

26 August 2020

**James Mathews**

Pacific Planning  
PO Box 9  
CARINGBAH NSW 1495

30-46 AUBURN ROAD, REGENTS PARK

**REVIEW OF FSR**

**(PP\_2016\_CBANK\_001\_00) – 30-46 AUBURN RD, REGENTS PARK, DATED 17 APRIL, 2020**

Dear James

You have requested us to provide an independent peer review of the proposed amendment to the Bankstown Local Environmental Plan (LEP) 2015 on land at 30-46 Auburn Road Regents Park. In particular a review of the maximum FSR and maximum building heights across the site that were changed by the amended gateway determination dated 26 February 2020 being:

Maximum FSR:	2:1
Maximum height of building:	19m along Auburn Rd 38m in north west corner 25m in remainder of site.

We acknowledge that the review is for the benefit of the Department of Planning Industry and Environment and the Independent Planning Commission (IPC).

My CV is also attached that sets out my urban design experience and experience in testing and setting controls.

We are aware that on 13 Feb 2019 the Department of Planning advised that they commissioned "a comprehensive urban design review to propose an appropriate maximum FSR control for the site before the planning proposal is exhibited, and that this FSR not be subject to the provision of public benefits". This review was undertaken by McGregor Coxall (MGC). MGC advised on 9 October 2019 that "we conclude and recommend that the agreed upon FSR for the site should be 2.4:1". The MGC plan was developed further by Studio MRA, and previous concept plans were discarded in order to refine this preferred site layout.

We also are aware that Canterbury-Bankstown Council have raised concern with respect to the height and FSR controls. This is on the basis that the FSR proposed is greater than the typical FSR controls they have in their local centres, and on the advice of a review undertaken for them by Architectus.

We understand that the planning proposal is seeking only to modify the height and floor space standards that apply to the site. The building envelopes indicated at this stage are illustrative only, to test that amendments to the standards will be able to accommodate an appropriate outcome for the site. A development application or a development control plan will further interrogate any envelopes and provide a detailed assessment of their suitability.

In summary, we have reviewed the Floor Space Ratio (FSR) controls proposed by the MGC / MRA concept plan at 30-46 Auburn Road, Regents Park and can support:

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Peter Smith 7024

- Maximum FSR of 2.4:1
- Maximum height of building standards:
  - o 22 metres along the site's Auburn Road frontage – to allow 6 storeys
  - o 41 metres in the north-western corner of the site – to allow 12 storeys and,
  - o 29 metres (8 storeys) across the remainder of the site.

We confirm that it is our opinion that this combination of heights and FSR can facilitate development that can meet or exceed the objectives and design criteria of the Apartment Design Guide (ADG), whilst remaining within the approximate envelopes shown in the plans prepared by Studio MRA. We are also of the opinion that the proposed controls are flexible enough to achieve more than one layout on the site, while adhering to the general layout agreed upon in the MGC Masterplan . We set out the basis for this opinion below.

We have used the agreed built form direction as described in the MCG Masterplan as a basis, and agree that this site layout has significant merit - it maximises northern orientation of future buildings, provides large central open space largely unaffected by shadow in mid- winter and provides a defined built form edge to Auburn Road. The depth and layout of future buildings will determine the exact location of the park, and should be the subject of more detailed design analysis that optimises apartment layouts for their amenity and considers the role of the spaces between the buildings in providing communal and public space.

## **REVIEW**

We have reviewed the plans prepared by the applicant dated 19 March 2020, Council's response letter dated 15 June 2020 and the review of council's consultant Architectus dated 15 June 2020.

The review by Architectus dated 15<sup>th</sup> June highlighted several non-compliances with the Apartment Design Guide (ADG), and we note the validity of these concerns. Their analysis reviewed only one design option and did not test the envelopes with layouts to determine their capacity.

On a site of this shape and size, the masterplan has enough flexibility to easily accommodate a FSR of 2.4:1 and provide improved amenity. Furthermore, this FSR allows a density that is appropriate for development with the height 6-12 storeys.

## **Comparison with density on other centres**

One of council's concerns that the density proposed is not consistent with the current density in other centres. They agree that the overarching proposal to increase housing on the site has strategic merit but seek development standards consistent with other centres. We are of the opinion this comparison is not relevant in this instance. The objectives proposed that led to the gateway decision allowing a height limit 6-12 storey across the site have long removed the appropriateness of this definition being applied to the site.

Generally, the heights and resulting FSR in other centres were created in the context of existing centres with fine grain subdivision and known street patterns – progressive development that retains elements of the existing built form. This proposal is for a large

unconstrained clear site where the built form layout can be optimised leading to greater densities.

The scale of development (in height of storeys) and site layout is agreed, and it is strategically appropriate as site of this scale and location (against the train line) can absorb development of greater height and density than those in established centres.

This site is located outside the existing boundary of the Regents Park Village Centre boundary, while still within easy walking distance of the station. The scale of this development will support the establishment of the village centre, but not necessarily change the desired character.

The site analysis undertaken shows that there is adequate flexibility to achieve a site-specific response that has positive impact to existing and future residents.

## **HEIGHT**

The gateway provided for the following heights.

- 6 storey – 19m
- 8 storey – 25m
- 12 storey – 38m

We are of the opinion that the heights nominated would not achieve the agreed number of storeys.

The heights (in storeys) proposed by the McGregor Coxall plan, and applicants version of the same cannot be achieved within the gateway determined height standards if the future development is to comply with the design criteria in the ADG.

The following diagrams represent an illustration of the building heights that allow for the following with a small margin:

- 2.7m ceiling height,
- 0.4m for services, slab and beams.
- 0.2m increase in slab for upper level setback to allow for insulation and setdowns
- 1m allowance for slope across building footprint
- 1.5m allowance for parapet and lift overrun.

We agree with Architectus that providing 3.3m on the ground level will provide for flexibility is future uses.

We also note that ground level varies from 37.28 (centre north boundary) to 28.82 (south east corner of site). On such a large site the future ground levels around the building base may be different to existing levels as the site is graded to provide an appropriate public domain response, and interface with neighbouring properties. Additional tolerance is needed to allow for adjustments to the existing ground surface to ensure the new streets and open spaces provide the desired relationship to the new dwellings as the site transitions from industrial to residential uses. The ADG recommends that ground floor apartments be slightly elevated to a maximum of 1m above the adjacent public domain.

Additional height (particularly on the 6 & 8 storey buildings) can allow for roof top communal open space that can add to the amenity of the proposed development and allow for roof

gardens that can contribute to the local habitat. Typically, 3.8m is required to ensure the lift can extend to the communal open space.

It is appropriate that the development standards set for the site provide such flexibility and avoid the need for future 4.6 variations where development exceeds the height due to roof terrace access or irregularities in the existing topography.

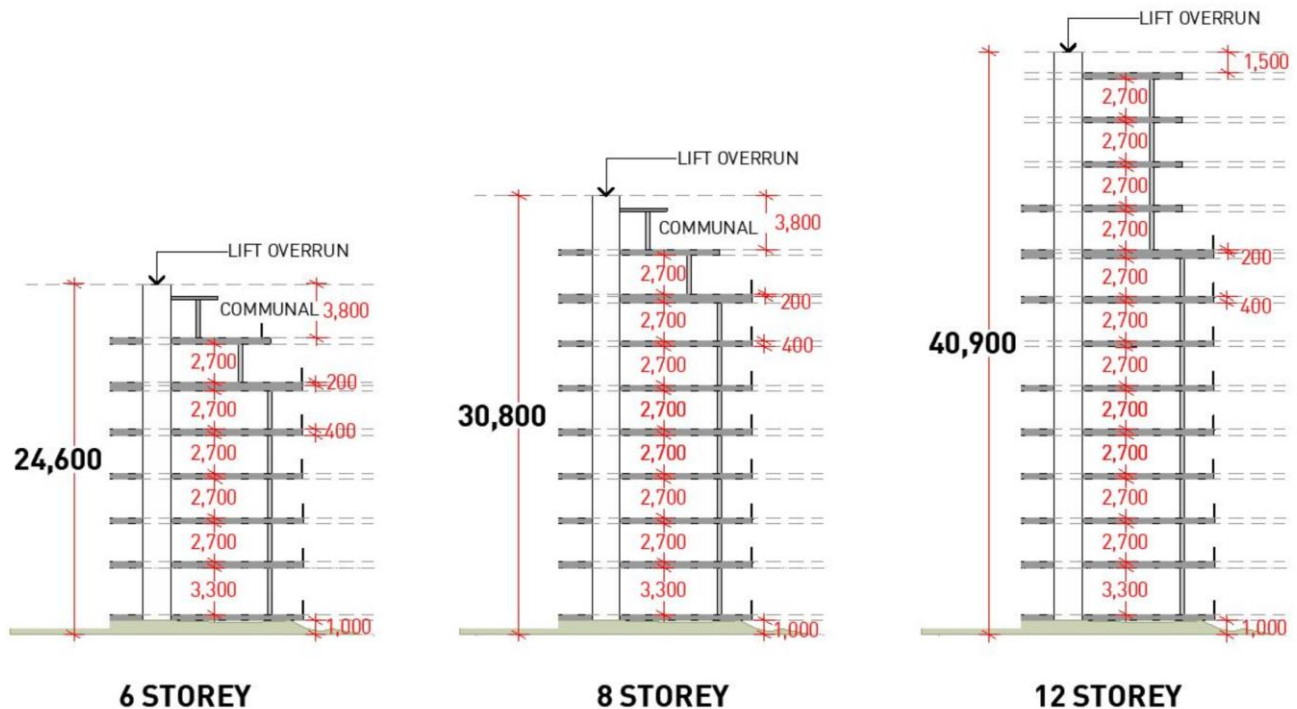


FIGURE 1: BUILDING HEIGHTS

As such we recommend that following heights would allow a development to fit fully within the height standard:

- 6 storey – 25m
- 8 storey – 31m
- 12 storey – 41m

These heights will avoid the need for cl. 4.6 variation to development standards at the development application stage.

We acknowledge that the MGC study recommended greater height for the 12 storey building however we consider 47m is excessive for the number of storeys proposed, and that is not desirable for communal open space to be located at that level due to potential wind speeds that would reduce the amenity of this space.

### FLOOR SPACE RATIO

Architectus recommend that an FSR of 1.75:1 is the maximum achievable given the shortcomings they have identified with respect to solar access and cross ventilation. They reached this conclusion based on an alternate site layout that comprised shorter buildings and a maximum height of only 8 storeys.

The guideline *Planning Proposals: A Guide to Prepare Planning Proposals* published by DPIE states it is not the role of a planning proposal, “nor should it consider specific detailed matters that should form part of a development application” p5. This includes detailed analysis of apartment layouts and their conformance with the ADG. This is in part because there are a considerable number of ways in which the floor plate layouts can be configured to optimise the amenity of the apartments – this is even more so the case where the site is large and there is flexibility to adjust the location of the buildings to optimise the built form for maximum amenity.

We have analysed the plans prepared by Studio MRA and it is apparent that despite the common building depth of 22.4m, the approximate envelopes proposed are able to support apartments that achieve both solar and cross-ventilation. This would require the apartment designs provided by Studio MRA to be amended, and likely the overall number of apartments to decrease.

### Solar access.

The masterplan prepared by MGC maximises the opportunity for solar access by optimising the northern orientation and minimising obstructions to the east and western facades of the north-south oriented buildings. The Studio MRA plans provided double loaded corridors with many south facing apartments and the layouts did not optimise the orientation – resulting in poor solar access.

There is more than enough capacity to achieve the required solar access. The solar access analysis at Figure 2 shows that approximately 80% of the north facing building envelope and 95% of the west facing building envelope achieves at least 2 hours of sun between 9:00 and 15:00 mid-winter.

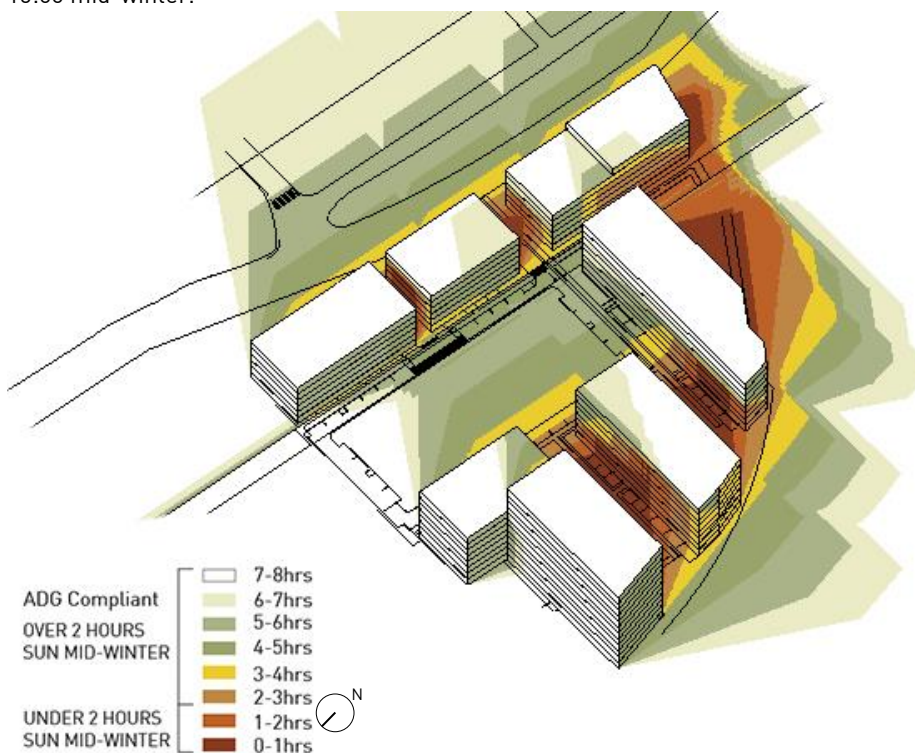


FIGURE 2: ENVELOPES-NORTH-WEST\_SUN ANALYSIS MID-WINTER

The solar access analysis at Figure 3 shows that 100% of the east facing building envelope is able to achieve just over 2 hours sun between 9:00 and 15:00 mid-winter. However compliance is marginal due to the orientation. Achieving solar access will be subject to the detailed design of the apartment layout and façade detailing. This would require apartment layouts where living room windows are flush with the main façade line and mindfulness around protruding elements on the façade, or the including of bay windows. With careful design of the eastern facades a large percentage of the east facing apartments are likely to achieve and exceed 2hrs solar in the morning.

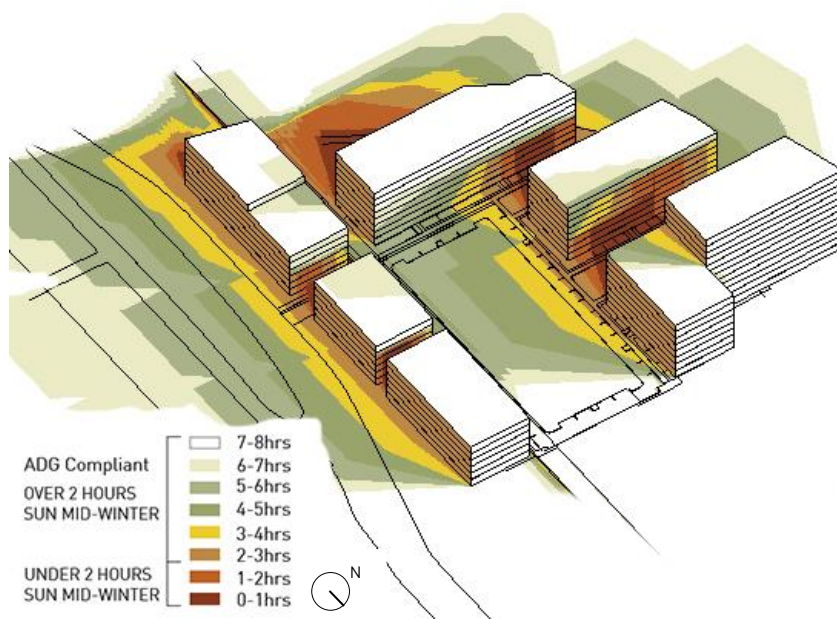


FIGURE 3: ENVELOPES-NORTH-EAST\_SUN ANALYSIS MID-WINTER

An alternate layout similar to that in Figure 4 could be provided within the 22m envelope that maximises the orientation of apartments to the north and minimises south facing apartments.

As noted in the Architectus analysis building C-D will be significantly overshadowed by Building A. But it is not a requirement of the ADG that each building provide compliance with the ADG Design Criteria. The design criteria is applied to the whole site. There is potential for a high level of compliance in other buildings will offset poor performance in other buildings.

It is our opinion that solar access is not a barrier to achieving a FSR of 2.4:1 as the northern orientation of the proposed masterplan enables development to maximise solar access.

### Amenity performance of proposed envelopes

We note the Architectus analysis of the Studio MRA floorplate, we agree that this arrangement of apartment layouts would not satisfy ADG design criteria for solar access and cross ventilation. As noted earlier it is not the role of a Planning Proposal to provide a detailed assessment of apartment layouts, but ensure the controls proposed are appropriate for the site. The FSR and height proposed can accommodate a development that



meets the ADG design criteria. The plan below demonstrates a 22.4m wide floorplate layout on the site that is able to achieve 81.8% solar and 72.7% cross ventilation. Note that this may not be able to be achieved on all levels if overshadowed. This has been achieved through:

- Maximising the placement of living rooms and POS on the north and eastern facades.
- Minimising single aspect south facing apartments and locating services to the southern façade.
- Placing living rooms against the glazing line, rather than set behind deep balconies where possible.
- Designing end of floorplate apartments to cross vent on corners.
- Using cross through apartments (18m glass line to glass line maximum) with a northerly or western orientation, and cross venting through the apartment – to achieve cross vent and solar. This drastically reduces the number of apartments with a southern orientation.
- Any protruding design elements do not block solar to apartments.
- Articulate facade to maximise solar access
- Any notches or cut-outs used to achieve cross vent to apartments are of an adequate size and proportion as described in ADG Objective 4b-2.

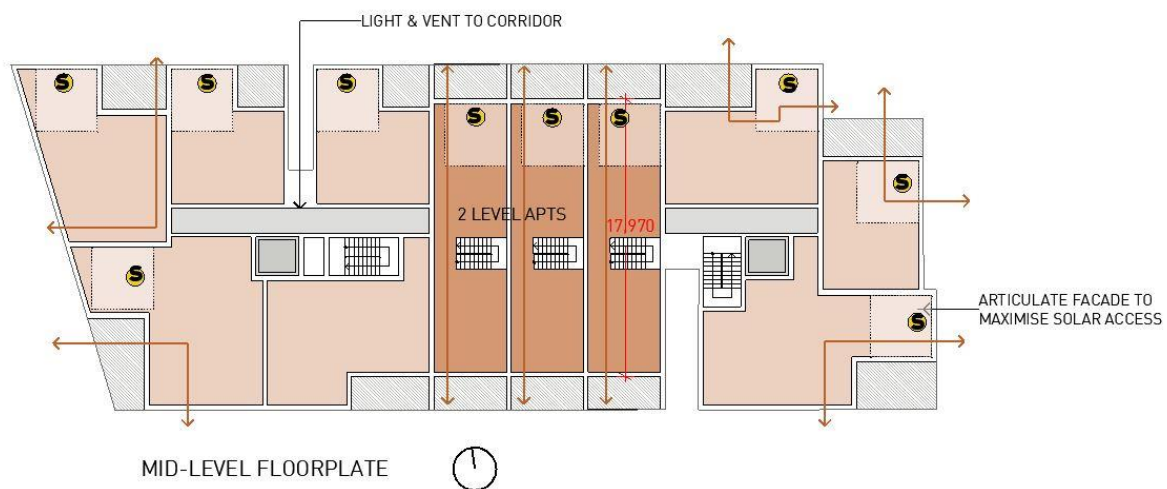


FIGURE 4: EXAMPLE 22.4M WIDE NORTH FACING FLOORPLATE

The diagrams preceding illustrate that the envelopes proposed by Studio MRA are capable of supporting apartments that meet or exceed the objectives and design criteria of the ADG.

We critically note that due to the proximity to the rail, dwellings may require acoustic treatment to achieve the acceptable acoustic amenity. The proposed orientation of the building envelope that is generally perpendicular to the rail line is a key strategic move in reducing the acoustic impact. Other measures commonly utilised in this circumstance is the inclusion of 'winter gardens'. These semi-enclosed spaces can moderate the noise into an apartment; however, as enclosed space they are included in GFA and increase the FSR contained within the proposed building envelopes.

### Further ADG Assessment

Architectus' response letter highlighted a variety of other concerns of the Studio MRA scheme, other than solar and cross ventilation discussed in the previous sections. It is noted that these are detailed design matters, in our opinion they would impact the overall yield, but not necessarily make the FSR and height proposed unreasonable.

- ADG 4D: Apartment Layouts. There were a great number of apartments that had non-compliant living room widths among other issues. The envelopes have the depth and ability to support apartments with compliant internal spaces. This will likely reduce the overall number of apartments.
- ADG 4F-1: Maximum number of units serviced by a lift core, building G has over 8 apartments per level off a single lift core. This could be amended to comply providing an additional lift core within the existing envelope. As this design is not being approved for DA, this amendment has not been made.
- Building separation. Architectus' report notes that the building separation distance of 8m between buildings G & H impacts the buildings ability to comply with ADG requirements for privacy. This is also true of the separation between buildings H & I (13m proposed at upper levels, required 18m), and E & F (12m proposed at upper levels, 18m required). This should be amended but it is our opinion that there is sufficient flexibility onsite to increase these separation distances as other distances exceed the minimum distances for privacy separation. Further configuration of windows and arrangement of rooms may enable reduced separation distances if solar access and a desirable urban form is achieved.
- Building Setbacks: Setbacks to the north are largely the same as in the MGC study. This is considered not to be unfairly impacting the northern neighbours development potential as the site dimensions to the north mean that they would be able to fit 2 buildings running east to west with appropriate building setbacks, regardless of the development on the subject site. As previously noted, we note that due to the proximity to the rail, dwellings may require acoustic treatment to achieve the acceptable acoustic amenity. The perpendicular orientation to the rail line is a key strategic move in reducing the acoustic impact, this also enables a closer proximity to the boundary – as the part of the building can be more 'defensive' and the landscape perimeter also bleeds into the space between the buildings.

### Alternate configuration

To illustrate that the masterplan has adequate flexibility to support a number of building configurations within the proposed controls while adhering to the principles of the MGCS, STZ have prepared a high-level alternate scheme. This scheme also has the ability to comply with the ADG, notably in relation to building separation, solar access, building depth, apartment layouts and cross ventilation.

We considered the key principles of the McGregor Coxall Scheme (MGCS) such as the layout, building footprints, height, bulk and open space offering, as well as council strategic documents and associated setbacks.



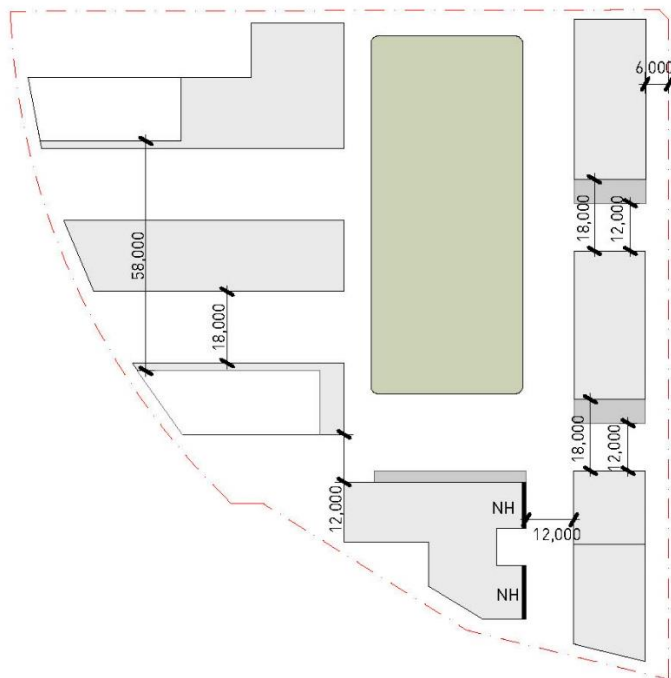


FIGURE 5: ALTERNATE BUILDING FOOTPRINTS

This scheme demonstrates that there is sufficient flexibility in the adaptation of the MGCS to accommodate an FSR of 2.4:1 as proposed by the masterplan, while achieving good design on a precinct, building and apartment level. Though this is a high-level plan and not to the level of detail as the applicants' plan, key concerns such as building separation, setbacks, and the ability of envelopes to accommodate apartments that can comply with the ADG has been tested.

The alternate scheme has made the following considerations:

- Building Efficiency Calculation. An efficiency calculation of 80% is achieved by a decrease in building depths to allow more efficient floorplates.
- Improved setbacks: A 6m setback to Auburn Road ensuring a transition of scale from the surrounding low density residential area, and a 3m setback to the railway corridor. Though not to councils preferred 6m, this setback will allow the objective of appropriate landscaping and substantial deep soil planting.
- Northern neighbours: Consistent with guidance in the ADG the setback to the northern boundary is provided. We have reviewed a possible layout on the site to the north which can accommodate two east-west orientated buildings.
- Building depths, solar and cross ventilation performance. A reduced building depth of 18m allows more efficient floorplates, and example of which is shown below. End of floorplate apartments are able to cross vent on corners with vertical circulation and services located to the rear of the building. Two level mid-floorplate apartments can run through the building, each with a northerly or western orientation, and cross venting through the apartment. This drastically reduces the number of apartments with a southern orientation. This layout is

efficient as only the mid-level of every three requires a corridor through the length of the building. This results in a floor plate that is very likely to achieve minimum 66% cross vent.

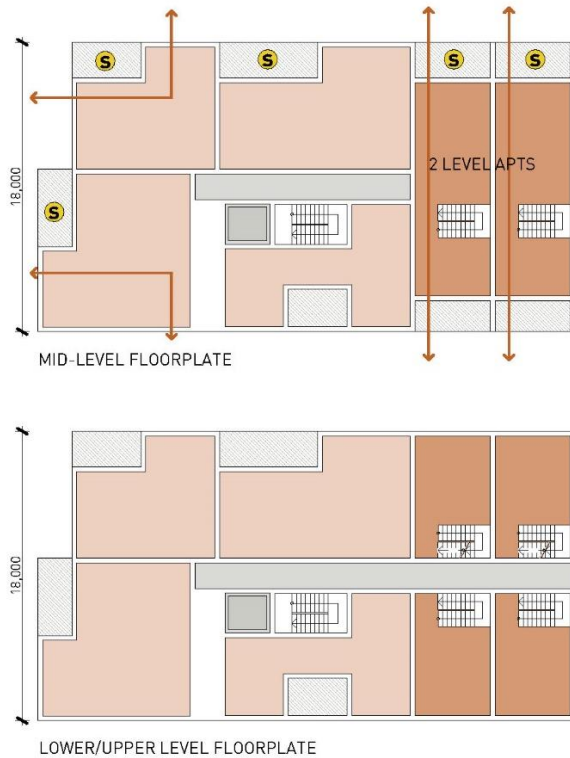


FIGURE 6: INDICATIVE FLOORPLATES 18M

- Correct ADG building setbacks. The setbacks applied are closely linked to the ability of the alternate scheme to achieve solar. Buildings step back at 4/8 storeys, ensuring solar performance of the building envelopes.
- Solar. By reducing the building depths an additional building can be provided this has the effect of increasing north and west façade area that is able to achieve solar access. Hence having two buildings at 39m (that step back to comply with ADG building separation controls) means there are a greater number of apartments are at a higher level in the buildings facing north that can achieve superior solar, as shown in the shading diagram below.

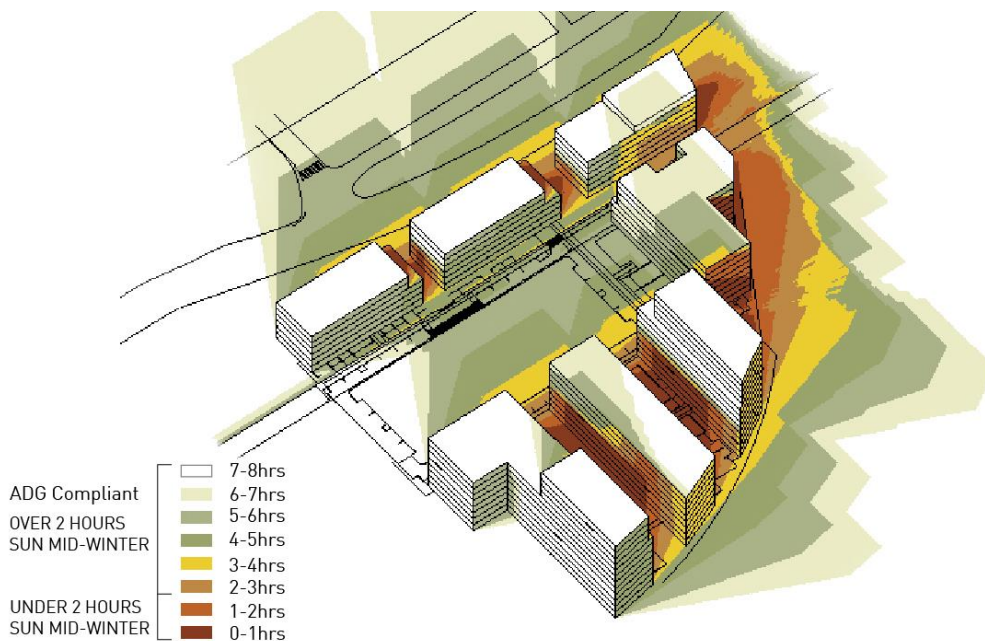


FIGURE 7: SOLAR ACCESS MAP 9:00-15:00 MID-WINTER

## CONCLUSION

Based on the above analysis the 2.4:1 FSR and height proposed is appropriate and is achievable on this site. With careful design that is tuned to the orientation and focused on amenity, there is capacity to meet or exceed the objectives and design criteria of the ADG. The FSR also enable the incentive to provide a high quality central green community space of significant dimension.

Further and most importantly, the standards in the LEP are maximum controls. The ultimate FSR for the development will be informed by the combination of controls that apply to the development. These include but are not limited to achieving the objectives and design criteria of the ADG, management of acoustic impacts and any controls in a development control plan. This will be assessed at the development application stage when an appropriate level of design detail has been completed. A poor design strategy may result in a lower FSR in order to achieve compliance with the other amenity criteria.

Additional height should be provided to allow the agreed number of floors, flexibility in the configuration, allow the built form to work with the existing topography, allow opportunities for roof top communal space and ensure there is a good relationship with the ground floor and public domain.

Yours Faithfully  
SMITH & TZANNES,

Peter Smith  
Director  
Registered Architect 7024



# CURRICULUM VITAE

PETER SMITH

Director

## QUALIFICATIONS AND AFFILIATIONS

Bachelor of Arts in Architecture [UTS]  
Bachelor of Architecture (Hons 1) [UTS]  
Grad Dip. Environmental Law [USyd]  
Royal Australian Institute of Architects [RAIA]  
Registered Architect NSW : 7024

## EXPERIENCE & EXPERTISE

A founding principal of Smith & Tzannes, Peter has been actively involved design, research and policy development in the field of architecture and the urban planning for over 20 years. He is a strategic design thinker and an advocate for design quality.

Peter brings to projects the advantage of having been on 'both sides of the fence' With experience in private practice, local and state government, he brings to the project incredible knowledge and experience on detailed planning and policy advice and a political acumen to ensure a smooth process for your project. He is one of the few experts in NSW that operate across the policy, detailed architectural design and assessment.

### HOUSING DESIGN AND POLICY

Creating great places where people can live has been a career long obsession. As well as designing and documenting housing at various scales, he is also involved in developing housing policy in NSW and championing quality urban outcomes. In particular he seeks housing design that is equitable, sustainable, provides delight and connecting to place.

Recently much of his work has been advancing models of medium density housing in providing quality affordable housing. Peter led research policy development at a State level that resulted in the Low Rise Housing Diversity Code and Design Guide.

He has also brought this knowledge to assist Land and Housing Corporation (NSW state social housing provider) in designing their portfolio strategy.

He is an expert in the Land and Environment Court and member of many design review panels where he is acknowledged for balanced and practical design based advice that seek high quality urban outcomes.

The expert advice is underpinned by his architectural work where he guides the detailed design of the forms of housing that he create policy for including single houses, terraces, apartments and mixed use developments.

### CREATING PLACE

Connecting new development to place is critical in establishing identity and creating amenity. Peter's urban design work has largely evolved around ensuring 'space between the buildings' builds on the culture of the place, improves the natural environment and provides amenity for the people who use the space and the buildings that define it.

Peter has prepared studies and advised new controls for both LEP's and place specific DCP including 3D envelope based work and analysis of the relationship between FSR, massing and height in many of Sydney's centres.

This experience also includes advice on planning proposal, housing strategies, site specific controls.

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## SUSTAINABILITY

A strong theme of sustainability underlies all the work done by Peter. As a GreenStar professional he is involved in the delivery of sustainable outcomes for the built projects (many of them being industry leading). He has also taught and lectured in sustainable architecture.

Peter was a consultant to the NSW Department of Planning in the development of the BASIX tool, providing research into the Thermal Comfort and multi-dwelling tools and preparing guidelines and interface design.

## PLANNING REFORM: DESIGN POLICY & ASSESSMENT SYSTEMS

Peter is recognized as an expert in NSW planning reform in particular with respect to design policy, complying development and housing policy. He is a consultant to the NSW Department of Planning Infrastructure and Environment, providing advice on the continued development of complying development, e-planning systems and housing policy.

He is regularly invited to talk at industry conferences and seminars on planning reform in particular the contribution of design and cultural change on the planning system. His emphasis is on design-led strategic planning and the design of systems that support this.

During his career Peter has delivered design policy on child care centres, schools, medium density housing and apartments.

## DESIGN REVIEW & LAND AND ENVIRONMENT COURT

As an advisor on design quality he provides advice to councils on assessment of development applications and strategic advice to applications on how to improve design outcomes and improve their chances of success in gaining consent.

Peter is also well known as a highly experienced Court expert in the field of architecture, urban design and solar analysis with the Land and Environment Court. He is particularly sought after for his practical design based approach.

### KEY HOUSING POLICY ACHIEVEMENTS

NSW Low Rise Housing Diversity Code and Guide - Researcher, policy advisor and author of guidelines.

Review of SEPP 65 - Apartment Design Guide

Lake Macquarie - Detailed Design of Housing Policy - 4 precincts

NSW Housing Code - 2008-2012 - Researcher and policy advisor

### OTHER POLICY

NSW Child Care Design Guide

NSW School Design Guide

NSW Education SEPP

NSW Commercial and Industrial Complying Development Code

NSW Agritourism Policy

Land & Housing Corporation - Portfolio Strategy 2019+

### ARCHITECTURAL DESIGN

**Single family housing:** Wallsend, Camperdown, Drummoyne, Rozelle, Pymble, Chatswood, Killarney Heights and Denistone, Boulee, Malua Bay, Blakehurst, Alexandria, Maroubra, Devenport. Alexandria, Melbourne, Stanwell Park, Lili pilli, Longueville, Middle Cove

**Multi family housing:** Green Square, Alexandria, Sutherland, Cronulla, Carringbah, Hurstville, Kogarah, Rockdale, Wolli Creek, Zetland, North Sydney, Carlingford, Castle Hill, Bankstown, Penrith

Design of 8000 dwellings within 230+ projects.

**Civi and Community:** Newcastle Art Gallery, Eurobodalla Admnsitration Building, Cronulla Sharks Stadium, Kogarah Jubilee Oval, Leichhardt Oval, Brookvale Oval, Amenities Buidlings in Nolans Reserve, Scarborough Park, Monterey, Daceyville, Dee Why, Sydney Park

### URBAN STRATEGY AND PLACE

Edmonston Park Precinct 5 Urban form and built form controls and place guidelines

Urban design advice to Ku-ring-gai, Innerwest, Warringah, and Georges River, Lane Cove, Willoughby Councils

Kogarah Town Centre DCP No.5

Alexandra Canal (winning entry)\*

Ku-ring-gai DCP 55 and Special Areas plans for Turramurra and Roseville

Yagoona Town Centre Urban Form review

Turramurra and Pymble Town Centres

Barden Ridge stage 3 (100 dwellings)

Sproule road (11 LOTS)

Heathcote Ridge (900 Ha subdivision)