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INTRODUCTION

OVERVIEW OF BUILDING CONTROLS AND DESIGN OBJECTIVES
INTRODUCTION

The current regulatory and policy environment in the city has placed increased importance on the efficiency and operability of building provisions in high growth areas, particularly High Density Residential Zone and Medium Density Residential Zone. The following study is an investigation into the planning provisions and design criteria specifically related to building setbacks and site cover in the Medium and High Density Residential Zone Codes. The study employs a robust evidence-based 3D assessment of a range of built form controls from planning schemes across Australia.

The objective of this work is to revise and refine current controls to better reflect contemporary architecture and promote good built form outcomes for the City. The diagram below summarises the key components of this study in line with future stages of work.

Study structure:

THIS STUDY

URBAN DESIGN STUDY

<table>
<thead>
<tr>
<th>CASE STUDY</th>
<th>DESIGN VALUES</th>
<th>TESTING</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing built form controls for medium and high density residential developments across Australian major cities</td>
<td>Identification of design values from case study findings which deliver good built form outcomes</td>
<td>Test through 3D massing three scenarios to illustrate built form impacts of planning provisions</td>
<td>To summarise the findings and key recommendations</td>
</tr>
</tbody>
</table>

TOWN PLANNING STUDY

<table>
<thead>
<tr>
<th>REVIEW</th>
<th>CITY PLAN AMENDMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of recent development approval case studies and associated City Planning projects (community benefits policy review)</td>
<td>Prepare draft recommendations to City Plan provisions for review and workshop by COGC</td>
</tr>
</tbody>
</table>

RELATED STUDIES

Council has advised they are currently undertaking a range of other policy studies. This report should not be viewed or considered in isolation. An exercise to coordinate these recommendations with those of other related studies is necessary to ensure any changes to the City Plan are robust and effective.
The role of key building controls (listed in the diagram below) is to manage the form and scale of new development according to the existing and intended future context. Building setbacks in particular, unlock building amenity by providing access to daylight, visual privacy, outlook, ventilation, and areas for landscaping and open space. They impact the quality of interior and exterior spaces both within a site and to adjoining sites and surrounding public realm. Ultimately, they are fundamental to shaping the scale, bulk and character of a neighbourhood.

Within this study, assessment into building controls across major Australian cities highlights interrelated and complex relationships between building setbacks and building height, depth, separation, site cover and density. While each provision attracts its own set of objectives, criteria and considerations, it is essential that these provisions are ultimately synthesized to inform a desired urban outcome.

The purpose of this study is to review residential zone codes and make recommendations for revised building setbacks and site cover based on a clear understanding of the design values and intents. In an attempt to address and integrate all design values, consideration for building separation and building depth is provided to promote favourable contextual and climatic building performance.

Key building controls that jointly shape built form outcomes:

<table>
<thead>
<tr>
<th>Building Envelope</th>
<th>Building Massing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Street Setback</td>
<td>4 Site Cover</td>
</tr>
<tr>
<td>2 Side And Rear Setback</td>
<td>5 Building Separation</td>
</tr>
<tr>
<td>3 Building Height</td>
<td>6 Building Depth</td>
</tr>
</tbody>
</table>
The list below summarizes overarching principal design values that promote outstanding and responsive residential built form outcomes. These values are to underpin recommendations for amended setback and site cover provisions.

**ORIENTATION**
Building orientation should respond to streetscape, neighbouring buildings and site features to maximise building amenity and promote desired urban form character. Orientation and building layout should more specifically allow adequate access to daylight, natural ventilation and outlook, as well as provide appropriate visual and acoustic privacy. Buildings should also minimise overshadowing to neighbouring buildings and the public realm.

**CONTEXT**
Setbacks are an opportunity to provide transition between different land uses and building typologies. Therefore, new development should feature a site responsive design envelope that considers existing or desired urban context, land uses and adjacent buildings through setbacks, articulated building mass and site design. This also means ensuring an appropriate scale and height of development is determined relative to the streetscape, public and private spaces.

**STREETSCAPE**
Street setbacks combined with building heights and road reserve widths, define the proportions and profile of a street and contribute to the character of the public domain. Therefore, new development should define and frame a street through its street frontage and street setback, as well as promote a scale in keeping with the desired character of the area.

**BUILDING SCALE**
New development should maintain human scale at street level, this relates to both building massing and building articulation and is largely responsive to the urban context surrounding the building. For instance, in urban centre contexts tall towers should be setback from the street or mediated with a tower base to avoid a canyon effect and encourage a high quality public realm. Meanwhile lower building heights can have lower street setbacks while still supporting favourable public realm outcomes and desirable street proportions.

**BUILDING MASS**
Building mass and depth should enable passive design performance to enhance amenity and comfort from within the building. This means encouraging cross ventilation and the passage of daylight, while also reducing unwanted heat transfers.
LANDSCAPING AND OPEN SPACE
Setbacks are an opportunity to establish a high quality landscape setting for buildings. New
development should incorporate an attractive public realm that provides visual relief to the built form,
and a territorial threshold between the public street and the private dwelling. Building separation
distances should also be used to create usable land for well designed common open spaces with tree
planting and landscaping. The quality of open space and landscaping are closely aligned and often
dependent on one another. They can also counter balance one another, for instance, in urban centre
settings where site cover is low and therefore open space is reduced, landscaping is compromised
but can be enhanced to ensure a responsive, desirable and attractive outcome is achieved.

VIEWS AND VISUAL IMPACT
Where possible, new development should retain desirable view corridors, provide reasonable outlook to
and from the building, and limit views into habitable room windows and private open spaces. Each building
should also have the opportunity to visually connect with public open spaces and communal areas.

LEGIBILITY
Create a legible urban pattern through well defined streets, clearly articulated buildings and dedicated
outdoor spaces that enhance the experience of the public realm. In particular, spaces and corridors
between setbacks should be well designed and contribute to the quality and character of the area.

ACCESS
New development should provide adequate access for building maintenance and operations
within each site. In addition to this, solutions for servicing, operations and maintenance should
be integrated into the design in a holistic, consistent and sophisticated manner.

SUB-TROPICAL
Through setbacks and separation distances, building design should respond to the region’s
sub-tropical climate and outstanding lifestyle values by incorporating principles of
environmentally sustainable design. Buildings should also respond to the desired built form
and landscape character of the local area through passive and active design initiatives.
COMPARISON & CASE STUDY
BUILDING CONTROLS ACROSS MAJOR AUSTRALIAN CITIES
This study employed an evidence-based approach incorporating urban design, architecture and planning considerations from major cities across Australia to inform best practice outcomes. The study includes a high level review of eight planning schemes from across the country, as listed below. These schemes, summarised in the comparison table on pages 14 - 17, were selected as they appeared to be most relevant to the Gold Coast, and are also diverse, well rounded and articulate provisions.

Urbis drew on insights from its national offices to identify and select example planning frameworks that are considered to be delivering quality built form outcomes and a robust development assessment process.

**Queensland**
1. Gold Coast City Plan - Medium and High Density Residential Codes
2. Brisbane City Council City Plan - Multiple Dwelling Code
3. Sunshine Coast Council Planning Scheme - Multi-unit Residential Uses
4. Logan Planning Scheme - Low to Medium Zone and Medium Density Zone

**New South Wales**
6. Wollongong Council Development Control Plan

**Western Australia**
7. Cockburn Central West Design Guidelines
8. Western Australia Apartment Design Policy
## Comparison Table of Building Provisions Across Australia

<table>
<thead>
<tr>
<th></th>
<th>QLD Gold Coast City Plan</th>
<th>QLD Brisbane City Plan</th>
<th>QLD Sunshine Coast City Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Street Setback</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building up to 4 Storeys</td>
<td>4m (up to 23m high)</td>
<td>4m to balcony and 6m to wall</td>
<td>6m</td>
</tr>
<tr>
<td>Building up to 8 Storeys</td>
<td>4m (up to 23m high)</td>
<td>6m to balcony and 8m to wall</td>
<td>6m</td>
</tr>
<tr>
<td>Tower Base</td>
<td>4m (up to 23m high)</td>
<td>6m to balcony and 8m to wall (up to 15 storeys)</td>
<td>6m</td>
</tr>
<tr>
<td>Tower</td>
<td>4m (up to 23m high)</td>
<td>6m to balcony and 8m to wall (up to 15 storeys)</td>
<td>6m</td>
</tr>
<tr>
<td><strong>Rear Setback</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building up to 4 Storeys</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>6m (up to 18m high)</td>
</tr>
<tr>
<td>Building up to 8 Storeys</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>6m (up to 22m)</td>
</tr>
<tr>
<td>Tower Base</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>6m (up to 22m)</td>
</tr>
<tr>
<td>Tower</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>6m (up to 22m)</td>
</tr>
<tr>
<td><strong>Side Setback</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building up to 4 Storeys</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>2m (up to 8.5m high)</td>
</tr>
<tr>
<td>Building up to 8 Storeys</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>3m (up to 12m high)</td>
</tr>
<tr>
<td>Tower Base</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>4m (up to 16m high)</td>
</tr>
<tr>
<td>Tower</td>
<td>1.5m (up to 4.5m high)</td>
<td>6m</td>
<td>7m (up to 22m high)</td>
</tr>
</tbody>
</table>

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Gold Coast City Plan Study: Setbacks and Site Cover in Medium and High Density Residential Zones
<table>
<thead>
<tr>
<th>QLD Logan City Plan</th>
<th>NSW Newcastle Development Control Plan</th>
<th>NSW Wollongong Development Control Plan</th>
<th>WA Cockburn Central West</th>
<th>WA Apartment Design Policy Draft</th>
</tr>
</thead>
<tbody>
<tr>
<td>4m or aligns with adjoining building</td>
<td>4.5m (or 2m corner lot)</td>
<td>• 6m for habitable rooms or balconies • 3.5m for non-habitable rooms</td>
<td>3m average, minimum setback 1.5m</td>
<td>4m</td>
</tr>
<tr>
<td>6m or aligns with adjoining building</td>
<td>4.5m (or 2m corner lot)</td>
<td>• 9m for habitable rooms and balconies • 4.5m for non-habitable rooms</td>
<td>3m average, minimum setback 1.5m</td>
<td>4m</td>
</tr>
<tr>
<td>No provisions available</td>
<td>4.5m (or 2m corner lot)</td>
<td>• 0 - 3m depending on zoning and if located in city centre</td>
<td>3m minimum</td>
<td>No provisions available</td>
</tr>
<tr>
<td>3m (up to 18m high)</td>
<td>1.0m x ceiling height</td>
<td>• 6m between walls with major openings • 4.5m between wall with major openings and wall with no major openings • 3m between walls with no major openings</td>
<td>6m</td>
<td></td>
</tr>
<tr>
<td>3m (up to 25m high) 6m (between 25 - 32m high)</td>
<td>1.0m x ceiling height</td>
<td>6m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No provisions available</td>
<td>0.6m x ceiling height</td>
<td>• 7.5m between walls with major openings • 5m between walls with no major openings</td>
<td>No provisions available</td>
<td></td>
</tr>
<tr>
<td>3m (up to 18m high)</td>
<td>0.8m x ceiling height</td>
<td>• 6m between walls with major openings • 4.5m between wall with major openings and wall with no major openings • 3m between walls with no major openings</td>
<td>3m</td>
<td></td>
</tr>
<tr>
<td>3m (up to 25m high) 6m (between 25 - 32m high)</td>
<td>0.8m x ceiling height</td>
<td>3m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No provisions available</td>
<td>0.4m x ceiling height</td>
<td>• 7.5m between walls with major openings • 5m between walls with no major openings</td>
<td>No provisions available</td>
<td></td>
</tr>
<tr>
<td></td>
<td>QLD Gold Coast City Plan</td>
<td>QLD Brisbane City Plan</td>
<td>QLD Sunshine Coast City Plan</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------</td>
<td>------------------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>SITE COVER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Cover - Medium Density</td>
<td>50% up to 8 storeys</td>
<td>45% (4 or 5 storeys)</td>
<td>50% for 1 storey 40% 2+ storeys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40% for 9 - 15 storeys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30% or 750m² for 16 storeys and above</td>
<td>40% (up to 15 storeys)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Cover - High Density</td>
<td>45% (4 or 5 storeys)</td>
<td>40% (up to 15 storeys)</td>
<td>No provisions available</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30% or 750m² for 16 storeys and above</td>
<td>40% (up to 15 storeys)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BUILDING SEPARATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building up to 4 Storeys</td>
<td>No provisions available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 12m between habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 9m between habitable and non-habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 6m between non-habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building up to 8 Storeys</td>
<td>No provisions available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 18m between habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 12m between habitable and non-habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 9m between non-habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tower and Tower Base</td>
<td>Minimum 25m for new towers above 32m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 24m between habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 18m between habitable and non-habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 12m between non-habitable rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BUILDING DEPTH</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General building depth provisions</td>
<td>No provisions available</td>
<td>No provisions available</td>
<td>Building above 4 storeys are not wider than they are high</td>
<td></td>
</tr>
</tbody>
</table>

Gold Coast City Plan Study: Setbacks and Site Cover in Medium and High Density Residential Zones
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<th>WA Cockburn Central West</th>
<th>WA Apartment Design Policy Draft</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>45% (up to 32m high)</strong></td>
<td>No specific site cover, but minimum landscape area 25%</td>
<td>No specific site cover, but minimum landscape area 30%</td>
<td>No specific site cover, but minimum open space 20%</td>
<td>Plot ratio 2.0</td>
</tr>
<tr>
<td><strong>No provisions available</strong></td>
<td>No specific site cover, but landscape area of 20%</td>
<td>Maximum 900m² for apartment towers in city centre</td>
<td>• 60% for towers &lt; 8 storeys</td>
<td>Plot ratio 3.0 (up to 9 storeys)</td>
</tr>
<tr>
<td><strong>For 2 buildings on the same lot:</strong></td>
<td>• 6m between habitable rooms/balconies</td>
<td>• 9m between habitable rooms/balconies</td>
<td>• 12m between walls with major openings</td>
<td>• 12m (between habitable rooms and balconies)</td>
</tr>
<tr>
<td></td>
<td>• 3.5m when one wall is blank/non-habitable</td>
<td>• 4.5m when one wall is blank/non-habitable</td>
<td>• 9m between wall with major openings and wall with no major openings</td>
<td>• 9m (between habitable and non-habitable)</td>
</tr>
<tr>
<td></td>
<td>Or, buildings on same lot broken into massing elements has maximum wall length of 25m separated by 6m x 6m landscaped area.</td>
<td>No provisions available</td>
<td>• 6m between walls with no major opening</td>
<td>• 6m (between non habitable rooms)</td>
</tr>
<tr>
<td><strong>No provisions available</strong></td>
<td></td>
<td>No provisions available</td>
<td>• 25m between walls with major openings</td>
<td>No provisions available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 15m between wall with major openings and wall with no major openings</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 10m between walls with no major openings</td>
<td></td>
</tr>
<tr>
<td><strong>No provisions available</strong></td>
<td>Buildings on same lot broken into massing elements has maximum wall length of 25m separated by 6m x 6m landscaped area.</td>
<td>Residential buildings between 10-18m (or maximum 21m including balconies)</td>
<td>No provisions available</td>
<td>• 18m for building with single aspect apartment from double-loaded accessway</td>
</tr>
</tbody>
</table>

Prepared by Urbis for City of Gold Coast
CASE STUDY: HIGH DENSITY RESIDENTIAL

To better understand the implications of the building controls presented in the comparison table above, a hypothetical case study has been created to test a proposed high density residential tower against seven of the planning schemes.

Under the current Gold Coast City Plan the high density code is applicable to buildings taller than 32 meters (or 8 storeys), as such this example is a 15 storey building. A diagram for each planning scheme has been provided to the same site to outline the acceptable building envelope as stipulated by building controls.

CASE STUDY BASE
Site: 1350sqm
Building Footprint: 630 sqm
Building Height: 15 storeys
GOLD COAST CITY PLAN

KEY FINDINGS
- Outdated and inefficient building envelope
- Clearer design values needed
- Poor ground level outcomes due to narrow corridors to side and rear
- Tiered setback allows for improved access to daylight, ventilation, outlook, and maintains view corridors

BRISBANE CITY PLAN

KEY FINDINGS
- Compared to Gold Coast setback provisions are generous, particularly to side and rear
- Wide rear setback promotes open space zone creating amenity, outlook and privacy
- Differentiates between balcony and wall setback to street frontage to encourage street activation, passive surveillance and building articulation
SUNSHINE COAST CITY PLAN

KEY FINDINGS

- Closely aligns with Brisbane provisions
- Generous setbacks, particularly to side and rear. Again, large rear setback promotes amenity, outlook and privacy to rear frontage.

NEWCASTLE DEVELOPMENT CONTROL

KEY FINDINGS

- Features tower base provisions. Similar to Gold Coast, tower base has large footprint and tiers with height. Creates narrow corridors at ground level, however encourages favourable residential amenity due to tiered form.
- No site cover control, but includes a minimum 20% landscape provision
WOLLONGONG DEVELOPMENT CONTROL

KEY FINDINGS

- Uniquely defines setbacks according to ceiling height (and ultimately building height)
- Relatively large building footprint, no site cover control
- Building envelope may create unfavourable overshadowing and privacy issues

COCKBURN CENTRAL WEST

KEY FINDINGS

- Provisions applicable to centre context. Therefore tower base provisions are important and tower base can be built to boundary on side and rear.
- Tower setbacks defined by building separation to habitable and non-habitable rooms. This may create issues with future development to neighbouring properties.
- Includes well defined design objectives.
WA APARTMENT DESIGN POLICY

KEY FINDINGS

- Relatively small setback provisions, compared to other schemes.
- Only policy to include plot ratio.
- Well defined design values to describe intent and objectives of desired outcomes.

KEY INSIGHTS

1. Through its front/street setback, Brisbane uniquely creates a ‘balcony zone’ to the street, encouraging activation and passive surveillance to the street, as well as inviting building articulation and visual interest to the front facade.

2. Unlike the Gold Coast City Plan most other planning schemes differentiate between rear and side setbacks. Commonly, greater rear setbacks are enforced to encourage functional outdoor spaces at ground level, as well as promote outlook and privacy from rear building facades.

3. There is a split approach to providing controls for a tower base. While Gold Coast, Newcastle and Cockburn Central allow a larger footprint for a tiered tower base stepping into a slender tower, all other schemes do not differentiate between tower and tower base provisions. While a tiered setback attracts construction and costing inefficiencies, the advantages of a tiered base includes - it encourages better access to daylight, ventilation and privacy.

4. Planning schemes from New South Wales and Western Australia interestingly include guidance for building separation and building depth. In testing these controls, building separation quickly became redundant on many standard lot sizes. Defining separation distances and building depth relative to proportions of a site would therefore be a more effective approach.

5. There is a broad approach to site cover provisions, with some schemes electing to avoid site cover all together and provide minimum areas of open spaces. For the planning schemes that adopted site cover, 40% is consistently employed.
A hypothetical case study for the Medium Density Residential Code was also created to investigate the impact of building controls in a practical application. Similar to the previous case study, a diagram for each planning scheme is provided to demonstrate an acceptable building envelope.

CASE STUDY BASE
Site: 1350 sqm
Building Footprint: 665 sqm
Building Height: 4 storeys
1

GOLD COAST CITY PLAN

KEY FINDINGS

- Clearer design values needed
- Poor ground level outcomes due to narrow corridors at side and rear boundaries
- Tiered setback allows for improved access to daylight, ventilation, outlook, and maintains view corridors

2

BRISBANE CITY PLAN

KEY FINDINGS

- Unlike some other councils, Brisbane varies its assessment provisions based on local plans
- Compared to Gold Coast setback provisions are generous, particularly to side and rear
- Wide rear setback promotes open space zone creating amenity, outlook and privacy
- Differentiates between balcony and wall setback to street frontage to encourage street activation, passive surveillance and building articulation

Gold Coast City Plan Study: Setbacks and Site Cover in Medium and High Density Residential Zones
**SUNSHINE COAST CITY PLAN**

**KEY FINDINGS**

- Features a tiered side setback, to encourage access to daylight, ventilation and privacy.
- Similar to Brisbane, wide rear setback promotes open space zone creating favourable residential amenity.
- Potentially, poor ground level outcomes due to narrow corridors along side setbacks.
- Lower site cover compared to other schemes.

**NEWCASTLE DEVELOPMENT CONTROL**

**KEY FINDINGS**

- Similar to Gold Coast, features tiered side and rear setback, to encourage access to daylight, ventilation and privacy.
- Potentially, poor ground level outcomes due to narrow corridors to side and rear.
- No site cover control, but includes a minimum 25% landscape provision.
6

WOLLONGONG DEVELOPMENT CONTROL

KEY FINDINGS

- Uniquely defines setbacks according to ceiling height (and ultimately building height)
- Relatively large building footprint, no site cover control
- Building envelope may create unfavourable overshadowing and privacy issues

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COCKBURN CENTRAL WEST

KEY FINDINGS

- Provisions applicable to centre context. Therefore lower setback provisions compared to other schemes.
- Setbacks defined by building separation to habitable and non-habitable rooms. This may create issues with future development to neighbouring properties.
- Includes well defined design objectives.
KEY INSIGHTS

1. Gold Coast, Sunshine and Newcastle distinctly enforce a tiered building envelope, with a relatively large building footprint stepping inwards to increased side and rear setbacks. The advantages of this approach is it promotes good access to daylight, ventilation and view corridors. The disadvantage of this approach is it allows relatively low ground floor setbacks creating narrow and unusable corridors between buildings. In practice, the tiered approach is rarely adopted as it often proves inefficient from a feasibility perspective.

2. All planning schemes (with the exception of Gold Coast) differentiate between rear and side setbacks, allowing greater rear setbacks to encourage functional outdoor spaces at ground level, as well as privacy and outlook for rear frontages.

3. Similar to the High Density Residential code, through it’s front street setback Brisbane uniquely creates a ‘balcony zone’ to the street to encourage activation and passive surveillance to the street, as well as building articulation and visual interest to the front facade.
SUMMARY OF COUNCIL OFFICERS’ WORKSHOP

As part of this study a workshop was conducted with Council Officers to identify current challenges and opportunities for improvement within the Medium and High Density Residential Zone Codes. The workshop was divided into two parts focusing on the following enquires:

PART 1
1. Which particular site cover and setbacks provisions require strengthening and why?
2. What are your personal experiences in assessing site cover and setback provisions?

PART 2
1. What are the planning and design values you consider to be important outcomes that the site cover and setback provisions in the City Plan need to be delivering?
2. How we can improve and strengthen site cover and setback provisions to assist your assessment?

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OVERALL FEEDBACK

The workshop generated a mix of opinions and views and these have been summarised in the following section. It is important to note that there were two divergent views, one being that the current City Plan provisions were out of date and were not delivering built form outcomes. There was also a view that the current provisions allow for flexibility in the planning process and that additional assessment controls may not necessarily achieve improved design outcomes.

Notwithstanding the conflicting views, we agree the existing provisions are outdated and do not reflect contemporary planning and design outcomes.

On this basis, we note the following overall feedback relevant to both codes:

- The objectives and intents for performance and acceptable outcomes need to be better articulated, more consistent, and in some instances made measurable. At present provisions are “too brief” and allow for too much interpretation.
- For the setback and site cover provisions to be effective, there needs to be clear alignment with other parts of the City Plan.
- Create a consolidated and robust assessment process
- Provisions need to be reviewed and updated to better reflect contemporary architecture, and modern construction processes.
- Language for any new City Plan amendments needs to be clear, articulate and easy to understand.
PART 1 FEEDBACK

• GENERAL SETBACKS: Current tiered building envelope ("wedding cake" effect) is outdated and unrealistic. It is immediately disregarded, therefore deflecting to performance outcomes which are reasonably weak and inconsistent.

• SIDE AND REAR SETBACKS: Provisions commonly ‘protect’ the streetscape and ensure good outcomes for active and attractive streets, however better provisions need to be introduced to protect amenity to the sides and rear of the site, and in particular better protect neighbouring buildings for the impact of new developments, in relation to privacy, access to day light and outlook.

• TOWER BASE: Podium or tower base controls (in both medium and high density codes) are often relaxed, hindering the quality of the public realm. In tower scenarios, they can accommodate car parking and provide undesirable pedestrian environments. Ensure setbacks enforce access for maintenance and servicing.

• BUILDING SEPARATION: Opportunity to better use building separation provisions if drafted in a more tangible and relative way.

• BUILDING DEPTH: Consider introducing building depth provision, particularly across east-west frontages to minimise large zones of shadowing.

• AMENITY: How do you measure amenity? Access to natural light and privacy appear to be the two most important factors, however these are challenging to define and measure in current Acceptable Outcomes. Better define measures for shadowing, and what "unreasonable impact" means.

• LANDSCAPING: Improve provisions for landscaping requirements and intents, both in medium and high density codes.

• LOT SIZES: Consider incentives to promote amalgamation of small lots of appropriate sized development. For example incentives may include bonuses to density and height.

• LOT DIMENSIONS: In some instances create building controls relative to the site area or site dimensions. For instance controlling building depth as a measure relative to the site length may be advantageous.

• SUBTROPICAL DESIGN: Incorporate provisions for subtropical criteria. For example, consider measuring setback from wall instead of outer most projection, in an attempt to encourage eaves and lower heat gain to buildings.

PART 2 FEEDBACK

• GENERAL POs and AOs: Provide better guidance to interpreting performance and acceptable outcomes so that they can either be measured or their intent is clear and concise. Also design values need to generally better protect amenity on neighbouring properties and surrounding public realm.

• OPEN SPACES: Improve the quality of open spaces, common areas and particular private open spaces to ensure that they are usable and well designed.

• PRIVACY: Ensure better provisions protect visual and acoustic privacy for habitable rooms. Setbacks play a key role in promoting privacy, however more reactive measures include, consideration for opening size and number, opacity of glazing, and inclusion of privacy screens.

• LEGIBILITY: Introduce legibility of the built environment as a design value, in particular, give meaning and purpose to outdoor spaces and spaces within side and read setbacks so that they contribute to the experience of the local area.

• VIEWS: View corridors are an important aspect of the city and need to be better defined in City Plan so that they can be protected.

• BUILDING MASS: Better define mass and bulk (perhaps through a building depth or length provision) to ensure new development better responds to context or future desired context. Also ensure building façades are well defined and articulated to create a visually interesting built environment. Better promote building mass as slender buildings that relate to each other.

• BUILDING SCALE: Consider ways to reduce the “overbearing” nature of towers, and avoid the canyon effect through low street setbacks, in order to create “friendlier” pedestrian environments.
RECOMMENDATIONS
RECOMMENDATIONS

This body of work forms part of an important step in reviewing and updating City Plan provisions for medium and high density residential buildings. It is guided by the following process:

1. Understand the challenges and opportunities of the current City Plan.
2. Assess trends, exemplar planning schemes, and previous development approvals to determine the right mix and range of controls.
3. Determine what built form outcomes are desired.
4. Determine an appropriate structure for delivering building controls and align outcome criteria to suit desired intent.
5. Ensure new controls change the way in which development assessment is undertaken and shift the focus towards the design outcomes.
6. Achieve an appropriate balance between certainty and flexibility.
7. Simplify the assessment criteria by having a clear distinction between the design values critical to the assessment of appropriate setbacks and site cover from broader assessment criteria relating architectural design.
8. Deliver good regulation that is consistent, articulate and provide sufficient detail to support effective implementation through the development assessment process.

RECOMMENDATION 1 – A SINGLE PERFORMANCE OUTCOME FOR BOTH SETBACKS AND SITE COVER

Based on the national case studies and the feedback received from Council’s City Development officers, we recommend a single performance outcome be adopted for both setbacks and site cover.

Both setbacks and site cover are primary assessment controls that seek to manage the form and scale of development according to the existing and future urban context of an area, whilst moderating impacts on neighbouring properties. Fundamentally, the design values associated with building envelope and building massing provisions need to operate in a coordinated manner to ensure they deliver the desired built form outcomes.

Further, we consider this approach will also assist achieving improved implementation outcomes. Importantly, it will represent a significant shift away from the current approach, which has exposed the city to poor outcomes through setbacks and site cover often being considered in isolation. A single and clear outline of the design values to be considered in the assessment process will emphasise the importance of design being considered in a more holistic manner.

The recommended design values to be incorporated into the performance outcomes for both the medium density and high density residential zone codes are:

- Existing design values to be refined:
  1. Orientation
  2. Streetscape
  3. Access
  4. Views and visual orientation

- Proposed design values to be included:
  1. Urban context
  2. Building scale
  3. Building mass
  4. Legibility
  5. Landscaping and open space
  6. Sub-tropical

"Our review of the existing City Plan provisions has highlighted a poor vertical alignment of design policy objectives."
RECOMMENDATION 2 – FORM BASED ACCEPTABLE OUTCOMES

The acceptable outcomes within the City Plan relating setback and site cover are outdated and as such, compliance with the acceptable outcomes through the development assessment process is rare.

Given the setback provisions have been carried through from several superseded planning schemes, they no longer remain relevant to the wide variety of architectural forms now being delivered.

Further, the current one size fits all approach can be problematic and create unfavourable building outcomes if blanket provisions are applied to such a wide spectrum of building forms and scale. This is particularly relevant for the medium density residential zone, given the wide range of land uses intended to be accommodated within this zone.

To ensure the City Plan reflects contemporary design and planning values, we recommend the acceptable outcomes within the zone code differentiate the prescribed outcome based on architectural form.

To support the implementation of this approach, additional administrative definitions can be introduced to define different forms and typologies, where covered by a single land use definition.

Importantly, this approach seeks to establish a framework in the City Plan that can easily be changed over time to ensure a more nimble and responsive local planning instrument. This is achieved by drafting a design based performance outcome that will remain relevant in the long term, whilst having an acceptable outcome that can be changed and adapted as new forms and typologies emerge.

Relevantly, for implementation purposes, this approach will deliver finer grain design responses by articulating varied outcomes for different architectural forms.

The recommended form based building setback and site cover provisions are outlined below, based on a thorough assessment of benchmarked planning schemes, best practice, internal expertise and insights from the Council workshop.

Table 1 - Medium Density Residential Zone Recommendations

<table>
<thead>
<tr>
<th>Development Form</th>
<th>Front Setback</th>
<th>Side Setback</th>
<th>Rear Setback</th>
<th>Site Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual Occupancy</td>
<td>3 metres to the OMP</td>
<td>1.5 metres</td>
<td>4 metres</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>5.5 metres to the garage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Dwellings (Townhouses)</td>
<td>4 metres</td>
<td>3 metres</td>
<td>4 metres</td>
<td>55%</td>
</tr>
<tr>
<td>Multiple Dwellings (Apartments)</td>
<td>4 metres</td>
<td>3-4 metres</td>
<td>4 metres</td>
<td>50%</td>
</tr>
</tbody>
</table>

Table 2 – High Density Residential Zone Recommendations

<table>
<thead>
<tr>
<th>Development Form</th>
<th>Front Setback</th>
<th>Side Setback</th>
<th>Rear Setback</th>
<th>Site Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tower Base, if in a designated precinct *</td>
<td>0 metre</td>
<td>0 metres</td>
<td>0 metres</td>
<td>100%</td>
</tr>
<tr>
<td>Tower Base otherwise</td>
<td>3 metres</td>
<td>3 metres</td>
<td>3 metres</td>
<td>70%</td>
</tr>
<tr>
<td>Tower, if on a site with a total area less than 1,000m²</td>
<td>3.5 metres</td>
<td>2 metres</td>
<td>3.5 metres</td>
<td>50%</td>
</tr>
<tr>
<td>Tower, if on a site with a total area of 1000m² or more, but less than 2,000m²</td>
<td>4 metres</td>
<td>3 metres</td>
<td>4 metres</td>
<td>45%</td>
</tr>
<tr>
<td>Tower, if on a site with a total area of 2,000m² or more</td>
<td>6 metres</td>
<td>4 metres</td>
<td>6 metres</td>
<td>40%</td>
</tr>
</tbody>
</table>

Prepared by Urbis for City of Gold Coast
RECOMMENDATION 2 – FORM BASED ACCEPTABLE OUTCOMES (CONTINUED)

*Notes:

1. This study has not considered the locations within the city where podiums forms may or may not be appropriate. We understand this is subject to a separate Council led study. We recommended this needs to consider both Centre and High Density Residential Zoned land, where podiums may be suitable based on the desired future character for certain localities. The above recommendations will need to be updated and reconciled with the outputs of the podium study.

2. In both zone code, we expect an exception rule to be included within the acceptable solution which states there is no acceptable solution specified if the development form is not listed. This will have the practical effect of triggering assessment against the performance outcome, where a specific development form is not specified in the acceptable outcome.

The recommended side and rear setbacks are being increased to better reflect contemporary architecture and sub-tropical design. The study has shown there are advantages to a greater rear setback (one that closely reflects the front setback) to encourage amenity, privacy and outlook between rear frontages.

For side setbacks, it appears that the “wedding cake effect” in the current scheme is misaligned, outdated and impractical with current architectural and construction practices. It is therefore recommended that a more streamline approach is taken, and the introduction of building form to structure provisions means that an appropriate and single setback can be provided.

RECOMMENDATION 3 – VERTICAL ALIGNMENT OF POLICY INTENT WITHIN THE CITY PLAN

Our review of the existing City Plan provisions has highlighted a poor vertical alignment of design policy objectives, associated with building massing and envelopes. This matter was also raised consistently by City Development Officers through the workshop process which informed this study.

To provide a clear and consistent regulatory framework, there needs to be robust vertical alignment of policy objectives within the City Plan.

Given the parallel studies being undertaken by Council, it will be necessary to ensure any drafted amendments to the City Plan achieve a high level of vertical integration, to avoid conflicting assessment provisions frustrating the development assessment process.

RECOMMENDATION 4 – TOWER PLATES

Based on our recommended site coverage provisions, there is a consequential amendment required to the provisions high rise accommodation design code relating to tower plates.

We recommend tower plate assessment controls be amended to only on sites with a total area of 2,000m² or more. The combined application of setbacks and site cover on sites less than 2,000m² is considered an appropriate mechanism to control building mass and scale.

On sites greater than 2,000m², it is necessary to maintain tower plate assessment criteria to avoid unintended outcomes on large development sites. The acceptable outcome should be updated to reflect floor plates being approved throughout the city. Further, assessment criteria which incentives multi tower forms on large sites should be explored, such as allow increased site cover on large sites if the development is a multi-tower form.
ADDITIONAL CONSIDERATIONS

As well as building setbacks and site cover, separation distances and building depth are two key parameters to shaping the contextual and climatic response of built form. It is therefore recommended that these two controls be separately considered.

BUILDING SEPARATION

Building separation is an important parameter for promoting privacy between neighbouring buildings and ensuring access to amenity, however, it is practically difficult to achieve through infill development. We consider a robust assessment tool, based on design criteria, for building setbacks is a more effective way of dealing with privacy and amenity between sites.

Accordingly, we recommend that building separation be changed to only regulate development where more than one tower is proposed on a single site.

This approach avoids creating false community expectation that a certain building separation can be achieved and avoids duplicating policy outcomes which are regulated through setback provisions.

BUILDING DEPTH

A number of exemplar Australian planning schemes regulate building depth, which provides a number of benefits including an opportunity to manage building mass and scale. This also provides opportunity for favourable subtropical design outcomes to be achieved through the planning framework.

It is therefore recommended that building depth criteria be included within the City Plan, particularly in relation to apartment development in both the medium and high density residential zones.

An example provision for inclusion in the medium density residential zone could be that buildings with a height greater than three (3) storeys, are no wider than they are high. In the high density residential zone, it is suggested that a maximum depth relative to the proportions and dimensions of the site is employed, in order to provide both opportunity for a subtropical building design, as well as a design that reflects the proportions and scale of its context.

A detailed investigation would be required to consider the appropriateness of such tools in the context of the achieving high quality subtropical design outcomes within the City Plan.

SUBTROPICAL DESIGN ELEMENTS

This study also revealed an opportunity for Council to better address and promote subtropical design within City Plan. It is recommended that Council develop practice notes to encourage subtropical design excellence through inclusion of both passive and active environmental design features. For example, an allowance of balconies to capture prevailing breezes and encourage cross ventilation and eaves to reduce solar heat gain.

SITE SPECIFIC CONSIDERATIONS & DESIGN GUIDELINES

In addition to the objectives of the recommended setback and site cover criteria, there are a number of key considerations to review against each specific site and context. It is important that reference to these items are identified in the zone codes.

1. The purpose of the zone and/or overlay/s that apply to the land
2. Any relevant urban design objectives, policy or statement set out in City Plan
3. The relationship between the proposed building setback and the scale and type of adjoining buildings, existing or preferred future patterns of building setbacks, important sightlines and view corridors, and matters of visual privacy, overshadowing and noise.
4. Consider building separation proportionally to building height to achieve amenity and privacy and a desirable urban form
5. Where greater building depths are proposed, demonstrate that indicative layouts can achieve acceptable amenity with room and depths.

These elements are essential parts of the necessary decision-making framework that must be applied to maintain the integrity of the recommended assessment criteria. There are broader opportunities for these matters to be embedded in form based design guidelines through City Plan Policies.