

# DESIGN AND PLACE SEPP

Stakeholder Briefing  
6 October, 2021.

# COMMUNITY & ENVIRONMENT GROUPS

GOVERNMENT  
ARCHITECT  
NEW SOUTH WALES



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The background image shows a modern building with a curved facade and large windows, partially obscured by a large, leafy tree on the left. A dark blue semi-transparent overlay covers the right side of the image, containing the title and speaker information.

# Welcome & Introduction

Abbie Galvin, Government Architect NSW



An aerial photograph of Sydney, Australia, showing the dense urban landscape of the Central Business District (CBD) and the green spaces of Hyde Park. The image is taken from a high angle, looking down on the city. The CBD is filled with tall, modern skyscrapers and older, more traditional buildings. Hyde Park is a large, green, rectangular park in the center of the city, surrounded by trees and walking paths. The text "We are all, always, on Country." is overlaid in large, white, sans-serif font across the middle of the image.

# We are all, always, on Country.

Gadigal Country, Hyde Park, Sydney CBD. Image: Destination NSW



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# Membership

Today's participating organisations

- Better Planning Network
- Community Housing Industry Association NSW
- Darkinjung Local Aboriginal Land Council
- Environmental Defenders Office
- Homelessness NSW
- National Trust
- Nature Conservation Council
- NSW Aboriginal Land Council
- NSW Council of Social Service
- Shelter NSW
- Total Environment Centre
- Western Sydney Community Forum



The background image shows a park scene with people walking on a path, a grassy area, and trees. A blue semi-transparent box is overlaid on the right side of the image, containing the title and a list of discussion points.

# Design and Place SEPP

Discussion points for today's session:

1. Summary overview
2. Sustainability: targets & standards (overview)
3. Overview of the Design for Resilience tool
4. Overview of the Urban Design Guide (UDG)
5. Status updates from the team
  1. BASIX
  2. Process: application & assessment
  3. Design skills & design review
  4. Apartment Design Guide
6. Summary & next steps



An aerial photograph of a city, likely Sydney, Australia, showing a dense residential area with a river winding through it. A large blue semi-transparent box is overlaid on the right side of the image, containing the title and author information. The title 'Summary Overview' is in a large, white, sans-serif font, underlined with a red line. Below it, the author's name 'Abbie Galvin, Government Architect, GANSW' is in a smaller, white, sans-serif font.

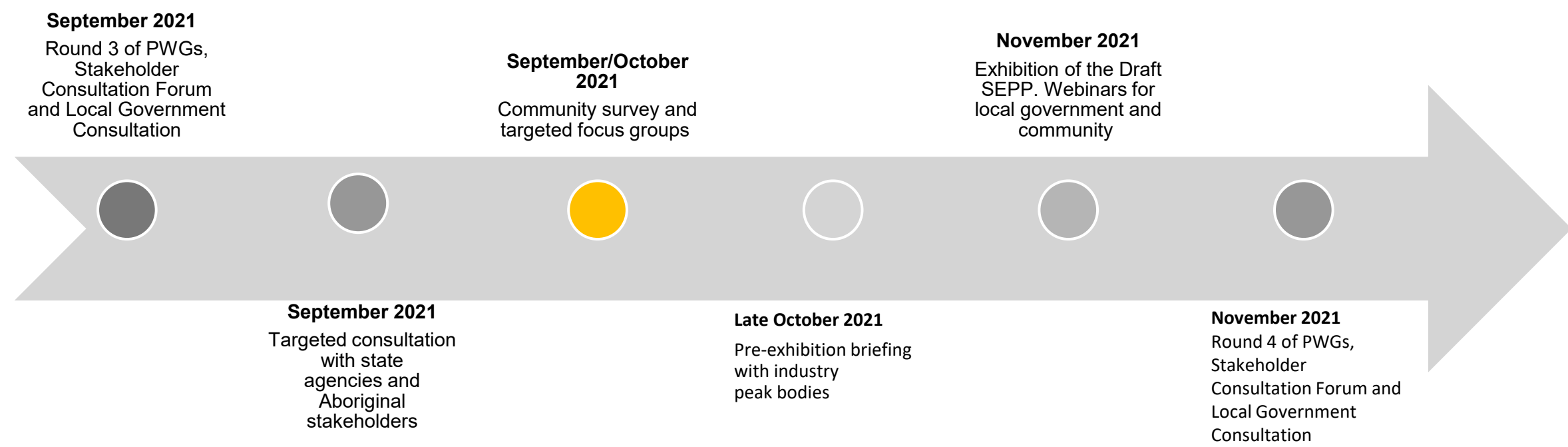
# Summary Overview

Abbie Galvin, Government Architect, GANSW



# To date:

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# Summary Overview

- Generally
  - Caution regarding risk in the detail and drafting of the SEPP – seen as crucial and needs to be defended in court.
- BASIX
  - Broad support for MAP and the changes in general, with some concern for tradeability. Calls for regular review.
  - Queried the adopted cost benefit analysis (CBA) to capture issues of health, climate change and its application to precincts.
  - The importance of a more transparent and enforceable BASIX's that gives emphasis to passive design.
- Sustainability
  - Sustainability at a precinct scale is troublesome and needs to be addressed in a special way.
  - Strong support for a Net Zero approach that supports passive design, electrification, and sustainable energy commitments and includes embodied carbon.
  - Support for EV readiness and the targets/thresholds in general. There may be differences that span the regions.
- Development Definitions
  - Review the 1ha threshold and explore alternative triggers, such as number of residents or height or size of development. Concern that the site area threshold will encourage applications of sites less than 1ha. Concern about 1ha limit in greenfield subdivisions.
- Process: Applications & Assessment
  - If design criteria are not given significant weight, an LGA's ability to promote good design will be eroded. Design criteria must remain as measurable requirements for how the objectives can be achieved.
  - Clarify what information needs to be shown on the stamped plans to be certified. This list needs to be concise.
- Design Skills & Design Review
  - Broad support for design review pre-DA lodgement.
  - Cost of panels to the council was raised, especially if this happens post-lodgement.

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# Summary Overview (cont.)

- Apartment Design Guide
  - There is a lot of pressure on planners to quantify the importance of one aspect over another
  - For cross ventilation, the written definition looks complex but the rule is very simple and well-constructed. There needs to be a similar tool for the ventilation path in the interior of the apartments.
  - Support for the decoupling of deep soil and communal open space.
  - Blank walls to boundaries is difficult to prevent since it is allowable under building separation guides
  - Support for Family Apartments (Child friendly) noting that in some LGAs FSR is the mechanism that incentivises bigger apartments. Some LGAs did not support using larger family apartments as an excuse to allow smaller apartments.
  - Recommend the inclusion of criteria for summer shading, solar re-radiation, including limiting glazing extent, in response to the changing climate
  - Some LGAs do not support the extension of hours of sunlight to 8am.





# Sustainability: Targets & Standards

Kate Hopkins – Senior Project Officer, Net Zero Implementation. Climate Change & Sustainability

- Water target – star rating
- EV ready – NCC alignment
- Net Zero Statement
- Application requirements

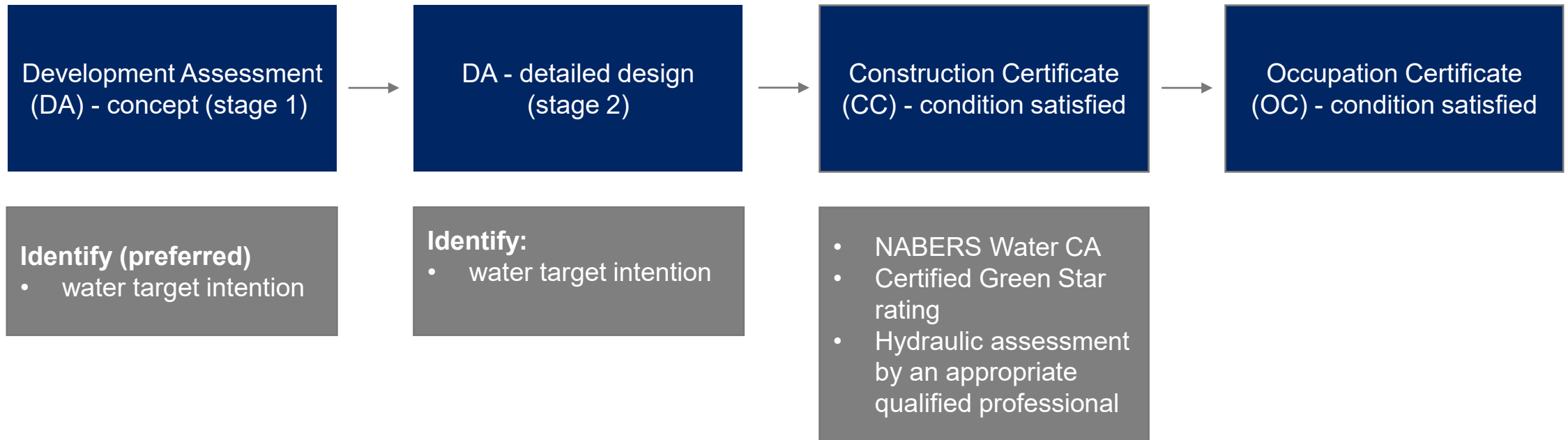


# Proposition 3: updated water efficiency requirements in 2022

Development type	Minimum performance standard
<ul style="list-style-type: none"><li>• Offices (1,000m<sup>2</sup> net lettable area (NLA) or more)</li><li>• Hotels (100 rooms or more)</li><li>• Shopping centres (5,000m<sup>2</sup> gross lettable area –retail (GLAR) or more)</li><li>• Residential Aged Care - class 3 or 9 (70 places / rooms)</li></ul>	<ul style="list-style-type: none"><li>• <b>4 star</b> NABERS Water Commitment Agreement; <u>OR</u></li><li>• Certified Green Star Buildings rating achieving the “minimum expectation” in Credit 25: Water Use; <u>OR</u></li><li>• Equivalent third party verified standard</li></ul>
<ul style="list-style-type: none"><li>• Other (non-residential) buildings</li></ul>	<ul style="list-style-type: none"><li>• Certified Green Star Buildings rating achieving the “minimum expectation” in Credit 25: Water Use; <u>OR</u></li><li>• Equivalent third party verified standard</li></ul>



# Demonstrating compliance for water efficiency - large developments





# Proposition 5: draft EV ready statement requirements in 2022

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Development type	Statement requirements
<ul style="list-style-type: none"><li>• Apartments (class 2)</li><li>• Hotels</li><li>• Residential aged care/retirement living</li></ul>	<ul style="list-style-type: none"><li>• 100% EV ready parking spaces for occupants</li><li>• 25% EV ready visitor parking spaces</li><li>• 10% EV charging stations (or 1 space if &lt; 10 spaces provided)</li><li>• Provisions for other electric vehicle types (e.g. scooters)</li></ul>
<ul style="list-style-type: none"><li>• Other (non-residential) buildings</li></ul>	<ul style="list-style-type: none"><li>• 50% EV ready parking spaces for occupants/tenants</li><li>• 15% EV ready visitor parking spaces</li><li>• 10% visitor parking has EV charging stations (or 1 space if &lt; 10 spaces provided)</li><li>• Provisions for other electric vehicle types (e.g. scooters, heavy vehicles)</li></ul>

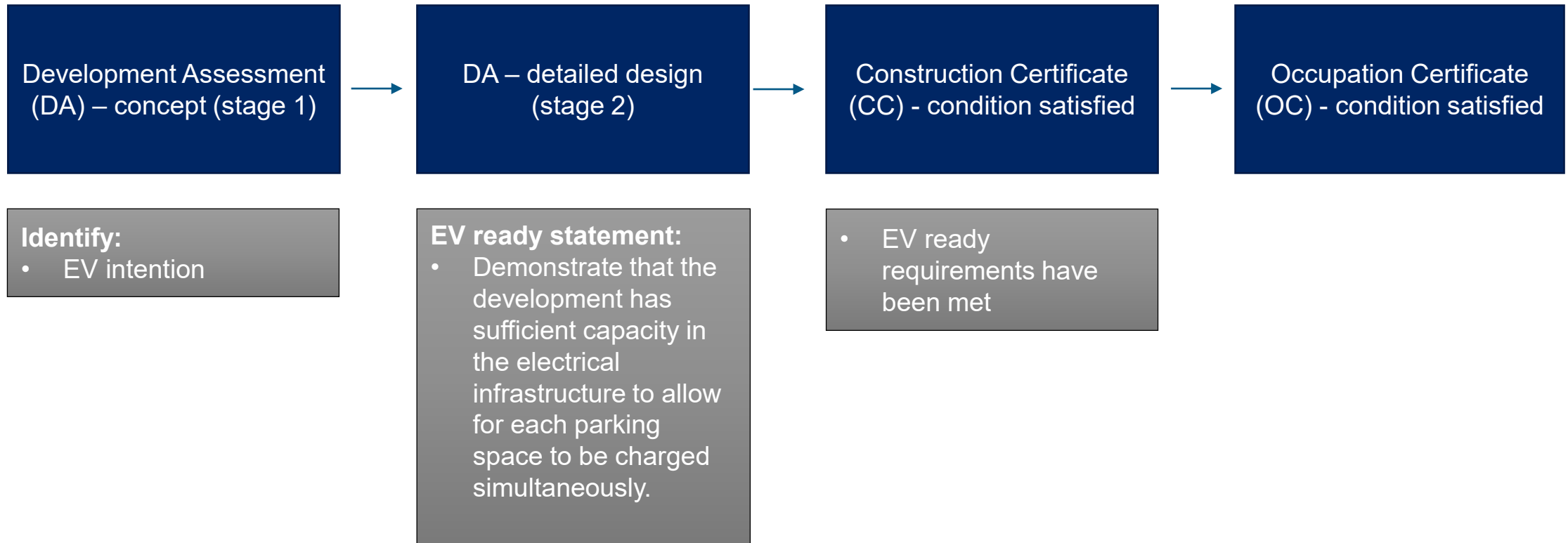
**EV ready building:** a dedicated electrical circuit with sufficient capacity for each charging spot (transformers, substation, and switchboard (or the spatial allocation for a later installation of those) to support charging commitment, network connections for power supply and on-site renewable energy. The conduit and wire required to run electricity to EV charging spots is not provided.

**EV ready parking space:** cabling to the space, and spatial allowance for charging head unit are provided.

**EV charging station:** a charger head unit is installed, depending on EV Charging Levels.



# Demonstrating compliance for being EV ready



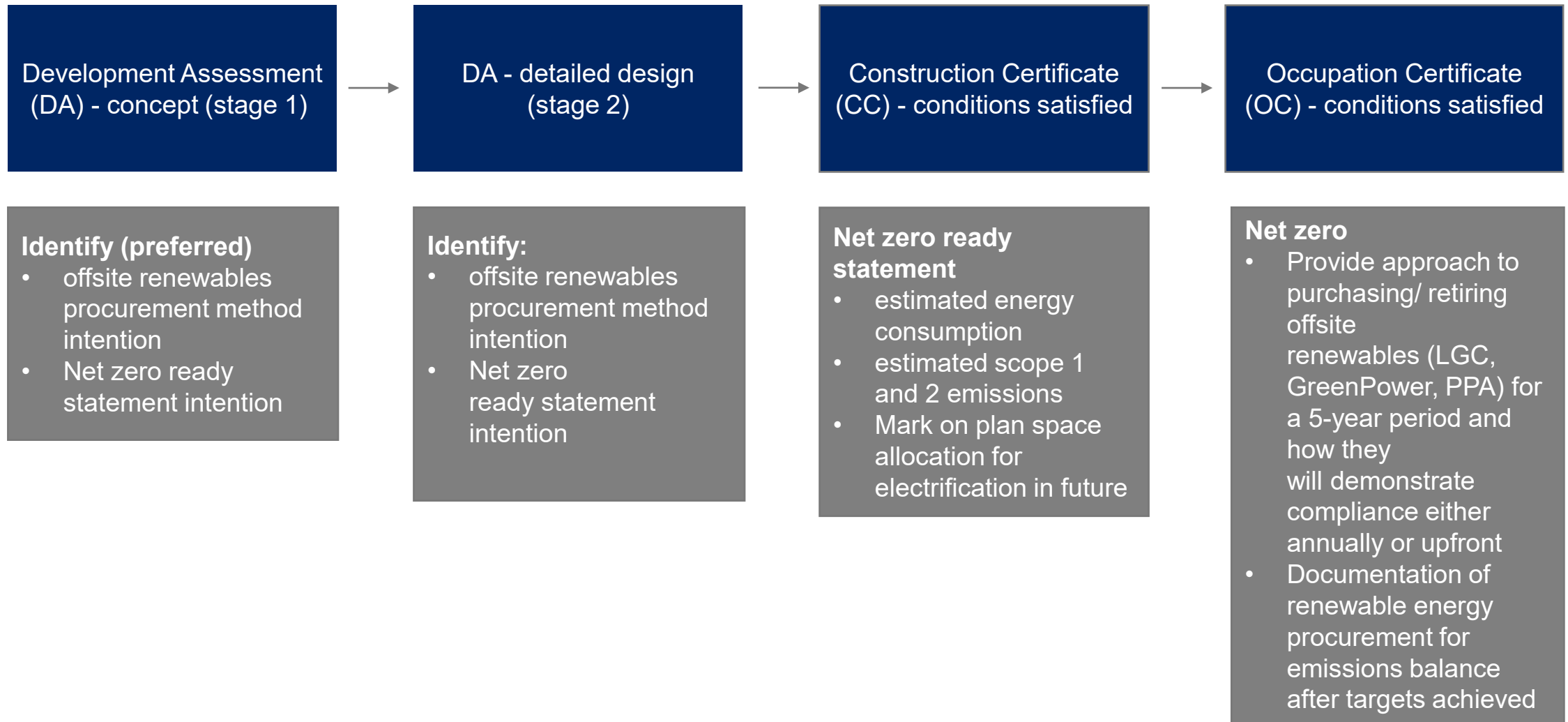


# Proposition 3: Draft Net Zero Statement in 2022

Development type	Statement requirements
<ul style="list-style-type: none"> <li>• State significant development</li> <li>• Office - base building (1,000m<sup>2</sup> NLA or more)</li> <li>• Hotel - whole building (100 rooms or more)</li> <li>• Shopping centre - base building (5,000m<sup>2</sup> GLAR or more)</li> <li>• Data centre</li> <li>• Other large development (size threshold)</li> </ul>	<ul style="list-style-type: none"> <li>• <u>non-discretionary</u> offsite renewable energy procurement to achieve net zero emissions (min. 5yrs) for office, hotel, shopping centre, data centre and state significant developments</li> <li>• <b>estimate annual energy consumption</b> of the development in KWh/m<sup>2</sup>/year.</li> <li>• estimate of the development's scope 1 and 2 emissions up to 2050.</li> <li>• <b>evidence demonstrating sufficient spatial and infrastructure future allowance to plant rooms (or other location) to transition to 100% electrification and fossil-fuel free energy by 1 January 2040.</b></li> <li>• capability to enable digital data reporting of the physical infrastructure of the development to enable the performance of its operational greenhouse gas emissions to be externally reported.</li> </ul>
<ul style="list-style-type: none"> <li>• Other (non-residential) buildings</li> </ul>	<ul style="list-style-type: none"> <li>• <u>discretionary</u> offsite renewable energy procurement to achieve net zero emissions for a minimum five-year period</li> </ul>



# Demonstrating compliance – offsite renewables and net zero statement





# Application Requirements: sustainability

## New sustainability requirements for non-residential buildings (not incl. BASIX)

Application Requirement	Trigger/Description	Comments
<b>Resilience Design Measures Summary (RDMS)</b>	<b>For all development under the SEPP where the UDG applies -</b> <ul style="list-style-type: none"><li>consolidates risks identified in any technical reports alongside potential risk from heatwave, land instability, and severe thunderstorm events,</li><li>outlines design measures proposed to avoid, mitigate, and manage risks,</li><li>outlines assumptions made in determining appropriate measures.</li></ul>	<ul style="list-style-type: none"><li>Support for the preparation of a RDMS will be outlined in a proposed Technical Guidance and Resilience Tool.</li></ul>
<b>Net Zero Ready Statement (NZRS)</b>	<b>For all SSD and specified NABERS non-residential development under the SEPP where the UDG applies -</b> <ul style="list-style-type: none"><li>estimate annual energy consumption of the development in KWh/m<sup>2</sup>/year,</li><li>estimate of the development's scope 1 and 2 emissions up to 2050,</li><li>demonstrate sufficient spatial and infrastructure future allowance to plant rooms to transition to 100% electrification and fossil-fuel free energy by 1 January 2040,</li><li>the capability to enable digital data reporting of the physical infrastructure of the development to enable the performance of its operational greenhouse gas emissions to be externally reported.</li></ul>	<ul style="list-style-type: none"><li>Based on energy modelling completed for the Green Star Buildings rating, NABERS Commitment Agreement, independently verified maximum energy intensity target or equivalent third party verified energy standard.</li><li>Proposal to introduce prescribed conditions requiring evidence confirming energy and water efficiency standards have been met prior to the issue of the Construction Certificate.</li></ul>
<b>Embodied Emissions Disclosure Statement (EEDS)</b>	<b>For all SEPP development -</b> <ul style="list-style-type: none"><li>discloses embodied emissions and any products that have an Environment Produce Declaration.</li><li>describes how low-emission construction technologies are proposed to be utilised in the development, and how this has informed the selection of materials, structural systems and construction methods.</li><li>demonstrates how timber products have been responsibly sourced in line with Australian Forestry Standard or Forest Stewardship Council standards.</li></ul>	<ul style="list-style-type: none"><li>Calculating embodied emissions will be supported by a proposed new Embodied Emissions Calculator on the Planning Portal.</li><li>Proposal to introduce prescribed conditions requiring evidence be provided to certifying authority confirming responsibly sourced timber products be issued with the Construction Certificate.</li></ul>



# Application Requirements: sustainability

New sustainability requirements for non-residential buildings (not incl. BASIX)

Application Requirement	Trigger/Description	Comments
<b>Integrated Water Management Plan (IWMP)</b>	<b>For all development under the SEPP where the UDG applies -</b> <ul style="list-style-type: none"><li>• demonstrate water use on-site supports green infrastructure with no net increase of potable water use with alternate water supplies,</li><li>• demonstrate that water sensitive urban design features are integrated into the stormwater drainage design for the site/proposal,</li><li>• maximise stormwater runoff and minimising hard surface runoff through use of pervious surfaces and other measures.</li></ul>	<ul style="list-style-type: none"><li>• Ensures potable water use is minimised on large proposals on sites greater than 1ha in size.</li></ul>
<b>Waste and Sustainable Materials Plan</b>	<b>For all SEPP development -</b> <ul style="list-style-type: none"><li>• sufficient space is provided for source separation of materials, including recycling and organics,</li><li>• the space is easily accessible for the purposes of reclamation and recovery, and</li><li>• that waste infrastructure is responsive to future needs of the development.</li></ul>	<ul style="list-style-type: none"><li>• Ensures sorting and handling of waste materials is appropriately considered early in the application.</li></ul>



The background image shows an outdoor swimming pool with several swimmers. In the foreground, a swimmer is in the water, creating a splash. The pool is divided into lanes by blue and white lane lines. Along the edge of the pool, there are several large, yellow, square umbrellas. Behind the pool, there is a grassy area and a set of concrete steps leading up to a higher level. In the background, there are several tall buildings, including a prominent one with a glass facade and another with a more industrial look. The sky is clear and blue.

# Resilience

Sasha Peterson – Senior Policy Officer, Resilient Places

- Design for Resilience Tool



# Purpose of presentation

Design and Place  
SEPP

Design for  
Resilience Tool

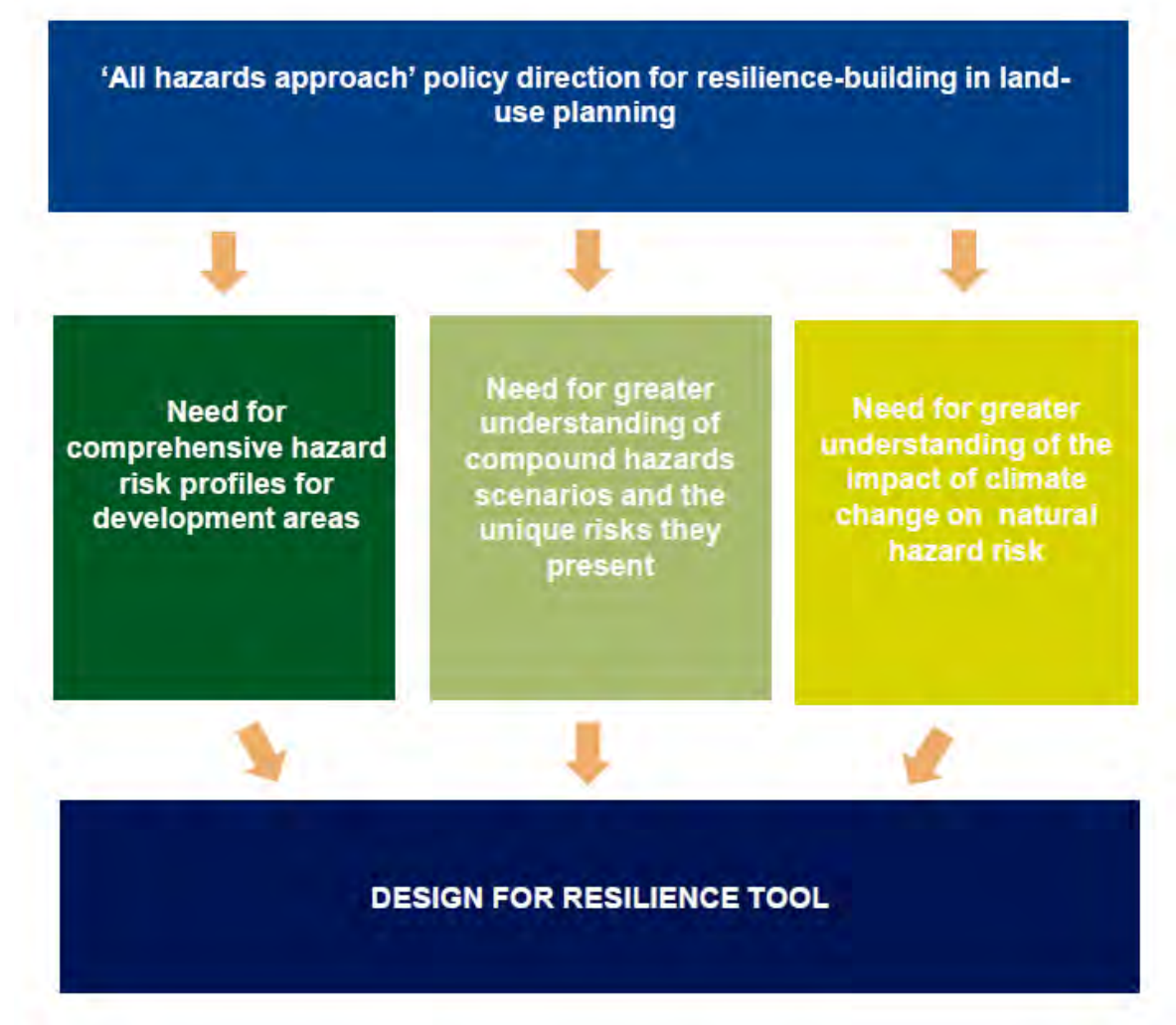
Value to  
stakeholders



# Design and Place SEPP

**Principle 5:** Strengthen the resilience and diversity of places for enduring communities

**Demonstrate:** Resilience and adaptation to natural hazards





# Design for Resilience Tool



All-hazards approach

Avoid, mitigate and/or manage risk

Consolidate existing requirements

Sit within DA

Applies to sites 1ha >

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# Design for Resilience Tool



**Bushfire**



**Coastal Hazards**



**Flooding**



**Heatwave**



**Severe  
thunderstorm**



**Land stability**



# Design for Resilience Tool

## COMPOUND RISK SCENARIOS



Bushfire



Heatwave



Coastal Hazard



Severe Thunderstorm



Flood



Land Stability

# Design for Resilience Tool

Natural-  
hazards  
focused

Not a climate  
assessment  
tool

Not a risk  
assessment  
tool



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# Value for stakeholders

Proponents



Encourage  
innovative design  
measures

Consent Authorities



Consolidates design  
measures and data  
into one concise  
output

Environment



Embeds  
developments are  
considering climate  
changes over time

Community



Protect lives,  
infrastructure and  
reduce economic  
losses



An aerial photograph of a city, likely Sydney, showing a dense residential area with a grid of streets and houses. A large river, the Sydney Harbour, flows through the city. In the foreground, there is a large blue overlay box with white text. The text includes the title 'Urban Design Guide', the name 'John Kurko' and his title 'Manager of Urban Design, Greater Sydney Place & Infrastructure', and a list of three items: '1. Overview of the Urban Design Guide (UDG)', '2. Presentation of propositions' (with sub-points: 'Description of process', 'Application of the UDG', 'Walkability & public transport', 'Urban tree canopy', 'Open space provision'), and '3. Discussion'.

# Urban Design Guide

John Kurko – Manager of Urban Design, Greater Sydney Place & Infrastructure

1. Overview of the Urban Design Guide (UDG)
2. Presentation of propositions
  - Description of process
  - Application of the UDG
  - Walkability & public transport
  - Urban tree canopy
  - Open space provision
3. Discussion



# UDG - Overview

## Urban Design Guide at a glance

- Adopts a **principle and performance-based approach**.
- Establishes **objectives for quality urban places** in NSW. These objectives can be applied to any project or location – whether it is in a city, regional centre or rural town.
- Informs design practitioners and authorities on a broad range of projects through **consistent design processes to deliver stronger place outcomes across NSW**.
- Focuses on **good urban design in the planning system**, intended to advise Applicants and their design teams, who prepare development proposals on expectations and to assist in assessment of proposals (by local or state government)



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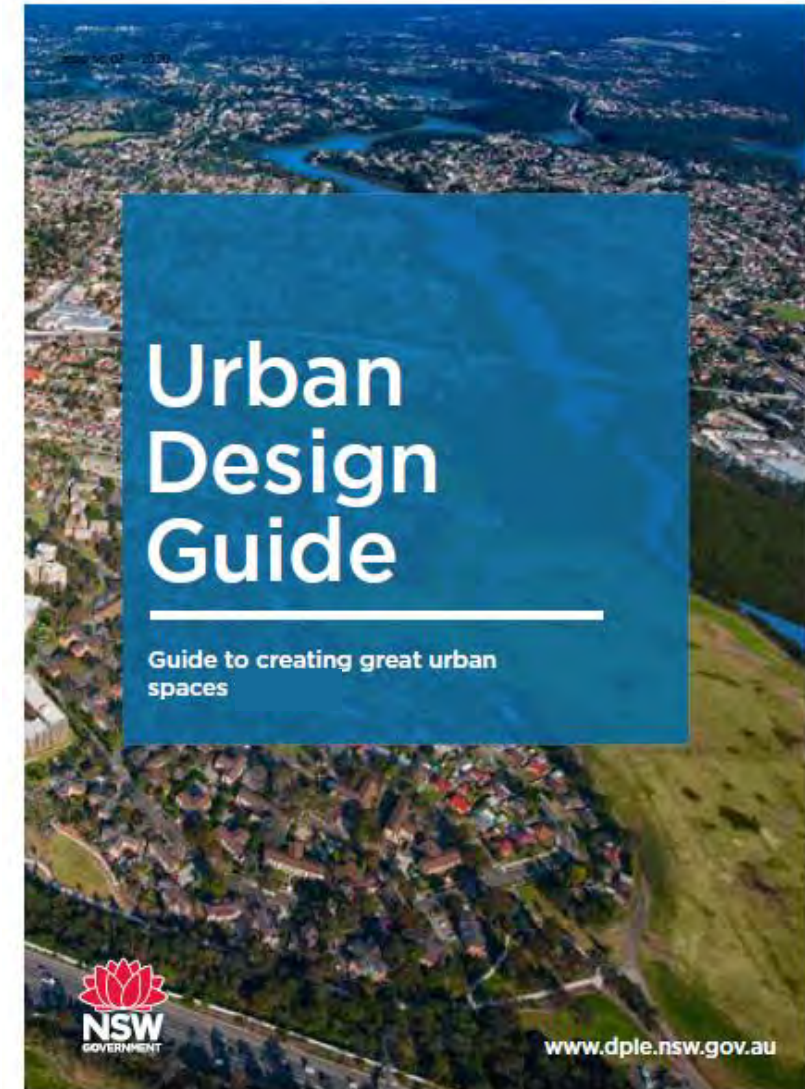


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# UDG - Aims

The UDG supports the principles of the DP SEPP in creating healthy, prosperous places for people, community and Country through:

- Recognising and responding to **Country** in design
- Understanding place as a network of dynamic and **interrelated urban systems**
- Looking beyond site boundaries to positively **contribute to place**
- **Re-balancing natural** and built environments
- Focusing on public space for **equitable public life**
- Prioritising compact, **connected neighbourhoods**
- Strategic and aligned process asking for the **right amount of detail at the right time**





# UDG – What it is not

- It is not a “what is urban design”
- It is not an advocacy piece for the merits or value of urban design
- It is not a guide for precinct planning
- It does not detail design requirements of typology-specific elements



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# UDG - Structure

WHY?

## 1. A Place Based Approach

- Start with Country
- How can we understand place in urban design
- What is a place based approach
- Public Space as an urban design outcome
- Integrating the components of Urban Design

WHAT?

## 2. Components of Successful Places

- Objectives and Guidance

HOW?

## 3. Implementing Good Practice

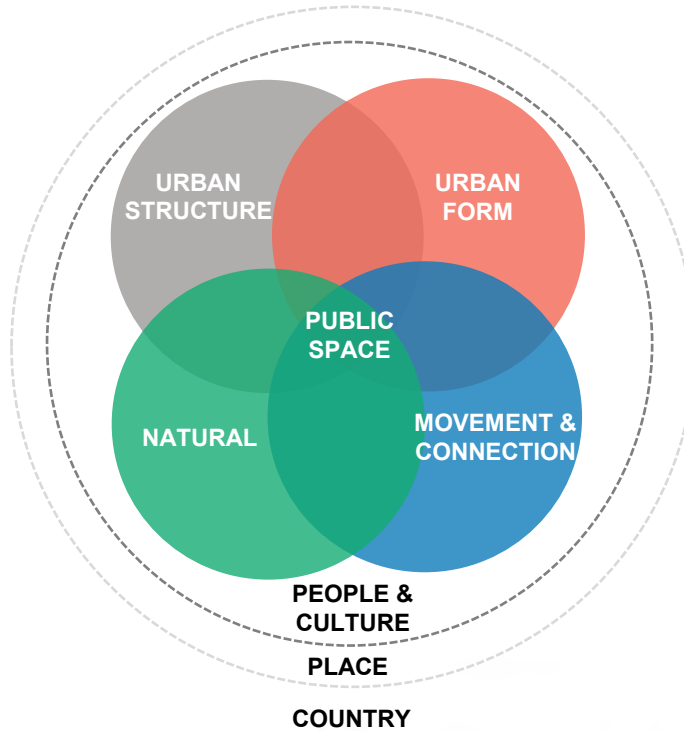
- Urban design requirements (outputs)
- Good design process – phases and outputs
- Pre design activities
- Phase 1 - Design preparation
- Phase 2 - Design development
- Phase 3 - Design delivery



# Urban components of Place

## Prioritising public domain outcomes

### Urban components



### Urban Structure



The arrangement of streets, paths, blocks and lots, public open spaces, activity centres, public transport nodes and corridors and residential neighbourhoods

### Urban Form



Private Development & Public Facilities:  
Public galleries, libraries, museums, civic/community centres, town/community halls, showgrounds, and indoor sports facilities.

### Natural



Public & Private Open Spaces:  
Both active and passive, inc. parks, gardens, playgrounds, beaches, waterways, creeks, outdoor playing fields and courts, and publicly accessible bushland

### Movement & Connection



Streets:  
Streets, avenues and boulevards, squares, and plazas; pavements, shared spaces, lanes, and bicycle paths



# UDG on a page

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Urban Components	Objectives	Criteria e.g.	Design guidance
<b>Urban Structure</b> 	<ol style="list-style-type: none"> <li>1. Natural areas and Country are identified for protection, restoration and connection.</li> <li>2. Existing and proposed green and blue networks are connected across urban areas.</li> <li>3. All new networks and infrastructure is integrated with regional and local strategic plans.</li> <li>4. The layout establishes a legible hierarchy of connected public spaces</li> </ol>	<ul style="list-style-type: none"> <li>• Vision Statement and Place Based Principle developed Place Analysis</li> <li>• Block length 250m</li> <li>• Mid-block pedestrian connections 130m</li> </ul>	
<b>Natural</b> 	<ol style="list-style-type: none"> <li>5. (PUBLIC OPEN SPACE) Equitable access to a connected network of high-quality public open space</li> <li>6. Provide microclimates that support a high level of environmental performance, human comfort, and sensory delight</li> <li>7. Consider risks cumulatively for the benefit of future generations</li> </ol>	<ul style="list-style-type: none"> <li>• 15% NDA Open Space</li> <li>• Typology-specific tree canopy targets</li> </ul>	
<b>Movement &amp; Connection</b> 	<ol style="list-style-type: none"> <li>8. (PUBLIC SPACE STREETS ) Streets that are safe and attractive comfortable public spaces for movement and gathering</li> <li>9. Priority given to affordable, efficient, sustainable, and healthy modes of transport</li> <li>10. Parking will support the place vision of a project, and be adaptable.</li> </ol>	<ul style="list-style-type: none"> <li>• Separated Cycleways on streets &gt;40km/h</li> <li>• Aligned to Vision</li> </ul>	
<b>Urban Form</b> 	<ol style="list-style-type: none"> <li>11. Retain and value heritage (built + cultural values) significance of place</li> <li>12. Built form responds to place, including its relationship with public space, healthy living and entertainment</li> <li>13. (PUBLIC SPACE FACILITIES) Well integrated public facilities that support public life</li> <li>14. Development supports local living + sustainable future growth</li> <li>15. Positive interfaces and transitions at all scales</li> </ol>	<ul style="list-style-type: none"> <li>• Sunlight access is provided to Public Spaces</li> <li>• Wind mitigation for public life</li> <li>• Housing Diversity &amp; Density targets being tested</li> <li>• Light roofs to residential developments</li> <li>• Minimum build height to street width ratio</li> </ul>	



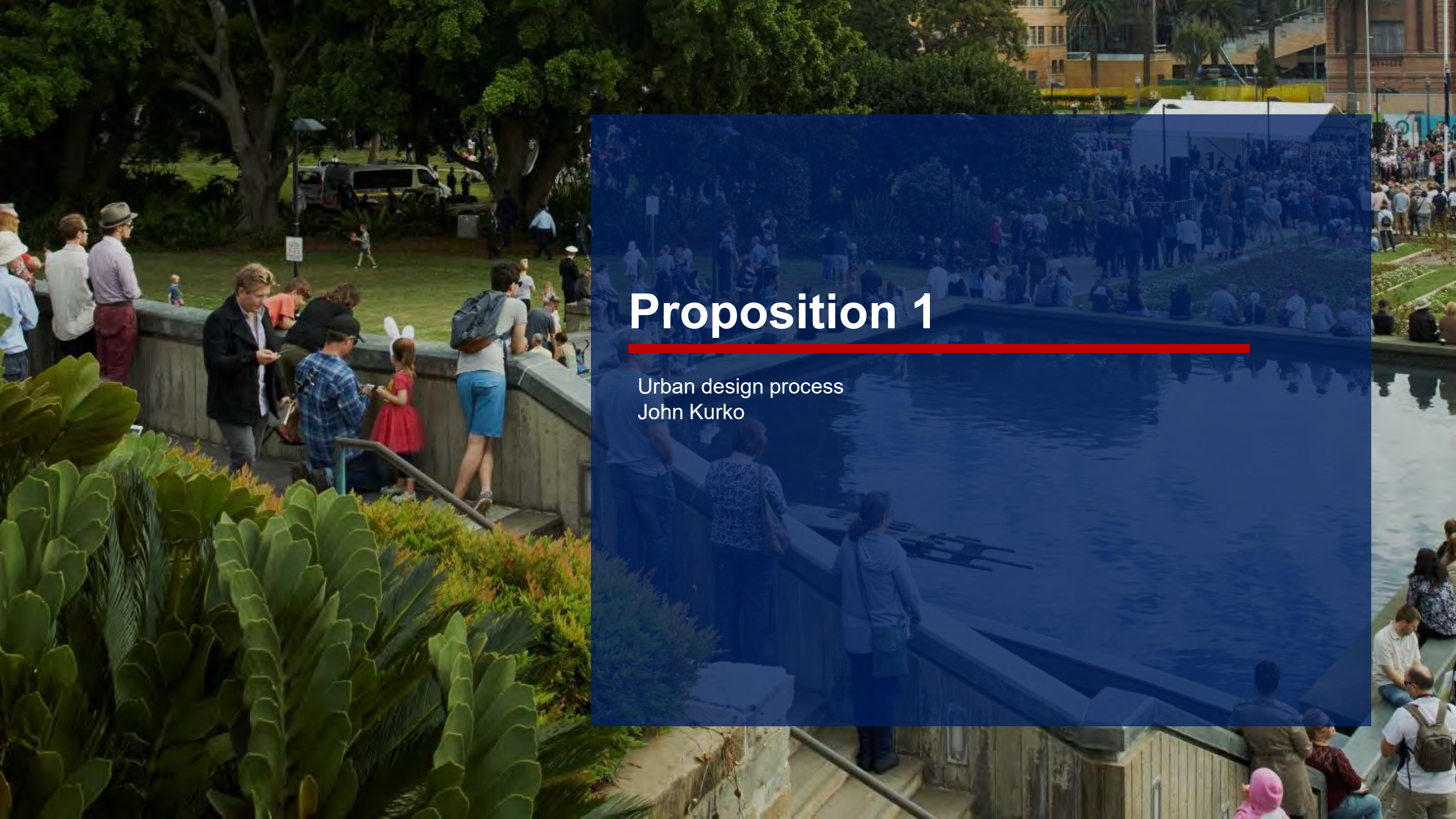


# Presentation of Propositions

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1. Urban design process
2. Application requirements
3. Walkability & public transport
4. Urban tree canopy
5. Open space provision





# Proposition 1

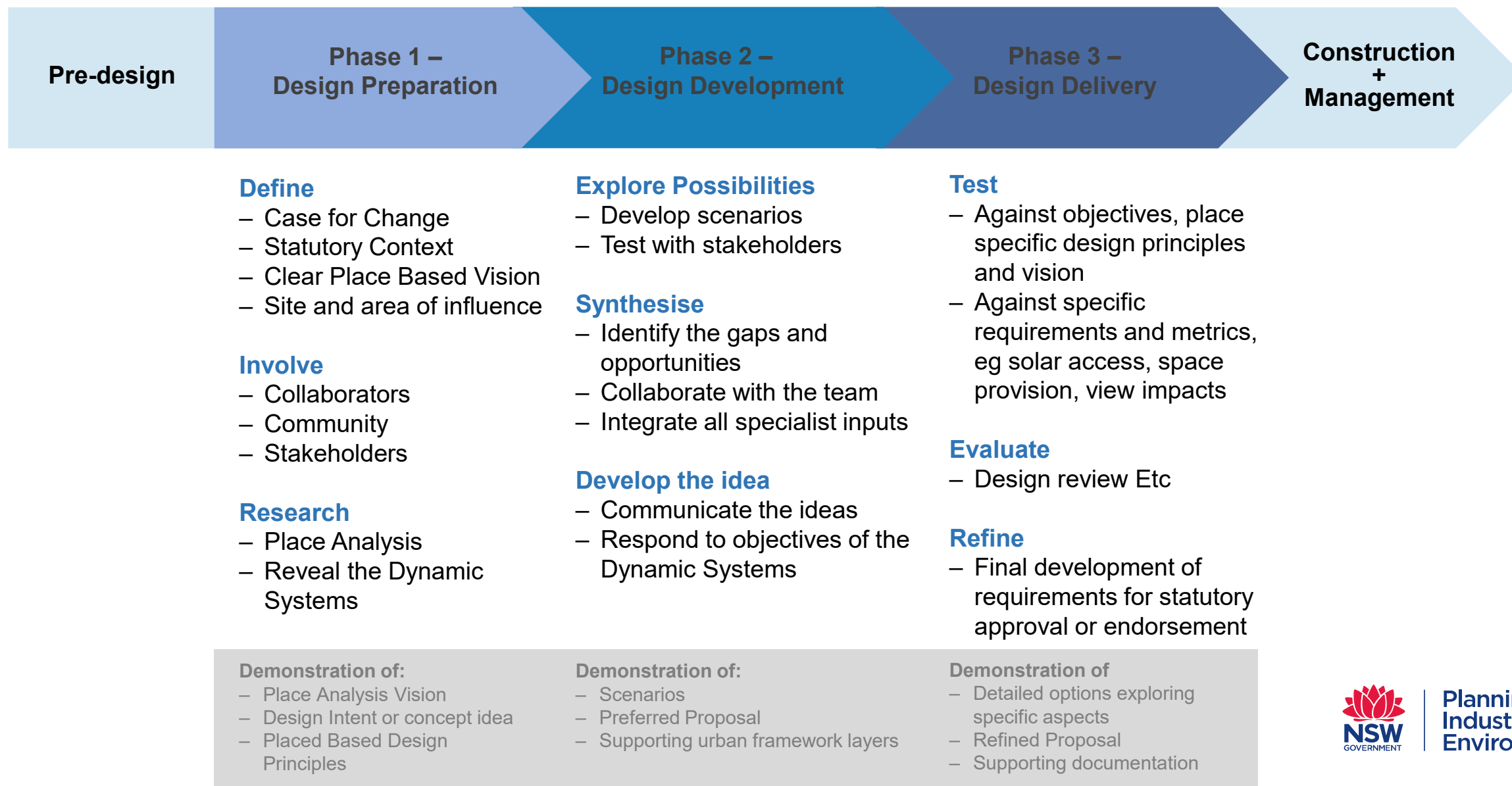
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Urban design process  
John Kurko



# Urban design process

**Proposition:** an urban design process framework





# Proposition 2

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Application and Application requirements of  
the Guide  
Peter McManus



# Application of the UDG

**Proposition:** UDG will apply for **sites greater than 1 hectare**, where the Design and Place SEPP applies.

Consideration being given to identifying additional thresholds such as population, CIV or where existing EPI requires a masterplan - to address issues around impactful smaller sites.

Consideration is being given to introducing savings provisions for applications that are the subject of a 'parent' Concept DA or Planning Proposal that has already had regard to the UDG.

# Application requirements

Application Requirement	Description	Trigger / Mechanism	Comments
<b>Place Strategy</b>	<p>Planning intent, describing the vision / planning intent, the different systems (blue and green, people and culture, public space, movement, built form) and how they layer to form a place, and outcomes sought</p> <p>[supporting documents will be called up here e.g: Needs Assessment, Resilience and Sustainability Plans]</p>	<ul style="list-style-type: none"> <li>Where the Secretary issues a requirement under s3.33(2) of the Act to prepare a DP Strategy for all planning proposals except:               <ol style="list-style-type: none"> <li>planning proposals that are routinely delegated to councils under PS 12-006 (mapping alterations, minor errors, reclassification of land, heritage LEPs/items, spot rezoning consistent with strategy/ surrounding zones, and other matter of local significance); and</li> <li>sites under 1ha and</li> </ol> </li> <li>SSD and SSI (excl. 1-10 of Schedule 1) &gt;1ha</li> </ul>	<p>Only where the SEPP applies (so excluding DAs for single dwellings, dual occupancies, subdivision of 2 lots, rural land unless converting to urban land)</p> <p>May include a master plan at this stage.</p>
<b>Master plan</b>	<p>Prior to development occurring must produce a MP.</p> <p>The site massing strategy that responds to the site-specific DCP for a large development</p>	<ul style="list-style-type: none"> <li>Where required by another EPI (eg: Coastal Management Act, min. number of lots); or</li> <li>as otherwise specified in a guide</li> </ul>	<p>Can satisfy requirement if MP included in Strategy or DCP</p>
<b>Site specific DCP \ (or Concept DA if elected)</b>	<p>The planning maps and development controls that are required to implement the strategy e.g: Growth Centres Indicative Layout Plan</p>	<ul style="list-style-type: none"> <li>Wherever a DP Strategy is required; and</li> <li>Sites &gt;1ha, or</li> <li>another EPI requires DCP.</li> </ul>	<p>Not required if there are current site specific controls (site specific DCP, special DCP controls in council LEP/DCP or concept DA).</p> <p>May include a master plan.</p>



The background image shows a park scene with a pond. In the foreground, there are large green plants. A group of people, including a man in a black jacket, a man in a blue plaid shirt, and a young girl in a red dress with white bunny ears, are walking down a set of stairs. In the background, there are trees, a white van, and a large crowd of people gathered around the pond. A blue semi-transparent box is overlaid on the right side of the image, containing the title and subtitle.

# Proposition 3

Walkability & public transport – guidance  
and benchmarks  
John Kurko



# Walkability guidance and benchmarks

**Proposition: Provide benchmarks for walkable neighbourhoods**

Objective:

Provide connected, walkable and legible neighbourhoods that are safe and comfortable for people of all ages

Guidance:

- Homes should be within a **20 minute walk (1,600 metres) of major facilities** (including local shops, primary schools, district open space, public transport, supermarkets/grocery store)
- Homes should be located **400m from a local open space**
- Contribute to permeable and fine grain street layout which prioritises good pedestrian and cycle access to key destinations - **through maximum lengths of 250m and mid-block connections at 130m**





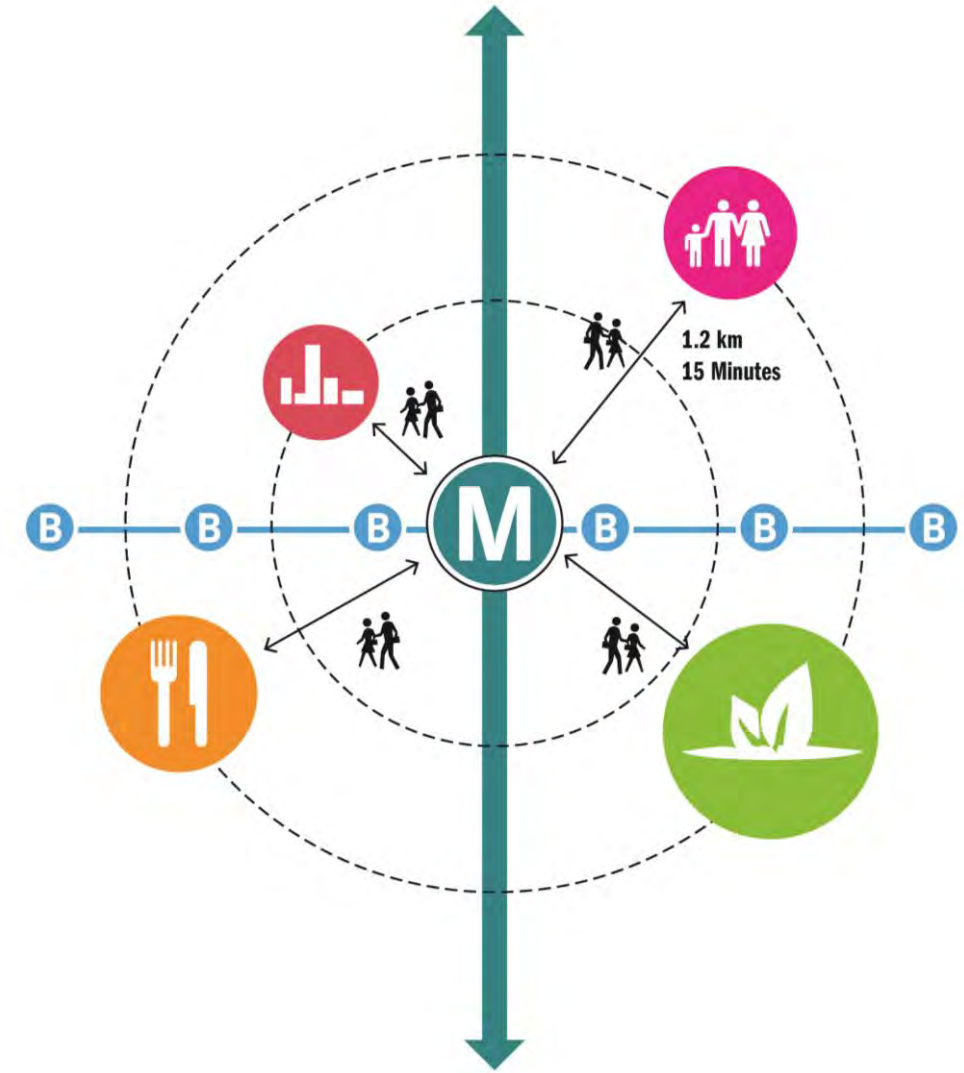
# Public transport access benchmarks

**Proposition: Provide guidance for distance to public transport**

**Objective:**  
Provide proximity and connections to destinations, including a wide network of jobs, services and attractors

**Guidance:**

- Homes in residential areas have accessible, safe and secure routes to **high service frequency public transport within 800m**
- Homes in residential areas in less frequently serviced areas should be located **within 400m of public transport**







# Proposition 4

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Urban tree canopy  
John Kurko



# Urban tree canopy guidance and benchmarks

**Proposition: Provide Urban tree canopy benchmarks for public and private land**

**Provide micro-climates for comfort**

Objective:

All new developments to optimise the conditions of the natural systems to provide favourable microclimatic conditions for environmental performance, human comfort, and sensory delight.

Guidance:

- UDG includes benchmarks and guidance for tree canopy targets for various typologies (on public and private land), applicable across NSW
- Targets have been developed through rigorous design testing
- Site-specific deep soil percentages and tree planting rates are critical to achieving canopy targets and facilitating assessment
- Prioritise tree retention and appropriate species
- Consider greening alternatives where sites are constrained, and demonstrate environmental outcomes

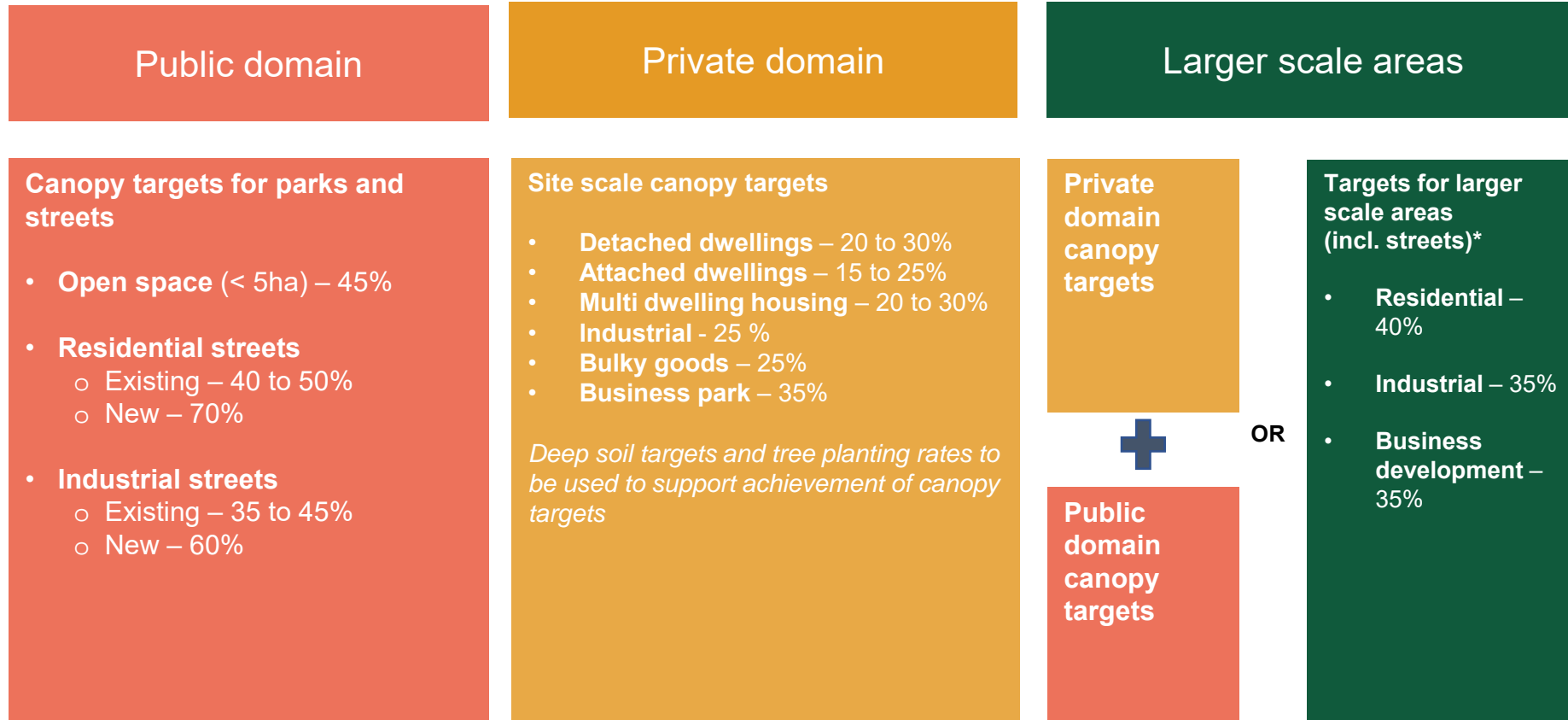


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# Urban tree canopy – proposed targets (% of site area)



\*Green box targets are to be used when the development mix is unknown





# Proposition 5

Open space provision  
John Kurko

# Public open space

## Proposition: Provide Public Open Space guidance

Objective: All new development contributes to a network of high quality public open space with equitable access for communities

Objective: public open space is diverse, multi-functional, adaptable, connected, well located, resilient and accessible.

### Guidance:

- 15% of net developable land (NDL\*) is recommended to be provided as public open space
- For sites less than 25 hectares some exceptions apply, and provision of as much of the 15% requirement into one open space is advised.
- For sites between 1-5 hectares, further considerations apply
- The proposed standard does not apply to dedicated industrial precincts and universities.
- Embedded in the spatial standard will be requirements for the provision of distributed parks at a range of sizes and a connected open space network.
- Metrics in the table are designed for sites over 25 hectares

\* The NDL includes the following land use types: Residential Zoning (R1-R4) Commercial Zoning (B1-B2) Public Recreational Open Space (RE1) Local Roads and Streets Schools Local Hospitals, Community Centres and Facilities Carparks

Recommended Public Open Space Provision						
Provision of Local and District Open Space is to be <b>15% of Net Developable Land (NDL)</b>						
Open Space Types						
	Hierarchy Level	Minimum Size (ha)	Maximum Size (ha)	Median Size (ha)	Walking distance from all dwellings	Notes
	Small Park	0.15	0.5	0.45	200m	Only applicable in areas >50 dwellings per ha only
Parks	Local Park	0.5	5	2.5	400m	* median size only applies on sites above 25ha. For sites <25ha refer to b
	District Park	5	25	10.0	1600m	
		Min Width (m)	Min Length (m)			
Green Corridors and Linear Parks		15	400m		400m	* Min Length only applies on sites above 25ha. For sites <25ha refer to below Small Sites section.

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The background image shows an outdoor swimming pool with several swimmers. In the foreground, a swimmer is in the water, creating a splash. The pool is divided into lanes by blue and white lane lines. In the background, there are several large yellow umbrellas on a grassy area, and a set of concrete steps leading down to the pool. Further back, there are modern city buildings under a clear blue sky.

# Status Update

Various DPIE team members



An aerial photograph of a city, likely Sydney, Australia, showing a dense residential area with a river winding through it. A large blue semi-transparent rectangle is overlaid on the right side of the image, containing the text 'BASIX' and 'Mary O'Neill – Team Leader, BASIX'.

# BASIX

Mary O'Neill – Team Leader, BASIX



# Update

There are a number of BASIX matters being discussed within Government presently.

- We still plan to introduce a **materials index** within BASIX to assess the embodied carbon emissions of a home's building materials.
- We continue to develop a **merit assessment pathway** to provide an alternative means to demonstrate that a new home meets the NSW sustainability requirements.
- The Australian Building Codes Board (ABCB) recently released its draft of the National Construction Code (NCC) 2022, which includes a stringency increase to the thermal performance of homes from 6-stars NatHERS equivalent to 7-stars NatHERS equivalent.
- The Government is considering stringency increases to the BASIX energy and thermal performance requirements to align with the proposed NCC 2022 increases.
- A test version of the new BASIX Tool that has an improved 'look and feel' and is more integrated with the NSW Planning Portal will be available for testing later this year.

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An aerial photograph of a city, likely Sydney, Australia, showing a dense residential area with a river winding through it. A large blue semi-transparent box is overlaid on the right side of the image, containing white text. The text includes a title, a name, and a bulleted list.

# Process: Application

Kate Freney – Team Leader, Planning Systems Policy

- Design guidance flexibility
- Design Verification Statement



# Design verification statements

Design verification statement requirements for developments under the Design and Place SEPP to be included in the EP&A Regulation:

	Field of expertise	Design Verification Statement Requirements
Resi Apt Buildings – Class 2	Architect	<ul style="list-style-type: none"><li>• as currently required under SEPP 65 via cl50 EP&amp;A Regulation</li></ul>
Resi Apt Buildings – Class 2 (not covered above)	Architect or building designer	<ul style="list-style-type: none"><li>• as currently required under the EP&amp;A Regulation (e.g. for developments under the Codes SEPP and the Affordable Rental Housing SEPP).</li></ul>
Public or common open space >1000sqm	Landscape architect or landscape designer	<ul style="list-style-type: none"><li>• the signatory is a registered landscape architect, or has 8 years experience in landscape design</li><li>• the signatory designed or directed the design</li><li>• the signatory confirms the design meets the principles of SEPP .</li></ul>
Precincts	Urban designer	<ul style="list-style-type: none"><li>• signatory has 5 years experience in precinct or master planning</li><li>• designed or directed the design</li><li>• the signatory confirms the design meets the principles of SEPP.</li></ul>

# Design verification statements

The design verification statement will support a development application by demonstrating how it meets the SEPP principles and considerations – showing the design process, and why the proposal is the best/most appropriate outcome.

A template is being prepared to support applicants in achieving this requirement for each of the three categories: residential apartment developments, developments subject to the UDG, and public or common open spaces greater than 1,000 square metres.

The consent authority will be directed to

- have regard to the design verification statement in making their determination – this ensures the rationale provided for design decisions and the design responses to advice from a design review panel considered in the assessment process
- apply the ADG and UDG in a flexible manner, and consider any reasonable alternative designs that achieve the objectives of the ADG and UDG (as applies to the proposal)
- consider the objectives of the ADG or the UDG only in connection with the assessment of that application (consent decisions will not establish a precedent).



# Design verification statements

## Requirements of the design verification statement

For a development application that must respond to either the ADG or the UDG, a design verification statement must be prepared by a suitably qualified professional and accompany the application.

### Required contents:

- verify that the signatory designed or directed the design of the development, and has the required design skills.
- explains how the proposed development satisfies the principles and considerations of the DP SEPP:
  - for apartment developments, by meeting the objectives of the ADG
  - for precincts greater than 1ha, by meeting the objectives of the UDG
  - for public or common open spaces greater than 1000sqm, by meeting the objectives of the UDG.
- directs the assessing planner and consent authority to where they can find the evidence. This could be a reference to a drawing, a table or some other report. Evidence can also be provided in the statement.

### Application requirements will also require a proposal demonstrate:

- how the advice of the design review panel has been incorporated into the design of the development
- how the proposed development remains consistent with that advice
- where it departs from that advice, how the proposal still satisfies the DP SEPP principles and considerations.





# Design Review

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Abbie Galvin – Government Architect, GANSW

- Design Review Manual
- NSW Protocols for Design Review
- Design Review Report
- Thresholds



# Local Design Review Panel Manual

The Local Design Review Panel Manual (the Manual) replaces the previously proposed Design Review Guide, it will be called up in the **Regulations**

- The Manual will be instructional and underpinned by **design review protocols**
- It will include templates for key governance documents and deliverables, including:
  - **Terms of Reference**
  - **Advice letters**
  - **Design Review Report** – to be submitted with the Design Verification Statement
- The Regulations will also introduce provisions for:
  - the minimum time within which a DRP must provide advice on a proposal (14 days proposed)
  - The constitution, membership and required expertise / accreditation of panel members
  - Transitional arrangements

The Manual will introduce standard procedures and guidance on the following:

- Number of DRP sessions (refer following slides)
- How to write advice and recommendations that are clear and actionable
- How to respond to advice and recommendations, including what to do if it is not possible to action a specific recommendation
- Management, including processes to ensure consistency in panel members for each project
- Evaluating whether controls (in the SEPP or a local instrument) have been met in a balanced way
- Selection of panel members, including qualitative assessment criteria such as:
  - Evidence of a commitment to design excellence via projects or other design related work
  - Peer reviewed awards
  - Diversity

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# Draft Design Review Protocols

## **Advisory**

Design review panels do not make decisions, they provide impartial advice to the people who do

## **Independent**

Design review is conducted by people independent of any conflict of interest

## **Expert**

Design review panel members are experienced and respected design professionals who can clearly communicate their analysis and feedback

## **Diverse**

Design review panels are representative of diverse professional design expertise, gender, cultural background and lived experience

## **Timely**

Design review takes place early in the design development process, sessions are scheduled within a reasonable timeframe and advice is issued promptly

## **Objective**

Advice and analysis is objective, clear and constructive, and does not reflect the individual taste of panel members

## **Relevant**

Advice is appropriate to the project stage and scale and focused on actions within the scope and agency of participants to affect

## **Consistent**

Advice is consistent from one session to the next and wherever possible, panel members are the same across sessions

## **Accessible**

Written feedback and reports are in language that is easily understood by all participants and the public

## **Respectful**

All parties should act with respect towards each other and the process



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# Design Review Report

For any project that has undergone design review, the Regulations will require that a Design Review Report be submitted for the Development Application as a report or as part of the Design Verification Statement

- The Report will:
  - Clearly describe how the proposal has responded to the advice of the design review panel, or, where the panel's advice has not been adopted, provide the rationale
  - Use both images and words
  - Include a copy of all design advice letters from the DRP
- A template Design Review Report will be provided in the Manual

In determining a development application, it is proposed that the SEPP require a consent authority to consider:

- advice received from the design review panel,
- the design quality of the development evaluated in accordance with the design quality principles of the SEPP
- for residential apartment development, the Apartment Design Guide

# Thresholds

The Design & Place SEPP Regulations will mandate review by a Design Review Panel (DRP) for development of the following types:

- **State significant development (SSDs), State significant infrastructure (SSIs) and State significant precincts (SSPs):** review by the SDRP (State Design Review Panel).
- **Large development (>1ha, other than SSPs, SSD and SSI) and Planning Proposals:** review by a local DRP
- **Residential apartment buildings:** review by either SDRP or Local DRP, whichever applies, maintaining the current SEPP 65 development thresholds (3 or more stories / 4 or more dwellings)
- **For all other development:** development declared as 'regionally significant' through Schedule 7 of the State and Regional Development SEPP (SRD SEPP)
  - Development with a CIV over \$30M
  - Crown and Council development over \$5M
  - Development on sensitive land (for detail refer SRD SEPP)
- Development that other Environmental Planning Instruments (EPI) require consideration by a DRP



A photograph of a modern, multi-story apartment building with curved balconies and large windows. A large, leafy green tree is in the foreground on the left, partially obscuring the building. The sky is blue with some clouds. A dark blue semi-transparent rectangle is overlaid on the right side of the image, containing the title and list.

# **Apartment Design Guide**

Amir Safaei – Principal Design Advisor, GANSW

1. Natural cross-ventilation
2. Deep soil



A low-angle, upward-looking photograph of a forest. The image shows the intricate, dark, and leafless branches of trees reaching towards a clear, bright blue sky. The perspective creates a sense of height and openness. A semi-transparent dark blue rectangular box is overlaid on the right side of the image, containing the title text.

# **Natural cross-ventilation**

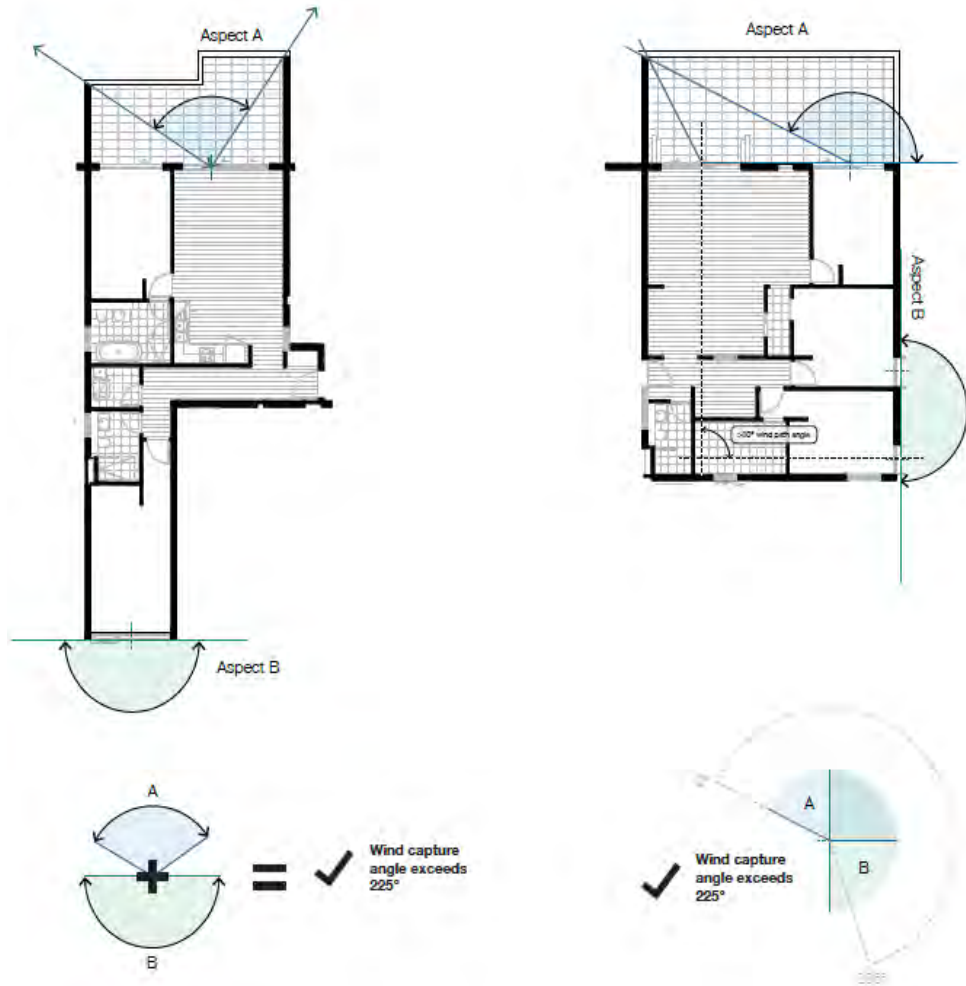
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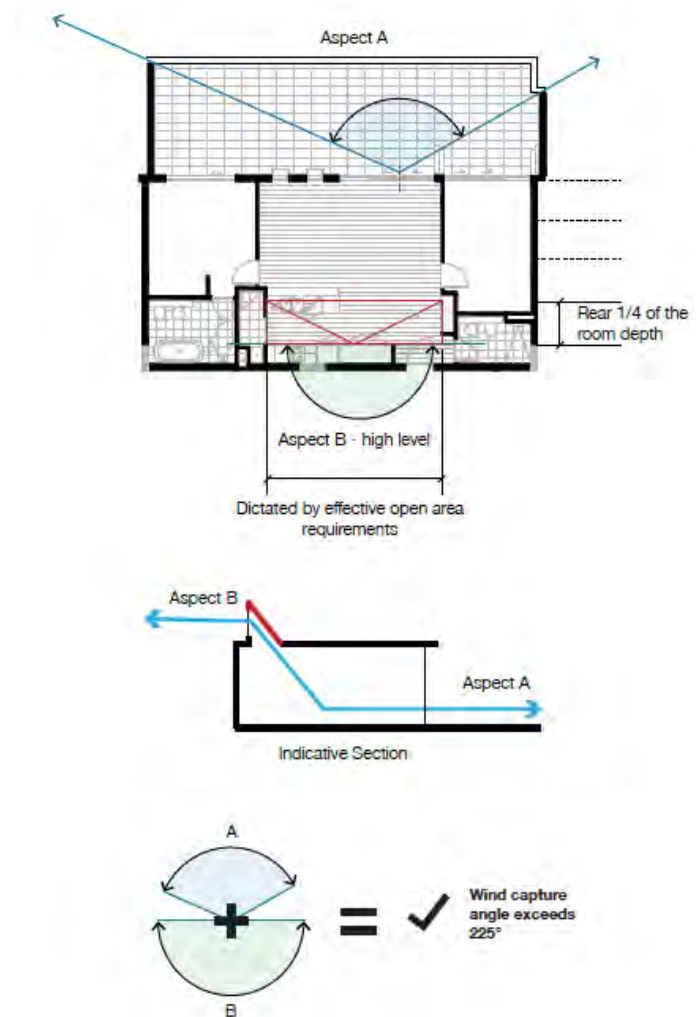
# Natural ventilation and natural cross ventilation

Objective	Design guidance
<p><b>2.5</b></p> <p><i>Indoor air quality and thermal comfort is optimised, and reliance on mechanical ventilation reduced, by ensuring the number of apartments with natural cross-ventilation is maximised and the number of single-aspect apartments is minimised. All habitable rooms are naturally ventilated.</i></p> <p><b>Design criteria</b></p> <p>Using exposure to wind and appropriate sizing and distribution of openings, provide natural cross-ventilation for:</p> <ul style="list-style-type: none"><li>• at least 60 per cent of apartments for the first 9 storeys of a building</li><li>• at least 50 per cent of apartments at 10 storeys or more.</li></ul> <p>Ensure the overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.</p>	<p><b><u>Natural cross-ventilation</u></b></p> <ul style="list-style-type: none"><li>• Achieve exposure to wind by:<ul style="list-style-type: none"><li>• providing unobstructed access to 225° of wind exposure to openings, measured from the centre of the opening</li><li>• maintaining adequate separation distances between buildings:<ul style="list-style-type: none"><li>• 9m minimum separation between buildings if space between buildings is open at both ends and has unobstructed airflow</li><li>• 6m minimum separation between buildings if space between buildings is open at both ends and has unobstructed airflow, and the adjacent building facade is the same length or shorter</li><li>• in all other cases, assume building separation distances between habitable rooms as set out in ADG</li></ul></li></ul></li><li>• making the primary air path between the openings:<ul style="list-style-type: none"><li>• not less than 5m</li><li>• serve no more than 1 bedroom and pass through no more than 1 single doorway</li><li>• not pass through any common circulation or communal area.</li></ul></li></ul> <ul style="list-style-type: none"><li>• Achieve appropriate sizing and distribution of the natural ventilation openings by:<ul style="list-style-type: none"><li>• providing openings with a total Effective Openable Area (EOA) of not less than 5 per cent of the total habitable floor space of the apartment</li><li>• balancing the openings between facades, with no facade having openings with an EOA of less than 2 per cent of the total habitable floor space, if the apartment has dual aspects, or 1.5 per cent if the apartment has three aspects</li></ul></li><li>• Indentations, slots and other similar facade treatments do not provide adequate exposure to different wind direction and natural cross-ventilation.</li><li>• Cross-through, corner and roof-window apartments consistent with the window orientation and wind exposure shown in figures 2.5.F &amp; 2.5.G can provide adequate natural cross-ventilation.</li></ul>

# Natural ventilation and natural cross ventilation



[Figure 2.5 F] Accepted cross-through and corner apartments consistent with the window orientation and wind achieved



[Figure 2.5 G] Accepted clerestory roof window apartment consistent with the window orientation and wind achieved

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# Natural ventilation and natural cross ventilation

Objective	Guidance for developing alternative designs	
<p><b>2.5</b></p> <p><i>Indoor air quality and thermal comfort is optimised, and reliance on mechanical ventilation reduced, by ensuring the number of apartments with natural cross-ventilation is maximised and the number of single-aspect apartments is minimised. All habitable rooms are naturally ventilated.</i></p> <p><b>Design criteria</b></p> <p>Using exposure to wind and appropriate sizing and distribution of openings, provide natural cross-ventilation for:</p> <ul style="list-style-type: none"><li>• at least 60 per cent of apartments for the first 9 storeys of a building</li><li>• at least 50 per cent of apartments at 10 storeys or more.</li></ul> <p>Ensure the overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.</p>	<p><b><u>Minimum performance requirements</u></b></p> <p>The natural ventilation system for each apartment must provide an average hourly volume flow rate equivalent to the greater of the following criteria:</p> <ol style="list-style-type: none"><li>1. 10 litres/second/person (where the number of persons is equal to the number of bedrooms in the apartment + 1), or</li><li>2. 0.3 litres/second/m2 of floor area of the apartment.</li></ol> <p>for:</p> <ol style="list-style-type: none"><li>a. 85% of all hours in the year for cross-through and cross-over apartments, or</li><li>b. 90% of all hours in the year for all other apartments.</li></ol>	<p><b><u>Assessment of solution requirements</u></b></p> <ul style="list-style-type: none"><li>• natural ventilation modelling process</li><li>• dynamic thermal simulation process</li><li>• wind tunnel testing process</li><li>• process where CFD modelling is used to supplement either dynamic thermal simulation or wind tunnel testing</li></ul> <p><b><u>Minimum level of reporting</u></b></p> <ul style="list-style-type: none"><li>• report requirements</li><li>• authorship contents</li><li>• schedules</li><li>• design drawings of relevant building components</li></ul>



A person wearing a light-colored poncho and dark pants is walking along a concrete path next to a tall chain-link fence. The fence runs diagonally across the frame. Behind the fence is a grassy field, possibly a baseball or softball field, with a dirt infield visible. In the background, there are trees and a tall stadium light pole. The scene is captured during the "golden hour" of late afternoon, with warm sunlight creating long shadows and a soft glow. A dark blue semi-transparent rectangular box is overlaid on the right side of the image, containing the text "Deep soil" in white, which is underlined with a red line.

**Deep soil**



# Deep soil

## Objective

### 1.5

*Environmental resilience and amenity is enhanced by the retention and provision of sympathetic and sustainable softscape, planting and trees, including planting in deep connected soil and on structures.*

## Design criteria

SITE AREA	MINIMUM DIMENSION	DEEP SOIL
<650m <sup>2</sup>	3m	10% of site area
650m <sup>2</sup> – 1500m <sup>2</sup>		15% of site area
1500m <sup>2</sup> – 3000m <sup>2</sup>	3m, with 6m wide across at least 25% of the minimum deep soil area	20% of site area
3000m <sup>2</sup> or more		25% of site area

## Design guidance

### Deep Soil

- At site level, provide deep soil and tree canopy to improve:
  - air quality
  - building thermal comfort and reduced energy costs through direct shade
  - stormwater infiltration and flood mitigation
  - biodiversity and habitat
  - amenity and outlook for residents
  - health outcomes including physical and mental wellbeing
- Allow sufficient deep soil for the development of healthy root systems, providing anchorage and stability for mature trees.
- Where deep soil and communal open space is co-located in areas relied on for the minimum deep soil area, the design should be consistent with the **minor structures** definition.

### Retaining Trees

- Mature trees provide the best and most immediate form of canopy and contribution to habitat. Retain and protect existing trees, including those on adjoining sites.
- Locate building envelopes, basements and driveways in order to maximise the number of trees able to be retained on site.
- Prioritise deep soil zone locations to:
  - retain existing trees in front and rear setbacks
  - maximise contiguous areas of deep soil by co-locating with deep soil areas on adjacent sites.

# Deep soil

## Objective

### 1.5

*Environmental resilience and amenity is enhanced by the retention and provision of sympathetic and sustainable softscape, planting and trees, including planting in deep connected soil and on structures.*

## Design criteria

SITE AREA	MINIMUM DIMENSION	DEEP SOIL
<650m <sup>2</sup>	3m	10% of site area
650m <sup>2</sup> – 1500m <sup>2</sup>		15% of site area
1500m <sup>2</sup> – 3000m <sup>2</sup>	3m, with 6m wide across at least 25% of the minimum deep soil area	20% of site area
3000m <sup>2</sup> or more		25% of site area

## Guidance for developing alternative designs

### Green Cover

- For sites where it is not possible to provide sufficient deep soil, for example, in Adaptive reuse scenarios, Heritage developments etc use alternative options for green cover, such as landscaped communal open space offering amenity and outlook for residents, or **planting on structures**.
- Ensure all sites provide **green cover**, including mixed-use developments where the basement or building envelope fills the site

### Planting on Structures

Plant type	Soil volume	Soil depth	Soil area
Turf		200 mm	
Ground covers		300–450 mm	
Shrubs		500–600 mm	
Small trees	10 m <sup>3</sup>	800 mm	3.5 m x 3.5 m or equivalent
Medium trees	36 m <sup>3</sup>	1,000 mm	6 m x 6 m or equivalent
Large trees	120 m <sup>3</sup>	1,200 mm	10 m x 10 m or equivalent

### Planting on Structures

- Provide soil volume appropriate for plant growth. Consider:
  - modifying depths and widths according to the planting mix and irrigation frequency
  - free draining and long soil life span
  - tree anchorage.
- Design solutions include:
  - green roofs, including on top of podiums, particularly where roofs are visible from the public domain
  - edge planters and planter boxes to communal and private open spaces





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