proposal is reserved for active use. It is entirely open and devoid of trees, benchos or other similar elements associated with passive recreation. As demonstrated above, the modest amount of additional height proposed for Buildings A and B has no material impacts on the park and any visual consequences are considered immaterial because the open space is used for sporting activities, rather than passive recreation.

Corlette Street

The facades of Buildings D and E facing Corletto Street are within Council's 10m height limit with a very minor exception of about 300mm at the south-wast end of Building D (Figure 17). Height plane exceedances are generally not an issue on this street. It is also noted that the street facados of these buildings are setback from the Corlette Street boundary approximately 6m.

The top floor of Building C will typically not be apparent from Corlette Street opposite the proposed development because of the screening offoct of Buildings D and E and the school buildings in the foreground (Figure 18). From a point on Corlette Street directly in front of the entry to the project between Buildings D and E there will be minor glimpses of the top floor between these two buildings. To the north-east of the proposal on Corlette Street, the minor extent to which Building D exceeds the 10m height plane will be visible in some views, and there may be glimpses of the top floor of Building C, depending on the extent of vegetation in that view (figure 19). To the south-west, there will be some views of the portions of Building C which exceed 10m (Figure 20), but these are limited in extent.

In summary, in the immediate context of the subject site, visibility of the portions of the proposed buildings which exceed Council's 10m height plane is generally limited to Union Street. The extra height at the top of the third storey is of course visible, but is considered acceptable. There are no neighbours opposite and National Park is not a passive recreation facility. Its sporting uses are not considered sensitive to visual impacts. The top storey on top of Building C will be visible from certain locations on Union Street, but these are glimpses between foreground buildings or vegetation. Broadly speaking, there is no significant additional building C are generally limited to glimpses between foreground buildings or vegetation.

6.2.2 Distant Views

The subject site sits within a broad valley which appears well-vegetated in distant views (Figure 21). The site is located approximately in the centre of this image. The three storey buildings on Parkway Avenue to the south-west of the site (Figure 5) are not visible. It is estimated that the top floor of Building C would also not be apparent in this view, particularly considering the darker exterior colours which are proposed for this element.

Apart from the ridge of land along the coast (from which the above image is taken), the terrain surrounding the proposed development is virtually flat. As a general rule, buildings and tree canopies to a height of about 15m will merge to screen objects up to about that height in views beyond the immediate context. (There may be exceptions to this principle, but they would be rare.) The four storey buildings on Darby Street to the cast of the subject site (Figures 22 and 23) are not generally visible from National Park, for example. With the exception of National Park, it is evident that in views to the site beyond the streets immediately.surrounding it, the proposed development at a maximum height of about 15m, will not be visible.

Another example in the broador context of typical building heights at which the upper floors become visible in distant views is provided by the residential building on the corner of Parry and Union Streets. This building has a height of eight storeys plus plant overrun. Seen from Corlette Street just to the north-east of Tooke Street and the subject site, the first 5 floors are screened by foreground buildings and vegetation (Figure 24).

Because there is little in the way of intervening structures or vegetation between National Park and the subject site, the height exceedances of the proposed development (and indeed most of the portions of the buildings below the 10m height limit) will be visible from the park. However, the coastal ridge to the east of the site ensures that in more distant views from within the park the proposed development will not penetrate the horizon line (Figure 25). By contrast, other buildings visible from the park rise well above the horizon line (Figure 26).

In summary, in more distant views to the subject site, the portions of the proposed buildings above 10m will generally not be visible. The exception is National Park, but this is an active sporting facility and the visibility of portions of proposed buildings exceeding 10m, including an additional storey to Building C, is not considered a significant issue.

6.3 RELATED CONSIDERATIONS

6.3.1 Heritage

A rovised Heritage Impact Statement accompanies this height report. It examines the issue of the proposed development's height in relation to the adjoining heritage procinct in considerable detail.

The subject site abuts the Cooks Hill Heritage Conservation Area to its north-east. Two important considerations need to be borne in mind in assessing the height of the proposed devolopment in relation to the adjoining heritage conservation area:

- Under Council's DCP the proposed development site is within the Substantial Growth Precinct
- Height and setback controls under the DCP allow a building all along the north-east boundary without setback up to a height of 6m and then a further increase in height to 10m with a 4m setback

Because of the screening effect of structures and vegetation, it is effectively only the properties adjoining the site and fronting on to Union or Tooke Streets which need to be considered in terms of the proposed development's height impacts on the heritage precinct. It is noted that the Tooke Street houses have large rear yards, in the order of 15m to 25m deep, and that existing mature trees in this rear yard zone will continue to provide significant screening of the proposed development.

In comparison to the DCP setbacks, the proposed development presents a much less imposing presence to the rear yards of the adjoining dwellings in the horitage precinct:

- Building A is setback from the boundary approximately 5m
- Building C is setback from the boundary 15m for the podium, 17m for Levels 1 and 2, and 25m for the top floor
- Building D is setback from the boundary approximately 5m and 7m

In addition there are significant gaps between the buildings.

Given that the proposed set backs from the north-eastern boundary are significantly more generous than those permitted under Council's DCP, it is considered that, in relation to the adjoining horitage precinct, its 10m height limit is in this case neither necessary nor reasonable.

6.3.2 Hydrology

There is a complex set of hydrological constraints impinging on the subject site. The whole of the site is within a zone designated by Council as a flood storage area. As such, the maximum area of the site which can be "filled" (occupied by structures or increased in ground level by earthworks) is 20 percent. The water table across the site is at RL 1.0m. The estimated probable maximum flood level is RL 4.9m. The minimum floor level for occupiable rooms is RL 3.2m. Finally, any on-site parking which is not within contained structures must be located at or above RL 2.5m, to avoid floating cars becoming a hazard in the ovent of a flood.

It is clear from Council's inclusion of the subject site within its 'Substantial Growth Precinct' and the applicable 0.9:1 FSR that Council envisages a substantial level of development on this site. It is understood that under the hydrological constraints described above and Council's 10m height limit, it would not be possible to achieve the level of development contemplated by Council's precinct and density controls. Given the outcomes of the height analysis in Sections 6.1.and 6.2 above, it is considered unreasonable to limit development on the subject site to a height of 10m.

7.0 CONCLUSION

The proposed Miller Union Development at 121-123 Union Street Cooks Hill exceeds the 10m height limit in Council's applicable planning controls for the site. Council states that the documentation supporting the project's Development Application "has not demonstrated that the 10metre standard is unnecessary or unreasonable in this instance".

Elsewhere, however, Council makes the point that site conditions may require or allow development to be at variance with provisions within the DCP. This report addresses those relevant site conditions. Hydrological issues have major impacts on the site. A development of lesser density could of course resolve the flooding issues and remain beneath the height plane, but it would result in a development that does not properly take advantage of its location close to shops and services and would not promote the important urban consolidation objectives that Council aspires to in this location. Other unacceptable outcomes such as building scale and separation and open space issues would also likely arise. A decision to reduce the scale would clearly be inconsistent with Council's decision to include the subject site within its "Substantial Growth Precinct".

Provided that a development is configured on the site, as is the case here, so that the places where it exceeds Council's height limit do not result in significant adverse impacts on its context, it is considered to be unreasonable to reject the proposal on the basis of sheer non compliance with the numerical height control. A merit consideration of the issue is considered to ostablish that the proposed height (the development is appropriate.

This report documents in detail the reasons why the height of the proposed development is satisfactory. In summary:

- Any potential for overlooking of adjoining properties has been carefully managed and the proposed
 additional height does not increase this potential and does not have any unacceptable impacts
- The proposal causes less overshadowing of neighbours than would a development adopting Council's height and setback controls
- Portions of the proposed development exceeding 10m in height which are visible from the public realm in close proximity to the site are generally limited to Union Street. Their extent is not considered significant given the active recreation uses opposite
- Portions of the proposed development exceeding 10m in height which are visible in more distant views will generally only be seen from National Park. These impacts are considered acceptable given that the park does not comprise passive recreation uses and that the building height will be below the horizon line of the coastal ridae to the east in the majority of views

- The parts of the proposed development which exceed 10m in height do not block any existing views

Council's Urban Design Consultative Group reviewed the current proposal at a meeting on the 16th February 2011. Its subsequent written assessment includes the statement that "The height and scale of the buildings have been modulated both horizontally and vertically with maximum height located at the centre of the site. The group considered the management of scale to be acceptable to the location".

The site is within Council's "Substantial Growth Precinct". Within the context of the proposed development, and given the findings of this report, Council's 10m height limit is considered both unreasonable and unnecessary.

APPENDIX A: ILLUSTRATIONS



Figure 1 The Site and its immediate context

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Figure 2 Corlette Street opposite the site



Figure 3 Tooke Street. The site adjoins the rear yards of these properties



Figure 4 Multi-unit housing on the corner of Parkway Avenue and Corlette Street



Figure 5 Multi-unit housing on the south-west side of Parkway Avenue





Figure 6 The Five Buildings Proposed for the Site

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Figure 7 Mid-winter shadows at 9.00am

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Figure 8 Mid-winter shadows at 10.00am

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Figure 9 Mid-winter shadows at 11.00am

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Figure 10 Mid-winter shadows at Midday

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Figure 12 Mid-winter shadows at 2.00pm

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Figure 13 Mid-winter shadows at 3.00pm

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Figure 14 Origin points of computer-generated views shown in following Figures

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PORTIONS OF BUILDINGS BELOW 10M PORTIONS OF BUILDINGS ABOVE 10M

Figure 15 View from Union Street



Figure 16 View from Union Street



PORTIONS OF BUILDINGS ABOVE 10M





PORTIONS OF BUILDINGS ABOVE 10M

Figure 18 View from Corlotto Street

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PORTIONS OF BUILDINGS ADOVE 10M

Figure 20 View from Corlette Street



Figure 21 View from the obelisk on the coastal ridge to the east of the site. The site is in the approximate middle ground and centre of the photograph.



Figure 22 Building on Darby Street to the east of the site



Figure 23 Building on Darby Street to the east of the site



Figure 24 View to apartment building on the corner of Parry and Union Streets from Corlette Street just north of Tooke Street







Figure 26 View from National Park looking east