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EXPLANATION OF INTENDED EFFECT

Proposed amendment to State
Environmental Planning Policy
(State Significant Precincts)
2005

Prepared for

INFRASTRUCTURE NSW

21 December 2021

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ACKNOWLEDGEMENT OF COUNTRY

We would like to acknowledge the Gadigal people who are the Traditional Custodians of this land. We would also like to pay respect to the Elders both past and present of the Eora Nation and extend that respect to all Aboriginal people.

1. INTRODUCTION

This Explanation of Intended Effect (EIE) has been prepared by Urbis Pty Ltd on behalf of Infrastructure NSW and accompanies an application to modify the Concept Plan Approval MP06_0162 for Barangaroo, which was approved on 9 February 2007 under the then Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The EIE sets out the proposed amendment to *State Environmental Planning Policy (State Significant Precincts) 2005* (SSP SEPP) required to align with a proposed modification of the Concept Plan Approval relating to the Barangaroo project (MOD 9). The Environmental Assessment in relation to the proposed modification of the Concept Plan Approval is lodged with the Department of Planning, Industry and Environment.

The proposed amendment to SSP SEPP seeks to amend the maps and written instrument provisions relating to:

- Land use zoning.
- Height of buildings.
- Gross floor area.

The proposed amendment to SSP SEPP also seeks to introduce new provisions relating to:

- Development below ground level.
- Building overhangs and façade articulation zones.

The proposed amendments to SSP SEPP relate to the public domain and three (3) development blocks commonly referred to as Blocks 5, 6 and 7 within the Barangaroo project.

This EIE is structured as follows:

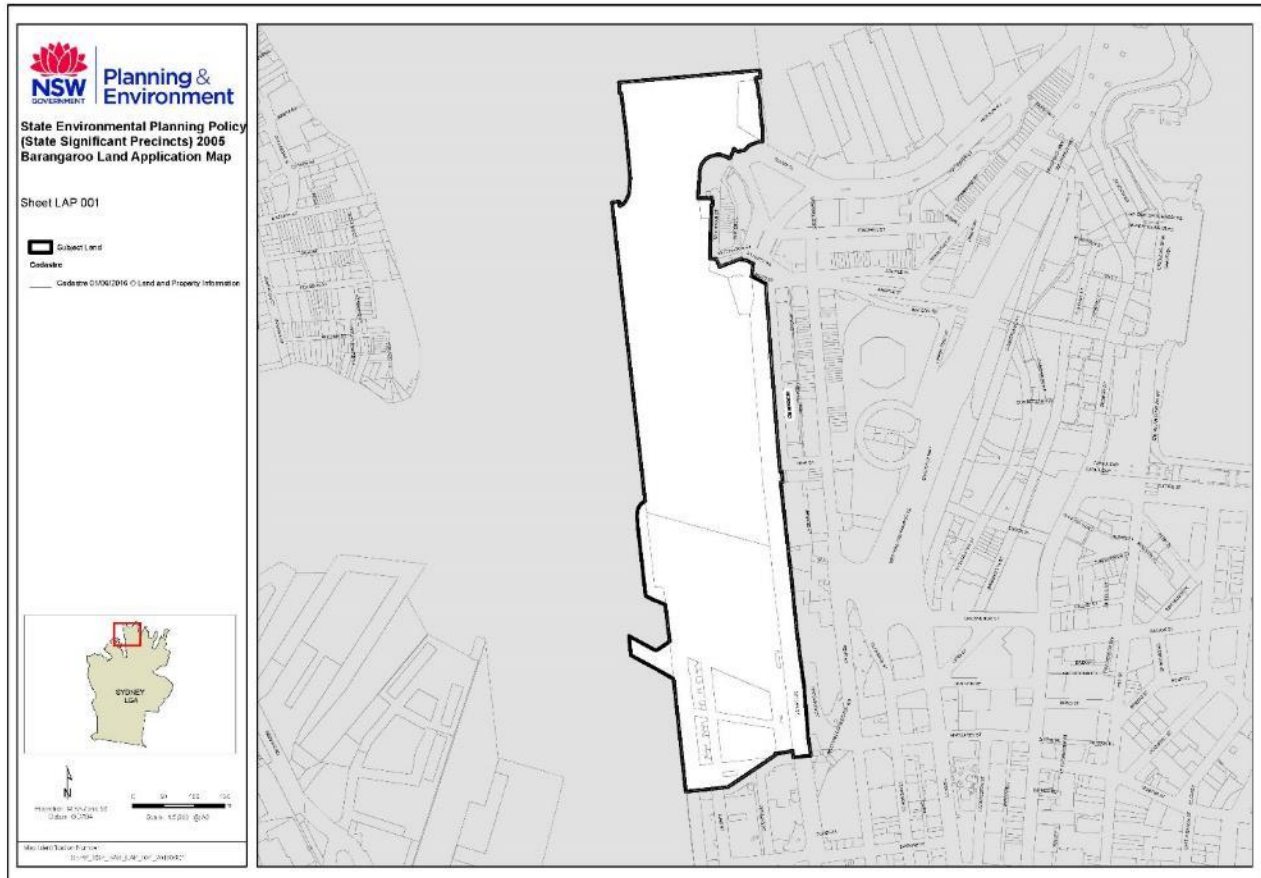
- **Chapter 2 – SSP SEPP:** provides a summary of the relevant provisions of SSP SEPP.
- **Chapter 3 – Proposed Amendment:** provides an explanation of the proposed amendments to SSP SEPP, relating to land use zoning, height of building, gross floor area, development below ground and building overhangs and façade articulation zones.
- **Chapter 4 – Justification:** provides a justification for the proposed amendments to SSP SEPP.
- **Chapter 5 – Key Outcomes:** provides a summary of the key objectives and outcomes that the proposed SSP SEPP amendment will facilitate.

It is intended that the EIE will be exhibited in accordance with Clause 3.30 of the EP&A Act to allow the public to make submissions that will be considered in the assessment of the proposed planning controls.

2. STATE ENVIRONMENTAL PLANNING POLICY (STATE SIGNIFICANT PRECINCTS) 2005

State Environmental Planning Policy (State Significant Precincts) 2005 (SSP SEPP) aims to facilitate the development, redevelopment, or protection of major sites. Barangaroo is identified as a State Significant Precinct under Appendix 9 of the SSP SEPP (refer Figure 1). Appendix 9, Part 3 of the SEPP sets out provisions applying to development within Barangaroo site.

Figure 1 – Land Application Map



2.1. LAND USE ZONING

Land within the Barangaroo site is zoned part B4 Mixed Use and part RE1 Public Recreation (refer Figure 2).

2.1.1. Zone B4 Mixed Use

The objectives of Zone B4 Mixed Use are as follows—

- (a) to provide a mixture of compatible land uses,
- (b) to integrate suitable development in accessible locations so as to maximise public transport patronage and encourage walking and cycling,
- (c) to encourage a diverse and compatible range of activities through various means, including the following—
 - i. commercial and retail development,
 - ii. cultural and entertainment facilities,
 - iii. tourism, leisure and recreation facilities,
 - iv. social, education and health services,
 - v. higher density residential development,

- (d) to incorporate contemporary urban design principles in the design of new buildings and the interpretation of their relationship with the public domain,
- (e) to implement the principles of energy efficiency, travel demand management and other sustainable development practices as part of the development assessment process,
- (f) to facilitate the conservation of heritage items,
- (g) to ensure that the nuisance generated by non-residential development, such as that related to operating hours, noise, loss of privacy, vehicular and pedestrian traffic or other factors, is controlled so as to preserve the quality of life for residents in the area.

Development for any purpose may be carried out with consent on land within Zone B4 Mixed Use unless expressly prohibited by SSP SEPP.

Development for any of the following purposes is prohibited on land within Zone B4 Mixed Use—

bulky goods premises; caravan parks; dual occupancies; dwelling houses; extractive industries; hazardous industries; hazardous storage establishments; heavy industries; industries; light industries; materials recycling or recovery centres; mines; moveable dwellings; offensive industries; offensive storage establishments; restricted premises; sex services premises; truck depots; warehouse or distribution centres.

2.1.2. Zone RE1 Public Recreation

The objectives of Zone RE1 Public Recreation are as follows—

- (a) to enable land to be used for public open space or recreational purposes,
- (b) to provide a range of recreational settings and activities and compatible land uses,
- (c) to protect and enhance the natural environment for recreational purposes,
- (d) to ensure the vitality and safety of the community and public domain,
- (e) to promote and maintain public access to and along the foreshore,
- (f) to allow land beneath the finished surface of the public domain to be used for car parking associated with development on land within Zone B4 Mixed Use if it can be demonstrated that any such use will not detract from the primary use of the land for public open space or recreational purposes,
- (g) to allow the public domain to be enhanced by a variety of compatible land uses in a manner that contributes positively to, and does not dominate, the primary use of the land for public open space or recreational purposes,
- (h) to allow land to be used in conjunction with the transportation of passengers by water.

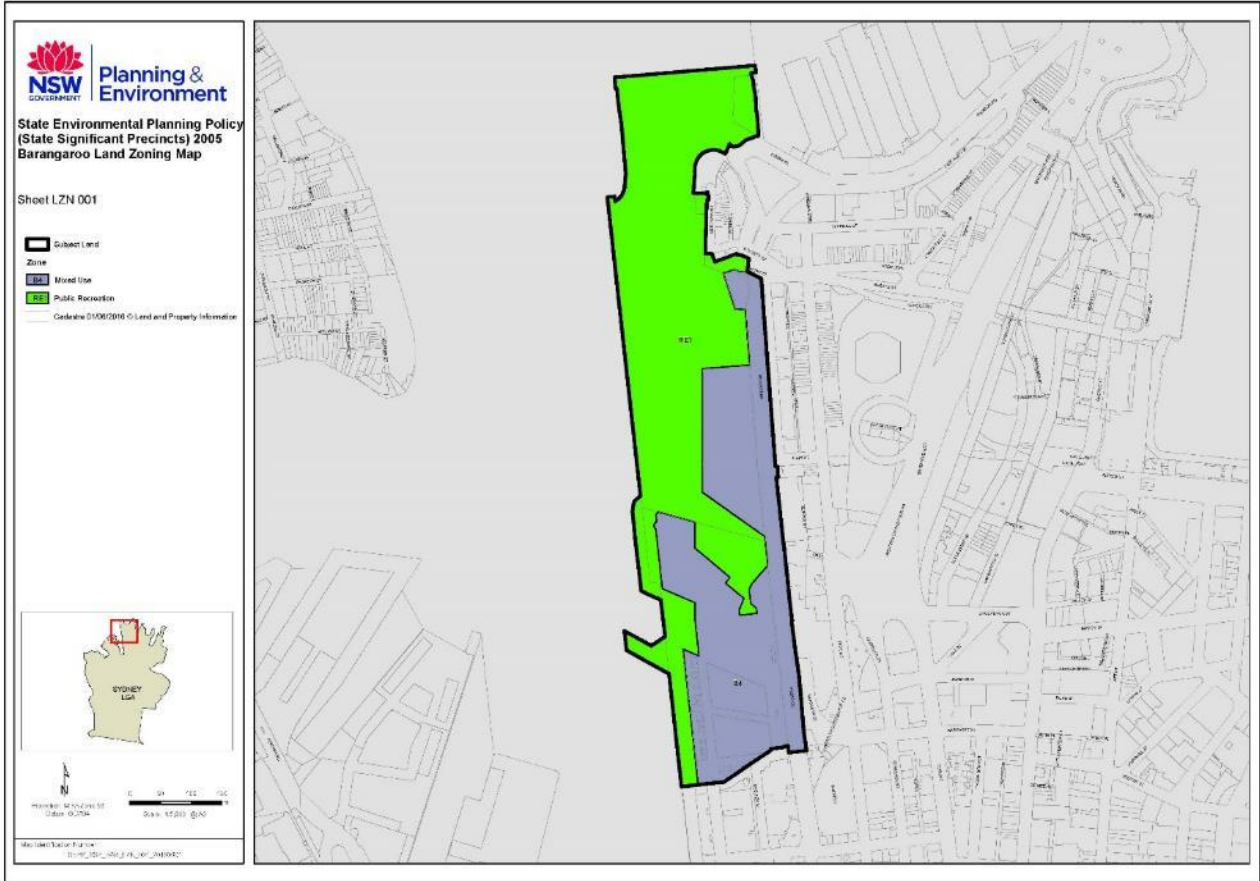
Development for any of the following purposes may be carried out with consent on land within Zone RE1 Public Recreation—

business identification signs; charter and tourism boating facilities; community facilities; earth works; entertainment facilities; environmental facilities; environmental protection works; filming; flood mitigation works; food and drink premises; function centres; information and education facilities; jetties; kiosks; markets; moorings; passenger transport facilities; public entertainment; public halls; recreation areas; recreation facilities (indoor); recreation facilities (outdoor); roads; telecommunications facilities; telecommunications networks; temporary structures; transport depots; underground car parks; water recreation structures; waterbodies (artificial).

Development is prohibited on land within Zone RE1 Public Recreation unless it is expressly permitted by SSP SEPP.

Note: *kiosk* means retail premises with a gross floor area not exceeding 80 square metres and that provides food, light refreshments, and other small convenience items such as newspapers, films, and the like.

Figure 2 – Land Use



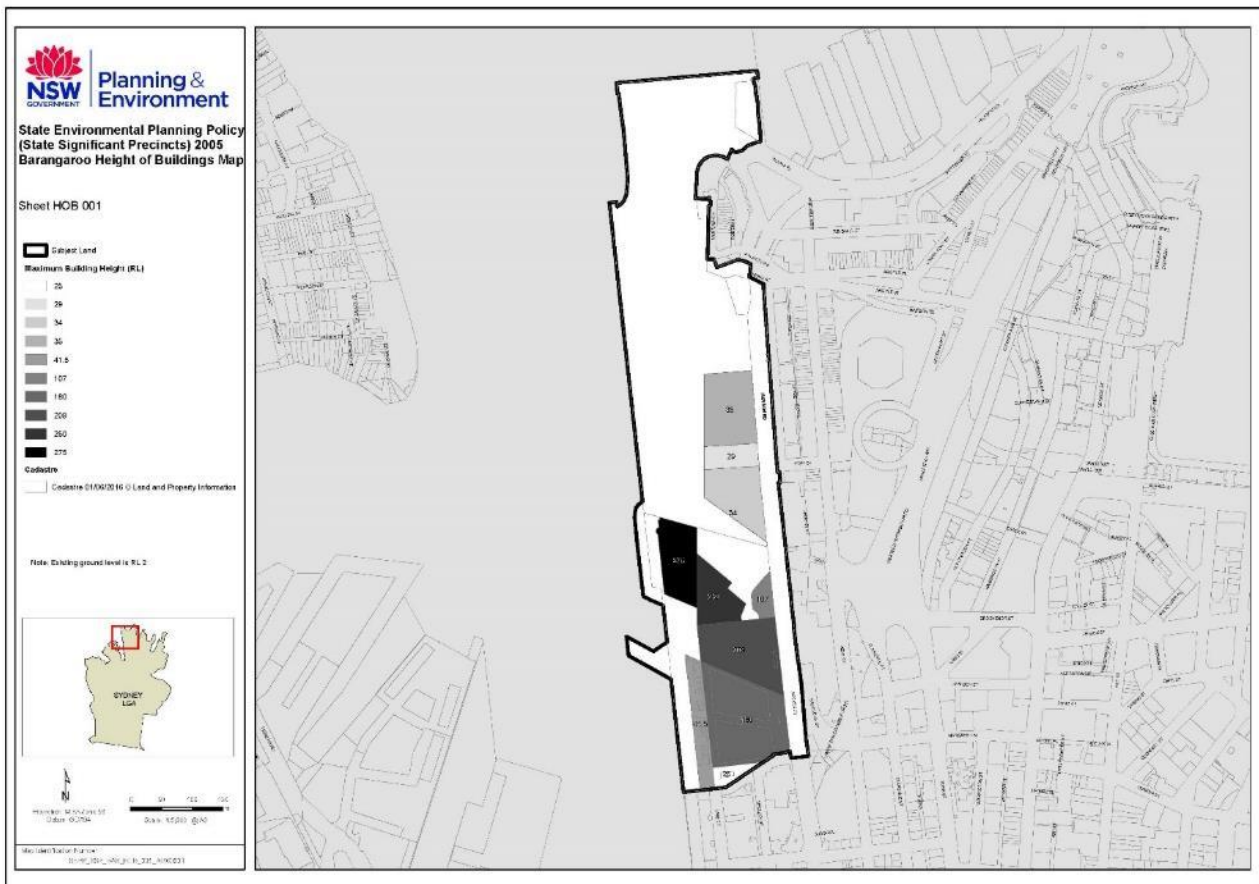
2.2. HEIGHT OF BUILDINGS

The height of a building on any land within the Barangaroo site is not to exceed the height for development on the land, expressed as Reduced Level (RL), as shown on the Height of Buildings Map (refer Figure 3). For ease of reference, the maximum height of buildings permitted within Central Barangaroo are:

- Block 5 – RL 34
- Block 6 – RL 29
- Block 7 – RL 35

There is no maximum height of building development standard mapped for the RE1 zoned portion of Central Barangaroo.

Figure 3 – Height of Buildings Map



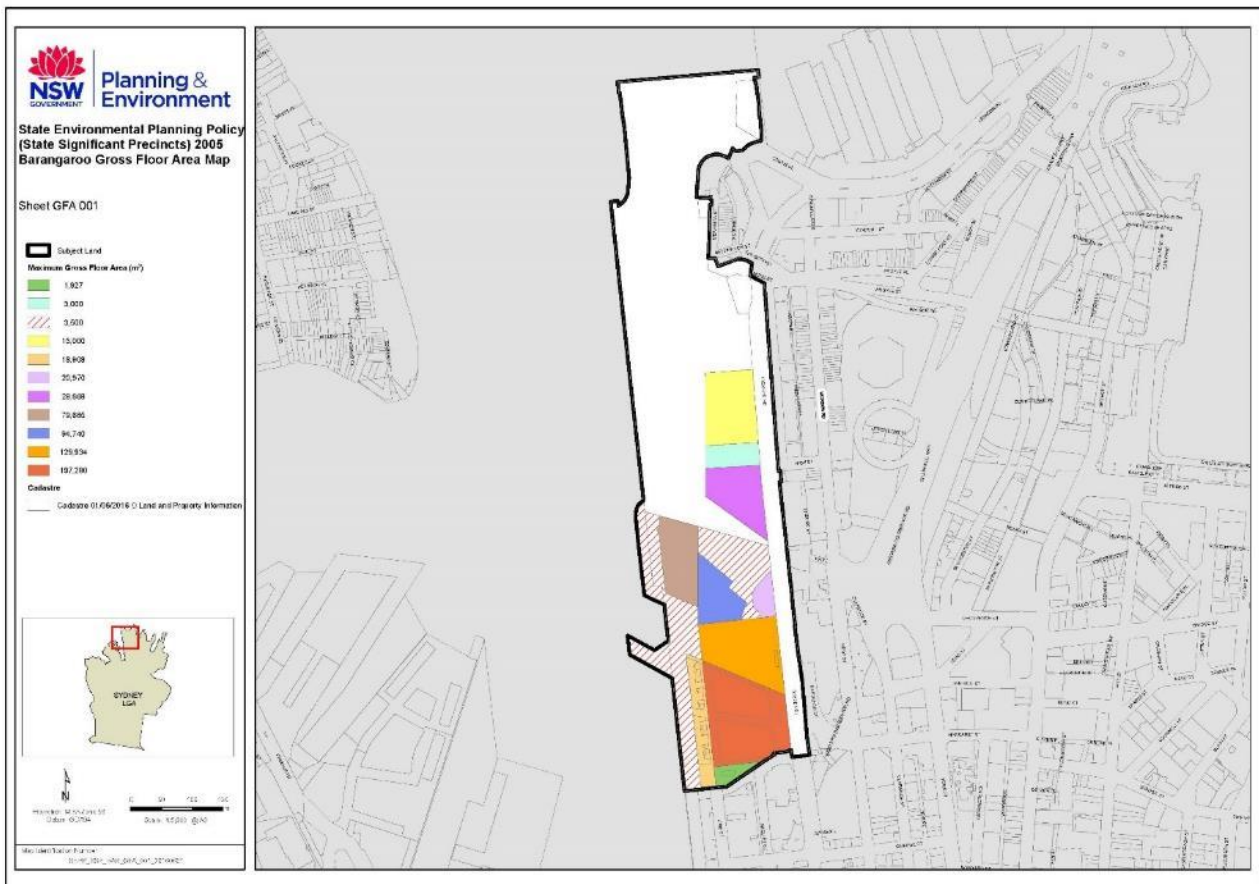
2.3. GROSS FLOOR AREA

The total gross floor area of all buildings on any land within the Barangaroo site is not to exceed the gross floor area shown for the land shown on the Gross Floor Area Map (refer Figure 4). For ease of reference, the maximum gross floor area permitted within the development blocks of Central Barangaroo are:

- Block 5 – 29,668
- Block 6 – 3,000
- Block 7 – 15,000

Note: there is no gross floor area limit mapped on the remainder of Central Barangaroo (i.e. the RE1 zoned land) or within Barangaroo Reserve.

Figure 4 – Gross Floor Area Map



3. PROPOSED AMENDMENT

3.1. OVERVIEW

The proposed amendments are to the 'Land Zoning Map', 'Height of Buildings Map', 'Gross Floor Area Map' and associated written instrument provisions.

3.2. LAND USE ZONING

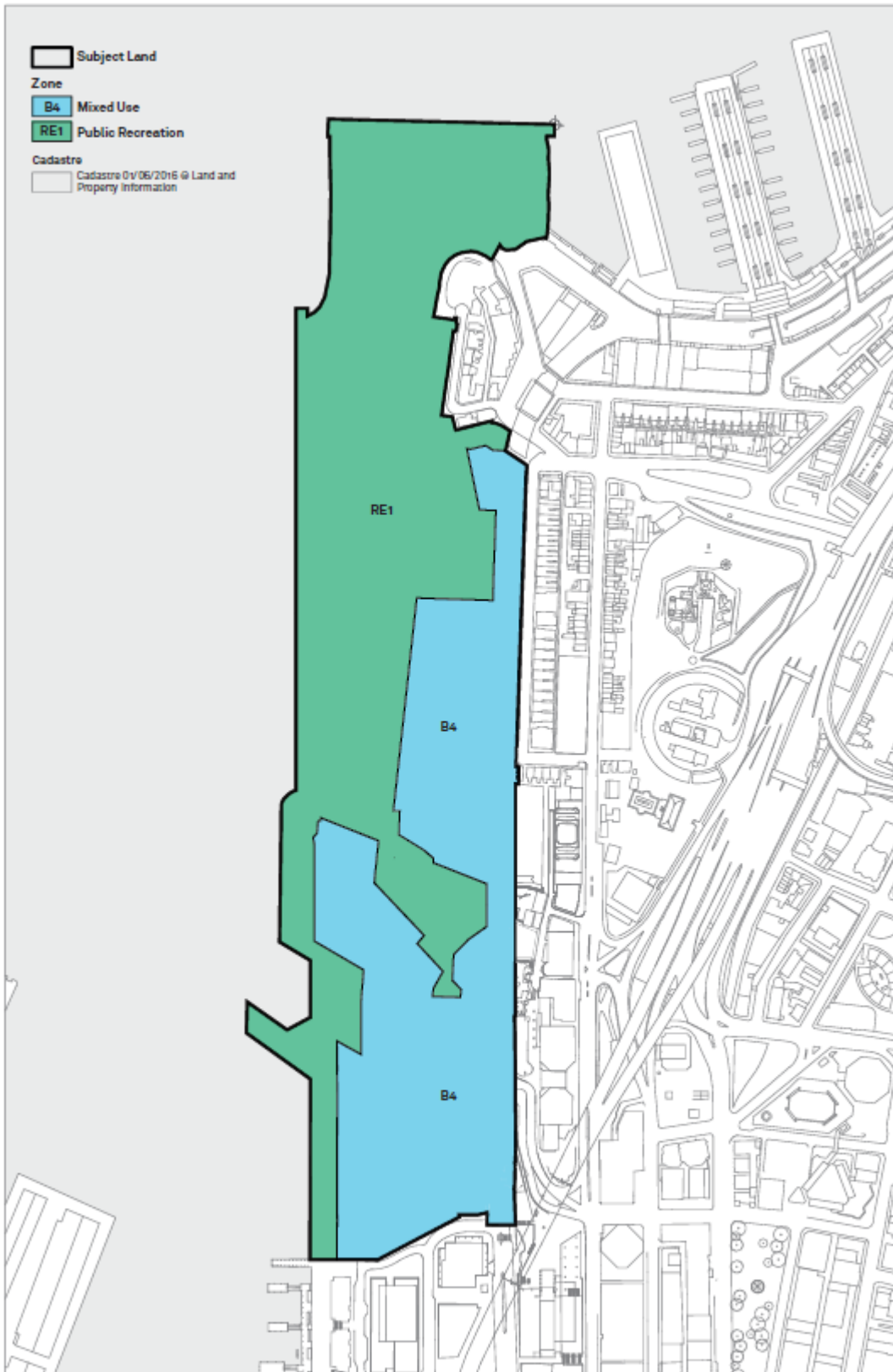
It is proposed to amend the 'Land Zoning Map' to:

- Relocate the boundary of Block 5 to the south, to more generally align with the Block 5 boundary as it existed prior to the June 2016 amendment to the SSP SEPP associated with MOD 8.
- Move the B4 Mixed Use zone boundary to the south, to align with the relocated Block 5 boundary.

The proposed Land Zoning Map is shown at Figure 5.

A comparison of the existing and proposed Land Zoning Map is provided at **Appendix A**.

Figure 5 – Proposed Land Use Zoning Map



Scale 1:3750 @ A3
0 50m 100m 200m

State Environmental Planning Policy (State Significant Precincts) 2005
Barangaroo Zoning Map
Sheet ZONING 001

Proponent Draft:
15 December 2021

Source: Hassell

3.3. HEIGHT OF BUILDINGS

It is proposed to amend the ‘Height of Buildings Map’ to:

- Relocate the boundary of Block 5 to the south, to more generally align with the Block 5 boundary as it existed prior to the June 2016 amendment to the SSP SEPP associated with MOD 8.
- Revise the boundary lines delineating Blocks 5, 6 and 7.
- Amend the maximum height of buildings within each development block (refer to Table 1), to generally align with the Central Barangaroo Envelope Plan (prepared by Hassell, dated June 2021) (refer Figure 14), as follows:

Table 1 Proposed modifications to Height of Buildings Map

Development Block	Existing Height	Proposed Height
Block 5	RL 34	RL 14.95 RL 15 RL 19.45 RL 21.5 RL 23.2 RL 31.2 RL 33.75 RL 35 RL 38.7 RL 42.45 RL 44.5
Block 6	RL 29	RL 20.65 RL 35 RL 38.5 RL 38.7
Block 7	RL 35	RL 15 RL 20.65 RL 21.5 RL 35 RL 38.5 RL 73.7

The proposed Height of Buildings Map is shown at Figure 6.

A comparison of the existing and proposed Height of Buildings Map is provided at **Appendix A**.

Figure 6 – Proposed Height of Buildings Map



Scale 1:3750 @ A3



State Environmental Planning Policy (State Significant Precincts) 2005
 Barangaroo Height of Building Map
 Sheet HOB 001

Proponent Draft:
 15 December 2021

Source: Hassell

3.4. GROSS FLOOR AREA

It is proposed to amend the ‘Gross Floor Area Map’ to:

- Relocate the boundary of Block 5 to the south, to more generally align with the Block 5 boundary as it existed prior to the June 2016 amendment to the SSP SEPP associated with MOD 8.
- Allocate a maximum ‘above ground gross floor area’ of 116,189m² within Blocks 5, 6 and 7 (being a combined maximum above ground GFA figure across the blocks) (refer Table 2).
- Identify ‘Area 1’ encompassing the proposed Central Barangaroo basement footprint beneath Blocks 5, 6 and 7 and extending west a maximum of 25 metres beneath Harbour Park.

The proposed Gross Floor Area Map is shown at Figure 7.

A comparison of the existing and proposed Gross Floor Area Map is provided at **Appendix A**.

Table 2 Maximum gross floor area

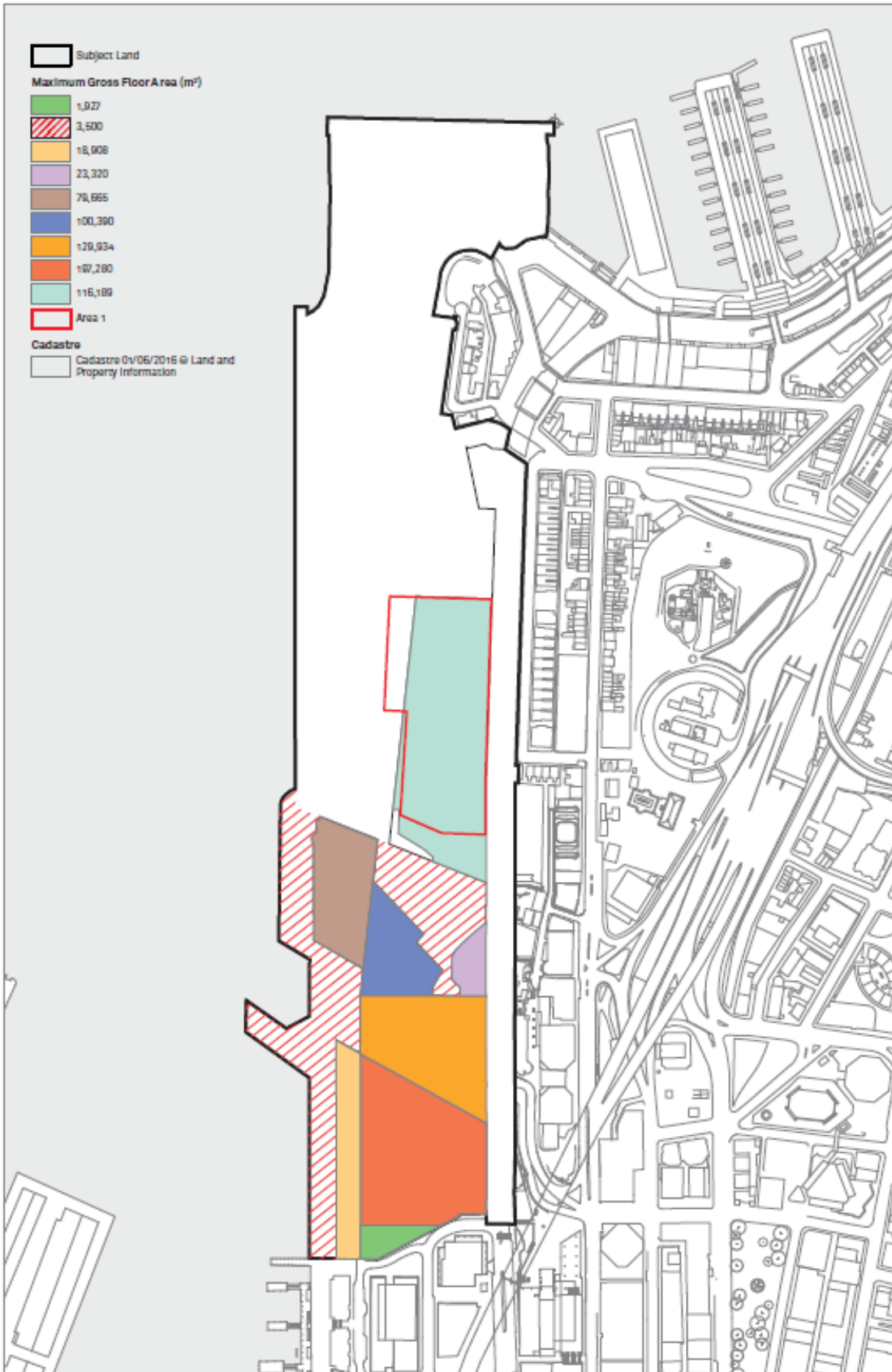
Development Block	Existing GFA (m ²) above ground	Proposed GFA (m ²) above ground
Block 5	29,668	116,189
Block 6	3,000	
Block 7	15,000	
	Existing GFA (m ²) below ground	Proposed GFA (m ²) below ground
Block 5, 6, 7 and Harbour Park	N/A	28,166

It is also proposed to amend the written instrument to insert Clause 18A, Appendix 9 as follows:

18A Gross floor area restrictions – below ground

Despite clause 18, the total gross floor area of buildings on land within ‘Area 1’ on the Gross Floor Area Map may exceed the gross floor area shown for the land by an amount up to a maximum of 28,166m², but only if the additional gross floor area is located entirely below ground level (existing).

Figure 7 – Proposed Gross Floor Area Map



Scale 1:3750 @ A3

State Environmental Planning Policy (State Significant Precincts) 2005
 Barangaroo Gross Floor Area Map
 Sheet GFA 001

Proponent Draft:
 15 December 2021

Source: Hassell

3.5. BUILDING OVERHANGS AND FAÇADE ARTICULATION

It is proposed to introduce a new 'Building Overhang and Façade Articulation Map' that identifies areas within Central Barangaroo where a building may extend beyond the Block boundary, to allow for a maximum 3 metre building overhang and 650mm façade articulation zone above ground level.

The proposed Building Overhang and Façade Articulation Map is shown at Figure 8.

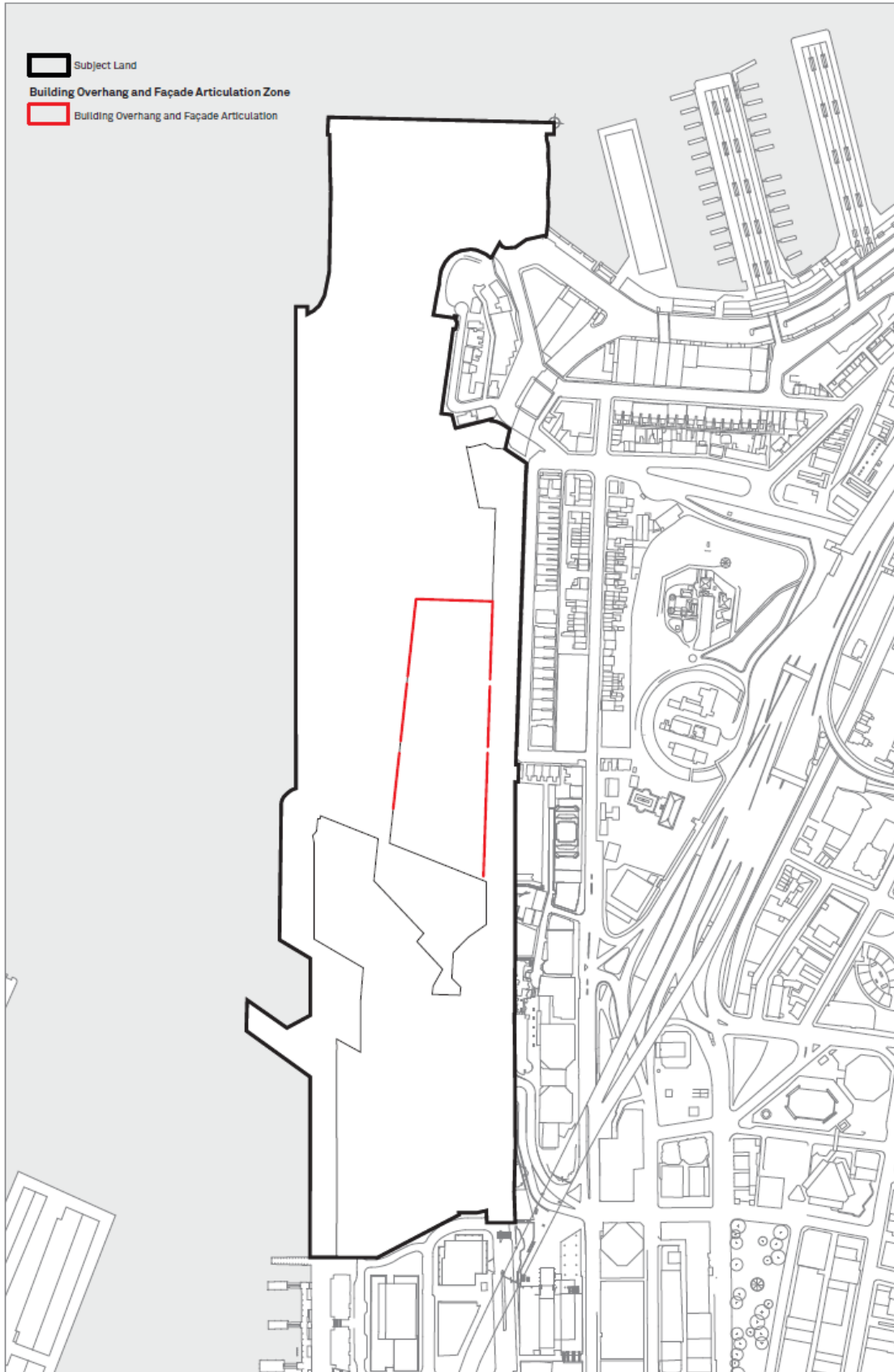
It is also proposed to amend the written instrument to insert **Clause 17A, Appendix 9** as follows:

17A Height of buildings for certain land in Barangaroo

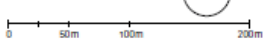
Despite clause 17, the maximum building height (RL) shown on the Height of Buildings Map may extend to the land identified on the Building Overhang and Façade Articulation Map, but only if the consent authority is satisfied that the extension comprises:

- a) A building overhang up to 3m wide located above ground level; and/ or*
- b) Façade articulation elements up to 650mm wide above ground level.*

Figure 8 – Proposed Building Overhang and Façade Articulation Map



Scale 1:3750 @ A3



State Environmental Planning Policy (State Significant Precincts) 2005
Building Overhang and Façade Articulation Map
Sheet GFA 001

Proponent Draft:
15 December 2021

Source: Hassell

3.6. DEVELOPMENT BELOW GROUND LEVEL

It is proposed to amend the written instrument to insert Clause 23A, Appendix 9 as follows:

23A Development below ground level in Zone RE1

(1) *This clause applies to development—*

(a) that is entirely below ground level (existing) on land in Zone RE1 Public Recreation (the Public Recreation Zone), and

(b) that is for a purpose that may be carried out in a zone that adjoins the Public Recreation Zone.

(2) *Despite any other provision of this Plan relating to the purposes for which development may be carried out, development consent may be granted to development to which this clause applies if the consent authority is satisfied that—*

(a) the carrying out of the development is desirable due to compatible land use planning, infrastructure capacity and other planning principles relating to the efficient and timely development of land, and

(b) the development will not have any significant adverse effects on the environment and will not prevent any land within the Public Recreation Zone being used for recreational purposes.

Note: the wording of proposed Clause 23A reflects the wording of Clause 5.3A of the *Sydney Local Environmental Plan 2012*.

The amendment is required to facilitate the construction of a basement (which will contain gross floor area) at Central Barangaroo, that will extend up to 25 metres (approximately) from the western boundary of Blocks 5, 6 and 7 within land zoned RE1 Public Recreation – predominantly below Barangaroo Avenue. Refer to Section 4.6 for further information.

4. JUSTIFICATION

4.1. OVERVIEW

The proposed SSP SEPP amendment is required to:

1. Relocate the boundary of Block 5 to the south, to more generally align with the Block 5 boundary as it existed prior to the June 2016 amendment to the SSP SEPP associated with MOD 8 and move the B4 zone boundary to the south, to align with the relocated Block 5 boundary.
2. Increase the maximum GFA allocated to Blocks 5, 6 and 7.
3. Differentiate between above ground and below ground gross floor area associated with Blocks 5, 6 and 7, to enable appropriate controls to be applied to the basement associated with Central Barangaroo.
4. Impose varied maximum height limits across Block 5, 6 and 7 to reflect the proposed Central Barangaroo Building Envelope Plan.
5. Accommodate building overhangs and façade elements outside the Block boundaries.
6. Permit limited development below ground level in the RE1 Public Recreation zone.

4.2. LAND USE ZONING

It is proposed to relocate the southern B4 Mixed Use zone boundary further to the south, to more generally align with the Central Barangaroo Block 5 development boundary as it existed prior to the June 2016 amendment to the SSP SEPP associated with MOD 8.

The June 2016 amendment to the SSP SEPP (associated with MOD 8) changed the northern boundary of Hickson Park to widen the aperture of the park along Barangaroo Avenue. This widened threshold, whilst connecting Hickson Park to Harbour Park, forces a blended character of the two proposed public spaces, limits the potential to create two distinct park experiences, impacts pedestrian and vehicle circulation, and limits the ability to create a positive urban space connection between Central Barangaroo and Barangaroo South.

The proposed amendment will generally restore the original configuration of public open space in this part of the Barangaroo site, with the consequence that the area of RE1 Public Recreation zoned land (Hickson Park) will be reduced.

The proposed reconfiguration of the southern boundary of Block 5 and northern boundary of Hickson Park has **demonstrable benefits** to the overall form and function of Barangaroo, which can be summarised as follows:

- *Extending Harbour Park and minimising traffic impact.* The proposed amendment will:
 - Transform Barangaroo Avenue by removing vehicular traffic from Blocks 5 and 6 to create a tree lined pedestrian avenue and enable Harbour Park to extend eastwards between Hickson Park and Street C.
 - Redirect Barangaroo Avenue's north south vehicular traffic along Barton Street to Hickson Road, with Barton Street as a two way and permanent connection.
 - Concentrate broader Barangaroo precinct vehicular movements onto Barangaroo Avenue (South), Barton Street and Hickson Road.
 - Create a truly pedestrian orientated mixed-use precinct, adjacent to Sydney Harbour, in the heart of the Sydney CBD.

Figure 9 – Proposed vehicle and pedestrian movement network



Source: Hassell

- *Better defining the network of parks.* The proposed amendment will:
 - Better define Hickson Park as a distinct city scale park, framed and activated by iconic buildings and acting as a key green space mediating between the city and Barangaroo and the harbour foreshore.
- *Integrating the precincts.* The proposed amendment will:
 - Establish a closer and stronger relationship between the Barangaroo South and Central Barangaroo precincts.
 - Create Harbour Park and Hickson Park as public open spaces of distinct character.
 - Enable a finer grain network of additional publicly accessible spaces, connecting through Blocks 5, 6 and 7 of Central Barangaroo.
- *Improved amenity of Hickson Park.* The proposed amendment will:
 - Improve micro-climate, wind management and thermal comfort for occupants of Hickson Park. As a direct result of reducing the aperture between Crown and Block 5, Hickson Park will be protected from the strong westerly winds and will become a place of respite that cannot be achieved at the foreshore locations in Harbour Park or Barangaroo Reserve.

Notwithstanding the proposed reconfiguration of the southern boundary of Block 5 and northern boundary of Hickson Park, the objectives set out by the Planning Assessment Commission in their advice to the Minister regarding the June 2016 amendment to the SSP SEPP (associated with MOD 8) are met. Specifically:

- **Maintain 50% of Barangaroo as public open space.** Since the original Concept Plan was approved in 2007, a key commitment of the Barangaroo Concept Plan has always been to ensure at least 50% of the site (or approximately 11 hectares) is made available as public open space/public domain. Importantly, the proposed amendment to the SSP SEPP will not impact the provision of over 50% of Barangaroo as public open space/public domain, which is generally concentrated along the foreshore and headland.
- **Retain the quality and amenity of Hickson Park.** Notwithstanding the proposed amendment to the SSP SEPP the quality and amenity of Hickson Park will be retained - whilst also providing a better planning outcome for the broader Barangaroo precinct.
 - Defining Hickson Park. The proposed amendment will allow Hickson Park to function as a distinct city park with a strong and clear connection to Harbour Park. It will be activated on all sides with cultural and retail offerings, the Metro station entry, as well as lobbies to the residential buildings, ensuing it is activated day and night, all year round. Hickson Park will continue to serve as an 'urban room' away from the overtly programmed spaces of Harbour Park and Barangaroo Reserve. The proposed amendment will not alter the landscape design, soil depths, number of trees, amount of soft landscaping or lawn space of Hickson Park as currently constructed.
 - Pedestrian connectivity to the harbour foreshore. The changed alignment of the northern boundary of Hickson Park provides greater legibility of access from the City through Gas Lane to Barton Street and the harbour beyond. In addition to maintaining pedestrian connectivity between Hickson Road and Harbour Park, the changed configuration will draw pedestrians through Hickson Park into Central Barangaroo and beyond to the Metro station, Nawi Cove and Barangaroo Reserve via the north-south through site link (refer Figure 10).
 - Adequate separation distance between Block Y and Block 5. The minimum separation distance between Block Y (Crown Sydney Hotel Resort) and the pavilion building within Block 5 is 28 metres. This ensures Hickson Park will continue to be physically and visually connected to Harbour Park and the foreshore, whilst establishing a closer and stronger relationship between the Barangaroo South and Central Barangaroo precincts.

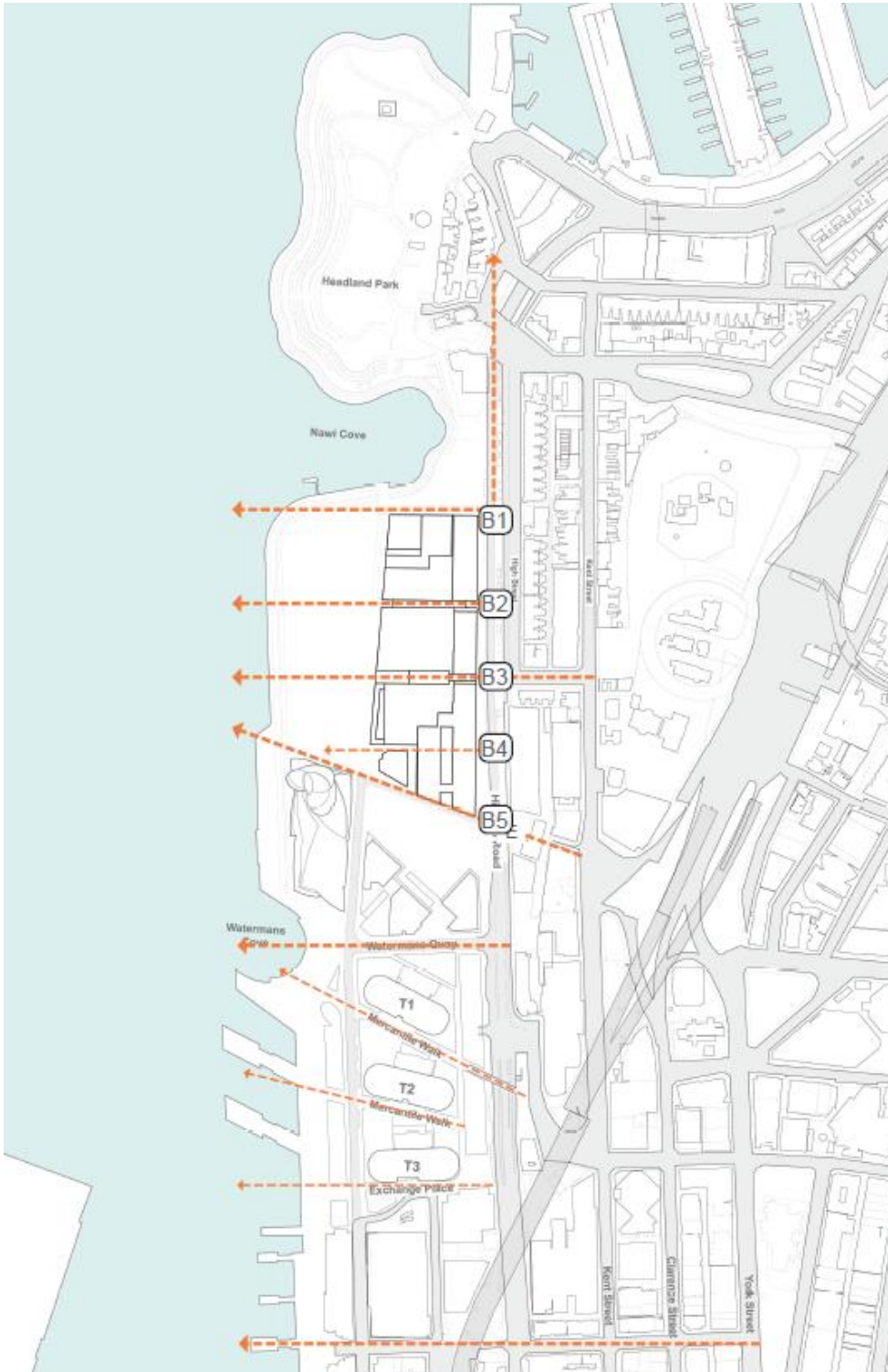
Figure 10 – Pedestrian connectivity between network of parks



Source: Hassell

- View corridors from Hickson Road to Sydney Harbour. Views from Hickson Road to Harbour Park and Sydney Harbour are maintained from various vantage points. In addition, new view corridors are established throughout Central Barangaroo providing unique views of Harbour Park and Sydney Harbour from the east (Hickson Road and High Street) at Barton Street, Laneway B, Sydney Steps, Street C and Street D, as well as from the level one public veranda.

Figure 11 – View Corridors



Source: Hassell

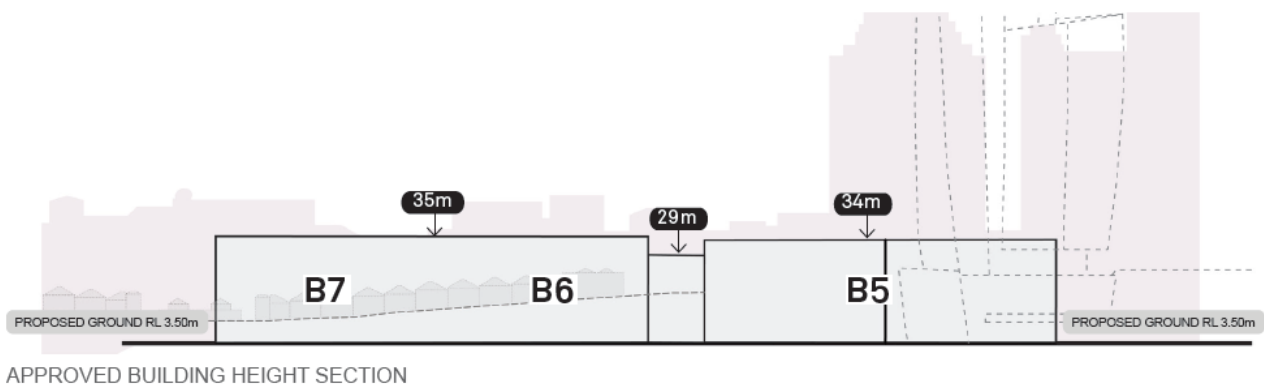
- Solar access to Hickson Park: Overshadowing analysis demonstrates an average of 49.91% of Hickson Park (3,533.13m²) will receive solar access between 12pm and 2pm in mid-winter. This allows for an urban parkland with an area of 3,553.13m² that can accommodate over 883 people sitting comfortably (based on an assumption of 1 person per 4m²).

4.3. HEIGHT OF BUILDINGS

The existing Height of Buildings Map specifies one maximum building height RL for each of the three development blocks as follows Block 5 – RL 34m, Block 6 – RL 29m and Block 7 – RL 35m. As demonstrated in Figure 12, this presents as a solid mass which features little to no articulation in built form.

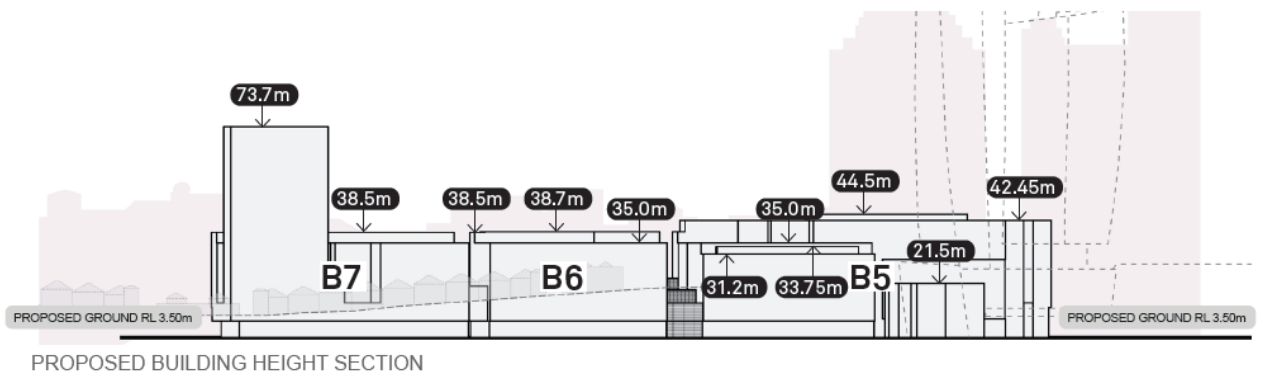
Conversely, the proposed amendment to the SSP SEPP seeks to allow for a more modulated built form and massing at an appropriate scale, as well as a greater variation in height across Central Barangaroo. Building heights across Blocks 5, 6 and 7 are proposed to be amended to generally align with the Central Barangaroo Envelope Plan (prepared by Hassell, dated June 2021). The Central Barangaroo Envelope Plan (as illustrated in Figure 13, Figure 14 and Figure 15) aligns with and will sit within the parameters of the proposed amendments to the Height of Buildings Map.

Figure 12 Existing Height of Buildings Map (west elevation)



Source: Hassell

Figure 13 Central Barangaroo Envelope Plan (west elevation)



Source: Hassell

The proposed maximum building heights have been sensitively developed to maximise the preservation of both public and private views, including views towards the harbour, the City, and key landmarks from surrounding buildings and public vantage points. The proposed heights seek to maintain the amenity of the surrounding area through respecting solar access and visual outlook.

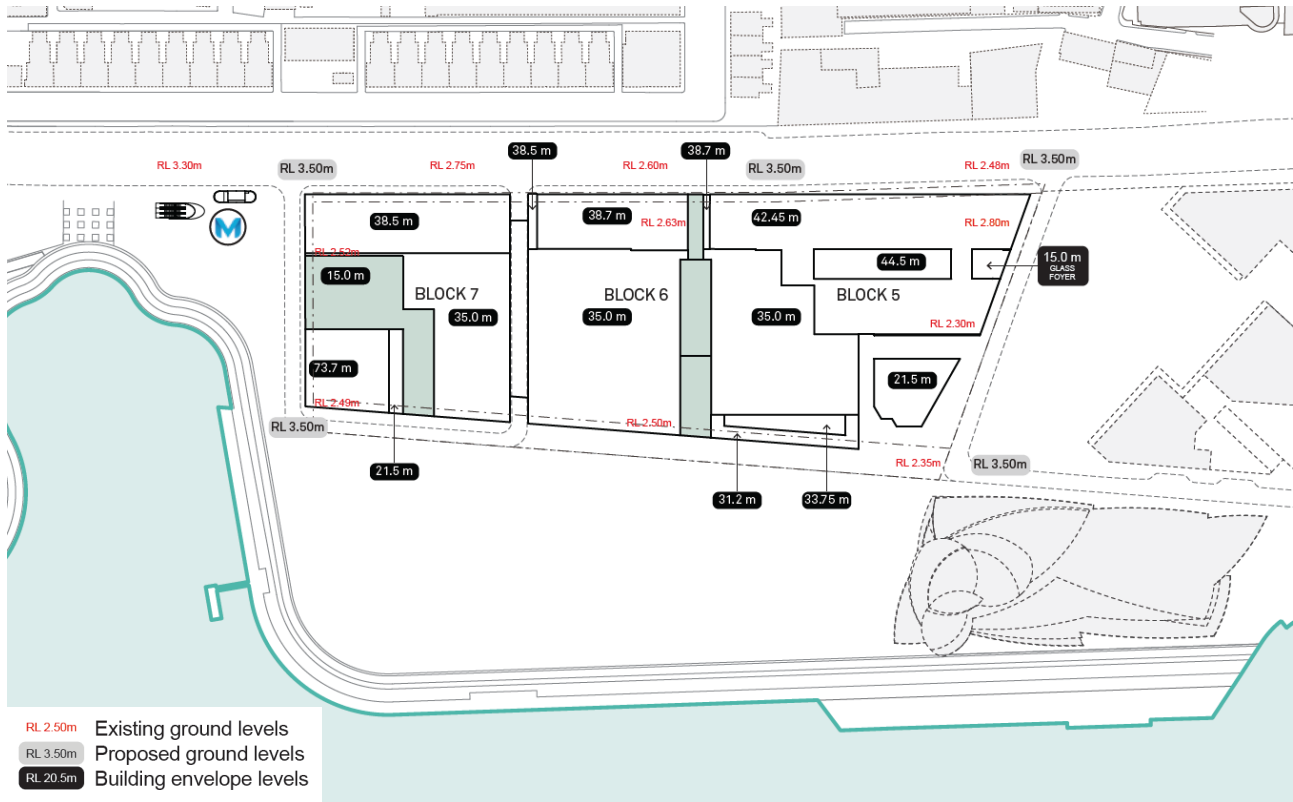
The proposed maximum building heights provide a transition in scale from east (Hickson Road) to west (Harbour Park) and from north (Nawi Cove) to south (Hickson Park), maximising solar access to public open spaces and visual outlook.

A comparison of the existing and proposed maximum building heights and a summary of the change is outlined in Table 3. The proposed amendments to the Central Barangaroo Envelope Plan and axonometric drawing are provided at Figure 14 and Figure 15.

Table 3 Proposed modifications to height of buildings – description of the changes

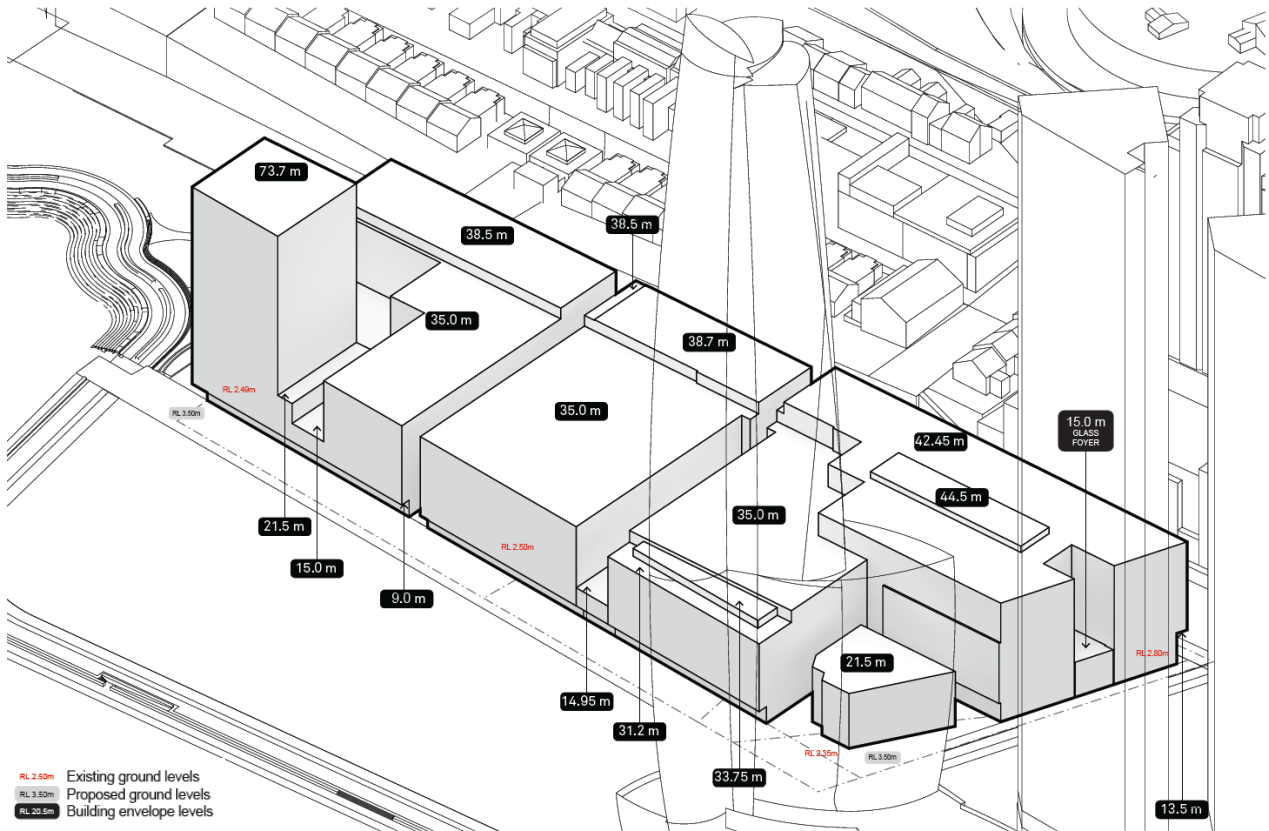
Development Block	Existing Height	Proposed Height	Change
Block 5	RL 34	RL 14.95 RL 15 RL 19.45 RL 21.5 RL 23.2 RL 31.2 RL 33.75 RL 35 RL 38.7 RL 42.45 RL 44.5	<p>Block 5 steps down from Hickson Road towards Barangaroo Avenue, Harbour Park and Hickson Park to maximise solar access to public open spaces and visual outlook.</p> <p>It is proposed to increase the maximum building height on Hickson Road to RL 42.45, with a small portion of RL 44.5 restricted to the centre of the block (to accommodate future flexibility in the building design for servicing and lift overruns). Building heights then step down towards Barangaroo Avenue from RL 35 to RL 33.75 and RL31.2.</p> <p>A significant reduction in height is proposed at the south-west portion of Block 5 for the 'retail flagship' building, where a maximum of RL 21.5 is proposed.</p>
Block 6	RL 29	RL 20.65 RL 35 RL 38.5 RL 38.7	<p>Block 6 steps down from Hickson Road towards Barangaroo Avenue and Harbour Park. On Hickson Road, the proposed building height for Block 6 is RL 38.7 and on Barangaroo Avenue the currently approved building height of RL 35 is maintained.</p>
Block 7	RL 35	RL 15 RL 20.65 RL 21.5 RL 35 RL 38.5 RL 73.7	<p>Variable building heights are proposed for Block 7 in response to the surrounding context and opportunities afforded to the site by the Metro Station.</p> <p>A minor increase in height from RL 35 to RL 38.5 is proposed on Hickson Road. Within the majority of the Block fronting Barangaroo Avenue, the current approved height of RL 35 is maintained.</p> <p>In the north-western portion of Block 7 a maximum height of RL 73.7 is proposed. This facilitates a future taller built form element which acts as an urban marker building highlighting the location of the Barangaroo Station as the new place to arrive in the harbour city.</p>

Figure 14 – Proposed Central Barangaroo Envelope Plan



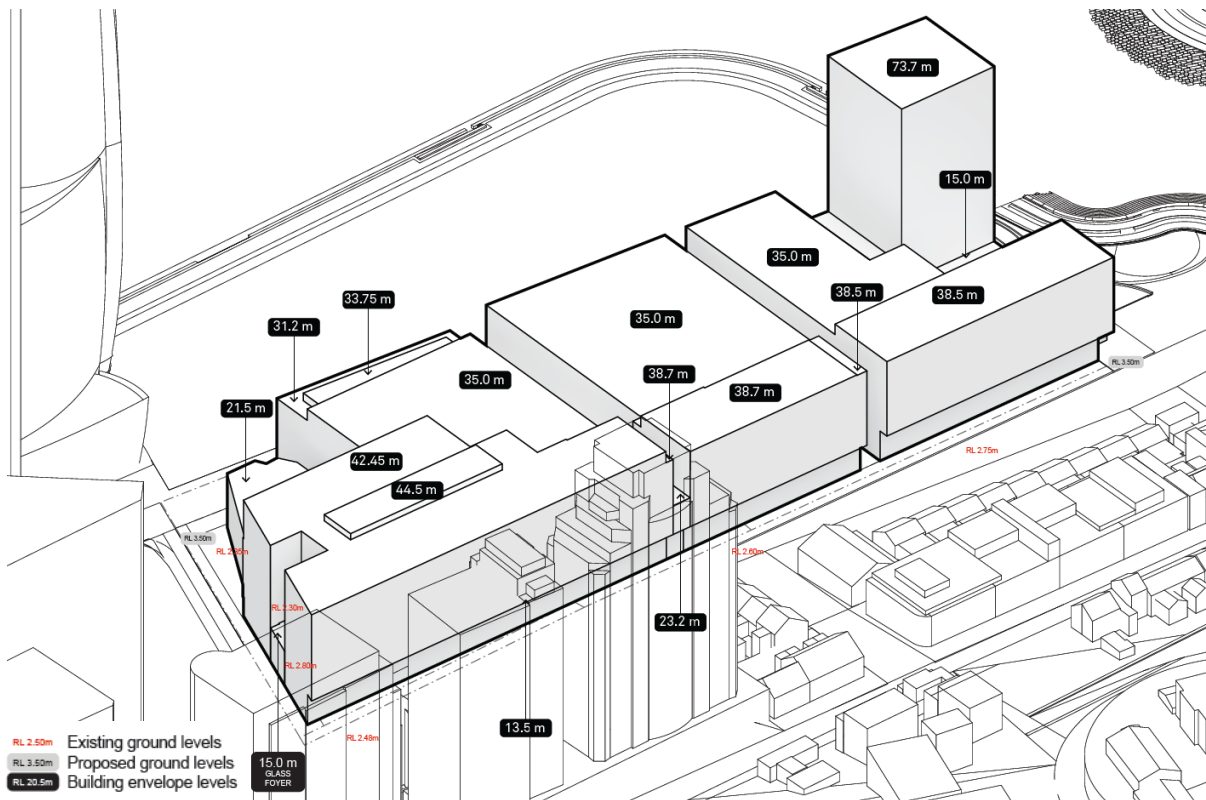
Source: Hassell

Figure 15 Proposed Central Barangaroo Envelope Plan – Building Envelope Axonometric



Picture 1 South-west Axonometric View

Source: Hassell

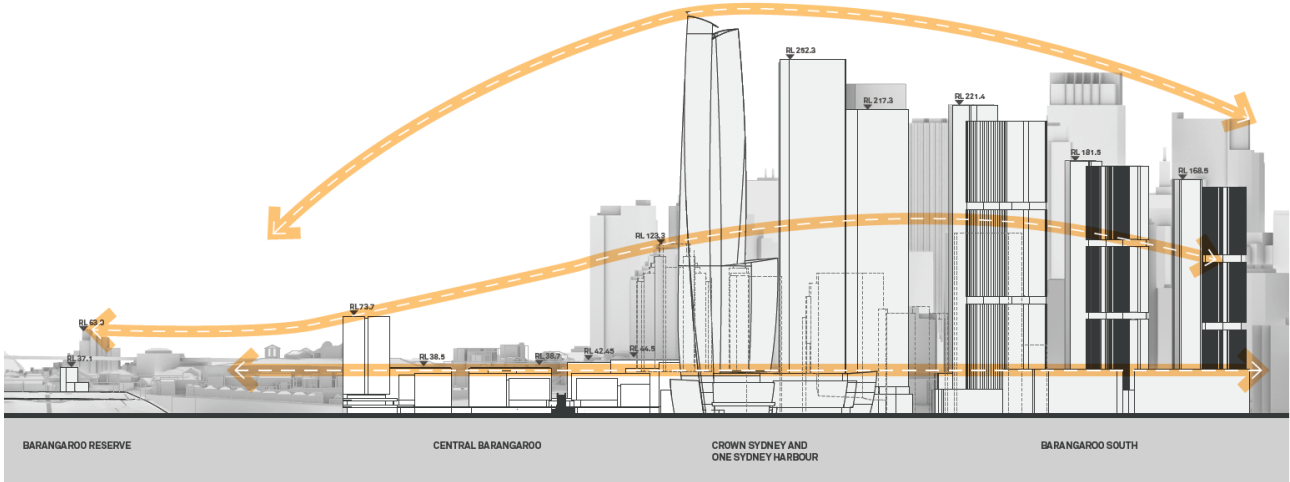


Picture 2 South-East Axonometric View

Source: Hassell

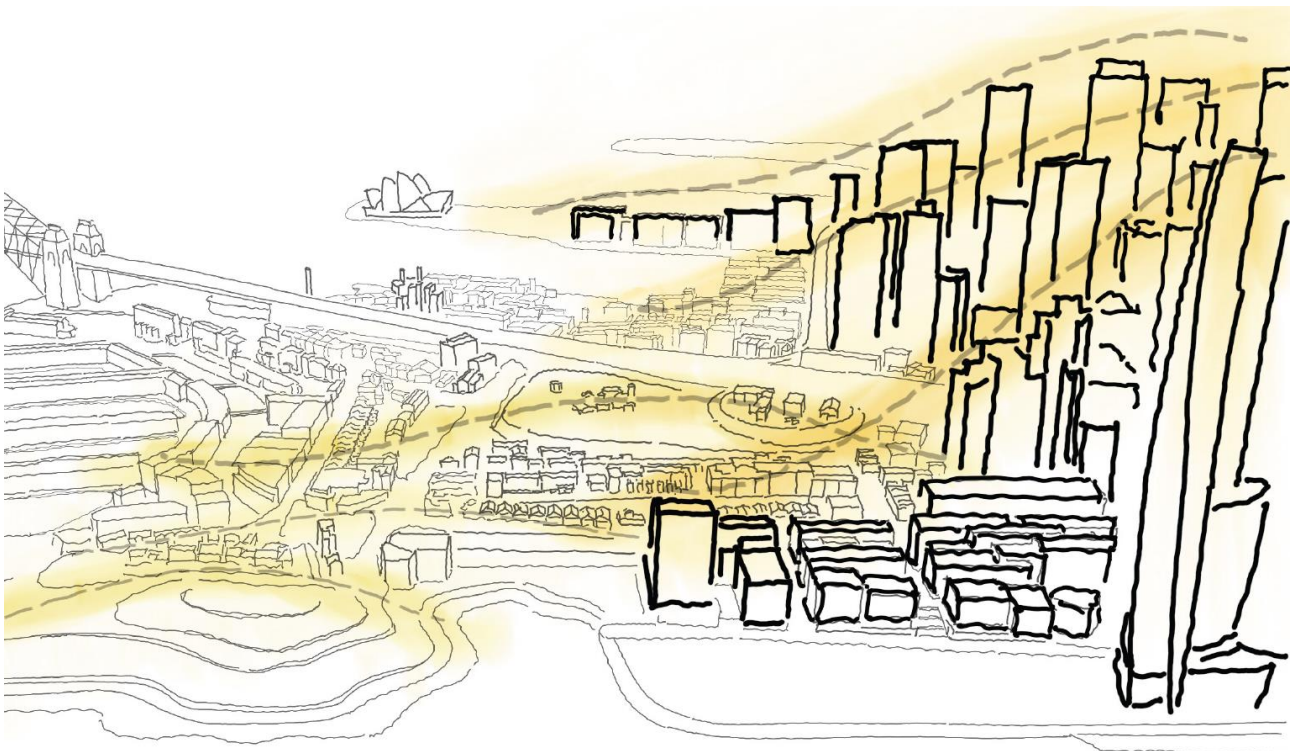
As illustrated in the Figure 16 and Figure 17, the extent of the proposed height increase in Central Barangaroo is minor in comparison to the significant scale of the surrounding precinct, particularly Barangaroo South.

Figure 16 Central Barangaroo MOD 9 building heights in the surrounding context (elevation from the west)



Source: Hassell

Figure 17 Central Barangaroo MOD 9 building heights in the surrounding context (sketch plan)



Source: Hassell

4.4. BUILDING OVERHANGS AND FAÇADE ARTICULATION

It is proposed to amend SSP SEPP to allow for building overhangs (including gross floor area) and façade articulation above ground level beyond the boundary of Block 5, 6 and 7 at Barangaroo Avenue, Hickson Road, and Street D (refer Figure 18).

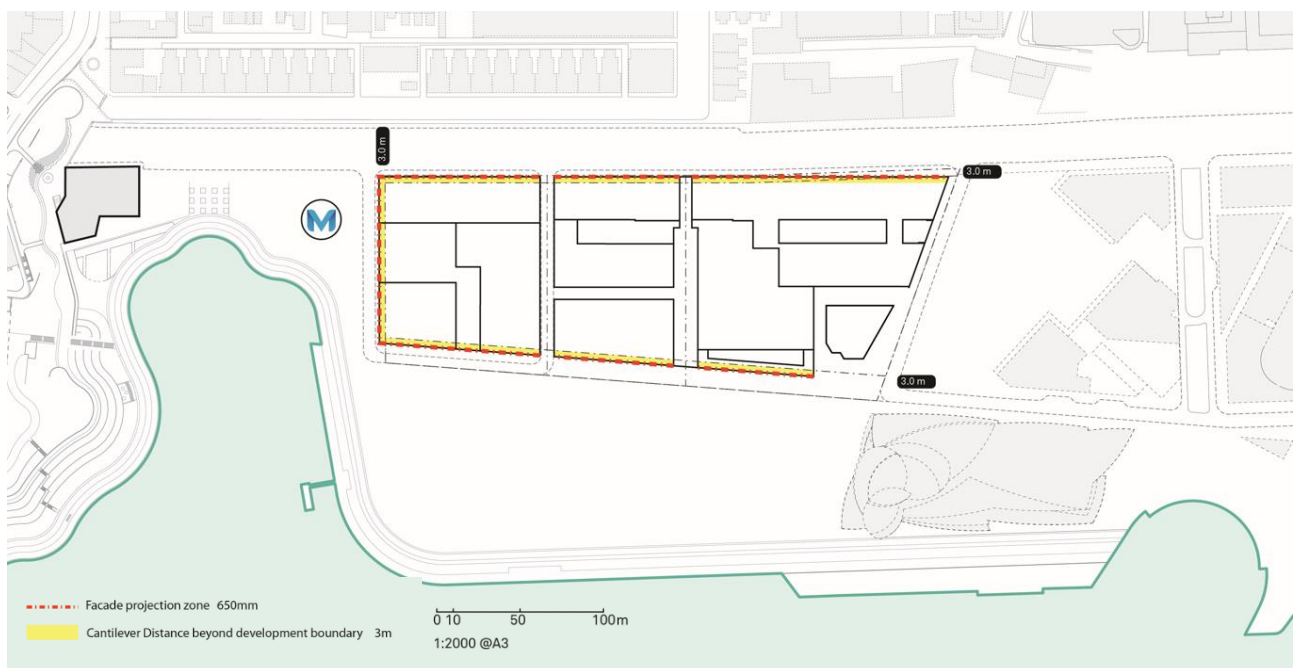
The cantilever on **Barangaroo Avenue** provides an ability to create a clear distinction between the retail at ground level, and the commercial uses above (refer Figure 19). The cantilever also offers a zone of weather protection, and when combined with the associated potential awning and street tree planting, provides a comfortable pedestrian environment.

The cantilever on **Hickson Road** provides a civic interface to the public realm and extends the colonnade-built form language evident along Hickson Road in Barangaroo South (refer Figure 20). The differentiator for Central Barangaroo is the requirement to exclude structural supports within the footpath zone due to the Sydney Metro line below.

The cantilever on **Street D** is designed to function as an extension of the Barangaroo Avenue experience (refer Figure 21). In addition, it will provide shade and shelter for pedestrians and alfresco dining along the street edge. The building cantilever zone allows for a comfortable public interface at street level whilst enabling the commercial and residential buildings above to have distinct architectural expression responding to their use.

The façade projections beyond the building overhang will allow for shading devices to be incorporated into the building design, improving energy efficiency, and building performance.

Figure 18 – Building overhangs and façade articulation zones



Interface	Barangaroo Avenue	Street D	Hickson Road
Cantilever Distance beyond development boundary	3m	3m	3m
Facade projection zone	650mm	650mm	650mm

Source: Hassell

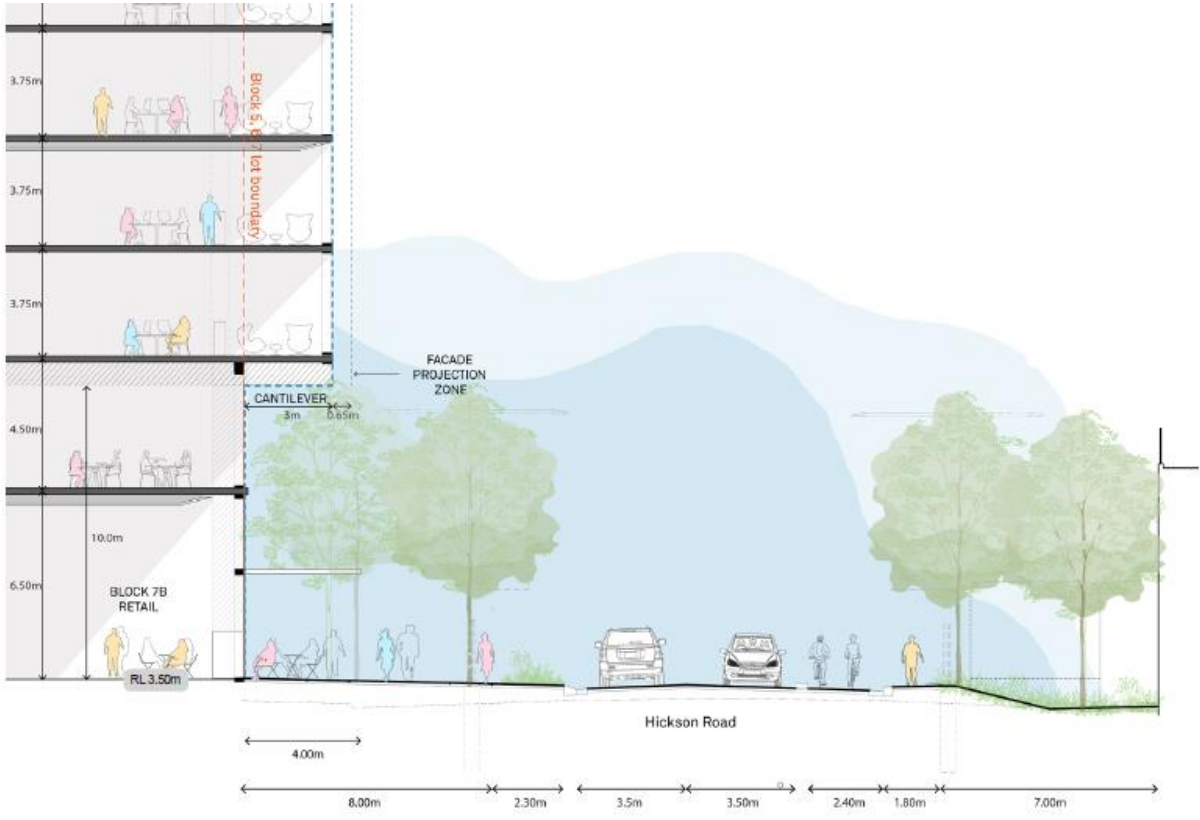
The following Section Plan extracts identified in Figure 19, Figure 20 and Figure 21 are consistent with the proposed Central Barangaroo building envelope (as depicted in Figure 15).

Figure 19 – Section – Barangaroo Avenue Building Overhang and Façade Projection Zone



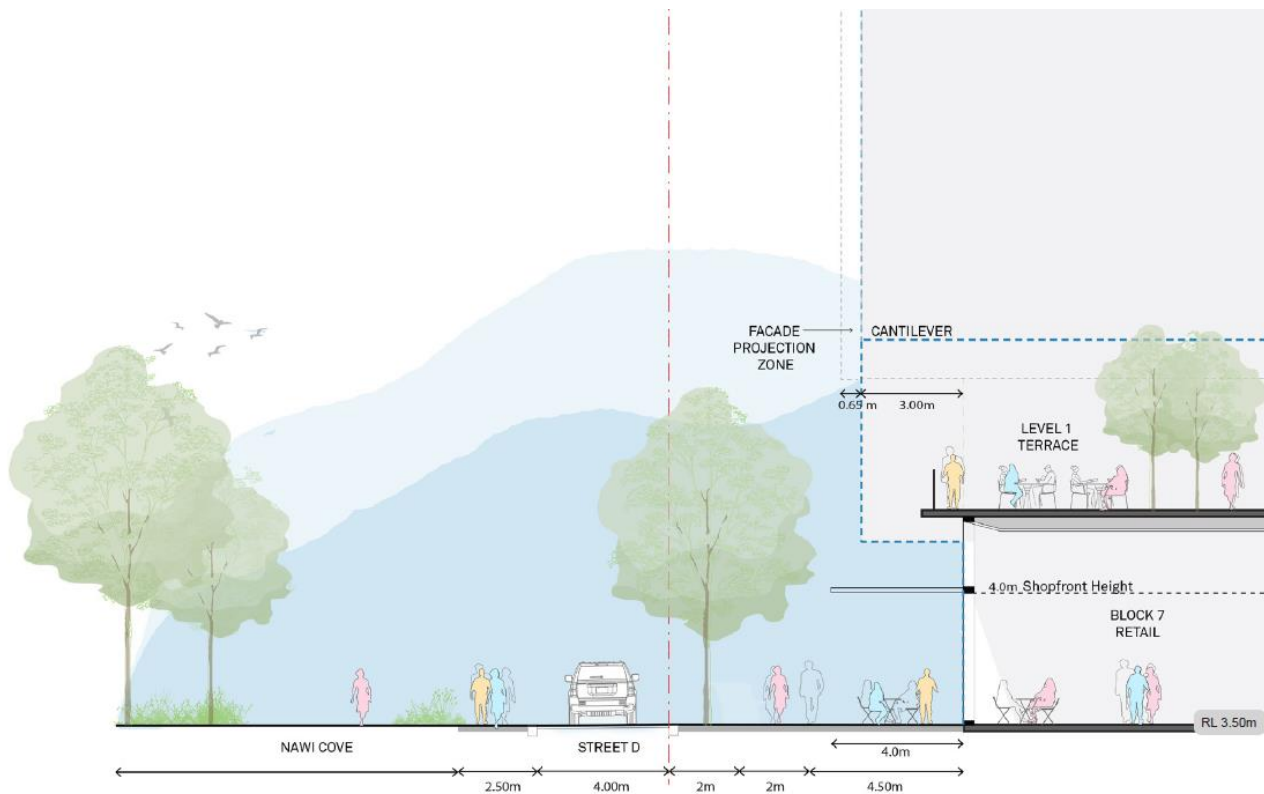
Source: Hassell

Figure 20 – Section – Hickson Road Building Overhang and Façade Projection Zone



Source: Hassell

Figure 21 – Section – Street D Building Overhang and Façade Projection Zone

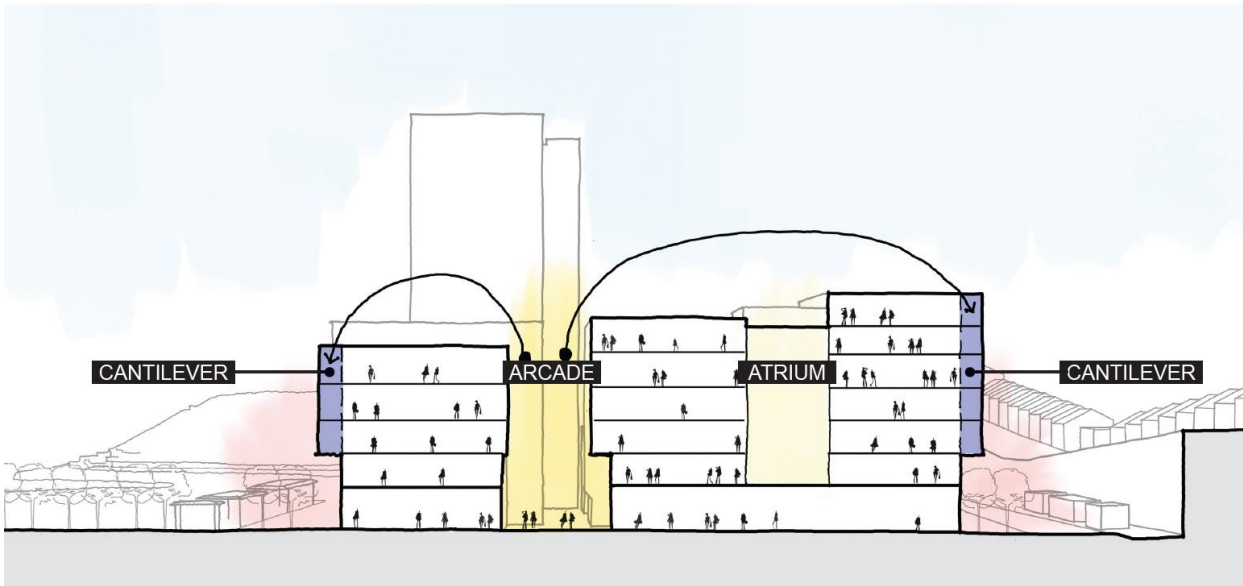


Source: Hassell

As demonstrated by Figure 22 and Figure 23, the proposed cantilevers will also enable:

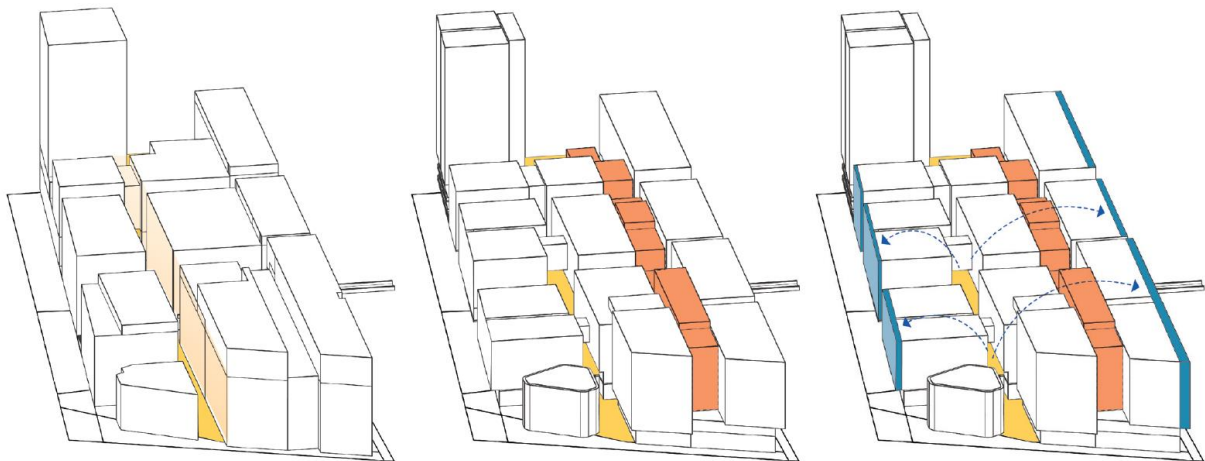
- Improved human scale at street level: The cantilever reduces the vertical impact of the building and assists in breaking down the 'street wall'. The introduction of a horizontal element above the footpath helps to contain the space and create a space of human dimension and scale commensurate with the intended uses and activities along the perimeter of the buildings.
- Through-site link and central atrium space: The cantilever will contain displaced floor space from within the centre of the blocks, allowing the introduction of a north-south link between Barton Plaza and Street C and a central atrium space, breaking down the massing into multiple forms, creating a finer grain composition of buildings. The through site link and central atrium will further enhance cross site pedestrian access, permeability, and daylight at the ground plane.
- Best practice commercial office building design: The introduction of the cantilevers allows the inclusion of a) the north-south pedestrian link and b) the inclusion of a north-south oriented atrium zone; whilst maintaining a minimum commercial offer floor plate width of 22m in line with world's best practice. Post COVID-19, the demand for large format campus style office buildings will only increase as focus shifts to creating dynamic workplace environments focused on collaborations spaces, social interaction, and community.

Figure 22 - Building cantilevers, arcade, and atrium – illustrative section



Source: Hassell

Figure 23 – Building cantilevers and amenity diagram



1. A central arcade provides north-south pedestrian access and allows daylight to ground level activation.

2. A central atrium provides daylight access for contemporary workplaces .

3. Cantilevers offer civic amenity and a pedestrian scale at street level, containing displaced floorspace.

Source: Hassell

4.5. GROSS FLOOR AREA

4.5.1. Floor Space Increase

It is proposed to amend SSP SEPP to increase the total GFA permitted within Central Barangaroo from 47,668m² to 116,189m² above ground and 28,166m² below ground. The additional density is strategically justified in this location in accordance with the following considerations:

- It will optimise the significant government investment in transport infrastructure with the new Barangaroo Station and deliver upon strategic priorities at a State and Regional level to provide increased employment generating floor space and associated jobs near homes, align land use and infrastructure planning, and elevate Sydney as 21st-Century Global 30 Minute City.
- It will support a greater mix of land uses to support additional activity in Barangaroo throughout both day and night, which will drive higher levels of patronage on the new Metro rail.
- The additional density will create a vibrant mixed-use precinct, accommodated within development zone footprints creating Central Barangaroo's own distinct identity, character, and experience.
- It will create a distinct destination for employment generation and economic activation as part of a broader revitalisation of the western waterfront edge of the CBD. The additional commercial floor space will enable the provision of flexible, co-working spaces in contrast to the conventional office spaces and large floor plates provided within Barangaroo South. This will provide diversity in the market and support a variety of employment opportunities in Barangaroo and responds to market demand for more flexible commercial space as a result of the COVID pandemic.
- The additional retail floor space will support a variety of retail offerings that will stimulate the local economy, increase visitation of the general public to this unique city landmark and capitalise upon movement of commuters and visitors through to Barangaroo Station.
- To activate Barangaroo's public foreshore, an allocation of up to a maximum of 19,000m² of GFA for community uses in the RE1 zone, comprising of up to 18,000m² in the Cutaway and up to 1,000m² for future community park structures is proposed. Complementing the RE1 community uses in the zone, the required community uses GFA in the Central Barangaroo B4 zone (Block 5, 6 and 7) is proposed to increase from 2,000m² to 2,800m² GFA.

The proposed mix of public realm (RE1) and built form (B4) community uses will reinforce Central Barangaroo's aspiration as a city destination and the 'civic heart' of the Barangaroo precinct and support uses that encourage visitors, residents and employees to visit and remain in Central Barangaroo through to the evening and night-time, facilitating the late-night economy along the western harbour foreshore.

- The appropriateness of the resultant built form has been carefully considered, having regard to potential impact of the floorspace such as, traffic generation, amenity impact and demand on existing/future infrastructure. The amendments to building envelope (to accommodate increased height and GFA) would not have significant adverse visual or amenity impacts. The resulting development is of an acceptable overall design and would not have adverse amenity impacts in terms of visual, solar or wind impacts. The proposal is unlikely to cause traffic impacts and has excellent access to existing and planned public transport including the new Barangaroo Station.
- The proposal provides for additional commercial, retail and community/cultural floor space within an established precinct and would not detract from the character of the area.
- The additional GFA will not give rise to excessive bulk or scale and will continue to achieve design excellence. The bulk and scale will be commensurate with surrounding development within the Barangaroo site, as well as development adjacent to the site. Notably, a component of the increased overall density (28,166m²) will be located wholly below ground and as such will not contribute to a perceived or actual increase in bulk and scale of building envelopes at Central Barangaroo. As discussed further in Section 4.6, this below ground GFA will enable an extension of the retail hub and provide for access from Barangaroo Station through to Barangaroo Reserve, Harbour Park and Barangaroo South.
- The proposal appropriately balances the social, economic, and environmental outcomes on the site.
- The additional GFA can suitably be accommodated within an appropriate building envelope that is contextually responsive, enhances the amenity through the provision of increased publicly accessible spaces and delivers a more considered ground plane and public domain layout.

4.5.2. Above and Below Ground GFA

It is proposed to amend the SSP SEPP to allow for an additional 28,166m² of gross floor area (GFA) below ground level (existing) within Central Barangaroo. The amendment is required to facilitate the construction of a basement at Central Barangaroo, which will enable the creation of a world class retail hub and direct pedestrian connection from the Metro station through Central Barangaroo and beyond to Barangaroo Reserve, the Waterfront Park and Barangaroo South (refer Figure 24). The basement will also accommodate car parking, loading, servicing, and plant.

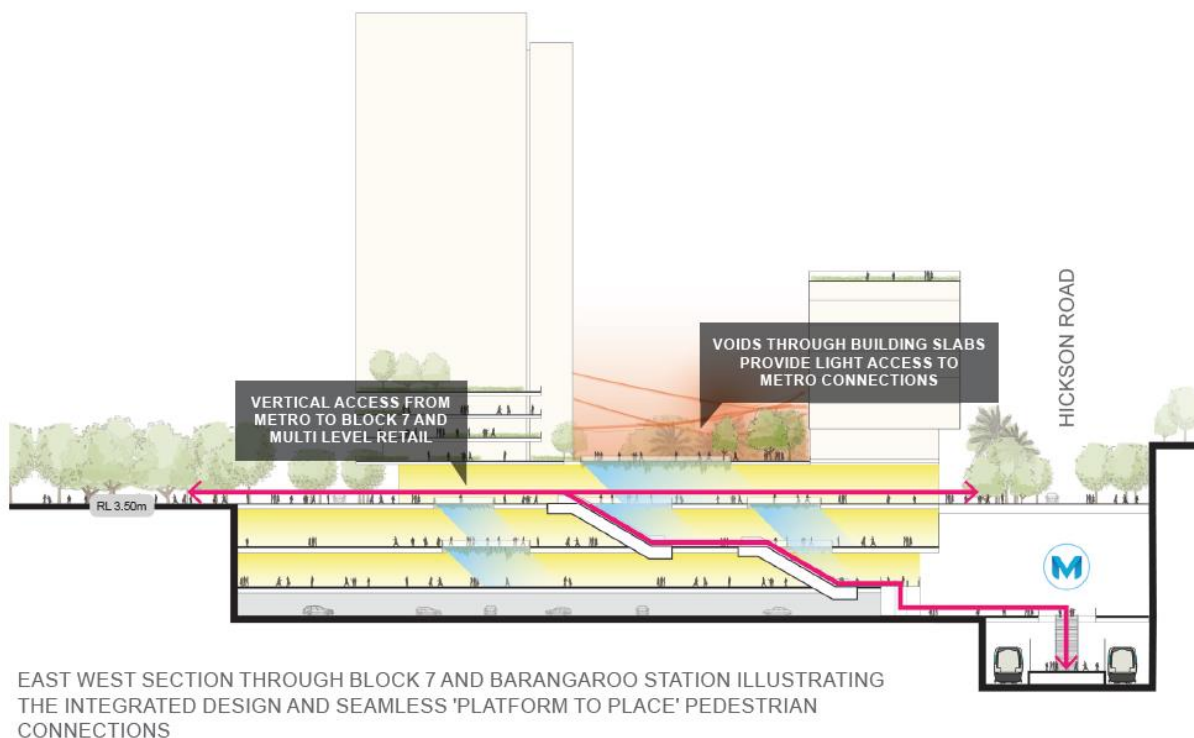
The basement will extend up to 25 metres (approximately) from the western boundary of Blocks 5, 6 and 7 within land zoned RE1 Public Recreation – predominantly below Barangaroo Avenue. Because of this, there is a need to allow for separate maximum below and above ground gross floor area controls associated with the development of Blocks 5, 6 and 7.

In line with the definition of GFA under the SSP SEPP, only part of the floor space within the basement will be classified as GFA. Areas to be used for retail, pedestrian access, and circulation (habitable rooms) will count towards the maximum GFA allowable. Whereas areas to be used for carparking, loading, servicing, and plant will not.

The balance of GFA to be contained below the B4 Mixed Use zoned land compared to the GFA below the RE1 Public Recreation zoned land is not yet known. Consequently, it is not desirable at this time to allocate part of the GFA to the development blocks within the B4 Mixed Use zone and part of the GFA to the RE1 Public Recreation zone.

The amendment seeks to differentiate between above ground and below GFA associated with Blocks 5, 6 and 7, to enable appropriate controls to be applied to the basement associated with Central Barangaroo. This approach will provide greater clarity and certainty about the maximum permitted GFA across Central Barangaroo to guide future detailed development proposals.

Figure 24 – Central Barangaroo basement connection from Metro to Harbour Park – east west section



Source: Hassell

4.6. DEVELOPMENT BELOW GROUND LEVEL

It is noted that SSP SEPP currently allows for development for the purpose of *underground car parks* within the RE1 Public Recreation zone (Clause 9). However, while underground car parks are permitted in the RE1 Public Recreation zone, retail uses are expressly prohibited. For this reason, there is a need to amend the SSP SEPP to allow for development below ground level in the RE1 Public Recreation zone that would be permissible in the adjacent B4 Mixed Use zone.

It is proposed to amend the SSP SEPP to insert a clause which permits development below ground level in the RE1 Public Recreation Zone. The wording of proposed Clause 23A reflects the long-accepted wording of Clause 5.3A of the *Sydney Local Environmental Plan 2012*. The clause will apply to development that is entirely below ground level (on land zoned RE1 Public Recreation) and that is for a purpose that may be carried out in an adjoining zone. The clause will require the consent authority to be satisfied that the development is:

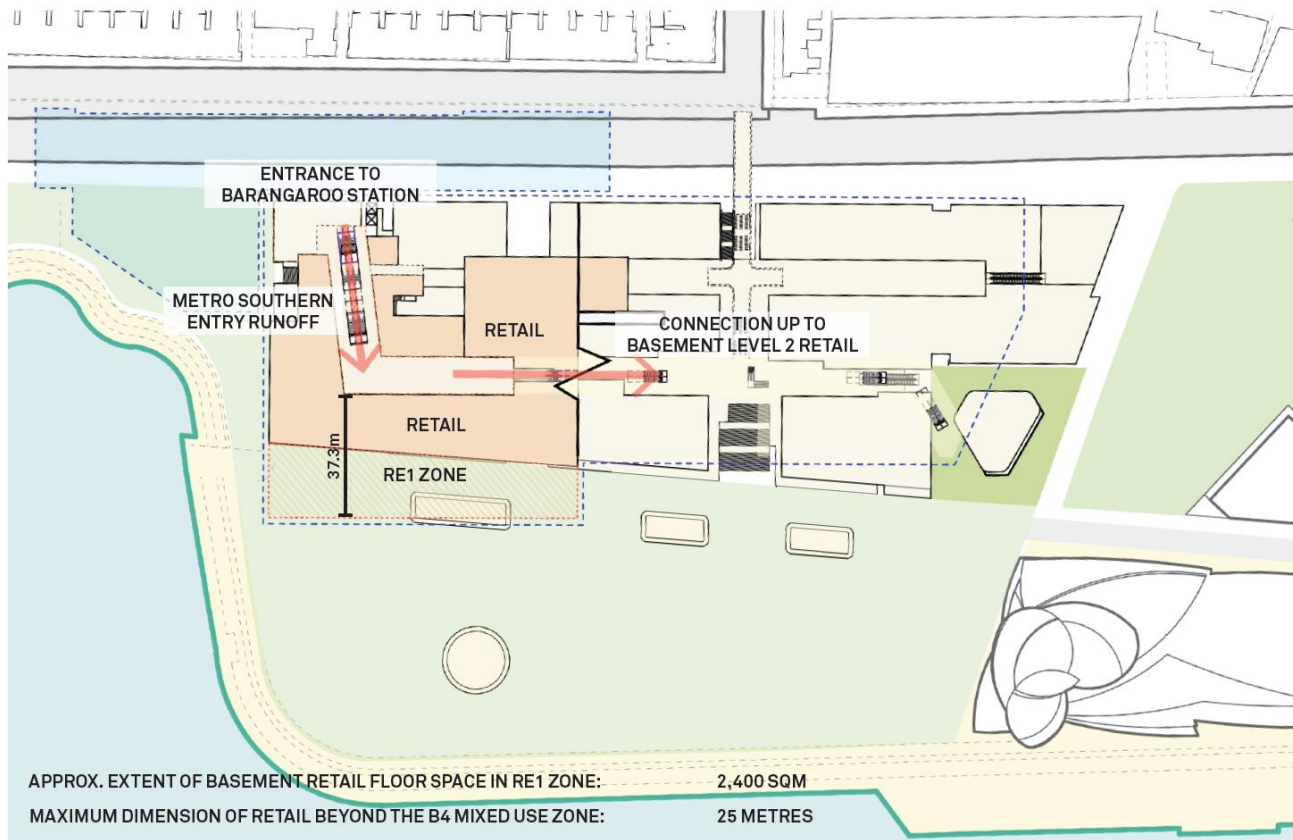
- desirable due to compatible land use planning, infrastructure capacity and other planning principles relating to the efficient and timely development of land, and
- will not have any significant adverse effects on the environment and will not prevent any land within the Public Recreation Zone being used for recreational purposes.

As described in Section 4.5.2, Central Barangaroo is to accommodate 28,166m² of below ground GFA, which is to comprise a world class retail hub and direct pedestrian connection from the Metro station through Central Barangaroo and beyond to Barangaroo Reserve, the Waterfront Park and Barangaroo South. The basement will also accommodate car parking, loading, servicing, and plant.

The basement will extend up to 25 metres (approximately) from the western boundary of Blocks 5, 6 and 7 within land zoned RE1 Public Recreation – predominantly below Barangaroo Avenue. The extension into the RE1 Public Recreation zone allows for:

- The effective integration of the Barangaroo Station with Central Barangaroo, to create a southern entry and undercover pedestrian link to Hickson Park and Barangaroo South.
- An efficient and effective retail floor plate, resulting in a significant reduction in the extent of excavation required, resulting in reduced impacts on the locality.
- Sufficient depth and volume to accommodate a range of shops including but not limited to a supermarket with a minimum depth of 37m (a land use lacking in this area, which will serve existing and future communities), retail, and food and beverage premises.
- A more efficient basement layout, which can accommodate parking, loading, servicing, plant, and other uses.

Figure 25 – Central Barangaroo basement connection from Metro to Barangaroo South – plan



Source: Hassell

Basement structures below RE1 Public Recreation zoned land are not uncommon in Barangaroo or the Sydney Local Government Area. Notable examples include:

- **Hickson Park:** the Barangaroo South Stage 1B basement (SSD 15_6960 - approved March 2017) is located below Hickson Park and contains four levels of parking, plant rooms, loading docks, amenities, waste rooms, and storage areas, as well as the allocation of 26m² of GFA for end of trip facilities, dock masters and security offices.
- **Headland Park (or Barangaroo Reserve):** located within the void space of Headland Park is a public car park accommodating 300 parking spaces, as well as a 'shell' for future use as a cultural facility (known as the Cutaway) (MP 10_0048 – approved March 2011).
- **The Domain:** the 34-hectare park provides sports fields and large open spaces often used for special public occasions and events at ground level, and more than 1,100 car parking spaces below ground.
- **Cook and Phillip Park:** provides grassed areas, water features, and an urban plaza at ground level, and a public car park, aquatic and fitness centre, and café below ground.

In all these examples, the ground plane has been carefully designed and constructed to ensure the occupant is largely unaware of the structures and uses contained below ground. This is achieved through appropriate placement of hard and soft materials and provision of adequate soil depth and drainage conditions, which ensure there is capacity to sustain a variety of plants including significant trees.

Future development seeking to rely on Clause 23A will need to satisfy the consent authority that the development is desirable due to compatible land use planning, infrastructure capacity and other planning principles relating to the efficient and timely development of land. Further, the consent authority must be satisfied that the development will not have any significant adverse effects on the environment and will not prevent any land within the Public Recreation Zone being used for recreational purposes.

While Clause 23A will permit development below ground level in the RE1 Public Recreation zone, the GFA restrictions specified by Clause 18 will limit the location of development to within 'Area 1' on the amended Gross Floor Area map only. Further, Clause 18A will limit the amount of GFA below ground to 28,166m².

5. KEY OUTCOMES

The proposed amendment to SSP SEPP will:

- Amend the southern boundary of Block 5 and rezone part of Block 5 from RE1 Public Recreation to B4 Mixed Use, improving the transition, identity and character of Hickson Park to Harbour Park.
- Increase and limit the maximum total gross floor area that currently applies to Central Barangaroo.
- Impose a maximum total gross floor area permitted below ground within the Central Barangaroo basement.
- Impose varied maximum height limits across Block 5, 6 and 7 to generally reflect the proposed Central Barangaroo Building Envelope Plan, resulting in improved modulation of the built form and providing the opportunity to create a more interest and variety.
- Accommodate building overhangs and facade articulation elements above ground level, resulting in improved ground plane amenity and enabling the introduction of a north south through-site link and central atrium space.
- Permit limited development below ground level in the RE1 Public Recreation zone.
- Align the SSP SEPP with the Barangaroo project to which the proposed modification to the Concept Plan Approval relates.

All comments received during the exhibition of the Explanation of Intended Effect and proposed Maps will be duly considered in the drafting of the proposed SEPP amendments.

DISCLAIMER

This report is dated 21 December 2021 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Aqualand (**Instructing Party**) for the purpose of Explanation of Intended Effect (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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


This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

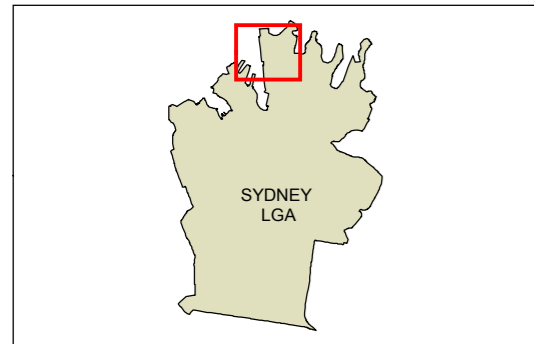
APPENDIX A

EXISTING AND PROPOSED MAPPING

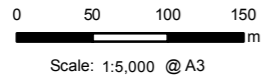
**State Environmental Planning Policy
(State Significant Precincts) 2005
Barangaroo Land Zoning Map**


Sheet LZN 001

-  Subject Land
- Zone**
-  B4 Mixed Use
-  RE1 Public Recreation
-  Cadastre 01/06/2016 © Land and Property Information



Projection: MGA Zone 56
Datum: GDA94




 Subject Land

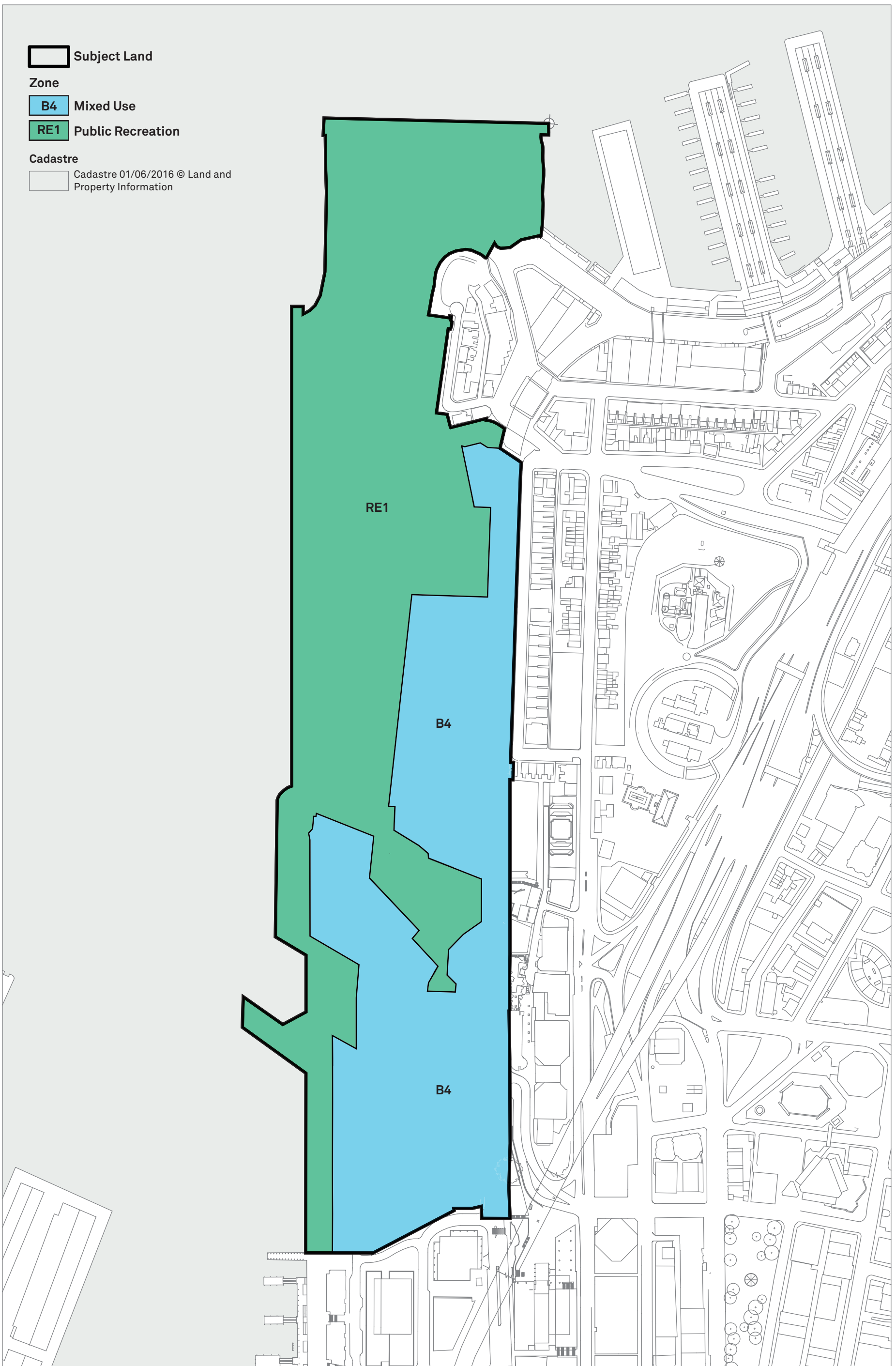
Zone

 B4 Mixed Use

 RE1 Public Recreation

Cadastre

 Cadastre 01/06/2016 © Land and Property Information



Scale 1:3750 @ A3



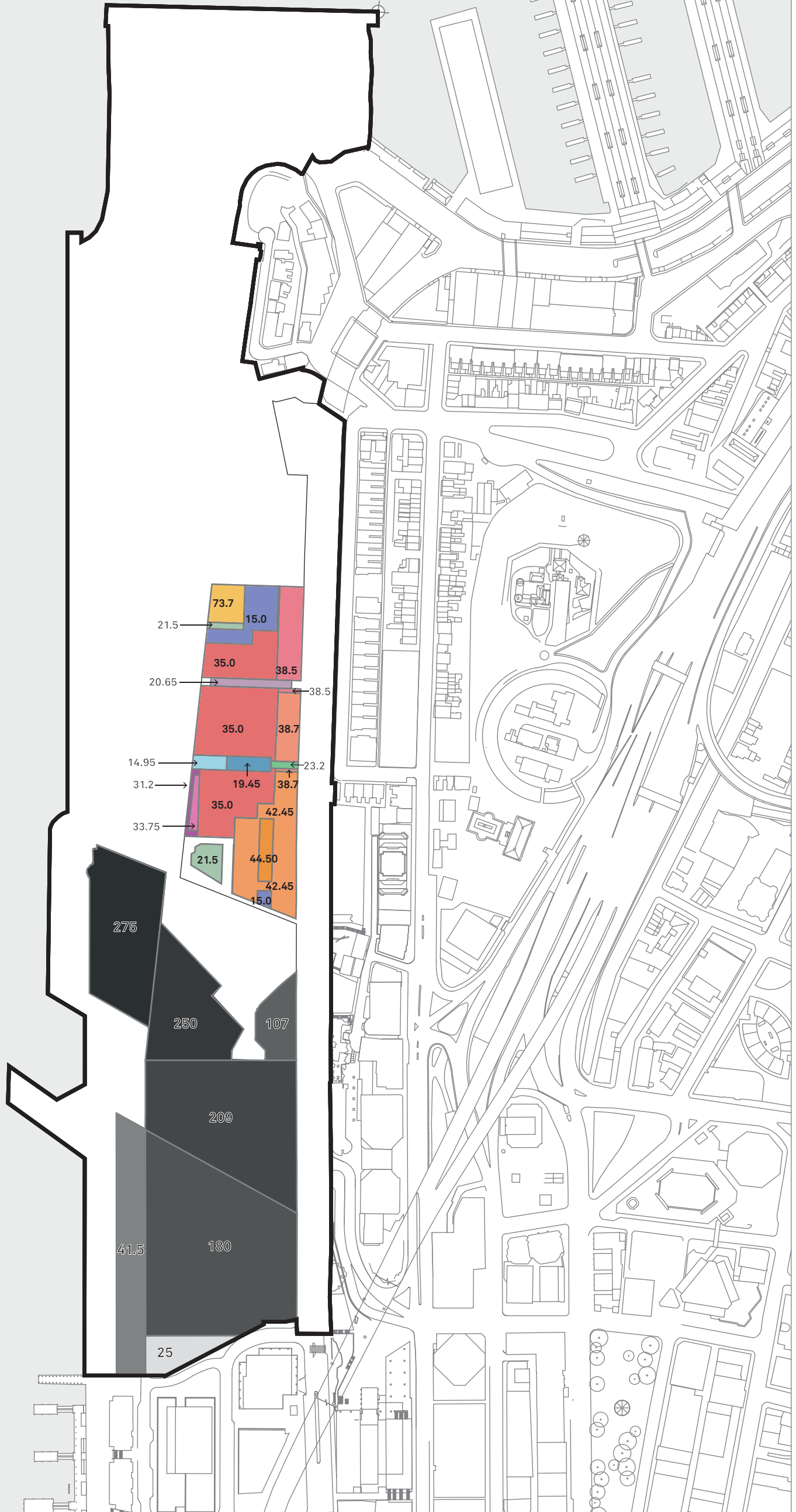
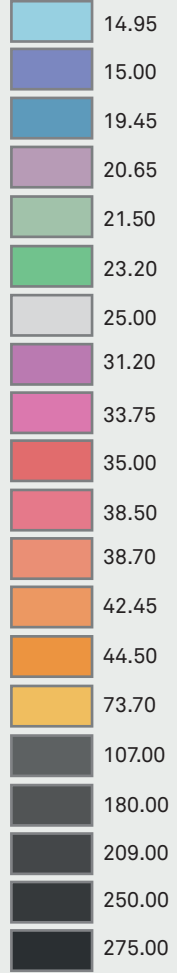
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State Environmental Planning Policy (State Significant Precincts) 2005
Barangaroo Zoning Map
Sheet ZONING 001

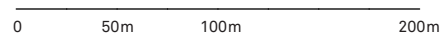
Proponent Draft:
15 December 2021

Subject Land

Maximum Building Height (RL)



Scale 1:3750 @ A3



State Environmental Planning Policy (State Significant Precincts) 2005
Barangaroo Height of Building Map
Sheet HOB 001

Proponent Draft:
15 December 2021

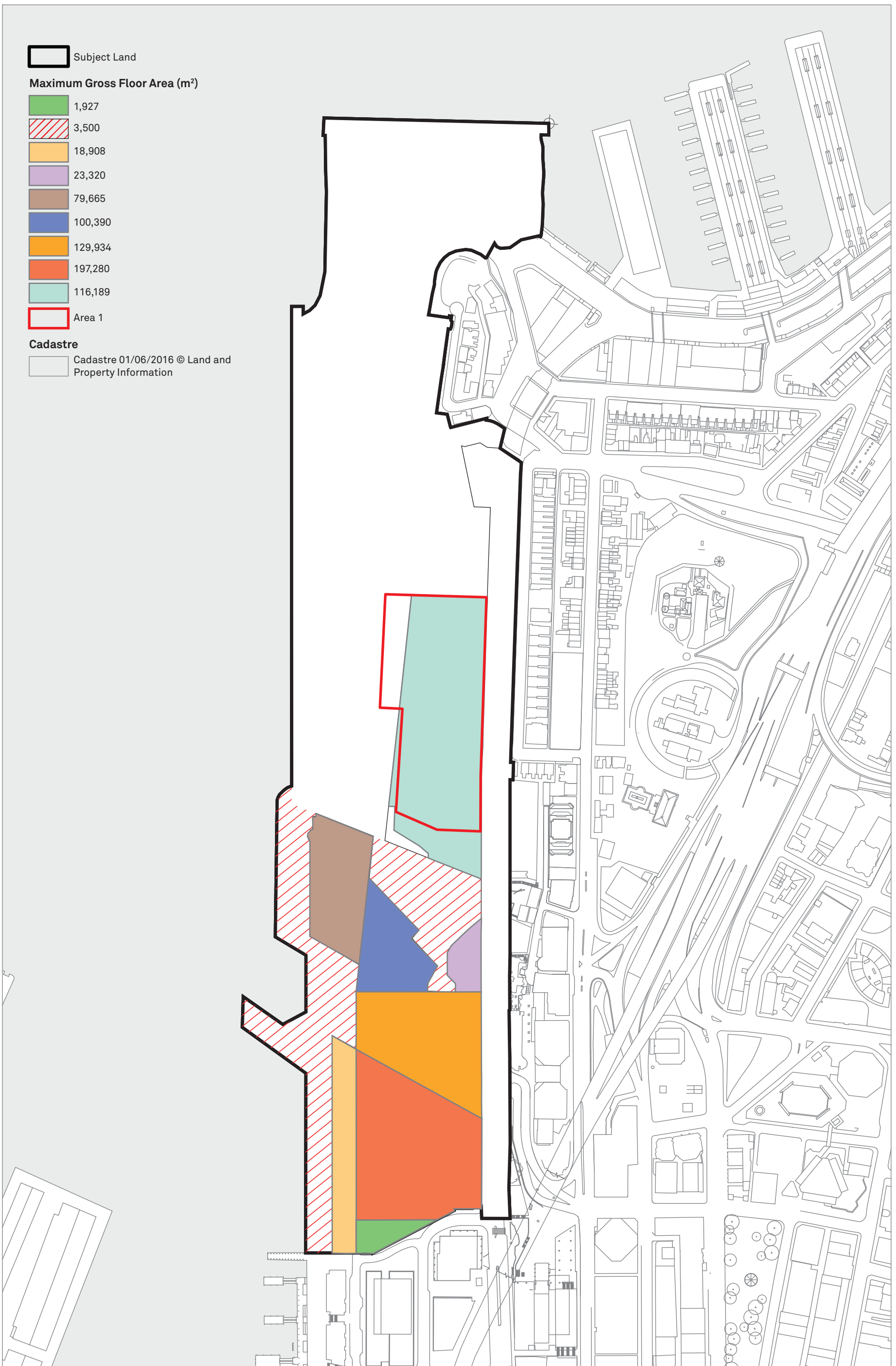
Subject Land

Maximum Gross Floor Area (m²)

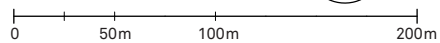
- 1,927
- 3,500
- 18,908
- 23,320
- 79,665
- 100,390
- 129,934
- 197,280
- 116,189
- Area 1

Cadastre

Cadastre 01/06/2016 © Land and Property Information



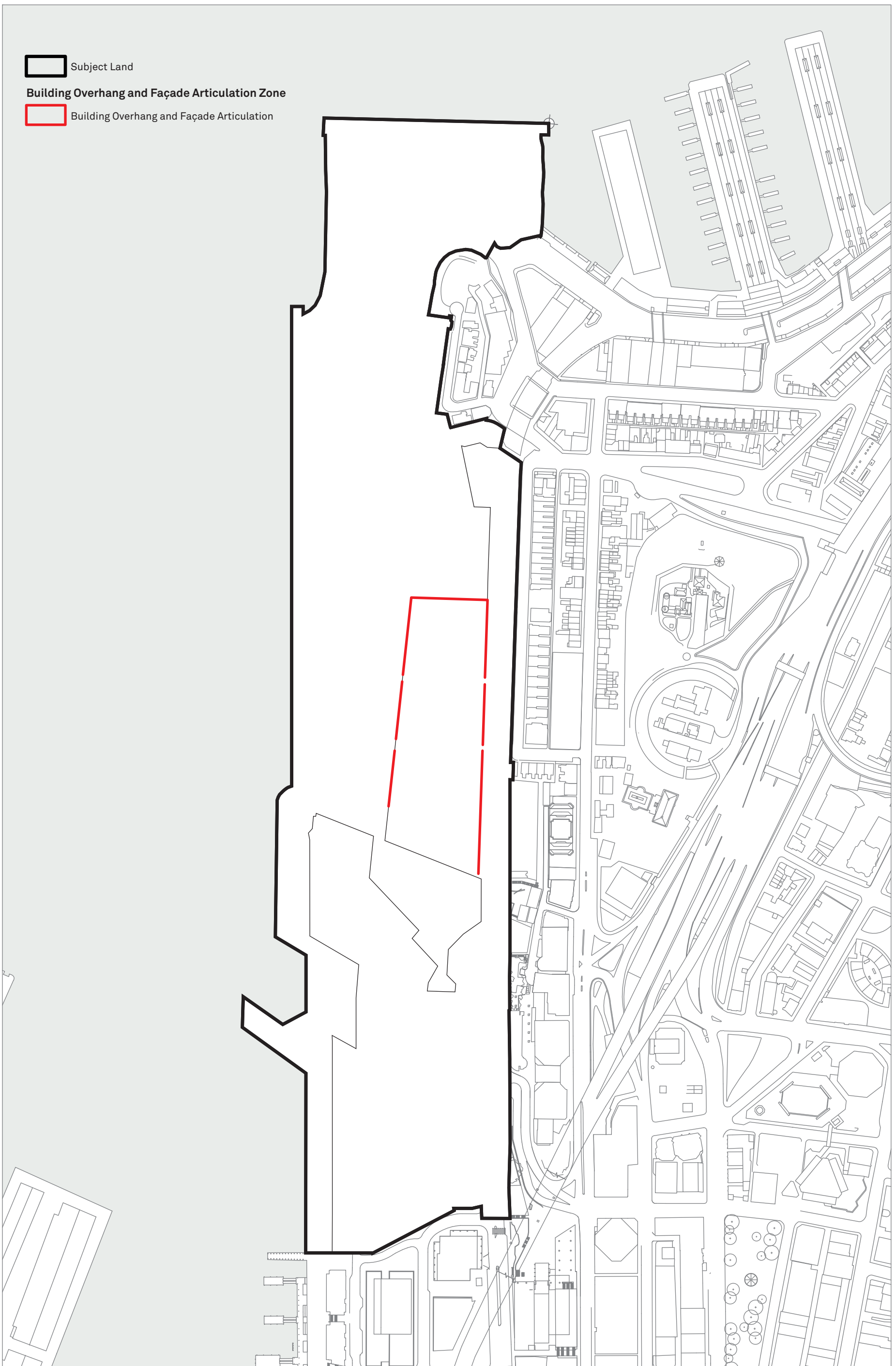
Scale 1:3750 @ A3



Subject Land

Building Overhang and Façade Articulation Zone

Building Overhang and Façade Articulation



Scale 1:3750 @ A3



0 50m 100m 200m

