



Australia's property industry

Creating for Generations

Property Council of Australia
ABN 13 00847 4422

Level 1, 11 Barrack Street
Sydney NSW 2000

T. +61 2 9033 1900
E. nsw@propertycouncil.com.au

propertycouncil.com.au
 @propertycouncil

30 April 2021

Ms Abbie Galvin
NSW Government Architect
Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Dear Ms Galvin

Exhibition of Explanation of Intended Effects - Design and Place SEPP

The Property Council of Australia welcomes the opportunity to provide comments on the Explanation of Intended Effects (**the EIE**) for a new Design and Place State Environmental Planning Policy (**the SEPP**).

As Australia's peak representative of the property and construction industry, the Property Council's members include investors, owners, managers and developers of property across all asset classes. The following comments are provided for your consideration.

This submission has considered the views of many of our members and is based on their feedback.

As you would be aware, we have for many years been calling for a review of SEPP 65 and the ADG to address industry concerns with the way it has been applied. Accordingly, we support the broad intent of reviewing the current Apartment Design Guide (**ADG**) with the view of improving design quality through more flexibility and efficient review of development proposals. The Minister has consistently indicated that he wants to see a move from the current prescriptive design requirements to a principles-based policy which we also support.

There is no doubt that the SEPP represents a significant policy challenge involving the consolidation of a large number of guidance material aimed towards the simplifying and improving the design evaluation process, however, the approach proposed is misaligned in terms of its execution.

Within these general parameters we are pleased to provide the attached comments and recommendations for the Department on the EIE. It is unfortunate that the exhibited EIE (if progressed in its current form) will introduce a raft of new guidance material and requirements that will only burden the planning system with further regulation and stifle flexibility and innovation in design. These concerns are considered in detail within the body of the submission.

Our recommendations are grouped into general and specific comments. The first recommendations relate to the SEPP as a whole and additional recommendations relate to specific parts of the package including the proposed amendments to the ADG, the Urban Development Guide (**UDG**) and the changes to the BASIX SEPP.

Notwithstanding the ambitious timeframes set by the Government Architect and Department to finalise the SEPP reforms during 2021, we would welcome the opportunity to discuss our concerns with these issues in detail with the key personnel managing this review.

Should you have any questions regarding the content of this submission, please contact Troy Loveday, NSW Policy Manager, on 0414 265 152 or tloveday@propertycouncil.com.au
Yours sincerely



Jane Fitzgerald
NSW Executive Director
Property Council of Australia

Submission to Department of Planning, Industry and Environment

Explanation of Intended Effects for a proposed Design & Place State Environmental Planning Policy

30 April 2021

1.0 Table of Contents

2.0 Executive Summary	5
3.0 Recommendations	7
4.0 Background	10
5.0 Proposed principles for design and assessment	11
6.0 Application of the new SEPP	15
7.0 Design evaluation and review	17
8.0 Mandatory matters for consideration	19
9.0 Role of guidance material	25
10.0 Amendments to the Apartment Design Guide	26
11.0 Proposed Urban Design Guide	33
12.0 Sustainability and BASIX	37
13.0 Impact on Housing Diversity SEPP	41
14.0 Savings and transitional matters	42
15.0 Conclusion	43
Appendix A – Chronology	44
Appendix B – Case Studies	47

2.0 Executive Summary

The Property Council welcomes the opportunity to provide comments to the Department of Planning, Industry and Environment (the Department) on the Explanation of Intended Effects (EIE) for the proposed Design and Place State Environmental Planning Policy (the SEPP).

Firstly, the Property Council supports the Government's commitment to deliver improvements to the design and planning of buildings and places, but we are extremely concerned that these reforms will not achieve their intended goal.

We have for many years been calling for a review of SEPP 65 and the ADG to address industry concerns with the way it has been applied. It is essential that a review of the Apartment Design Guide (ADG) is carried out and there is a critical need to reform the planning controls applying to multi-storey apartment development. However, the package of proposals that was placed on exhibition will make the development process more complex, onerous and costly, which will have a significant impact on housing affordability and the feasibility of residential development projects.

We are concerned that the widening of the policy's application beyond residential apartment buildings (where SEPP 65 currently applies) to also review the design of other building types and precincts will apply a handbrake to planning assessment timeframes. There is nothing presented in the EIE that gives industry confidence that the planning system will become more efficient and streamlined.

Based on the content of the EIE, we have concerns with the wholesale expansion of SEPP 65 to other development types such as commercial and industrial developments and the planning of precincts in greenfield and brownfield contexts.

We are concerned the changes proposed in the EIE will:

- make application preparation timeframes longer,
- cause further delays to assessment timeframes,
- exacerbate the existing issues with the ADG being used as a compliance tool and not as a guide,
- cause confusion against statutory planning controls,
- lead to less development potential being achieved,
- reduce innovation and design creativity,
- increase costs,
- delay projects, and
- ultimately result in significant issues relating to housing supply and affordability.

We believe a better approach to fix the current problems being experienced by the incorrect use of the ADG, would be to maintain the current SEPP 65 together with an updated ADG, and mandate the ADG's use as a guide, as was always intended. There must be flexibility permitted in the application of the policy to ensure that numerical and non-numerical standards are not applied in a strict manner.

Fundamentally, the proposed approach to deliver the SEPP's objectives is misaligned with its execution. The review of the SEPP needs to involve consolidation, simplification and encourage design innovation. In our view, it does not deliver on the aspirations that the Minister and Government Architect claim to be central to the review.

The current process of assessing certain development projects against the principles of SEPP 65 and the application of the ADG by local councils has not delivered ideal outcomes and needs review. The intended status of the ADG as a guide is not reflected in the way it is applied. Despite several attempts by the Department to clarify the status of the ADG as a guide, this issue remains and is unlikely to be addressed in the current reform package.

The SEPP provides significant potential to implement improvements to the way our cities are planned and designed, as there is a need to address the current failure of the way SEPP 65 has and is being applied.

The scope of the EIE is very broad and will have consequences for a wide range of development types that go beyond the current apartment buildings to which SEPP 65 applies. Expanding the SEPP's application to other development types could have consequences in terms of planning assessment timeframes which could in turn have broader economic impacts such as slow housing supply and job creation.

Whilst we welcome the announcement that the SEPP will make a number of important and long overdue improvements, we will need to see more detail regarding building sustainability and impacts on construction costs.

3.0 Recommendations

The following recommendations should be considered by the Department as part of its review of feedback on the EIE:

General Recommendations

1. There needs to be a staged approach to the implementation of the proposed SEPP that is focused on improved flexibility, driving innovation, reducing unnecessary regulation and incentivising good design outcomes.
2. There needs to be immediate reforms to the ADG ahead of the other changes.

Specific Recommendations

3. The threshold for precincts should be lowered to sites of 50 hectares or more.
4. The threshold for subdivisions should be lowered to 500 or more lots.
5. The inclusion of any mandatory requirement in the SEPP must be proportionate to the scale of proposed development.
6. Any requirements that mandate professional design skills should equally apply to public developments proposed by State and local government as it does to the private sector.
7. The SEPP must provide a more consistent approach regarding the advice provided by Design Review Panels.
8. The SEPP must provide improved guidance for design panels so they understand their roles compared to the decision making panels.
9. The SEPP mandatory matter for consideration concerning connectivity needs to be drafted to ensure clarity particularly regarding the relationship to local planning controls.
10. The SEPP mandatory matter for consideration concerning local living must have regard to its impact on established centres and their viability to avoid detrimental effects.
11. The SEPP mandatory matter for consideration concerning street intersection density and block length needs to be reconsidered as it is better dealt with in the local planning controls.
12. The SEPP mandatory matter for consideration concerning fine grain movement needs to be reconsidered as the use of numerical standards to determine placement of a through site link or connection is inappropriate.
13. The SEPP mandatory matter for consideration concerning density needs to be reconsidered as it is not appropriate to specify it in the way indicated in the EIE.
14. The SEPP mandatory matter for consideration concerning housing diversity needs to be reconsidered as it is not a matter that can be addressed through a provision in a SEPP.
15. The Department should reconsider the changes to car parking rates for some development types, especially the proposed reduction of parking rates to zero for certain housing typologies.
16. The Department should remove reference to local character areas from the proposed SEPP.
17. The suggestion requiring non-residential uses in developments in residential zones (R3 and R4) is not supported and should be removed.

18. The requirement to provide affordable housing is not supported and should be removed.
19. The SEPP may elevate the status of certain guidance material beyond its intended purpose, so it is important that related guidance material is clearly identified.

Apartment Design Guide

The SEPP should:

20. Allow for flexibility in terms of the provision of communal open space and recognise there will be greater demand in some locations than in others.
21. Allow for flexibility in terms of meeting the required level of solar access and accept a 'best endeavours' approach.
22. Allow for a flexible approach to the natural ventilation of residential apartments rather than the prescriptive 60% standard that is proposed.
23. Allow for a flexible approach to the provision of deep soil zones that takes site-specific issues into consideration and supports reasonable alternatives.
24. Allow for a flexible approach to the provision of private open space and support reasonable alternatives.
25. Allow for a flexible approach to the provision of storage for residents that supports reasonable alternatives.
26. Not elevate the status of local character areas identified by local councils.
27. Not include a new criterion that limits residential floorplate size.
28. Not specify numerical requirements for building separation for residential apartment towers as it will reduce housing supply.
29. Allow for a flexible approach to the design and amenity of common circulation areas.
30. Allow for flexibility regarding the amelioration of internal and external noise sources and not discourage high density living near roads and public transport corridors.
31. Consider the impact of imposing higher ceiling heights for non-residential uses in terms of LEP height controls in commercial zones.

Urban Design Guide

The Urban Design Guide should:

32. Provide examples of the desired outcome in respect of the Principle Bicycle Network criteria.
33. Provide examples of complimentary design techniques.
34. Provide further detail regarding the requirements for single use residential zones,
35. Provide more information to clarify the types of outcomes sought as non-residential uses at ground level in R3 and R4 zones.
36. The position regarding locating sensitive land uses away from roads and railway lines is not consistent with Government practice for many decades.
37. Allow more consultation on zero side setbacks with neighbour agreement.

BASIX

38. The SEPP needs to adopt the national *Trajectory for Low Energy Buildings – Existing Buildings* and *Addendum to the Trajectory for Low Energy Buildings – Existing Buildings* documents.

Housing Diversity

- 39. The SEPP must maintain the existing flexibility with respect to the ADG that has been afforded to Build to Rent housing.
- 40. The SEPP must provide more clarification regarding how the ADG will be applied to other diverse forms of housing such as student housing and co-living.

Savings and Transitional provision

- 41. The SEPP needs to provide for at least a 6-month transition period from the date of publication of the new SEPP until its commencement date.
- 42. The SEPP will need to provide a mechanism to preserve any site-specific planning proposal or precinct planning controls that have been designed in accordance with the existing ADG.

4.0 Background

The Property Council welcomed the announcement by the Minister in 2020 that there would be a new State Environmental Planning Policy focusing on design and place. Since the initial announcement, the Government Architect arranged several consultations with stakeholders, including the development industry, to discuss key elements of the proposed policy.

For many years the development industry has been calling for an overhaul of SEPP 65 and the associated ADG as they have not been applied as originally intended. We supported the intention to review these policies to improve their operation and application in the development assessment process.

It is significant that in June 2017, the then Department of Planning and Environment issued Planning Circular PS17-001 titled “Using the Apartment Design Guide” that sought to provide guidance on the application of the ADG in the development assessment process under SEPP 65. It is understood the purpose of the circular was to clearly explain the application of the SEPP 65 design principles and the ADG in the assessment of development applications made under Part 4 of the *Environmental Planning and Assessment Act (the Act)*.

During 2019, the Property Council identified the need for changes to four key parts of the ADG that, in our view, undermine the broader objectives of the policy. These parts were Part 4A solar access, Part 4B natural ventilation, Part 3B orientation and Part 3E deep soil zones. These concerns were expressed in a paper issued to the Department of Planning, Industry and Environment and Minister’s office in July 2019. In April 2020, the Property Council met with the Government Architect to discuss these concerns and propose improvements. It was understood that several of the matters raised in that meeting would be adopted by the Department, including providing reference to exemplar projects that demonstrate achievement of the ADG’s performance-based objectives.

Since the commencement of the Act in 1980, there have been more than thirty (30) design related policies and guidelines addressing better design of residential development, environmental sustainability and place-based guidance for key sites. A chronology that provides a detailed list of most of the relevant planning regulation to this review is provided at Appendix A.

5.0 Proposed principles for design and assessment

The new SEPP will be framed around five (5) principles for the design and assessment of places in urban and regional NSW.

The Property Council supports the advancement of a principles-based approach to the planning system and agrees that it can encourage innovation and better outcomes by moving away from prescriptive rules to a local, context specific approach.

The following table considers and responds to each of the proposed design principles:

Proposed Design Principle and Intended Effect	Property Council Response
<p>1. Design Places with beauty and character</p> <p><u>Intended effect:</u></p> <ul style="list-style-type: none"> - elevate the role, importance and value of design, - require that a good design process is undertaken to achieve quality design, and - support development that demonstrates an appropriate response to context and local character, suited to a site's unique topography, that is sensitive to Country and history and ensure appropriate innovation and change. 	<p>The Property Council fully supports this design principle and its intended effects that encourage good design outcomes.</p>
<p>2. Design inviting public spaces</p> <p><u>Intended effect:</u></p> <ul style="list-style-type: none"> - propose new targets to retain or increase the provision and diversity of public space across NSW, - propose that new dwellings and workplaces are located in close proximity to public space to increase accessibility and create walkable neighbourhoods, - deliver green infrastructure for greater connectivity, and - ensure that buildings near vibrant areas, such as licensed premises or major public space, do not impact the ability for those areas to continue to operate. 	<p>The Property Council fully supports this design principle and the four (4) intended effects specified. There are many examples across Sydney where private development both contributes to and benefits from a high-quality public domain. It is critical that the implementation of this principle through the policy is consistent with other State and local planning policies.</p>

Proposed Design Principle and Intended Effect	Property Council Response
<p>3. Develop productive and connected places</p> <p><u>Intended effect:</u></p> <ul style="list-style-type: none"> - propose baseline residential density targets in urban areas to ensure development incorporates a well-designed walkable urban form, - provide needs-based car parking assessment methods by identifying locations for maximum parking rates, lowering minimum rates, and specifying where adaptive travel plans are to be prepared, - require increased permeability by setting street intersection density targets, maximum block lengths and increasing the provision of publicly accessible through-site links to create connected and fine-grained street networks that prioritise pedestrians and cyclists, - encourage the construction of well-designed footpaths, shared paths, and cycleways that promote behaviour change and set new standards of comfort and safety. 	<p>The Property Council supports this design principle and in the main most of the four (4) intended effects.</p> <p>We would support the objectives for this design principle, however we are concerned about the intention to propose residential density targets in the SEPP as these should be placed in local planning controls such as a LEP, DCP or masterplan.</p>

Proposed Design Principle and Intended Effect	Property Council Response
<p>4. Design sustainable and greener places</p> <p><u>Intended effect:</u></p> <ul style="list-style-type: none"> - support alignment with the NSW Government's Net Zero Plan, - encourage development to be designed within the context of the existing landscape by encouraging a requirement to integrate landform, bushland, hydrology and ecology; retain existing green infrastructure, particularly habitat and significant vegetation; and maintain and enhance the quality of watercourses, and - require the coordinated planning and design of green infrastructure, including the introduction of tree replacement rates and tree canopy targets as well as encouraging green walls and roofs, cool pavements, and water-sensitive urban design. 	<p>The Property Council supports this design principle and its intended effects that will be delivered through the implementation of the policy.</p> <p>We note that there is further detail regarding sustainability and energy efficiency that are to be made available and it is important that information is subject to rigorous scrutiny and testing. We would welcome the opportunity to engage further with the Department as it considers the detailed requirements that will contribute towards meeting these sustainability goals.</p>
<p>5. Design resilient and diverse places</p> <p><u>Intended effect:</u></p> <ul style="list-style-type: none"> - establish resilience as a foundation for place-based design to drive more integrated site outcomes by introducing new considerations that support resilience, - encourage more inclusive communities by requiring development to provide a range of housing and tenure types, - optimise opportunities to address and reduce the impact of wider economic and social trends, supporting diversity, equity, population change and resilience in the face of changing needs, and - foster social resilience by creating welcoming, inclusive and equitable places respectful of people of all abilities and from all walks of life. 	<p>The Property Council supports this design principle and its intended effects that will be delivered through the implementation of the policy.</p>

6.0 Application of the new SEPP

Section 2.4 of the EIE indicates that the new SEPP will apply to all urban land in NSW, which we support. The only land where the SEPP will not apply will be rural zoned land and certain categories of development set out in the State and Regional Development SEPP that do not apply to urban land.

The new SEPP is intended to apply to the following development types:

6.1 Development Scales

6.1.1 Precincts

The EIE indicates that the SEPP will create greater consistency in the planning of precincts including a consistent definition and method for defining a 'precinct' and its boundaries to deliver better neighbourhoods for communities to live in.

The requirements of the SEPP will apply to precincts of the following scale:

- *wherever a requirement for a 'precinct plan', 'precinct study', or 'master plan' is specified in another instrument,*
- *to any planning proposal under section 3.33 of the Act greater than 10 hectares or 1,000 people,*
- *to any community scheme subdivision or subdivision or subdivision into more than 50 lots,*
- *to areas identified for local strategic planning including amendments to local environmental plans (LEPs), and*
- *to any other significant plan or spatial arrangement greater than 10 hectares or 1,000 people.*

Property Council Response: Applying the new SEPP at the precinct level may lift the quality of outcomes delivered but, in our view, there will be significant regulatory burden encountered to achieve that outcome.

It needs to be acknowledged that some local planning instruments already require a "precinct plan". Most of these example developments already follow a well-established site analysis, design and place making process. The proposal to require a precinct planning pathway for a subdivision development threshold of 50 lots is way too low. The suggested threshold is too small to have any significant positive design outcome through a Design and Place Precinct Planning process, that would not ordinarily be provided through the standard development application response to the relevant local environmental plan (LEP) or development control plan (DCP).

The EIE suggests that the new SEPP will provide 'greater consistency', in precinct planning, however, the proposed additional processes and referrals to a design review panel (DRP) for such small developments will only add more time, and ultimately either render a development unfeasible, add costs and/or reduce housing affordability. It is suggested that a minimum threshold for subdivision development should be 500 lots/dwellings.

Additionally, there needs to be some flexibility regarding when a precinct planning process is to be applied, instead of a prescribed threshold based on site area, population or dwelling numbers.

We do not support the engagement of a design review process for land subdivision proposals. Further consideration of the application of the SEPP to precinct and land subdivision is provided in section 11 of this submission.

6.1.2 Significant Development

The EIE indicates that the SEPP will apply the following threshold to define where the relevant considerations will apply:

- *development on a parcel of land that is within a precinct or on a site bounded by streets on all sides, on a site greater than 4,000m² or 500 people or on a site greater than 1,500m² in a metropolitan centre,*
- *State significant development (SSD) as declared in the State and Regional Development SEPP, on urban land,*
- *regionally significant development, as declared in the State and Regional Development SEPP, on urban land, and*
- *State significant infrastructure (SSI) on or adjacent to urban land.*

Property Council Response: There is a role for the SEPP in the assessment of significant development. However, in the majority of cases, the appropriate time to consider this is during the strategic planning phase when future land use planning controls are being considered. The SEPP will need to be applied at the time a planning proposal is prepared and this should alleviate the need for detailed assessment of the SEPP during the assessment of any subsequent development applications.

6.1.3 All other development

The EIE indicates that the SEPP will apply to all other development including individual buildings and spaces proposed by State government, local government and the private-sector.

Property Council Response: Although it will be appropriate for most of the SEPP (or only part in some cases), it is unclear what the application of the SEPP will look like for some minor types of development. We are concerned that there will be considerable administrative burden for applicants proposing relatively minor development projects to address all the relevant matters for consideration during the preparation of a development application.

It is critical that the Department provide clarification about the additional requirements applicants will need to provide to consent authorities demonstrate they have addressed the detail of the SEPP.

6.2 Development Types

Section 2.4.2 of the EIE briefly addresses the current mechanisms whereby consideration of design and place quality occur (such as in Secretary's Environmental Assessment Requirements, LEP design excellence clauses and through SEPP 65 for certain types of development).

It is proposed the new SEPP will allow for new design requirements to be applied to a broader range of development types and scales. This may include office, retail, industrial and community facilities.

Property Council Response: We do not oppose the need for good design to be addressed in a wide range of development types but the obligations and requirements must be proportionate and reflect the circumstances of the site's location. For example, a CBD office building will need greater design input compared to an industrial shed located within an industrial precinct in regional NSW.

7.0 Design Evaluation & Review

7.1 Design Skills

The EIE indicates that the new SEPP will require developments of three or more storeys (and in the case of multi-residential buildings – 4 or more dwellings) will be designed by a registered architect (qualified designer). Development for the purpose of open space of over 1,000m² must be designed by a registered landscape architect.

The master-planning of all precincts and significant development must involve the input of a qualified designer such as an urban designer, architect with master planning skills or a landscape architect.

It is also the intention to align existing requirements for designers between the *Environmental Planning and Assessment Act 1979* and the *Design and Building Practitioners Act 2020*. This should require designers to hold registration under the *Architects Act 2003*.

Property Council Response: We support each of these proposed requirements as they will support the objectives of the policy being achieved. We endorse the need for better designed places and buildings, and support this being achieved by encouraging the use of more highly skilled design professionals. This should also be the case for better public buildings and spaces which in some cases are not subject to the same rigorous scrutiny as development carried out by the private sector.

7.2 Design Review

There are currently a number of mechanisms available within the development assessment pathway for design review of development to take place. The predominant process that applies to local development involves a design review panel (DRP) or by applying a design excellence clause in the LEP. The EIE has indicated that the feedback from industry regarding the performance of design review panels can be varied.

The EIE considers the use of additional thresholds to determine when design review would apply to provide consistency across NSW. The types of thresholds that could be considered include project locations, project types, CIV, development height and site area.

Effective design review depends upon consistent implementation at the State and local levels. It is proposed that the new SEPP will provide an opportunity to define a consistent process for design review within a Design Review Guide (DRG). The proposed DRG will ensure the process is undertaken is robustness and consistency across NSW through the establishment of a more standardised review process.

Property Council Response: The Property Council supports the intention to maintain the current design review processes subject to a number of reforms aimed at improving the quality of design advice and the way they are applied within the context of the overall environmental assessment of a development project.

The EIE refers to a new 'terms of reference' for the operation of DRPs as part of a new design review guide. This document will be critical to ensure that the DRP will focus on matters for consideration, rather than legal planning regulation. There are many examples of where a DRP has exceeded its role and provided comments on matters that are not design-related. It is unclear whether DRP sign off is necessary for a proposal to be considered on its merits by the consent authority.

Property Council Response: Further questions arise on how these panels operate alongside the Regional Planning Panels and Local Planning Panels. It is unclear how proposals that meet the precinct plan criteria are required to be considered by multiple layers of advisory panels. Further guidance is required in respect of how the new form of DRP will operate including when they consider proposals in relation to consultation/notification, and will the meetings be open to the public or confidential? Other questions include: will the councils be entitled to recover the cost of DRP operations from proponents on a fee for service arrangement and how will the fee be determined and who receives the payment?

8.0 Mandatory matters for consideration

Section 3.2 of the EIE indicates that the new SEPP will comprise a set of considerations that collectively respond to each of the five (5) underlying principles behind the policy.

8.1 Application requirements

The EIE indicates that the SEPP will require applicants to demonstrate the SEPP principles and mandatory considerations have been satisfied. This will be achieved through the submission requirements for proposals including the submission of development applications.

It is intended that the SEPP will apply a consistent approach for all submissions to provide greater certainty for both applicants and consent authorities. The following documentation requirements will apply:

- *Site analysis for all development,*
- *A precinct structure plan for all precincts and significant development,*
- *Design statement for all development, and*
- *Precinct planning supporting documents for all precincts and significant development.*

Property Council Response: In the case of many residential developments some of these documents are already required to be lodged as part of a development application. It is important that where these requirements will be applied to development types that currently do not require them, the Department should consider how these documents will deliver an improved planning outcome compared to the current submission requirements.

8.2 Mandatory matters for consideration

Section 3.2.2 of the EIE outlines a list of nineteen (19) mandatory matters that must be considered as part of the assessment for all relevant development types.

It is concerning that the intention to embed a list of almost twenty (20) mandatory matters for consideration into the SEPP will contribute to a reduction in design flexibility and in turn lead to an outcome that is contrary to the principles-based planning approach.

Having regard to the information provided in the EIE, it is unclear how these matters will be considered by a consent authority during the assessment process relevant to each type of development. Further detail regarding the level of consideration of each issue is required.

Also, it is unclear the level of information that will need to be provided with development applications to demonstrate consideration of the relevant matters.

Each of these mandatory matters for consideration is considered in detail in the following table.

Proposed Mandatory Consideration	Property Council Response
1. Cultural and built heritage (to be applied to precincts)	The intention to celebrate, conserve and protect areas of cultural and built importance at a precinct level is supported. The future drafting of this consideration will be important to ensure that it is achievable.
2. Public space (to be applied to precincts)	This consideration supports continued access to and availability of public space and directs the creation of new public space to areas of greater need. It is helpful for the SEPP to provide guidance regarding access to open space in the design of large precincts, it is important through that any criteria is to guide design rather than prescribe it.
3. Connectivity (to be applied to precincts)	This consideration requires that landscape corridors are provided across urban areas and also facilitates recreational walking and cycling. There must be clarity regarding this matter between the SEPP and local planning controls such as LEPs and DCPs. It will be very unhelpful if there is inconsistency between the local and State planning controls applying to large renewal and greenfield precincts.
4. Local living (to be applied to precincts)	<p>Requiring a network of corner shops and small local centres in new low-density communities, raises issues of economic viability and may undermine the ability of the nominated neighbourhood or sub-regional centres to have a critical mass of uses, better visibility for traders and encourage investment in the public domain and transport infrastructure to service those centres. Consideration should be given to the economic feasibility and a blanket approach should not be mandated through the SEPP.</p> <p>We question how this provision will be applied where existing zoning, structure or staging planning does not allow for shops or schools in the required proximity. Even a small scale 50 lot subdivision will be captured by this matter which is questionable.</p> <p>In addition, there is no clarity on how this will be applied. For example, if there is a vacant tenancy or a planned or approved shop, does this satisfy this requirement? Or is it about proximity to zoned land which can accommodate services or only existing services?</p>

Proposed Mandatory Consideration	Property Council Response
5. Street design (to be applied to precincts)	It is not appropriate to include additional controls within the SEPP in relation to 'minimum street intersection density or maximum block length'. This should be resolved on a site-specific basis as it must also have regard to a raft of other controls in DCPs and guidelines.
6. Water management (to be applied to precincts)	This consideration requires the integration of precinct-scale water detention and re-use strategies. This is appropriate.
7. Green infrastructure (to be applied to precincts)	This consideration requires the retention (where possible) and provides additional green infrastructure through several mechanisms, including integrating urban development and green infrastructure. This is appropriate.
8. Resilience (to be applied to precincts)	This consideration requires an integrated approach be taken to site-specific risks and the use of strategies to reduce or avoid occupant's vulnerability to those risks. This is appropriate.
9. Fine-grained movement (to be applied to precincts and significant development)	It is not appropriate to include additional controls within the SEPP in relation to maximum block length. Particularly in metropolitan and town centres, through site connections require a more contextual assessment considering desire lines, ability to create contiguous connections and quality of alternative routes. We do not support a requirement for many sites to provide a through site link based purely on a numerical calculation.
10. Density (to be applied to precincts and significant development)	<p>Setting target densities in a SEPP against a matter for consideration largely for development applications, is not supported in urban areas. Densities are set by Council LEPs and DCPs and reflected in such measures as FSR, height, site coverage and setbacks. This cannot be erased by a provision in a SEPP.</p> <p>For greenfield areas, setting density ranges is supported as it important to establish servicing requirements and provides a sound indication of land value.</p>

Proposed Mandatory Consideration	Property Council Response
11. Housing diversity (to be applied to precincts and significant development)	<p>This consideration requires that proposals respond to the relevant local housing strategy and provide an equitable distribution of housing type and tenure for the demographics of the local area. It is not appropriate to use a SEPP to mandate the provision of certain housing types. It is more appropriate that the LEP and DCP indicate the type of housing permissible on a site and development conform to those including the accommodation types and densities that are permissible on a site.</p>
12. Transport and parking (to be applied to precincts, significant development and all other development)	<p>It is clear that the focus for car parking provision throughout the SEPP and ADG review is around minimising private car parking supply. As such, the proposed provisions are focussed entirely on requiring or facilitating fewer parking spaces.</p> <p>However, the market reality is that for most new apartment developments which lack proximity to high quality transport hubs, car parking spaces remain in high demand and there is no market for units without parking spaces. Car parking spaces are very expensive to build, and are warranted where market demand exists based on location and the nature of the product.</p> <p>Therefore, while we support access to low minimum parking rates in well located areas, we do not support the ability of Councils to introduce very low maximum parking rates which will supersede the SEPP and revised RMS rates.</p> <p>Car share is not a panacea, as peak times for car share often result in lack of availability. From an equity perspective, families with baby or child seats cannot access car share vehicles, nor are they likely to be suitable for those with mobility needs. Further, such a control will stymie the adoption of electric car use in NSW as fewer owners will have access to dedicated charging bays. The idea of unbundling is interesting, and we would be interested in understanding how this could work. The challenge is that the considerable cost provision of basement car parking needs to be recouped, and purchasers will not see the value in purchasing a potential right to own, occupy or lease a parking space in the future.</p>

Proposed Mandatory Consideration	Property Council Response
13. Attractive form (to be applied to significant development and all other development)	<p>This consideration requires development to have (on balance) positive design qualities and beautiful places (including contributing to local character, where described) as determined against a number of specific aspects of design.</p> <p>This is mostly appropriate provided the considerations are appropriate to the scale of development. We would not support the development assessment process being slowed down further by the need to address irrelevant and unnecessary issues.</p> <p>The introduction of local character as a matter for consideration into the planning system is not supported and is likely to undermine the achievement of planning outcomes that are identified in strategic plans and that have been translated into the relevant LEP.</p>
14. Impacts on public space (to be applied to significant development and all other development)	<p>This consideration requires that there is no encroachment on existing public open space and adverse impact from adjoining built development with no net loss of public space. In our view this matter for consideration is unnecessary as it would duplicate existing LEP provisions that would clearly identify open space as Community Land and prohibit development that is inconsistent with the relevant zone objectives. Most LEPs would currently require the impact of development (overshadowing, stormwater drainage and impact on trees) to be considered in the assessment of any DA.</p>
15. Impacts on vibrant areas (to be applied to significant development and all other development)	<p>This consideration requires a proposal to demonstrate that it will safeguard future operation of an existing 'vibrant area' which includes night-time economy areas, major public spaces and licensed premises. This is appropriate.</p>

Proposed Mandatory Consideration	Property Council Response
16. Activation (to be applied to significant development and all other development)	A requirement to activate a minimum percentage of frontages on 'activity streets' (not defined) with non-residential uses is a matter which is typically outlined in town centre and high street DCPs. The precise proportion of activation is agreed at DA stage based on a site-specific merit assessment which will depend the length of the frontage, retention of existing trees, and so on. We do not support the SEPP extending and mandate a requirement beyond DCPs, as it would come at the expense of ground floor landscaping, courtyards and will increase the quantity vacant tenancies in some non-core locations.
17. Emissions and resource efficiency (to be applied to significant development and all other development)	This consideration requires that development meets or exceeds the relevant NABERS targets set by the SEPP for offices, shopping centres, hotels, apartment buildings and the relevant BASIX targets for all new homes (water, energy and thermal comfort). This is appropriate.
18. Tree canopy (to be applied to significant development and all other development)	This consideration requires proposals to retain moderate and significant trees and significant vegetation where possible. Also, the proposal demonstrates the use of greening alternatives (such as green roofs, walls, softscape, etc) where tree canopy targets cannot be met. This is appropriate.
19. Affordable Housing (to be applied to significant and all other development)	<p>This consideration requires a proposal to provide affordable housing in accordance with affordable housing targets or schemes. Where there are no targets or schemes, the applicant may propose a viable amount of affordable housing for the site and must provide that amount.</p> <p>The suggestion that affordable housing "may" be offered and "must be provided", even if there no approved scheme under SEPP 70, is concerning. It runs counter to the recently released Practice Note on Planning Agreements which confirms that "to secure contributions through this pathway, councils must establish an affordable housing contribution scheme and arrange for the relevant local environmental plan to be amended to authorise the imposition of the condition".</p>

9.0 Role of guidance material

9.1 General Comments on guidance material

Section 3.3 of the EIE indicates that there will be several new items of guidance material exhibited concurrently with the instrument for the new SEPP. Also, where relevant, existing guidance will be revised or updated following the commencement of the policy.

9.2 Proposed changes to guidance material

To support the operation of the proposed SEPP, new and updated guidance material will be developed to “complement the principles and considerations in specialist areas”. These will be applied to set:

- *objectives relating to specific development typologies and outcomes;*
- *criteria relating to outcomes, including performance-based criteria where possible, and*
- *minimum criteria where required and desirable to help assessment.*

The table below lists each of the sixteen (16) existing and new guidance that has been identified in the EIE for updating or development and which will apply to development to which the SEPP applies.

Existing guidance	Revised guidance	New guidance
1. Greener Places; 2. Practitioner’s guide to Movement and Place; 3. Local Character and Place Guideline.	1. Draft Connecting with Country; 2. Draft Evaluating Good Design – Implementing Better Place; 3. Draft Government Architect’s Design Excellence Competition Guidelines; 4. Apartment Design Guide – Tools for improving design of residential apartment development; 5. Guide to Traffic Generating Developments; 6. BASIX website and tools;	1. Draft Greener Places Design Guide; 2. Draft NSW Public Spaces Charter; 3. Proposed Design Review Guide (DRG); 4. Proposed Urban Design Guide; 5. Proposed Resilience Toolkit; 6. Proposed Resilience Toolkit; 7. Proposed strategic guide to planning for natural hazards in NSW.

Response: The Property Council is concerned about the number of new guidance documents that will need to be consulted as part of preparing and assessment of a DA once the new SEPP is finalised.

The SEPP will elevate the status of many informal guidelines to become mandatory documents in the assessment of every DA. In the case of some of these 16 documents, they are only relevant during the preparation of a strategic plan and development of new planning controls. It is worrying that by including a reference in the EIE to “minimum criteria where required and desirable to help assessment” will no doubt result in a need to comply with numerical criteria that will determine if a project passes or fails in its assessment.

We do not support the identification of criteria beyond those essential to the planning of greenfield and urban renewal precincts.

10.0 Amendments to the Apartment Design Guide

10.1 General Comments

Appendix A of the EIE has addressed the proposed amendments to the existing Apartment Design Guide (ADG) and SEPP 65 that will be introduced by the new SEPP.

It is heartening that the Department of Planning, Industry and Environment is undertaking a review of the ADG and SEPP 65 as part of the proposed new SEPP. The purpose of the review will be to enable the transition of the ADG to the new policy as well as respond to recent industry and council feedback.

It is important to consider the observations made by the NSW Productivity Commissioner in his discussion paper “Kickstarting the productivity conversation”, where he observed...

“Aspects of the ADG that are not clearly targeted at any market failure can impose significant economic costs through unnecessarily restricting the sorts of developments that may be built. The ADG are not strictly regulations: they are guidelines that consent authorities need to take into account. Nonetheless, many councils adopt a strict approach to compliance with the ADG.”

Based on the commentary made by the NSW Productivity Commissioner, we are alarmed the Government Architect has proceeded to introduce further guidance into the ADG. This will further stifle flexibility and innovation in the design of apartment buildings.

10.2 Proposed Amendments to the ADG

The EIE states that a detailed review of key design criteria was undertaken to determine which design criteria were suitable for retention to give certainty to developers, assessors and the public about how a given outcome will be achieved, and which matters could be dealt with through improved guidance. We support the design objectives of the ADG but we do not support the way in which the document is applied. The experience of our members is that the ADG is currently being used by assessment bodies as a compliance tool and not as a guide as it was always intended.

The fundamental issue with the ADG has and will continue to be the interpretation by the determining authority. While the Minister and Department have been very clear that the guide is to be used as just that, guidance, often Councils are requiring strict compliance or outperformance of the stated metrics. This is to be compounded in that this misinterpretation of the guide varies between determining authorities and even between the requirement to comply with specific metrics and not others on the same development. In revising and incorporating into the new SEPP, it is imperative that this misinterpretation be resolved.

The EIE also states that careful consideration has been given to the balance required between supporting the amenity of residents, the affordability of housing, and the need for apartment development to remain financially feasible in areas where it is being delivered. It is not clear in the document how this balance has been achieved as there is no evidence presented to support this ambition.

The EIE has proposed a range of revised criteria and guidance which are not supported by anything more substantial than ‘council and industry feedback’. It is our view that while some of these criteria are difficult to achieve in isolation, many are almost impossible to achieve when read together and, again, no supporting information has been presented in the EIE which provides comfort that the cumulative impact has been considered. In general, these changes all seem to have been made through the aesthetic and social/environmental lens and without any supporting analysis it is difficult to understand how these numerical changes have been determined and why they represent an appropriate balance with affordability and development feasibility. The ambition to find the right balance is supported and it is imperative to unlocking future housing supply.

Further, the proposed changes (as with the existing ADG) reduces the affordability of apartments through the following mechanisms:

- Apartment supply to market being compromised, as observed through unrealised floor space associated with strict compliance to ADG criteria,
- ADG criteria, such as cross-ventilation, inadvertently dictating an apartment product mix and size, contrary to market preferences for a particular area,
- Increased construction costs.

Tables A5 and A6 of the EIE set out the proposed changes to the ADG that are under consideration. These amendments have been reviewed and a response to each from the Property Council is provided in the following table:

Proposed changes to the ADG	Property Council Response
<p>Reduce the overall document length and focus on integrated siting and building design considerations by:</p> <ul style="list-style-type: none"> - reducing the number of sections from 48 to 20, - reducing and simplifying the objectives while maintaining amenity, performance and quality outcomes, - removing Part 2 (guidance for local councils to develop planning controls) to a separate Design Review Guide (DRG) to define a more consistent and timely process for design review in NSW. 	<p>The Property Council supports these actions, particularly the intention to reduce the document length of the ADG. The removal of Part 2 and the development of a new Design Review Guide is supported.</p>
<p>Provide greater flexibility in 4 of the 24 existing design criteria:</p> <ul style="list-style-type: none"> - communal open spaces to better reflect occupancy rather than site area, - car parking rates, to enable reduction in parking based on context, - direct solar access, to increase the hours within which solar access, to increase the hours within which solar access can be delivered, - natural cross ventilation, to broaden its application across the whole building, - deep soil zones to be revised to reflect the amount currently being delivered by a combination of communal open space and deep soil. 	<p>The Property Council supports the provision of greater flexibility into the ADG, however we do not agree the proposed changes will deliver any increase in flexibility. The following comments are made in respect of the proposed changes to the ADG:-</p> <p><u>Communal Open Space</u>: As development sites can vary considerably, this is not always achievable and should be considered on a site-specific basis having regard to the area in which the building is located and availability of open space in the locality.</p> <p>Recommendations: Locations with a deficit of public open space will have a high demand for communal open space but developments close to plenty of parklands should be able to provide a smaller amount of communal open space.</p> <p><u>Car parking rates</u>: Refer to previous comments made in respect of Mandatory Matter for Consideration #12.</p> <p><u>Solar Access</u>: Whilst the Property Council welcomes the criteria extending the hours as measured to 8am to 4pm, the notion of enforcing strict compliance to a numerical target based on 'maximum units' is not supported. Further the method of calculation as set out in the proposed changes has not been specified.</p>

As set out in the DPIE paper dated July 2019 (**the DPIE paper**), maximising solar access to apartments is always desirable, however solar compliance is heavily dependent on site orientation and existing buildings overshadowing the subject building, making the arbitrary 70% criteria difficult to achieve in inner city and urban infill sites.

The Property Council reiterates that adopting a criterion that maximises the number of units achieving solar compliance, results in a large portion of studio, 1 bedroom and smaller apartments to be located on the north elevation of the building. Consequently, 2 and 3 bedroom and/or larger apartments, are placed on the southern elevation of the building.

Further, the proposed changes have not considered by counting only living rooms as habitable rooms in the solar compliance calculation, fewer occupants are afforded access to daylight in their apartment. Refer to DPIE paper regarding maximizing bedroom count and the implications of the current solar criteria on apartment mix, and layout (given the external space is also considered in the calculation).

Recommendations; In consideration of the site constraints and locality characteristics (i.e. different standards and consideration in high density locations or adjacent to significant views or open space), revision of the current Design Criteria should adopt a 'best endeavour' approach to maximise direct sunlight to apartment occupants, as counted by number of bedrooms achieving greater than 60% compliance with the 2 hours solar requirement.

A best endeavours approach will require an applicant to demonstrate the constraints hindering solar access such as sites orientation and surrounding buildings. In addition, the criteria should give flexibility to where the market may place solar performance within the hierarchy of design and amenity. For example, a residential development in Kirribilli would give preference to a significant portion of apartments facing south living areas to receive harbour views (also further enabled by adopting a criteria as measured by number of bedrooms).

Natural Ventilation: As stated in the DPIE paper, the Property Council supports maximising natural ventilation to apartments and reducing the reliance upon mechanical ventilation, however the existing 60% criteria already impacts apartments supply through dictating large 'through-apartments'.

The Property Council previously requested that the criteria be amended to allow for specificity regarding:

	<p>(a) architectural indentations and ventilated skylights being used to create cross-ventilated apartments, as often councils do not accept such solutions,</p> <p>(b) computation modelling substantiating alternative solutions to demonstrate compliance</p> <p>The Property Council cannot support the changes as drafted, including increasing the cross-ventilation requirements to 70% and removing the above 9 storey 'deemed to satisfy' criteria. Such changes will create a greater impost on apartment supply to the market, with unintended consequences on apartment mix and size and increased construction costs. The impacts have been validated by the design case studies located in Appendix B.</p> <p>Recommendations: The Property Council reiterates its previous position on this criteria, and stated within the DPIE paper, and cannot support the changes as drafted.</p> <p>Deep Soil Zones: Deep-soil requirements need to take into account existing site constraints. It is not always possible or appropriate to include deep soil zones.</p> <p>Recommendations: Consideration also needs to be given to landscaping that can be provided on and within buildings. This includes green roofs and walls, and within communal areas. These alternatives to deep soil planting enhance the thermal efficiency of buildings, reduce the urban heat effect and soften interfaces with surrounding areas.</p>
<p>Amend 3 of the 24 existing design criteria:</p> <ul style="list-style-type: none"> - bedroom sizes, to accommodate working from home and family units, - private open space, to increase minimum depth, - storage, to increase total provision. 	<p>The Property Council understands the need for these to be reviewed but it is unfortunate that they will be applied as numerical standards to be complied with.</p> <p>Private Open Space: It is understood that increasing the size of balconies can improve residential amenity outcomes and we support this aim. However, a requirement for larger balconies is likely to impact upon solar access penetration into living areas during winter months.</p> <p>Recommendations: There must be a flexible approach provided to allow for more private open space to be allocated to occupants without any consequential reduction in amenity elsewhere.</p> <p>Storage: We advocate for a flexible approach to storage provision for residents use. The ability to achieve this design criteria relies heavily on-site specific considerations including ground conditions and excavation. Basements are often constrained in densely developed urban areas and it will not always be possible to meet the proposed minimum external storage requirement. The external storage requirement is also likely to compete with ground</p>

<p>Introduce new design criteria and supporting guidance to improve design and place outcomes through new requirements for:</p> <ul style="list-style-type: none"> - responding to local needs, character and context, - building footprint and separation controls for residential towers, - increased amenity of common circulation - bicycle and mobility-aid storage, - mediating internal and external noise. 	<p>floor uses, such as bicycle parking or ground floor retail tenancies, for limited space. We only support the provision of additional storage facilities where possible.</p> <p><u>Local Character:</u> The Property Council does not support the introduction of new guidance that supports consideration of local character and context. There must be very limited use of local character considerations and its widespread use should be discouraged, particularly where areas are undergoing renewal.</p> <p><u>Building footprint and separation controls:</u> The Property Council does not support a new criterion limiting a residential floor plate size with no consideration to site context and size, nor wider impact on housing supply and character of CBDs. If adopted the criteria will greatly reduce the viability of residential development across CBD sites.</p> <p><u>Common circulation:</u> Changes are proposed to be made to the ADG to improve the amenity of common circulation spaces to require natural light and ventilation and adequate space for universal access and moving furniture. Currently these are discretionary measures, whereas it is intended they will become mandatory requirements to ensure apartment living is healthy and liveable. In some cases, it may be quite easy to achieve these standards but some constrained sites may have some difficulty. There needs to be recognition of this and recognition that full compliance may not be possible.</p> <p><u>Internal and external noise:</u> The changes proposed to address external noise sources will be the introduction of new requirements for development on busy roads to supplement the current provision (cl 102) of the Infrastructure SEPP. We do not agree that the ADG is the appropriate place to “require” mitigation against noise sources. That undermines its status as a “guide”.</p>
<p>As well as:</p> <ul style="list-style-type: none"> - clarify ambiguity over ceiling heights for non-residential areas, - improve the environmental performance of apartment buildings and reduce their carbon footprint to reflect the current best practices and incentivise the uptake of technology such as electric vehicles, 	<p>These changes are appropriate and generally supported.</p> <p><u>Clarify ground floor ceiling heights:</u> The ceiling height for all non-residential ground floor uses will be 4.2m to improve street activation and future adaptability of ground floor levels of all non-residential uses (retail, commercial, community and communal spaces). We welcome the clarification and the resolution of the ambiguity however we ask the Department to ensure that all relevant LEP height limits for business zones have made provision for this.</p>

<ul style="list-style-type: none">- include build-to-rent apartment development in the application of this policy,- reflect the new principle-based Design and Place SEPP, including replacing the nine Design Quality Principles, with the five principles of the proposed SEPP.	
--	--

11.0 Proposed Urban Design Guide

Appendix B of the EIE addresses the proposed new Urban Design Guide (UDG) that is intended to facilitate the delivery of place-based design approaches to planning for precincts and significant developments.

The EIE states that the proposed UDG will “*play a significant role in creating a common language and shared expectations of urban environments to enhance people’s health and wellbeing*”. This will be achieved by bringing together existing place-based urban design practices and responding to emerging urban challenges.

11.1 Overview of the Urban Design Guide

Sections B1, B2 and B3 of Appendix B consider the need for an UDG, how the UDG can work and what the UDG can cover. Section B.3.5 outlines the intended effect of the proposed UDG including additional information to explain design and place mandatory considerations 1 to 9, including:

- *using a risk-based approach to inform land use planning,*
- *integrating precinct-scale water detention and reuse strategies,*
- *providing adequate public space,*
- *connecting green corridors,*
- *street network structures that achieve the street density and block length targets.*

Further, the following specific metrics are proposed to supplement design and place considerations:

- *total public space area,*
- *average block size,*
- *maximum single block size.*

The UDG will also introduce design criteria for the integration of streets with surrounding street networks and for the creation of new streets within precincts.

Property Council Response: The development of a single UDG to inform precinct plan development can have the effect of stifling innovation, resulting in a one size fits all outcome. Flexibility in guidance metrics, should they be employed, is required. It is suggested that a series of mandatory provisions be defined for critical social and community infrastructure, either delivered by developers or by local authorities (funded by infrastructure contributions), and layers of less significant matters for consideration be recognised as either targets or guidance.

Reference is made to the ACT Multi-Unit Housing Code, which adopts a “rules” and “criteria” approach, where rules become the deemed to satisfy provisions of how to achieve compliance, however the criteria also can provide the opportunity for either an innovative and creative approach or options for designing on a constrained site.

In most cases, we support a uniform and consistent approach to many precinct and site planning standards unless there is a compelling need for a local bespoke approach that will achieve a superior outcome.

It is unclear how the UDG will interact with current local planning controls, LEPs and DPC and public domain standards.

11.2 Proposed Design Criteria

It is proposed that the following eight (8) design criteria and guidance will be introduced into the UDG.

The following table considers and responds to each of these design criteria.

UDG Design Criteria	Property Council Response
1 - The preparation of walking and cycling networks, including the delivery of the <i>Principle Bicycle Network</i> in Greater Sydney,	This is supported, however the UDG must be clear in terms of indicating where this will be a relevant design criteria and the guideline must provide reference to several examples of how this can be achieved.
2 - Complimentary design techniques like continuous footpath crossings on key walking routes, and rear lane access to activity streets and key cycling routes to minimise driveway crossovers	This is supported, however the UDG should indicate the types of development where this is relevant and provide several examples of how it can be achieved and the benefits that can be delivered to a site through compliance with this design criteria.
3 - Limiting the amount of single use residential zones within new precincts to less than 50% and the minimum non-residential ground floor space required in R3 and R4 zones and centres,	This is supported, however it is critical that the UDG works together with the relevant council LEP and DCP in terms of these matters. Under the Standard Instrument there can be differences in land use types in the R3 and R4 zones depending upon whether they are in centres or outside of established centres. There must may need to be consideration given to incentives for some locations if non-residential floor space is needed in R3 and R4 zones.
4 - Dwelling lot sizes, including a lot width design criteria that relates to housing typology, and a lot depth design criteria that relates to lot width and rear lane access,	The Property Councils supports this criteria.
5 - Locating sensitive land uses away from busy roads, rail lines, designated freight routes, noxious uses, and facilities that pose a serious risk to life (such as high-voltage substations),	The Property Council supports this in principle, however in the past and currently high-density development and urban renewal has been encouraged along busy roads (for example along Parramatta Road, Canterbury Road & the Pacific Highway) and along railway corridors (for example at Burwood, Parramatta, Hurstville St Leonards and Chatswood). This change would represent a significant shift from the current position which is reflected in many strategic plans and LEPs.

UDG Design Criteria	Property Council Response
6 - Front and rear setbacks relating to street type, land use and urban setting,	This design criteria is supported.
7 - Side setbacks, including a mechanism for neighbours to reduce side setbacks to zero by agreement,	This design criteria is supported in principle and we would welcome consultation on how this would be applied in practice as part of a further consultation exercise.
8 - Wayfinding, street wall heights and utility integration	This design criteria is supported.

The following additional guidance will also support public space and urban design quality and is intended to be applied in a diversity of situations and contexts:

- guidance on when to prepare local character statements and how these differ from heritage conservation areas,
- guidance on street orientation and street enclosure for solar access and avoiding excessive heat loss, as well as street design techniques for walking and cycling,
- guidance on how to calculate residential density in R1 to R4 zones to support Consideration 10: Density of the Design and Place SEPP,
- guidance on site planning and access including minimising driveway crossovers, and
- guidance on locating public community facilities.

Response: These are generally supported. We do not support the further development of guidance relating to local character until a decision has been made to amend the Standard Instrument LEP Order to include a local character clause.

12.0 Sustainability and BASIX

Section 4.2 and Appendix C of the EIE outlines how the proposed SEPP addresses sustainability in residential buildings. The new SEPP will transfer and repeal the provisions from the BASIX SEPP.

The basis for the major changes proposed is to meet the *Trajectory for Low Energy Buildings* that was endorsed by NSW and all COAG Energy Ministers in early 2019. This is proposed to be achieved through a series of “cost effective increases to minimum energy performance standards in the National Construction Code starting in 2022”.

It is proposed that updated sustainability targets will feature in the exhibited new SEPP following regulatory impact and cost-benefit analysis in early 2021.

12.1 Objectives of sustainability reforms

The proposed changes are intended to achieve several important outcomes including:

- provide more flexibility in the available assessment pathways,
- align sustainability performance requirements,
- measure and report sustainability performance requirements with a consistent way to other jurisdictions,
- improve the customer experience and promoting innovation, and
- allowing for staged and incremental increase in sustainability targets to reflect Government policy.

Property Council Response: In February 2019, the NSW Government with the Commonwealth and all other State and territory governments, agreed the ‘*Trajectory for Low Energy Buildings*’ (**Trajectory**), a national plan that sets out a trajectory towards zero energy (and carbon) ready commercial and residential buildings in Australia. The Trajectory and the accompanying ‘*Addendum to the Trajectory for Low Energy Buildings – Existing Buildings*’ (**Trajectory Addendum**) (both agreed in November 2019) identifies opportunities for the building sector and proposes:

- setting a trajectory towards zero energy (and carbon) ready buildings;
- implementing cost effective increases to the energy provisions in the National Construction Code (NCC) for residential and commercial buildings from 2022; and
- improving existing buildings in late 2019, measures are detailed in the *Trajectory Addendum*.

The *Trajectory* and the *Trajectory Addendum* were developed in close consultation with the Property Council and other key stakeholders and is an initiative we strongly support as it aligns with measures in the Property Council and Green Building Council of Australia’s joint platform, *Every Building Counts* (For more detail: <https://www.everybuildingcounts.com.au>).

A key component of the Trajectory is a commitment from all governments to cost effective increases to the energy efficiency provisions in the NCC over time. After the trajectory was agreed, Energy Ministers under the banner of the then-COAG Energy Council wrote to Building Ministers and requested they direct the Australian Building Codes Board (ABCB) to incorporate the Trajectory into their forward work plan. This resulted in the following developments:

- A substantial increase to the energy efficiency performance requirements for new commercial buildings in NCC 2019, amounting to an approximate stringency increase of 30-35%,
- The separation of heating and cooling load requirements for new residential buildings in NCC 2019, aligning with the existing method in BASIX,
- A proposed increase to the energy efficiency performance requirements for new residential buildings in NCC 2022, moving from the equivalent of a minimum 6-star NatHERS to the equivalent of 7-star NatHERS. This will be reflected in stricter heating

- and cooling load limits applied through the different pathways of compliance with the NCC, including BASIX,
- The introduction of a national whole-of-house tool to demonstrate compliance with the energy efficiency provisions for new residential buildings in the NCC alongside existing pathways such as Deem to Satisfy provisions, NatHERS and BASIX, and
- A commitment to future incremental increases to the energy efficiency performance provisions in the NCC for new commercial and residential buildings in 2025, 2028 and 2031.

It is our very strong view that the NSW Government should abide by their support of the Trajectory and commit to adopting the stringency levels for new commercial and residential buildings through the triannual NCC development cycle. This means the current review of the NSW Design and Place SEPP should provide an explicit commitment that BASIX will incorporate the heating and cooling load limits set in NCC 2022, proposed to increase to a 7-star NatHERS equivalent performance.

Commitment to a nationally consistent approach by State and territory governments and a forward trajectory for energy performance targets through the NCC every three years will provide the regulatory certainty needed by industry, thereby encouraging innovation and allowing the supply chain to invest in new technology, design and construction practices.

12.2 Implementation Timeline

Section C.3 of Appendix C provides the Department's intention regarding implementation of the proposed sustainability initiatives. The proposals will be implemented over a two-year period to align with the timeframe for the commencement of the new SEPP and the update of the National Construction Code in 2022. This is graphically illustrated by figure C1 of the EIE.

Property Council Response: This is supported.

12.3 General Comments

In addition to the policy matters set out in the EIE, the Property Council has given consideration to other improvements that could be included within the BASIX framework. We therefore provide the following additional commentary for the Department to take into consideration regarding improvement and reform of the BASIX tool:

- Any bias towards gas should be removed in regulatory tools and building certifications such as NABERS, Green Star and BASIX. Any move towards full electrification of new buildings should not be disadvantaged,
- We support an increase in transparency of calculations behind BASIX scores for projects, including providing clarity around where targets have come from and the logic behind targets, an increase in transparency of the interlinkage between the scores of the tool sections and an update to the rainwater tank calculation. This transparency will allow assessors to provide useful advice to homeowners, developers about how to improve the performance of their residential building,
- An update of technologies within the marketplace and their associated variables (for example, car stackers and car lifts, internal lifts for houses and terraces, central thermal plant, cogeneration, trigeneration. The latter items are covered within the current tool however do not allow sufficient flexibility for rating different designs,
- Consistency could be improved across the tool (for example, LED lighting isn't always an option throughout; poolcovers and pool rainwater reuse isn't always an option throughout and applicant ratings aren't an option for single houses and townhouses).
- Improvement on usability of tool. The current tool and pilot tool are slow to calculate, slow to use and is 'clunky',
- We support the intent to improve the interface of the tool,
- Improvement on technical capability of BASIX support team. This can be done through regular education programmes,

- Providing training for those using the BASIX tool. However, with particular attention to those certifying without a NatHERS accreditation. The current tool allows for certain ratings to be undertaken without prior training or accreditation.
- Providing training for certifiers. Based on our experience, certifiers often rely on BASIX consultants to provide certification for Occupation Certificate, however this is typically outside their role.

12.4 BASIX Policy initiatives

The EIE indicates that five (5) significant policy initiatives are being considered as part of these reforms. The following table considers and responds to each of these proposals.

BASIX Policy Initiative	Property Council response
The Design and Place SEPP continues to give authority to BASIX and overrides competing instruments at present (as is the case with the current BASIX SEPP).	The Property Council supports this policy initiative to ensure a consistent approach to sustainability is adopted across NSW.
Aligning with the Design and Place SEPP priorities, including exploring new policies that could be assessed using BASIX, such as embodied energy, green infrastructure, and stormwater runoff.	The Property Council supports this policy initiative and welcomes consideration of additional sustainability policies.
Energy-efficiency targets will be aligned, where possible with the National Construction Code Reform 2022, and NatHERS thermal comfort calculation.	As indicated above, it is our view this must happen to align with the update to the National Construction Code.
Enable alternative pathways to satisfy BASIX requirements. This may include an independent merit assessment pathway (with criteria) or expanding the use of other rating tools that 'plug in' to BASIX, or both.	The Property Council supports this policy initiative and welcomes a flexible approach, that includes alternative pathways, to satisfy BASIX requirements.
Allowing thermal comfort to be traded off by increasing energy performance (more energy-efficient appliances or more solar PV).	The Property Council supports this policy initiative.

13.0 Impact on Housing Diversity SEPP

Section 5.2.3 of the EIE outlines how the proposed SEPP will impact on the proposed Housing Diversity State Environmental Planning Policy.

The provisions of the new SEPP, including the updated ADG, will continue to apply to the main forms of development that will be allowed under the Housing Diversity SEPP.

13.1 Build to Rent Housing

Provisions of the new SEPP (including the updated ADG) will apply to the new planning requirements for Build-to Rent Housing which took effect in February 2021.

Property Council Response: It is important that the current flexibility provided for certain aspects of the ADG are maintained as part of the review of that guideline. Any reduction in the flexibility afforded to Build to Rent Housing would have a significant impact on the supply of this emerging innovative housing type.

13.2 Other Housing Typologies

The EIE indicates that new provisions specific to other housing typologies (such as student accommodation and co-living housing) will be incorporated into the new SEPP.

Property Council Response: The Property Council supports the use of the SEPP and its five design principles to achieve good design outcomes for these other housing types. We encourage the need for greater flexibility with respect to the application of design requirements where they are proposed on constrained sites.

14.0 Savings and Transitional Matters

Part 6.4 of the EIE has addressed the process of transition across from the current framework to the new SEPP. We welcome the recognition of the need for an appropriate transition period and the invitation to provide feedback to the Department on the lead time required for various parts of the new SEPP to inform the drafting of transitional provisions.

Given the detail and complexity that is proposed in the SEPP, it is recommended that a transitional period be applied for at least 6 months following the notification of the new instrument. This will allow for development applications that have been made but not determined at the time of notification to be determined on the basis of the previous SEPP 65 & ADG.

It will be necessary to preserve all site-specific planning proposals that have been designed to the guidance and criteria outlined in current ADG. Where there are precincts or sites that have been through a lengthy design process, there must be acknowledgement that those planning controls and design controls are grandfathered and preserved.

It is also appropriate that BASIX certificates issued under the current targets remain valid for at least 6 months after the new provisions and targets commence.

15.0 Conclusion

The Property Council broadly supports a review of the ADG which we understand has been the impetus for the development of the new Design and Place SEPP. We strongly feel that the current SEPP 65 (and the ADG) are one of many parts of the NSW planning system that need to be simplified to reduce costs and delays. Under the current SEPP 65 framework there is a tension between wanting to provide certainty and flexibility. Unfortunately, neither is achieved due to the way the current policy is interpreted by planner and decision makers.

The exhibited EIE has foreshadowed the Government's intention to introduce many additional requirements and guidance material that will reduce flexibility and inhibit innovation. Expanding the scope of the SEPP beyond certain multi-storey residential development into other categories of development has the risk of further slowing planning assessment and the pipeline of much needed housing across much of NSW.

Positive aspects of the reform package are the changes being made to BASIX which is long overdue and should see NSW align more closely with other jurisdictions within Australia and set targets that will be reflected in the National Construction Code. It is important that as details of these changes are developed, they are shared with stakeholders and feedback is considered to get those changes right.

Ultimately the assessment of the design of buildings and places should aim to be simpler, more efficient and faster. There is no confidence that this will be delivered under the proposed framework which is anticipated to introduce new matters for consideration and new requirements that will need to be achieved.

Our members have a strong interest in improving the planning system including the current design policy and guideline. We would encourage the Department to work closely with industry over the coming months as the new SEPP is drafted and workshop new proposals with our members when detailed feedback is required.

Appendix A – Chronology

The following list is a chronology of most of the relevant policy reforms relevant to the Design and Place SEPP, such as planning controls related to place, design, open space and sustainability:-

1970 – 1980
<p>January 1970 - Establishment of the Sydney Cove Redevelopment Authority under the <i>Sydney Cove Redevelopment Authority Act 1968</i>.</p> <p>1973 – Establishment of the Coastal Lands Protection Scheme to identify and acquire foreshore land for open space.</p> <p>1974 – Assent of the <i>National Parks and Wildlife Act 1974</i></p> <p>1977 – Assent of the <i>Heritage Act 1977</i>.</p> <p>1979 – Assent of the <i>Environmental Planning and Assessment Act 1979</i>.</p>
1980 – 1990
<p>April 1980 – Establishment of the Royal Botanical Gardens and Domain Trust under the <i>Royal Botanical Gardens and Domain Trust Act 1980</i>.</p> <p>June 1984 – Establishment of the Darling Harbour Authority under the <i>New Darling Harbour Authority Act 1984</i>.</p> <p>December 1983 – Establishment of the Centennial Park Trust under the <i>Centennial Park Trust Act 1983</i> and establishment of the Moore Park Trust under the <i>Moore Park Trust Act 1983</i>.</p> <p>September 1988 – Establishment of special planning provisions for the City of Sydney under the <i>City of Sydney Act 1988</i>.</p>
1990 - 2000
<p>13 July 1990 – <i>Sydney Regional Environmental Plan No 22 – Parramatta River</i> is made to provide certain protections to the waterway and adjacent land.</p> <p>13 July 1990 – <i>Sydney Regional Environmental Plan No 23 – Sydney and Middle Harbours</i> is made to provide certain protections to the waterway and adjacent land.</p> <p>1991 – Commencement of the Building Better Cities program by the Commonwealth Government, including redevelopment of Ultimo Pyrmont.</p> <p>October 1992 – <i>Sydney Regional Environmental Plan No 26 – City West</i> is made to establish planning principles and development controls in each Precinct created within City West by this plan.</p> <p>1995 – Release of “<u>Australian Model Code for Residential Development (AMCORD)</u>” by the Commonwealth Government.</p> <p>December 1996 – <i>Central Sydney Local Environmental Plan 1996</i> is made with the specific objective of “achieving a high level of design quality in buildings and the relationship of buildings with neighbouring development the public domain”.</p> <p>June 1997 – Department of Urban Affairs and Planning prepares “<u>NSW Model Code: A Model for Performance-Based Multi-Unit Housing Codes</u>”.</p> <p>September 1997 – Establishment of the Parramatta Regional Park under the <i>National Parks and Wildlife Act 1974</i> followed by the establishment of the Parramatta Park Trust in 2001.</p> <p>March 1998 – Department of Urban Affairs & Planning and the NSW Government Architect Office prepares “<u>Better Urban Living: Guidelines for Urban Housing in NSW</u>”.</p> <p>21 August 1998 – <i>State Environmental Planning Policy No 56 – Sydney Harbour Foreshores and Tributaries</i> is made with the aim of establishing a clear set of guiding principles for the development of certain sites along Sydney Harbour and Parramatta River.</p> <p>December 1998 – <i>Sydney Harbour Foreshore Authority Act 1998</i> commenced.</p>

5 February 1999 – *Greater Metropolitan Regional Environmental Plan No 2 – Georges River Catchment* is made to introduce catchment wide planning protections to the Georges River to protect its environmental and aesthetic values.

September 1999 – NSW Urban Design Advisory Service prepares "Urban Design Guidelines with Young People in Mind".

2000 – 2010

November 2000 – Urban Design Advisory Service prepares "Mixed Use in Urban Centres: Guidelines for Mixed Use Development".

April 2001 – "Crime Prevention Legislative Guidelines to Section 79C of Environmental Planning and Assessment Act 1979" released by NSW Government.

8 June 2001 – *Sydney Regional Environment Plan No 31 – Regional Parklands* is made with the aim of consolidating planning provisions for certain regional parklands and to enhance the ability of regional parks to meet resident's needs for high quality open space and recreational opportunities.

November 2001 – Release of the "Residential Flat Design Pattern Book" as a precursor to SEPP 65 and the RFDC.

26 July 2002 – *State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development* and the accompanying "Residential Flat Design Code" (RFDC) comes into effect.

August 2002 – Commencement of *Rural Fires and Environmental Assessment Legislation Amendment Act 2002* which requires bushfire impact to be considered in housing design and publication of "Planning for Bushfire Protection".

October 2002 – Roads and Traffic Authority of NSW release updated "Guide to Traffic Generating Developments".

March 2004 – NSW Urban Design Advisory Service prepares "Seniors Living Policy Urban Design Guidelines for Infill Development".

25 June 2004 – *State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004* comes into effect across NSW in several stages.

April 2005 – Update of the NSW Government "Flood Prone Land Policy" and "Floodplain Development Manual".

December 2004 – Department of Planning and NSW RTA prepares "Planning Guidelines for Walking and Cycling".

28 September 2005 – *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005* is made to recognise, protect, enhance and maintain the catchments, foreshores, waterways and islands of Sydney Harbour.

28 July 2006 – *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* comes into effect with a focus on the establishment of vibrant, sustainable and liveable neighbourhoods that provide for community well-being and high-quality local amenity.

April 2007 – City of Sydney appoints the Sydney Design Advisory Panel.

May 2008 – Landcom prepares and issues the "Street Design Guidelines".

December 2008 – Department of Planning release of "Development Near Rail Corridors and Busy Road - Interim Guideline".

6 March 2009 – *State Environmental Planning Policy (Western Sydney Parklands) 2009* is made with the aim of protecting and enhancing the natural systems of the Western Parklands, including flora and fauna species and communities and riparian corridors.

2010-2020

2011 – release of "Director General's Design Excellence Guidelines" by the NSW Government.

27 July 2012 – *State Environmental Planning Policy Exempt and Complying Development Codes) 2009* amended with introduction of new "General Housing Code"

19 June 2015 – Amendments are made to *State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development* (via Amendment No 3) that update the policy and focus changes to apartments. The "Apartment Design Guide" (ADG) replaces the RFDC.

March 2017 – Launch of Sydney Green Grid by NSW Government Architect.

May 2017 – "Better Placed" released by NSW Government Architect

16 June 2017 – *State Environmental Planning Policy Exempt and Complying Development Codes) 2009* is amended with introduction of a new "Housing Code".

29 June 2017 – Department of Planning & Environment releases "Planning Circular PS17-001 Using the Apartment Design Guide" to provide guidance on the application of the ADG in the development assessment process under SEPP 65.

16 January 2018 – Release of the Planning Circular *"Respecting and enhancing local character in the planning system"*.

1 March 2018 – New objectives, including "Design" added to Environmental Planning and Assessment Act 1979.

6 April 2018 – *State Environmental Planning Policy Exempt and Complying Development Codes) 2009* is amended with the introduction of the "Low Rise Medium Density Housing Code" and accompanying "Medium Density Design Guide".

May 2018 – The NSW Government Architect releases draft "Government Architect's Design Excellence Competition Guidelines".

24 August 2018 – *State Environmental Planning Policy Exempt and Complying Development Codes) 2009* is amended with the introduction of a "Greenfield Housing Code" for certain greenfield housing areas.

28 September 2018 – *State Environmental Planning Policy Exempt and Complying Development Codes) 2009* is amended with the introduction of an "Inland Code" for certain parts of NSW.

October 2018 – "Draft Urban Design for Regional NSW: A Guideline for Creating a Healthy Built Environment in Regional NSW" is released for consultation.

February 2019 – Department of Planning and Environment released the Local Character and Place Guideline and exhibition of local character overlays discussion paper.

Post-2020

June 2020 – Release of draft "Greener Places Design Guide" by NSW Government Architect.

November 2020 – Exhibition by the Department of Planning, Industry and Environment of a EIE to support a local character clause and overlay.

Appendix B – Case Studies (attached)

Test Cases:

The following sites have been used as test cases for the proposed changes to the ADG regarding building form and cross-ventilation.

Project 1: 56a Ashmore Street, Erskineville (Approved) - A mid-rise development of 8 storeys, consisting of 178 apartments across 2 basement levels on a 4,675sqm site area.

Project 2: Pitt Street South OSD, Sydney (Under Assessment) - A 39 storey high-rise, build-to-rent tower consisting of 234 apartments on a site area of 1,710 sqm.

The results for the criteria in question can be found in Appendix A – Archistar and Neuron ADG review.

As summary of the results is as follows, with the full study located in Appendix A.

Project 1: 56a Ashmore Street, Erskineville

Number of dwellings: reduced by 13%

Apartment mix: an increase in 2 and 3 bedroom count, placing further pressure on supply of entry level 1 bedroom stock in a locale where product is popular.

GFA: a 1.3% reduction in total GFA, with impacts of criteria primary offset by adding an additional lift core and creating larger apartments.

Construction Cost: an 8% increase per apartment associated with service engineering, including additional lift core.

Project 2: Pitt Street South OSD, Sydney

Number of dwellings: reduced by 14%

Apartment mix: an increase in 1 bedroom stock in a locale popular for downsizers seeking 2 bedroom product

GFA: a 6% reduction in total GFA

Construction Cost: a 9% increase per apartment associated with service engineering. Note the study also demonstrates the cost impacts associated with removing air condensers from apartment balconies- this requirement should be a market led initiative.

Design and Place SEPP Review

Prepared by Neuron using Archistar Platform



Submission

Purpose

The submission below is a quick study of two existing apartment buildings, revised to compare the existing SEPP to the new proposed Design and Place SEPP using the Archistar platform. The study is limited to two building types, with analysis in sunlight, ventilation and unit mix as well as a high level engineering impact study performed by Neuron.

The goal of this submission is to demonstrate the rapid ability of the Archistar platform to test and fine tune planning code revisions. We would welcome and recommend the opportunity to perform a budgeted, more detailed study on a larger variety of building types and the wider range of metrics specified in the code. The same technology could be provided as a compliance sandbox for testing designs in the future prior to submissions to reduce non-compliant designs. Additionally, it can also service local councils to rapidly assess compliance against the code both prior to and following the release of new planning codes.

Outline

What we aim to cover today



Introduction
01

Project 1
02

Project 2
03

Results
04



Design and Place SEPP

What is it?

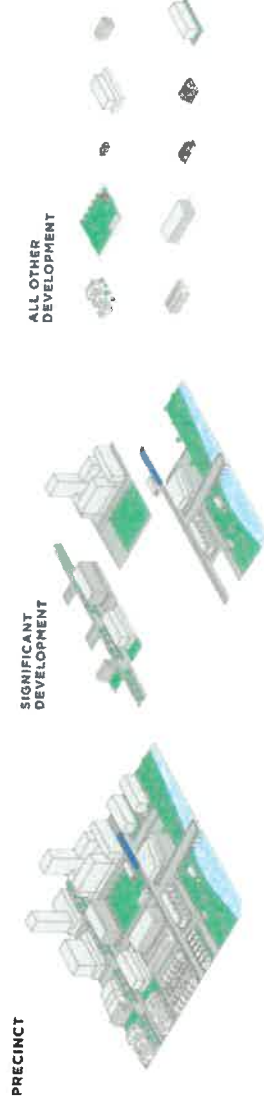
The Design and Place SEPP will be a principle-based SEPP, integrating and aligning good design and place considerations into a single planning policy.





Why?

PRINCIPLE 1.	PRINCIPLE 2.	PRINCIPLE 3.	PRINCIPLE 4.	PRINCIPLE 5.
Design places with beauty and character <i>that people feel proud to belong to</i>	Design inviting public spaces <i>to support engaged communities</i>	Design productive and connected places <i>to enable thriving communities</i>	Design sustainable and greener places <i>for the wellbeing of people and the environment</i>	Design resilient and diverse places <i>for enduring communities</i>



What does it mean for SEPP 65 and the ADG?

SEPP 65 will be repealed, and the Design and Place SEPP will:

Replace the SEPP 65 design quality principles with the principles of the proposed Design and Place SEPP.

Incorporate the revised ADG as a matter for consideration.

Replace the SEPP 65 process for design review, including panels and the application of principles, with the Design and Place SEPP process.



What does it mean for SEPP 65 and the ADG?

The EIE indicates the changes to the ADG include:

Removing precinct-scale considerations from the ADG including key considerations, criteria, and guidance for DCPs, and incorporating these into the Urban Design Guide (see below).

Consolidating, reviewing and improving the objectives, criteria and guidance to ensure they enable place-led and performance-based outcomes through guidance that can be flexibly applied.

Revised controls for solar access, natural ventilation and noise, apartment size and layout, deep soil and landscape design, and car parking.

Be restructured to enable alignment of design guidance for other housing typologies, and the development of a unified Housing Design Guide in the future.



What's changing



- **Deep Soil** – Increase the minimum deep soil zones from 7% to 14% on small sites and up from 15% to 25% on large sites.
- **Building separation** – above 25+ increases from 24m to 30m.
- **Solar Access** – It is proposed to change the method for measuring solar access, including increasing the sunlight access hours that comply whilst also adopting a range of other measures such as reducing east and west facing single aspect units.
- **Cross Ventilation** to increase to 70% of units and applies to all storeys, in addition ceiling fans will be required in all habitable rooms.
- **Private Open Space** minimum depths for apartments increase from 0m to 1m for studios, and from 2m to 2.4m for 2 bedroom apartments.
- **Storage requirements** increase as follows but the amount that has to be provided in the unit has reduced from 50% to 33%.:
 - studio units 4 up to 6 m³
 - 1-bed units 6 up to 9 m³
 - 2-bed units 8 up to 12 m³
 - 3+ bed units 10 to 15 m³
- **Communal Open Space:** Replace the site area metric with a unit mix / occupancy metric.

What's new



- Criteria that restricts the maximum floorplate of a tower above 9 storeys to 700m² GFA and limited to 8 apartments per core.
- 40% of ground floor space must be dedicated to non-residential uses in R3 and R4 zones, and centres.
- 1 bicycle space must be provided per bedroom (i.e. 3 bedroom apartments will have to provide 3 secure spaces).
- A requirement to provide 20% of two or more bedroom units as 'family units' with 12m² bedrooms for all bedrooms.

Project 1

56a Ashmore Street, Erskineville

Project 1 tests the new SEPP changes to sunlight and ventilation, adjusting the sun hour range from 9am to 3pm to 8am to 4pm and the ventilation requirement from 60% to 70%.

In addition, we have conducted a weighted sunlight study to observe whether apartment buildings will be better suited to be analysed for sunlight by amount of bedrooms per unit rather than equally weighted based on surface area.

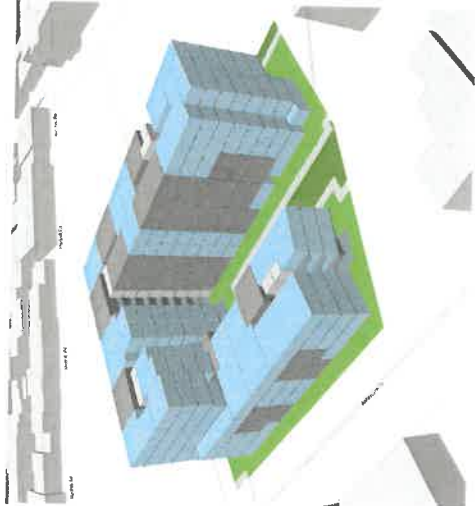


Ventilation

According to the new revised SEPP, building designs require 70% cross ventilation. In order to achieve this, a new core was required and the resultant cross ventilation number increased from 53% to 64%, being closer to 70% but still not passing. However to do this, a number of apartments were removed.

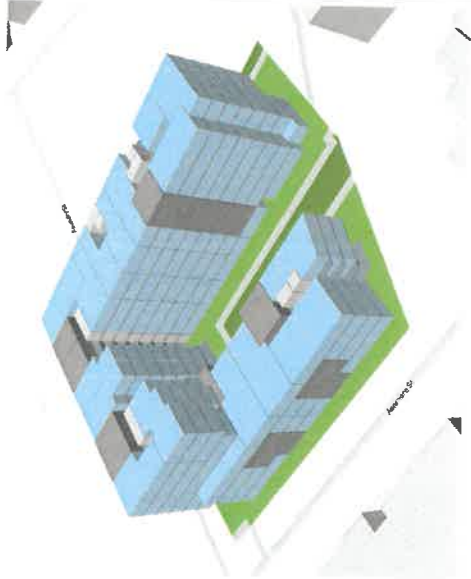


Existing



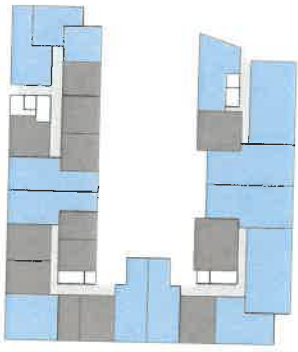
Cross Ventilated	53%
Not Ventilated	47%

New

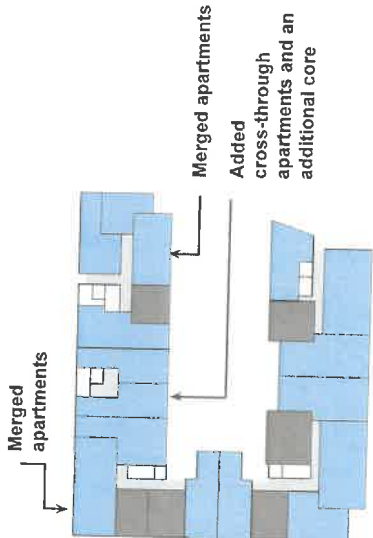


Cross Ventilated	70%
Not Ventilated	30%

Existing



New

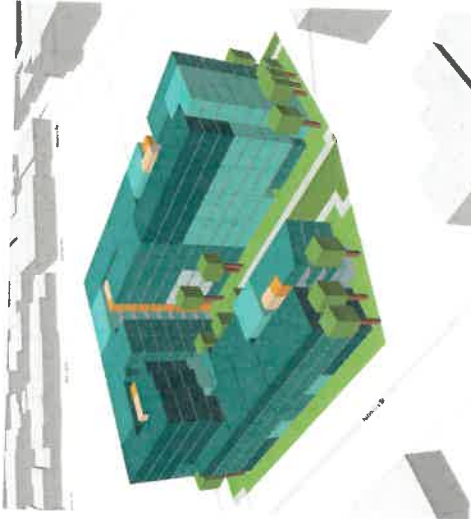


Unit Mix

In order to achieve higher ventilation numbers, the building shape was revised. A new core was required, decreasing the number of apartments from 178 to 169.

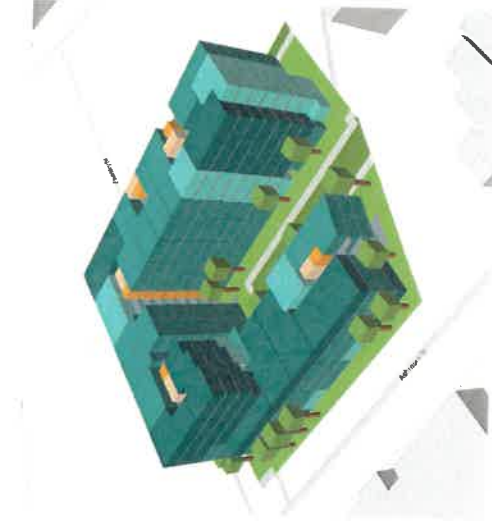


Existing



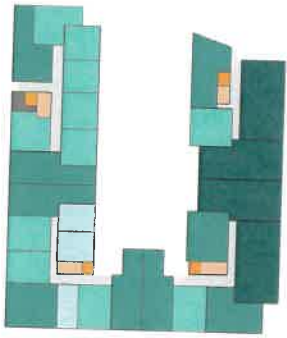
Studio	15
Bed1	62
Bed2	82
Bed3	19
TOTAL	178

New

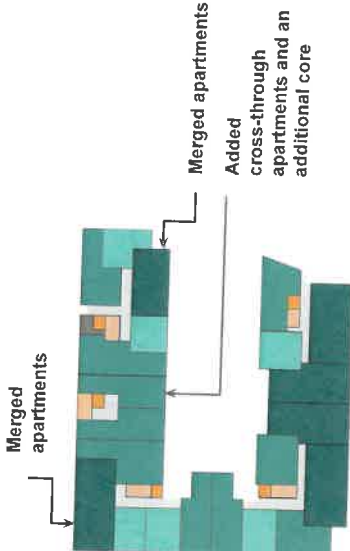


Studio	0
Bed1	45
Bed2	83
Bed3	27
TOTAL	155

Existing



New

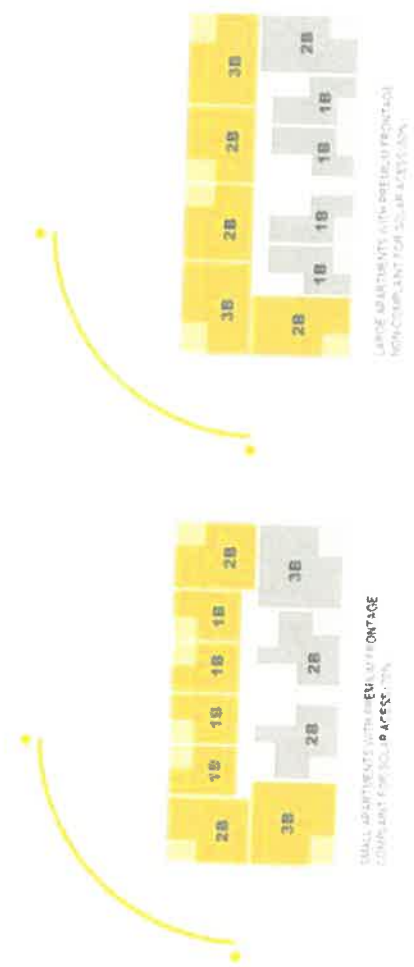


Weighted Sunlight Strategy



The weighted sunlight analysis strategy looks at weighing the apartment type into the percentage of the bedrooms that have access to light.

The current method benefits the designs that concentrate smaller apartments to be North facing. By including the number of bedrooms as a multiplier, the intention is to equally distribute all apartment types towards the sun.



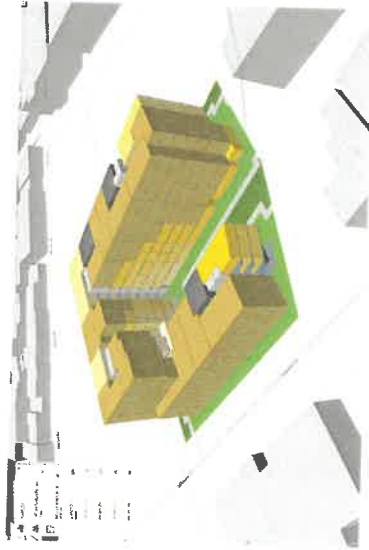
Criteria	Compliant scheme	Non-compliant scheme
Existing ADG	7 apartment / 10 apartments = 70%	5 apartment / 10 apartments = 50%
Number of Occupants	11 bedrooms / 18 bedrooms = 61.1%	12 bedrooms / 18 bedrooms = 66.7%



Sunlight

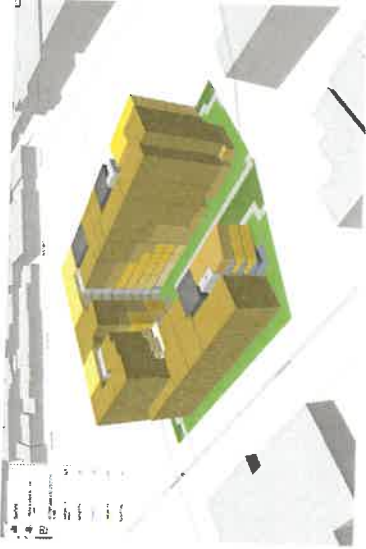
Below is a weighted sunlight test study to observe whether apartment buildings will be better suited to be analysed for sunlight by amount of bedrooms per unit rather than equally weighted based on surface area.

Existing (9am to 3pm)



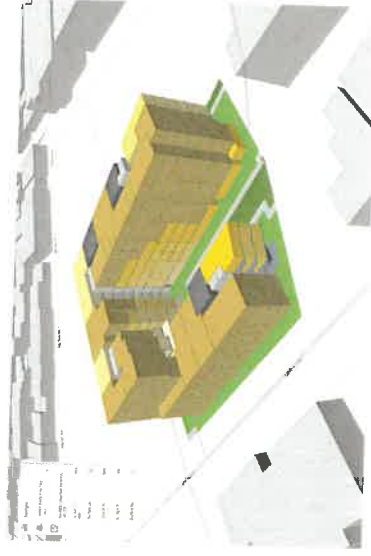
No Winter Sunlight	16%
2+hr Winter Sunlight	83%

Revised time frame (8am to 4pm)
on existing model



No Winter Sunlight	16%
2+hr Winter Sunlight	84%

Weighted Analysis



No Winter Sunlight	13%
2+hr Winter Sunlight	87%

Project 1 Stats



Building Metrics		Existing	Revised
Dwellings		178	155
Apartment Unit Mix			
Studio		8%	0%
1 Bed		35%	29%
2 Bed		46%	54%
3 Bed		11%	17%
4 Bed		0%	0%
Building Stats			
Total GFA		17,029 m2	16,814m2
Total FSR		3.27 :1	3.22:1
Total GBA		18,466 m2	18,476m2
Total NSA		12,658 m2	12,432m2
Footprint Area		2,624 m2	2,624m2
Total Storeys		8	8
Environmental			
No Winter Sunlight		16%	7%
2+hr Winter Sunlight		83%	93%
Cross Ventilated		48%	70%
Not Ventilated		52%	30%
Site Metrics			
Open Space		50%	50%
Unit Mix Breakdown			
Mix		Total	Total
Studio		15	0
Bed1		62	45
Bed2		82	83
Bed3		19	27
TOTAL		178	155



Project 1 Engineering Impact Assessment

Neuron's solving engine ran approx. 42,000 calculations to test the impact of the SEPP 65 changes on the engineering systems for the test building. The revised scheme has 23 less apartments.

The engineering costs reduced from \$15.48m to \$14.63m. An overall decrease of \$840,000.

Existing scheme - average engineering cost per apartment \$87,000.
 Revised scheme - average engineering cost per apartment \$94,100.
An increase of 8% in average engineering costs per apartment.

Examining the cost data reveals that the 23 fewer apartments reduce their associated engineering costs covering items such as apartment GPO's, AC, lights, sprinklers, data points and the like.

The overall engineering plant area actually increases from 614 sqm to 733 sqm despite the reduction in apartment numbers.

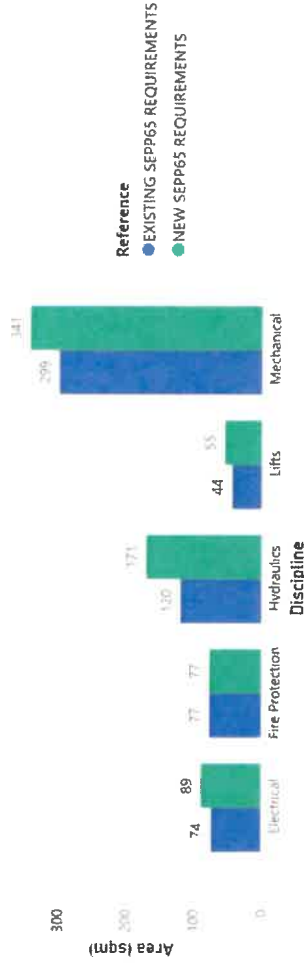
This is driven predominantly by the introduction of an additional core. Each core requires a set of lifts, water meter cupboard, electrical and comms cupboards, fire stairs with sprinkler and hydrant infrastructure on each level. As shown, this adds additional space requirements and costs, specifically 33 extra engineering items to the project.

The additional lifts and engineering requirements increased the maximum demand for the site resulting in the need for a two transformer chamber substation in lieu of the previous single transformer chamber substation.

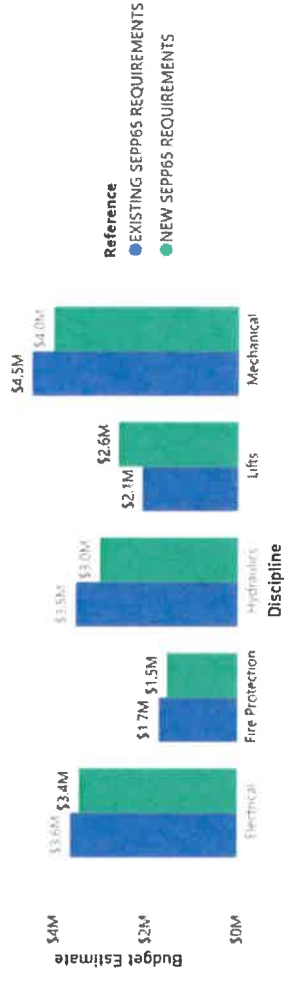
An increase of approx. 15 sqm and \$100,000 costs excl. builders works.

This building does not require stair pressurisation or lobby relief systems which would have further increased the per core costs.

Comparison of areas



Comparison of costs



Project 1

Outcomes



Unit Mix

In order to achieve higher ventilation numbers, the building shape was revised. A new core was required, decreasing the number of apartments from 178 to 155, a decrease of 23 units.

Ventilation

Due to the inclusion of a new building core and the merging of existing apartments with no cross-ventilation, the resultant cross ventilation number increased to 70% from 53%. However to do this, a number of apartments were removed. It seems that with a 70% goal to achieve, building corners are going to be difficult to solve and anything linear will require additional cores.

Sunlight

The revised sunlight hours from 9am to 3pm to 8am to 4pm have had no significant increase in the amount of apartments that receive 2+ hours of sunlight from 83% to 84%.

The test study to observe whether apartment buildings will be better suited to be analysed for sunlight by amount of bedrooms per unit rather than equally weighted has observed a drop in apartments with no winter sunlight from 16% to 13% and an increase in apartments with 2+ hours of sunlight from 83% to 87%.

NB. This exercise did not model the proposed changes regarding deep soil and building separation. Under the new SEPP, the site's FSR would be further diminished by these criteria.

Project 2

Pitt Street Metro, Sydney

Project 2 shows changes to the building design on floor plates above 9 stories due to the new SEPP revising the floor area above 9 stories to a maximum of 700 sqm GFA.

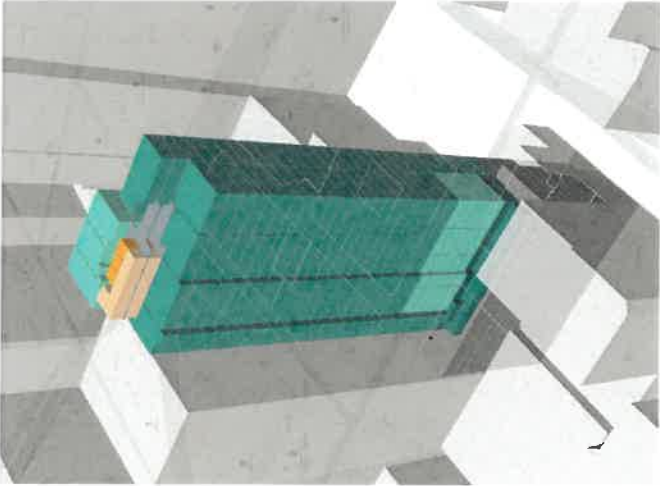
We have tested resulting changes to building mix, sunlight and ventilation.



Unit Mix

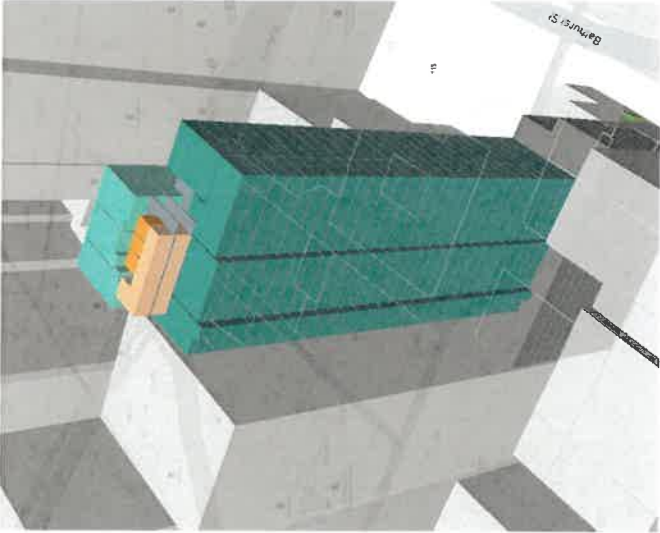


Existing



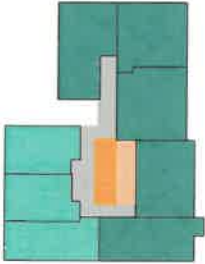
Studio	0
Bed1	100
Bed2	119
Bed3	6
TOTAL	235

New

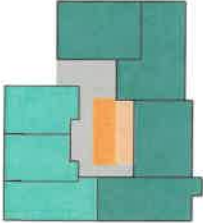


Studio	0
Bed1	118
Bed2	84
Bed3	0
TOTAL	202

Existing



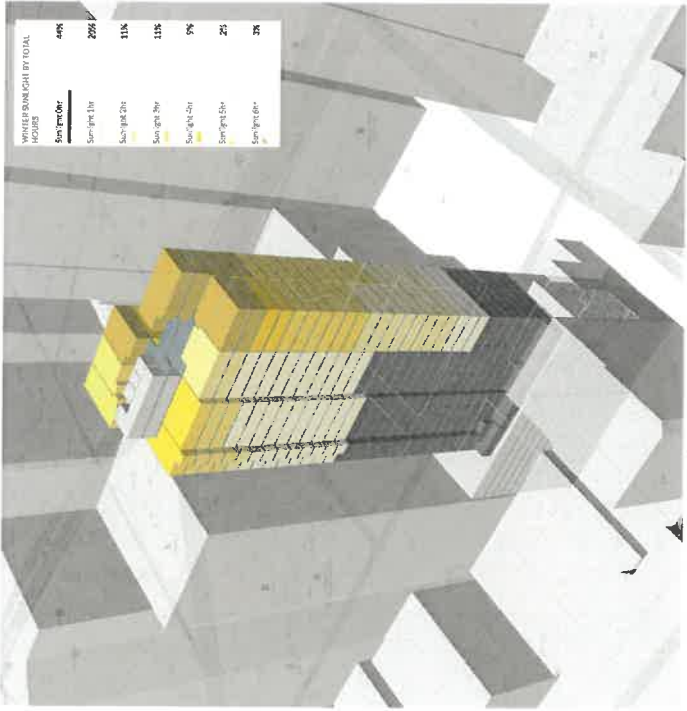
New



	GFA (sqm)	Apartments per Floor	Bedrooms
Existing	775	8	344
New	700	7	314

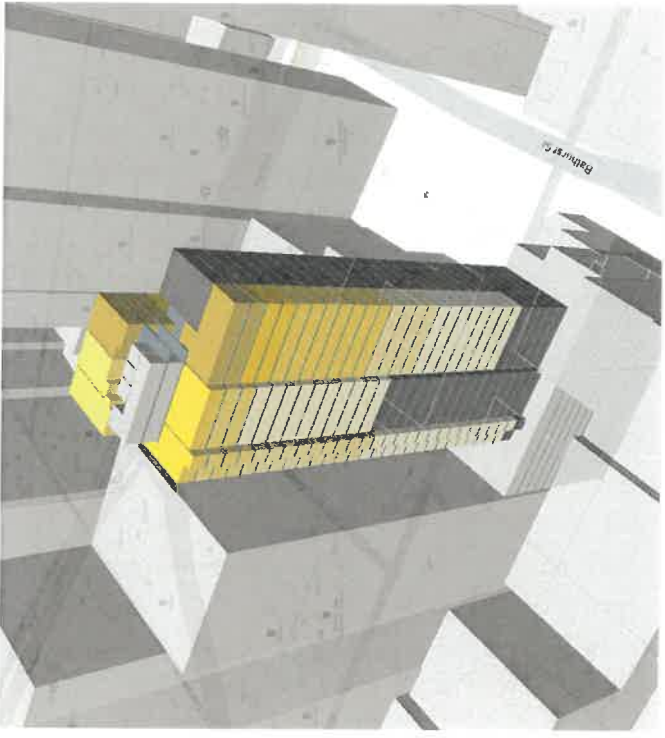
Sunlight

Existing



No Winter Sunlight	44%
2+hr Winter Sunlight	36%

New



No Winter Sunlight	30%
2+hr Winter Sunlight	37%

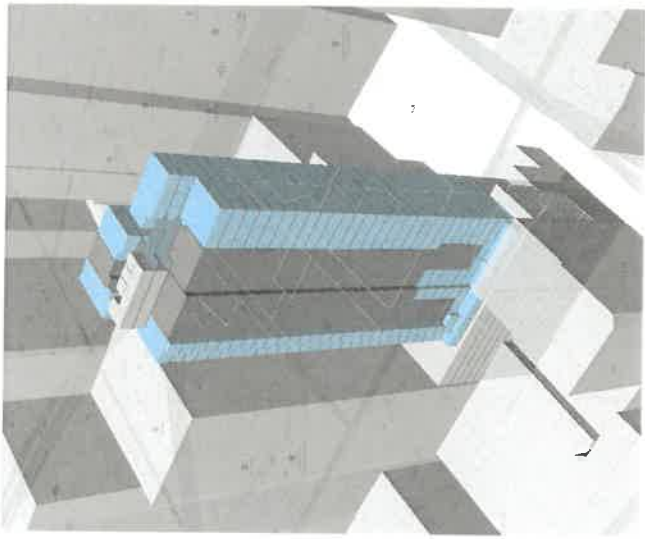


Ventilation



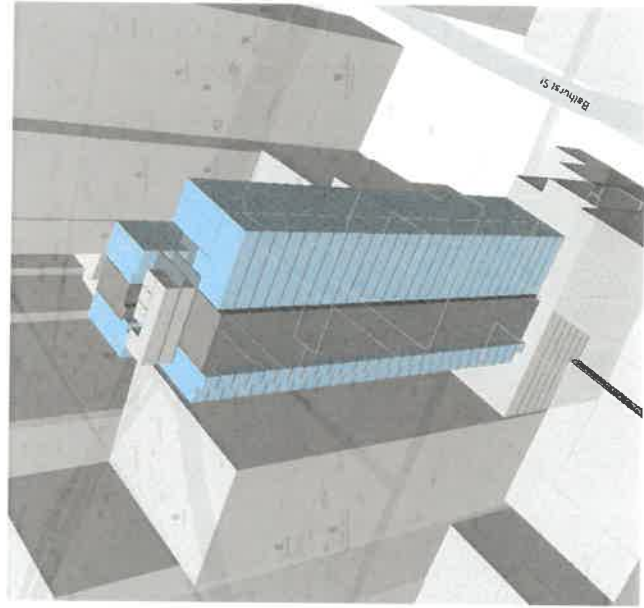
According to the new revised SEPP, building designs require 70% cross ventilation. In order to achieve this, a new core was required and the resultant cross ventilation number increased from 53% to 64%, being closer to 70% but still not passing. However to do this, a number of apartments were removed.

Existing



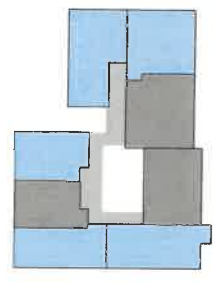
Cross Ventilated	65%
Not Ventilated	35%

New

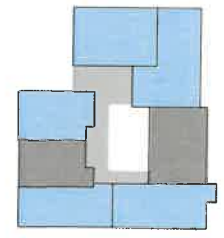


Cross Ventilated	71%
Not Ventilated	29%

Existing



New



Project 2 Stats



Building Metrics		Existing	Revised
Dwellings		235	202
Total Bedrooms		344	286
Apartment Unit Mix			
Studio		0%	0%
1 Bed		47%	58%
2 Bed		51%	42%
3 Bed		3%	0%
4 Bed		0%	0%
Building Stats			
Total GFA		41,681 m2	39,135m2
Total FSR		24.20 :1	22.72:1
Total GBA		45,361 m2	42,590m2
Total NSA		32,838 m2	30,530m2
Footprint Area		0 m2	-
Total Storeys		42	42

Environmental		Existing	Revised
No Winter Sunlight		44%	30%
2+hr Winter Sunlight		36%	37%
Cross Ventilated		48%	71%
Not Ventilated		52%	29%
Site Metrics			
Open Space		0%	0%
Unit Mix Breakdown			
Mix	Total	Total	Total
Studio	0	0	0
Bed1	100	90	90
Bed2	119	112	112
Bed3	6	0	0
TOTAL	235	202	202

Project 2 Engineering Impact Assessment

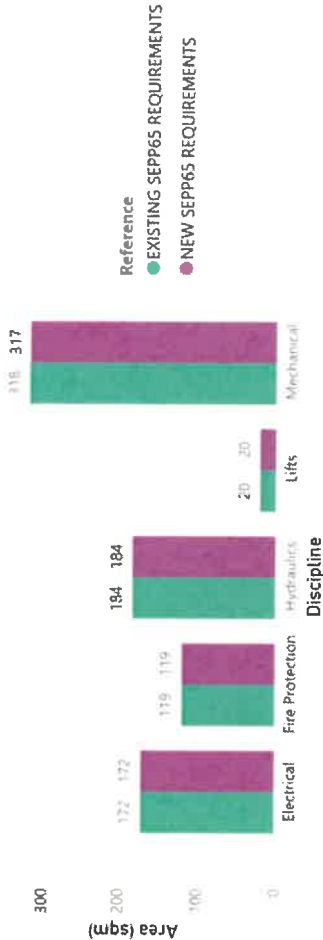


Engineering impact of changes

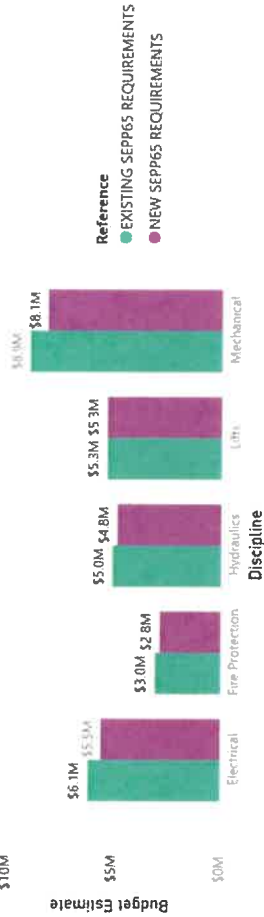
Due to having fewer apartments under the new scheme, the associated engineering costs have reduced from \$28,326,000 to \$26,443,500. **A reduction of \$1.88m.**

Examining the cost data reveals that the vast majority of these savings are from the engineering infrastructure not required within the reduced apartment numbers such as apartment GPO's, AC, lights, sprinklers, data points and the like.

Comparison of areas



Comparison of costs



Project 2 Engineering Impact



Engineering impact of changes

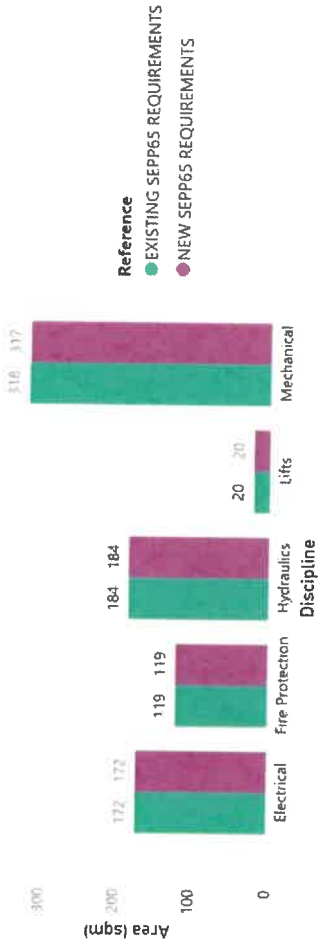
Next, we excluded the per apartment costs for electrical, fire protection, mechanical, electrical services.

As you can see, although there are now fewer apartments in the updated scheme, the engineering infrastructure required to support this building is relatively unchanged both in terms of cost and space. This includes items such as substations, fire tanks, fire pumps, cold water pumps, main switchrooms, main communications rooms and the like.

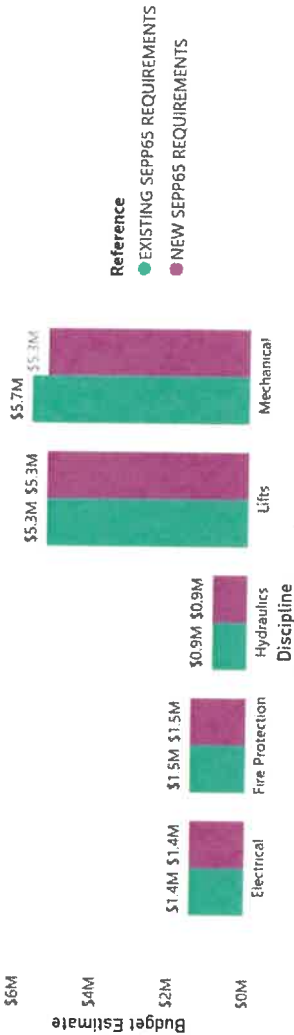
This indicates that there is not a linear relationship between apartment numbers and overall engineering plant space and cost.

Existing scheme - average engineering cost per apartment \$120,536.
Revised scheme - average engineering cost per apartment \$130,908.
An increase of 9% in average engineering costs per apartment.

Comparison of areas



Comparison of costs



Project 2 Air conditioning condenser impact



Comparing three scenarios

We examined the impact of not allowing air conditioning condensers on apartment balconies.

For this development, we examined three possible scenarios.

1. The solution if condensers were allowed on balconies
2. The solution if condensers were located within an on-floor plant room
3. The solution if condensers were located on the roof.

As shown, the variance between the three scenarios was \$2m and 302 sqm of space.

For the new scheme, a sketch of the on-floor solution has been shown in the adjacent image. It would require an extension of the corridor to connect to the plant room and require the entire facade on both orientations to be fully louvred.

Cost exclusions

- Builders works
- Apartment fan coil units.

Arrangement	Cost (\$AUD)	Space (sqm)	Total plant area over entire building (sqm)
Condensers on balconies	\$600,600	nill	nill
VRV AC condensers within an on-floor plant room	\$2,527,400	7.2 sqm per level	302 sqm
Roof mounted solution (on-floor water-cooled VRV condensers served by a roof mounted cooling tower)	\$2,697,400	2.36sqm per level and 140 sqm on the roof.	239 sqm

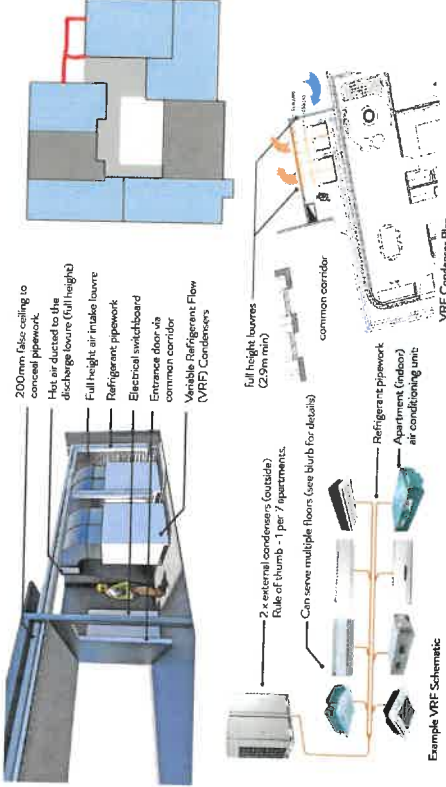


Image explaining the on-floor VRV condenser arrangement. Located off the common corridor on each level.

Project 2 Engineering impact assessment



Typical floor plate engineering space requirements
(both schemes assuming roof mounted condenser option)

Item	Dimensions	Area (sqm)
On floor electrical cupboard	1.1m (l) x 0.5m (d) x 2.1m (h)	0.55
On floor comms cupboard	1.1m (l) x 0.5m (d) x 2.1m (h)	0.55
Hydraulic Cupboards	0.8m (l) x 0.5m (d) x 2.2m (h)	0.8
Lifts X 3	3 at 2650mm (w) x 2500mm (d) each	19.88
Stair Pressurisation Shafts	2 at 1.66sqm each	3.32
Lobby Relief Shafts	3.84sqm	3.84
Apartment exhaust (high rise)	4 at 1.1sqm each from level 30 upwards	4.4
Main Hydraulic Riser	3m (l) x 1m (w)	3
Central Fire Protection Riser	1.2m (l) x 0.4m (w)	0.48
On floor water-cooled VRF cupboard	3.54m (l) x 1m (d) x 2.7m (h)	3.5
Total		40.32sqm

Additional engineering space requirements assumed to be discharged
at low level to minimise impact up through the tower. (both schemes)

Item	Dimensions	Area (sqm)
Main Switch Room Ventilation	2 x 0.16 sqm	0.32
Fire Pump Room Ventilation	2 x 0.11 sqm	0.22
Fire Control Room Ventilation	2 x 0.52 sqm	1.04
Garbage Room Ventilation	0.26 sqm	0.26
Retail Garbage Room Ventilation	0.14 sqm	0.14
Storage Area Ventilation	0.3 sqm	0.3
Loading Dock Ventilation	0.6 sqm	0.6
Grease Trap Rm Ventilation	0.1 sqm	0.1
Kitchen Exhaust shafts	4 at 0.8 sqm each	9
Car park Exhaust Air Shaft	3.2 sqm	3.2
Car park Supply Air shaft	2.9 sqm	2.9
Fire pump flue	0.4m (l) x 0.4m (w)	0.16
Total		18.23sqm

Project 2

Outcomes



Building Mix

Due to having to reduce the building footprint down on higher levels, the total number of apartments has reduced following the revised SEPP whilst also creating smaller apartments. Apartments on higher floors have reduced from 8 to 7 with a 175m² reduction in floor size.

Sunlight

The revised sunlight hours from 9am to 3pm to 8am to 4pm have increase the amount of apartments that receive 2+ hours of sunlight from 36% to 53%. The amount of no winter sunlight has been reduced from 44% to 26%.

Ventilation

The amount of cross ventilation has increased from 65% to 71% which may be due to the reduction of apartments.

About us



Neuron aims to revolutionise how we engineer buildings at scale, for a better, more sustainable future.

Our goal is to scale the best engineering advice through powerful technology solutions. We want our clients to unlock a smarter way to design, creating an industry-wide ripple effect of excellence.

We outperform traditional engineering processes to reduce risk, increase net sellable area, optimise design quality and empower decision-making.

To learn more, visit www.neuron.build



Archistar

Archistar aims to be the fastest and best property technology and generative design company in the world, adapting to the needs of the market and actioning feedback with extreme agility.

We combine the world's greatest property minds with acute business acumen to create technology that solves the most difficult property and design problems – and we do it at an incredible speed.

It's a bold claim.

Here's the proof, visit our [Innovation Timeline](#)