

GMU: DESIGN REVIEW COMMENTS – APPLICANT RESPONSE

Design review comments for Site 53, 2 Figtree Drive, Sydney Olympic Park – GMU Urban Design & Architecture

To be read in conjunction with;

Response to Submission Report – Urbis

Appendix A – Design Response and Architectural Plans – BVN Architecture

Appendix B – Landscape Response – 360 Landscaping

TABLE 1 – APPLICANT RESPONSE

COMMENT / RECOMMENDATION	ACTION / RESPONSE
1. BULK & SCALE	
<i>Building Heights</i>	
The proposed heights of the Buildings 2, 3 and 4 exceed the maximum allowable heights in the Draft Master Plan. We understand that the applicant's height protrusion was a result of mass redistribution to provide a lower built form for Building 1, which is a design response to the intended urban forecourt and to minimise overshadowing impact on the central courtyard space. While the proposed approach has merit, the outcome in terms of other issues such as activation and connectivity to and within the space is not sufficient to achieve the outcomes sought in the Draft Master Plan. The principle of some relaxation of the master plan heights may be supportable on this site due to its corner location and role in the entry to the precinct. It is noted that the Opal Tower on Site 68 will achieve a higher RL than this site. However, to justify this, all other outcomes need to be achieved as well as a reduction in bulk. The proposed floor-to-floor height above the ground level is 3050mm. This is a minimal floor-to-floor height that is not ideal for development of this scale. Such a major proposal should uphold the ADG's standard of 3.1m.	See detailed discussions b and Section 5.1.2.1 of the Response to Submissions Report (the Report).
<i>Building Depths / Floorplate Sizes</i>	
The proposed building floorplates significantly exceed the maximum horizontal dimensions required in the Draft Master Plan. The Draft Master Plan requires that "floor plates for levels above 15 storeys should not exceed 800m² GBA". Section 4.6.8 Tower Building Controls also require "limiting the overall dimensions and spacing of towers to achieve slender, articulated and well-spaced tower forms." Although the proposal seeks to deal with this using a 'split' form, it is not sufficient to moderate the visual impact of the bulk and breadth of the towers. The result creates a 'wall' of development for Buildings 2 and 4 and the towers do not achieve 'slenderness'. This impact is exacerbated by the exposure of Building 2's tower to key axial views due to its orientation.	See discussion at Section 5.1.2.2 of the Report. Double cores have been provided have been provided in Buildings 2 and 4.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
Building 2 has a floorplate size of 1,202m² and a maximum length of approximately 65m, exceeding the maximum floorplate size by approximately 50%. The full length of Building 2 is highly visible when approaching on Australia Avenue from the South. This causes adverse view impacts on this important view axis and creates an unfortunate visual contrast to the slender profiles of the adjacent Australia Towers and Opal Tower. These towers have a visible length of approximately 40 – 45m only. The large floorplates of the proposal hamper the scheme. Up to 10 apartments are provided from a single circulation core per level in Buildings 2 and up to 15 apartments off a circulation core per level in Building 4. This exceeds the ADG's recommended maximum by 37.5%. These large floorplates also exacerbate the overshadowing impacts on the Linear Park to the south. The building depth is approximately 23m in some areas. This exceeds the maximum building depths (18m) required by the ADG and the Draft Master Plan. The building depth also exacerbates the bulk of the form and impacts its 'slenderness'. The issues of apartment layout caused by excessive building depths are discussed later in this commentary.	
<i>Building Separation</i> The proposed separation between habitable rooms/balconies of Buildings 1 and 4 is 20m. The balcony of Unit 4.10.8 looks directly to the balcony of Unit 1.10.1 without any design measures applied to mitigate the visual privacy issues. In addition, the proposed separation between habitable rooms/balconies of Buildings 2 and 3 is 20m only. The ADG requires a minimum of 24m separation between buildings above 8 storeys. Given the shortfall is only 4m, adequate privacy could be achieved with operable privacy screens to the affected windows/balconies. Buildings 3 and 4 are connected up to Level 07, forming a continuous wall of development of approximately 88m and 7-storey high. The inset provided to reduce this building length lacks sufficient depth to be effective and additional measures are required.	Operable privacy screens have been added to the windows/balconies of affected apartments. Cross-through apartments within Buildings 3 and 4 have been reduced in depth on 'New Street' side to increase inset and breakdown building length. See further discussion at Section 5.1.3.3 of the Report.
<i>Recommendations for bulk and scale</i>	
Investigate opportunities to increase the height of Building 2 to match the height of the Opal Tower (RL127.90) – by transferring the massing in the building width into additional floors onto the 31-storey component. This would also increase the slenderness of the tower (refer to GMU's sketch No.3 and 4). Any potential height increase must ensure that the proposal is able to maintain an appropriate scale relationship with the surrounding towers, especially the Opal Tower which should remain the dominant marker at the southern gateway of the precinct.	A detailed discussion is included at Section 5.1.1
Create a height variation within Building 4 so that the tower has a lower and a higher component, which can help reduce the perception of its 'bulkiness' (refer to GMU's sketch No.3 and 4). The height increase needs to be tested and analysed by the applicant to determine an appropriate height for Building 4. It is important to ensure that there is no adverse visual impacts and an appropriate height transition can be maintained.	No change is proposed to Building 4 due to overshadowing and solar access impacts. See Section 5.1.1 of the Report.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
Physically separate Buildings 3 and 4 for the first two storeys, creating a visual connection to the communal open space and breaking up the impact of the mass along the ground plane. This will also improve the permeability for pedestrians (refer to GMU's sketch No.1 and No.3).	Creating a main site entry from New Street is not desired due to security concerns and access limitations. See discussion at Section 5.1.3.3 of the Report.
Provide a more substantial and meaningful indentation depth between Buildings 3 and 4 on Levels 03 to 07 to alleviate the building length (refer to GMU's sketch No.3 and No.5).	Cross-through apartments have been reduced in depth on the 'New Street' side to increase inset and breakdown building length. The Courtyard side (eastern side) remains for solar access requirements. See Section 5.1.3.3 .
Investigate opportunities to transfer some floor space to Building 1 to help reduce the bulk of Buildings 2 and 4. For example, Building 1 could have a larger footprint in a split form or an L shape form (refer to GMU's sketch No.1).	Options have been investigated however the design and proportions of Building 1 in their current form are the desired architecture and was a deliberate design principle established during the Design Competition. The bulk of Building 2 and 4 has been addressed elsewhere. See discussion at Section 5.1.2 .
2. STREETScape & PUBLIC DOMAIN INTERFACE	
<i>Australia Avenue</i>	
The controls require a series of setbacks and outcomes for Australia Ave designed to achieve a strong retail/ active spine along this street and a sufficient footpath and verge width to accommodate these sorts of activities. The key requirements are a 3m setback from the street boundary, a colonnade double height space and active frontages for retail uses. However, during the discussion meeting with the applicant and SOPA it was mentioned that the master plan is under review and that the extent of activation and retail currently shown in the master plan may be reduced. On this basis comments are provided below both to deal with the response of the proposal under the current controls and in the event that the extent of retail and activation is amended. The proposal has provided a nil setback to the street boundary and has not provided a colonnade. The retail edge is not continuous and where provided is generally above the street level. The direct retail connection is only for a minor portion of the proposal and is inset into the public space.	The proposal is consistent with the Design Competition scheme and responds to the unique opportunities and constraints of the site, as well as the requirements of the Project Delivery Agreement. See Section 5.2.1 of the Report.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
The proposal also exposes the car parking structure and dwelling stair/courtyards to Australia Avenue on the other side of the proposed public space. This delivers blank walls, no activation and does not meet the intent of the controls or character intended for this street.	
<i>Under the current controls for activation to Australia Ave and Figtree Drive</i>	
The lack of the 3m setback compromises the outcomes as the street verge in this location will be narrower than the remainder of Australia Avenue (if it develops according to the controls). This will signal to pedestrians that retail activity does not continue the full length of the street. The configuration of the retail and its position above street level and the small extent of activation undermines the outcomes sought in the controls. Much of the ground level wall of Building 1 addresses the forecourt with a blank wall. Further, it will provide a precedent for other proposals not to provide the setback which would seriously impact the vision for this street. The proposal should be amended to provide the required setback of 3m and to provide a continuous retail active edge. This active edge should address the street and follow the topography of the street.	The amended scheme responds to the unique opportunities and constraints of the site. Proposal maximises activation whilst dealing with the level change.
<i>Figtree Drive</i>	
Figure 5.9 'Central Precinct Building Zones and Setbacks Plan' in the Draft Master Plan encourages the proposal to build to the boundary at the north-eastern corner. The objective is to maximise the presence and exposure of the retail corner. The proposal does not provide retail/commercial uses but rather proposes residential uses behind raised courtyards resulting in blank walls and an inactive interface. The proposal does not deliver the intended outcome of the Draft Master Plan. Figure 5.7 clearly indicates that no residential or serviced apartments should be provided on the ground level at this corner. The proposal should be amended to provide an active corner with uses that relates to street level and the adjacent public space. Nil setback is more appropriate to Figtree Drive in such a circumstance.	The proposal is consistent with the Design Competition principles. The proposal responds to the unique opportunities and constraints of the site. See Section 5.2.1 of the Report.
<i>In the event that activation is no longer required Australia Ave and Figtree Drive</i>	
In the event that the controls are amended to no longer require activation to Australia Ave or this corner along the streetscape (and that the proposed retail area is retained) we consider that the proposal should provide additional landscaping and mounding to screen the blank wall to Australia Ave. We appreciate that the colonnade area and ramp system adjacent to Building 1 is intended to provide compliant access to Building 2 however the wayfinding is not ideal, the ramp is extensive and the result is a blank wall to the forecourt which is also not an appropriate outcome.	360 Landscaping have investigated opportunities for additional landscaping and mounding to reduce extent of blank wall. A detailed response is included at Appendix B. The ramp to Building 1 has been deleted and replaced with a left.
<i>Upper-level Setback & Streetwall Height</i>	

COMMENT / RECOMMENDATION			ACTION / RESPONSE
The proposal does not comply with the Podium Setback Controls Plan as follows.			- Australia Avenue: the waistline at Building 02 will be maintained at level 11. See discussion at Section 5.1.3. - Figtree Drive: Building 01 – No change proposed, Building 01 podium to remain at Level 11 to break a consistent alignment from creating a precedent. - New Street: Building 04 - The waistline has been dropped to level 09 to form a one storey skyterrace. - Building 03 – No Change proposed. See discussion at Section 5.1.3 and the Design Response prepared by BVN at Appendix A.
	Draft Master Plan intended outcome	Proposed outcome	
Australia Avenue	6-8 storey block edge with 2m setback to the tower above the podium.	The proposal only provides a 'waist line' at Level 11 of Building 2 with nil setback to the tower above.	
Figtree Drive	4-8 storey block edge with 2m setback to the tower above the podium.	- Building 1 has a podium form of 10 storeys with upper-level setback of approximately 1.5m only. - The proposal provides a 'waist line' at Level 11 of Building 4 with no setback to the tower above.	
New Street	4-8 storey block edge with 2m setback to the tower above the podium.	- The proposal provides a 'waist line' at Level 11 of Building 4 with no setback to the tower above. - Building 3 has a street wall of 9 storeys.	
Linear Park	East – 6-8 storey block edge with 5m minimum & 10m maximum setback to the tower above 8 storeys. West - 4-8 storey block edge with 2m setback to the tower above the podium.	The proposal provides a 'waist line' at Level 11 of Building 2; the height of Building 2 is 31-storey but there is no setback to the tower.	
While the proposal does not provide the required tower setback, the provision of a 'waist' to create the streetscape is considered acceptable given the prominent corner location of Building 2 and the site. However, the proposed 'waist line' at Level 11 of Building 2 does not appear proportional to the overall mass and does not have sufficient height to be effective. GMU recommends creating a 2-storey 'waist line' to further separate the base from the tower above. It is also recommended that the 'waist line' is lowered to above the 6-storey alignment to improve the tower proportion and achieve the desired streetwall scale (refer to GMU's sketch No.3).			
North-eastern corner			
According to Figure 5.7 'Central Precinct Land Uses Plan' in the Draft Master Plan, it is intended to have a non-residential frontage at the corner of Australia Avenue and Figtree Drive. Instead, the proposal has provided residential apartments (Units 1.01.2 – 1.01.5). As the Australia Avenue Elevation shows, the basement level (Level B01) is exposed to the forecourt as a one-storey blank wall. This is a poor outcome which creates surveillance and safety issues for the forecourt and detracts from the active precinct the Draft Master Plan seeks to achieve. The issue appears to be created by the desire for a continuous and flat-plate basement carpark, which pushes up into the sloping land.			There is no connection between Site 53, Opal Tower and Australia Towers due to the width of Australia Avenue and lack of access due to level changes. See landscaping response at Appendix B.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
The Draft Master Plan has the following controls for the site's frontages: • Provide double height or two levels of active frontage at the north-eastern corner and along the eastern frontage (Figure 4.1 of Draft Master Plan) • Provide colonnades along the eastern frontage and the south-eastern corner (Figure 4.2 of Draft Master Plan) The proposal has not provided the ground plane activation and double-height colonnades to the extent or purpose intended by the Draft Master Plan. The colonnades exist already in the adjacent Australia Towers and the new Opal Tower on the eastern side of Australia Avenue. Therefore, this treatment is part of the character of the streetscape if retail and active edges are intended. If abandoned in this development, it is unlikely to be provided along the rest of the street where retail is proposed. It is important that the proposal also follows a consistent frontage treatment. However if retail is no longer to be required to Australia Ave and the corner to the park then the colonnade should not be required as this would be inappropriate with the uses intended.	
<i>South-western corner</i>	
Community rooms are not sufficient to deliver an adequate level of passive surveillance due to their sporadic use. The proposed gym is long and narrow with an awkward configuration. The carpark may require slight relocation to allow for a more usable layout.	The community room has been designed to facilitate a wide range of activities throughout the day and night. The gym has been designed to allow for adequate layout of weights, machines. The layout has been amended and this is discussed at Section 4.8 of the Report.
<i>Linear park interface</i>	
As section J shows, the Basement level (B01) is located entirely above the existing site level and the design relies on earth mounding to mask the protrusion of the basement. This is not an appropriate response to the site's topography or the pedestrian network and results in very abrupt level changes (approximately 5m) between the linear park and the communal open space. This visually disconnects the two spaces and also creates a perceived 'barrier' to this connection. It also undermines any surveillance of the adjacent open space. There should be a more gradual change in level to avoid the blank wall and barriers.	360 Landscaping has reviewed the level changes and the treatment at the Linear Park component outside site boundary. This is addressed at Appendix B.
<i>Recommendations</i>	
Consider retail to the base of Building 1 that addresses Figtree Ave with speciality retail that can address the street levels (subject to whether retail continues to be required).	Retail is provided in accordance with the Project Delivery Agreement with SOPA. See discussion at Section 5.2.1.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
If retail is not to be required then to improve the relationship to the park and Figtree Ave consider split level units /splitting the levels of the basement carpark so that the street frontage of Building 1 can be lowered (within the units and terraces) to have a better ground plane relationship with the forecourt and Figtree Street and avoid exposed blank walls.	It is not possible to incorporate this recommendation due to the need to project the Fig Trees. See landscape response at Appendix B .
Investigate alternative access arrangements to Building 1 that are more direct and do not impact the edge of the forecourt or create the need for extensive ramping – ideas could include a lobby at ground level to the forecourt near the retail, providing a grand lobby at street level to Building 2 that enables visual awareness and access through to the higher level by lift and stairs combining the entry of both buildings in effect at the street.	The ramp at Building1 has been replaced by a ramp.
Based on the current controls which requires active uses to Australia Ave and to the corner of the site, provide small speciality shops with individual entries stepping up along Australia Avenue or Soho spaces linked to the units above to maximise activation of the edge. The treatment of the proposed large-format retail (e.g. supermarket) is not as effective as small retail shops in terms of street activation and 'big box' should be sleeved by speciality shops or other uses if retail is to be required.	Retail is provided in accordance with the Project Delivery Agreement with SOPA. See discussion at Section 5.2.1 .
If retail is not required in this area then greater landscape and mounding should be provided to reduce the extent of blank wall.	360 landscaping have explored options for additional landscaping/mounding to reduce extent of blank wall. See Appendix B .
Provide a commercial gym at the south-western corner instead of a community room to provide a higher level of passive surveillance to the linear park.	There are several large scale commercial gyms within Sydney Olympic Park. A commercial gym in this location is not viable. The gym has deliberately been provided for the convenience of the future residents of Site 53.
The provision of a more gradual grade to the link would also assist in providing soil depth for significant trees.	Podium landscape design allows for significant plantings. 360 landscaping have responded at Appendix B .
GMU also recommends puncturing some locations within the lower basement level to accommodate pockets of deeper soil, which can sustain more significant plantings in the central courtyard generally.	Deep soil has been provided in excess of the ADG requirements. Podium landscape design allows for significant plantings. Punching pockets of deep soil planting in the podium would have a significant impact on the performance of the basement.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
3. COMMUNAL OPEN SPACE The proposed central courtyard is nominated as communal open space and has private connections to Figtree Drive to the north and the linear park to the south. The provision of a central courtyard between the linear park and the forecourt is positive but the current levels and use of this space as 'private' is a lost opportunity to fully link the site and maximise the permeability of the precinct. GMU agrees with the SOPA Design Review Panel (DRP)'s comments that the communal open space should be publicly accessible to connect the Park Street extension with the linear park. The public accessibility can reinforce the significance of the view corridor and provide public benefits to the local community. Privatising the link defeats part of the purpose of retaining such a wide public view corridor and undermines the broader connectivity of the area. Recommendations: Provide public access during daylight hours through the 'link' created by the view corridor and combined with the more gradual level change suggested in the previous heading this will improve the character and interface between the linear park and the raised plaza level. It will also create more opportunity for deeper soil areas as suggested in Sketch 2.	A through site link is not required by draft Master Plan. SOPA are not in support of public access to the corridor as per their submission. Deep soil has been provided in excess of ADG requirements. 360 Landscaping have provided commentary on the podium landscape depths at Appendix B.
4. DAYLIGHT ACCESS The proposal does not satisfy the ADG's solar requirements. It relies on extended hours (i.e. 8am to 4pm rather than 9am to 3pm) to meet the ADG's minimum solar access requirement and exceeds the maximum percentage (15%) of units with no direct sunlight in mid-winter. The original winning 'alternate scheme' by BVN achieved 74% units receiving 2 hours of daylight between 9am to 3pm and only 6% of south facing single aspect units. In comparison, the quality of the performance of the proposal has declined in the current scheme. The use of extended hours might be reasonable if the context included significant impact from existing adjacent towers. However, as the site is not impacted to a meaningful degree by surrounding buildings, we do not consider the reliance on extended hours to be justified. Given that the site has a generous site area, frontages and a reasonable level of flexibility for configuration, the design should be able to achieve the ADG's requirements fully.	See discussion at Section 4.3.1 of the Report.
5. NATURAL VENTILATION The proposal contains a large proportion of single-aspect apartments which do not meet the definition of 'cross-ventilation' as defined in the ADG. The proposal relies on the numerical analysis of the natural ventilation assessment to justify that 62% of the proposed apartments in the first 9 storeys are able to meet the intent of the ADG, rather than using appropriate apartment layouts to achieve genuine natural cross-ventilation. The result of the natural ventilation assessment is based on "all apartment balcony openings consist of sliding doors. When three door panels are required, they have been assumed to open such that only a single panel width remains. It is expected that ventilation performance would suffer with smaller openings that would result from the use of swinging doors or less operable	A Natural Ventilation Assessment has been undertaken by Cermak Peterka Petersen (CPP) and is included at Appendix R.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
sliders." We are concerned that the proposal's performance may rely on fully opening these doors which may be unlikely in colder weather. No information is provided regarding ventilation if only a small opening is possible. The original winning 'alternate scheme' by BVN performs achieved a better performance with 63% units being naturally ventilated (we assumed this refers to natural cross ventilation as per the compliance assessment table). Therefore, the performance of the proposal has declined in the current scheme. Recommendations: The reliance on single-aspect apartments is a result of the building length, which also relates to the bulk issue. Greater frequency of breaks or deeper insets will provide for more corner apartments which could alleviate this issue. GMU suggests the Department to seek peer review of the applicant's natural ventilation assessment report. The applicant could also explore alternative solutions to achieve natural ventilation such as stack effect ventilation / solar chimneys.	
6. APARTMENT SIZES & LAYOUT The size of Unit 2.03.6 is 68.86 m2 which are below the ADG's minimum size (70m2) required for a two-bedroom apartment. The minimum dimension of the unit's living room also does not meet the minimum requirement of 4m. This issue can be identified in apartments with the same typical layout across levels 03 to 11. Some 2-bedroom apartments, for instance Unit 2.11.6, are designed with the kitchen located within the entry hallway. The ADG's design guidance states that "Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)." These units should be reconfigured to rectify the issue. The habitable spaces (e.g.kitchens) of the units are generally within 8m from the nearest window, but they rely on having narrow and deep balconies to comply with the requirement. Units 2.xx.06 are some of many examples commonly found in the proposal.	Apartment layouts have been updated through design development. Amended plans are included at Appendix A and have been addressed in Section 5.6 of the Report.
7. BALCONIES Some apartment balconies, for example Unit 4.14.1, are undersized and angular, impacting their use. It is recommended to ensure that minimum required dimensions are provided for all balconies. The area for tables should have a wide connection to the living rooms so that the space are connected. This is not achieved in units should as 2.02.10.	Balconies have been updated through design development. Amended plans are included at Appendix A and have been addressed in Section 5.7 of the Report.
8. ARCHITECTURAL EXPRESSION Australia Avenue is the primary frontage of the site, but the treatment to this street for the façade of Building 2 lacks a strong engagement for much of the building. It is recommended that the building's architectural expression reinforce this primary façade. The extensive use of painted concrete (labelled as 'light coloured masonry type 1') on the building façades is not recommended as the finishes do not age well and will lead to increased maintenance cost over time. GMU recommends using high-quality unpainted masonry finishes instead. The new street façade of Building 4 appears too dominant in the horizontal which exacerbate the perception of bulk.	An amended schedule of materials is included within the Design Response at Appendix A and this is addressed at Section 5.8 of the Report.

COMMENT / RECOMMENDATION	ACTION / RESPONSE
9. DESIGN EXCELLENCE Section 4.5.2 'Floor Space Ration Controls' of the Draft Master Plan states that "4. The maximum floor space ratio will be granted only when the following controls are complied with: Building Zone, Building Depth, Building Heights, Building Separation, Building Setback, Open Space and Deep Soil Zone." As summarised in this commentary, the proposal is not compliant with many of these controls or the outcomes sought by the Draft Master Plan. As such based on the current scheme, we do not consider that the proposal yet achieves design excellence or justifies the FSR bonus.	The proposal is consistent with the design principles established during the Design Competition. See detailed discussion through out the Report and at Section 5.9.