

Building setback to Cooks River

Comments received from the NSW Office of Water recommend a riparian zone of 40 metres plus a 10 metre wide vegetative buffer along the Cooks River, with the exclusion of pathways, buildings, water quality treatment structures, roads and fill in this area.

The Concept Plan proposes setbacks to the Cooks River similar to that approved by the Masterplan. Setbacks to the Cooks River range between approximately 15 metres (adjacent to Building 8) to 20 metres (adjacent to Building 10) (**Figure 8**).

The Discovery Point Development Design Guidelines and Landscape Design Guidelines / Public Domain Plan propose to provide a pedestrian / bicycle pathway, continued from the existing pathway provided to Discovery Point Park consistent with that proposed in the Masterplan approval. The Masterplan approval and Council's DCP for the site proposed a 'Waterfront Place' incorporating landscaped promenades and a board walk suitable for use as a boat and ferry landing. This was proposed to provide continued access for walkers, joggers, and recreational cyclists along the waterfront, from the Cooks River Railway Bridge to the boundary with the waterfront portion of the parkland fronting the grounds of Tempe House.

The extent of the setback proposed by the NSW Office of Water is considered to be unreasonable given a reduced setback to the Cooks River was approved during the original Masterplan. To ensure that the setback is consistent with the Masterplan approval and that no additional negative impacts upon the Cooks River are experienced, the Department recommends that a Modification requirement be included requiring additional plans be provided that demonstrate the setback is at a minimum distance equivalent to that provided under the approved Masterplan (between approximately 18 metres to 21 metres).

Opportunities for further assessment and improvement to the setback / riparian zone between the Cooks River and the building envelopes will be considered during future applications. A future assessment requirement is recommended to further address this issue.

Above Ground Parking

Concerns were raised with the extent of above ground parking, particularly as the previous approvals on the site and the Masterplan requires parking to be provided underground. The inclusion of the above ground parking was considered to impact upon the overall volume of the proposed building envelopes. The Proponent argues that above ground car parking is necessary given the site proximity to the rail corridor preventing rock anchoring crossing the boundary into the rail corridor. The exhibited EA proposed 14,000m² of above ground parking.

The proponent has reduced the extent of above ground car parking in the PPR from 14,000m² to 8,000m² and has also provided façade treatments and activation via residential or retail development to adequately screen the remaining above ground car parks. Council's submission to the PPR supports the reduced above ground car parking provision, subject to the inclusion of proposed facade treatments.

The Department is satisfied that the PPR has addressed the concerns raised through the reduction of the above ground parking and the inclusion of screening to buildings facing the street. Appropriate screening of the above ground car parking areas can be considered further during the assessment of future applications.

Podium Height / Setbacks along Cooks River

Concern was raised regarding the proposal's visual impact, in terms of bulk and scale, to the Cooks River. The exhibited proposal includes 3 residential towers above a podium fronting the Cooks River, with the podium containing 3 levels of residential with two 14 storey towers and a 6 storey tower above the podium.

To reduce the perceived bulk and scale of the proposal along the Cooks River the Proponent reduced the height of the podium by 1 storey / 3.05 metres in the PPR. The reduced podium height has improved the scale of the proposal when viewed from the Cooks River and is therefore supported.

Concern is however maintained regarding the setback of the two towers fronting the Cooks River. A Modification is recommended requiring future applications to demonstrate that the proposed building envelopes are setback in accordance with the previous Masterplan approval (between approximately 18-21 metres).

Street Activation / Retail

Council raised concern that the 'box' format of the supermarket will provide non-active street frontages to Discovery Point Place and to the walkway on the eastern side. Additional areas of retail were recommended to be provided, including the ground floor of Building 14 to be provided as retail rather than commercial floorspace.

Diagrams submitted with the PPR demonstrate that additional retail areas are provided to activate frontages to areas of high pedestrian movement in response to concerns (**Figure 9**). Additional areas of retail are proposed at the entry / exit from the Railway Station, between Building 1C and 1B (adjacent the supermarket), and at the corner of Magdalene Terrace and Spark Lane. The provision of the additional retail areas is supported. To ensure that future applications provide these areas, a Future Assessment Requirement is recommended accordingly.

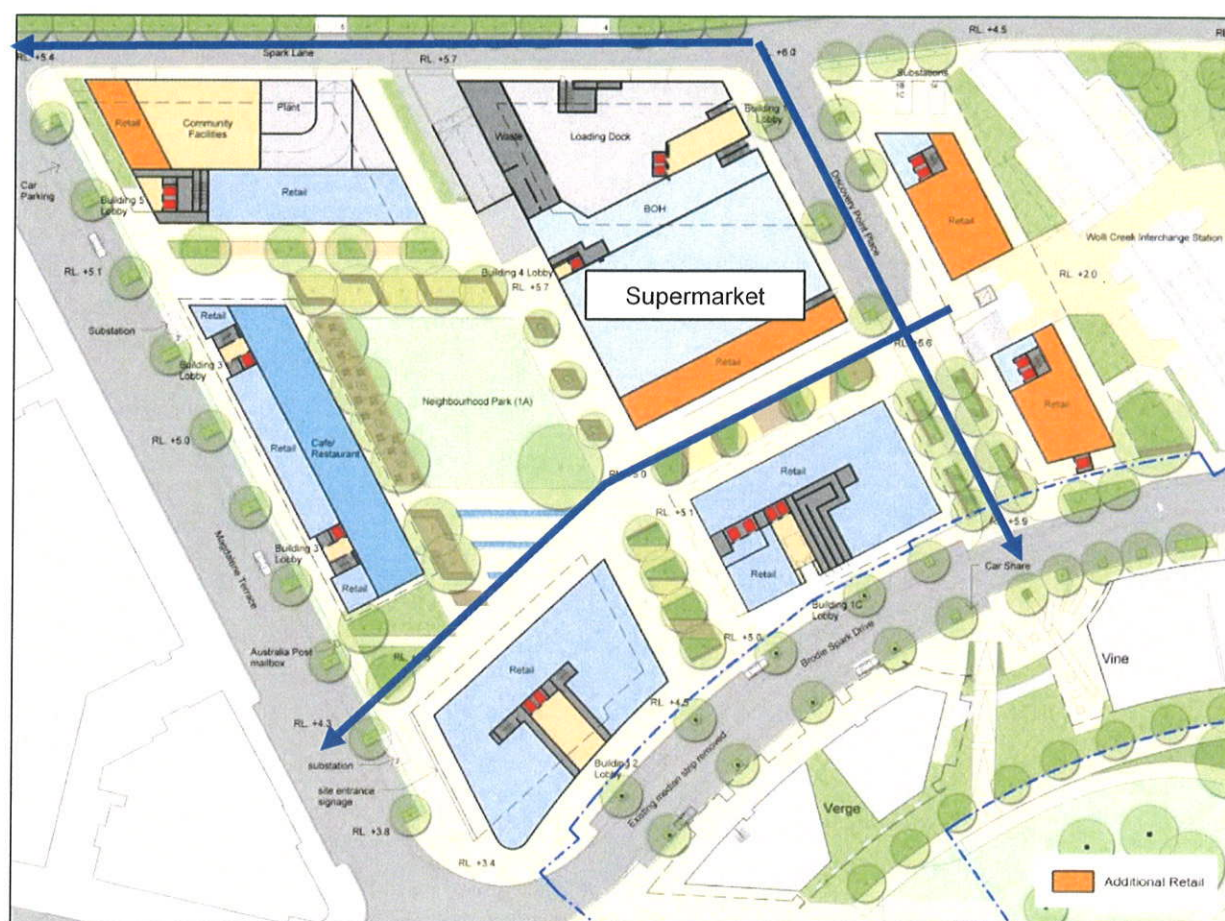


Figure 9: Revised indicative ground floor layout to improve retail activation along pedestrian routes (indicated by blue arrows), as contained in PPR

5.3. Residential Amenity

Amenity impacts of the proposal have been considered against relevant policies including the *State Environmental Planning Policy 65 – Design Quality of Residential Flat Buildings* (SEPP 65) and the accompanying *Residential Flat Design Code 2002* (RFDC).

The Concept Plan only provides indicative building and apartment layouts and further detailed assessment of buildings will occur at future application stages. Notwithstanding this, an assessment has been undertaken based on the proposed building envelopes.

Overshadowing and Solar Access

The RFDC requires, as a rule of thumb, 70% of living rooms and private open spaces of units to receive a minimum of 3 hours of direct sunlight between 9am and 3pm mid winter, reducing to 2 hours in dense urban areas. It is considered that the site is a dense urban area, which is reflected in the Council's DCP for the site which only requires 2 hours solar access to major open spaces and communal private open space and that 60% of external walls to be exposed to 2 hours of sun.

Indicative floor levels illustrating unit layouts show that the majority of buildings will achieve the recommended 70% of apartments receiving 2 hours sunlight between 9.00am and 3.00pm in mid winter, however 3 of the 14 buildings did not meet the minimum solar access requirements. Following amendments to indicative floor layouts provided in the PPR, 2 of these 3 remaining buildings now achieve the minimum 70% requirements.

The only building not to achieve the recommended 70% solar access requirement is Building 6. Building 6 is located adjoining the railway station and Discovery Point Park. The PPR stated that Building 6 would only achieve 62% compliance due to overshadowing from the adjoining buildings to the west and the curved design of the building. However, amendments to indicative building layout, made further to the PPR, orientated the majority of units towards Discovery Point Park, Cooks River and Botany Bay. This resulted in only 50% of units receiving the required 2 hours of solar access.

The Department, however, considers that at least 60% of units within the building should achieve a minimum of 2 hours of sunlight. This can be achieved by modifying the internal layout of the building to increase the percentage of units gaining 2 hours of solar access.

Despite Building 6 not achieving the RFDC requirement, 60% solar access is considered to be acceptable given the orientation of the building and the shadows cast by neighbouring buildings. Building 6 has been designed to take into consideration site factors, such as maintaining view lines of other buildings on site and maintaining the curved nature of Brodie Spark Drive (Heritage Arc) to Discovery Point Park. In this regard the RFDC notes that maximising the number of north facing apartments should be balanced with other environmental factors such as the enjoyment of views and maintaining and supporting the desired streetscape character by orientating buildings to the street, or in this case the heritage arc. Further assessment of solar access will be undertaken during future applications once detailed building designs are finalised.

The Discovery Point Development Design Guidelines propose development to be provided in accordance with the approved Concept Plan, including solar access provisions. In addition, it is proposed to require a daylight access study be provided with any future applications that seek a variation to the Guidelines to demonstrate an acceptable level of residential amenity is achieved.

The submission of a daylight access study that seeks to justify a reduced solar access percentage is not supported. A condition requiring the deletion of this requirements from the Design Guidelines is included in Part B Modifications of the instrument of approval.

Natural Ventilation

The RFDC recommends that 60% of units should be naturally cross ventilated. Indicative floor layouts submitted with the EA demonstrate that up to 64% of units will be capable of being naturally cross ventilated. The EA states that some buildings will be provided with greater or less than the 60% requirement and that building designs are to be refined during future applications.

Floor layouts have not been determined in detail and therefore the Department considers that buildings should be capable of being designed to comply with the natural ventilation minimum requirement of SEPP 65 in this regard. A condition requiring the compliance of future development has been recommended.

Building Depth

The RFDC recommends building depths be no greater than 18 metres (glass line to glass line). Should building depths be more than 18 metres, satisfactory daylight and natural ventilation are to be achieved. The aim of the control is to maintain residential amenity within units and to reduce the bulk and visual appearance of buildings. The PPR confirms that residential building depths range between 17 - 23 metres.

The Department considers the proposed building envelopes and apartments depths are acceptable at the Concept Plan stage. The variations are minor and the buildings provide adequate solar access (only 1 building provides less than the requirement) and cross ventilation (all buildings are to be conditioned to comply with the minimum requirement). Furthermore, the inclusion of open plan living areas, balconies off most bedrooms and minimising the depth to kitchens will ensure that the units will receive satisfactory daylight and natural ventilation.

It is expected further design development of the building envelopes will occur during future applications, which will introduce greater building articulation and recesses in the façades to reduce the depth of buildings and single aspect apartments. Further assessment of the proposed building and apartment depths will be undertaken during future applications to ensure buildings achieve a sufficient level of residential amenity.

5.4. Discovery Point Development Design Guidelines and Landscape Design Guidelines / Public Domain Plan

The PPR proposes the introduction of Discovery Point Development Design Guidelines and Landscape Design Guidelines / Public Domain Plan to support the Concept Plan. These documents are provided to guide future assessment of applications to ensure that the assessment is consistent with the approved Concept Plan.

Council raised concerns with the proposed guidelines on the basis that it considers they do not provide certainty of outcome, do not provide a consistent approach to the public domain in Wolli Creek and will operate as a stand alone Development Control Plan. Council suggests that the Wolli Creek and Bonar Street Public Domain Plan will achieve a superior and certain outcome (currently in draft form at the time of writing this report). Council has recommended that the draft Public Domain Plan could be updated through discussions with the Proponent to ensure that the draft Public Domain Plan is consistent with the Concept Plan.

The Proponent maintains that the guidelines are required due to the inconsistencies between Council's draft DCP 2011 / draft Public Domain Plan and supporting technical specifications that have recently been on public exhibition and the Concept Plan vision for the development.

The Department considers that the proposed Development Design Guidelines are appropriate, subject to amendments, for the redevelopment of the site. The guidelines will ensure certainty of outcome for the future assessment of applications by Council or the Department for the

construction of buildings, roads and open space areas on the site. Each application will be required to demonstrate how the proposal is consistent with the Concept Plan and guidelines.

The Department however considers that Council's draft Public Domain Plan that sets the public domain standards / elements for the Wolli Creek and adjoining Bonar Street Precinct should be complied with, instead of the Proponent's document, as this will enable a consistent approach for public domain standards throughout the wider Wolli Creek locality.

The Department therefore recommends the following amendments to the proposed guidelines:

- References to the Discovery Point – Wolli Creek Landscape Design Guidelines / Public Domain Plan, floor space ratio and minimum site frontage are to be deleted.
- References to width of roads in Table 1 are to refer to minimum building envelope separations and not from building face to building face to provide for the inclusion of colonnades and building articulation.
- Solar access provided to each building is to comply with the Concept Plan and Preferred Project Report (buildings to achieve 70% of dwellings in accordance with the RFDC requirements, except Building 6 that is to achieve a minimum 60%) and buildings modified accordingly should this not be achieved.
- Point 4 in Section 5.2 that refers to submission of a daylight access study shall be deleted.
- The reference to the number of lifts accessible from a single corridor shall be deleted.
- Roof terraces are to be setback a minimum of 1.5 metres from the buildings edge.
- Plant rooms, lift overruns and mechanical ventilation rooms provided on the roof of a building are to be appropriately screened and not exceed the heights approved by the Concept Plan.
- The reference to building depth of 24 metres shall be deleted. Building depth shall be in accordance with the Concept Plan.

A condition is included in Part B Modifications of the instrument of approval addressing the above.

5.5. Traffic, Access and Parking

Traffic and Access

The Discovery Point site is accessed via the existing intersection of Princes Highway and Brodie Spark Drive, through to the roundabout at the corner of Brodie Spark Drive and Magdalene Terrace (**Figure 10**).

The overall proposal includes the construction of the road network to service the site, including Spark Lane, Chisholm Street, Discovery Point Place and extension of Brodie Spark Drive. Discovery Point Place is the main focus of the proposal as it will provide the relocated bus stop, access to Wolli Creek Railway Station and the start of the pedestrian thoroughfare between Wolli Creek Railway Station and the developments to the south (towards Proximity).



Figure 10: Site locality plan illustrating existing road layout as contained in the EA

Comments received from the RTA raised concern with the cumulative traffic impact of the proposal and other existing and proposed developments within the precinct on the local road network. The RTA recommended that Council review the timing of road network upgrades. Council stated that the existing road works identified in the Rockdale Section 94 Contributions Plan are satisfactory subject to the number of parking spaces for the development being capped at those approved under the Masterplan. The PPR modified the car parking to be provided on the site through capping the number of car parking spaces in accordance with the previously approved Masterplan (2,240 spaces).

Given the proposed car parking will be capped at 2,240 spaces, the Department is satisfied that the existing road network, including proposed improvements as identified in Council's Section 94 Contributions Plan is capable of supporting the proposed development.

Parking

Concern was raised regarding the proposed number of car parking spaces to be provided on site. The exhibited proposal sought approval for an upper range of up to 2,520, in addition to the already constructed 381 spaces.

The PPR proposes to cap the number of spaces on the site to 2,240 (includes the 381 spaces already or partly constructed), which is consistent with the Masterplan approval. This is also recommended in Council's submission to the EA and PPR. Car parking rates are proposed as part of the Concept Plan as these differ from Council's DCP rates, in particular rates provided for visitor parking and inclusion of a minimum and maximum rate for 2 bedroom units.

The Department supports proposals with reduced car parking levels near public transport. The accessibility of the location in this instance means that that a reduced car parking rate is considered practical. Residents are likely to utilise a range of transportation options that service the site rather than being reliant on private vehicles.

The Proponent is also proposing to incorporate measures to implement the promotion of public transport use, walking and cycling, through the inclusion of a Green Travel Plan. These measures will be further addressed during future applications.

Overall, the Department considers that the design of the site (i.e. footpaths, cycling paths and bus / train interchanges) and location is ideally positioned to support the minimal use of vehicles. Capping the level of parking at the approved Masterplan rate is therefore supported.

Bus Interchange

The PPR has provided additional details in relation to the staging of works that impacts upon the location of the bus interchange and therefore access into Wolli Creek Railway Station. Currently the bus turnaround and set down point is provided along the western boundary near the Wolli Creek Railway Station.

During initial construction of the proposal (until Discovery Point Place and Spark Lane are constructed), the bus turn around point is relocated to the northern side of the Wolli Creek Railway Station while a temporary set down area is provided along Brodie Spark Drive.

Access to Wolli Creek Railway Station is maintained through the inclusion of ramped access from the proposed set down point down to the existing ticketing area (a difference in height of 4.4 metres). Comments received from the STA confirm that no objections are raised to the temporary and final arrangements proposed for the bus turn around and set down points and on this basis are considered to be acceptable.

5.6. Section 94 Contributions

The PPR has modified the proposed contribution framework. Previously, the Proponent requested a number of contribution offsets should be applied as the proposal includes the construction of open space areas, the road network, streetscape works, pedestrian pathways and flood mitigation / stormwater works provided for the benefit of the community.

The Proponent now proposes to enter into a Voluntary Planning Agreement with Council to contribute to the provision or embellishment of public amenities and services within the LGA. The VPA is proposed to be executed prior to the determination of any future Development Application. Two Project Applications have been submitted to the Department that will attract Council's normal Section 94 contributions in accordance with Council's existing Section 94 Contributions Plan.

Neither the Department nor Council, raise any objection with the Proponent entering into a VPA with Council for contributions applicable to the development. The contribution rates however are to be determined through discussions between Council and the Proponent and applied at future application stages.

5.7. Other Issues

Flooding

Parson Brinkerhoff was engaged by the Proponent to prepare a flood risk assessment for the proposal which also considered the likely impacts of climate change on sea level rise and increased rainfall intensity.

The results indicated that during flood events greater than the 100 year flood event, the site partially becomes inundated by flooding. The 100 year flood event is 2.2 metres AHD and the 200 year flood level (0.5% Annual Exceedence Probability (AEP) flood nominated by Council as the design flood standard for the site) is 2.4 metres AHD.

Parsons Brinkerhoff has calculated the rise in sea level and also an increase in rainfall intensity (based on the NSW Government's *Draft Sea Level Rise Policy Statement 2009*) with the peak

flood levels to increase to 2.6 metres AHD (100 year event + 30% increase in rainfall intensity + 0.4 metre sea level rise) and to 2.8 metres AHD (100 year event + 30% increase in rainfall intensity + 0.9 metre sea level rise). A Probable Maximum Floor Level of 3.6 metres AHD has also been calculated.

The Proponent has incorporated a freeboard of 2.5 metres (above the largest flood event that was modelled - Probable Maximum Floor level of 3.6 metres AHD) into the design of each of the buildings (+6.1 metres AHD). There will therefore be no impacts upon the development, as a result of flooding. In addition, no impacts are expected upon the Wolli Creek Railway Station as the surrounding area will be higher than all predicted flood levels.

Council requires that habitable floor levels and entries to underground areas be constructed to a minimum of 500mm above the 0.5% AEP flood. As indicated above, the Proponent states that the 0.5% AEP flood is calculated at 2.4 metres AHD. The indicative diagrams provided in the PPR illustrate that the lowest residential level is 4.8 metres AHD along the Cooks River, which is 1.9 metres above the level requested by Council.

The assessment showed that the development encroaches onto the existing floodplain, however the loss of storage for the 200 year ARI event is considered to be minimal. The assessment suggests that no further encroachment of the building footprint into the floodplain or filling between the development and the Cooks River. On the basis of the information provided, the Department is satisfied that the impacts of flooding, including the impacts of climate change have been adequately addressed.

Heritage

Tanner Architects were engaged to prepare a Statement of Heritage Impact and a Heritage Impact Statement as two buildings, Tempe House and St Magdalen's Chapel, are listed on the State Heritage Register. The Tempe House Precinct is also included under the Rockdale LEP 2000.

The Statement of Heritage Impact concluded that:

- The proposal is not considered to adversely impact on the significance of Tempe House, St Magdalen's Chapel nor the Discovery Point Precinct as set in the Conservation Management Plan prepared by Tanner Architects in 2001 and as re-iterated by the State Heritage Register.
- The Concept Plan presents building envelopes, landscaping and site works and promotes views to and from the heritage items that are appropriate from a heritage perspective.

The Heritage Council of NSW advised that no concerns were raised with the proposed works in the near vicinity of the heritage items and curtilages, subject to compliance with the recommendations included within the submitted consultant reports. A condition requiring compliance with the submitted consultant reports is included as a Future Assessment Requirement.

The design of the proposal maintains the established heritage curtilage and the retention of the Tempe House view corridor. Given the desired future character of the site has already been altered by the Masterplan approval, the impacts of the proposed Concept Plan upon Tempe House and St Magdalen's Chapel are considered to be acceptable.

Privacy from proposed Building Heights

Concern was raised regarding privacy impacts from the proposal on neighbouring buildings. The proposed Concept Plan is located approximately 75 metres north of the submitter's residential property, located in the 'Proximity' development. Concerns were raised that the additional height, particularly Building 5 (previously maximum RL 48 metres compared to Concept Plan RL 62.4 metres that equates to an indicative 16 storey building) would impact upon the amenity currently enjoyed by the submitter.

The RFDC recommends a 24 metre separation between habitable rooms / balconies for residential buildings greater than 25 metres in height to protect visual and acoustic privacy between adjoining apartment buildings. As stated, a 75 metre separation is proposed from the building envelope to the submitter's residence. It is considered that this separation distance is sufficient to protect the privacy of neighbouring occupants. Privacy impacts will be further considered during future application stages. Overall, the Department considers privacy impacts are acceptable.

View Impacts

An analysis of view loss impacts from the adjacent Proximity development to the south of the site was prepared in response to concerns raised from residents on Level 14 of Building B of this development. This study established that Level 14 is provided with horizon views over the approved Masterplan, in particular over the top of Building 5, and views to the west of the Discovery Point site (**Figure 11**).



Figure 11: View of approved Masterplan building envelopes as contained in the PPR

As a result of the building heights proposed in the Concept Plan, Building 5 has increased in height (**Figure 7**), however Building 4 has reduced in the PPR from RL 55.3 metres to RL 40.0 metres.

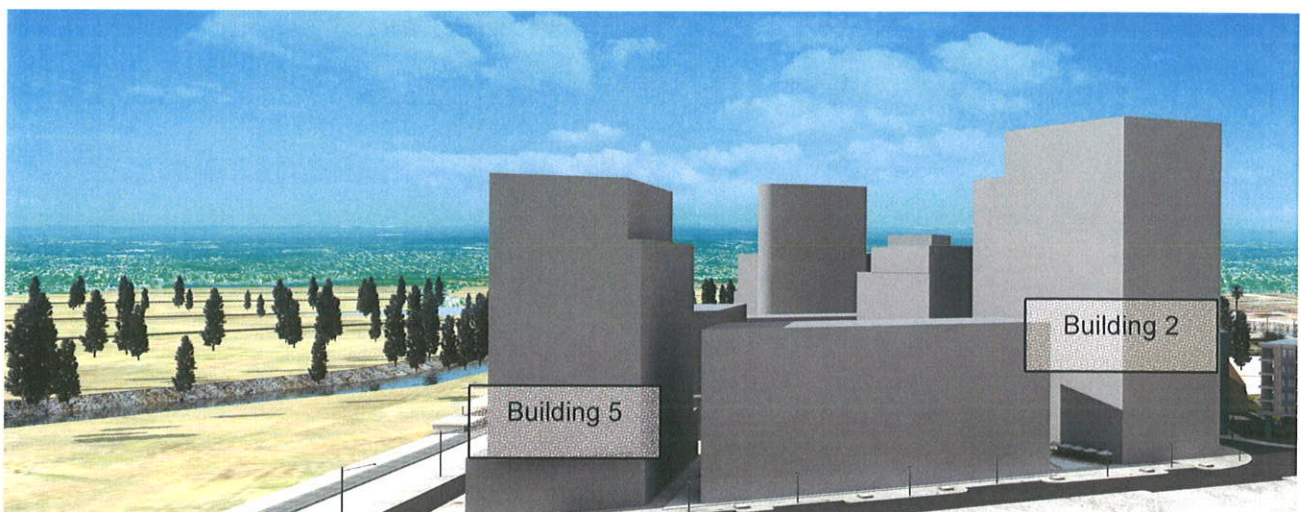


Figure 12: Proposed building envelopes as contained in the PPR

A consideration of the principles in the Land and Environment Court judgement "*Tenacity Consulting v Warringah Council (2004)*", provides a basis for the consideration and assessment of view impacts, view loss and view sharing, and the criteria adopted in the decision state as follows:

- (i) Assess what views are affected (i.e. whether or not they are iconic views, water views, obscured etc);
 - (ii) From what part of the property are the views obtained;
 - (iii) The extent of the impact; and
 - (iv) The reasonableness of the proposal which is causing the impact.
- (i) Views which are affected*

Departmental Officers visited the submitter's residential tower and examined the views enjoyed from the apartment. Currently views are provided over the subject site towards the city skyline and to the east and west of the 21 storey 'Proximity' tower located on the submitter's site. It is noted that views of the city skyline would be impacted by the approved Masterplan as shown in **Figure 12**.

(ii) From what part of the property are the views obtained

Views were enjoyed principally from balconies and living room spaces that are orientated to the north on the upper levels of the residential building.

(iii) Extent of impacts

The proposed building envelopes are taller but are more slender than the buildings provided in the approved Masterplan. The view impact analysis provided in the Proponent's PPR and on-site observations indicates that the proposal will impact upon northerly views to upper levels of the building. In the main, the views directly north toward are to the city skyline and associated features will be partly blocked by the proposed building, however other areas will be improved. Existing easterly and westerly views enjoyed by the apartment will not be affected.

(iv) The reasonableness of the proposal which is causing the impact

The Proponent argues that from the analysis, the Concept Plan has no greater impact on views from the submitter's property than would have resulted from the approved Masterplan.

The Department considers that the building envelopes proposed in the PPR will enable an improvement to the view toward the city which would have been experienced under the approved Masterplan and the exhibited Concept Plan. A reduction to the height of Building 4 has provided additional city views that previously were not provided under the approved Masterplan which is supported.

Some city views will be lost due to the increase in height of Building 5, however overall the proposed heights are considered suitable given the site's location to public transport and other buildings heights in the locality.

Open Space

The Concept Plan includes the provision of landscaping and dedicated open space areas for the enjoyment of residents and visitors (**Figure 13**), including the completion of Discovery Point Park that fronts onto Tempe House, St Magdalen's Church and the Cooks River; Neighbourhood Park; Waterfront Park; Station Park and Station North Walk; and other areas located on-top of podium levels. This is considered to be an improvement to the approved Masterplan and is supported.

Concerns were however raised regarding the extent of overshadowing from surrounding buildings over the Neighbourhood Park, particularly during winter (June 21). Overshadowing of the park, particularly from midday to sunset, has been reduced following a reduction to the height of Building 4 located to the north west of the park from a maximum height of 55.30 metres AHD to 40 metres AHD. The reduced building height will enable additional sunlight to be provided to the park throughout the day, which will encourage greater usage and improved amenity for users of the park. Additional sunlight is also provided during the summer solstice and spring equinox enabling use of the park throughout the year.