

## **APPENDIX I – Urban Design Assessment of Building Heights -Supplementary Report**

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

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## 1.0 INTRODUCTION AND PURPOSE

This report presents a supplementary 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. It has been considered by the Hunter Region Joint Regional Planning Panel which has sought a number of points of clarification. Submissions objecting to the scheme have also been received by Council. This supplementary report addresses various concerns, particularly in relation to certain portions of the buildings which exceed Council's height limit for the site.

## 2.0 THE SITE

The subject site comprises two parcels, Lots 1 and 2 in DP 1050041 and the street address is 121 – 123 Union Street, Cooks Hill. It has a total area of 10,329 square metres. 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. 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 the earlier height report at Appendix B. 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 level 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 physical and visual impacts.

### 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 102 units, being:
  - » 83 one bedroom units ranging from 50sqm to 54sqm
  - » 6 two bedroom units ranging from 80sqm to 90.5sqm
  - » 13 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 the residential flat building containing 115 car parks, 21 visitor car parks and bicycle racks (including at grade parking under Building C which is a flood requirement)
- At grade/semi basement car parking for the boarding house containing 13 car parks, 23 motorcycle parks and 123 bicycle racks/storage

Figure 1 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 described in the earlier height report at Appendix B. It is understood that the development now complies with all of these controls with the exception of the height limit, which is 10.0 metres. (A discussion of how this height is measured is provided in Section 5.0 below.)

Newcastle DCP 2005 allows the height limit to be exceeded where its imposition can be demonstrated to be either unreasonable or unnecessary. The following note from the DCP as it appears on Council's web site is relevant:

*".....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.

## 5.0 ASSESSMENT METHODOLOGY: MEASUREMENT OF HEIGHTS

The question has arisen as to how the 10 metre height limit across the site should be measured, given that a portion in the northeast corner has been previously excavated for the development which currently occupies the site. One option is to measure height as it relates to 10 metre height lines established along each boundary (where on this site excavation has not occurred). This is the standard specified in the SEPP 65 Residential Flat Design Code. The other option which has been suggested is to measure the height above current ground level at any point within the site, which is the approach adopted in Council's DCP 2005.

The project architects have provided a series of Technical Elevations and Sections. The sections show the 10 metre height planes calculated by both of the above methods. The accuracy of these drawings has been independently checked and verified by de Witt Consulting in a letter dated 18 August 2011.

Examination of the architects sections shows that the only area of significant difference between the two methods of establishing the 10 metre height limit occurs in the north eastern corner of the site, where the height limit measured above current ground level (DCP approach) is approximately 1.1 metres below the height limit as measured at the boundary (SEPP 65 RFDC approach). Interestingly, Section B shows that there is a part of the buildings along Union Street where the situation is reversed – the DCP height line is some 0.6 metres above the SEPP 65 line. It is also noted that objectors to the development focus on the extent to which proposed buildings rise above the tops of boundary fences, whose height obviously relates to the ground level at the boundary.

Measuring the height limit at the boundary is the approach adopted in this report and the original height report at Appendix B. In examining the impacts of the proposed development on its neighbours, heights at the boundary are considered more relevant. It is noted however that wherever the height line is drawn, the proposed building heights in terms of Reduced Levels remain the same and the proposed buildings bear the same relationship to their neighbours regardless of the location of the height line.



## 6.0 ASSESSMENT OF PROPOSED HEIGHT INCREASES

The following assessment, which should be read in conjunction with the original height assessment report at Appendix B, addresses two principles identified in Land and Environment Court cases:

Are the proposal's physical impacts on surrounding development acceptable? The physical impacts include constraints on the development potential of surrounding sites

Is the proposal's appearance in harmony with the buildings around it and the character of the street?

The first principle relates to the "material" impacts – overlooking and overshadowing – assessed in the earlier height report. 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 some degree of overshadowing of the neighbour to the southwest under Council's controls. The test in the first principle above is not whether overlooking and overshadowing occur, but whether such impacts are acceptable.

The second principle relates to the visual impacts which were also assessed in the earlier report. Visual impacts relate to the way the development will be seen from surrounding areas and generally focus on impacts from the public realm. The degree to which visual impacts are increased by that part of the proposed development which exceeds Council's height limit are part of this test, but it is the appearance of the development as a whole and whether it achieves harmony with its neighbours and street character which are the key considerations.

### 6.1 PHYSICAL IMPACTS: OVERLOOKING AND OVERSHADOWING

#### 6.1.1 Corlette Street

The extent to which the development exceeds the 10 metre height limit on this frontage is minimal – a maximum of 0.5 metres for Building D and no exceedance for Building E. Both buildings are setback 5.5 metres from the Corlette Street boundary. DCP 2005 does not specify a front setback dimension, but for buildings in the Substantial Growth Precinct 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 proposed 5.5 metre front setback with deep soil landscaping meets this standard.

The fact that a significant number of the units in these buildings overlook Corlette Street is considered an advantage in terms of safety and security.

Mid-winter shadow impacts on Corlette Street 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. There are generally no significant overshadowing impacts on neighbouring properties on Corlette Street.

As noted in the original height report, a complying development closer to the Corlette Street boundary would have greater shadow impacts on the street and properties opposite.

Considering both overlooking and over shadowing, the proposal's physical impacts on surrounding development on Corlette Street are clearly acceptable.

### 6.1.2 Union Street

The extent to which the development exceeds the 10 metre height limit on this frontage ranges from 1.35 to 1.5 metres. Buildings A and B facing Union Street are setback 7.0 metres from the street boundary. All of the setback zone is available for deep soil planting. Again, the setback and its treatment are sufficient to meet the DCP setback standard.

A significant number of the units in these buildings overlook Union Street and National Park beyond. Overlooking from the development will make a useful contribution to the safety and security of these public places.

There is no overshadowing of Union Street between 9.00am and 3.00pm in Midwinter.

Considering both overlooking and over shadowing, the proposal's physical impacts on Union Street and National Park are clearly acceptable.

### 6.1.3 Northeast Boundary

The north-eastern boundary of the site adjoins the side and rear yards of single story detached houses with pitched roofs which front Tooke Street or Union Street. These dwellings are within the Cooks Hill Heritage Conservation Area. The extent to which the development exceeds the 10 metre height limit on this frontage ranges from 0.0 to 1.5 metres. Building A is setback 8.5 metres from the boundary, Building C 15.0 metres and Building D 6.2 and 5.2 metres.

Overlooking across the northeast boundary has been carefully managed, with a majority of units looking parallel to the boundary, either across Union Street or into the development. In Building A, only two units (202 and 302) look across the boundary, but they look onto the side wall and roof of the nearest dwelling fronting Union Street. In Building C, 4 units (223, 224, 318 and 319) look to the neighbours, but these units are 15 metres from the boundary. In Building D, 6 units look across the boundary, but they overlook garages on the boundary, with only a portion of the rear yard of the dwelling on the corner of Corlette and Took Streets overlooked. In all cases where overlooking occurs, the proposed development responds to its neighbour through attention to the sensitivity of the affected area, appropriate setbacks, landscaping and screening.

In considering the relationship between the proposed development and its neighbours, it is important to consider potential development under Council's controls in comparison to what is proposed. The minimum side setback under DCP 2005 in the Substantial Growth Precinct in the Urban Housing section of the DCP is shown in comparison to the proposal's setbacks in Figures 2, 3 and 4. In each of these diagrams, the building envelope permitted under Council's DCP 2005 is the area coloured orange under a black dashed line. In summary:

- Building A (Figure 2) is setback 8.6 metres, more than twice the DCP requirement for a 4 metre setback above 6.0 metres
- Building C (Figure 3) is setback 17.2 metres, more than four times the DCP requirement
- Building D (Figure 4) is setback 5.1 metres and 6.2 metres, also in excess of the DCP requirement

(It is noted that a side setback distance of 6.0 metres may be inferred from the SEPP 65 Residential Flat Design Code, but this assumes that a 6.0 metre setback is also provided on the adjoining lot, whereas the actual setbacks of the neighbouring dwellings are well in excess of this dimension.)

It is clearly apparent that a development complying with Council's height and setback controls would have significantly greater impacts in terms of overlooking of the neighbours immediately to the northeast.

There is no overshadowing of the adjoining properties along the northeast boundary between 9.00am and 3.00pm in Midwinter.

Considering both overlooking and over shadowing, the proposal's physical impacts on surrounding development are deemed acceptable.

#### 6.1.4 Southwest Boundary

The south-western boundary of the site adjoins Newcastle Grammar School. The extent to which the development exceeds the 10 metre height limit on this frontage ranges from 0.2 to 2.4 metres. Building B is setback 6.3 metres from the boundary, Building C 8.5 metres and Building E 8.1 metres.

Overlooking across the southwest boundary has also been carefully managed, with a majority of units again looking parallel to the boundary, either across Union Street or into the development. In Building B, only two units (220 and 221) look across the boundary, but they are double height apartments with only a single bedroom on the top floor and no balcony. In Building C the same situation applies (Units 236 and 237). In Building E, 8 units look across the boundary, but they overlook play areas with permanent shade cloth canopies above, which prevent viewing from the proposed development. These units also overlook a one storey class room building, but it in turn looks to Corlette Street and into the school site, rather than to the side boundary. In all cases where overlooking occurs, the proposed development responds to its neighbour through attention to the sensitivity of the affected area, appropriate setbacks, landscaping and screening.

The proposed development results in overshadowing of a small portion of the school site in Midwinter. Full documentation of overshadowing is provided in the original height report at Appendix B which shows shadows cast at hourly intervals. Figure 5 shows the extent of overshadowing at Midday, when school children are likely to be outdoors. The areas of the school which are overshadowed are peripheral spaces or already covered with shade cloth.

It is useful to examine the actual shadows cast by the proposal with those cast by a development complying with the DCP 2005 side setbacks cited above (Figure 5). In this diagram, shadows cast by the proposed development are shown in dark grey. Those cast by a similar development which extends further south-west towards the school, but is within Council's height and setback controls, are shown in orange. It is clear that a development which was built to Council's envelope controls would cause greater overshadowing than the proposal, notwithstanding the fact that it exceeds the 10 metre height limit along this boundary.

Considering both overlooking and over shadowing, the proposal's physical impacts on surrounding development are deemed acceptable.

#### 6.1.5 Summary of Physical Impacts

With reference to the first Land and Environment Court principle cited at the beginning of Section 6.0 above, the foregoing detailed analysis confirms that the proposed development's physical impacts on surrounding development are acceptable.



## 6.2 VISUAL IMPACTS

### 6.2.1 Corlette Street

The extent to which the development exceeds the 10 metre height limit on this frontage is minimal – a maximum of 0.5 metres for Building D and no exceedance for Building E. There are therefore no visual impacts resulting from non-complying heights on Corlette Street. Both buildings are setback 5.5 metres from the Corlette Street boundary and the setback zone is deep soil, allowing for substantial low-maintenance planting.

The two buildings facing Corlette Street are separated by a gap of 6.1 metres. Building E has a deep recess 7 metres wide at about its midpoint. This massing reduces the scale of the development and is complemented by facade modulation using a variety of shading and screening devices and a related diverse palette of finishes and colours. The overall result is a well-mannered presentation to Corlette Street. Whilst the scale of the proposal is different to that of the buildings around it, it is considered to be in harmony with them and the character of the street.

### 6.2.2 Union Street

The facades of Buildings A and B facing Union Street extend beyond Council's 10m height limit by between 1.35 and 1.5 metres. They are setback 7.0 metres from the street boundary. The DCP controls do not specify a numerical setback. Instead they require 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." All of the setback zone is available for deep soil planting.

From the Union Street footpath adjoining the site, the visual impact of the portions of the facades which exceed 10.0m will be negligible because of the relatively steep upward angle of view. The front setback is of more importance to the perception of bulk at this location. At 7.0 metres this setback will be more than enough to achieve the DCP intention. Buildings within the 10 metre height plane but closer to the street would have a greater visual impact.

From the footpath on the opposite side of Union Street, the additional facade height will be apparent. The increased extent of the facades is not considered visually significant, however. At a distance of about 30m, the building facades would not be overbearing, whether they are at a height of 10.0 or 11.5 metres. 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) separated by a distance of 12 metres and the substantial articulation of the facades, with two balcony zones and deep recesses in Building B. The scale of Building A has been deliberately limited to improve its relationship to the neighbouring dwellings in the Heritage Conservation Area.

The visual impact of the additional Union Street facade height from National Park is also considered negligible. The part of National Park opposite the development is an active recreation facility with multiple sports fields and courts. It is entirely open and devoid of trees, benches or other similar elements associated with passive recreation. Any visual consequences resulting from the modest amount of additional height proposed for Buildings A and B are considered immaterial because the open space is used for sporting activities, rather than passive recreation. Even if passive recreation facilities were to be introduced to this part of the park they would undoubtedly include additional tree plantings and the proposed development would have no significant adverse impacts.

Objectors to the proposed development have prepared a photomontage which purports to show the proposal in its context as seen from National Park. There is reason to be concerned that this image does not accurately reflect either the existing context or the proposal. The row of trees along the edge of National Park adjacent to Union Street is not shown and there is no background vegetation taller than the single storey houses in the Conservation Area between the proposal and Tooke street. The top floor of the development is shown as white against a grey background, which increases its visual prominence. In addition, the hill and ridgeline in the background are cut out of the montage, which further exaggerates the visual impact of the proposal.

### 6.2.3 Northeast Boundary

The extent to which the development exceeds the 10 metre height limit on this frontage ranges from 0.0 to 1.5 metres. Building A is setback 8.5 metres from the boundary, Building C 15.0 metres and Building D 6.2 and 5.2 metres. These setbacks are well in excess of Council's minimum requirement and help to reduce the visual presence of the development as seen by its neighbours. Views to Buildings A and D from the rear yards of the adjoining dwellings are partially blocked by either the dwellings fronting Union Street (Building A) or rear yard garages (Building D). Building C has the greatest potential for visual impacts, but it is set back 15 metres from the side boundary. Visual impacts along this boundary are considered acceptable.

The relationship between the proposal and the existing dwellings to the northeast is primarily determined by the massing of the development. Three relatively short building ends face the boundary with gaps of approximately 9 metres between them. Facade articulation and a diverse range of materials, finishes and colours are used to reduce the perceived scale of the development. Although the scale of the proposal is different to that of its neighbours, it is considered to be in harmony with them.

### 6.2.4 Southwest Boundary

Because the school occupies a large site and views from its buildings and grounds to the proposed development will generally be limited to certain areas in close proximity to the boundary, visual impacts on the school are considered to be of lesser concern. The extent to which the proposed development exceeds the 10 metre height limit on this frontage ranges from 0.2 to 2.4 metres. Building B exceeds the height limit by 1.5 metres and is set back 6.4 metres from the boundary. Building C is between 2.1 and 2.4 metres above the height limit and is set back 8.6 metres. Building E has a minor height exceedance and is setback 8.1 metres.

Although Building C has the greatest potential for visual impacts on the school, its proximity to the school's administration building and a covered play area constrain views to the proposal from these locations.

Massing and architectural strategies similar to those employed along the north east boundary are adopted here to reduce the perceived scale of the development. It is considered to be in harmony with the school.

### 6.2.5 Additional Floor to Building C

Building C contains an additional floor of apartments. This floor is located above the 10 metre height limit, but its visibility is constrained by its location in the centre of the site.

From Corlette Street, the top floor of Building C will typically not be apparent opposite the proposed development because of the screening effect of Buildings D and E and the school buildings in the foreground. Figure 6 shows that in addition the top floor will also not be visible from the upper floor of the two storey residences on the other side of the street. There will be glimpses of the extra floor between Buildings D and E and at some points on Corlette Street.

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 (Figure 6). 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. From locations on Union Street to the south-west of the site portions of the top floor of Building C will be visible between Building B and the Grammar School buildings. These are more distant views and seen in a broader context are considered to be relatively insignificant.

Figure 6 also shows that the top floor on Building C will only begin to be visible from points more than 80 metres into National Park. An observer would have to be at twice that distance to see a significant portion of the top floor facade.

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. The four storey buildings on Darby Street to the east of the subject site 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. National Park is primarily 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.

#### **6.2.6 Summary of Visual Impacts**

With reference to the second Land and Environment Court principle cited at the beginning of Section 6.0 above, the foregoing detailed analysis confirms that the proposal's appearance is in harmony with the buildings around it and the character of its surrounding streets.

## 7.0 CONCLUSION

This supplementary report provides further analysis of the heights of buildings in the proposed development and the potential impacts resulting from buildings which exceed the 10.0 metre height limit applicable to the site.

Council's planning instruments allow the height control to be exceeded where it can be shown that compliance with the control is unreasonable or unnecessary. Hydrological constraints play a major role in the design of the proposed development, imposing a minimum RL for habitable floors and a maximum area of the site which can be built on. These limitations tend to drive the buildings upwards. A development of lesser density and/or lesser setbacks from its neighbours (as permitted under Council's controls) could resolve the flooding issues and remain beneath the height plane, but it would either not realise the full potential of the site or increase impacts on the neighbours. It would be *unreasonable* to require strict compliance with the height control under these circumstances.

The analysis in this report and the earlier height report demonstrates that the design of the proposal is such that it is also *unnecessary* to comply with Council's height limit, because the buildings which exceed the height limit do not result in significant adverse impacts, either physical or visual:

- Any potential for overlooking of adjoining properties has been carefully managed and the proposed additional height does not significantly increase this potential and does not have any unacceptable impacts. The overlooking of Union and Corlette Streets and Union Park is considered advantageous in terms of safety and security
- 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 in the vicinity of the proposed development and that the building height will be below the horizon line of the coastal ridge 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

The analysis provided in this report also addresses two principles identified in Land and Environment Court cases:

Are the proposal's physical impacts on surrounding development acceptable? The physical impacts include constraints on the development potential of surrounding sites

Is the proposal's appearance in harmony with the buildings around it and the character of the street?

The first principle, which relates to overlooking and over shadowing, is satisfied by the proposed design.

The second principle incorporates visual impacts, which have also been shown in this report to be acceptable.

In summary, the proposed development provides the FSR permitted under the applicable planning instruments, which is appropriate for a development within Council's highest-density residential zone and with excellent access to transport, shops and services. The proposed built form has been configured so as to ensure that there are no significant adverse impacts on neighbours and the project's wider context. In order to achieve this, the height limit applicable to the site is exceeded. Given the lack of adverse impacts, this outcome is assessed on its merits to be acceptable and appropriate.



## APPENDIX A: FIGURES

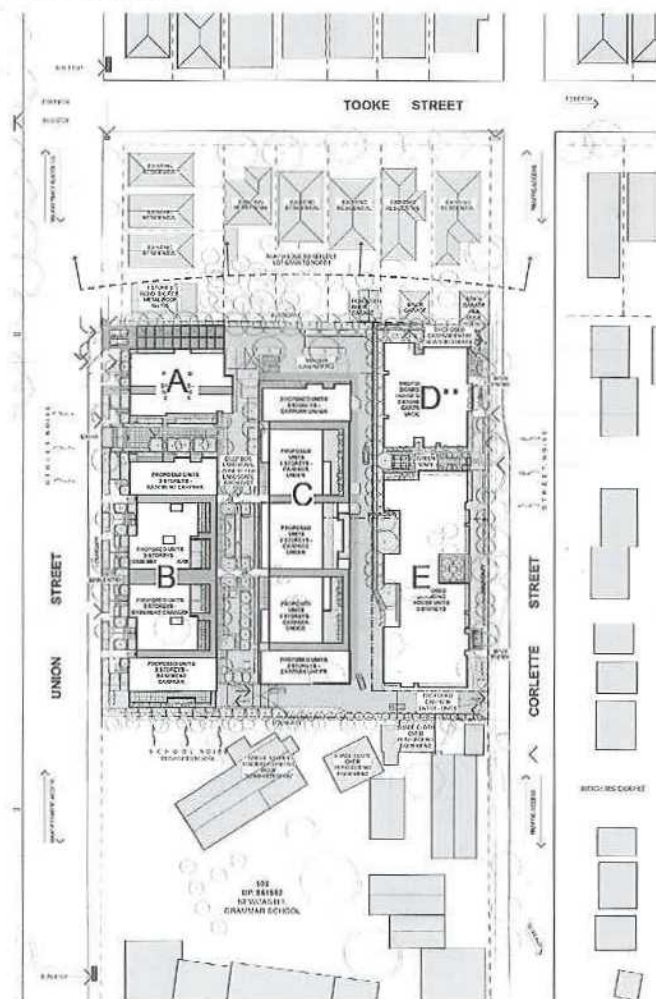


Figure 1 The Five Buildings Proposed for the Site



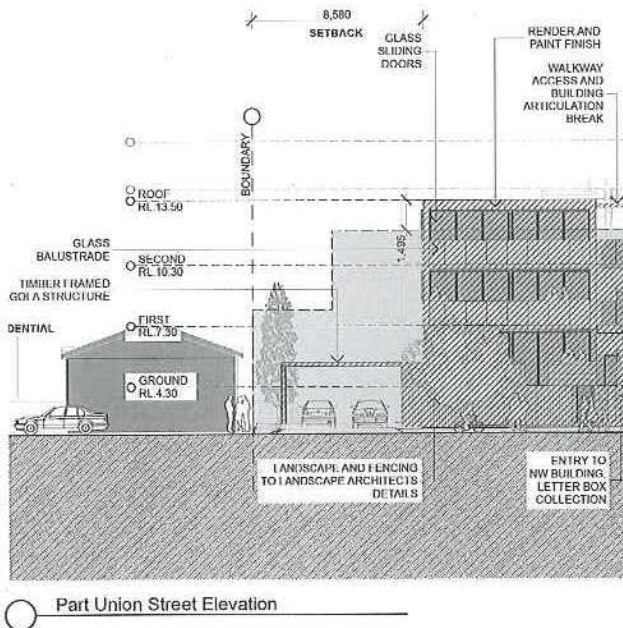


Figure 2 Building Side Setbacks at Union Street (Orange area defines DCP height and setback controls)

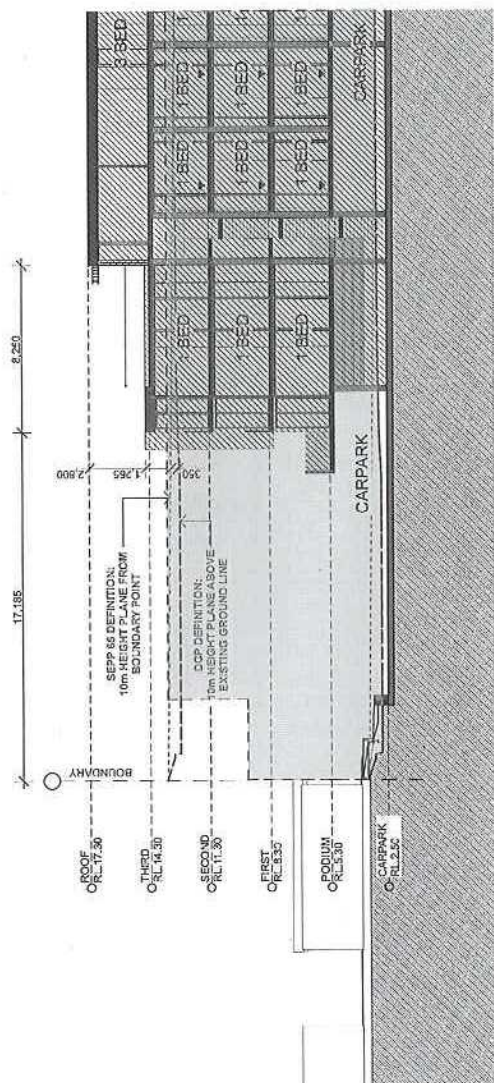


Figure 3 Building Side Setbacks at north end of Building C

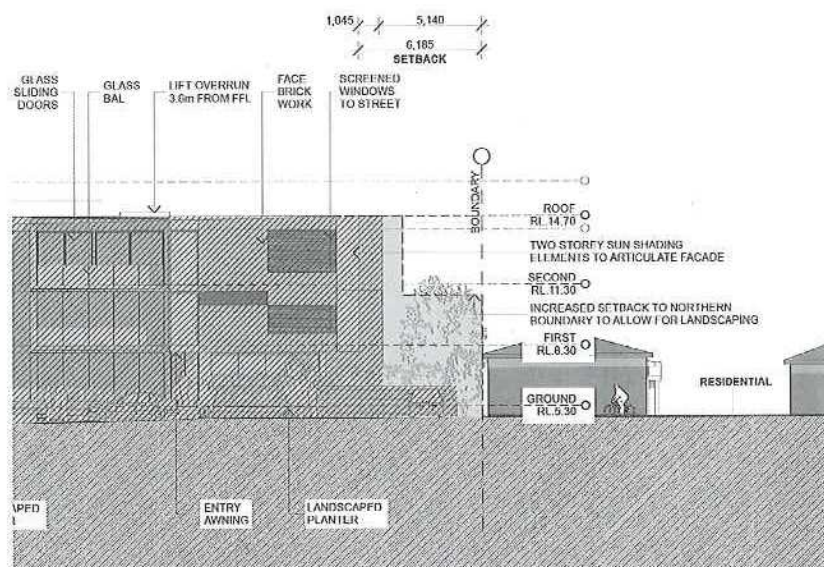


Figure 4 Building Side Setbacks at Corlette Street

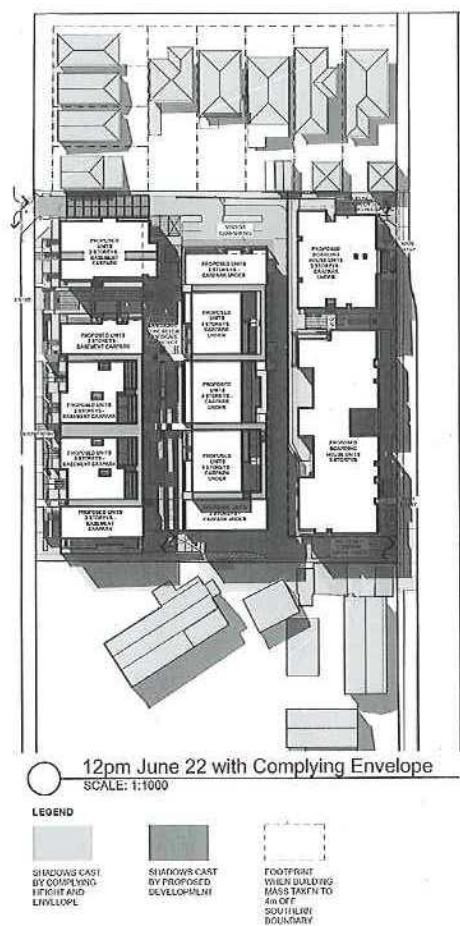


Figure 5 Mid-winter shadows at Midday



Figure 6 Section through context (Union Street and National Park to left, Corlette Street to right)

## APPENDIX B: URBAN DESIGN ASSESSMENT OF BUILDING HEIGHTS (ISSUE B)

# MILLER UNION DEVELOPMENT

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

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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 Street 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 roofs. 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 50sqm 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 setbacks 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.

## 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 some 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 established 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 penetrate 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 overshadowing 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.

Whilst 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 negligible 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 intervals between 9.00am and 3.00pm in mid-winter. Shadows cast by the proposed development are shown in dark grey. Those cast by a similar development which extends further south-west 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.)



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 adverse 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 level 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 noticeable. 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



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 portions of the top floor of Building C will be visible between 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 were 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, benches 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 Corlette Street are within Council's 10m height limit with a very minor exception of about 300mm at the south-west end of Building D (Figure 17). Height plane excursions are generally not an issue on this street. It is also noted that the street facades 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 effect 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 height above 10m visible from Corlette Street. Views of the top storey element of 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 east 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 broader 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 revised Heritage Impact Statement accompanies this height report. It examines the issue of the proposed development's height in relation to the adjoining heritage precinct 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 development 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 heritage 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 heritage 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 event 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 establish that the proposed height of 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 ridge 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

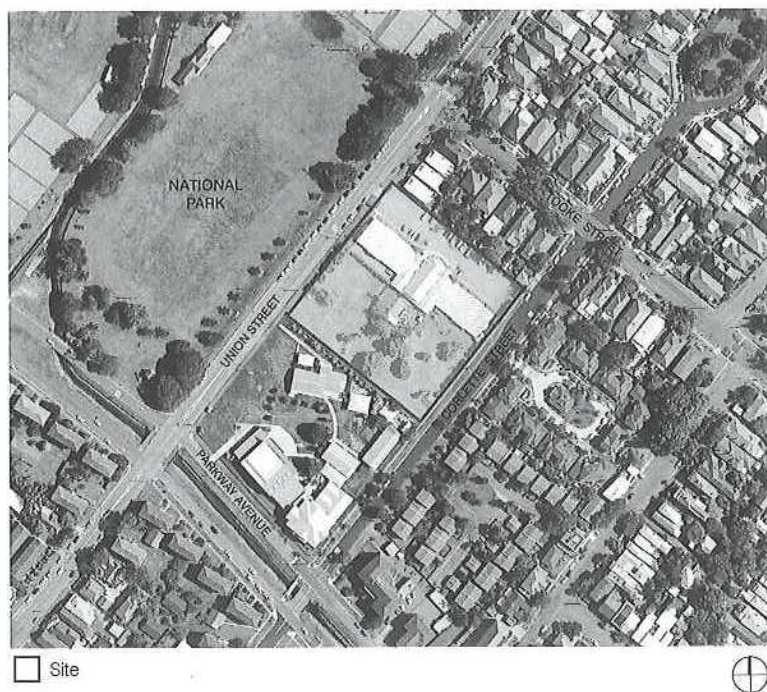


Figure 1 The Site and its immediate context



Figure 2 Corletto Street opposite the site

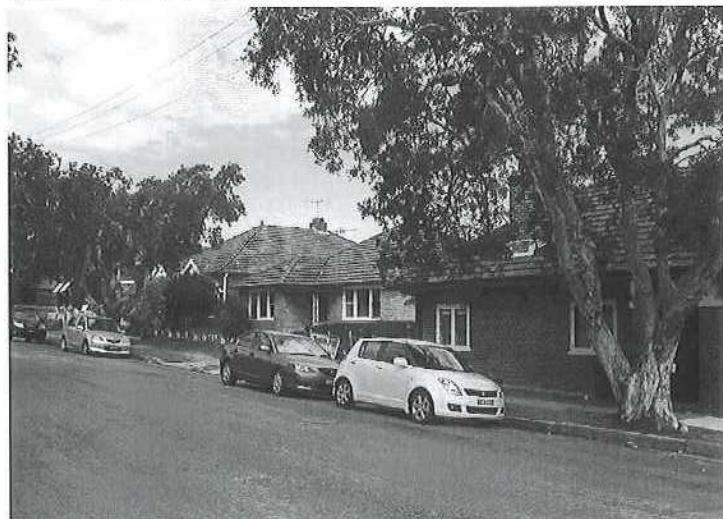


Figure 3 Tooke Street. The site adjoins the rear yards of these properties



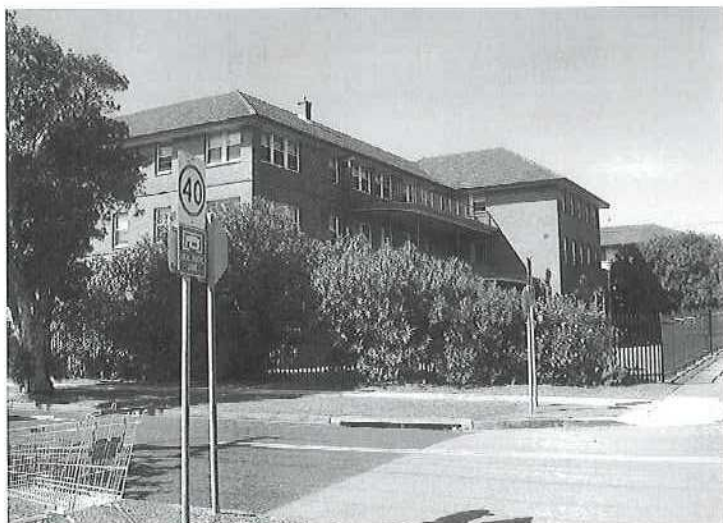
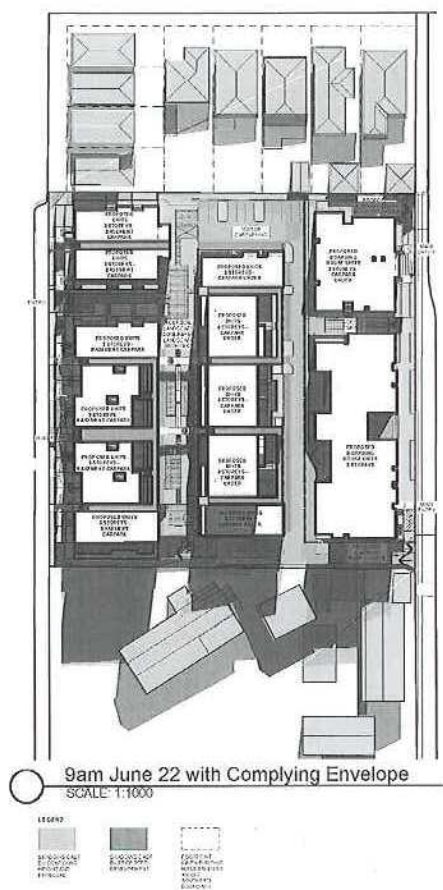


Figure 4 Multi-unit housing on the corner of Parkway Avenue and Corlette Street



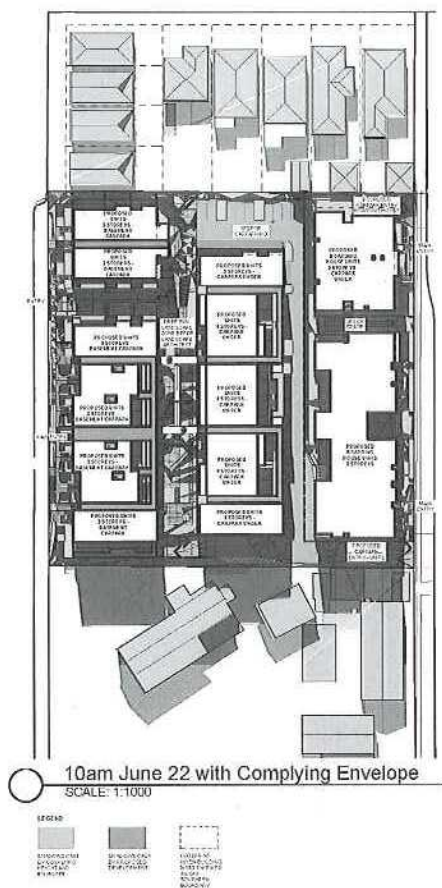
Figure 5 Multi-unit housing on the south-west side of Parkway Avenue





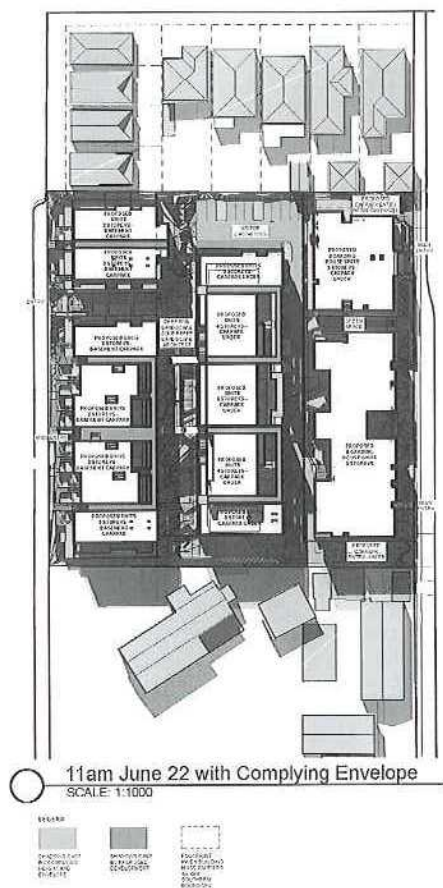
CKDS ARCHITECTURE

Figure 7 Mid-winter shadows at 9:00am



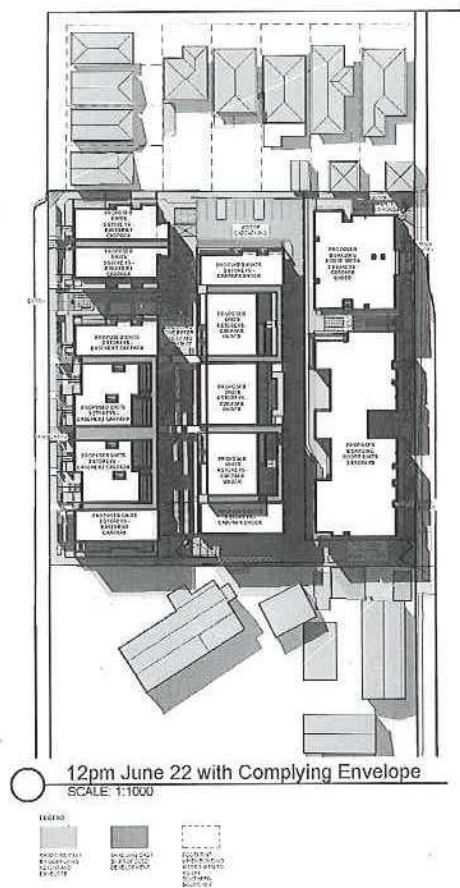
CKDS ARCHITECTURE

Figure 8 Mid-winter shadows at 10.00am



CKOS ARCHITECTURE

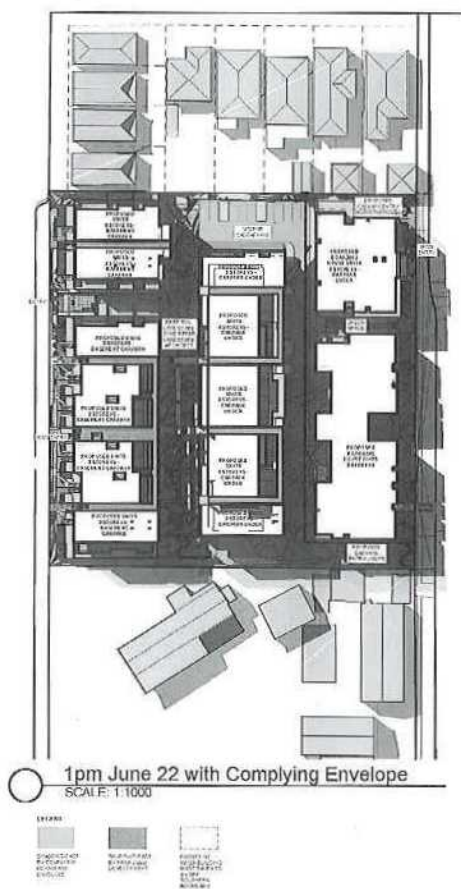
Figure 9 Mid-winter shadows at 11.00am



**CKDS** ARCHITECTURE

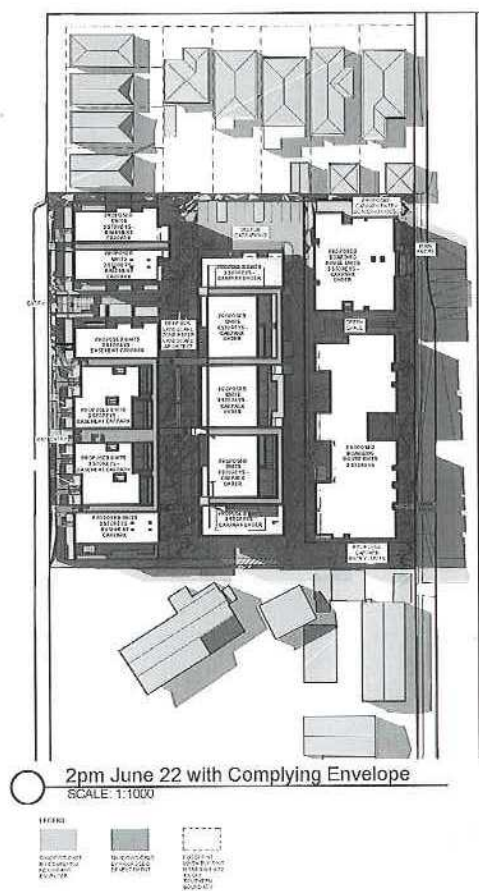
Figure 10 Mid-winter shadows at Midday





CKDS ARCHITECTURE

Figure 11 Mid-winter shadows at 1.00pm

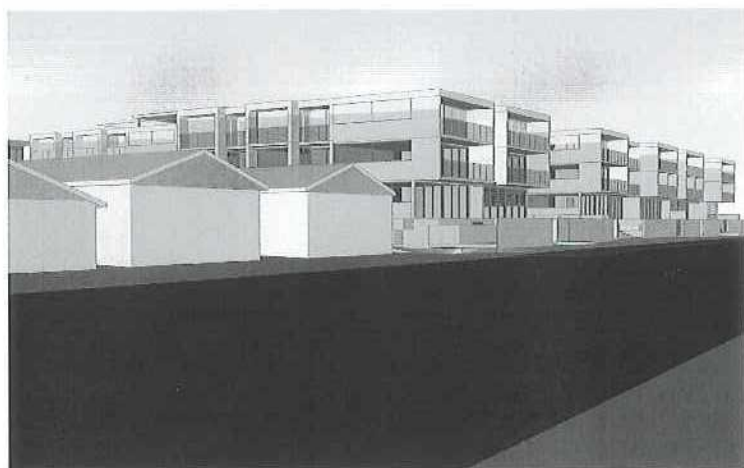


CKDS ARCHITECTURE

Figure 12 Mid-winter shadows at 2.00pm

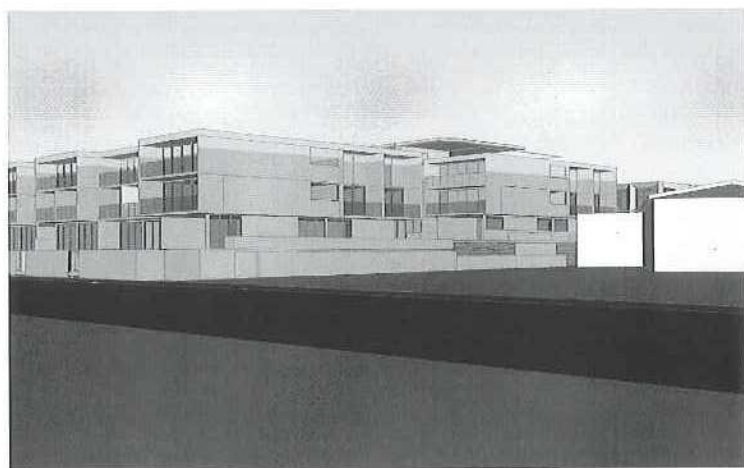






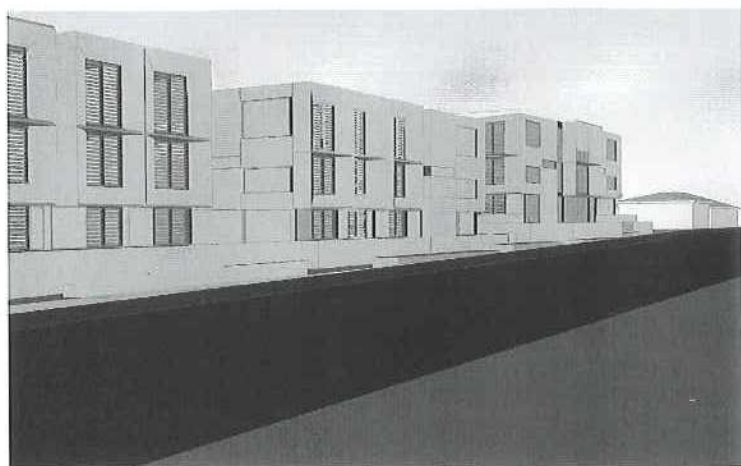
■ PORTIONS OF BUILDINGS BELOW 10M  
 ■ PORTIONS OF BUILDINGS ABOVE 10M

Figure 15 View from Union Street



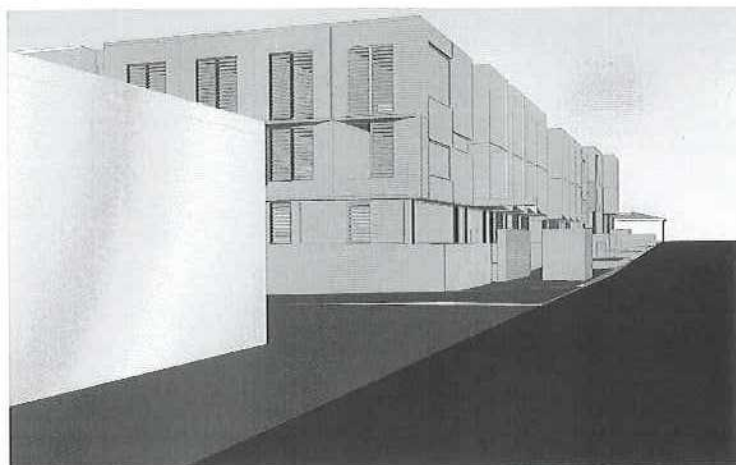
■ PORTIONS OF BUILDINGS BELOW 10M  
 ■ PORTIONS OF BUILDINGS ABOVE 10M

Figure 16 View from Union Street



■ PORTIONS OF BUILDINGS BELOW 10M  
 □ PORTIONS OF BUILDINGS ABOVE 10M

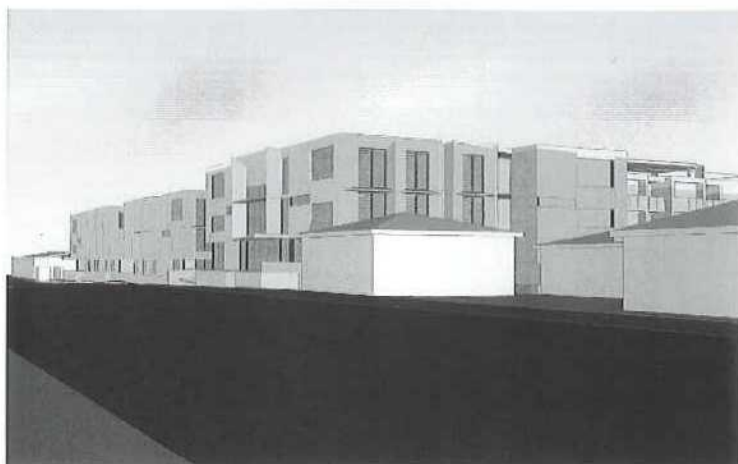
Figure 17 View from Corlette Street



■ PORTIONS OF BUILDINGS BELOW 10M  
 □ PORTIONS OF BUILDINGS ABOVE 10M

Figure 18 View from Corlette Street







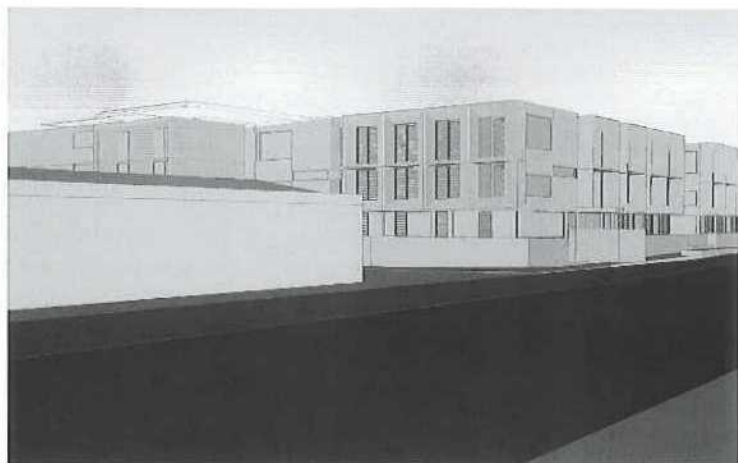
 PORTIONS OF BUILDINGS BELOW 10M  
 PORTIONS OF BUILDINGS ABOVE 10M

Figure 19 View from Corlette Street





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

Figure 20 View from Corlette Street

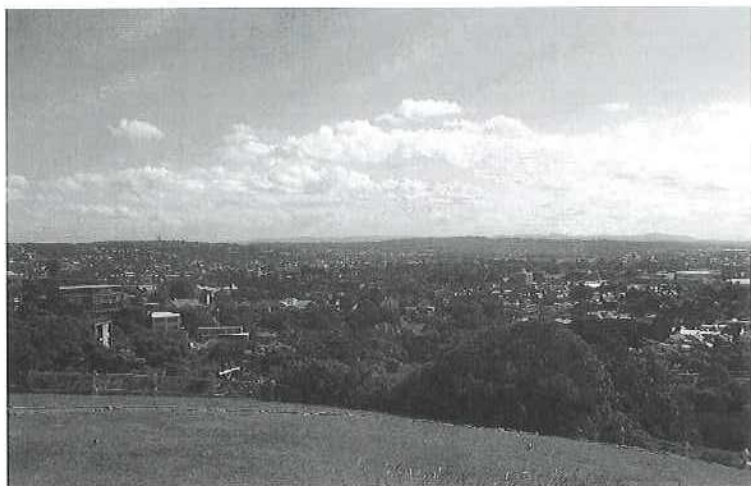


Figure 21 View from the obelisk on the coastal ridge to the east of the site. The site is in the approximate middle ground and centre of the photograph.



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

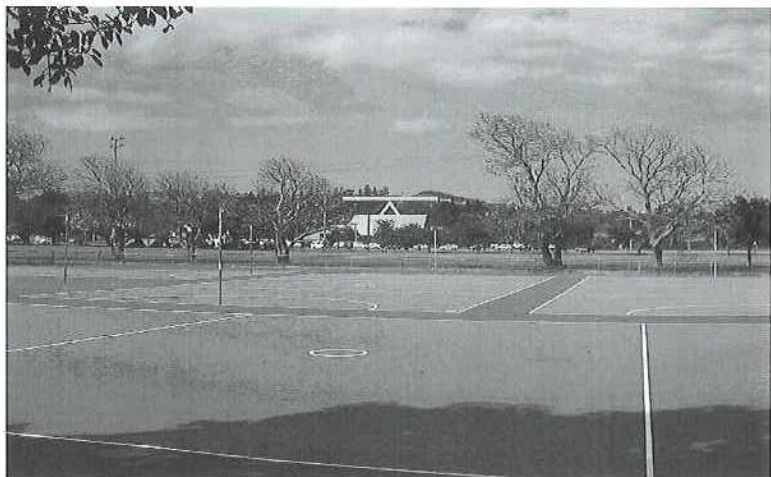


Figure 25 The subject site viewed from National Park. The light coloured roof in the centre of the image is the existing building on the site. The ridge of the roof is estimated to be approximately 3 storeys high. The yellow horizontal line above it indicates the approximate maximum height of the proposed development.



Figure 26 View from National Park looking east