

Secretary's Environmental Assessment Requirements
Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*
Section 78A(8A) of the *Environmental Planning and Assessment Act 1979*

Application Number	SSD 6964
Proposal Name	Residential Building R4A
Location	Barangaroo South
Applicant	Lend Lease (Millers Point) Pty Ltd
Date of Issue	2 April 2015
General Requirements	The Environmental Impact Statement (EIS) must address the <i>Environmental Planning and Assessment Act 1979</i> and meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>. Notwithstanding the issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of the key issues below, and any other significant issues identified in the assessment, must include: • Adequate baseline data. • Consideration of potential cumulative impacts due to other development in the vicinity. • Measures to avoid, minimise, and if necessary, offset the predicted impacts, including detailed contingency plans for managing significant risks to the environment. The EIS must be accompanied by a report from a qualified quantity surveyor providing: • A detailed calculation of the capital investment value (as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the proposal, including details of all assumptions and components from which the CIV calculation is derived. • An estimate of the jobs that will be created by the development (construction and operation). • Certification that the information provided is accurate at the date of preparation.
Key Issues	The EIS must address the following specific matters: 1. Environmental Planning Instruments, Policies & Guidelines • Address the relevant statutory provisions applying to the site, contained in the relevant EPIs, including: - o State Environmental Planning Policy (State and Regional Development) 2011; - o State Environmental Planning Policy (Major Development) 2005; - o State Environmental Planning Policy 55 - Remediation of Land; - o State Environmental Planning Policy (Infrastructure) 2007; - o State Environmental Planning Policy No.65 – Design Quality of Residential Flat Development; - o State Environmental Planning Policy (Building Sustainability Index – BASIX) 2004; and - o Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.

	• Address the relevant provisions, goals and objectives in the following: - o <i>NSW 2021;</i> - o <i>Plan for Growing Sydney;</i> - o <i>Draft Sydney City Sub-Regional Strategy;</i> - o <i>NSW Long Term Master Transport Plan;</i> - o <i>Sydney's Cycling Future;</i> - o <i>Sydney's Walking Future;</i> - o <i>Sydney City Centre Access Strategy;</i> - o <i>Residential Flat Design Code;</i> - o <i>Barangaroo Integrated Transport Plan; and</i> - o <i>Barangaroo Housing Strategy.</i> 2. Barangaroo Concept Plan • Demonstrate how the proposal is consistent with the Concept Plan MP06_0162 (as modified), including any relevant Statement of Commitments. 3. Land Use and GFA • Provision of a table identifying the building's different land uses*, including a floor by floor breakdown of GFA, total GFA and site coverage. * Retail uses must be separately defined as per the Standard Instrument. • If the proposed uses include pubs, bars, nightclubs or the like, detailed Plans of Management and Security Management Plans must be prepared. 4. Design Excellence, Built Form and Urban Design • Outline the design process leading to the proposal and justify the suitability of the site for the proposal. • Demonstrate design excellence with specific consideration of the site's character, layout, setbacks, architectural design, materials, articulation and detailing, amenity, views and vistas, open spaces and public domain, connectivity and street activation. • Address the height, bulk and scale of the proposal development within the context of the locality and its surrounds. • Address retail tenancy fit-outs, shopfront design and signage. 5. Visual and View Impacts • Identify important sight lines and visual connectivity to and through the site. • A visual impact assessment is to be provided to identify the visual changes and impacts on the site and its surrounds when viewed from key vantage points (see plans and documents section). 6. Prescribed Airspace for Sydney Airport and Sydney Observatory Impacts • Identify any impacts of the proposal on the prescribed airspace for Sydney Airport. • Undertake an analysis of potential sky view loss and resultant impacts on the functioning of the Sydney Observatory telescopes and astronomical sightlines. 7. Amenity • Outline and address the proposed development's impacts in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, and safety and security. • The EIS must include: - o a shadow diagrams report; and - o wind effects report.
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	8. Ecologically Sustainable Development • Detail how ESD principles (as defined in clause 7(4) Schedule 2 of the EP&A Regulation 2000) will be incorporated in the design, construction and ongoing phases of the development. • Outline resource, energy and water efficiency initiatives, including the use of sustainable technologies and or/renewable energy. • Provide an integrated Water Management Plan including alternative water supply, proposed end uses of potable and non-potable water, water sensitive urban design and water conservation measures. 9. Public Domain and Public Access • Identify proposed open space, public domain and linkages with and between other public domain spaces, including Hickson Road, other streets and lanes, and the Harbour foreshore. • Address pedestrian impacts and urban design merit of any proposed parking bays along Lime Street. • Address pedestrian accessibility through the through-site-link, including any closure of the link at night. • Detail and outline the interface between the proposed uses and the public domain. • Outline specific design features (if applicable): - o footpaths and pavements, roads and/or rights of carriageways; - o outdoor seating; - o materials and finishes; - o public art; - o furniture and fixtures; - o street lighting, pedestrian lighting and feature lighting; - o edges, screens and fences; - o walls, embankments and mounds; - o steps, ramps, vehicle crossings, decks and pathways; - o services where affected, utility poles, and service pits; - o civil and stormwater infrastructure; - o tree planting; - o mass planting beds, planter boxes and individual plantings; and - o bicycle parking. 10. Transport, Traffic, Car Parking and Accessibility • Demonstrate consistency with the Barangaroo Integrated Transport Plan and the Sydney City Centre Access Strategy. • The EIS shall include a Traffic and Transport Impact Assessment that provides, but is not limited to, the following: - o current daily and peak hour vehicle, public transport, pedestrian and bicycle movements and existing traffic and transport facilities provided on the road network; - o daily and peak traffic movements likely to be generated by the development, including peak traffic movements; - o assessment of the existing and future performance of key intersections providing access to the site, and any upgrades (road/intersections) required as a result of the development. The assessment of the existing and future road network operations needs to consider the cumulative impacts of traffic volumes and focus on intersections in the north-west quadrant of the CBD in the vicinity of Barangaroo. The assessment needs to be supported by appropriate modelling and analysis to the satisfaction of Roads and Maritime Services; - o details of the proposed number of car parking spaces and compliance with appropriate parking codes. It should demonstrate a minimalist approach to the provision of on-site parking, and how traffic generation
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	(number of vehicles and time of access) will be managed in response to capacity limitations on the road network; - o pedestrian and cycle connections/circulation and required upgrades to meet the likely future demand within the precinct and connections to the external networks, particularly the cycle network identified in the Sydney City Centre Access Strategy; - o existing public transport services and opportunities for greater usage for residents, workers and visitors; - o details of sustainable travel initiatives for residents, workers and visitors, particularly for the provision of end-of-trip facilities; - o assessment of proposed loading dock provisions and access arrangements to loading docks; - o details of existing and proposed vehicular access and car parking arrangements for residents, workers and visitors (cars, coaches/buses & taxi ranks), including compliance with parking codes and Australian Standards, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and cycle networks; - o details of access arrangements for emergency and service vehicles (including vehicle type and likely arrival and departure times of service vehicles). • The EIS shall include an updated Transport Management and Accessibility Plan. • In relation to construction traffic: - o assessment of cumulative impacts associated with other construction activities on the Barangaroo and Wynyard Precincts; - o details of anticipated truck movements to and from the site; - o details of access arrangements for workers to/from the site, emergency vehicles and service vehicle movements; - o details of temporary cycling and pedestrian access during construction; - o details of proposed construction vehicle access arrangements at all stages of construction; and - o assessment of traffic and transport impacts during construction and how these impacts will be mitigated for any associated traffic, pedestrian, cyclist and public transport, including the preparation of a draft Construction Traffic Management Plan to demonstrate the proposed management of impact. This Plan needs to include vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures for all demolition/construction activities. • The EIS shall include an assessment of the impact on the operation of the proposed Barangaroo Ferry Hub including environmental impacts on the ferry hub and ferry customers such as shadow impacts. This should also consider lighting design and any potential impact on navigational safety. → Relevant Policies and Guidelines • <i>Barangaroo Integrated Transport Plan</i> • <i>Barangaroo Transport Management and Accessibility Plan</i> • <i>Guide to Traffic Generating Developments (Roads and Maritime Services)</i> • <i>Sydney City Centre Access Strategy</i> • <i>EIS Guidelines – Road and Related Facilities (DoPI)</i> • <i>NSW Planning Guidelines for Walking and Cycling</i> • <i>Guide to Traffic Management – Part 12: Traffic Impacts of Development (AUSTROADS)</i> 11. Heritage • The EIS must include an assessment of the likely impacts of the proposal on any heritage and archaeological items and outline mitigation and conservation measures.
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12. Contamination

- Demonstrate compliance with the requirements of SEPP 55.
- If remediation works are required, the EIS must include a Remedial Action Plan (RAP). The RAP must be accompanied by a Site B audit statement prepared by an EPA accredited site auditor and the RAP must be prepared in accordance with the contaminated land planning guidelines under section 145C of the *Environmental Planning and Assessment Act 1979* and relevant guidelines produced or approved under section 105 of the *Contaminated Land Management Act 1997*.

→ Relevant Policies and Guidelines

- The current guidelines under section 145C of the *Environmental Planning and Assessment Act 1979* are the guidelines "Managing Land Contamination, Planning Guidelines, SEPP 55 – Remediation of Land" 1998.

13. Infrastructure Provision

- Detail any infrastructure proposed to service the development and demonstrate that the site can be suitably serviced.
- Detail the existing infrastructure on-site, and identify any possible impacts on infrastructure arising from the construction of the proposed works.
- Where the proposed works affect existing infrastructure, the application should detail any mitigation works proposed, including service relocations.

14. Noise

- The applicant must include a Noise and Vibration Assessment of construction, operation, traffic and cumulative noise impacts prepared in accordance with the relevant EPA guidelines. This assessment must consider any potential noise impacts on nearby noise sensitive receivers and outline proposed noise mitigation and monitoring issues.

→ Relevant Policies and Guidelines:

- *NSW Industrial Noise Policy 2000 (EPA)*
- *NSW Industrial Noise Policy – application notes 2013 (EPA)*
- *Interim Construction Noise Guideline 2009 (DECC)*
- *Assessing Vibration: A Technical Guideline 2006 (DECC)*
- *NSW Road Noise Policy (DECCW 2001)*
- *NSW Road Noise Policy – application notes 2013 (EPA)*

15. Air, and Odour

- Provide an Air Quality Impact Assessment. The assessment must be prepared in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW 2005 and must consider the requirements of the *Protection of the Environment Operations (Clean Air) Regulation 2010*. The key air quality issues that must be covered in the assessment include, where applicable:
 - o the identification of the pollutants of concern including dust and odours;
 - o the identification and assessment of all relevant fugitive and point source emissions; and
 - o proposed air quality management and monitoring procedures during the works.

→ Relevant Policies and Guidelines:

- *Protection of the Environment Operations Act 1997*
- *Protection of the Environment Operations (Clean Air) Regulation 2010*
- *The Approved Methods for the Modelling and Assessment of Air Pollutants (August 2005) (DEC)*

- *The Approved Methods for Sampling and Analysis of Air Pollutants (January 2007) (DEC)*
- *Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards (2012) (Department of Health)*
- *Assessment and Management of Odour from Stationary Sources in NSW: Technical Framework (DEC, 2006)*
- *Assessment and Management of Odour from Stationary Sources in NSW: Technical Notes (DEC, 2006)*

16. Water, Drainage, Stormwater and Groundwater

- Prepare a Stormwater and Drainage Assessment to assess the impacts of the proposal on surface and groundwater hydrology and quality.
- Identify appropriate water quality management measures focussing on the management of the impacts from the proposed works on Sydney Harbour.
- Prepare an Integrated Water Management Plan. This should include stormwater and wastewater management, including any re-use and disposal requirements, demonstration of water sensitive urban design and any water conservation measures.
- The applicant shall provide information on the required water and waste water services and any augmentation of Sydney Water infrastructure that may be required for the proposed development.

17. Sediment, Erosion and Dust Controls

- Identify measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and particles.

→ Relevant Policies and Guidelines:

- *Managing Urban Stormwater – Soils & Construction 4th Edition (Landcom)*
- *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)*

18. Waste

- Assess the waste impacts and their management during construction and operation. Consideration should also be given to the assessment and management of any acid sulfate soil and potential acid sulfate soil.

→ *Relevant Policies and Guidelines*

- *Waste Classification Guidelines Part 1: Classifying Waste 2014 (EPA)*
- *Waste Classification Guidelines Part 4: Acid Sulfate Soils 2014 (EPA)*
- *Acid Sulfate Soils Manual 1996 (ASSMAC)*
- *Waste Avoidance and Resource Recovery Act 2001*

19. Building Code of Australia

- Prepare a detailed BCA and access report demonstrating compliance with the Building Code of Australia.

20. Environmental, Construction and Site Management Plan

- The EIS shall provide an Environmental and Construction Management Plan for the proposed works, and is to include:
 - o community consultation, notification and complaints handling;
 - o impacts of construction on adjoining development and proposed measures to mitigate construction impacts;
 - o noise and vibration impacts on and off site;
 - o air quality impacts on the neighbourhood;
 - o odour impacts;
 - o water quality management for the site; and
 - o construction waste classification, transportation and management

	methods in accordance with DECCW's Know Your Responsibilities: Managing Waste from Construction Sites Guideline. 21. Staging • Details regarding the staging of the proposed development. 22. Sea Level Rise • The EIS must assess the risks associated with sea level rise on the proposal. 23. Consultation • Undertake an appropriate level of consultation with council and State government agencies. • Provide details on the Community Engagement Framework to guide the public consultation process.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular, you must consult with: • City of Sydney Council. • NSW Police. • EPA. • Office of Heritage and Environment. • Sydney Water. • Transport for NSW. • Roads and Maritime Services. • Sydney Observatory. • Local Aboriginal Land Council and stakeholders, if relevant. • Local heritage groups, if relevant. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.
Further consultation after 2 years	If you do not lodge a development application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.

Plans & Documents

Plans and Documents

The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. Provide these as part of the EIS rather than as separate documents.

In addition, the EIS must include the following:

1. An existing site survey plan drawn at an appropriate scale illustrating:

- The location of the land, boundary measurements, area (sq.m) and north point.
- The existing levels of the land in relation to buildings and roads.
- Location and height of existing structures on the site.
- Location and height of adjacent buildings.
- All levels to be to Australian Height Datum (AHD).

2. A locality/context plan drawn at an appropriate scale should be submitted indicating:

- Significant local features such as parks, community facilities and open space and heritage items.
- The location and uses of existing buildings, shopping and employment areas.
- Traffic and road patterns, pedestrian routes and public transport nodes.

3. Drawings at an appropriate scale illustrating:

- The location of any existing building envelopes or structures on the land in relation to the existing and proposed site boundaries and any development on adjoining land.
- Detailed plans, sections and elevations of the development, including all temporary structures and site features.
- The height (AHD) of the proposed development in relation to the land.
- Any changes that will be made to the level of the land by excavation, filling or otherwise.

4. **Landscape plan** illustrating treatment of open space areas on the site.

5. **3D modelling and a physical model** of the proposal shall be prepared in accordance with City of Sydney's requirements.

6. **Shadow diagrams** showing solar access to the site and surrounding areas at summer solstice (Dec 21), winter solstice (June 21) and the equinox (March 21 and September 21) at 9.00 am, 12.00 midday and 3.00 pm.

7. **Visual Impact Assessment**

The visual impact assessment, including focal lengths, must be done in accordance with Land and Environment Court requirements.

Visual assessment methodology

- The consultant's methodology should be explicit. This may include a flow-chart indicating how the analysis is to be undertaken, or a narrative description of the proposed sequence of activities.
- As part of the methodology, the consultant should provide, and explain, criteria for assessment relevant to the site, local context and proposed built form and public domain outcomes. A rationale should be provided for the choice of criteria. Criteria must include reference to the planning framework.

	• Visual catchment should be defined and explained (see below). • An assessment matrix should be produced including number of viewers, period of view, distance of view, location of viewer to determine potential visual impact - i.e. high, medium or low. Visual catchment • Potential visual catchments and view locations, including contours (areas from which the development is visible) should be identified. This must include, but is not limited to, Hickson Road, Kent Street, Lime Street, Gas Lane, High Street, Sydney Observatory, Sydney Observatory Park, Clyne Reserve, Munn Reserve, Sydney Harbour Bridge, Pyrmont Bridge, Ballart Park Darling Island, Jones Bay Wharf Pyrmont, East Balmain, Darling Harbour, Blues Point, Millers Point, Sydney Opera House, and Cremorne Point. • Categories of views (e.g. from the water, from public open space, from key streets, from main buildings and from key heritage items) should be defined. • Photos are required for representative view categories, plotted on a map. Visual material • Reference to be made to site analysis. • Provide key plan indicating where viewpoints are located and narrative explaining why these have been selected. • The built form should be illustrated in the context of the visual catchment to enable assessment of the visual impact. • The location of cross-sections should be clearly shown on a key plan and the choice of positions explained. The cross sections should be shown in the context of the visual catchment. • Vertical exaggeration should provide an accurate rather than 'flattened' impression of buildings in the context of the visual catchment. • A key plan must be provided for photomontages. In addition, the choice of locations should be explained. Photomontages should be provided for close as well as distant views. • Assessment must benchmark against the existing situation with the proposed plans. • Photomontages to be provided for key viewpoints from all directions, and from several positions within the visual catchment. • As above, support visual evidence such as cross sections to be drawn to realistic scales and shown in context. A comparison of 'before', 'approved' and 'proposed' is fundamental to a visual impact assessment, therefore the visual impact assessment (A3 in size) should be undertaken using human eye focal lengths (50mm at 35mm FX format and 46° angle of view) from long range, medium range and short range positions so that they can be assessed with respect to visibility, visual absorption capacity and visual impact rating.
Documents to be submitted	• 1 hard copy and 1 electronic copy of all the documents and plans for review prior to exhibition. • 14 hard copies and 14 electronic copies of the documents and plans (once the application is considered acceptable). • Two full scale colour copies of the plans. • One A0 photomontage board illustrating the proposal. • 1 copy of all the documentation and plans on CD-ROM (PDF format), not exceeding 5Mb in size.