
PART 3A MAJOR PROJECT APPLICATION SUBMISSION BY KU-RING-GAI COUNCIL

SUMMARY SHEET

PROPOSAL:	132 - 138 Killeaton Street, St Ives – Erection of 5 x 5 storey residential flat buildings containing 298 units, basement carparking, adaptive re-use of existing monastery building for communal facilities, landscape works, strata subdivision and staged construction/occupation
WARD:	St Ives
APPLICATION N^o:	MP 10_0057
SUBJECT LAND:	132 to 138 Killeaton Street, St Ives
APPLICANT:	Karimbla Properties (No.4) Pty Ltd – Meriton
OWNER:	Dasmin Pty Ltd
DESIGNER:	Meriton Apartments Pty Ltd
PRESENT USE:	Vacant, former monastery building
ZONING:	R4 Residential
HERITAGE:	No
PERMISSIBLE UNDER:	Ku-ring-gai LEP (Town Centres) 2010
COUNCIL'S POLICIES APPLICABLE:	Ku-ring-gai LEP (Town Centres) 2010 Ku-ring-gai DCP (Town Centres) 2010 Ku-ring-gai Section 94 – Development Contribution Plan 2004 – 2009 Residential Development (Amendment 2) Ku-ring-gai Town Centres Development Contributions Plan 2008
GOVERNMENT POLICIES APPLICABLE:	NSW State Plan 2010 Draft North Subregional Strategy Metropolitan transport Plan 2010, Integrating Land Use and Transport – A Planning Policy Package 2001 and Planning Guidelines for Walking and Cycling 2004 SEPP 6 – Number of storeys in a building SEPP 55 – Remediation of land SEPP 65 – Design quality of residential flat development SEPP (BASIX) 2004 SEPP (Sydney Harbour Catchment) 2005 SEPP (Major Development) 2005 SEPP (Infrastructure) 2007 Threatened Species Conservation Act 1995(TSC Act) Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)
DGR'S ISSUED:	14 May 2010
EXHIBITION PERIOD:	1 September 2010 - 1 October 2010

KEY ISSUES

1. Built form and urban design

- Surrounding context dominated by large open institution/education premises characterised by generous landscaped settings and low scale built forms. The proposal must respond and contribute to its context by preserving and enhancing the existing open, treed character and significant view corridors through the site, from both Killeaton and College streets as well as from surrounding sites. The monastery building should be considered as a key element on the site to promote its use and create a strong community focal point for the development. The proposed scheme does not satisfactorily respond to this context and achieve the objectives above.
- Recommend re-configured buildings and spaces to retain/reinforce the north-south and east-west view corridors through frequent, generous visual breaks between buildings. Refer Key Issue 1 for site configuration recommendations.
- Site configuration should also be reworked to mark the importance of the monastery building and the space around it by allowing visual and physical links with all parts of the site as well as avoiding intrusion into the former cloister space.
- Basement car park design: single level carpark covers extensive area and significantly reduces opportunities for deep soil landscaping, safety issues also raised
- Vehicular entry off Killeaton street: compromises significant view corridors to the monastery building and creates conflicts with pedestrian movement
- Impact on interface sites: need for greater setback at the upper levels of the buildings adjacent to east side boundary
- Building façade design

2. Height

- Excessive building height (>17.5m), elevation of the basement above existing ground level (>1m), excessive fill on a flat site

3. Deep soil, landscaping and open space

- Non-compliance with deep soil landscaping requirement (proposing <30%, @40% variation)
- Unsatisfactory tree planting and screening to the side boundaries of the site
- No tall tree planting incorporated as part of the communal open space areas due to extent of basement carpark (only one level)
- Inadequate soil depth over carpark for podium planting
- Tree impacts to row of Brush Box (adjacent to east side boundary) due to concrete wall associated with stormwater works and overland flow

4. Environmental and residential amenity

- Failure to satisfy solar access requirements (at least 70% of unites required to receive 3 hrs to bedrooms and living areas between 9am – 3pm mid winter, only 62% proposed)
- Poor provision of deep soil landscaping on the site to provide tall tree planting to the surrounds of the building and within communal open space areas
- Insufficient private open space to multiple units (balconies undersized in area and dimension)
- Multiple units with bedrooms inadequate in dimension

- Undersized studio apartments
- Provision of only one lift per building to an excessive number of units per floor (13 – 17 units per floor)

5. Carparking, transport and accessibility

- Non-compliance with minimum carparking requirements, shortfall of 44 visitor parking spaces and over-supply of residential spaces
- Basement not dimensioned to assess against relevant AS requirements (parking spaces and aisle dimensions)
- Inappropriate location of driveway access in relation to sight distance
- Unsatisfactory construction management plan

6. Waste management

- Non-compliance with Council's minimum waste management requirements in relation to number of bins and associated garbage storage
- Method of waste management non-compliant with Council's Town Centres DCP
- Plans fail to demonstrate satisfactory truck access to the basement for collection

7. Threatened species

- Landscape plan fails to identify 46 locally occurring STIF canopy trees required as part of amelioration measures, replacement planting and offsetting impacts to STIF community
- Provision of tall tree planting difficult to achieve due to lack of deep soil landscaping

8. Drainage and stormwater management

- Poor/unclear drainage plans provided for assessment
- Proposed concrete wall associated with overland flow results in adverse tree impacts to the row of Brush Box trees to be retained
- Unsatisfactory overland flow design
- Uncertainty regarding number of rainwater tanks
- Conflicts between staged construction and implementation of BASIX water management requirements
- Inaccurate stormwater detention calculations and design does not comply with Council's DCP, no certification or MUSIC modelling submitted
- No details of subsoil drainage and pump-out arrangements
- Insufficient information regarding the capacity and condition of the inter-allotment drainage easements through the downstream properties, basement subsoil drainage and water quality measures.

9. Construction management

- Documentation does not indicate how construction of the development is to be staged, including pedestrian and vehicular access to Buildings D and E during construction of Buildings A, B and C, waste collection from Buildings D and E or water management for Buildings D and E.
- No details provided of subsoil and basement pump-out system (the single driveway entrance to the large basement footprint means that floor of subsoil may significantly exceed the driveway run-off)

HISTORY

Site history:

During the 1830's the site was part of a 40 acres land grant which was given the name of 'Macquarie Farm'. In the 1880's an orchard was established on the site with a farmhouse and farm shed (Nancarrow Farmhouse). During the 1930's, the Passionist Fathers, an order of the Catholic Church, bought the property and built a two storey monastery building towards the centre of the site. During the 1970's, the site was subdivided and Masada College was built. The farmhouse was destroyed in a fire during the 1980s. The farm shed remains at the south-west corner of the site.

Zoning history:

Pre 28 May 2004	The site was previously zoned 'Special Uses A – Seminary' under the KPSO
28 May 2004	On 28 May 2004, Local Environmental Plan 194 was gazetted, rezoning the site to Residential 2(d3) which permits five storey residential flat development
25 May 2010	On 25 May 2010, the Ku-ring-gai Local Environmental Plan (Town Centres) 2010 was gazetted by NSW Government. The site is located within the Town Centres LEP and is zoned R4 High density Residential.

Development application history:

DA 809/01 (SEPP5 development)

29 June 2001	Development application 809/01 submitted for 86 unit SEPP5 development and restoration of the existing monastery building. A Class 1 appeal (deemed refusal) was lodged December 2001.
27 May 2002	Senior Commissioner Dr Roseth upheld the appeal and approved DA809/01 (83 units as amended), subject to deferred commencement consent.

DA809/01A

14 October 2003	Council approved modification to development consent No.809/01A for an additional unit (84 units in total), reduction in carparking and other amendments. In accordance with DA809/01, demolition works involving partial demolition of the former monastery building have commenced on the site. No construction works have commenced to date.
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DA1253/06

16 October 2007	Council at its ordinary meeting, approved DA 1253/06 for adaptive re-use of former monastery building to accommodate 3 dwellings, site office and gymnasium, erection of 9 x 5 storey residential flat buildings
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accommodating 188 dwellings, basement carparking, landscaping and associated site works (total of 191 units).

29 February 2009 A Section 95A request for extension of term of development consent approved. The new date of lapsing of consent DA1253/06 is 7 November 2010.

MP 10_0057 (subject Part 3A Major Project Application)

16 April 2010 Department of Planning provided written confirmation that the proposed development is considered a Part 3A Application

14 May 2010 Director General Requirements (DGR's) issued

1 Sept – 1 Oct 2010 Exhibition period of the development

THE SITE AND SURROUNDING AREA

The site

Zoning:	R4 High density residential
Visual Character Study Category:	1945-68
Easements/rights of way:	The site benefits from three drainage easements through 9 and 17 College Crescent and 142-148 Killeaton Street.
Heritage Item:	No
Heritage conservation area:	No
In the vicinity of a heritage item:	No
Bush fire prone land:	No
Endangered species:	Yes – Sydney Turpentine Ironbark Forest
Urban Bushland:	No
Contaminated Land:	Yes

The site is located to the southern side of Killeaton Street, between Mona Vale Road and Yarrabung Road, St Ives (approximately 100 metres east of the Killeaton Street and Mona Vale Road intersection). The site is irregular in shape, with a frontage of 145.535 metres to Killeaton Street and a depth of 209.89 metres (maximum). The area of the site is 22,970m². The site falls approximately 3 metres from the centre of the front boundary (RL161.15) to its rear (south-eastern) corner (RL158.05), at an average gradient of approximately 1.4% (relatively flat site).

The site presently contains a two storey building which was formally used as a monastery. The building is located towards the centre of the site. Driveway access to the monastery is located adjacent to the eastern side boundary.

A number of mature canopy trees are located within the front boundary of the site and in the road reserve of Killeaton Street. The site features a row of brushbox trees either side of the existing driveway.



Photo A: The existing streetscape of 132 Killeaton Street, St Ives viewed in an easterly direction.



Photo B: The existing driveway located adjacent to the east side boundary of the site. A row of brush box trees feature either side of the driveway.



Photo C: The former monastery building located towards the centre of the site (northern elevation) as viewed from the street frontage of 132-138 Killeaton Street, St Ives.

Surrounding development:

Singe and two storey dwellings prevail to the east and north (opposite) the site.

To the south and south-east of the site is Masada College. To the south-west of the site is Corpus Christi School.

To the west of the site (130 Killeaton Street) is a two storey dwelling. Development further to the west also consists of two storey dwelling houses.

St Ives shopping centre is located approximately 800 metres to the south-west of the site.

THE PROPOSAL

The proposal involves:

- The erection of 5 x 5 storey residential flat buildings containing 298 units. The site layout of buildings is shown in **Figure 1**.

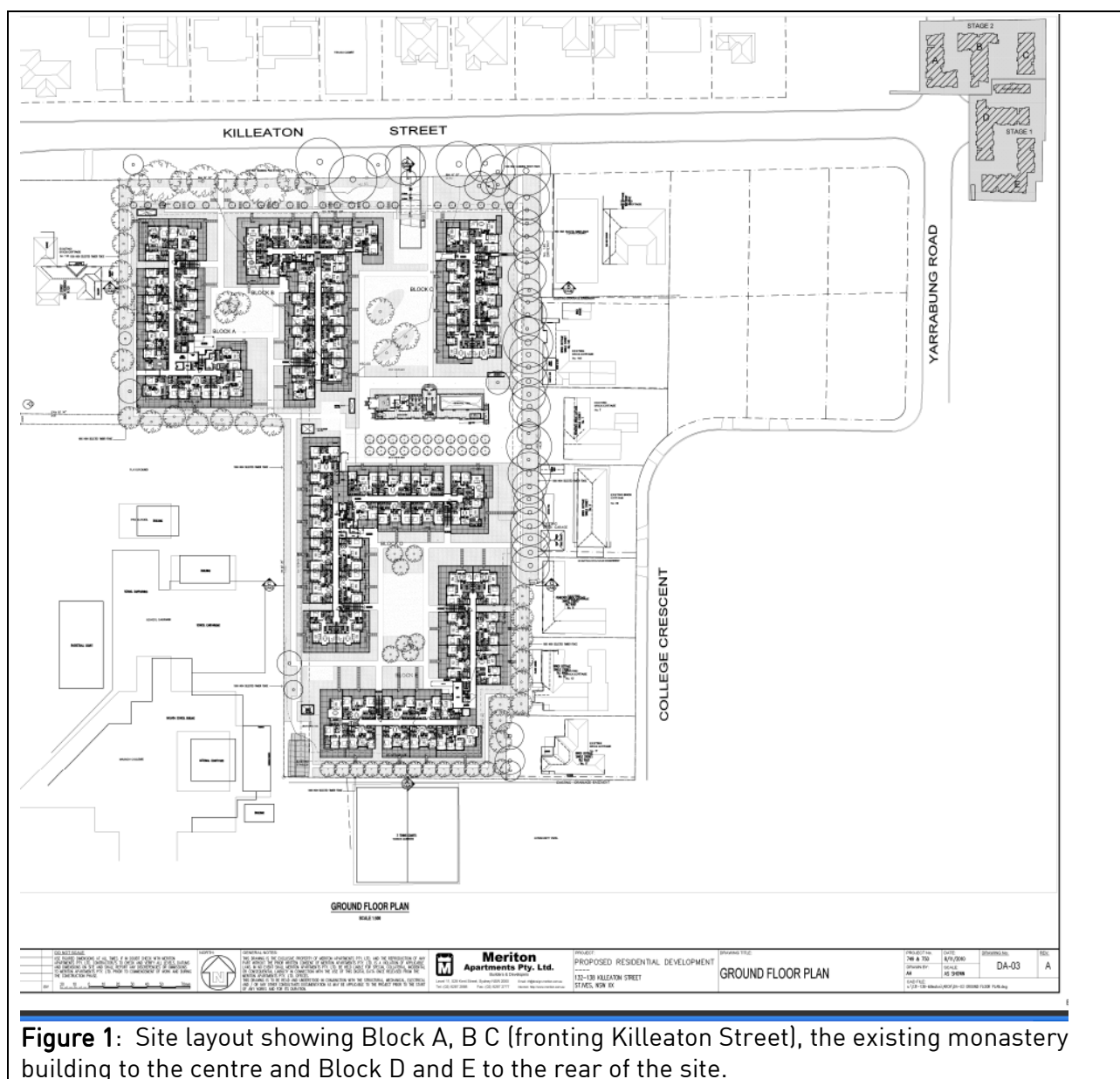


Figure 1: Site layout showing Block A, B, C (fronting Killeaton Street), the existing monastery building to the centre and Block D and E to the rear of the site.

The unit mix per building is detailed in the table below:

	Studio	1 bedroom	2 bedroom	3 bedroom +	Total
Building A	1	8	41	8	58
Building B	0	5	50	4	59
Building C	1	7	27	1	36
Building D	0	0	72	5	77
Building E	1	7	45	15	68
Total	3	27	235	33	298

- One level of basement carparking (367 carparking spaces) including:

336 residential spaces including residential disabled parking spaces (necessary for adaptable units)

31 visitor spaces

Other services within the basement include plant rooms, residential and garbage storage areas, bicycle parking and stormwater detention tanks

- Vehicular access to the basement is via a single dual carriage driveway from Killeaton Street.
- Pedestrian access is proposed from the basement via lift and fire egress stairs. Pedestrian access from Killeaton Street is provided via 2 – 2.5m wide pedestrian pathways with multiple entry points from Killeaton Street and circulation pathways to the surrounds of the buildings.
- Adaptive re-use of former monastery building to accommodate communal facilities including swimming pool, gymnasium, spa, sauna, communal lounge area and managers office.
- Existing stables building located to the south-west corner of the site to be restored and made good
- Landscaping and associated site works

3 communal open space areas are proposed between Building A and B, B and C and D and E

Tree removal: Single (inside) row of mature brushbox trees adjacent to the eastern boundary, a row of melaleucas to the western side boundary, substantial tree removal to the front boundary including a number of eucalypts

Tree retention: 2 blue gums to the front of the site and a single (outside) row of mature brushbox trees adjacent to the eastern boundary

- Fencing A 1.2m aluminium fence is proposed to the front boundary of the site. A 1.8m timber fence is proposed to the side and rear boundaries.
- Staged construction/occupation

Construction of the development is proposed in two stages:

Stage 1 Buildings D and E at the rear with associated basement parking

Stage 1 Buildings A, B and C to the front with associated basement parking

- Air conditioning: Air conditioning units are proposed to the roof of the flat buildings.
- Strata subdivision. It is noted no strata subdivision plans have been lodged with the application.

RESPONSE TO KEY ISSUES

1. Built form and urban design impacts

- Urban Design

Council's Senior Urban Designer, Ling Lee, has commented on the proposal as follows:

Context and Site Planning

The surrounding context is dominated by large open institution and education premises which are characterised by generous landscaped setting and low scale built forms (see Figure 1 for context). The development site has a considerable street frontage to Killeaton Street which is a local residential street with single dwelling character. There are single dwelling lots directly adjoining the eastern boundary of the site with major interface impacts. Note that these lots have been up-zoned to *R3- Medium Residential Density* to allow townhouse developments up to 3 storeys

The new development should be contextually responsive to the unique characteristics of the locality to provide greater aesthetic quality and amenity for the occupants on site and adjoining properties. Specifically, the development must respond and contribute to its context by preserving and enhancing the existing open and treed character and significant view corridors through the site from both Killeaton and College Streets as well as from surrounding sites (see Figures 2 and 3 for existing view corridors from Killeaton Street). It must also address the streetscape and interface issues pertaining to the site. In addition, the former two-storey monastery building which is proposed to be retained and adapted as a community building should be considered as a key element on the site to promote its use and create a strong community focal point for the development.



Figure 1: Aerial photo showing context (development site is outlined in pink).



Figure 2: View corridor to Monastery Building from Killeaton Street.



Figure 3: View corridor to Masada College site from Killeaton Street.

Given the size of the development site, there are significant opportunities to achieve the critical planned outcomes. These involve reconfiguring proposed new buildings and spaces on the site to retain and reinforce the north-south and east-west view corridors wherever possible through frequent, generous visual breaks between buildings. The site configuration should also be reworked to mark the importance of the monastery building and the space around it by allowing visual and physical links with all parts of the site as well as avoiding intrusion into the former cloister space. This would result in a series of communal open spaces that are inter-connected both visually and physically, evolving around the monastery building.

The key recommended amendments to the proposed site configuration are illustrated in Figure 4 and summarised below:

Northern part of the site (Buildings A, B and C)

- The site layout, of having three separate buildings on north-south axis fronting Killeaton Street, is supported as it responds to the existing context of object buildings set within a landscaped setting. However it is recommended to amend the following:
 - o Delete the east and west 'wings' of Building B to create shorter, smaller building frontage to the street, thereby reducing its perceived bulk as well as improving view corridors to the monastery building and Masada College site;
 - o Delete the east 'wing' of Building A to further enhance the visual link to the Masada site, taking advantage of landscaped backdrop formed by the well-established tree canopy when viewed from Killeaton Street;
 - o Shorten the southern end of Building B to facilitate views to monastery building from the north-west corner of the site.

Southern part of the site (Buildings D and E)

- The buildings on the southern part of the site should be re-arranged based on the same site planning concept applied to the northern part, having object buildings set within a landscaped setting, with particular regards to visual impact and view corridors. Accordingly, the east-west 'wing' of Building D is to be deleted and re-positioned to:
 - o eliminate the looming wall effect which would have been created by the proposed building which is to be positioned very closely behind the monastery building;

- o provide additional open space to the rear the monastery building to avoid intrusion into the former 'cloister' space;
 - o facilitate views to Monastery Building from the southern part of the site;
 - o reduce number of south-facing apartments;
 - o improve internal floor layout; and
 - o minimise overshadowing impact on the southern communal open space.
- Building E is to be broken up to allow east-west corridor through the site. This may also result in a better internal plan layout compared to original L-shaped building.

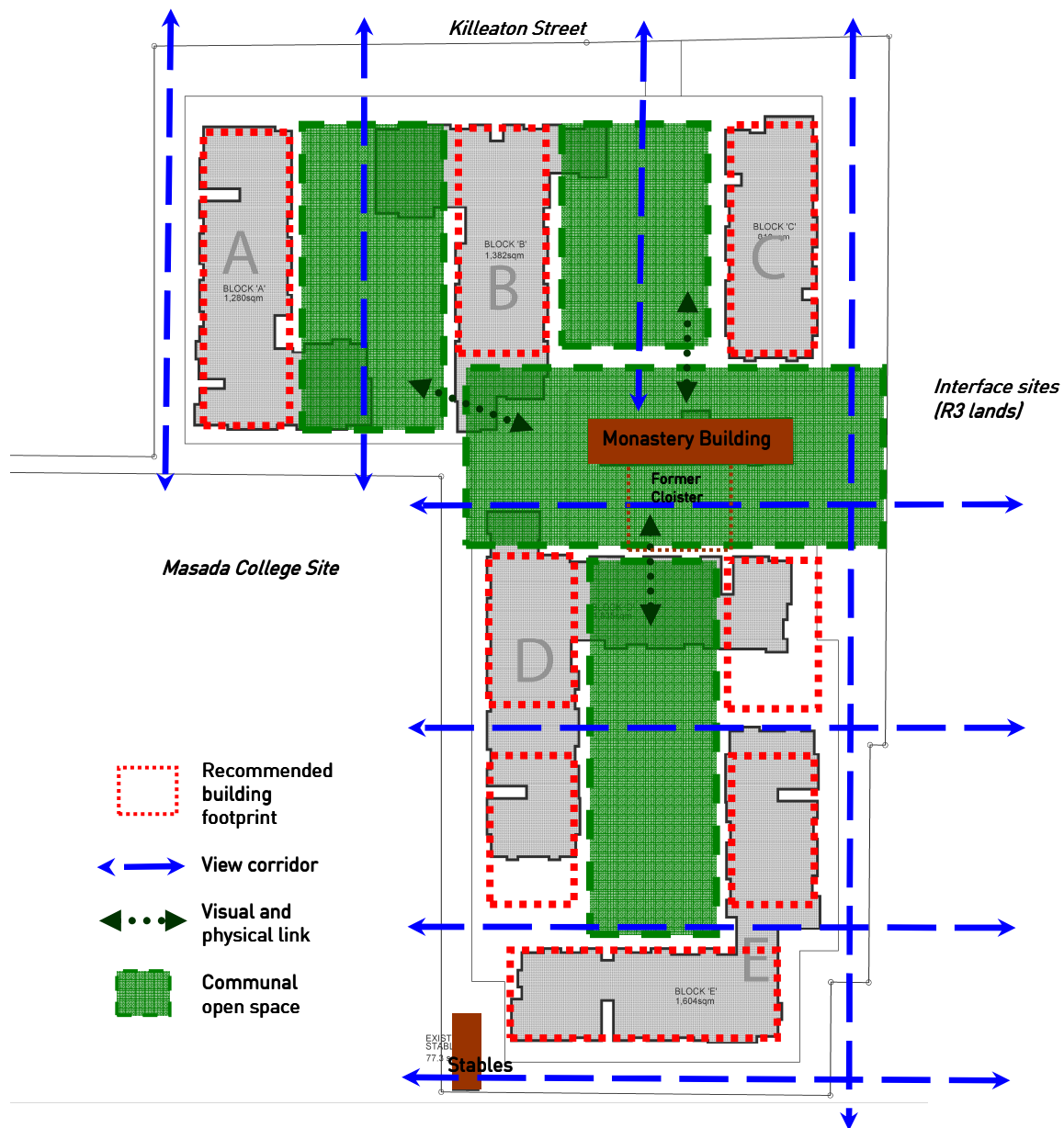


Figure 4: Recommended new site configuration.

Basement car park design

The proposed single-level basement car park which covers an extensive area of the site would significantly reduce the opportunities for deep soil landscaping. This car parking layout would also decrease the perceptions of safety having to travel longer between some parking and the lift core. The basement should be extended to at least two levels and be consolidated under building footprints to maximise the deep soil landscaping area, thereby contributing to the tree canopied character and the biodiversity of the locality.

Vehicular entry off Killeaton Street

The vehicular entry is proposed in a location which would compromise the significant view corridors to the monastery building and create conflicts with pedestrian movement. It is recommended that the car park entry be relocated, preferably under the building, to maintain and enhance view corridors to the monastery building from the street, while considering the safety requirements.

Impacts on interface sites

The scheme proposes the retention of a row of significant screen planting as well as increased tree planting along the eastern boundary of the site where it adjoins R3 lands currently occupied by single dwellings, providing effective visual buffer between properties. A building setback of at least 9m to the eastern boundary is provided to ensure adequate separation with adjoining properties. In particular, the top floor (ie. 5th floor) is proposed to be effectively set back from the perimeter walls, resulting in a built form that appears to be only four storeys in height when viewed from the east (single dwelling area). Refer to section in Figure 5 below.

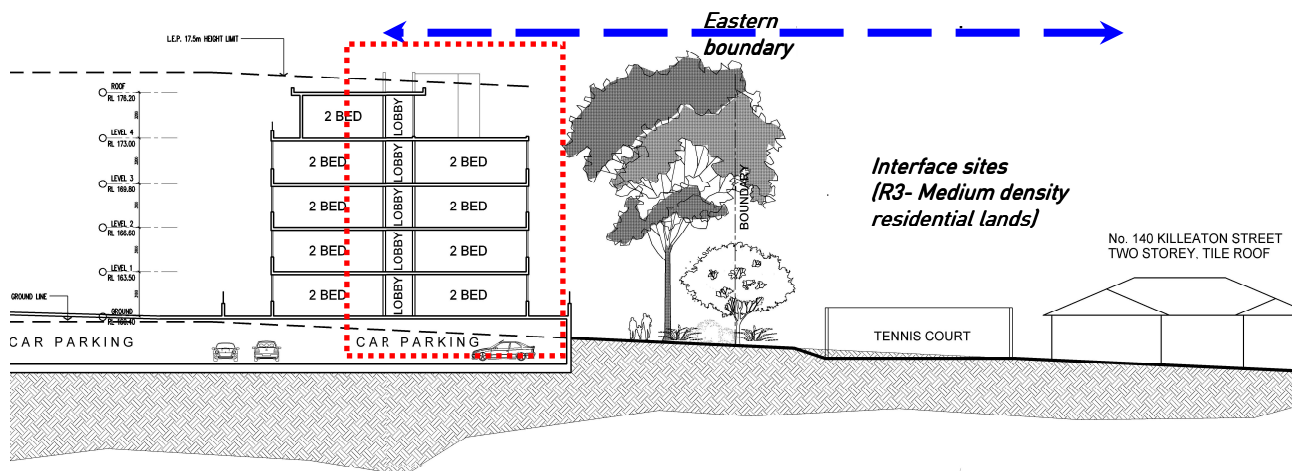


Figure 5: Section of Building C showing top floor setback.

It is recommended to consider the following measures to further alleviate the interface impacts:

- The proposed buildings along the eastern boundary (on the southern part of the site) are to have similar setback treatment to the top floor as shown in Figure 5 to reduce the amenity impacts, while providing transition of scale to the future R3 developments (ie. townhouses) on adjoining sites. This can be achieved by removing a few east-facing apartments on the 5th floor. Refer to Figure 6 below for amended building setback line as shown in red dotted line.

- The incorporation of planter boxes on the edges of the terraces/balconies facing the eastern boundary would help enhance visual privacy.

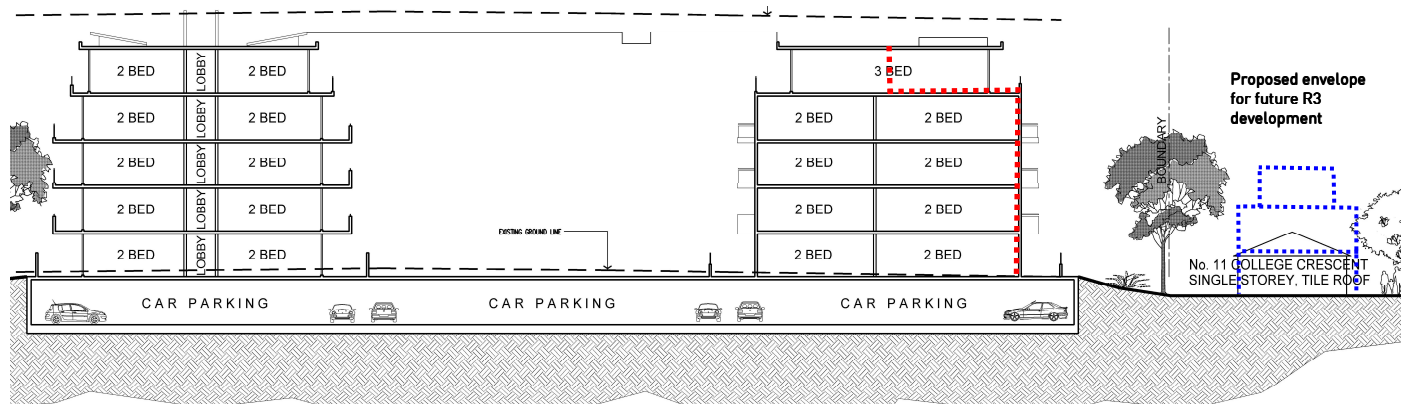


Figure 6: Recommended new building setback line to the eastern boundary.

Building façade design

Comments on the building façade design are based on the coloured perspective drawing which shows the street elevation view only. Generally the balcony treatment on the street façade lacks variety with extensive use of glazed balustrades. It also lacks privacy and solar protection given that they are facing the street and the northern aspect. It is recommended to use more solid balustrades on lower floors primarily for privacy purposes. The incorporation of sliding louvred screen panels to the glazed balconies would create a finer layer of articulation, while providing occupants with visual privacy and control over solar access. A darker tone or natural finish should be applied to the louvred screens to impart natural warmth to the building façade.

More coloured perspective drawings of the development showing views from neighbouring properties would be useful for visual assessment. All building facades should be well articulated to provide visual interest from all directions.

• Heritage

The following comments are provided by Council's Heritage Advisor, Paul Dignam:

The site is not a heritage item and not in a Heritage Conservation Area managed by Ku-ring-gai Council or other statutory authority. There are a number of archaeological items including a well and subsurface deposits. These items and deposits are subject to the provisions of the NSW Heritage Act. The site is classified by the National Trust.

The scheme proposed construction a new medium density residential development containing 298 dwelling. The former monastery building will be retained, refurbished and adapted as a communal facility for the use of residents. New uses include an indoor pool, spa, offices, gymnasium, common lounge areas, new toilet facilities and lift. This is considered to be an appropriate re-use of the building.

The timber and iron structure at the south west corner of the site is proposed to be repaired and re-used as a common barbeque facility for the residents. An interpretation strategy is proposed

in the reused building. This use is considered appropriate as it would ensure the building is reused, conserved and appropriately managed.

Proposed Building B & C are planned to create a common open area in front of the monastery building allowing a partial view of it from the street. The eastern units to Building B intrude into the view corridor. The car entry is also located in the middle of the open space between Building B and C. It would be a benefit to delete the eastern units to Building B and relocate the vehicular entry under building B to improve the relationship of this space to the street and to maintain views of the building.

Building D is located about 15m behind the monastery building and intrudes into the former "cloistered square". The HIS provided with the application notes there would be no interpretation of the former cloistered square which would result in some change to its historic character. It is recommended that a rearrangement of the proposed new buildings and spaces on the site should provide a physical interpretation of the former cloister and would promote to proposed communal use of the retained building.

It is known that relics are contained within the rear parts of the site and there is some possibility of other relics being discovered during excavation works. To address this issue conditions should be applied to ensure that any deposits uncovered during excavation works will be managed in accordance with the NSW Heritage Act.

Conclusions and Recommendations

- Retention and adaptation of the monastery building is supported as it retains the building as a key element on the site.
- The eastern unit in Building B should be deleted and the vehicular entry relocated to a more appropriate location to retain and enhance view corridors to the monastery building from the public realm.
- Repair, adaptation and re-use of the shed/stables as a communal facility are acceptable.
- The layout of Building D & E should be reworked to provide additional open space behind the monastery building to interpret the character of the former cloister and to promote successful communal use of the retained building.
- Site interpretation should be provided on the site to explain the former uses of the land and its occupation.
- As the site is known to contain relics, conditions of consent must include archaeological conditions to ensure that any relics uncovered during excavations will be managed in accordance with the archaeological provisions of the NSW Heritage Act.

2. Relevant EPI's policies and guidelines to be addressed (Appendix A)

State Environmental Planning Policy No.55 - Remediation of Land

Please refer to comments under **Key Issue 9 - Contamination and geotechnical issues.**

State Environmental Planning Policy No. 65 – Design quality of residential flat development (SEPP65) and the Residential Flat Design Code (RFDC)

In accordance with Clause 50 of the EP&A Regulation 2000, a Design Verification Statement has been submitted by Peter Spira, General Manager of Meriton Apartments Pty Ltd.

- **Principle 1 – Context, Principle 2 – Scale and Principle 3 – Built form**

Refer to comments provided by Council's Senior Urban Designer, Ling Lee under **Key Issue 1 - Built form and Urban Design Impacts**.

Principle 4: Density

The proposed FSR at 1.3:1 incorporates 298 units (30 x 1 bedroom, 235 x 2 bedroom and 33 x 3 bedroom). Having regard to the amenity issues identified with the design of buildings and units, the proposal is considered too dense.

Principle 5: Resource, energy and water efficiency

Issues have been raised in relation to waste management, stormwater drainage and construction management. Refer discussion under **Key Issue 6 - Ecologically Sustainable Development (ESD) and Key Issue 8 – Drainage and stormwater management**.

Principle 6: Landscape

The proposed landscaping of the site is unsatisfactory as discussed under **Key Issue 1 - Built form and Urban Design Impacts and Key Issue 3 - Landscaping and open space**.

Principle 7: Amenity

Numerous amenity issues have been identified, refer to the assessment under the **DCP Town Centres** (modelled from the Residential Flat Design Code Guidelines) and **Key Issue 4 – Environmental and Residential Amenity**.

Principle 8: Safety and security

Concerns are raised with the extensive area of the proposed single carpark. This car parking layout would also decrease the perceptions of safety having to travel longer between some parking and the lift core.

Principle 9: Social dimensions

A review of the accessibility report (prepared by Morris-Goding Accessibility Consulting, dated 30 June 2010) suggests that the author has not had the benefit of plans identifying selected adaptable units and disabled residential parking bays. The plans are dated 09 July 2010. In this regard, a proper assessment by a suitably qualified consultant has not been undertaken as to whether the selected 30 adaptable units are acceptable in terms of meeting Australian Standard and BCA requirements.

Principle 10: Aesthetics

Refer to comments provided by Council's Senior Urban Designer, Ling Lee under **Key Issue 1 - Built form and Urban Design Impacts**.

SEPP (Sydney Harbour Catchment) 2005

The site is located within the Sydney Harbour Catchment area (Clause 3(1) of the SREP). The proposal is not considered to have a detrimental impact on the catchment. The planning principles of the SREP are generally satisfied as the site is not in close proximity to or within view of any waterway, wetland or riparian zone.

State Environmental Planning Policy - Building Sustainability Index (BASIX)

BASIX Certificates (dated 8 July 2010) have only been lodged in relation to Stage 2 – Buildings A, B and C, and Stage 1 – Buildings D and E.

SEPP Infrastructure - Traffic Generating Developments referral to the RTA

The scale of the proposed development triggers a SEPP Infrastructure referral to the Roads and Traffic Authority based on the parking criteria in column 2, schedule 3 (Traffic Generating Developments) of the SEPP. Therefore, specific comment should be sought from the Roads and Traffic Authority.

Ku-ring-gai Local Environmental Plan (Town Centres) 2010

- Zoning and Permissibility**

The site is zoned Residential R4. The 5 residential flat buildings are permissible with consent pursuant to the development control table under Part 2 of the LEP.

The proposed community facilities contained in the monastery building are permissible as an ancillary use of the site for the purposes of residential flat development. It is recommended that any consent include a condition which limits the communal facilities to residents of the development only.

COMPLIANCE TABLE		
Development standard	Proposed	Complies
Minimum subdivision lot size: 2400m ²	Existing site area: 22,971m ²	YES
Maximum height: 17.5m	Building A, B, C, D and E: >17.5m Building M (monastery) : 2 storeys, <17.5m	NO
Maximum floor space ratio: 1.3:1 29,861sqm	Applicant submits: 1.3:1	NO FSR diagrams non compliant with definition

- Height**

The definition of building height (or height of a building) under the KLEP is as follows:

building height (or ***height of building***) means the vertical distance between ground level (existing) at any point to the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.

The definition of basement under the LEP is:

***basement** means the space of a building where the floor level of that space is predominantly below ground level (existing) and where the floor level of the storey immediately above is less than 1 metre above ground level (existing).*

Page 18 of the Statement of Environmental Effects (SEE) states, *"The proposal has been designed to ensure that the buildings do not exceed the 17.5m height limit...."*

This statement is incorrect and not supported. All buildings exceed the 17.5m maximum building height requirement as illustrated on the elevation and section drawings. The SEE fails to make an accurate assessment of building height, nor addresses the provisions of Clause 4.6 Exceptions to development standards under the LEP (similar to SEPP 1).

A variation to the maximum height requirement is not supported by Council. There are no topographical constraints on this site (the land is relatively flat) and the site is not flood prone land. There is no well founded reason to justify a variation to this requirement.

In addition to this issue, the elevated nature of the basement above ground level (>1m) and residual fill (from excavation associated with the basement) dispersed to the surrounds of the buildings is also not supported. The elevated nature of the buildings exacerbates the non-compliance with the 17.5m height requirement. Elevation of the basement above ground level for ventilation purposes is also not well founded having regard to other multi-unit development approved and built in Ku-ring-gai (subject to same controls and similar topography) which involve the basement appropriately below ground.

The proposal fails to appropriately respond to flat nature of the site.

- **Floor space ratio**

The applicant has excluded fire stairs, lifts, garbage rooms, service rooms and open balconies to the ground storey and above as part of the FSR calculations. The gross floor area under the Town Centres LEP excludes any residential storage, vehicular access, loading areas, garbage and services within a basement. The exclusion of garbage storage areas to residential levels above the basement is not consistent with the definition. In this regard, the FSR calculations are not accurate and would exceed the 1.3:1 requirement.

It is also noted that waste management for the development is unsatisfactory (refer comments under Key Issue 6 - ESD) in terms of bin storage (bin storage is inadequate and greater area required). Access for collection has also not been adequately demonstrated.

Development Control Plan (Town Centres) 2010

On 8 June 2010, Council adopted DCP (Town Centres) 2010. The DCP provides more detailed provisions with respect to development achieving the stated aims and purpose of KLEP 2010.

- **Clause 1A.7 Relationship to SEPP65 and NSW Residential Flat Design Code**

The DCP has been prepared in accordance with SEPP65 - Design Quality of Residential Flat Development (SEPP65) and has been formulated to respond to the design quality principles. The

preparation of the DCP has had regard to NSW Residential Flat Design Code 2002 (RFDC). Where there is any inconsistency between this DCP and the RFDC, the provisions of the DCP will prevail.

- **Assessment under Part 3C Residential Flat building**

3C.2 Building setbacks

The proposal fails to satisfy the following objectives:

1. *To ensure buildings are set within a gardens setting dominated by canopy trees which screen the buildings and soften the urban form to maintain the garden character of Ku-ring-gai*
2. *To ensure adequate space between sites to enable effective landscaping and tree planting*
3.
4. *to provide transition between certain zones*

The buildings numerically comply with the 6m and 9m setback requirements. However landscape treatment within the side setback areas fails to satisfy the above objectives. The lack of deep soil landscaping along the western side boundary will restrict adequate tree and screen planting. Pathways also within the side setback appear excessive in width and should be relocated closer to the building.

Council's Senior Urban Designer has advised a greater setback to the upper level of buildings adjacent to the eastern boundary is recommended to alleviate interface impacts.

3C.4 Deep soil landscaping

The minimum deep soil landscaping requirement is 50% of the site area. The development proposes 30.18%, a significant variation and non-compliance to this requirement (39.7% variation). Council's Landscape Officer has also advised that the applicant's calculation is not accurate and that the deep soil landscaping is more likely around 25%. Please refer to Key Issue 3 Landscaping and open space for further comments.

3C.7 Building storeys

COMPLIANCE TABLE		
3C.7 Building storeys Maximum building height: 17.5m Maximum number of storeys: 5	Block A: 6 storeys, >17.5m basement protrudes >1m above existing ground level	No
	Block B: 6 storeys, >17.5m basement protrudes >1m above existing ground level	No
	Block C: 6 storeys, >17.5m basement protrudes >1m above existing ground level	No
	Block D: 5 storeys, >17.5m Basement appears <1m above existing ground level	No
	Block E: 6 storeys, >17.5m basement protrudes >1m above existing ground level	No
	Monastery building: 2 storeys	YES

The elevations suggest the buildings do not comply with the height and storey requirements as outlined above and the sections provided have limited information (dimensions and levels with regard to the elevation of the basement above ground level).

It is recommended that revised elevations and sections be provided including:

- Existing and proposed ground levels (RL's to AHD at regular intervals)
- Dimensions demonstrating areas of compliance and non-compliance with the 1m basement requirement
- Recommended that 2-3 sections be provided for each individual building having regard to the storey and height issues raised above
- Recommend that a supplementary survey plan be provided showing outline of the building footprints. This would assist with the interpolation of levels regarding height, cut and fill.

The proposal fails to satisfy the objectives of 3C.7 which is to ensure that buildings are responsive to the site. The site is flat (no topographical constraints) and is not flood prone. There is no well founded reason why a variation to the height and storey requirements should be supported in this instance.

3C.8 Building facades

The objectives of 3C.8 include:

1. To promote buildings of high architectural quality that contribute to the desired local Character
2. To create building facades that reduce the bulk and scale of the building
3. To limit the length of buildings, to allow landscaping to soften the built form and to provide for view corridors between buildings.

COMPLIANCE TABLE		
3C. Building facades Continuous length of a single building on any elevation must not exceed 36m	Fronting Killeaton Street (East –West orientation) Building A: @21m Building B: @48M Building C: @19-20M	No
	North- South orientation of Buildings A, B and C Building A: 62m Building B: 62m Building C: 49m	No
	East-west orientation of Buildings D and E Building D: 62m Building E: 53.5m	No
	North – South orientation of Building D and E Building D: 71m Building E: 64m	No

Please refer to recommendations contained under **Key Issue 1 – Built form and urban design impacts** with regard to building length and provision of view corridors through the site.

3C.11 Fencing

The height of the fence forward of the building line is recommended to be 1.2m consistent with front boundary fencing. This is to comply with the provisions of Clause 3C.11 which state front fences and walls to a public street and side fences in the street setback must not be higher than 1.2m if open construction. It is recommended that any re-design incorporate this amendment, alternatively this issue can be addressed as a condition of consent.

3C.12 Private open space

There are multiple units which fail to comply with the minimum dimension and area requirements for balconies. This is a significant issue with regard to providing an acceptable private outdoor living area for future occupants.

COMPLIANCE TABLE		
3C.12 Private open space		
ground floor apartments have a terrace or private courtyard greater than 25m ² in area	Inadequate information provided. Area calculations (internal) to be provided on plans	Inadequate information
Balcony sizes: - 10m ² – 1 bedroom unit - 12m ² – 2 bedroom unit - 15m ² – 3 bedroom unit NB. At least one space >10m ²	Multiple units <10sqm Multiple units <12sqm Multiple units <15sqm	NO
primary outdoor space has a minimum dimension of 2.4m	Multiple units with balcony depth <2.4m	NO

3C.13 Communal open space

The communal open space areas between Buildings A and B, B and C, and D and E, are all located over basement car park area and lack any deep soil area for tall tree planting.

3C.17 Solar access

- At least 70% of apartments must receive a min of 3hrs direct sunlight to living rooms and adjacent private open space between 9am and 3pm on 21 June

The applicant has submitted a solar access report prepared by Heggies Pty Ltd. The report concludes that:

- 81.5% of the residential development will achieve 2 hours of sunlight on the winter solstice
- 62.4% of the residential development will achieve 3 hours of sunlight on the winter solstice.

The site is not situated within a 'dense urban area' (as referenced in the RFDC). For example, Chatswood, North Sydney, St Lenards or City of Sydney town centres are considered dense urban areas. Compliance with the 2 hour solar access provisions is not well justified. A 3 hour assessment has been consistently been applied to all 5 storey residential flat development in

Ku-ring-gai (also applied in the Land and Environment Court). The development fails to satisfy this control and in this regard the site layout and design of the development fails to provide acceptable levels of solar access.

- At least 50% of communal open space for residents use must receive direct sunlight for at least 3hrs between 9am and 3pm on June 21

A review of the solar access plan (DA-71A) suggests it is unlikely that the 3 communal open space areas would achieve a reasonable level of solar access as per the control above.

- Combined number of single aspect apartments with either southern or western orientation must be limited to max 10%

The proposal includes 41 units with a southern or south-western orientation, representing 13.8% of units.

- All developments must allow retention of at least 3hrs between 9am – 3pm on 21 June to living areas and principal portion of the private and communal open space of:
 - Existing residential flat buildings and multi-dwelling house on adjoining lots; and
 - Any residential development in adjoining R2, E4 and R3 zones

Given the north-south orientation of the site, the zone interface properties to the east would maintain morning and mid-day sun (>3hrs).

3C.21 Room sizes

The objective of this control is to provide well proportioned and functional rooms.

Multiple units fail to comply with the minimum 3m dimension (internal, excluding wardrobe space) for bedrooms. For example:

Block A: G40, 41 and 42 and 43 (and units above with similar floor plan)
Block E: G08, 09, 10, (and units above with similar floor plan)

The studios (G15 – Block E, G47 – Block A & G70 – Block C) are undersized and have poor amenity in terms of location (directly adjacent to entry foyers with associated noise impacts).

3C.22 Internal common circulation

All single common corridors must serve a maximum of 8 apartments. The proposal includes only one lift per building and each building is excessive in building length (ranging between @49m – 70m) and includes long corridors and hallways.

The development proposes an excessive number of units per lift corridor:

- Block A includes one lift to 13 units per floor
- Block B includes one lift to 13 units per floor
- Block C includes one lift to 8 units per floor (acceptable)
- Block D includes one lift to 17 units per floor
- Block E includes one lift to 15 units per floor

The development fails to provide a high level of amenity and safety for common lobbies, corridors and units.

3C.25 Car parking provision

Please refer to the carparking assessment under **Key Issue 5- Transport and accessibility**. The significant shortfall of visitor parking (44 spaces) is not supported and unacceptable.

3C.27 Adaptable housing

The applicant has submitted an accessibility report prepared by Morris-Goding Accessibility Consulting, dated 30 June 2010. A review of the report suggests that the author has not had the benefit of plans identifying selected adaptable units and disabled residential parking bays. The plans are dated 9 July 2010. In this regard, a proper assessment by a suitably qualified consultant has not been undertaken as to whether the selected 30 adaptable units are acceptable in terms of meeting Australian Standard and BCA requirements.

3. Landscaping and open space

Council's Landscape and Tree Assessment Officer, Robyn Askew, commented on the proposal as follows:

Deep Soil Landscaping (DSL)

The deep soil area calculation for the site is 30.18% is well below the minimum area of 50% required under Part 3C.4 of the DCP. The deep soil plan is not accurate and the calculation would be less than 30.18% (approximately 25%). The areas of non compliance include large areas of hard surface around the Monastery and the stables and numerous paths greater than 1.2 metres in width.

The main reason for the shortfall in the DSL is the single level basement carpark which covers the majority of the site. Tall tree planting will not be possible in the common areas between the buildings due to lack of soil depth.

Tree Replenishment

In accordance with Part 3C.4.7 of the DCP the site should attain a minimum of 76 canopy trees that can attain a minimum height of 13 metres. Due to the lack of DSL this requirement will be difficult to achieve.

The visual impact of the development will be greatest on the adjoining Masada College. The lack of DSL along the western side boundary will restrict adequate tree and screen planting. The path should be reduced in width and relocated closer to the building.

Podium Planting

The proposed soil depth over the podium of 150 to 300mm is considered too shallow to support lawn and shrubs without continual irrigation.

To provide long term optimum growth conditions the soil depth should be minimum of 300mm for lawn and ground covers, 500mm for shrubs, 1 metre for small trees up to 8 metres in height and 1.3 metres for large trees.

Any subsurface drainage requirements are in addition to the minimum soil depths quoted above.

Stormwater – Impacts on the Brush Box

The proposed concrete wall to be constructed along the eastern side boundary will have an adverse impact on the existing row of *Lophostemon confertus* (Brushbox) to be retained. The arborist has not assessed the impact of the stormwater works on the trees. These trees are a significant visual element to provide screening of the proposed 5 storey building from the single dwellings adjacent to the eastern side of the site.

There are also concerns regarding the overland flow being diverted to the street. If this involves the placement of fill along the eastern side boundary the Brush Box will again be impacted.

Landscape Proposal

The landscape setting should detail communal open space for resident amenity such as summer shade, solar access, seating, communal facilities eg, BBQ's.

4. Environmental and residential amenity

The development fails to provide a satisfactory standard of residential amenity:

- Failure to satisfy solar access requirements
- Poor provision of deep soil landscaping on the site to provide tall tree planting to the surrounds of the building (and within communal open space areas)
- Insufficient private open space to multiple units (balconies undersized in area and dimension)
- Multiple units with bedrooms inadequate in dimension
- Undersized studio apartments
- Provision of only one lift per building to an excessive number of units per floor (13 – 17 units per floor)

These issues are discussed in more detail under the Town Centres DCP assessment (controls generally consistent with the RFDC).

5. Transport and accessibility (construction and operational)

• Traffic and parking

The following comments are provided by Council's Team Leader, Development Engineers, Kathy Hawken:

Section 6 of the report by Transport and Traffic Planning Associates (TTPA) appears to have been sourced from the report for another development (165-167 Rosedale Road), since as well as referring to Rosedale Road, it states "the driveway will narrow to a single lane into the site although passing opportunities will be provided across the property boundary and in the basement ramp" – clearly not appropriate for a basement servicing 298 units.

Since the “Access” section does not refer to the subject development, it is not evident whether the sections titled “Internal Circulation” and “Servicing” refer to the subject development either, especially as reference is made to two basements.

The basement plans DA-15 and DA-16 are not dimensioned, so it is not possible to confirm compliance with AS2890.1:2004 in terms of parking space and aisle dimensions. Columns are shown at the ends of parking spaces, which appears not to comply with Section 5.2 of AS2890.1:2004.

The swept path analysis in Appendix E shows the truck driving up to a garbage room (in the Stage 2 basement) with a small number of containers. This cannot be the only garbage room for 298 units (see discussion below). How is the staging to be managed?

It is noted that, in relation to the previous DA1253/06 (which was for only 191 units), the Roads and Traffic Authority (RTA) and the Sydney Regional Development Advisory Committee required:

- A triangular concrete island with “Left Turn Only” signage at the intersection of Mona Vale Road and Killeaton Street (east).
- Concrete footpath along the Killeaton Street frontage and extending west to connect with Mona Vale Road.
- “No Stopping” restrictions along the site’s entire Killeaton Street frontage.
- Category 3 driveway (6 metre entry, 1 metre separation, 4 metre exit).

The location of the access driveway is to the east of the crest. For optimum sight distance, it should be at the crest. The driveway should be shown on the drawings as the Category 3 driveway which was previously required by RTA and SRDAC.

The number of resident and disabled parking spaces complies with the requirements of the Kuring-gai Development Control Plan (Town Centres) 2010.

However a significant shortfall in visitor parking is proposed (44 spaces), which is not acceptable.

The report by TTPA states that on-street parking for visitors will be acceptable, however given the RTA and SRDAC requirement for “No Stopping” restrictions in Killeaton Street, this cannot be relied upon and in any event would supply only half of the shortfall.

The total number of spaces provided is 367. The minimum resident parking requirements is 287 spaces. Therefore there will be enough spaces in the basement to provide the minimum resident and visitor parking provision. The spaces would just require re-allocation. This could be done by condition.

- **Construction management**

The Preliminary Construction Management Plan contains the statements “A safety committee has already been set up on site..” and “A noticeboard is on site...A detailed OH&S plan is available on site...” These do not appear to be correct, since the application has not been approved.

No heavy vehicle route has been identified in the Preliminary Construction Management Plan. This required for vehicles travelling both north and south and must not include Killeaton Street east of the site entrance.

- **Traffic generation and associated impacts**

The following comments are provided by Council's Strategic Traffic Engineer, Joseph Piccoli:

During the Town Centres planning process, Council's traffic studies considered the traffic impacts associated with redevelopment of mixed use, business, retail and residential redevelopment foreshadowed in the Town Centres LEP (St Ives town centre). Key intersections were considered for detailed analysis, with the majority being on the arterial (Mona Vale Rd) and secondary roads (Killeaton St/Link Rd/Horace St). A package of traffic improvement measures resulted from this study, including new traffic signals on Mona Vale Rd at the new St Ives Shopping Village entrance, upgrades to the intersection of Mona Vale Rd/Memorial Ave/Rosedale Rd, the intersection of Mona Vale Rd/Stanley St as well as other traffic and transport improvements in the St Ives area. However, there were no changes recommended to the intersection of Mona Vale Rd/Killeaton St, and the intersection of Link Rd/Horace St and Stanley St (currently controlled by a roundabout).

Although not specifically identified in the Council traffic study, analysis of the traffic generation and trip distribution from this proposal suggests that there would be notable increases in traffic volumes along Yarrabung Rd (between Killeaton St and Stanley St) as well as on Stanley St (between Yarrabung Rd and Link Rd/Horace St). As indicated in the traffic study, these local roads are expected to carry 40% of the am peak traffic generation and 90% of the pm peak traffic generation.

From the applicant's traffic study, the existing two-way traffic volumes are as follows (vph = vehicles per hour):

	Am peak (two-way)	pm peak (two-way)
Yarrabung Rd	339 vph	258 vph
Stanley St	375 vph	350 vph

The resulting traffic volumes are calculated to be as follows, following the trip assignment as per the applicant's traffic study:

	Am peak (two-way)	pm peak (two-way)
Yarrabung Rd	394 vph	372 vph
Stanley St	426 vph	464 vph

As can be seen in the tables above, there would be notable increases, particularly in the pm peak, to traffic volumes on Yarrabung Rd and Stanley St. This is likely to result in reduction in amenity particularly as increased traffic volumes make it more difficult for pedestrians to cross the road and for vehicles to access Stanley St and Yarrabung Rd from the side roads.

As Yarrabung Rd and Stanley St are collector roads, the Roads and Traffic Authority's Guide to Traffic Generating Developments suggests desirable environmental capacities for these roads should be up to 300 vph, and a maximum environmental capacity of 500 vehicles per hour. Clearly the proposal causes the traffic volumes to approach the maximum environmental capacity for a collector road, particularly in Stanley St.

Inspection of the zonings in the Town Centres LEP (St Ives town centre) suggest that there are minimal other high density (R4) zonings near the site that would require motorists to utilise the same local roads to access the site, which indicates this site would be the primary generator of additional traffic in the precinct.

As a result, it is recommended that the applicant be required to install traffic calming and pedestrian facilities in the abovementioned sections of Yarrabung Rd and Stanley St to ameliorate the impacts of the proposal, and restore a degree of amenity to residents along those local roads. Indicatively, this could include up to 2 traffic calming devices and 1 pedestrian refuge facility in Yarrabung Rd, 1 pedestrian refuge facility in Stanley St and a specific treatment at the intersection of Yarrabung Rd and Stanley St, to improve pedestrian access and vehicle safety.

Further comments in relation to traffic, parking and impacts to Stanley and Horace Streets:

The scale of the proposed development triggers a SEPP Infrastructure referral to the Roads and Traffic Authority based on the parking criteria in column 2, schedule 3 (Traffic Generating Developments) of the SEPP. Therefore, specific comment should be sought from the Roads and Traffic Authority.

The cumulative traffic generation impacts of additional residential, retail and business development were considered as part of the St Ives town centre traffic study undertaken in 2005 and in 2008. There were a series of intersection upgrades proposed along Mona Vale Road to accommodate additional trips, as well as other improvements, such as new traffic signals at the intersection of Killeaton St and Cowan Rd. These sites were close to or already at capacity.

The intersection of Link Rd/Horace St and Stanley St was also analysed in the study, and it was found that the existing roundabout at that site was operating satisfactorily, and would still be operating at a good level of service after taking into account the growth in the St Ives centre. As a result, no additional improvements were proposed at this site. Because of the satisfactory operation of the roundabout, the proposal to replace the roundabout with traffic signals could actually increase delays.

Yarrabung Rd and the eastern end of Stanley St would be approaching its environmental capacity, but that is in terms of a residential amenity, and not a physical/operational capacity (which is higher), and hence my suggestion that the applicant provide traffic calming/pedestrian facilities along this route to ameliorate the impacts. On regional roads, such as Horace St/Link Rd, physical/operational capacity has priority over environmental capacity due to the higher order status of the road. However, the physical capacity of Horace St/Link Rd at the intersection with Stanley St has been demonstrated in the St Ives town centre traffic studies as being adequate under the proposed growth in the Town Centres LEP.

If the application were to be approved in its current form, the following condition would be recommended (to be satisfied prior to the issue of an occupation certificate):

Prior to the issue of an occupation certificate, the applicant is to liaise with Council on the location and type of ameliorative measures to be installed in Yarrabung Road and Stanley Street. The applicant is to prepare designs in consultation with Council, and the proposals shall be considered by the Ku-ring-gai Traffic Committee and Council. The applicant shall construct these facilities prior to the issue of an occupation certificate.

- **Parking requirements**

Councils Development Control Plan (Town Centres) requires parking provision for residential development in accordance with the following table:

Car parking rates

7 The following parking ranges apply to residential flat developments:

Apartment Size	Parking Space Requirement per apartment
Studio	0 - 0.5 spaces
One bedroom	0.7 - 1 spaces
Two bedrooms	1 - 1.25 spaces
Three or more bedrooms	1 - 2 spaces

Note: A Traffic Impact Assessment must accompany development applications that seek to vary the parking rates. This includes parking variations in lieu of commercial or strata funded car share schemes.

8 At least one visitor car space is to be provided within the site for every 4 apartments or part thereof.

Note: Refer to *Part 4.10 of this DCP* for visitor parking design controls.

9 Any spaces provided which exceed the upper range are to be included in the calculation of gross floor area.

Based on these requirements, the following number of car spaces would be required:

<i>TC DCP (2010)</i>	Parking requirement	Provision within site
3 x studio	0.0-1.5	
27 x 1 bedroom units	18.9-27.0	
235 x 2 bedroom units	235.0-293.8	
33 x 3 bedroom units	33.0-66.0	
Total	287-388	336
Visitor parking	75	31
Grand Total	362-463	367

As a comparison, the Roads and Traffic Authority's Guide to Traffic Generating Developments provides guidance on parking provision for residential flat buildings. There are 2 scales of residential flat buildings in this guide: medium and high density. The definitions of medium and high density from the Guide are reproduced below.

Medium density residential flat building

A medium density residential flat building is a building containing at least 2 but less than 20 dwellings. This includes villas, townhouses, flats, semi-detached houses, terrace or row houses and other medium density developments. This does not include aged or disabled persons' housing.

Clearly, with 298 units distributed across 3 buildings, the proposal would not strictly fit into the RTA's definition of medium density housing.

For information, the parking requirements for this site if considered as medium density would be as follows:

Medium density (RTA)	Parking requirement	Provision within site
3 x studio	3	
27 x 1 bedroom units	27	
235 x 2 bedroom units	282	
33 x 3 bedroom units	49.5	
Total	362	336
Visitor parking	60	31
Grand Total	422	367

The RTA's definition of high density residential flat buildings is as follows:

High density residential flat building

A high density residential flat building refers to a building containing at 20 or more dwellings. This does not include aged or disabled persons' housing. High density residential flat buildings are usually more than 5 levels, have basement car parking and are located in close proximity to public transport services. The building may contain a component of commercial use.

The Guide goes on further to distinguish between high density residential flat buildings in metropolitan regional centres and metropolitan sub-regional centres. Metropolitan regional centres are considered to be CBD type centres, with high levels of local employment as well as access to rail and bus services, and St Ives would not fit into this category. Therefore, the next closest definition would be the metropolitan sub-regional centres, which would require the following parking provision:

High Density (RTA)	Parking requirement	Provision within site
3 x studio	1.8	
27 x 1 bedroom units	16.2	
235 x 2 bedroom units	211.5	
33 x 3 bedroom units	46.2	
Total	276	336
Visitor parking	60	31
Grand Total	336	367

It is considered that the location characteristics St Ives, and its level of accessibility to public transport, may place it somewhere between the RTA's definition of medium density and high density (metropolitan sub-regional centres), which would result in an indicative total parking requirement of 379 spaces (319 residential spaces and 60 visitor spaces).

The above analysis suggests that the residential parking provision (not visitors) is generally adequate, and indicates that the parking rates in Council's DCP (Town Centres) are appropriate. However, the visitor parking provision would need to be increased to meet the requirement of 75 spaces in the DCP (Town Centres). This should be achieved without reducing the quantity of resident parking spaces already proposed, as further reductions in resident parking provisions would not be consistent with the level of public transport accessibility available from St Ives. By providing the additional visitor parking, the total parking provision would be 411 spaces.

- **Access to public transport**

Council's Parking Management Plan identified that over 50% of commuters parking at Gordon railway station originate from St Ives. Clearly, from the observed demand in commuter car parks and roads surrounding Gordon railway station, dedicated commuter car parking is inadequate. Bus services passing through St Ives provide good connectivity to Gordon railway station (continuing on to Macquarie Park) and Mona Vale, via Mona Vale Rd (which is located approximately 190m or 3 minutes walk from the centre of the site's frontage).

In order to promote and increase the use of public transport, it is critical that appropriate infrastructure be provided. In the case of this site, adequate footpath connection between the site and Mona Vale Road (along Killeaton Street) should be provided, and conditions to this effect have been proposed.

- **SEPP Infrastructure - Traffic Generating Developments referral to the RTA**

The scale of the proposed development triggers a SEPP Infrastructure referral to the Roads and Traffic Authority based on the parking criteria in column 2, schedule 3 (Traffic Generating Developments) of the SEPP. Therefore, specific comment should be sought from the Roads and Traffic Authority.

6. Ecologically sustainable development (ESD)

- **BASIX**

BASIX Certificates have been lodged for Buildings A, B, C, D and E.

- **Waste management**

Council's Manager, Waste Drainage and Cleansing has commented on the proposed waste management for the development:

I note the contents of the attached submission however Council's waste requirements are as follows;

- 1. provision for 1 x 240 litre waste per 2 x unit occupancies.*
- 2. provision for 1 x 240 paper & 1 x 240 for mixed food & beverage containers between 4 x units (note separate paper and mixed containers).*
- 3. Collections services are once per week for both waste and recyclables.*
- 4. Vehicle access re entry and exit in forward direction, finished floor to ceiling height 2.6 metre, adequate turning provision, and any security devices such as gates etc to be hard wired to allow Council's master key to open.*

The major impact to this development would be the size of the waste storage rooms to accommodate the number of bins.

To provide more detail, the proposed arrangements outlined in the Waste Management Plan prepared by Wastech do not comply with the Town Centres DCP as follows:

Part 4.16.23 of the DCP states that no compaction equipment is to be used for 120 and 240 litre bins.

Section 2 of the Waste Management Plan states that, garbage and recycling collections will be twice weekly, when Council's schedule is for weekly collection.

Section 4 of the Waste Management Plan "Generated waste volume" gives estimates for commingled recycling, when Council's collection is for paper and cardboard separate to other recycling. The number of containers required is given in Part 4.16.44 of the DCP, so estimates of volume are not required.

The proposed 660 litre containers do not comply with the requirements of the DCP.

Section 5.4 of the Waste Management Plan states "it is suggested that garbage and recycling collections are conducted on alternate days to reduce the number of bins presented for collection at one time". Council's contractors collect garbage and recycling on the same days and the waste management for this development will have to be structured around this.

The number of containers listed in Section 9 of the Waste Management Plan is well below the number required under the Town Centres DCP.

Section 11 of the Waste Management Plan states that private waste collection would be arranged. This is not permitted.

The cross section A on DA-45 does not clearly demonstrate that 2.6 metres clear headroom will be available at the entry to the basement carpark. The section seems to show significant excavation in the nature strip (which will not be approved) and does not show the road reserve. The slope of the driveway would exceed the 5% which is required by AS2890.1:2004 for the first 6 metres inside the property. The ground floor plan appears to show more realistic levels, which indicate that the point at which the driveway enters the basement under the podium would have to be set back 25 metres from the property boundary.

7. Threatened species

The following comments have been provided by Council's Ecological Assessment Officer, John Whyte:

Methodology

This ecological review of the study area was based on the results of a desktop review and a site inspection by John Whyte, Ecological Assessment Officer of Ku-ring-gai council on the 29th of July 2010.

Ecological

During the site inspection one endangered ecological community (EEC) known as Sydney Turpentine Ironbark Forest listed under the *Threatened Species Conservation Act 1995* (TSC Act) was identified within the site.

No intensive targeted searches were conducted for flora or fauna however it was noted that within and adjacent to the site that suitable habitat (Canopy trees) was present for a number of mobile threatened fauna species listed under TSC Act.

The proposal seeks to remove tree's 52, 56, 59, 61, 128-*Pittosporum undulatum* (Sweet Pittosporum), T122-*Syncarpia glomulifera* (Sydney Turpentine), T131-*Eucalyptus resinifera* (Red Mahogany) & T134-*Eucalyptus saligna* (Sydney Blue Gum) which comprises part of the local occurrence of EEC Sydney Turpentine Ironbark Forest within the site.

The flora and fauna assessment prepared by Total Earth Care has adequately assessed the removal of canopy trees which forms part of the STIF in accordance with section 5A of the *Environmental Planning and Assessment Act 1979*. The 7-part test prepared by Total Earth Care is considered to be a sufficient assessment of impacts to EEC Sydney Turpentine Ironbark Forest.

On this basis the development application is deemed satisfactory and is unlikely to compromise the existing Sydney Turpentine Ironbark Forest and fauna habitats within the locality.

The proposed amelioration measures-replacement planting of 46 locally occurring STIF canopy trees are appropriate to offset impacts to the STIF community. The Landscape Plan prepared for the site fails to identify locally occurring canopy trees and provide details on the proposed 46 locally occurring canopy trees.

Recommendations

The proposed planting as depicted on the landscape plan is to be modified so that species are selected from the Scientific Determination for Sydney Turpentine Ironbark Forest. Proposed planting species are to be selected from all three strata layers-canopy, shrub and ground that make up the EEC STIF.

Reason: Planting of native STIF community species will enhance the threatened community within the site and locality.

8. Drainage and stormwater management

The following comments are provided by Council's Team Leader, Development Engineers, Kathy Hawken:

No full-size water management plans were received. The A3 drawings marked "For Council Approval" are very difficult to read.

Part 5 of the Town Centres DCP addresses water management requirements for development in the St Ives Town Centre.

The site has the benefit of three interallotment drainage easements, one each through 9 and 17 College Crescent and one through 140 and 148 Killeaton Street and 1, 3 and 5 College Crescent. The capacity and condition of the pipes in these easements must be investigated at this stage. Works will almost certainly be required to upgrade or replace the pipes, and trees and/or buildings and structures may be affected. Part 5C.5.2i) of the Town Centres DCP requires the submission of either documentation demonstrating that the capacity and condition of the drainage infrastructure is suitable or a design for drainage infrastructure which will be suitable.

In the event that the existing piped system is not satisfactory in terms of capacity, the system must be upgraded.

The drainage plans appear to indicate that a concrete wall is to be installed along the eastern boundary to prevent overland flow from following the drainage easements in times when the capacity of the interallotment drainage is exceeded.

This wall is not mentioned in the arborist's report, although it would be within the protection zones for the significant trees which are all the way along this boundary.

This proposal is also not compliant with Part A6.6.35 of the Town Centres DCP which states "An overland flowpath that directs water along the easement shall be established to cater for blockage of the inground interallotment system as far as the discharge point."

Significant ponding would result due to the existing ground levels along the eastern boundary. At the street boundary, the level is RL159.02, but at the top of the pit at the rear of 140 Killeaton Street, RL157.72 and at the top of the pit at the rear of 9 College Crescent, RL157.73.

This is not good practice.

Due to the significant trees along this boundary, no alteration of ground levels can be carried out.

Furthermore, Part A6.6.30 of the Town Centres DCP requires that an in-ground interallotment drainage system be "sufficient to carry the 100 year ARI uncontrolled stormwater runoff from existing and future hard surfaces on the site".

The BASIX commitments for each building include a 4 000 litre rainwater tank, collecting runoff from 832 square metres of roof, with re-use for irrigation of 1842 square metres of landscaped area and car washing. I am not sure whether there are supposed to be five 4 000 litre tanks or just one. Either way, this is a very low level of retention and re-use. However if a BASIX water score of 40% is achieved, there is no provision for additional retention and re-use to be required.

The drainage plans show a 150 cubic metre "irrigation storage tank" in conjunction with Detention tank 2, which according to the catchment area plan takes roof runoff from Buildings B and C, ie Stage 2. How is an Occupation Certificate to be obtained for Stage 1 if the BASIX water commitments are not to be implemented until Stage 2?

The report by Bonacci Group states that calculations have been carried out to justify a reduced detention volume (350 cubic metres instead of 550 cubic metres). Some of the parameters used are not correct eg the built-upon area has been assumed to be 60% of the site area when it is actually 70%, and a retention volume of 150 cubic metres has been assumed, when only 20 cubic metres is proposed. The site discharge has been based on a 20 year ARI event, when Council requires property drainage systems to be designed for a 50 year ARI event.

The report states "The Development Control Plan allows for detailed analysis to demonstrate that the proposed detention system will perform in such a way to limit the site discharge to the pre-developed site discharge for the 5 year, 20 year and 100 year storm events."

This is not the case. Part 5D.4.3 of the Town Centres DCP states "In areas where it is desirable that peak outflows from the subject site do not coincide with the peak flow for the catchment as

a whole" (ie the subject site)... "the permitted site discharge and storage volume must be calculated in the following manner" and goes on to outline the procedure using Council's storage and discharge factors.

The design does not appear to comply with Part 5F.2 of the Town Centres DCP in that, although the Bonacci report states "the proposed development has been designed using Water Sensitive Urban Design principles", no certification or MUSIC modelling were submitted as required by Part 5F.2.5 of the Town Centres DCP. In addition the proposed biofiltration pit downstream from Tank 2 is in the tree protection zones and will not be endorsed by the arborist.

No details of subsoil drainage and pump-out arrangements have been included on the drainage plans. See the discussion below under "Geotechnical investigation" regarding the high groundwater level recorded in the standpipes – these details should be shown on the plans now.

9. Contamination and geotechnical issues

The following comments are provided by Council's Team Leader, Development Engineers, Kathy Hawken:

- **Geotechnical investigation**

It appears that very little excavation will be required for the construction of the swimming pool, so apart from the actual physical and structural difficulty involved, there should not be issues with vibrations from rock breaking etc. Dilapidation survey of the monastery building should be carried out prior to commencement of any works.

The site is underlain by fill over residual clays to about 1.4 to 4 metres depth, variably weathered shale and medium to high strength sandstone or shale, generally below about 6 metres depth. The geotechnical report contains recommendations for two further deep boreholes – this could be done prior to commencement of bulk earthworks.

Groundwater was encountered at varying depths from 0.3 to about 2 metres. The relatively high groundwater level was thought to be due to recent rainfall, although residents of St Ives occasionally report high groundwater in relation to basement drainage etc. Ongoing monitoring of the standpipes should commence now, so that a history of groundwater fluctuations can be developed.

The subsoil and basement pump-out system will require careful design, especially since the single driveway entrance to the large basement footprint means that the flow of subsoil may significantly exceed the driveway runoff. No details are given on the drainage plans. Because of the basement plan area, a number of pump-out pits may be required.

Furthermore it would be desirable for the arborist to comment on the likelihood of drawdown affecting the row of brush boxes along the eastern boundary. A groundwater history will assist with this.

- **Environmental assessment**

The previous application was accompanied by an environmental assessment by Golder Associates (2001), which included sampling at 36 locations. An area of elevated lead concentration and a suspected underground storage tank (UST) were identified. The

investigation was carried out prior to demolition of structures at the site, so the bowser, indicating the possible presence of the UST, was still evident.

It appears that the current applicant did not have access to the previous investigation documentation. It would be desirable if the documentation could be made available to them, but I am not sure of the mechanism for this.

Given the large proportion of the site which is intended to be excavated for the basement, then it is likely that most of the contaminated material will be removed at this stage. Disposal will need to be as recommended in Section 11.2 of the report.

The EIS report was based on only 17 sampling locations. This investigation identified elevated levels of arsenic, but not lead. This could indicate that the small number of sampling locations was insufficient, or just that subsurface conditions can vary considerably with distance.

Nevertheless, the report states “...EIS consider that the site can be made suitable for the proposed development provided that the following is undertaken...” and lists: Stage 2 site assessment, additional investigation, preparation of RAP, presumably the actual remediation (although this is not actually stated), and validation of the site.

It is considered that the Stage 2 site assessment and additional investigation and the preparation of the Remedial Action Plan (RAP) should be carried out prior to commencement of bulk excavation for the first stage of the development.

Remediation could then be carried out in conjunction with excavation, and validation prior to occupation of the first stage.

10. Utilities

It is recommended the applicant make contact with all relevant utility providers whose services will be impacted upon by the development. A condition of consent is also recommended to this effect in the event of an approval.

It is likely a substation would be required and the location of any substation should be shown in the architectural drawings at DA stage to assess the appropriateness of its location and streetscape impacts.

11. Contributions

Pursuant to Direction Section 94E under the Environmental Planning and Assessment Act (which takes effect from 15 September 2010), Ku-ring-gai Council is not subject to any s.94 direction that would cap s.94 contributions.

In this regard, Ku-ring-gai Section 94 – Development Contribution Plan 2004 – 2009 Residential Development (Amendment 2) and Ku-ring-gai Town Centres Development Contributions Plan 2008 apply to the site.

12. Consultation

The 'Environmental Assessment' (EA) shall demonstrate that an appropriate level of consultation in accordance with the Department's Major Project Community Consultation Guidelines October 2007 is to be undertaken and a comprehensive Community Consultation Strategy shall be provided.

- Public exhibition

Public exhibition of the application has occurred from Wednesday 1 September 2010 to Friday 1 October 2010.

- Roads & Traffic Authority (RTA)

The scale of the proposed development triggers a SEPP Infrastructure referral to the Roads and Traffic Authority based on the parking criteria in column 2, schedule 3 (Traffic Generating Developments) of the SEPP. Therefore, specific comment should be sought from the Roads and Traffic Authority.

- NSW Police

Having regard to the size and scale of the development, it is recommended that the application be referred to NSW Police for comment.

- Heritage Council

Whilst the site is not listed as a local or state heritage item, it is recommended the application be referred to the Heritage Council as there are a number of archaeological items including a well and subsurface deposits, which are subject to the NSW Heritage Act and the site is classified by the National Trust (refer heritage comments under Key Issue 2 – Built form and urban design impacts).

13. Statement of commitments

The documentation does not indicate how construction of the development is to be staged, including pedestrian and vehicular access to Buildings D and E during construction of Buildings A, B and C, waste collection from Buildings D and E or water management for Buildings D and E.

Insufficient information has been submitted regarding the capacity and condition of the interallotment drainage easements through the downstream properties, basement subsoil drainage, water quality measures and construction traffic management.

RECOMMENDATIONS

The development is not supported in its current form due to the site layout and design, environmental and amenity issues raised in this submission.

It is recommended that any amended proposal include:

- A redesign of the site layout of buildings incorporating recommendations by Council's Urban Design Officer

- Two levels of basement carparking and consolidated under the building footprints to maximise deep soil landscaping area, contributing to the tree canopied character and biodiversity of the locality.
- Buildings to be lowered such that the basement appropriately is below ground level and the overall height of the buildings complies with the 17.5m height control
- Reduction in density to address residential amenity issues
- Issues regarding carparking, waste management, landscape design and drainage be addressed.
- Further information to be submitted regarding construction management
- Strata subdivision plans to be lodged with the application