

## Part 3A

### Preliminary Assessment



### Building C7

Barangaroo South

Submitted to

Minister for Planning

On Behalf of Lend Lease (Millers Point) Pty Limited

March 2011 ■ 10752

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This report has been prepared by:

Lesley Bull

A handwritten signature in blue ink, appearing to be 'Lesley Bull', written in a cursive style.

March 2011

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## 1.0 Introduction

This preliminary assessment is submitted on behalf of Lend Lease (Millers Point) Pty Limited (Lend Lease) to the Department of Planning (hereafter referred to as the Department) to assist the Director General in determining the level and scope of the environmental assessment required to accompany a Project Application for Building C7 and the pedestrian bridge providing a link to Kent Street at Barangaroo South. The Project Application works include construction of part of Napoleon Street (within the site) to provide access to the site from Hickson Road.

This preliminary assessment includes the following information relevant to the proposal:

- a background to the proposal;
- a description of the project; and
- identification of the key issues associated with the project.

Building C7 is located within Block 3 of the approved Concept Plan (as modified by Modification Application MP06\_0162 MOD 4). The approved Concept Plan (as modified) provides for predominantly commercial use within Block 3, with up to 142,669 m<sup>2</sup> of GFA and a maximum building height of RL of 209 m AHD. Under the Concept Plan (Mod 4) future applications for buildings within Blocks 2, 3, 4A, 4B and 4C may accommodate a redistribution of GFA (within the total GFA proposed for those blocks) resulting from the Urban Design Controls identified in modification B9 of the approval.

The proposed Kent Street Bridge is located partly within Block 3 of the approved Concept Plan (as modified by Modification Application MP06\_0162 MOD 4) and extends across Hickson Road to the east. The proposed bridge will provide a pedestrian connection between the northern part of Barangaroo South and the city.

A Project Application for Bulk Excavation and Basement Car Parking was approved by the Minister for Planning on 2 November 2010 (MP10\_0023) and subsequently modified under s75W of the Environmental Planning & Assessment Act on 3 March 2011. A further modification under s75W has been submitted and is being assessed by the Department of Planning. The majority of the Building C7 Project Application site located within the extent of the approved basement car park structure and is to be remediated as part of the works proposed under MP10\_0023. .

The Director General's requirements for the Environmental Assessment to accompany a Project Application for remediation and land forming works within the DECCW Declaration Area (MP10\_0026) were issued on 23 March 2010. A small portion of the Building C7 Project Application Site is to be remediated as part of the works proposed under MP10\_0026.

In terms of staging, the remediation works under MP10\_0026 and remediation and construction works under MP10\_0023 will occur prior to the works relating to the construction of Building C7.

Notwithstanding that this Preliminary Assessment relates only to Building C7, it is noted that once the Director General has separately determined the level and scope of the environmental assessment required to accompany Project Applications for other buildings in proximity to Building C7, Lend Lease may elect to prepare a single Environmental Assessment Report to accompany more than one Project Application.

## 1.1 Background

### 1.1.1 Approved Concept Plan

The Barangaroo Concept Plan was approved in February 2007. The Concept Plan covers urban design and policy initiatives and is the statutory planning approval to guide the urban renewal of Barangaroo.

The approved Concept Plan has been modified four times since originally being approved and the Statements of Commitments have been revised accordingly. MP 06-0162 MOD 4 was most recently approved in December 2010.

The Concept Plan approval (as modified) provides for:

- a 563,965m<sup>2</sup> mixed use development across the entire Barangaroo site, comprising:
  - a maximum of 514,465m<sup>2</sup> mixed uses GFA, including residential, commercial and retail uses which includes;
    - a maximum of 128,763m<sup>2</sup> of residential uses (a minimum of 99,763m<sup>2</sup> of which will be in Barangaroo South);
    - a maximum of 50,000m<sup>2</sup> of tourist uses GFA;
    - a maximum of 39,000m<sup>2</sup> of retail uses;
  - a maximum of 4,500m<sup>2</sup> of active uses GFA (3,000m<sup>2</sup> of which will be in Barangaroo South); and
  - a maximum of 12,000m<sup>2</sup> of community uses GFA (10,000m<sup>2</sup> of which will be in Barangaroo South);
- approximately 11 hectares of new public open space/public domain, with a range of formal and informal open spaces serving separate recreational function and including a 2.2km public foreshore promenade;
- built form principles, maximum building heights and GFA for each development block within the mixed use zone;
- public domain landscape concept, including parks, streets and pedestrian connections; and
- alteration of the existing seawalls and creation of a portion of the new shoreline to the Harbour.

In addition to the terms of approval, the Statements of Commitment approved under the existing Concept Plan (as modified) require a series of Implementation Plans and Strategies to be prepared prior to the lodgement of relevant future project applications to address:

- Design Excellence;
- Public Domain;
- Transport Management and Access;
- Community and Social Impacts;
- Utility Services and Infrastructure;
- Housing;
- Marketing and Promotion;
- Retail Management; and
- Geotechnical and Environmental Site Remediation.

The Statements of Commitment require the establishment of Technical Working Groups to prepare each Implementation Plan and Strategy. The Technical Working Groups have been convened and meet regularly to consider relevant documentation (refer to Section 4 for further details).

### 1.1.2 Stage 1 Tender and Bid Process

The 22 hectare Barangaroo site has been divided into three distinct redevelopment areas (from north to south) – the Headland Park, Barangaroo Stage 2 (referred to herein as Barangaroo Central) and Barangaroo Stage 1 (herein referred to as Barangaroo South).

Lend Lease was successfully appointed as the preferred proponent to develop Barangaroo South on 20 December 2009. Lend Lease's appointment follows approximately 18 months of open and subsequently selective tendering by multiple consortia. At each stage of the process, the consortia were required to develop and submit increasingly detailed designs for Barangaroo South, which were evaluated by the Barangaroo Delivery Authority and its evaluation panel.

The Stage 1 bid chronology can be broadly summarised as follows:

- April 2008 – Stage 1 Expression of Interest released;
- June 2008 – Stage 1 Expression of Interest closes;
- September 2008 – Shortlist of 3 proponents (including Lend Lease) announced and invited to participate in the Stage 1 Request for Detailed Proposals (RFDP);
- August 2009 – Lend Lease and Brookfield Multiplex chosen as final 2 proponents to participate in the Final Phase RFDP process;
- November 2009 – Final Phase bids close; and
- December 2009 – Lend Lease announced as winning preferred proponent.

The scheme submitted by Lend Lease and selected by the State Government was chosen as the winning bid on the basis that it exhibits the urban structure, place making, sustainability, and financial drivers required to ensure the viability of Barangaroo's Southern Precinct.

## 1.2 Other Project Applications

The following Project Applications have been approved/submitted for approval under the approved Concept Plan:

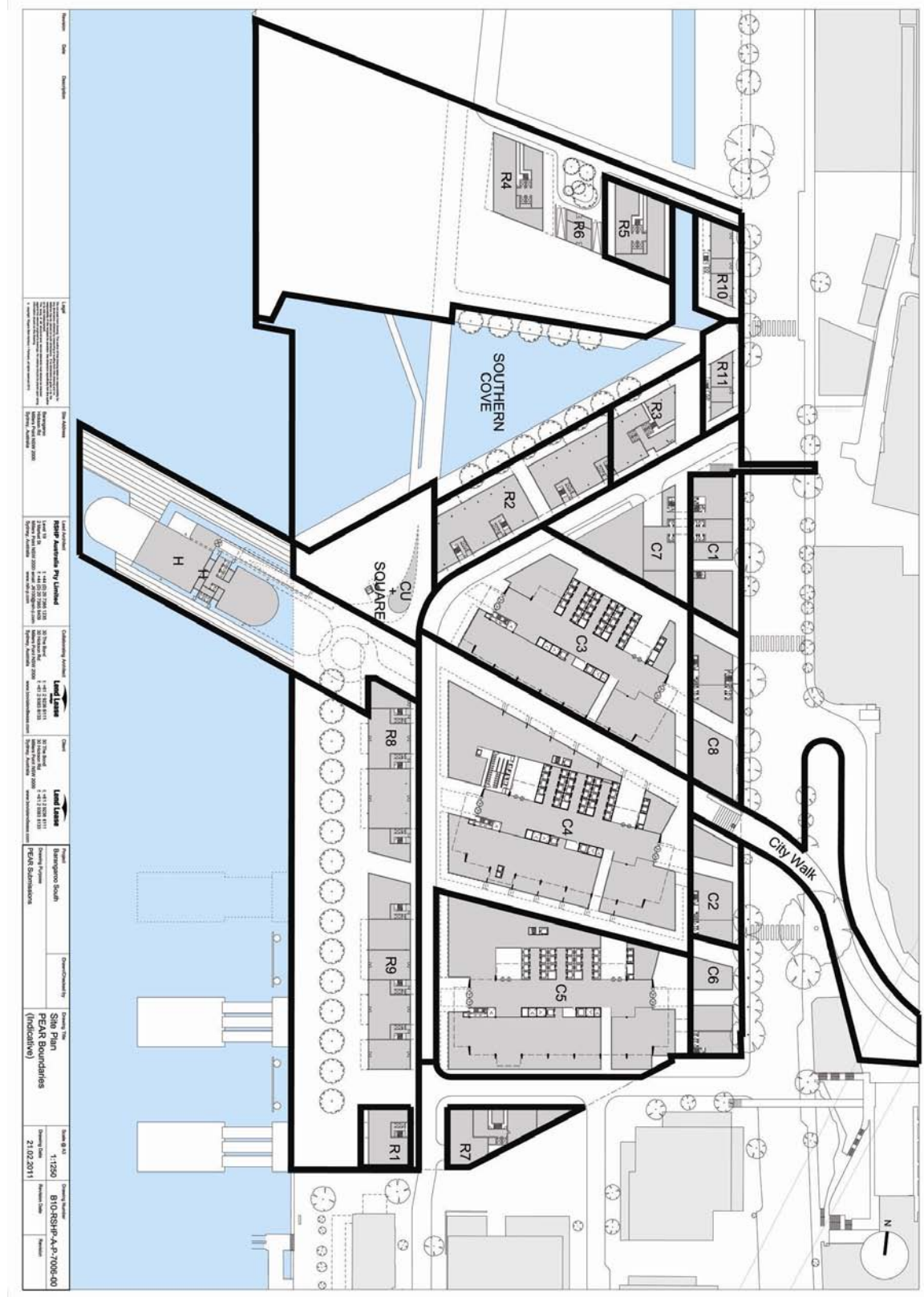
- Barangaroo Demolition Works (MP07\_0077);
- Bulk Excavation and Basement Car Parking (MP10\_0023);
- Commercial Building C4 (MP10\_0025);
- Headland Park and Northern Cove Early Works (MP10\_0047);
- Headland Park and Northern Cove Main Works (MP10\_0048); and
- Block 5 and Hickson Road Pilot Trial (MP10\_0087).

Furthermore, Preliminary Environmental Assessments have been submitted to assist the Director General in determining the environmental assessment requirements for a number of proposed Project Applications across Barangaroo South. **Figure 1** provides an overall site plan showing the preliminary boundaries for each Project Application and the location of Building C7. As noted above, Lend Lease may elect to prepare a single Environmental Assessment Report to accompany more than one identified Project Application site.

Of particular relevance to the Project Application for Building C7 is the approved Bulk Excavation and Basement Car Parking Project Application (MP10\_0023), and



the proposed Project Applications for the remediation of the DECCW Declaration Area (MP10\_0026), and for Commercial Buildings C3, C8 and C1. Further detail in relation to these applications is provided below.



**Figure 1** – Overall site plan showing preliminary Project Application site boundaries

### 1.2.1 Bulk Excavation and Basement Car Parking

A Project Application for Bulk Excavation and Basement Car Parking within Blocks 1-3 was publicly exhibited in July and August 2010 and was approved by the Minister for Planning on 2 November 2010.

The Project Application works include:

- demolition of existing structures and footings and vegetation removal;
- site establishment works;
- bulk earthworks for the purposes of excavating for the basement within Blocks 1, 2 and 3 and the adjacent public domain area;
- on-site treatment and remediation of contaminated soils;
- structural works, including the construction of foundations, basement levels and basement walls;
- up to 880 car parking spaces;
- road works, including the extension of Margaret Street (known as Margaret Street West in the approved Concept Plan) and Lime Street;
- construction of temporary vehicular access from Hickson Road and permanent vehicular access from Margaret Street West;
- associated utilities and infrastructure works including decommissioning and/or relocation of services; and
- temporary use of the basement for construction related storage and activity.

A Section 75W Modification Application seeking to modify MP 10\_0023 to extend the area of the approved basement to the south within Blocks 1 and 2 was approved on 3 March 2011. The modified works include additional excavation and bulk earthworks and on-site treatment and remediation of additional contaminated soils and an extension to the basement structure to support future development within Block 1 of Barangaroo South as well as expanding the plant provision that is required to support future development within Blocks 1 - 4. A further modification has been submitted and is currently being assessed by the Department of Planning.

The Building C7 Project Application site area in relation to the Bulk Excavation and Basement Car Parking Project Application site area is illustrated on **Figure 2**. In terms of staging, the works under MP10\_0023, including remediation works, will occur prior to the construction of Building C7 works within the site area of MP10\_0023.

### 1.2.2 Remediation and Land Forming Works

In May 2009, DECCW declared part of the Barangaroo site (Blocks 4 and 5) and immediately adjacent land within the Hickson Road reservation to be a remediation site under the Contaminated Land Management Act, 1997 (Declaration No.21122) (known as the DECCW Declaration Area).

On 23 March 2010 the Director General's requirements were issued for the Environmental Assessment to accompany a Project Application (MP10\_0026) for remediation of the DECCW Declaration Area. A Project Application will be submitted seeking approval to remediate the contaminated portions of the DECCW Declaration Area.

The Building C7 Project Application site area in relation to the DECCW Declaration Area that will be subject to remediation under MP10\_0026 is illustrated on **Figure 2**. A small portion of the Project Application site area is within the MP10\_0026 Project Application site. In terms of staging, the remediation works under

MP10\_0026 will occur prior to the Building C7 works within the DECCW Declaration Area.

### 1.2.3 Buildings C3, C8 and C1 Project Applications

Preliminary Assessments have been submitted to the Department to seek the Director General's requirements for an Environmental Assessment for the construction of Buildings C3, C8 and C1. The Director General's Requirements for Building C3 were issued in May 2010.

Buildings C3, C8 and C1 are also located within Block 3, and together with proposed Building C7 comprise the commercial development proposed within Block 3.

The following table identifies the preliminary gross floor area (GFA) proposed for Building C1, C3, C7 and C8:

| Building | Preliminary Assessment GFA |
|----------|----------------------------|
| C1       | 5,050 m <sup>2</sup>       |
| C3       | 117,500 m <sup>2</sup>     |
| C7       | 8,300 m <sup>2</sup>       |
| C8       | 5,050 m <sup>2</sup>       |
| Total    | 135,900 m <sup>2</sup>     |

The works proposed as part of the Building C7 Project Application immediately adjoin the works proposed under the Building C1, C3 and C8 Project Applications.

## 1.1 Roads Amendment (Barangaroo) Regulation 2010

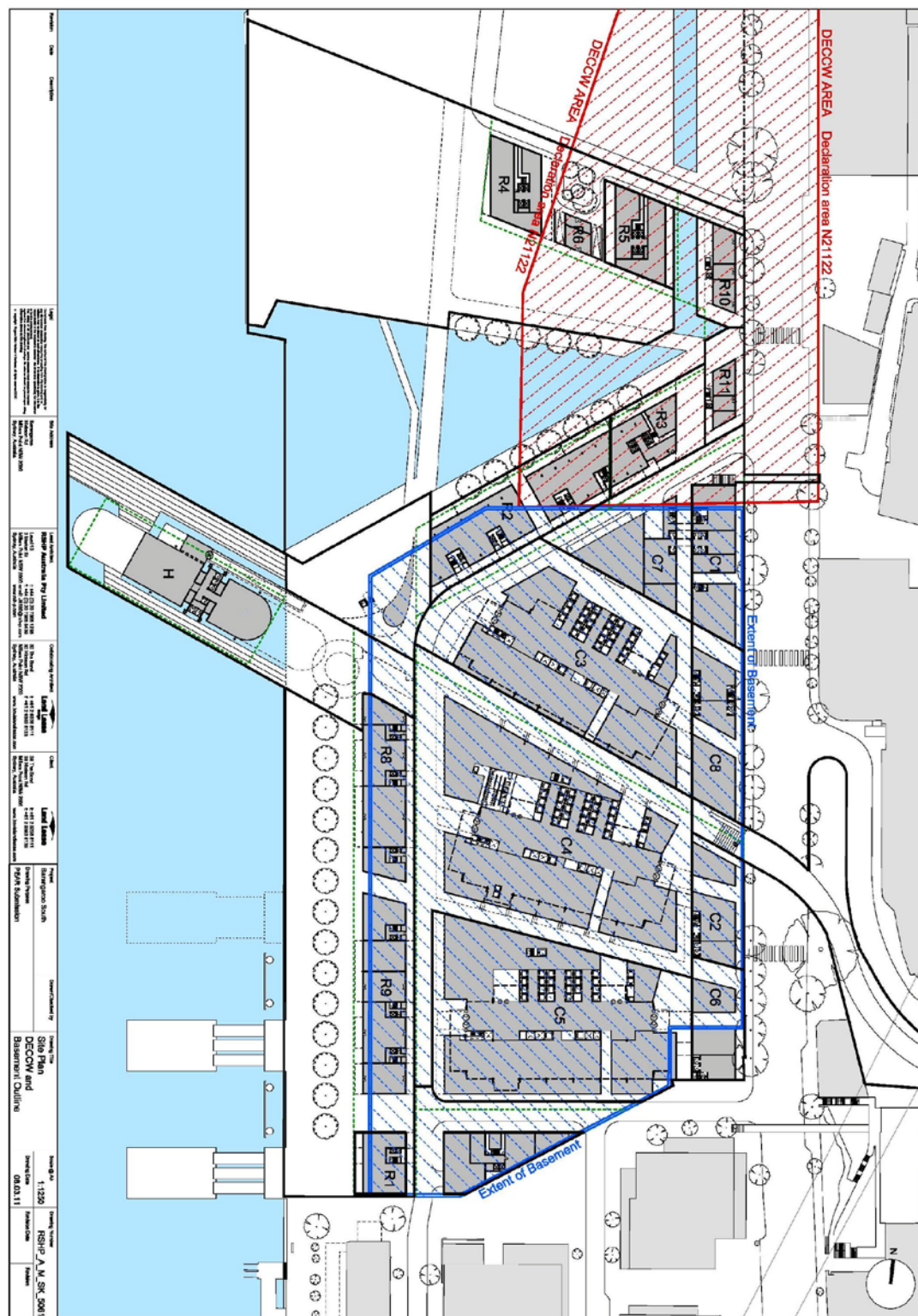
The Project Application Site includes parts of the Hickson Road reservation.

On 14 January 2011, the Roads Amendment (Barangaroo) Regulation 2010 was made. The Amendment declares the Barangaroo Delivery Authority to be the roads authority for the public roads shaded red on the plan marked "Roads Authority Plan – Barangaroo" and dated 6 December 2010, including that part of Hickson Road included within the Project Application site. The declaration was made to allow remediation works and construction of pedestrian bridges that integrate Barangaroo with the city, including the subject pedestrian bridge.

The Roads Amendment (Barangaroo) Regulation 2010 commenced on 31 January 2011.

In accordance with Section 145 of the Roads Act 1993, that part of the Hickson Road reservation included within the Project Application site is in the ownership of the Barangaroo Delivery Authority, as the relevant roads authority.

The consent of the Barangaroo Delivery Authority will be submitted to the Department of Planning prior to determination of the Project Application.



**Figure 2** – Relationship of Building C7 to DECCW Declaration Area (MP10\_0026) and Extent of Basement (MP10\_0023)



## 2.0 The Project

The Project Application for Building C7 will seek approval for the construction of a predominantly commercial building within Block 3 of the approved Concept Plan (as modified), and associated public domain works within the Project Application site including the construction of part of Napoleon Street (within the site). The proposed location of Building C7 and the pedestrian bridge within Barangaroo South is illustrated indicatively at **Appendix A**.

Building C7 sits within Lot 5 in DP 876514 which is owned by the Barangaroo Delivery Authority. The proposed Kent Street bridge sits partly within Lot 5 in DP 876514, partly within the Hickson Road Reservation and partly within Lot 1 in DP 813557. Hickson Road is owned by the Barangaroo Delivery Authority, and Lot 1 in DP 813557 is owned by the Waterways Authority. The Building C7 Project Application site is located to the immediate west of Hickson Road and has an area of approximately 2,440 m<sup>2</sup> (including the Kent Street Bridge).

The Project Application will seek approval for:

- a total Gross Floor Area (GFA) of approximately 8,300 m<sup>2</sup> including approximately 5,500 m<sup>2</sup> commercial GFA and 2,800 m<sup>2</sup> retail GFA;
- a maximum building height of approximately RL 73;
- building signage; and
- strata subdivision.

In terms of staging, the works under MP10\_0023 and MP10\_0026 will occur prior to the works proposed as part of the Building C7 Project Application.

Additional piling and associated earthworks that extend beyond the extent of the remediation works (that are proposed as part of the Remediation and Land Forming Project Application and Bulk Excavation and Basement Car Parking Application) may be required in relation to the construction of Building C7 and associated basement structures. This may involve the transportation, re-use and disposal of some excavated material from the piling and associated earthworks.

Landscaping and public domain works within the Building C7 Project Application site area are proposed to be undertaken as part of this Project Application, including the construction of part of Napoleon Street and part of Shelley Lane. The remainder of Napoleon Street is proposed to be constructed as part of the Building C3 Project Application, which also incorporates the construction of part of Shelley Lane. The Project Application may include both temporary and permanent public domain works within the Project Application site boundary. These works will be fully integrated with the public domain and landscaping works proposed as part of the Building C3 works.

Indicative drawings of the proposed built form of Building C7 and the Kent Street pedestrian bridge are included at **Appendix A**.

## 3.0 Statutory Framework

The planning controls for the Barangaroo site are contained in Schedule 3 Part 12 of the Major Development SEPP. The planning controls establish the category of development that is subject to assessment under Part 3A of the EP&A Act and the provisions applying to development within the Barangaroo site.

The planning controls for the Barangaroo site included in the Major Development SEPP were amended on 16 December 2010 to accommodate the Concept Plan (Mod 4).

The planning provisions applying to development within the site include:

- Land use zones, objectives and permitted uses;
- Exempt and complying development;
- Consent requirements for subdivision of land;
- Building height controls;
- Gross Floor Area (GFA) restrictions;
- Design excellence requirements;
- Heritage conservation controls; and
- Exceptions to development standards.

Part 12 Schedule 3 of the Major Development SEPP – “Barangaroo site”, zones the land part B4 Mixed Use and part RE1 Public Recreation. Building C7 is located within the land zoned B4 Mixed Use. Refer to **Figure 3**. The property at Kent Street, is currently zoned City Centre under Sydney Local Environmental Plan 2005 (LEP 2005) and is proposed to be zoned B8 Metropolitan Centre under Draft Sydney Local Environmental Plan 2011.

Maximum building heights and gross floor area (GFA) restrictions are established for nominated development blocks within the B4 Mixed Use zone, as illustrated on **Figures 4 and 5**.

Under the Major Development SEPP, a maximum of GFA of 428,932 m<sup>2</sup> is permitted across development Blocks 2, 3 and 4. A maximum height of RL 209 is permitted within development Block 3.

Clause 19 of the Major Development SEPP (Part 12, Schedule 3) sets the parameters for design excellence on the site. Consideration must be given to:

- Architectural design and materials;
- Form and external appearance of future buildings; and
- Whether buildings will meet sustainable design principles.

Other environmental planning instruments relevant to the proposal are:

- State Environmental Planning Policy No 55 - Remediation of Land; and
- State Environmental Planning Policy (Infrastructure) 2007.



Figure 2 - Existing Barangaroo Land Zoning Map



Figure 3 - Existing Barangaroo Building Height Map



Figure 4 – Existing Barangaroo Gross Floor Area Map



## 4.0 Key Issues

The Building C7 Project Application works sit within the areas of land that are to be remediated as part of the Remediation and Landforming Works Project Application (MP10\_0026) and the Bulk Excavation and Basement Car Parking Project Application (MP10\_0023). The Building C7 project works within the DECCW Declaration Area and Bulk Excavation and Basement Car Parking Project Application will occur subsequently to the remediation proposed under those Project Applications (MP10\_0026 and MP10\_0023).

The EAR accompanying the approved Bulk Excavation and Basement Car Parking Project Application provided detailed information and an environmental assessment of a number of planning and environmental issues that are beyond the scope of works proposed for the Building C7 Project Application. These include:

- demolition and tree removal;
- remediation of contaminated material;
- transportation, re-use and disposal of excavated material;
- non indigenous archaeology;
- indigenous archaeology;
- geotechnical impacts;
- acid sulphate soils;
- de-watering, groundwater treatment and water quality; and
- environmental protection structures.

The Project Application for Building C7 will be informed by the detailed assessments included in the Bulk Excavation and Basement Car Parking Project Application.

The EAR accompanying the Remediation and Landforming Works Project Application will further provide detailed information and an environmental assessment of these planning and environmental issues as they relate to the scope of the works that are to be included in that Project Application. The Project Application for Building C7 will also be informed by the detailed assessments included in the Remediation and Landforming Project Application.

All of the necessary site preparation works required to be undertaken prior to any proposed Building C7 earthworks being undertaken will be carried out in accordance with the approved Bulk Excavation and Basement Car Parking Project Application or the proposed Remediation and Landforming Works Project Application and will not form part of the C7 Building Project Application.

Additional piling and associated earthworks that extend beyond the extent of the remediation works (that form part of the Remediation and Land Forming Project Application and Bulk Excavation and Basement Car Parking Project Application) may be required in relation to the construction of Building C7. Any piling and associated works will be identified and assessed in the Environmental Assessment.

In addition, the Concept Plan Statement of Commitments requires the following Plans and Strategies to be submitted to the Planning Reference Group prior to lodgement of any relevant Projection Application (other than for demolition or early /site preparation work).

- Design Excellence Strategy;
- Public Domain Plan including Public Art Strategy;
- Transport Management and Accessibility Plan;
- Utility Services Infrastructure Plan;
- Integrated Water Management Plan and Guidelines – covered by the Stormwater Plan and the ESD Report;
- Marketing and Promotion Strategy and Retail Management Plan; and
- Community and Social Plan.

In conformance with the Statement of Commitments the above plans and strategies have been submitted to the Planning Reference Group aside from the Housing Strategy which is to be lodged with the first residential project application. Where relevant these will be updated and submitted with the EAR for Building C7.

Therefore the key environmental considerations associated with the proposed project are identified to be as follows:

- Consistency with relevant environmental planning instruments, policies and strategies;
- Consistency with the existing Concept Plan Approval (as modified);
- Design Excellence and Urban Design;
- Built Form including visual analysis;
- Public Domain including temporary landscaping works;
- Traffic and Transport (pedestrian, cycleways, public transport, car parking);
- Water Quality;
- Utilities, Services and Infrastructure;
- Climate Change and Sea Level Rise;
- Sustainability;
- Structural Engineering;
- Amenity including wind, noise, overshadowing and visual impact; and
- Construction Management including noise and vibration, air quality impacts and waste management.

#### 4.1.1 Consistency with relevant environmental planning instruments and policies

The EAR will include an assessment of the proposed buildings / works against the planning controls in the relevant environmental planning instruments and against the other relevant planning policies.

The following legislation, strategies and planning instruments are considered to be relevant to the application:

- State Environmental Planning Policy (Major Developments) 2005;
- State Environmental Planning Policy No 55 - Remediation of Land;
- Sydney Local Environmental Plan 2005;
- NSW State Plan;
- Metropolitan Plan for Sydney 2036;
- Draft Sydney City Subregional Strategy; and
- Sustainable Sydney 2030.

#### 4.1.2 Consistency with the approved Concept Plan and Schedule 3 Listing

The EAR will include an assessment of the proposed development against the approved Concept Plan (as modified) and the planning controls listed in Schedule 3 of the Major Development SEPP (as amended on 16 December 2010).

The Concept Plan approval sets out the built form controls for Block 3 which are:

- Maximum GFA – 142,669 m<sup>2</sup>;
- Maximum height – RL 209 m (207 m above existing ground level);
- Urban Design Controls including:
  - a minimum predominant podium height of 3 storeys;
  - a minimum 20 metre tower form setback to Hickson Road;
  - a primary tower floor plate depth, excluding structure and shading devices, which establishes a 30 metre zone;
  - a maximum horizontal floor plate on the north and south tower elevation of 85.5 metres;
  - maximum tower facade dimensions of 60 metres in length and 60 metres in height (or equivalent area) without articulation;
  - establishment of a street wall and colonnade along Hickson Road;
  - provision of two north to south primary connections (including the Hickson Road colonnade and Shelley Lane) and two east to west connections (including CityWalk and a northern laneway) through the block;
  - provision of secondary north south and east west pedestrian connections through the block; and
  - establishment of Shelley Lane at a minimum of 6 metres in width with a defined eastern edge parallel to Hickson Road.

In addition under the Concept Plan approval future applications for buildings within Blocks 2, 3, 4A, 4B and 4C may accommodate a redistribution of GFA (within the total GFA proposed for those blocks) resulting from the Urban Design Controls identified in modification B9 of the approval.

The Urban Design objectives for Block 3 also relevantly require that the northern half of the Block (Building C7) contain comparatively lower buildings (when compared to the tower forms).

As detailed in Section 2, Building C7 will comprise approximately 8,300 m<sup>2</sup> of GFA and will be up to RL 73m in height. Together with proposed Buildings C1, C3 and C7, a total of 135,900 m<sup>2</sup> GFA is proposed within Block 3. The proposed built form will be compliant with the existing Concept Plan Approval (as modified) and Major Development SEPP provisions.

The EAR will benchmark Building C7 against the Concept Plan Urban Design Controls and Built Form Principles and address building height and modulation, setbacks, view sharing, landscape design, solar access and orientation.

### 4.1.3 Design Excellence

Pursuant to Clause 19, Part 12 of Schedule 3 of the Major Development SEPP, in determining an application for a new building at Barangaroo, the consent authority must consider whether the proposed development exhibits design excellence.

In considering whether the proposed building exhibits design excellence, the consent authority must have regard to the following matters:

- a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved;*
- b) whether the form and external appearance of the building will improve the quality and amenity of the public domain;*
- c) whether the building will meet sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency; and*
- d) if a design competition is required to be held in relation to the building, as referred to in subclause (3), the results of the competition.*

Clause 19(3) requires a design competition to be held for development that will be greater than Reduced Level (RL) 57, or where the erection of a new building is proposed on a site of greater than 1,500 square metres, unless the Director-General certifies in writing that the development exhibits design excellence.

In addition, Condition C2 – Design Excellence of the approved Concept Plan requires a design excellence competition to be held by the Director General and convention of a design review panel for development that exceeds 55 metres in height, or is on land exceeding 1,500m<sup>2</sup> in area. Under Condition C2, the key matters for consideration are:

- whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved;
- whether the form and external appearance of the building will improve the quality and amenity of the public domain;
- whether the building meets sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency;
- a comparison of the proposed development against the indicative building controls identified in Section 13.0 – Built Form of the approved EAR; and
- whether the new development detrimentally impacts on view corridors, particularly from public spaces and streets.

The Building C7 Project Application site has a site area exceeding 1,500 sqm, and a building height exceeding RL 57.

Prior to lodgement the design of Building C7 will be subject review by the Authority, its advisors and the Design Excellence Review Panel and other key

stakeholders. The EAR for Building C7 and the pedestrian bridge will detail the design rationale for the building and demonstrate the proposal's consistency with the Concept Plan (as modified) and the relevant SEPP controls.

In accordance with the submitted Design Excellence Strategy the design of the Building C7 and will be subject to an invited design competition. Lend Lease will invite a minimum shortlist of three architectural firms to participate in a design competition. The competition jury will comprise two representatives of Lend Lease, two representatives of the Barangaroo Delivery Authority, one independent representative agreed to by the Barangaroo Delivery Authority

#### 4.1.4 Public Domain

As outlined in Section 2, Lend Lease proposes to undertake public domain works within the Building C7 Project Application site area including the construction of the Kent Street bridge, part of Napoleon Street and part of Shelley Lane.

The Project Application will demonstrate the proposal's response(s) to:

- the relationship of the proposed buildings to urban public spaces, streets and the adjoining built form;
- the relationship between the public domain and the ground floor uses of the proposed building including any temporary public domain elements; and
- links, connections and access conditions between the building and its surrounds.

The approved Concept Plan Statements of Commitment require the preparation of a Public Domain Plan prior to lodgement of project applications for building works. A Public Domain Plan for Barangaroo South has been prepared in consultation with the Technical Working Group and submitted to the Planning Reference Group. The Public Domain Plan will be updated and submitted with the application if necessary.

A landscape plan will be submitted with the application detailing consistency with the submitted Public Domain Plan.

Public domain and landscaping works will be fully integrated with the public domain works proposed as part of the Building C3 Project Application works (which also include the construction of part of Napoleon Street and part of Shelley Lane).

#### 4.1.5 Transport and Traffic

A supplementary Transport Management and Access Plan will be prepared for the Project Application by a suitably qualified consultant consistent with the requirements of the Concept Plan Statement of Commitments.

The supplementary TMAP will inform the preparation of the Project Application and will address the impacts of the project including:

- site access arrangements for vehicular access to and from the site;
- likely traffic impacts on local street network and surrounding intersections;
- access to public transport services;
- allocation of car parking spaces within the basement car park;
- loading dock arrangements; and
- provision of temporary and permanent bicycle parking; and
- pedestrian access and safety adjacent to and around the site.

Construction traffic management will be addressed in a Construction Management Plan which will be submitted with the EAR.

#### 4.1.6 Utilities, Services and Infrastructure

A suitably qualified expert will be commissioned to:

- determine utilities, services and infrastructure works required; and
- identify existing infrastructure which also provides services to surrounding development.

The EAR will also detail consultations held with utility providers regarding the existing and future infrastructure to be provided on the site.

#### 4.1.7 Climate Change and Sea Level Rise

A Climate Change and Sea Rise Report will be prepared in accordance with the draft NSW Coastal Planning Guideline: Adapting to Sea Level Rise to assess the potential risks to Building C7 that may arise due to climate change and sea level rises including:

- inundation of ground level during storm surge events;
- accelerated degradation of infrastructure, building materials and structures due to inundation events; and
- impacts to infrastructure and services from storm surge and extreme rainfall events.

#### 4.1.8 Water and Soils

The proposed Project Application has the potential to affect water quality by way of stormwater runoff and increased sedimentation, particularly into Sydney Harbour. An Integrated Water Management Plan addressing water demand, wastewater management and stormwater management is required to be prepared under the approved Concept Plan and has been submitted with the Project Application for Building C4 and the Bulk Excavation and Basement Car Parking Project Application.

Lend Lease will prepare an updated Plan in support of the Building C7 Project Application to:

- Identify existing stormwater drainage locations;
- Determine the potential for water pollutants to be generated;
- Nominate measures that will be taken to collect, store and treat stormwater and run off;
- investigate the feasibility of on-site treatment of stormwater;
- consider the potential to harvest stormwater to meet non-potable demands;
- identify treatment measures for stormwater leaving the site to national best practice standards, with the particular aim to reduce average annual loads of total suspended solids by 80% and nutrients by 45%;
- investigate schemes to reduce potable water demand;
- identify water efficient appliances and fixtures for potable water demand management throughout the commercial buildings;
- investigate schemes to manage wastewater from the commercial buildings as a resource for re-use elsewhere on the site;
- identify processes and measures to treat and recycle wastewater as an alternate source of non potable water, especially for the purposes of public open space irrigation;
- identify management methods to ensure that sediment is not transported from the site; and

- address erosion and sediment control mitigation measures.

#### 4.1.9 Sustainability

The approved Concept Plan requires future applications to be accompanied by sustainability strategies that address water, energy, micro-climate, environmental quality, landscaping, transport, waste and materials.

Lend Lease is committed to achieving sustainability standards that are beyond what has been achieved on other Australian development sites. The Project Application will outline the sustainability measures proposed for the building. ESD strategies relating to water, energy, micro-climate, landscape, transport, waste and wind, required by the approved Concept Plan ESD Commitments will include:

- Minimum 5 star Green Star Rating for the commercial building;
- 35% reduction in potable water consumption and 40% reduction in flow to sewer;
- Reduction in greenhouse gas emissions, or alternatively purchase of carbon offsets;
- Planting of non-invasive species;
- Implementation of initiatives that encourage public transport use; and
- Centralised recycling areas within building and throughout the associated public domain.

#### 4.1.10 Amenity

##### Wind Impacts

The Project Application will be accompanied by a wind impact assessment which will demonstrate how wind impacts will be mitigated and managed through detailed design and articulation of the building. The wind impact assessments will be benchmarked against the Australian Wind Engineering Society Quality Assurance Manual as required by the approved Concept Plan Wind Commitment.

##### Acoustics (Operational)

An Acoustic Impact Assessment will be prepared by a suitably qualified consultant and will detail appropriate mitigation measures to minimise potential operation noise impacts. Similarly, assessments on potential vibration impacts will also be prepared.

##### Overshadowing

The Project Application will be accompanied by shadow diagrams and analysis which will demonstrate the overshadowing impacts of the proposal during the winter solstice (June 21) and the equinoxes (March 21 and September 21) and summer solstice (December 21).

##### Visual Analysis

A visual analysis will be undertaken, including photomontages and artists impression of key elements and views of the development from key locations including from Hickson Road and Darling Harbour.

#### 4.1.11 Construction Management

An Environmental, Construction and Site Management Plan (ECSMP) will be prepared to address environmental issues associated with the construction of Building C7. The ECSMP will address the following issues:

- Community consultation, notification and complaints handling;

- Impacts of construction on adjoining development and proposed measures to mitigate construction impacts;
- Noise and vibration impacts on and off site;
- Air quality and odour impacts on the surrounding neighbourhood;
- Water quality management for the site; and
- Waste management.

### Construction Noise and Vibration

A construction noise and vibration assessment will be prepared which will identify potential noise and vibration generated from the building works including construction plant and activities.

The noise and vibration assessment will assess background noise levels, identify noise sensitive receivers, estimate noise levels likely to be associated with the proposed works, assess impacts, and identify mitigation measures where required.

### Construction Air Quality

The construction works for Building C7 have the potential to affect air quality. An Air Quality Impact Assessment will be undertaken to assess the potential air and odour emissions. The following potential emissions will be addressed:

- Construction works;
- Diesel emissions from vehicles, plant and equipment used in construction activities; and
- Odour emissions associated with the operations of the building.

The air quality assessment will include mitigation measures where required.

### Construction Waste Management

During construction it is anticipated that a significant volume and variety of waste will be generated. A Construction Waste Management Plan will be prepared for the Project Application and include the following waste management measures:

- Waste avoidance and reduction;
- Resource recovery;
- Waste education / training;
- Waste utilisation on alternate sites;
- Good house keeping;
- Monitoring and reporting;
- Materials and procurement; and.
- Transportation of Waste.



Lend Lease is committed to minimising waste to landfill and greenhouse gas emissions associated with waste generation and the movement of waste from the site. The project will adopt a waste management target to reduce the amount of waste to landfill and seek to achieve 80% reuse or recycling of construction materials by weight.

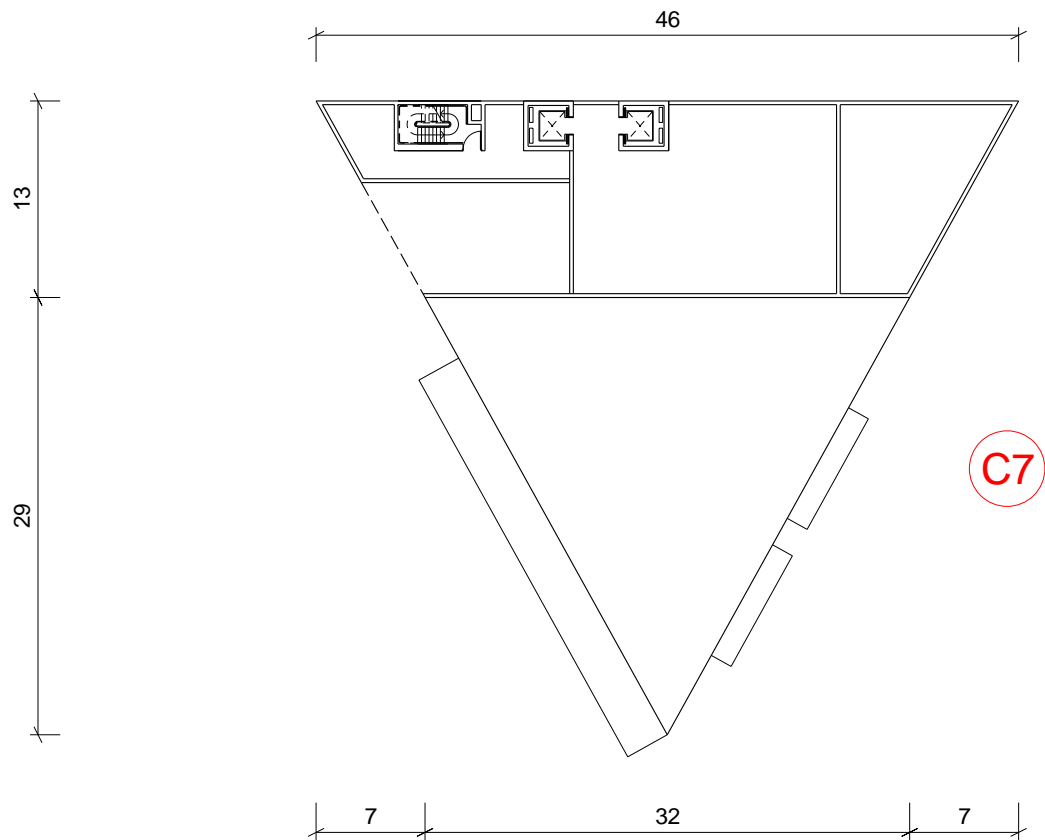
## 5.0 Conclusion

The information contained in this preliminary assessment is to assist the Director General in determining the level and scope of any requirements for environmental assessments to accompany a Project Application for Building C7 within Block 3 and the adjoining pedestrian bridge providing a link to Kent Street at Barangaroo South.

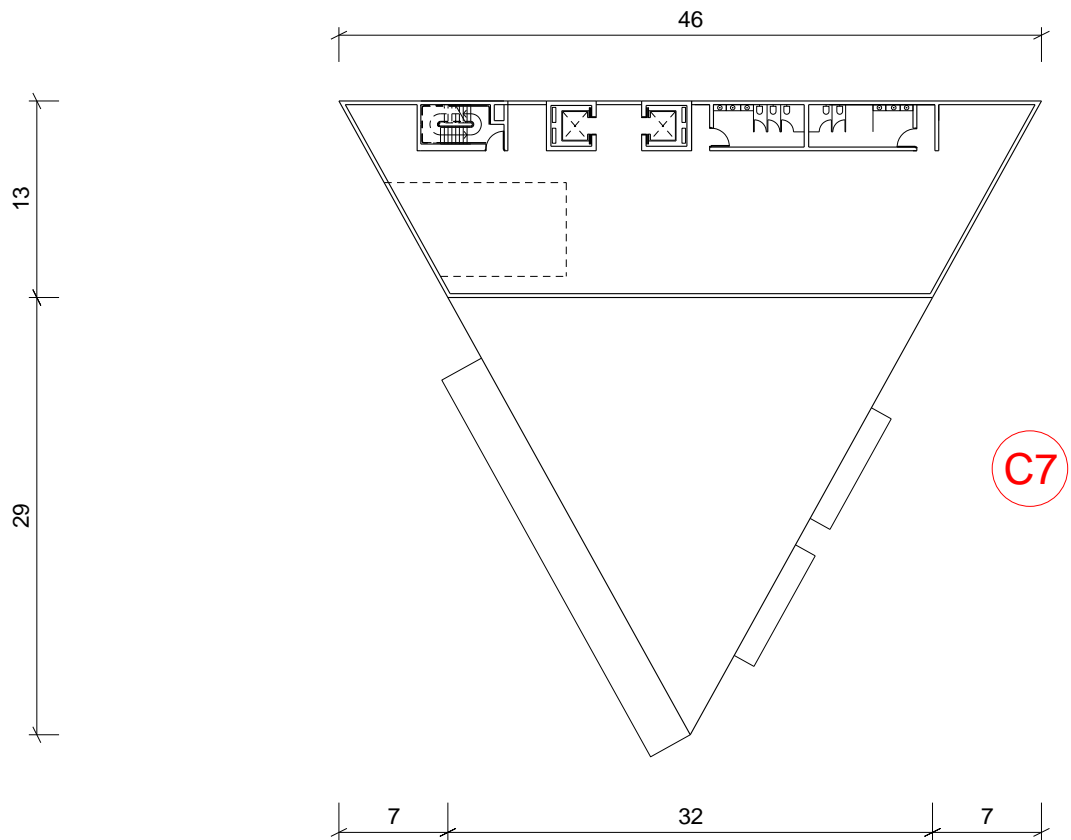
In accordance with provisions of Part 3A of *the Environmental Planning and Assessment Act, 1979*, it is requested that the Director General issue the requirements for the preparation of the EAR to accompany the Project Application for Building C8 and the Kent Street Bridge.

As noted above, notwithstanding that this Preliminary Assessment relates only to the issue of DGRs for Building C7 and the pedestrian bridge, following the separate issue of DGRs for other buildings in proximity to Building C7, Lend Lease may elect to prepare a single Environmental Assessment Report to accompany more than one Project Application.

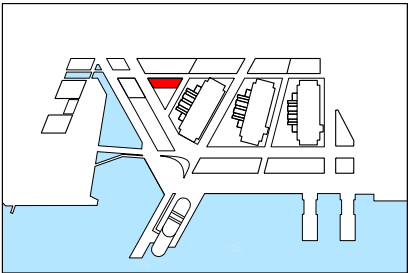






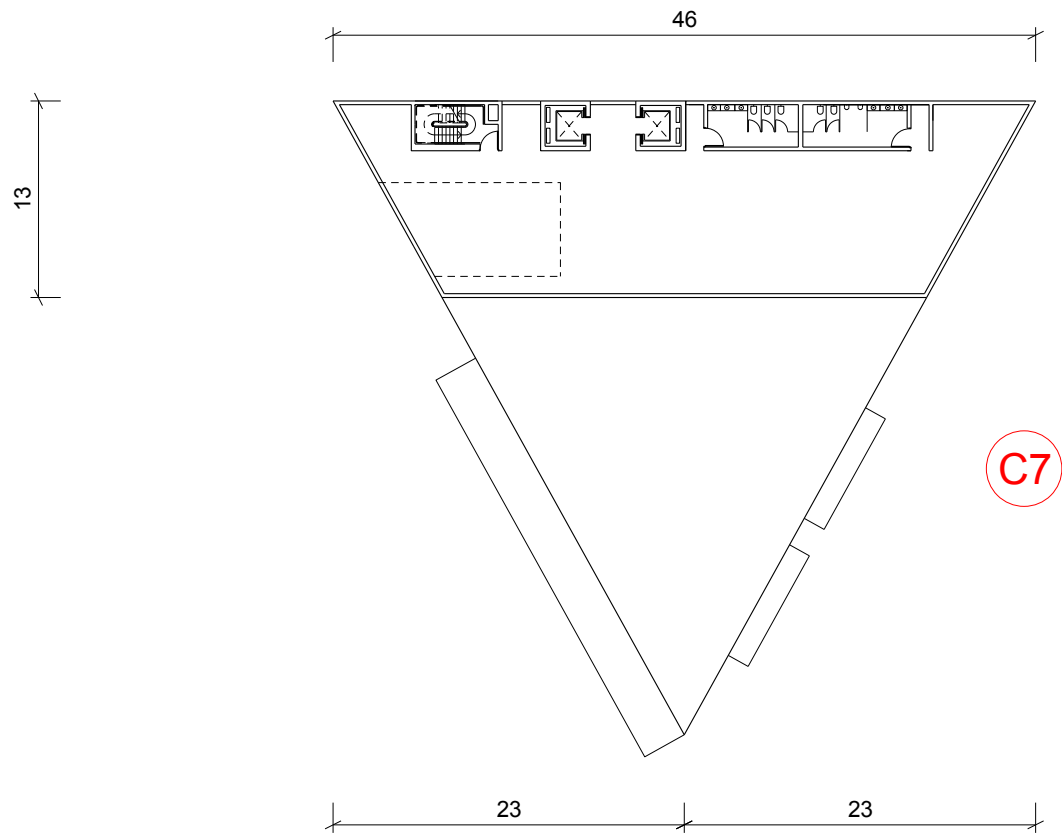
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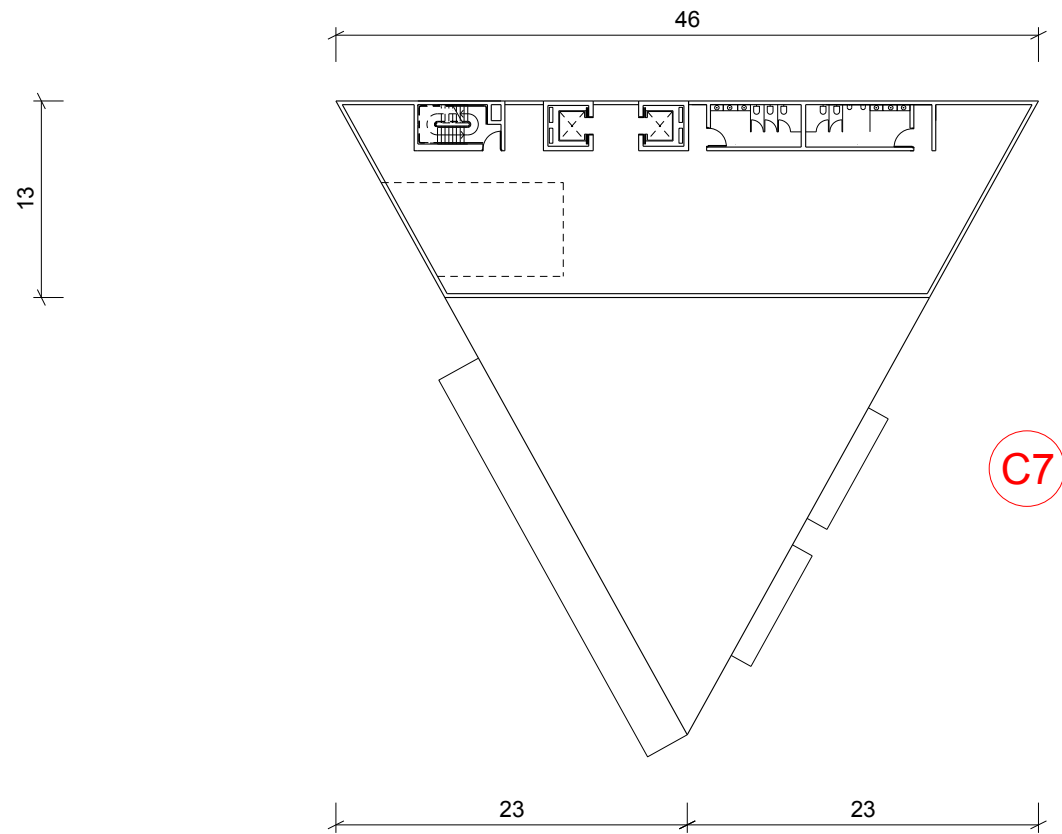
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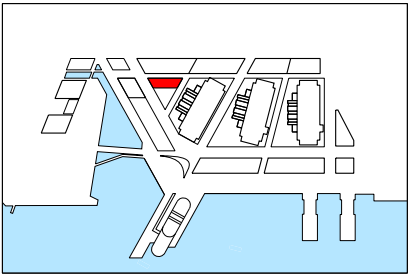
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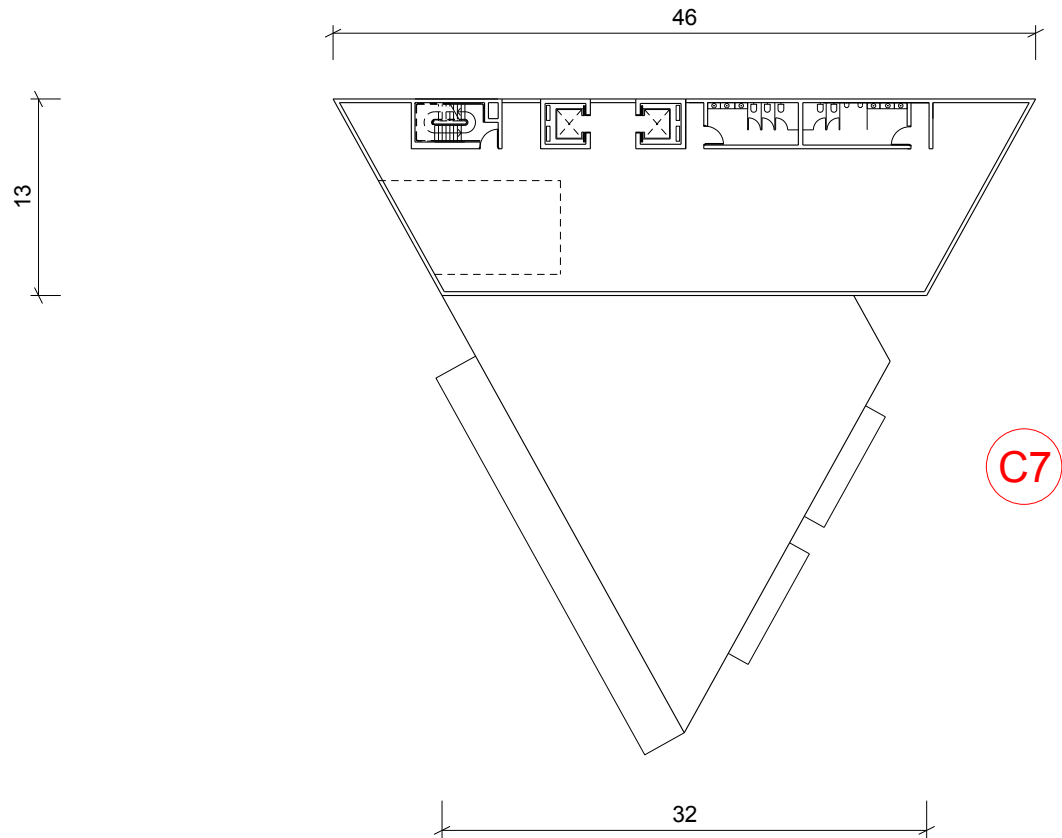
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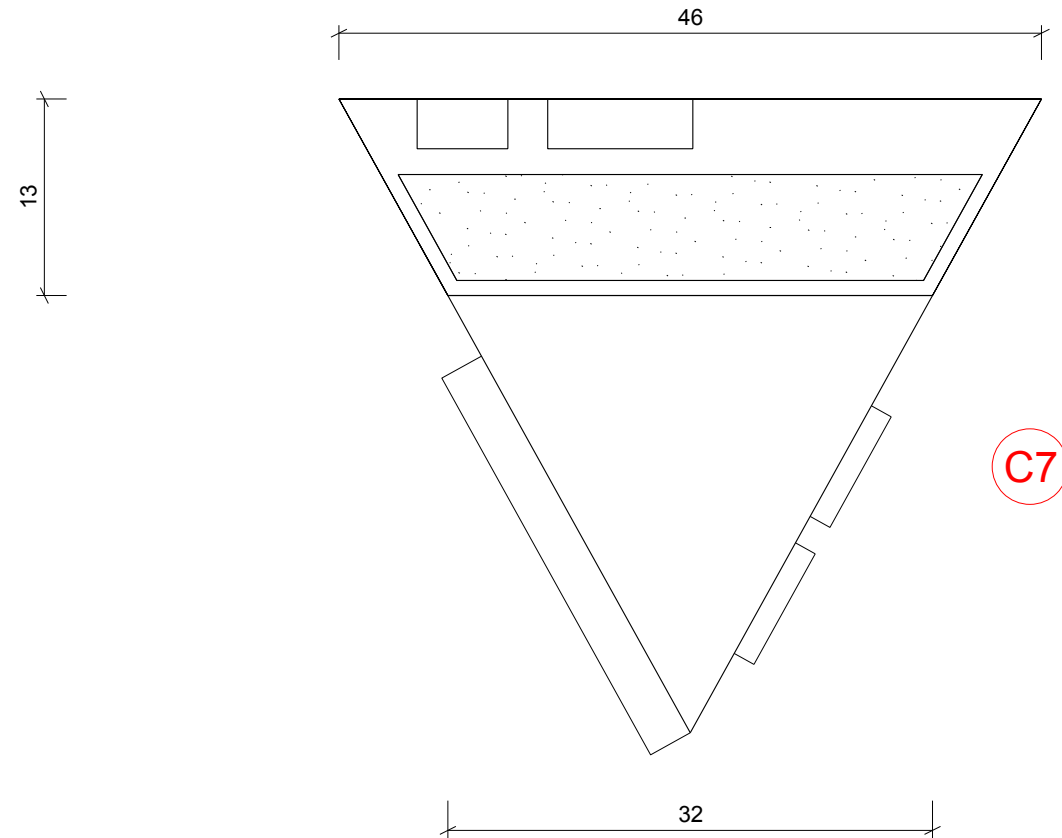
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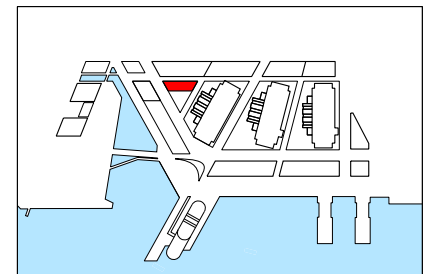
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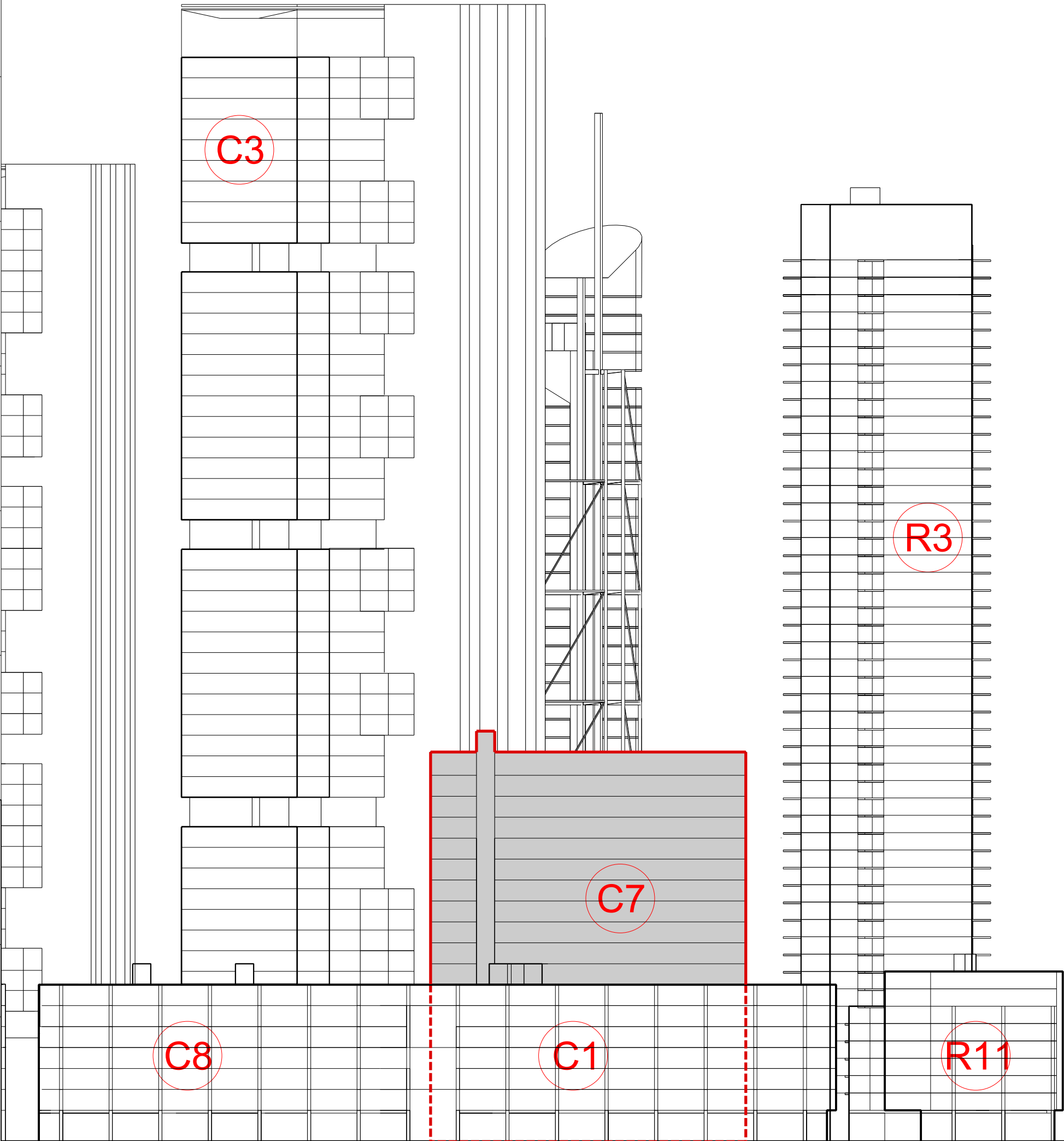
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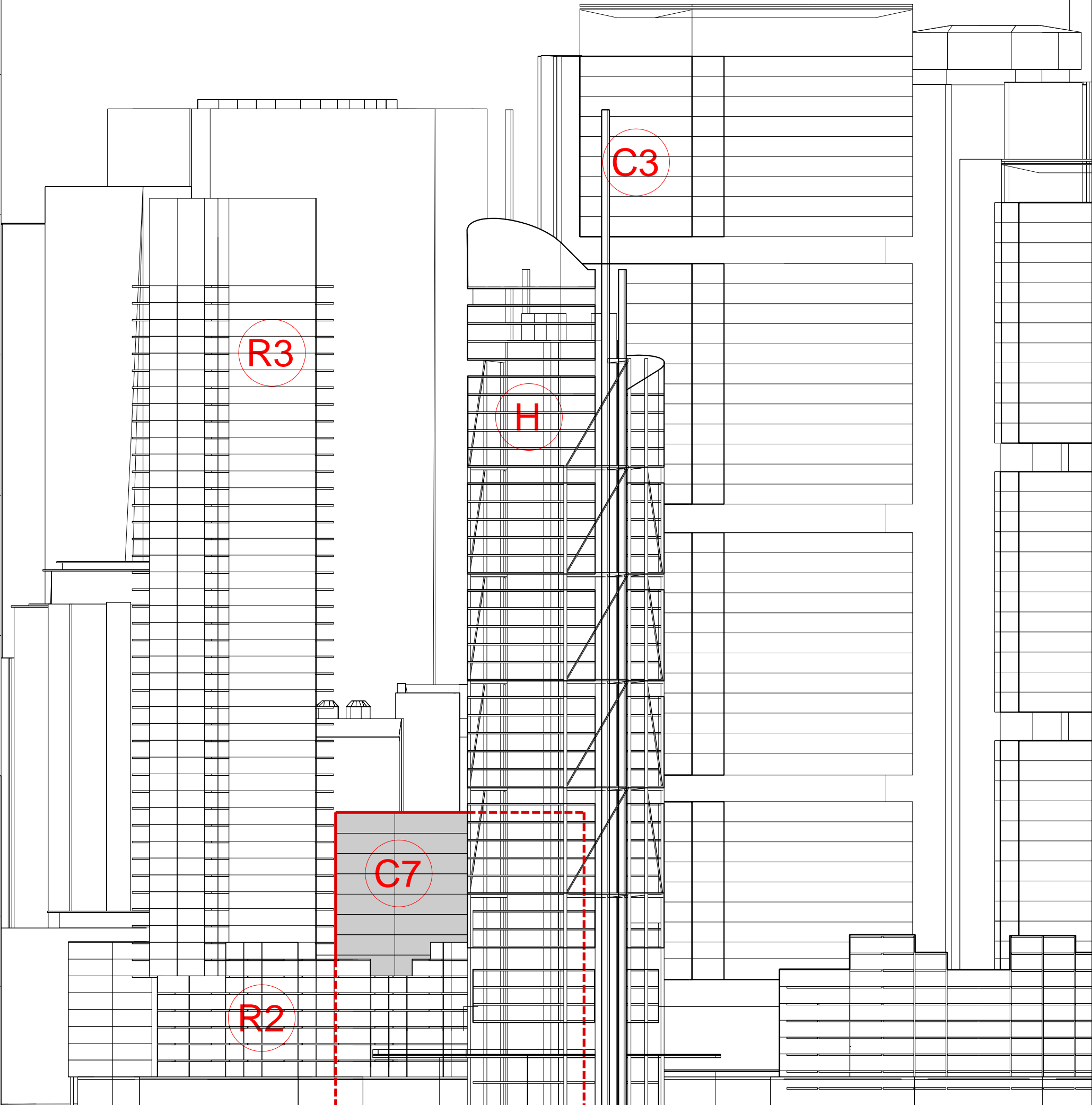


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