

Review of Revised Major Project Concept

Australian Catholic University

July 2012

Application No.: MP10-0231

Prepared By: Dickson Rothschild

Project Number: 12-016

Date: 24 August 2012



1. Introduction

We have been engaged to review the "ACU Strathfield Concept Plan Preferred Project Report and Response to Submissions MP 10_0231" (**the PPR**) prepared by Hassell, including comparing it to the Concept Plan dated December 2011 (**the Concept Plan**), in our capacity as experts in *Urban Design and Town Planning* a comparison of. Our analysis includes the following:

- A comparison of the PPR with the Concept Plan and providing a summary of changes.
- An analysis of the inconsistencies within the various representations of the PPR which call into question the extent of development for which approval is being sought.
- Summary of urban design and planning concerns arising from the proposed modifications.
- Comment on the effects of the modifications in the PPR on the Heritage impacts of the proposed development.
- Summary of the PPR's compliance with Strathfield's existing PSO and DCP.

In our opinion, the proposed scheme as modified continues to give rise to serious concerns, some of which cannot be fully assessed given ambiguities in the architectural drawings. The PPR has failed to resolve key issues which were raised previously in the Concept Plan, including the bulk, scale and character of buildings in relation to the surrounding area as well as amenity impacts on

local residents and other visitors to the area. The proposed changes in the PPR have done little to resolve the serious issues which were raised previously in the Concept Plan. Through our analysis we note there are a number of overarching issues, which are as follows:

- The proposed modifications are minor and do not mitigate the unacceptable impact of bulk and scale on the surrounding low density residential area.
- The application is incomplete. There is ambiguity in the drawings particularly in regard to the extent of the proposed building envelopes and the nature of solids and voids proposed. Given the inconsistencies of how the building envelopes are drawn in various representations (plan, section, envelope studies, shadow diagrams, photomontages), the extent of and impacts of the building envelopes for which approval is sought is unclear.
- The precinct plans contain very little detail in relation to vehicular movements, access and parking.
- Sections and elevations shown in respect of the basement car parking proposed in Precincts 1 and 3 are inconsistent and are inaccurate. For instance, basement levels are shown on some of the sections but are not explained.

- The Concept Plan (Section 03) does not provide any details regarding car parking within each of the precincts. This should be detailed within the PPR given it is integral to the overall design and planning for the new master plan, and it is one of the key developments in the PPR.
- It is not clear if the RLs provided for existing buildings are taken at the eave height or at the ridge height. For example, on several of the sections the RLs for surrounding built form appear to be taken at the ridge height of the pitched roof. On other sections, the RL for surrounding built form on the plan is shown as the eave height of the building. These inconsistencies call into question the fidelity of the contextual relationship between existing buildings and proposed buildings.
- The bulk and scale of the buildings indicate floor-to-floor heights consistent with a commercial building which may not be adequate for educational uses of the buildings. In this regard, the scale of the proposed buildings is understated. Consequently and practically, the floor-to-floor heights may need to be increased to create functional spaces at the DA stage. This is particularly the case in regards to studios, labs, lecture theatres, etc. In any event, the proposed floor-to-floor heights in the PPR are not practical, and are understated.
- The overall GFA of development has only decreased by a small degree (approximately 8%). The resulting development intensity is not compatible with the low density residential setting.

- The proposed development is excessive because it is remarkably different to the bulk and scale of the existing campus setting, and that of the adjoining Strathfield low density residential area. The existing campus has an estimated¹ 9,000m² of gross floor area (GFA) with the proposed expansion allowing for a maximum additional GFA of 13,590m²². This equates to a total GFA on site of 22,590m² and is 2.5 times the floor area currently on site. It is noted from a planning perspective that, the increase in on-site car parking is not consistent with this factor of 2.5, and in addition it is observed that there is currently an undersupply of car parking spaces on site.
- The new buildings are large and placed at the edges of the campus where they will be readily visible and in doing so will change the perceived scale of the surrounding area, beyond that which may have been expected or anticipated from a low density residential area.

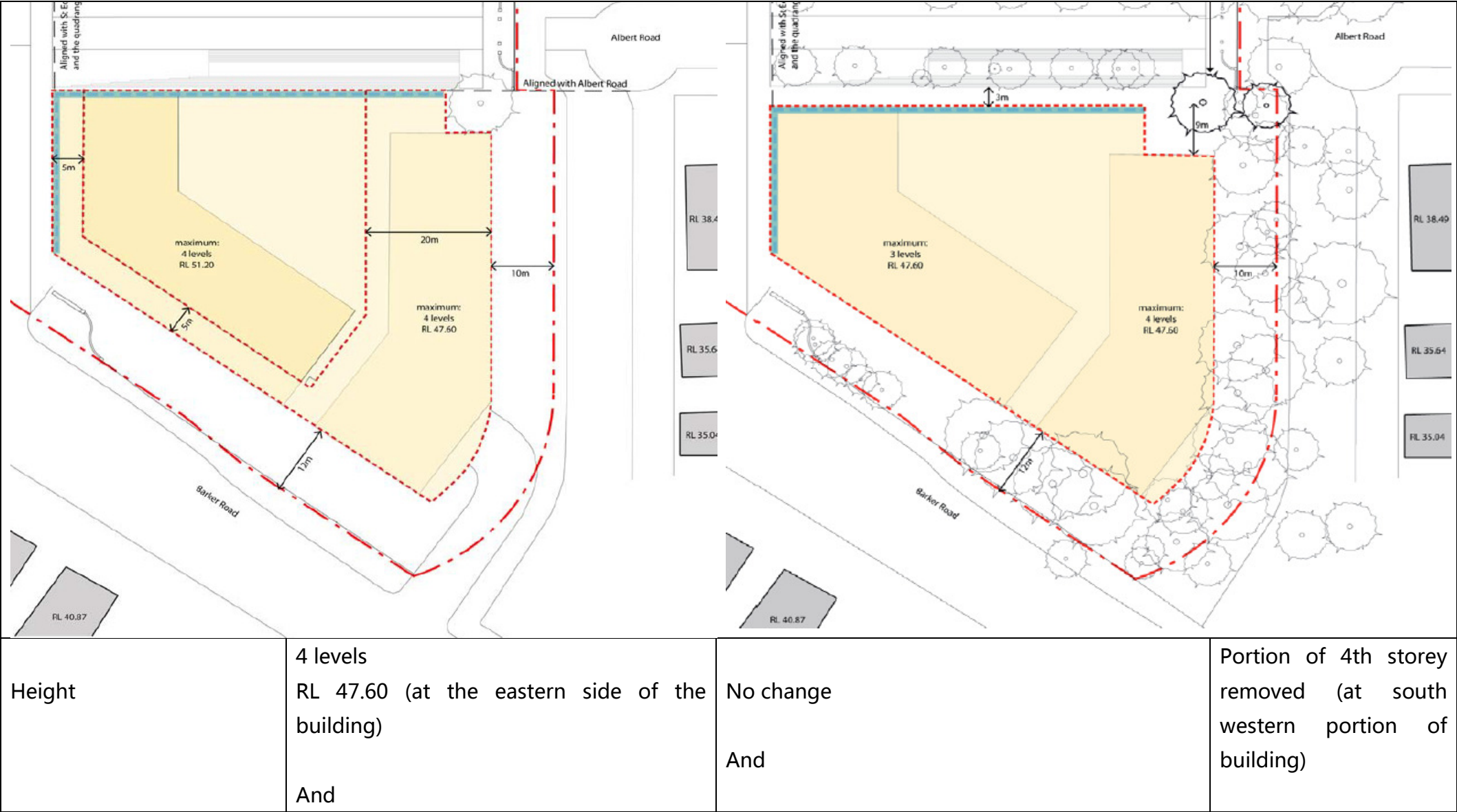
¹ Estimation is based on generalised ground floor plans and not through accurate survey measurements

² Numerical data as sourced from *Concept Plan Environmental Assessment: Hassell July 2012 pg. 31*

2. Precinct 1

2.1 Summary Comparison of December 2011 and July 2012 Proposals

| | December 11 | July 2012 | Change |
|------------|--------------------|------------------|---------------|
| Precinct 1 | | | |



| | | | |
|-------------------------------------|--|---|---|
| | 4 levels RL 51.20 (at the south western side of the building) | 3 levels RL 47.60 (at the south western side of the building) | |
| Frontage to Barker Road | Approx. 82 m with a 6 m gap 25 m from south eastern corner | Approx. 82 m with a 6 m gap 25 m from south eastern corner | No change |
| Frontage to Reserve | Approx. 70 m | Approx. 69 m | 1 m reduction |
| Northern edge (site interior) | Approx. 80 m | Approx. 8 m | No change |
| Western edge (site interior) | Approx. 25 m | Approx. 25 m | No change |
| Northern setback (interior of site) | Alignment to new Albert Road | Building setback by 1 m | Building setback by 1 m at north (interior of site) |
| Eastern Setback (to reserve) | 10 m | 10 m | No change |
| Southern setback (to Barker) | 12 m | 12m | No change |
| Car Parking | 174 car parking spaces | 174 car parking | No Change |
| Vehicular Entrances | Gate 1 positioned at south eastern corner of building, along boundary with reserve | Gate 1 removed, access to underground car park at northern side of building with vehicles entering from the existing main gate on Barker Road | Number of vehicular entrances to site reduced with access to Precinct 1 via existing main entry |

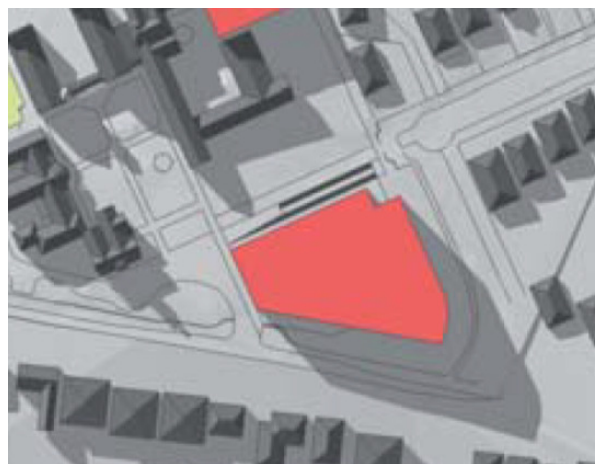
2.2 Precinct 1 – Plan Inconsistencies and Omissions

- a) There are inconsistencies and missing information in the proposal which give rise to ambiguities about the nature of the building envelope, access and servicing proposed.

The precinct plans demarcate the “building envelope line” at the perimeter of the building. The 3D massing diagrams include “ghosting” consistent with the building envelope line on the plan and the shadow diagrams indicate simple blocks devoid of breaks in the façade or ground level courtyards. The section and the pale yellow shaded area in the plan appear to indicate a courtyard level although the character and form of the courtyard is not well defined.

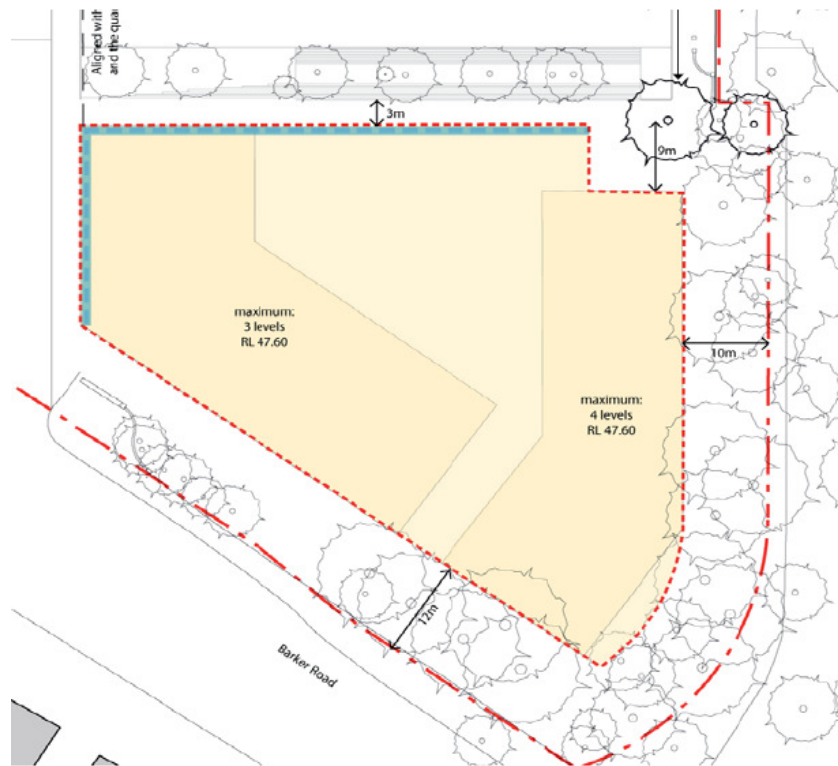


July 2012 Building envelope analysis

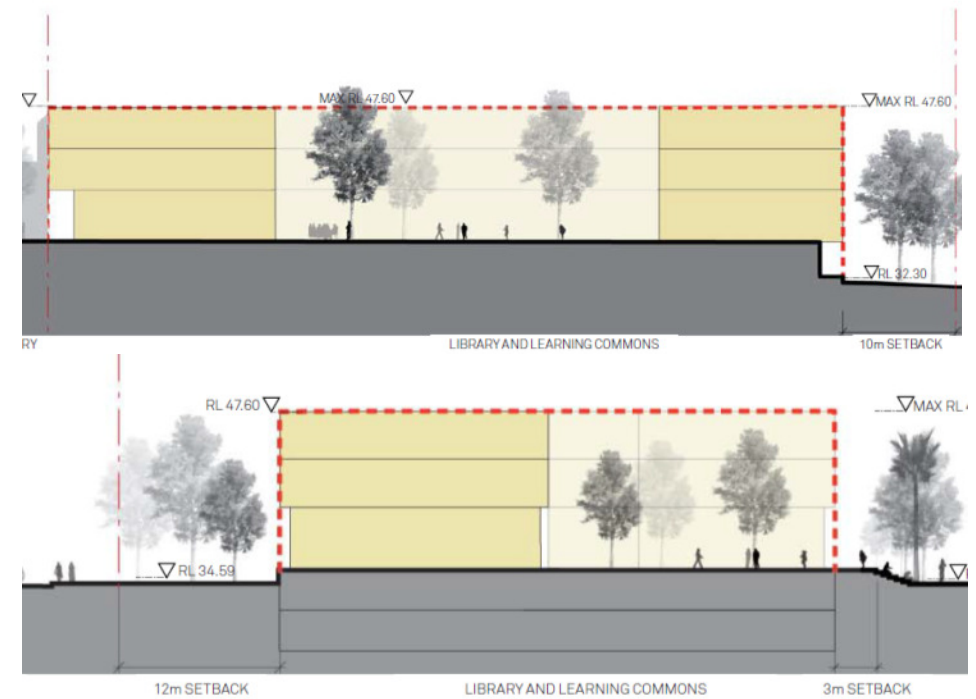


July 2012 shadow diagrams

- b) Section B-B and Elevation C-C indicate basement car parking. Section A-A does not identify the access point to basement car park for the precinct. These inconsistencies give rise to questions about how the proposed building envelope is defined and do not make clear the nature of the built form for which approval is sought.



Precinct 1 Plan July 2012



Section A-A (top) and Section B-B (bottom) Precinct 1 July 2012

- c) Car parking information is provided on a separate plan in a separate part of the application. The plans fail to indicate the access point to the future basement car park in Precinct 1. This is a key aspect of the PPR, given that 174 basement car spaces are proposed, and accordingly the access point should be clearly identified.



Car Parking Plan (July 2012)

- d) The floor-to-floor levels indicated in the plans and sections are consistent with a commercial building rather than an institutional building. While the applicant states these as the maximum roof levels, the proposed floor-to-floor is likely to prove inadequate during the DA stage and it is likely further increase in height will be necessary.
- e) The floor plans and sections appear to indicate a small element of building articulation with a 6 m break in the Barker Road frontage. However, this is not reflected in the photomontages, the shadow diagrams, or the Section C-C drawing. The

photomontages, Section C-C and solar diagrams reflect a block like building with no articulation to relieve the impact of the 82 m and 70 m frontages.

- f) The context provided on the precinct plan indicates roof RLs of adjoining dwellings. These RLs are believed to be taken at the ridgeline of pitched roof forms and thus do not provide an entirely accurate representation of the relationship between the proposed building and existing built form. It is noted that in other precincts, the RLs shown in the Section diagrams of the PPR are shown as a ceiling heights and not ridge heights. Therefore, the relationship between the PPR and the existing surrounding built form cannot be clearly ascertained nor are they accurately represented.
- g) The general location of noise omitting sources such as air conditioning and car parking ventilation should be nominated at the concept stage. Given the size of the proposed buildings and their location at the periphery of the campus, the location of these areas can have a significant impact on the amenity of surrounding sites and the public domain and must be made available to allow proper assessment of the PPR.

2.3 Precinct 1 – Summary of Impacts

- a) Overall, the modifications to the scheme do not address the excessive bulk and scale of Precinct 1 as viewed from the public domain. The new building is large and placed at the edge of the campus where it will be readily visible and in doing so will change the perceived scale of the surrounding area, beyond that which may have been expected of, or anticipated in a low density residential area.

- b) On of the proposed modifications to precinct 1 is that the roof level across the entirety of the building is RL 47.60. This results in a consistent roofline over the building and a height of approximately 13 m at the most visually prominent portion of the building, which is the corner. The PPR does not adequately address the objections and concerns raised in the Concept Plan that is the significant adverse impact on the Barker Road Streetscape and Mount Royal Reserve, which remains a key issue.

The excessive length of the buildings (82 m with only a 6 m break along Barker Road and 70 m length to the reserve) together with the consistent height along the entire length of the façade to Barker Road and Mount Royal Reserve is not compatible with the character of the area. The impact of bulk and scale of the PPR on the Barker Road Streetscape and the Reserve is unacceptable.

- c) While setbacks within the interior of the site have been increased in line with the recommendations of Council's heritage consultant, GML, to better respect the heritage setting of the campus, the setbacks to the public domain have not been modified.

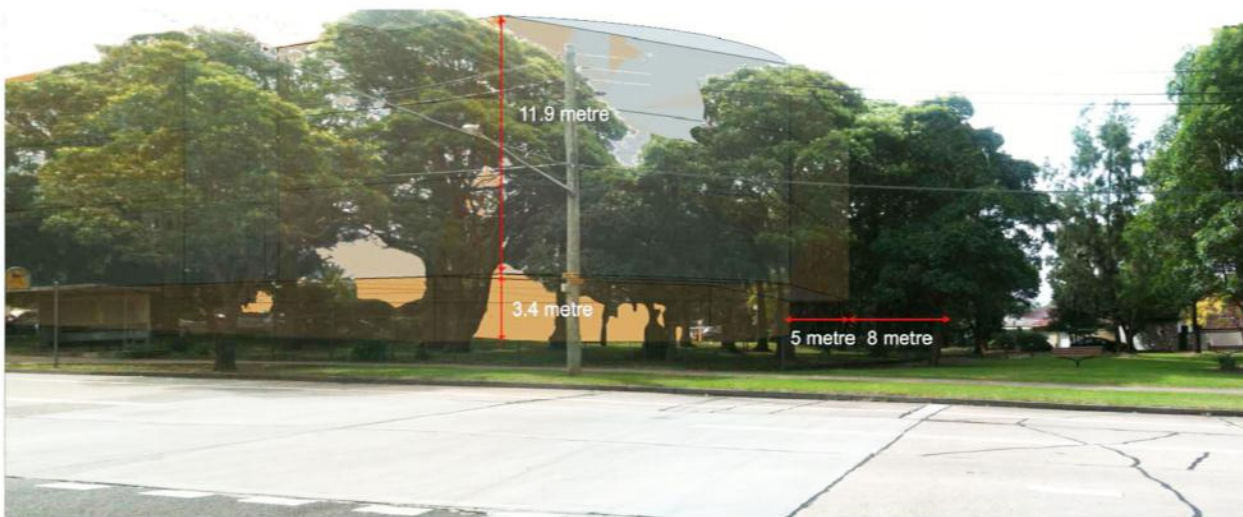
Given the proposed setbacks, many of the existing trees will be removed. The revised tree removal plan is ambiguous about which trees will actually require removal, particularly at the south eastern corner of the Precinct. This landscape response to the setback area, being a key interface, with the public domain is not sufficiently described. It is likely the buildings will be

highly exposed. Notwithstanding, given the proposed height of the building (82m), screen planting alone will not be sufficient to mitigate the impact of bulk and scale on the public domain and the surrounding low scale domestic development.

- d) The length of the proposed building remains excessive and the built form when viewed from the public domain will be monolithic.

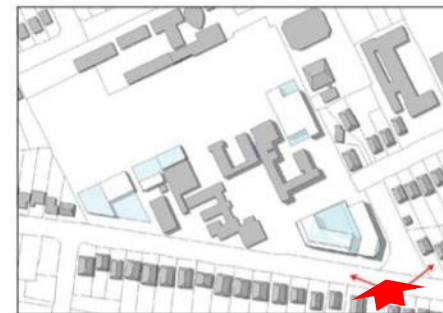


PRECINCT 1 BEFORE



PRECINCT 1 AFTER

Note: The images represent bulk and form of the proposed concept development based on the nominated heights and extrapolated by estimation onto

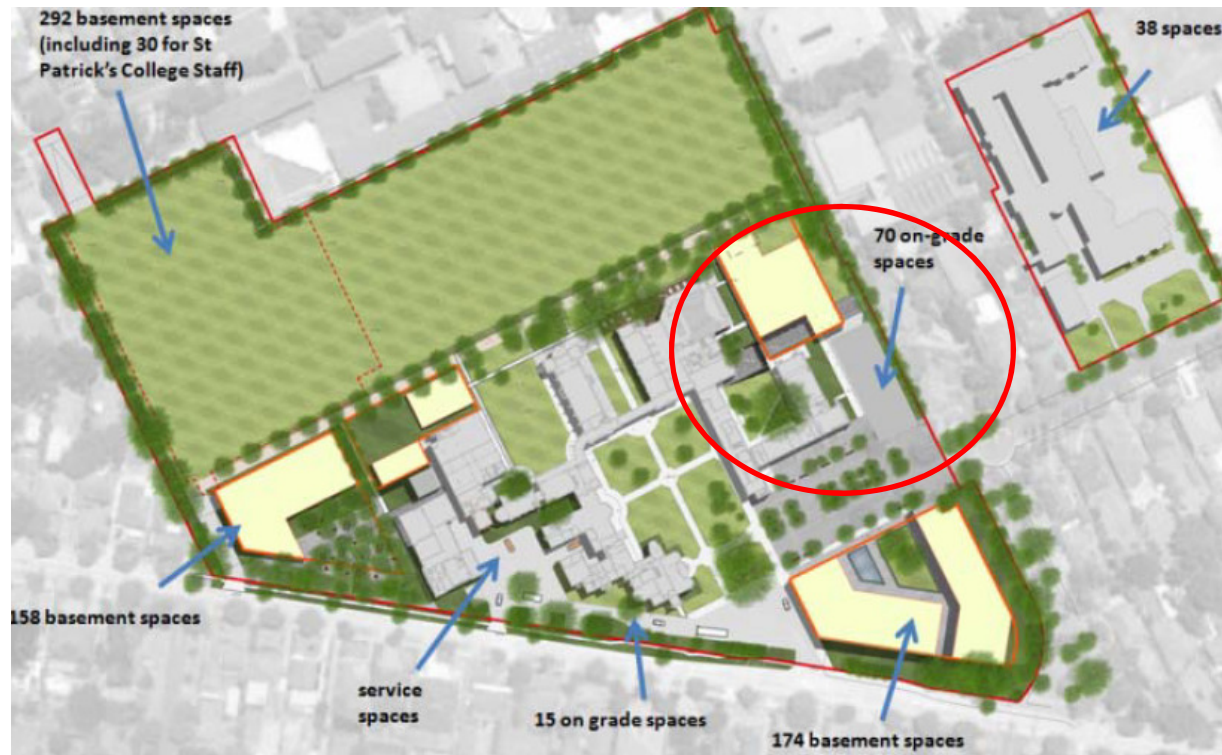


Photomontage indicating scale of Precinct 1 from Barker Road (Source: Dickson Rothschild)

3. Precinct 2

3.1 Precinct 2 - Summary Comparison of December 2011 and July 2012 Proposals

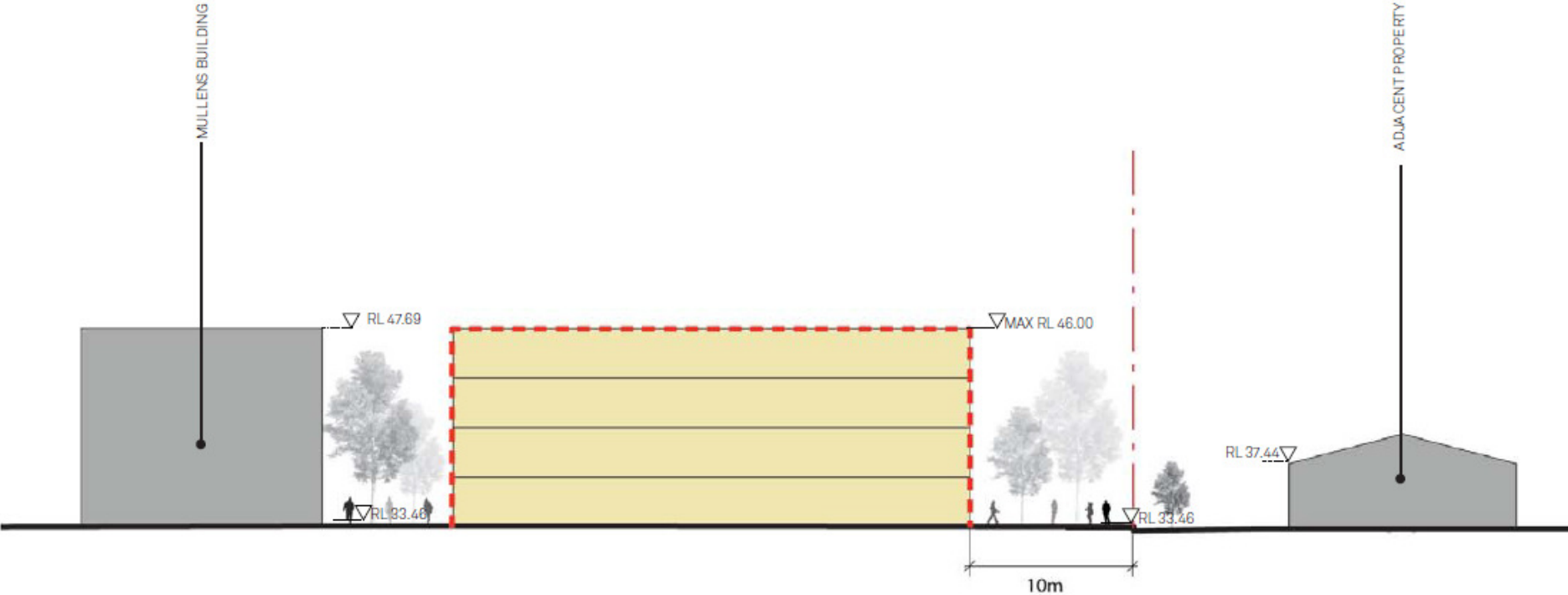
No modification to the proposed building envelope is sought in Precinct 2. However, it is proposed that 70 additional car parking spaces on grade on a paved area adjacent to Precinct 2 will be created. This modification requires the elimination of a large landscaped area and which adversely affects the existing, generally low amenity character, of this portion of the campus.



Car Parking Plan (July 2012)

3.2 *Precinct 2 – Plan Inconsistencies*

- a) It is noted Section A-A indicates a maximum RL of 46 for the proposed Precinct 2. The section indicates the adjoining building is to a maximum RL of 47.69. However, the section drawings indicate the two buildings being the same height. Further, the Mullens Building, which has pitched roof forms, appears to be shown inaccurately.
- b) Further, there appears to be inconsistencies with the RLs indicated on surrounding buildings. The RLs for the surrounding precincts appear to be taken at the ridge of the pitched roof. In the sections for Precinct 2, the RLs are indicated at the eave or parapet height rather than the ridge. The section drawings do not accurately represent the relationship between the proposed built form and the existing built form.



Section A-A (July 2012)

3.3 Precinct 2 - Summary of Impacts

- a) The addition of car parking on grade requires the elimination of a large landscaped area and will adversely impact on the existing low amenity character of this portion of the campus. It is not demonstrated how the proposed car parking area will impact on the adjoining properties.



Existing eastern edge condition of ACU campus and the location on illustrative master plan (Hassell, July 2012)

- b) The proposed 4 storey scale of the development and its separation to other buildings on the campus is unmodified. The proposed building is remarkably bulkier than the neighbouring two buildings on the campus. In particular, there is very little

building separation between Precinct 2 and the building directly to the south. This southerly building is notably lower and more slender than that proposed in Precinct 2. Therefore, the interrelationship of buildings will be poor and the building separations will be insufficient.

4. Precinct 3 and Underground Car Parking

4.1 Summary Comparison of December 2011 and July 2012 Proposals

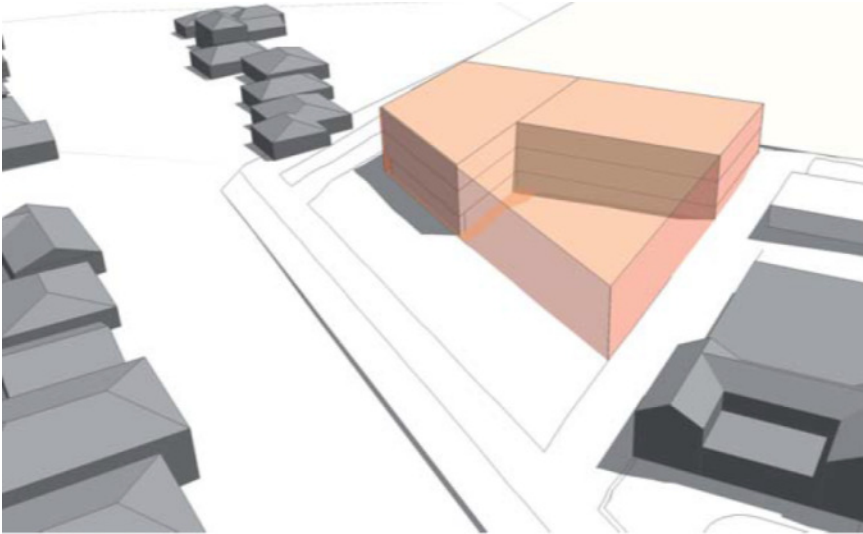
| | December 11 | July 2012 | Change |
|------------|-------------|-----------|--------|
| Precinct 3 | | | |

| | | | |
|---|------------------------------------|------------------------------------|---|
| Height | 3 levels RL 42.00 | 5 levels RL 42.8 | Portion of 4th storey removed (at south western portion of building) |
| Frontage to Barker Road | Approx. 80m | Approx. 75 m | Reduction due to increased western setback |
| Frontage to Playing Fields | Approx. 63 m | Approx. 58 m | 5 m reduction |
| Western edge (site interior) | Approx. 25 m | Approx. 25 m | No change |
| Eastern Setback (to reserve) | 8 m | 8 m | No change |
| Southern setback (to Barker) | 12 m | 12m | No change |
| Car Parking (under building) | 158 | 158 | No change |
| Car Parking Under Playing Fields (Accessed from Precinct 3) | | | |
| Car Parking | 252 car parking spaces | 262 car parking spaces | Increase in 10 cars |
| Vehicular Entrances | Within western setback of building | Within western setback of building | No change, although loading access has been removed from this western boundary. |

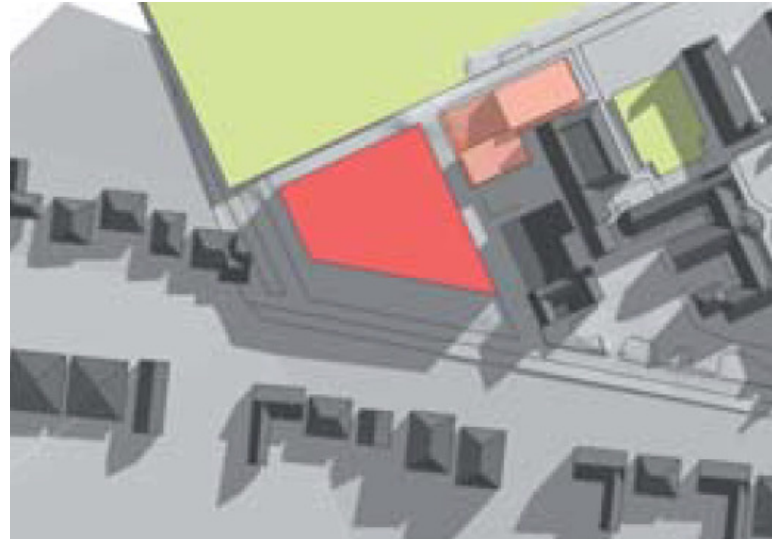
4.2 Precinct 3 – Plan Inconsistencies

- a) The extent of the proposed development and in particular the building envelope is not clearly defined.

- b) The context provided on the precinct plan indicates roof RLs of adjoining dwellings. These quoted RLs are taken at the ridgeline of pitched roof forms and thus do not provide an entirely accurate representation of the relationship between the proposed building and the existing built form.
- c) The “ghosting” effect on the 3D envelope analysis, the demarcation of the building envelope line at the perimeter of the building footprint and the shadow diagrams create an ambiguity. These inconsistencies give rise to questions about how the proposed building envelope is defined and do not make clear the nature of the built form for which approval is sought. The ambiguities together with the various representations of the building call into question the character of the proposed interior space of the building.
- d) The shadow impact analysis does not accurately describe the shadow impact on the proposed south-facing courtyard for Precinct 3.



July 2012 Building envelope analysis



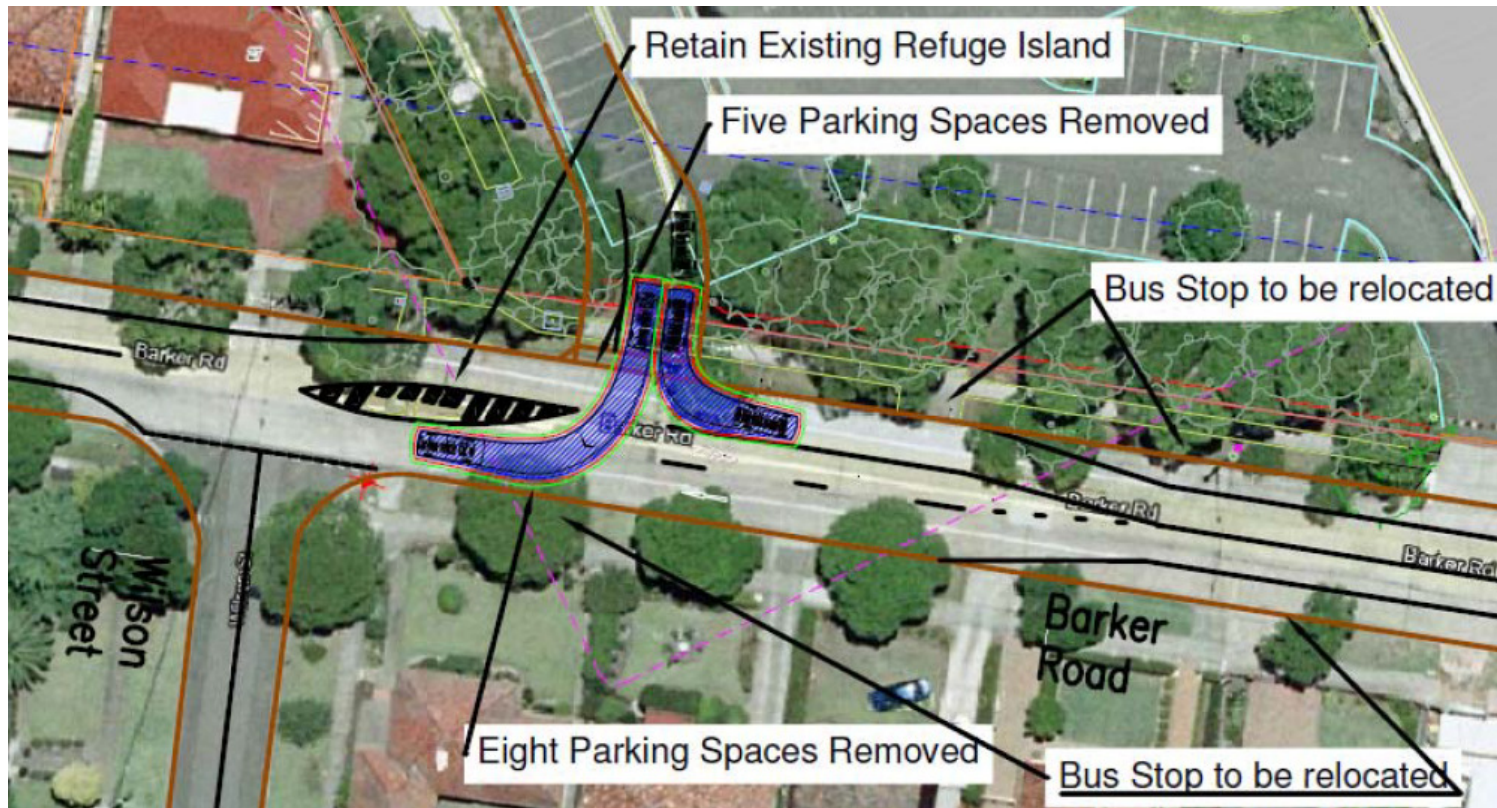
July 2012 shadow diagrams.

- e) It is not clear in the proposal what the lightest yellow colour indicates, given these areas are within the defined “building envelope.”
- f) The precinct plan provides almost no detail regarding the proposed driveway to the underground car parking for 420 cars. While there is some information in the ARUP report, this condition is critical and should be clearly reflected and explained in the precinct plans.

- g) The western edge condition (including the car parking access and ventilation, acoustic treatment at boundary and nature of the building edge) is not adequately described on the plans given it is a crucial interface to low density residential development adjoining the site.
- h) The underground car parking under Precinct 3 is shown in section A-A and B-B but it is absent in Section C-C.
- i) The relationship between other Development Applications relating to that car parking below the playing fields and this application is not clearly described.

4.3 Precinct 3 – Summary of Impacts

- j) While the western setback has been increased by 5m, it is unclear how acoustic, visual and odour impacts (from exhaust) on the adjoining residents shall be buffered and mitigated. Given the western setback is utilised as the single entrance and exit to the underground car parking for 420 cars (Precinct 3 and Parking under Playing Fields), it is our opinion the proximity of the driveway to existing low density residential development will greatly impact on the amenity of those residents.



Proposed driveway configuration as illustrated in the Parking and Traffic Study by ARUP (July 2012 scheme)

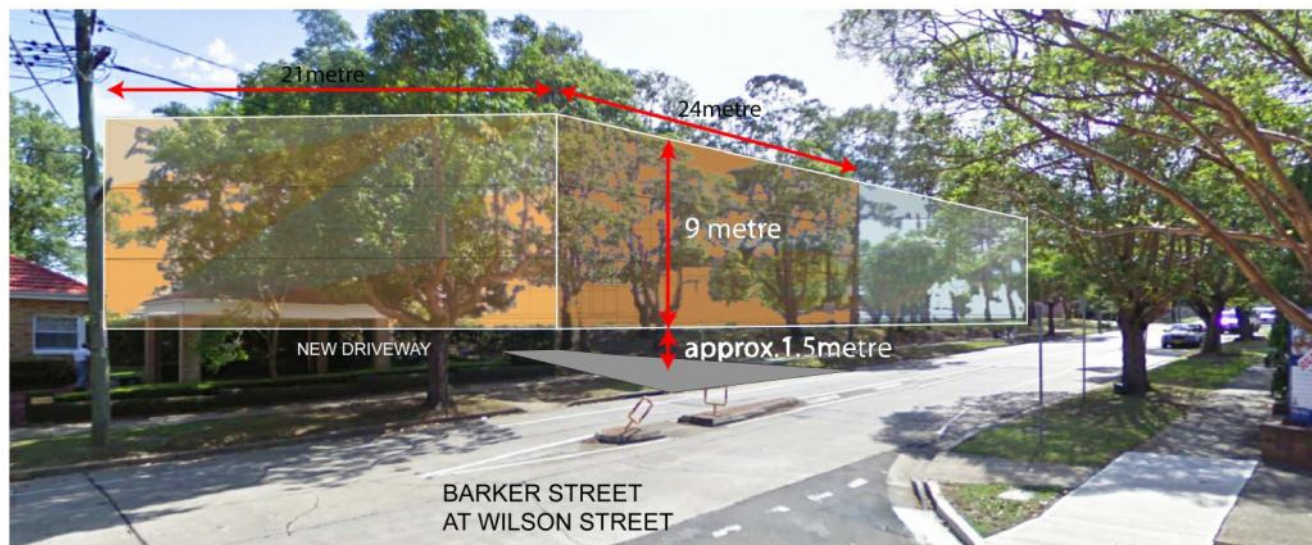
- k) The proposed bulk and scale of the building at the west is incompatible with the adjoining low density residential development. The proposed western setback (although larger) does not create the appropriate transition in built form.

- l) The amenity of the proposed south facing courtyard is questionable with the space being overshadowed at all time other than the early morning.
- m) The floor-to-floor levels indicated in the plans and sections are consistent with a commercial building rather than an institutional building. While the applicant states these as the maximum roof levels, the proposed floor-to-floors are likely to prove inadequate and will necessarily be increased during design development at the DA stage. This is particularly the case with the proposed building uses which include specialist laboratories and art studio. Therefore, the environmental impacts of the PPR are not accurate and do not reflect the likely impact of the proposed buildings.
- n) Overall, the modifications to the scheme do not address the excessive bulk and scale of Precinct 3 as viewed from the public domain.
- o) The location of the driveway to the underground car parking under Precinct 3 and under the playing fields is inappropriate given its proximity to adjoining sites.
- p) The bulk and scale at the south western corner of the site coupled with the frequent vehicular access (to 420 car parking spaces) concentrated at this corner shall have a severe and unacceptable impact on the amenity of the residential development immediately adjoining the site to the west.

- q) Generally, all residents within the vicinity of the site will be affected by the development of the PPR. This is because, the bulk and scale at the south western corner of the site coupled with the frequent vehicular access (to 420 car parking spaces) concentrated at this corner shall have an unacceptable impact on the amenity of the surrounding residential area.
- r) Overall, the modifications to the scheme do not address the excessive bulk and scale of Precinct 3 as viewed from the public domain. The new building is large and placed at the edge of the campus where it will be readily visible and in doing so changes the perceived scale of the surrounding area, beyond that which may have been expected or anticipated in a surrounding low density residential area.



PRECINCT3 BEFORE



PRECINCT 3 AFTER

Note: The images represent bulk and form of the proposed concept development based on the nominated heights and extrapolated by estimation onto



Photomontage indicating scale of Precinct 3 from Barker Road (Source: Dickson Rothschild)

5. Heritage

It is noted the PPR has responded to the comments of GML (on behalf of Strathfield Council) for Precinct 1. GML stated the north-western edge of the building encroached into the significant visual setting of the Edmund Rice Building and the view corridors between Albert Road and the tower of Mount Royal. GML suggested the building height be reduced and the setback to the Albert Road alignment increased by at least 3 m.

The PPR has set the northern portion of the building back that is the minimum suggested 3 m, and has removed the 4th storey.

The increased setback and position of significant trees (Bunya Pines) have been clarified as per GML's recommendations.

GML also raised concerns about the landscape setting of Mount Royal Reserve and stated that the Concept Plan demonstrated that there was "considerable scope/opportunity for new plantings to help soften the visual impacts of future new buildings."

It is noted in this regard, the PPR does considerably reduce landscaping opportunities between Precincts 1 and 2 and the former alignment of Albert Road due to the required access to new surface car parking adjoining the eastern boundary of the site and north of the Albert Road alignment.

It is further noted, the Heritage Impact Statement Addendum prepared by Weir Phillips is formed as a response to the Comments of the NSW Heritage Council. The response is very brief and provides ambiguous and uncertain commitments to future undertakings.

In regard to item 2, the Heritage Council raised concerns regarding possible surface car parking in the location of the playing fields. While the Weir Phillips response clarifies that car parking is located under the playing fields, it fails to address the additional surface car parking at the eastern side of the campus. Given the new proposed surface car parking is in closer proximity to significant heritage buildings, the issues concerning the surface car parking are not resolved.

Weir Phillip' s response to Item 3 is vague. Our analysis above demonstrates that, while the building envelope diagrams of Precinct 1 have been modified, the inconsistencies together with the representations of the proposed built form remain largely unresolved and the statement by the Heritage Council that the smaller figure should prevail remains valid given the ambiguities in the concept plan.

In regard to Item 5, it is unclear why an assessment against the checklist criteria contained in the "Design in Context Guidelines for Infill Development in the Historic Environment" has not been undertaken at the concept design stage, given the important heritage character of the campus.

Overall, the effect of the new car parking access to Precinct 1 and the proposed surface car parking, north of the Albert Road alignment, has not been adequately addressed. It is important to note that the area is a significant landscape setting which contributes to the heritage character of the site.

6. *Assessment against Strathfield's Planning Objectives*

6.1 *Scheme Ordinance 1969*

The PSO 69 Clause 41C requires that development adjoining residential zones must have regard to the built form compatibility of and amenity impacts on surrounding residential zones.

- *Clause 41C (a): Wherever the Council considers it to be appropriate, proposed buildings are compatible with the height, scale, siting and character of existing buildings within the residential zone.*

The proposal does not comply with this clause. The proposed development, particularly in terms of the height, scale and siting of the proposed Precincts 1 and 3, significantly contrasts with the existing buildings (both residential and institutional) in the immediate vicinity of the site. Smaller, more appropriate buildings which are proposed are located away from the public domain in areas which are more suitable for larger buildings.

- *Clause 41C (c): The elevation of any proposed building facing land in a residential zone has been designed to be compatible with existing buildings within the residential zone, or is suitably screened.*

The proposed building envelopes are not compatible in terms of scale, bulk and presence within the streetscape with the existing buildings within the zone. The proposed scale and bulk of the buildings does not make screening alone a sufficient mechanism for reducing the effects of bulk and scale on the area. It is also noted that the proposed tree removal plan

earmarks numerous existing trees for retention, which are likely to require removal. In short, the largest buildings are located at the most visually prominent locations within the campus which exacerbates their impact on the surrounding low scale residential area.

- *Clause 41C (d): Windows facing residential areas have been treated to avoid overlooking of private yard space or windows in residences.*

The visual dominance of the proposed building envelopes, particularly in Precinct 1, 2 and 3 are built close to the property boundary and are of a scale and form, which will create a sense of overlooking and visual dominance to neighbouring properties. In regard to Precinct 2, the status and relationship of the proposed development to adjoining residential properties are unclear.

- *Clause 41C (e): noise generating from fixed sources or motor vehicles associated with the development has been effectively insulated or otherwise minimised*

Clause 41C (f): the development will not otherwise cause nuisance to residents, by way of hours of operation, traffic movement, parking, headlight glare, security lighting or the like.

McLaren Traffic Engineering has raised several serious concerns regarding the impact of the proposed development by virtue of its traffic and parking demand. The information provided also does not adequately demonstrate the proposed

traffic, parking and transport strategies for the site will provide reasonable amenity for the development itself. Please refer to McLaren Traffic Engineering's submission on the revised July 2012 scheme for further detail.

6.2 *Development Control Plan 2005*

DCP 05 *Section M* governs development for the purposes of Educational Establishments. Consistent with the PSO 69, the objectives of this section of DCP 05 seeks compatibility of built form with the surrounding built form and land use context. The objectives of DCP 05 include, among other things, to maintain the amenity of surrounding residential areas as well as protect the functionality and amenity of the surrounding road network.

The objectives of Part M of DCP 05, which relate to the PPR, are as follows:

- *Objective 1: To ensure that a satisfactory educational environment is provided which will also preserve, maintain and enhance the general amenity and heritage character of Strathfield by ensuring that educational establishments are compatible with neighbouring land uses.*

The PPR is generally consistent with the neighbourhood land uses. However, the intensity of the proposed land use (approximately 2.5 times the existing intensity) is considered incompatible with the low-intensity neighbouring land uses including the existing road network.

- *Objective 2: To ensure that educational establishments satisfactorily integrate into existing residential and other area streetscapes in terms of size, bulk, height, site coverage, form, character, noise generation, privacy impact, maintaining solar access and landscaping.*

The proposed development does not integrate into the existing streetscape. The proposed buildings, in particular, Precinct 1 and 3 create an abrupt change in bulk and scale of built form. They not only create dominance in terms of the surrounding residential zone but also have a markedly different scale and character than the existing buildings on the ACU campus.

Precinct 2, while having a floor plate area more compatible to existing buildings on the campus, is located very close to existing buildings, giving rise to inadequate building separations.

While the proposed development is a concept design only, the general servicing strategies such as entrances to underground car parking, location of noise generating sources such as air-conditioning units have not been indicated and necessary to properly assess the PPR. Given that the location of the buildings are at the edge of the campus and adjacent to sensitive land uses such as the Mount Royal Reserve and low density residential dwellings, the proposed location of these services is integral to determining the impact of the proposal on the surrounding amenity of the area. In this regard, the PPR is incomplete.

- *Objective 3: To ensure that educational establishments operate to maintain pedestrian and traffic safety for both those associated with educational establishments as well as neighbours and other road and footpath users.*

Objective 4: To ensure that educational establishments operate with acceptable traffic impact on the local and regional road network.

Objective 5: To ensure that educational establishments themselves take active on-going responsibility for the maintenance of traffic and pedestrian safety, the appropriate control of generated vehicular and pedestrian traffic, the dissemination of relevant safety and traffic procedures and requirements information and the ongoing monitoring and minimisation of traffic impact.

Objective 12: To provide sufficient on-site car parking for peak parking needs including those of students, teachers and visitors and others so as to not adversely impact on the neighbourhood and the local road network.

We refer to the report prepared by McLaren Traffic Engineers, which raises numerous concerns as to the accuracy and adequacy of the PPR in terms of traffic, parking and transport. In particular the report questions the adequacy and safety of the proposed intersections, and the likely inadequacy of the on-street and off-street car parking spaces to cater for future demand given that the provision of car parking does not take into account the observed under supply of car parking relating to the existing operation of the ACU nor does it keep pace with the amplification of Gross Floor Area for the new proposal. Further, there are inadequate details provided in the PPR to demonstrate that a viable transport strategy is or will be in place

to reduce potential impacts on the road network. In general, the ACU campus is too far removed from adequate public transport infrastructure to accommodate the significant increase in student numbers.

In terms of urban design considerations, the significant projected increase in the student population and the substantial increase in car parking spaces required shall have a significant impact on the small-scale domestic quality of the local roads and footpaths. Local roads as well as footpaths are narrow and do not have the capacity to serve future students and faculty, or to maintain the amenity of local residents, whether ACU patrons walk, cycle, take the proposed shuttle bus, or drive to the campus.

The public domain is likely to be congested as students wait for buses, travel to and from campus, wait to cross vehicular access points, etc. This will greatly reduce the ability of local residents to use and enjoy the public domain.

- *Objective 7: To encourage the provision of environmentally sustainable modes of transportation for students to and from educational establishments.*

The envisaged increase in student population and the distance of the campus from major public transport infrastructure will greatly compromise the ability of the development to achieve sustainable outcomes. The report by ARUP forming part of the PPR states that use of private motor vehicle is preferred by the students over other modes of transport. Further and in conjunction with this constraint, sustainable transport outcomes are further compromised for the site given:

- The high level of car ownership in suburban Sydney, this trend was also observed in ACU campus' end users;
 - The location of the site outside of the convenient 10-minutes walking distance of the train station;
 - In order to use public transport to access the site a multi-modal trip is required;
 - The relatively low frequency and capacity of the bus service to the school. School timetables create peaks and troughs in transport demand;
 - Students travel from all over the region to attend ACU; and
 - The difficulty of carrying a bicycle on Sydney Rail and the large catchment area for students reduces viability of considering cycling as a significant contributing mode of transport for the ACU campus.
- *Objective 8: To ensure educational establishments provide a satisfactory outdoor learning environment in regard to the range, size and quality of external site amenity requirements in relation to the specific type of educational establishment.*
- The PPR has not provided adequate details regarding the scale and form of the proposed internal courtyards. The existing courtyards at the ACU campus have an appropriate scale relationship to their enclosing buildings. The proposed courtyards in the new precincts have a notably different scale relationship.
- *Objective 9: To provide a high standard of design, construction and operation in educational establishment developments.*

While the detailed design of any buildings on the site would be subject to a Development Application, the general siting and building envelopes nominated in the PPR do not fit within the surrounding residential context of the site, nor is the proposal compatible with bulk and scale of the existing buildings on the ACU campus.

- *Objective 10: To ensure educational establishments maximise opportunities for sustainable energy and resource usage (including transportation) for environmental purposes and for educational purposes.*

Objective 11: To require the construction of energy smart educational establishments.

Objective 14: To ensure educational establishments provide aesthetically and environmentally attractive and safe environments in regard to design, site lay out, materials, internal spaces, etc.

As stated above, the PPR and the ACU Campus, generally, is in a location which frustrates use of public transport and other sustainable modes of transport. This largely compromises the PPR's ability to achieve sustainable energy and resource usage.

- *Objective 13: To ensure the adequate removal of stormwater and wastewater from sites and to detail processes for the on-site storage and re-use of stormwater.*

The proposed development provides a very basic stormwater management strategy. Council has a clear Water Sensitive Urban Design Policy. It is reasonable to expect a logical and detailed WSUD strategy be provided at the concept stage since it is an underlying system within the larger development (similar to the parking and traffic management). The PPR provides rudimentary volume and flow information and only cursory steps towards a holistic and sustainable water management

system. The area of impervious surface shall increase from the existing condition, as well as from the Concept Plan (given the increased number of on-grade car parking in the eastern setback near Precinct 2), particularly at the edges of the property. The impact on adjoining properties due to the placement of buildings at the perimeter has not been adequately detailed at the concept stage. It is also noted that many of the new courtyard spaces are not deep soil zones and stormwater management strategies for these spaces must be detailed so that it can be assessed and to better understand how they relate to the overall stormwater management system.

7. Conclusion

It is the opinion of Strathfield Council and our opinion that for the reasons stated above, the development should be refused on the grounds of unreasonableness and must be reconsidered. The Council in their capacity as custodians of the local area and representing its residents would like to reinforce that they do not oppose new development of the site and would consider any reasonable development with benefit to the greater Strathfield Local Government Area. They cannot and do not support the application as currently formed and would ask the Director General to consider the consequences of the proposal on the community and the local character of the area giving regard to existing Council and NSW State Legislation before making a judgment



Professor Nigel Dickson

Dickson Rothschild