

## **MEETING NOTICE**

A meeting of the  
**Bayside Local Planning Panel**  
will be held in the Committee Room, Botany Town Hall  
Corner of Edward Street and Botany Road, Botany  
on **Tuesday 16 July 2019 at 6.00 pm**

## **ON-SITE INSPECTIONS**

On-site inspection/s will precede the meeting.

## **AGENDA**

### **1 ACKNOWLEDGEMENT OF TRADITIONAL OWNERS**

Bayside Council respects the traditional custodians of the land, and elders past and present, on which this meeting takes place, and acknowledges the Gadigal and Bidjigal Clans of the Eora Nation.

### **2 APOLOGIES**

### **3 DISCLOSURES OF INTEREST**

### **4 MINUTES OF PREVIOUS MEETINGS**

Nil

### **5 REPORTS – PLANNING PROPOSALS**

- 5.1 Post-Exhibition Report - Planning Proposal: 8 Princess Street, Brighton-Le-Sands.....2
- 5.2 Draft Planning Proposal: 146-154 O'Riordan St, Mascot.....75

### **6 REPORTS – DEVELOPMENT APPLICATIONS**

Nil

Members of the public, who have requested to speak at the meeting, will be invited to address the Panel by the Chairperson.

The meeting will be video recorded and live streamed to the community via Council's Facebook page.

Meredith Wallace  
**General Manager**

## **Bayside Local Planning Panel**

**16/07/2019**

Item No	5.1
Subject	<b>Post-Exhibition Report - Planning Proposal: 8 Princess Street, Brighton-Le-Sands</b>
Report by	Michael McCabe, Director City Futures
File	F18/395

---

### **Summary**

A draft Planning Proposal relating to 8 Princess Street, Brighton-Le-Sands was reported to Council on 12 September 2018 (see **Attachment 1**). The Draft Planning Proposal sought to rezone the site from SP3 Tourist to B4 Mixed Use in the Rockdale Local Environmental Plan 2011 (the RLEP 2011). Council resolved not to support the Planning Proposal for Gateway Determination (see **Attachment 2**).

Following this resolution by Council, the proponent lodged a request with the Department of Planning and Environment (the DPE) for a Rezoning Review. The matter was referred to the Sydney Eastern City Planning Panel (the Panel) for the Rezoning Review on 19 December 2018. The Panel decided that the proposal should be submitted for a Gateway Determination (see **Attachment 3**).

Following this decision by the Panel, Council on 13 February 2019 resolved to remain as the Planning Proposal Authority (see **Attachment 4**), which was confirmed to the DPE by letter dated 18 February 2019 (see **Attachment 5**).

Council staff contacted the DPE on 5 March 2019 to request a Gateway Determination for the draft Planning Proposal, which was received on 9 April 2019 (see **Attachment 6**). The Gateway Determination confirmed that, as Council had not supported the Planning Proposal and it was subsequently the subject of a Rezoning Review, Council would not be given delegation to be the local plan-making authority.

In accordance with the Gateway Determination, the Planning Proposal and supporting documentation were publicly exhibited for 30 days from Wednesday 8 May 2019 to Friday 7 June 2019.

This report provides the Bayside Planning Panel with a summary of the submissions received and a response to the matters raised therein.

---

### **Officer Recommendation**

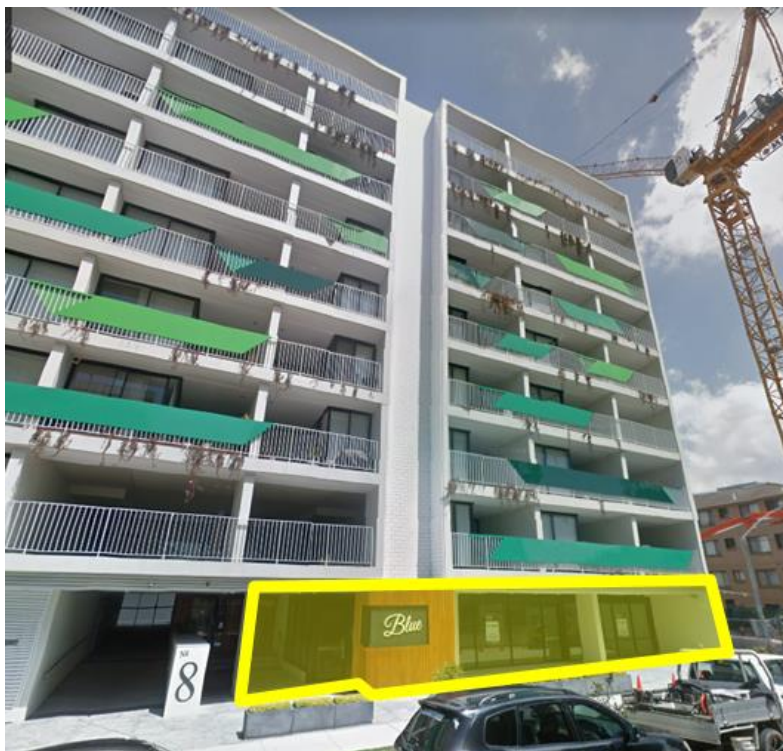
That the Bayside Local Planning Panel recommends to Council that a request be made to the Department of Planning and Environment to the Rockdale Local Environmental Plan 2011 amendment, as exhibited, for 8 Princess Street, Brighton-Le-Sands in accordance with Section 3.36 of the Environmental Planning and Assessment Act 1979.

---



## Background

A draft Planning Proposal for the site was lodged with Bayside Council in April 2018 (see **Attachment 7**). The proposal seeks to amend the zone from SP3 Tourist to B4 Mixed Use in the Land Zoning Map of the RLEP 2011. No other changes to the development standards in the RLEP 2011 are sought. The intention of the draft Planning Proposal is to facilitate the three vacant and inactive commercial units located on the ground floor to be converted to residential floorspace (see **Figure 1** below).



**Figure 1 – Location of commercial units**

The draft Planning Proposal was reported to the Bayside Local Planning Panel (the BLPP) on 26 June 2018. The report outlined that, despite several marketing campaigns, the tenancies have laid vacant due to poor locational attributes. The report contended that the rezoning of the site to allow for ground floor residential tenancies would contribute to activity, and improve passive surveillance, along the street. The BLPP recommended that Council should support the draft Planning Proposal, stating that: *'The Panel is satisfied that the adjoining B4 zone could be extended over the subject site and this is not contrary to the strategic planning for the area.'*

The proposal was then reported to Council on 8 August 2018. Councillors resolved that the matter be referred back to the BLPP due to a concern that the matter of a clause 4.6 variation attached to the original Development Application (DA-2012/325) had not been reported to the BLPP.

On 28 August 2018, the draft Planning Proposal was again reported to the BLPP, allowing a full review of the information pertaining to the clause 4.6 variation. Again, the BLPP recommended that Council should support the proposal.

On 12 September 2018, the draft Planning Proposal was reported back to Council (see **Attachment 1**). On this occasion, Council resolved not to support the Planning Proposal, stating that the *'site be reviewed during the development of the new Bayside Local Environmental Plan'* (see **Attachment 2**).

### The Rezoning Review

Following Council's resolution, the proponent lodged a request with the DPE on 5 October 2018 for a Rezoning Review. The matter was referred to the Sydney Eastern City Planning Panel (the Panel) on 19 December 2018, which ruled that the proposal should be submitted for a Gateway Determination. The DPE notified Council of the Panel's decision in a letter dated 20 December 2018 (see **Attachment 3**). In its letter, the DPE invited Council to continue to be the Planning Proposal Authority (PPA) for the Planning Proposal. Council resolved on 13 February 2019 to remain as the PPA for the Planning Proposal.

### The Gateway Determination

Council received a Gateway Determination for the draft Planning Proposal on 9 April 2019 (see **Attachment 6**). The following conditions were attached to the Gateway Determination:

1. *The planning proposal is to be amended prior to community consultation as follows:*
  - a) *update the planning proposal to remove references to A Plan for Growing Sydney; and*
  - b) *update the project timeline.*

To satisfy Condition 1, the proponent submitted an updated Planning Proposal, which formed part of the exhibition materials.

2. *Public exhibition is required under section 3.34(2)(c) and schedule 1 clause 4 of the Act as follows:*
  - a) *the planning proposal must be made publicly available for a minimum of **28 days**; and*
  - b) *the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with the planning proposals as identified in... A guide to preparing local environmental plans (Department of Planning and Environment 2016).*

The Planning Proposal and supporting documentation, including the Gateway Determination, were publicly exhibited for 30 days from Wednesday 8 May 2019 to Friday 7 June, in accordance with the requirements of Condition 2 of the Gateway Determination.

Notification letters were sent to 209 owners of properties in the surrounding area, along with separate letters to 119 occupiers of the properties, and the Planning Proposal was also exhibited on the 'Have Your Say' page of Council's website.

The Planning Proposal was advertised in the St George and Sutherland Shire Leader, and the Southern Courier, on Wednesday 8 May 2019, and was made available for inspection at Council's Customer Service Centres at Rockdale Library and Eastgardens Library, as well as at Brighton-Le-Sands Branch Library.

All of the above steps meet the public exhibition requirements as laid out in the relevant section of *'A Guide to Preparing Local Environmental Plans'*.

## Community Submissions

Six submissions were received from the local community, with five submissions supporting the Planning Proposal, and one submission against it. The comments in support of the Planning Proposal comprised the following:

- *It would be good to see the ground floor occupied and in use; and*
- *Turning the space into residential would vastly improve the streetscape.*

The comments against the Planning Proposal comprise the following:

- *Owner did not make any real attempt to lease out shops;*
- *Many potential tenants attempted to contact the owner and the real estate agent but calls were never returned;*
- *A number of residents of 8 Princess Street made enquires to lease one of the shops but could not get anyone to return their calls; and*
- *Owner had no intention of leasing out the commercial spaces from the very beginning.*

## Response to Community Submissions

In response to the marketing exercise undertaken to lease the commercial units, the following points made by the proponent in the Planning Proposal are relevant:

- *The landowner has actively marketed the three ground level tenancies for either leasing or sale through a national specialist commercial real estate agent, Cushman and Wakefield, and thereafter engaging Colliers and LJ Hooker to extend the campaign;*
- *During the past 2.5 years since its completion, no reasonable offers were received for the purchase or leasing of the space;*
- *Shortly after construction of the exiting building in September 2015, the non-residential tenancies were advertised for lease or sale through a comprehensive marketing campaign involving:*
  - *Online listings on Real Commercial;*
  - *Listings within the Sydney Morning Herald and the St George and Sutherland Shire Leader newspapers;*
  - *Notifications of an e-flyer within a national database for commercial real estate agents; and*
  - *On-site sign boards; and*
- *The design of each tenancy was maximised for retail exposure, with floor to ceiling glazing towards Princess Street. Building upgrades were also completed for a 1,000 litre grease arrestor and mechanical exhaust, allowing for reduced fit out costs for food and beverage operators utilising the spaces.*

Despite extensive marketing campaigns conducted over a period of several years, and the additional measures described above, the owner has clearly been unable to lease the commercial tenancies for a variety of reasons, as detailed in the supporting Sales and Marketing Overview Letter (see **Attachment 8**) and Shop Tenancy Assessment (see **Attachment 9**) submitted with the Planning Proposal.

In light of the justification presented in the Planning Proposal report and supporting documents, Council staff are therefore satisfied concerted efforts were made to lease the commercial units, but unfortunately without success.

### Next Step

Council does not have delegation from the Minister to make this LEP amendment. In the event that Council resolves to endorse the Planning Proposal, it will be forwarded to the Department of Planning and Environment for finalisation and notification of the LEP amendment (subject to any amendments resolved by Council).

---

### Attachments

- 1 Council Report - 12.09.18 [↓](#)
- 2 Council Resolution - 12.09.18 [↓](#)
- 3 Rezoning Review Decision - 19.12.18 [↓](#)
- 4 Council Resolution - 13.02.19 [↓](#)
- 5 Letter to DPE - 18.02.19 [↓](#)
- 6 Gateway Determination - Received 09.04.19 [↓](#)
- 7 Planning Proposal [↓](#)
- 8 Sales and Marketing Overview [↓](#)
- 9 Shop Tenancy Assessment [↓](#)

**Council Meeting****12/09/2018**

Item No	8.7
Subject	<b>Planning Proposal - 8 Princess St, Brighton Le Sands</b>
Report by	Michael McCabe, Director City Futures
File	F18/395

**Summary**

Council received a draft Planning Proposal in relation to land at 8 Princess Street, Brighton-Le-Sands (subject site). The site is currently zoned SP3 – Tourist and is located immediately to the north-west of the Novotel Hotel and was formerly part of the Novotel landholdings. The properties to the north-west and south of the site are zoned B4 Mixed Use.

On the 28<sup>th</sup> August 2018, the Bayside Local Planning Panel considered the draft Planning Proposal and additional information requested by Council at the Council meeting of 8<sup>th</sup> August 2018. The recommendation of the Bayside Local Planning Panel from 28 August 2018 is included below, being the same recommendation as made by the Bayside Local Planning Panel at its meeting of 26 June 2018 for the same matter:

- 1 *That Bayside Local Planning Panel recommends to Council that, pursuant to Section 3.34 of the Environmental Planning & Assessment Act 1979 (EPAA), the draft Planning Proposal for land known as 8 Princess Street, Brighton-Le-Sands be submitted to the Department of Planning & Environment (DPE) for a Gateway determination.*
- 2 *That Bayside Local Planning Panel recommends to Council that, should a Gateway determination be issued, a further report be presented to Council following the public exhibition period to demonstrate compliance with the Gateway determination and to provide details of any submissions received throughout that process.*

The Panel's reason for the recommendation was:

*The Panel is satisfied that, with the benefit of having reviewed the assessment report for the existing development approved for the site, this does not change the circumstances. The Panel's position remains the same as previously indicated: that is, it recommends to the Council that it may proceed with the planning proposal.*

The draft Planning Proposal seeks to rezone the land from SP3 Tourist to B4 Mixed Use. Subsequent to the development of the hotel the site was developed for residential apartments, however, the zoning of the subject site was not amended to B4 Mixed Use. In order for the apartment building to accommodate residential apartments on the ground floor and be consistent with the adjacent residential flat buildings a change in zone to B4 Mixed Use is sought. No other changes to the development standards in the Rockdale Local Environmental Plan 2011 are sought.

The intended outcome of the draft Planning Proposal is to enable three inactive commercial tenancies located at the ground floor of an existing 9-storey shop top housing development to be used for the purposes of residential apartments. A review of why the tenancies have remained vacant indicates that it has relatively poor locational attributes, in summary:

Council Meeting

12/09/2018

- Competition from existing food-based retailing;
- Minimal levels of pedestrian traffic and no direct sight lines to highly trafficked areas;
- Visibility to passing traffic given the low levels of vehicle traffic in Princess Street;
- There are no other significant attractors to the subject site; and
- The site is located a block north of Bay Street and derives no benefit from the activity levels and visitation generated from the Brighton-Le-Sands activity centre.

On the 26 June 2018, the draft Planning Proposal was considered by the Bayside Planning Panel (Panel). The Panel made the following recommendation to Council:

- "1 That pursuant to section 3.34 of the Environmental Planning & Assessment Act 1979 (EPAA) the draft Planning Proposal for land known as 8 Princess Street, Brighton-Le-Sands be submitted to the Department of Planning & Environment (DPE) for a Gateway determination; and*
- 2 That should a Gateway determination be issued, a further report be presented to Council following the public exhibition period to demonstrate compliance with the Gateway determination and to provide details of any submissions received throughout that process."*

The Panel noted the following reason for their recommendation:

*"The Panel is satisfied that the adjoining B4 zone could be extended over the subject site and this is not contrary to the strategic planning for the area."*

At the Council meeting of 8<sup>th</sup> August 2018, Council considered the draft Planning Proposal, including the Panel's recommendations, and resolved:

*"That this matter be referred back to the Bayside Planning Panel and all the information pertaining to the previous Development Application for this property be made available to the Panel; including the breach of height and FSR controls that required a Clause 4.6 Variation."*

Council noted that DA-2012/325 was supported by:

- (i) two written requests under Clause 4.6 Exceptions to development standards of the *Rockdale Local Environmental Plan 2011* (Rockdale LEP) to vary the height of buildings and floor space ratio (FSR) development standards; and
- (ii) written justification to reduce the provision of retail floor space required by the Rockdale DCP 2011.

In accordance with Council's resolution of 8<sup>th</sup> August 2018, all the information pertaining to the previous development application DA-2012/325, is contained in **Attachment 1** and includes:

- The development assessment report and attachments presented to the ordinary meeting of Council on 5<sup>th</sup> December 2012;
- The clause 4.6 written requests in relation to building height and floor space ratio (FSR); and
- The applicant's justification for the variation to the amount of retail floor space required under the Rockdale DCP 2011.

A summary of the Clause 4.6 Exceptions to development standards and the justification for the reduced retail floor space is provided under the heading 'Planning History' of this report.

Item 8.7

269



Council Meeting

12/09/2018

### Officer Recommendation

- 1 That, pursuant to section 3.34 of the *Environmental Planning & Assessment Act 1979* (EPAA), the draft Planning Proposal for land known as 8 Princess Street, Brighton-Le-Sands be submitted to the Department of Planning & Environment (DPE) for a Gateway determination.
- 2 That, should a Gateway determination be issued by the NSW Department of Planning & Environment, a further report be presented to Council following the public exhibition period to demonstrate compliance with the Gateway determination and to provide details of any submissions received throughout that process.

### Background

#### Applicant:

Lumex Property Group.

#### Site description:

Lots subject to the draft Planning Proposal are shown in **Table 1**, below:

**Table 1:** Lots subject to draft Planning Proposal

Lot	SP	Address	Current zoning
4	92060	8 Princess Street, Brighton-Le-Sands	SP3 Tourist
5	92060	8 Princess Street, Brighton-Le-Sands	SP3 Tourist
70	92060	8 Princess Street, Brighton-Le-Sands	SP3 Tourist

The subject site has a total area of approximately 1505sqm and is bounded by Princess Street to the north; and a service laneway to the south; residential development to the west and by a hotel development (Novotel) to the east. The site currently contains a 9-storey shop top housing development (refer to aerial photograph at **Figure 1** (subject site outlined in red); and google street view image at **Figure 2**).



**Figure 1** – Aerial photograph  
(Source: [www.maps.six.nsw.gov.au](http://www.maps.six.nsw.gov.au))

Item 8.7

270

Council Meeting

12/09/2018



**Figure 2:** Subject site with ground floor commercial tenancies outlined in yellow  
(Source: [www.google/maps](https://www.google/maps) - Street view - image capture October 2017)

Site Context:

The site is located on the southern side of Princess Street and forms part of the Brighton-Le-Sands local centre.

A context map for the site is provided in **Figure 3**, below:

Item 8.7

271





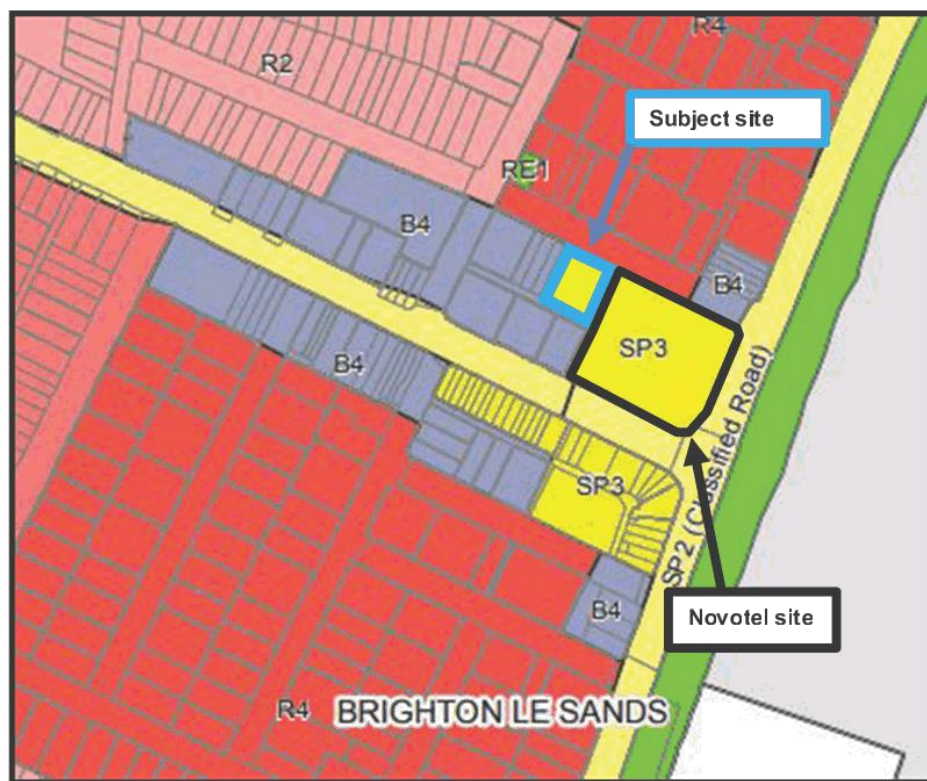
**Figure 3:** Site context map  
(Source: Land & Property Information [www.maps.six.nsw.gov.au](http://www.maps.six.nsw.gov.au))

Surrounding land use zones:

Land use zones surrounding the site comprise SP3 Tourist zoned land to the east; B4 Mixed Use zoned land to the south and west, and R4 High Density Residential zoned land to the north (Refer to **Figure 4**, overleaf).

Council Meeting

12/09/2018



**Figure 4** – Rockdale LEP 2011 Land Zoning Map LZN\_004 (Subject site – SP3 - Tourist)  
 (Source: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au))

### Planning History

In 1988, Council granted consent to the construction of the 15 storey Novotel Hotel Brighton Le Sands Parade, Brighton Le Sands adjacent to the subject site. In 2007, the owners of the Novotel Hotel purchased Nos 8-14 Princess Street (commonly known as 8 Princess Street, Brighton Le Sands).

Between early 2008 and early 2011, the owners of the site held a series of meeting with the former Rockdale City Council to discuss a possible extension of the existing Novotel Hotel onto the adjoining Princess Street site. During this time, discussions were also held with the then Department of Planning and Infrastructure (now the Department of Planning and Environment) and Council regarding the proposed lodgement of a Part 3A Concept Plan for the refurbishment of the existing hotel and its extension onto the subject site. In January 2009, the proposed hotel expansion project was declared to be project to which the former Part 3A of the *Environmental Planning and Assessment Act 1979* (EPAA) applied, and the then Minister for Planning authorised the preparation of a Concept Plan.

A major development application (MP08\_0239 – Tourism (Hotel) Development) under the former Part 3A of the *Environmental Planning Assessment Act 1979* (EPAA) was lodged with the then Department of Planning for refurbishment works and hotel extension to the Novotel Hotel (Novotel site), and included the subject site as part of the major application. However,

Item 8.7

273

Council Meeting

12/09/2018

the proposed hotel expansion did not proceed and the Part 3A declaration for the project was revoked.

In September 2011, a formal Pre-DA Meeting was held at Council to discuss the proposed redevelopment at the subject site for a mixed use development. At this time, Rockdale Local Environmental Plan 2000 was still in force and the proposed 'shop-top housing' development was prohibited in the 2(c) zone that applied to the site. However, the development concept for the site had been prepared based on the provision of draft Rockdale Local Environmental Plan 2011 and draft Rockdale Development Control Plan 2011, under which 'shop-top housing' would be permissible.

As part of the major application consultation and assessment process; and in the preparation of the Rockdale LEP 2011, the site was rezoned from Residential 2(c) to SP3 Tourist so as to be consistent with the concept plan.

The subject site has since been redeveloped for the purposes of a 9-storey shop top housing development, including 3 non-residential tenancies at ground floor, under DA2012/325, which was approved by the former Rockdale Council at its ordinary meeting of 5<sup>th</sup> December 2012.

As part of the development application, the applicant sought Clause 4.6 variations to the *Rockdale Local Environmental Plan 2011* (Rockdale LEP 2011) in relation to height of building and floor space ratio (FSR).

In relation to the variation to the height of buildings development standard, the development application sought a 1.05 metre variation to the 28 metre maximum height standard with a proposed maximum height of 29.05 metres. The variation was supported given that the non-compliance is contained wholly to the two (2) lift overruns positioned centrally on the roof of the building.

In relation to the variation to the floor space ratio development standard, the applicant sought a floor space ratio of 3.17:1, which exceeds the 3:1 statutory maximum by 262m<sup>2</sup> (5.1%). The variation was supported given that the development outcome was considered consistent with the established character of the areas, and meets the underlying FSR and height objectives and which preserve the amenity of existing surrounding residents and future occupants to the building.

The Development Application also sought to vary the retail floor space controls set out in the *Rockdale Development Control Plan 2011* (Rockdale DCP). The DCP requires a minimum 10% of the gross floor area of mixed use developments to be provided for retail and/ or commercial uses. The development did not achieve the minimum 10% retail floor space required, providing only 5.2%. The variation to the control was considered to result in an acceptable outcome as it was considered the proposal would still be able to satisfy the overarching objectives for Mixed Use Development:

- It will foster growth and improvement in the existing centre by providing a new high quality retail product that represents a viable leasing option for a wider section of the retail market;
- It will promote a range of employment uses and increase retail diversity;
- It will better contribute to the vitality and economic viability of Brighton Le Sands by providing a retail product that has a wider market appeal and is more likely to be occupied by tenants in the short term;
- It supports the creation of a safe and amenable public domain through the creation of a continuous active façade for the full width of the site;

Item 8.7

274



Council Meeting

12/09/2018

- It supports the creation of an active interface between ground floor level of the site and Princess Street;
- It helps clearly define the extent of the public domain; and
- It maximises the flexibility and adaptability of the building to meet current and future demands.

Despite extensive marketing campaigns conducted over a period of several years, the owner was unable to lease the commercial tenancies for a variety of reasons, as detailed in the supporting Sales and Marketing Overview Letter (refer **Attachment 2**) and Shop Tenancy Assessment (refer **Attachment 3**) submitted with the Planning Proposal.

## DRAFT PLANNING PROPOSAL ASSESSMENT

### Summary of draft Planning Proposal

The draft Planning Proposal seeks to:

- 1 Rezone the land from SP3 Tourist to B4 Mixed Use.

The intended outcome of the draft Planning Proposal is to enable three inactive commercial tenancies located at the ground floor of an existing shop top housing development to be used for the purposes residential dwellings.

The proposed zoning will allow for residential uses at ground floor and provide a land use zone compatible with the Brighton-Le-Sands local centre.

A copy of the draft Planning Proposal is included at **Attachment 4**.

### Assessment of draft provisions

#### Proposed Zoning

The proposed B4 Mixed Use zoning permits residential flat buildings with consent and will enable the conversion of the ground floor tenancies to residential. The proposed B4 Mixed use zoning will be consistent with the functioning of the existing local centre and form a logical extension to the existing B4 Mixed Use zone. The site is not subject to *Rockdale Local Environmental Plan 2011* clause 6.11 Active Street Frontage and Residential Flat Buildings are permitted with consent in the B4 Zone.

#### Urban Context & Evaluation

The Planning Proposal indicates that the retail tenancies at ground floor are not able to be leased despite several leasing campaigns as summarised in the supporting Sales and Marketing Overview Letter (refer **Attachment 2**). As identified in the submitted Shop Tenancy Assessment prepared by Essential Economics (refer **Attachment 3**), the site has relatively poor overall locational attributes, in summary:

- i) Competition from existing food-based retailing;
- ii) Minimal levels of pedestrian traffic and no direct sight lines to highly trafficked areas;
- iii) Visibility to passing traffic given the low levels of vehicle traffic in Princess Street;
- iv) There are no other significant attractors to the subject site; and
- v) The site is located a block north of Bay Street and derives no benefit from the activity levels and visitation generated from the Brighton-Le-Sands activity centre.

Item 8.7

275

Council Meeting

12/09/2018

Council staff have reviewed the Planning Proposal and supporting Design Report (refer **Attachment 5**) and the following comments are provided:

- *The Eastern City District Plan, Planning Priority E6 – Creating and renewing Great Places and Local Centres* refers to streets as places that function in response to street typology and local conditions. The vacant tenancies at ground floor are not desirable for the performance or the safety of the local street, and do not contribute to the vitality or life of the street. Without any activation or passive surveillance at ground floor an inactive frontage has arisen from the above listed contributing factors, generating concerns around how the development is responding to *Crime Prevention Through Environmental Design* (CPTED) principles.
- The rezoning of the site to allow for ground floor residential tenancies will provide the passive surveillance required. The public and private interface will also allow for casual interaction and contribute to the vitality and life of the street.
- To improve the existing urban condition the Planning Proposal for 8 Princess Street, Brighton-Le-Sands, to be rezoned from SP3 Tourist to B4 Mixed Use, is supported on the grounds of addressing *Planning Priority E6* of the *Eastern City District Plan*, CPTED principles and universal urban design principles in relation to street activation.

### Justification

#### Environmental Planning & Assessment Act 1979 (EPAA)

The NSW Department of Planning & Environment's *A Guide to Preparing Planning Proposals* - issued under s3.33 (3) of the EPAA - provides guidance and information on the process for preparing Planning Proposals. The assessment of the submitted Planning Proposal by Council staff has been undertaken in accordance with the latest version of this *Guide* (dated August 2016).

#### Section 9.1 Directions by the Minister

Section 9.1 Directions by the Minister (s9.1 directions) set out what a Relevant Planning Authority (RPA) must do if a s9.1 direction applies to a Planning Proposal, and provides details on how inconsistencies with the terms of a direction *may* be justified. An assessment of the draft Planning Proposal against the applicable s9.1 directions is provided in **Table 2** below:

**Table 2:** Planning Proposal consistency with s9.1 directions.

Direction	Planning Proposal consistency with terms of direction	Consistent: Yes/ No (If No, is the inconsistency adequately justified?)
<b>1.1 Business and Industrial Zones</b>	<p><b>What a RPA must do:</b> A RPA must ensure that a Planning Proposal:</p> <p>(a) Give effect to the objectives of this direction, (i.e. encourage employment growth in suitable locations, protect employment land in business and industrial zones, and support the viability of identified centres),</p> <p>(b) Retain the areas and locations of existing business and industrial zones,</p>	YES

Item 8.7

276

Council Meeting

12/09/2018

	<p>(c) Not reduce the total potential floor space area for employment uses and related public services in business zones,</p> <p>(d) Not reduce the total potential floor space area for industrial uses in industrial zones, and</p> <p>(e) n/a.</p> <p><u>Comment:</u> The Planning Proposal provides additional B4 mixed use zoned land in close proximity to an existing business zone, supporting the viability of the Brighton-Le-Sands local centre.</p>	
<b>2.3 Heritage Conservation</b>	<p><b>What a RPA must do:</b> A RPA must ensure that a Planning Proposal contains provisions that facilitate the conservation of heritage items, places, building works or precincts of environmental heritage significance to an area.</p> <p><u>Comment:</u> The site is not within a conservation area, does not contain a heritage item and is not in the vicinity of a heritage item.</p> <p>No inconsistencies with the terms of the direction were identified.</p>	YES
<b>3.3 Home Occupations</b>	<p><b>What a RPA must do:</b> A Planning Proposal must permit home occupations to be carried out in dwelling houses without the need for development consent.</p> <p><u>Comment:</u> The B4 Mixed Use zone in the Rockdale LEP 2011 includes home occupations as development that may be carried out in dwelling houses without the need for development consent.</p> <p>No inconsistencies with the terms of the direction were identified.</p>	YES
<b>3.4 Integrating Land Use and Transport</b>	<p><b>What a RPA must do:</b> A Planning Proposal must locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of <i>Improving Transport Choice – Guidelines for planning and development (DUAP 2001)</i> (guidelines).</p> <p><u>Comment:</u> The Planning Proposal is considered consistent with the guidelines as the Planning Proposal enables residential development in close proximity to frequent public transport and a mix of uses including shops and services.</p> <p>No inconsistencies with the terms of the direction were identified.</p>	YES
<b>3.5 Development Near Licensed Aerodromes</b>	<p>No alteration to controls in relation to building height are proposed and the site is not affected by the Australian Noise Exposure Forecast. Therefore, no inconsistencies with the terms of the direction were identified.</p>	YES
<b>4.1 Acid Sulfate Soils</b>	<p><b>What a RPA must do:</b> The direction requires that a RPA must consider an acid sulfate soils study assessing the appropriateness of the change of land use given the presence of acid sulfate soils.</p> <p><u>Comment:</u> The Rockdale LEP 2011 Acid Sulfate Soils Map identifies the site as having Class 4 acid sulfate soils.</p>	NO - Inconsistency justified.

Item 8.7

277

Council Meeting

12/09/2018

	<p><b>Consistency</b>  <i>A Planning Proposal may be inconsistent with the terms of the direction if the inconsistency is justified by a study prepared in support of the Planning Proposal.</i></p> <p><u>Comment:</u>          Clause 6.1 of the Rockdale LEP 2011 requires an acid sulfate soils management plan at DA stage, before carrying out any development on the land. The inconsistency with this direction is therefore considered minor and justifiable.</p>	
<p><b>5.10</b>  <b>Implementation of Regional Plans</b></p>	<p><b>What a RPA must do:</b>          Planning proposals must be consistent with a Regional Plan released by the Minister for Planning.</p> <p><u>Comment:</u>  <i>A Metropolis of Three Cities</i> is the Region Plan that applies to the five districts that make up the Greater Sydney Region.</p> <p>The Planning Proposal is consistent with the following objectives in the Region Plan:</p> <ul style="list-style-type: none"> <li>Objective 10: Greater housing supply              The Planning Proposal increases the supply of housing.</li> <li>Objective 14: integrated land use and transport creates walkable and 30-minute cities.              The Planning Proposal increases housing within a walkable catchment of Brighton-Le-Sands local centre and transport links that support this objective.</li> </ul>	YES
<p><b>7.1</b>  <b>Implementation of A Plan for Growing Sydney</b></p>	<p><b>What a RPA must do:</b>          A RPA must ensure that a Planning Proposal is consistent with A Plan for Growing Sydney.</p> <p><u>Comment:</u>          The draft Planning Proposal is consistent with the following directions and priorities contained in <i>A Plan for Growing Sydney</i>:</p> <ul style="list-style-type: none"> <li>Direction 2.1: Accelerate housing supply across Sydney.              The delivery of new housing must be accelerated to meet the need for a bigger population and to satisfy a growing demand of different types of housing.</li> <li>Direction 2.2: Accelerate urban renewal across Sydney – providing homes closer to jobs. New urban renewal locations will be selected in or near centres on the public transport network. Locating new housing here will make it easier for people to get to jobs and services and take pressure off congested roads.</li> <li>Direction 2.3: Improve housing choice to suit different needs and lifestyles.</li> <li>Direction 3.1: Revitalise existing suburbs. Provision of new housing within Sydney's established suburbs bring real benefits to communities and make good social and economic sense. Directing new housing to the existing urban areas will reduce the impact of development on the environment and protect productive rural land on the urban fringe.</li> </ul> <p>No inconsistencies with the terms of the direction were identified.</p>	YES

Item 8.7

278

Council Meeting

12/09/2018

- **State Environmental Planning Policies (SEPPs)**

An assessment of the Planning Proposal against the relevant SEPPs is provided in **Table 3**, below.

**Table 3:** Relevant SEPPs

Name of SEPP	Compliance of Planning Proposal with SEPP	Complies Y/ N
SEPP No 65—Design Quality of Residential Apartment Development (SEPP 65)	The Planning Proposal was referred to Council's Urban Designer, who raised no objection to the proposal in terms of its consistency with SEPP 65, noting that any future DA, should the Planning Proposal be supported, would be required to comply with SEPP 65 and accompanying Apartment Design Guide.	YES

There are no other SEPPs applicable to the Planning Proposal.

- **Sydney Regional Environmental Plans (SREPs)**

There are no SREPs applicable to the Planning Proposal.

- **Strategic Planning Framework**

Regional, sub-regional and district plans and strategies include outcomes and specific actions for a range of different matters including housing and employment targets, and identify regionally important natural resources, transport networks and social infrastructure. An assessment of the Planning Proposals consistency with the strategic planning framework is provided in **Table 4**, below.

**Table 4:** Strategic Planning Framework

Name of Strategic Plan	Directions, priorities, objectives and actions	Planning Proposal consistency with Strategic Plan	Consistency Y/ N
<b>Regional Plans</b>			
Greater Sydney Region Plan	<p>Objective 10 – Greater housing supply, which encourages the supply of housing in the right locations with access to shops, services and public transport.</p> <p>Objective 14 – A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities. <i>“One of the principal elements in achieving the productivity outcomes is: Co-locate activities in metropolitan, strategic and local centres and attract housing in and around centres to create walkable, cycle-friendly neighbourhoods.”</i></p>	<p><u>Comment:</u> The draft Planning Proposal is consistent with objective 10 as additional housing supply is facilitated within walking distance of shops, services and public transport.</p> <p><u>Comment:</u> The Planning Proposal is located in the Brighton-Le-Sands local centre and potentiates additional housing within walking distance of shops and public transport links that support the objective.</p>	YES

Item 8.7

279

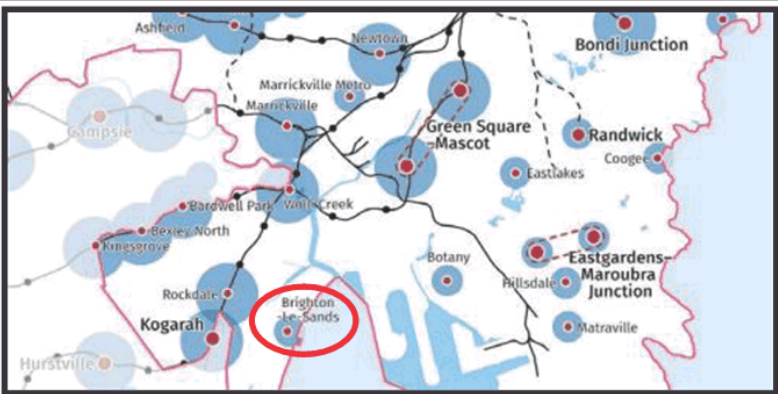


Council Meeting

12/09/2018

District Plans			
Eastern City District Plan (ECDP)	<ul style="list-style-type: none"> <li>Planning Priority E5: Providing housing supply, choice and affordability, with access to jobs, services and public transport.</li> <li>Planning Priority E6: Creating and renewing great places and local centres. The Planning Priority establishes 'Principles for local centres' and states that:   <i>"additional residential development within a five-minute walk of a centre focused on local transport, .... will help to create walkable local centres."</i> </li> </ul>	<p><u>Comment:</u> The Planning Proposal supports the role of the Brighton-Le-Sands local centre by increasing housing provision within walking distance of services and public transport.</p> <p><u>Comment:</u> Brighton-Le-Sands is identified as a local centre in the ECDP (refer to the extract from the ECDP at <b>Figure 5</b>, below).</p> <p>The Planning Proposal is consistent with the 'Principles for local centres' (p49 of the ECDP) through the increased provision of residential development in, or within walkable distance of, the centre.</p>	YES



The map illustrates the approximate five-minute walking catchment around local centres serviced by local transport and the approximate 10-minute walking catchment around a centre focused on a mass transit stop. Actual walking catchments of 5-10 minutes will depend on local connections and conditions and should be determined using a place-based approach within which housing, retail and commercial growth opportunities need to be balanced and planned for by councils.

**Figure 5: Eastern City District – centres**  
(Source: Eastern City District Plan)

Item 8.7

280

Council Meeting

12/09/2018

Local plans			
Rockdale Community Strategic Plan (adopted 15 June 2011)	<p><u>Villages and Local Centres</u></p> <p><i>Redevelopment within these centres is encouraged as a means of increasing residential densities in close proximity to public transport and services. Redevelopment proposals would need to recognise the desired local character of the centre.</i></p> <p><u>Rockdale Tomorrow:</u></p> <p><i>Future growth is likely to occur in the centres of Rockdale, Wollie Creek, <b>Brighton Le Sands</b>, Bexley and Bexley North, which have the most significant opportunities for redevelopment through the presence of larger sites which are more readily able to be developed.</i></p>	<p><u>Comment:</u></p> <p>The Planning Proposal is generally consistent with the Plan to increase residential densities in close proximity to public transport.</p>	YES

### Other considerations

#### Car parking:

The Rockdale Development Control Plan 2011 (Rockdale DCP) requires car parking at the rate of 1 space per 1 and 2 bed apartments. The indicative floor plan (refer **Attachment 6**) submitted with the Planning Proposal indicates that the ground floor of the development could potentially accommodate 1 x 1 bedroom apartment and 1 x 2 bedroom apartment, which equates to a car parking requirement of 2 spaces.

The existing approved retail ground floor component has a GFA of 160m<sup>2</sup>. The Rockdale DCP requires car parking at the rate of 1 space per 40m<sup>2</sup> GFA, equating to a car parking requirement of 4 spaces.

Accordingly, the Planning Proposal is acceptable in terms of car parking provision given the resultant decrease in car parking required.

### Conclusion

The current SP3 Tourist zoning for the site was informed by a major development application under the former Part 3A of the *Environmental Planning and Assessment Act 1979* to expand the adjoining Novotel hotel.

The expansion of the existing Novotel did not proceed, and the site was subsequently developed for the purposes of a 9-storey shop top housing development in accordance with the permissible land uses in the SP3 Tourist zone. The existing development on the site has three commercial tenancies at ground floor.

Item 8.7

281

---

Council Meeting

12/09/2018

Despite extensive marketing campaigns conducted over a period of several years, the owner was unable to lease the commercial tenancies for a variety of reasons, as detailed in the Planning Proposal and supporting reports submitted with the Planning Proposal.

The vacant tenancies have resulted in an inactive streetscape and the Planning Proposal seeks to rectify this unintended outcome by rezoning the site to B4 Mixed Use. It is anticipated that this will enable residential development at ground floor, which will provide casual surveillance and activation of the streetscape whilst retaining a zoning consistent with the primary function of the Brighton-Le-Sands local centre.

On the 28<sup>th</sup> August 2018, the Bayside Local Planning Panel considered the draft Planning Proposal and additional information requested by Council at the Council meeting of 8<sup>th</sup> August 2018. The recommendation of the Bayside Local Planning Panel from 28 August 2018 was the same recommendation as made by the Bayside Local Planning Panel at its meeting of 26 June 2018 for the same matter.

---

### Financial Implications

Not applicable	<input checked="" type="checkbox"/>
Included in existing approved budget	<input type="checkbox"/>
Additional funds required	<input type="checkbox"/>

---

### Community Engagement

Should the Planning Proposal proceed through Gateway, community consultation will be undertaken in accordance with section 3.34 of the EPAA. The specific requirements for community consultation will be listed in the Gateway determination, including any government agencies that are to be consulted.

---

### Attachments

- 1 Council Report DA-2012/325 [↓](#)
- 2 Sales & Marketing Overview Letter [↓](#)
- 3 Shop Tenancy Assessment [↓](#)
- 4 Draft Planning Proposal [↓](#)
- 5 Design Report [↓](#)
- 6 Indicative Floor Plan [↓](#)

Item 8.7

282

Council Meeting

12/09/2018

**8.1 Cook Cove - Trust Lands**

- Mr Rasmus Torkel, interested resident, speaking for the Officer Recommendation (previously spoke at the Bayside Planning Panel on 14 August 2018), addressed the Council.
- Ms Wendy Aylward, interested resident, speaking for the Officer Recommendation (previously spoke at the Bayside Planning Panel on 14 August 2018) addressed the Council.
- Ms Margaret Blackmore, interested resident speaking for the Officer Recommendation, addressed the Council.

**RESOLUTION**

Minute 2018/195

Resolved on the motion of Councillors Ibrahim and Tsounis

- 1 That Attachments 7, 8, 9 and 10 to this report be withheld from the press and public as they are confidential for the following reason:  
  
With reference to Section 10A(2)(g) of the Local Government Act 1993, these attachments contain advice concerning litigation, or advice that would otherwise be privileged from production in legal proceedings on the ground of legal professional privilege. It is considered that if the matter were discussed in an open Council Meeting it would, on balance, be contrary to the public interest due to the issue it deals with.
- 2 That Council as trustee cannot advance the current Planning Proposal to re-classify the Trust Lands without a conflict of duty arising and that Council awaits a formal response from the Attorney General as detailed in the body of this report.
- 3 That Council engages with the relevant parties, including The Attorney General and RMS to explore the re-constitution of the 'Trust Lands' to exclude the road, post the RMS use of the 'Trust Lands'.

**8.7 Planning Proposal - 8 Princess St, Brighton Le Sands**

Mr James McBride, consultant from Ethos Urban on behalf of the applicant, speaking for the Officer Recommendation, addressed the Council.

**RESOLUTION**

Minute 2018/196

Resolved on the motion of Councillors Tsounis and Macdonald

- 1 That Council does not support the draft planning proposal submitted for 8 Princess Street, Brighton Le Sands.

Council Meeting

12/09/2018

- 2 That this site be reviewed during the development of the new Bayside Local Environmental Plan.

Division on planning matter

For: Councillors Tsounis, Saravinovski, Kalligas, Sedrak, Morrissey, Curry, Rapisardi, Ibrahim, Poulos, McDougall, Macdonald, Bezic, Barlow and Awada

The Motion was carried.

**BTC18.134 – Minutes of the Bayside Traffic Committee Meeting – 5 September 2018 - Hattersley Street (north), Arncliffe - Proposed extension of the existing resident parking scheme**

Ms Michele Nettlefold, interested resident, speaking for the Committee Recommendation, addressed the Council.

**RESOLUTION**

Minute 2018/197

Resolved on the motion of Councillors McDougall and Tsounis

- 1 That endorsement be given to the extension of the existing resident parking scheme in Hattersley Street from south of Subway Road to north of Subway Road along the eastern kerb line of residential properties. The signage is '2P 8.30 am-6.00 pm Mon-Fri 8.30 am-12.30 pm Sat, Permit holders excepted, Area RCD'.
- 2 That endorsement be referred to Roads and Maritime Services to approve as this area is within 1km radius of Rockdale Railway Station.

## **8 Reports**

### **8.2 Proposed Lease To Order of AHEPA NSW Inc - 72 Laycock Street, Bexley North**

Councillor Tsounis had previously declared a Less than Significant Non-Pecuniary Interest.

**RESOLUTION**

Minute 2018/198

Resolved on the motion of Councillors Kalligas and Tsounis



**Planning  
Panels**

**REZONING REVIEW  
RECORD OF DECISION  
SYDNEY EASTERN CITY PLANNING PANEL**

<b>DATE OF DECISION</b>	Wednesday 19 December 2018
<b>PANEL MEMBERS</b>	Carl Scully (Chair), Sue Francis, John Roseth, Paul Pappas, Michael Sheils
<b>APOLOGIES</b>	None
<b>DECLARATIONS OF INTEREST</b>	<p>Ed McDougall, Michael Nagi, Ron Bexic and Andrew Tsounis are conflicted on this matter having voted on the proposal at council meeting.</p> <p>Paul Pappas stated that he was involved in preparing a concept design for the joint submission with Thakral Holdings circa 2009 for previous owners. Panel Chair declared that this did not exclude him from participating on the Panel.</p>

**REZONING REVIEW**

2018ECI004 – Bayside - RR\_2018\_BSIDE\_002\_00 at 8 Princess Street Brighton Le Sands (AS DESCRIBED IN SCHEDULE 1)

**Reason for Review:**

- ☒ The council has notified the proponent that the request to prepare a planning proposal has not been supported
- ☐ The council has failed to indicate its support 90 days after the proponent submitted a request to prepare a planning proposal or took too long to submit the proposal after indicating its support

**PANEL CONSIDERATION AND DECISION**

The Panel considered: the material listed at item 4 and the matters raised and/or observed at meetings and site inspections listed at item 5 in Schedule 1.

Based on this review, the Panel determined that the proposed instrument:






- ☒ **should** be submitted for a Gateway determination because the proposal has demonstrated strategic and site specific merit
- ☐ **should not** be submitted for a Gateway determination because the proposal has
- ☐ not demonstrated strategic merit
  - ☐ has demonstrated strategic merit but not site specific merit

The decision was unanimous.

**REASONS FOR THE DECISION**

The effect of this planning proposal will be to convert the unused commercial floor space on the ground floor of the existing building on the site to residential use. While this has no great strategic significance, it has no strategic drawbacks, so the Panel considers it to have strategic merit.

The use of the ground floor as residential is in line with other sites on Princess Street, where the ground floor use is either residential or parking. The proposal can therefore be considered to have site-specific merit.

PANEL MEMBERS	
 Carl Scully (Chair)	 Sue Francis
 John Roseth	 Paul Pappas
 Michael Sheils	



SCHEDULE 1		
1	PANEL REF – LGA – DEPARTMENT REF - ADDRESS	2018ECI004 – Bayside - RR_2018_BSIDE_002_00 at 8 Princess Street Brighton Le Sands
2	LEP TO BE AMENDED	Rockdale Local Environmental Plan 2011
3	PROPOSED INSTRUMENT	The proposal seeks to amend the Rockdale Local Environmental Plan 2011 to rezone 8 Princess Street Brighton Le-Sands from SP3 Tourist to B4 Mixed Use.
4	MATERIAL CONSIDERED BY THE PANEL	<ul style="list-style-type: none"> <li>Rezoning review request documentation</li> <li>Briefing report from Department of Planning and Environment</li> </ul>
5	MEETINGS AND SITE INSPECTIONS BY THE PANEL	<ul style="list-style-type: none"> <li><b>Site inspection: 19 December 2018</b> <ul style="list-style-type: none"> <li>Panel members in attendance: Carl Scully (Chair), Sue Francis, John Roseth, Paul Pappas, Michael Sheils</li> <li>Department of Planning and Environment (DPE) staff in attendance: Alexander Galea, Kris Walsh</li> </ul> </li> <li><b>Briefing with Department of Planning and Environment (DPE): 19 December 2018 at 9.00am</b> <ul style="list-style-type: none"> <li>Panel members in attendance: Carl Scully (Chair), Sue Francis, John Roseth, Paul Pappas, Michael Sheils</li> <li>Department of Planning and Environment (DPE) staff in attendance: Alexander Galea, Kris Walsh</li> </ul> </li> <li><b>Briefing with Council &amp; Proponent: 19 December 2018 at 11am</b> <ul style="list-style-type: none"> <li>Panel members in attendance: Carl Scully (Chair), Sue Francis, John Roseth, Paul Pappas, Michael Sheils</li> <li>Department of Planning and Environment (DPE) staff in attendance: Alexander Galea, Kris Walsh</li> <li>Council representatives in attendance: John McNally, Michael McCabe</li> <li>Proponent representatives in attendance: James McBride, Henry Huynh</li> </ul> </li> </ul>



Council Meeting

13/02/2019

**8.5 Planning Proposal - 8 Princess Street, Brighton-Le-Sands**

## RESOLUTION

Minute 2019/008

Resolved on the motion of Councillors Macdonald and Nagi

That Council resolves to retain its role as the Planning Proposal Authority for the Draft Planning Proposal at 8 Princess Street, Brighton-Le-Sands.

Division called by Councillors Macdonald and Nagi

For: Councillors Morrissey, Curry, Rapisardi, Nagi, Ibrahim, Macdonald, Bezic and Awada

Against: Councillors Tsounis, Saravinovski, Kalligas, Sedrak, McDougall and Barlow

Abstained: Councillor Poulos

The Motion was declared carried.

**8.6 Extension of Moratorium for Low Rise Medium Density Housing Code**

## RESOLUTION

Minute 2019/009

Resolved on the motion of Councillors Morrissey and McDougall

That Bayside Council seeks to extend the moratorium on the commencement of the State Environmental Planning Policy (Exempt and Complying Development Codes) Amendment (Low Rise Medium Density Housing) until the Bayside Local Environmental Plan and Bayside Development Control Plan are approved by the NSW Department Planning of Environment, expected by the end of 2020.

**8.7 Cahill Park Amenities & Cafe Options**

Councillor Ibrahim had previously declared a Less than Significant Non-Pecuniary Interest.

## RESOLUTION

Minute 2019/010

Resolved on the motion of Councillors Nagi and Bezic



18 February 2019

Our Ref: F18/395 – 19/36450  
PPS Ref: 2018ECI004 – RR\_2018\_BSIDE\_002\_00  
Contact: John McNally – 9562 1652

Mr Stuart Withington  
Manager Planning Panels Secretariat  
GPO Box 39  
SYDNEY NSW 2001

By Email – [stuart.withington@planning.nsw.gov.au](mailto:stuart.withington@planning.nsw.gov.au)

Dear Mr Withington,

**Re: Acceptance of the role of Planning Proposal Authority – Planning Proposal: 8  
Princess Street, Brighton-Le-Sands**

I refer to correspondence received from Carl Scully, Chair of the Sydney Eastern City Planning Panel, dated 20 December 2018, in which Bayside Council was invited to be the Planning Proposal Authority (PPA) for a Planning Proposal at 8 Princess Street, Brighton-Le-Sands.

Following a resolution of Council on Wednesday 13 February 2019, I can confirm that Council accepts the role of PPA in relation to this matter and will prepare a Planning Proposal under section 3.33 of the *Environmental Planning and Assessment Act 1979*.

If you have any questions, or require further information to assist with your assessment of this Planning Proposal, please contact John McNally, Urban Planner, on 9562 1652 or [john.mcnally@bayside.nsw.gov.au](mailto:john.mcnally@bayside.nsw.gov.au).

Yours sincerely,

Michael McCabe  
**Director City Futures**

**Eastgardens Customer Service Centre**  
Westfield Eastgardens  
152 Bunnerong Road  
Eastgardens NSW 2036, Australia  
ABN 80 690 785 443 Branch 004

**Rockdale Customer Service Centre**  
444-446 Princes Highway  
Rockdale NSW 2216, Australia  
ABN 80 690 785 443 Branch 003  
DX 25308 Rockdale

Phone 1300 581 299  
T (02) 9562 1666 F 9562 1777  
E [council@bayside.nsw.gov.au](mailto:council@bayside.nsw.gov.au)  
W [www.bayside.nsw.gov.au](http://www.bayside.nsw.gov.au)

Postal address: PO Box 21, Rockdale NSW 2216



Telephone Interpreter Services - 131 450

Τηλεφωνικές Υπηρεσίες Διερμηνέων

خدمة الترجمة الهاتفية

電話傳譯服務處

Служба за преведување по телефон



## Planning & Environment

### Gateway Determination

**Planning proposal (Department Ref: PP\_2019\_BSIDE\_002\_00):** to amend the Rockdale Local Environmental Plan 2011 by rezoning the land at 8 Princess Street, Brighton-Le-Sands to B4 Mixed Use.

I, the Director, Sydney Region East at the Department of Planning and Environment, as delegate of the Minister for Planning, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Rockdale Local Environmental Plan (LEP) 2011 to rezoning the land at 8 Princess Street, Brighton-Le-Sands to B4 Mixed Use should proceed subject to the following conditions:

1. The planning proposal is to be amended prior to community consultation as follows:
  - (a) Update the planning proposal to remove references to *A Plan for Growing Sydney*; and
  - (b) update the project timeline.
2. Public exhibition is required under section 3.34(2)(c) and schedule 1 clause 4 of the Act as follows:
  - (a) the planning proposal must be made publicly available for a minimum of **28 days**; and
  - (b) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 5.5.2 of *A guide to preparing local environmental plans* (Department of Planning and Environment 2016).
3. Consultation with public authorities/organisations under section 3.34(2)(d) of the *Environmental Planning and Assessment Act 1979* is not required for this planning proposal.
4. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

5. The time frame for completing the LEP is to be **9 months** following the date of the Gateway determination.

Dated *4th* day of *April* 2019.



Amanda Harvey  
Director, Sydney Region East  
Planning Services  
Department of Planning and Environment

Delegate of the Minister for Planning

PP\_2019\_BSIDE\_002\_00

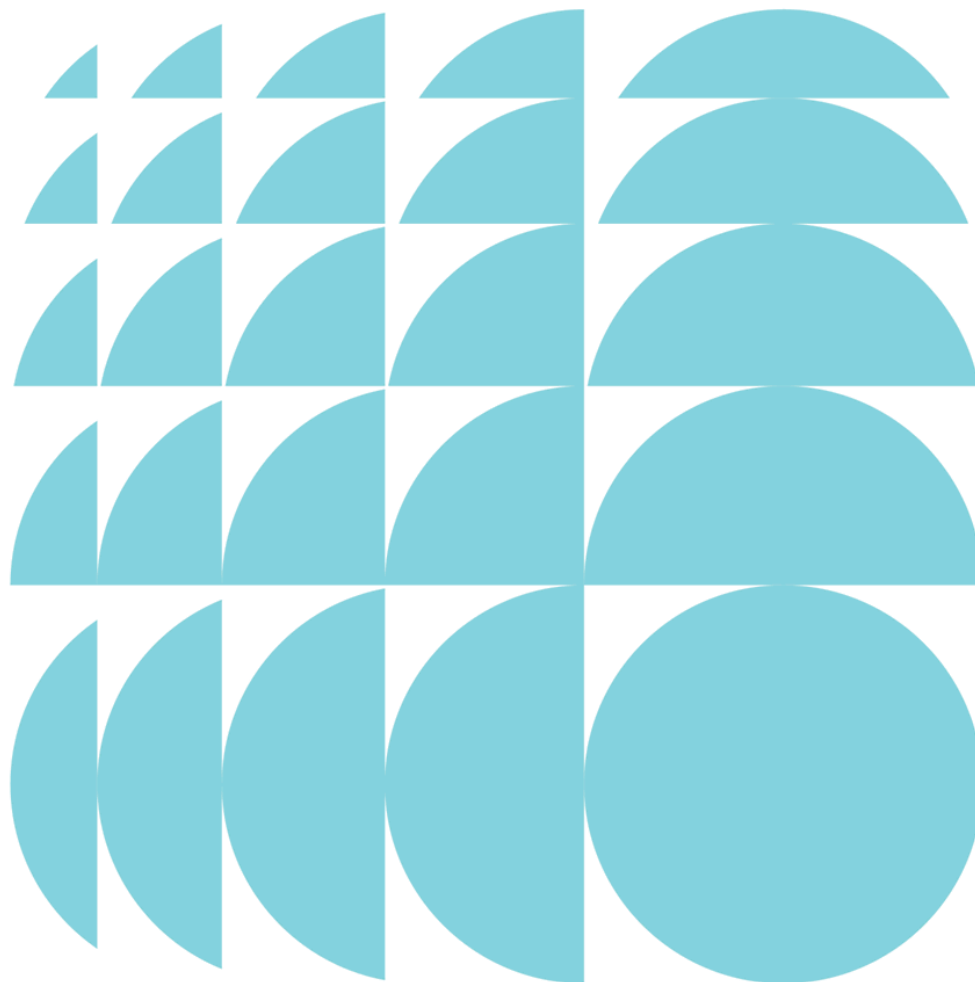
# ETHOS URBAN

## Planning Proposal

8 Princess Street, Brighton-Le-Sands  
Rezoning from SP3 Tourist to B4 Mixed Use

Submitted to Bayside Council  
On behalf of Lumex Property Group Pty Ltd

09 April 2018 | 17060



---

**CONTACT**

James McBride	Principle	JMcBride@ethosurban.com	02 9409 4954
---------------	-----------	-------------------------	--------------

Reproduction of this document or any part thereof is not permitted without prior written permission of Ethos Urban Pty Ltd.

This document has been prepared by:



Jo Zhu & James McBride

26/03/2018

This document has been reviewed by:



Ben Craig

26/03/2018

Reproduction of this document or any part thereof is not permitted without written permission of Ethos Urban Pty Ltd. Ethos Urban operates under a Quality Management System. This report has been prepared and reviewed in accordance with that system. If the report is not signed, it is a preliminary draft.

VERSION NO.	DATE OF ISSUE	REVISION BY	APPROVED BY
-------------	---------------	-------------	-------------

---

Ethos Urban Pty Ltd  
ABN 13 615 087 631  
www.ethosurban.com  
173 Sussex Street, Sydney  
NSW 2000 t 61 2 9956 6952

---

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

1.0	Introduction	3
1.1	The Site	3
1.2	Background	3
1.3	Description of the Planning Proposal	4
1.4	Rationale for the Proposal	4
2.0	Objectives or Intended Outcomes	5
3.0	Explanation of Changes	5
4.0	Justification	6
4.1	Need for the planning proposal	6
4.2	Relationship to Strategic Planning Framework	7
4.3	Environmental, social and economic impact	11
4.4	State and Commonwealth interests	17
5.0	Community Consultation	17
6.0	Project Timeline	18

## Figures

Figure 1	Site Location	3
Figure 2	Existing Zoning Map	5
Figure 3	Proposed Zoning Map	6
Figure 4	Anticipated Apartment Layout	12

## Tables

Table 1	Table Caption Proposal's consistency with the goals of A Plan for Growing Sydney	7
Table 2	Table Caption Proposal's consistency with Our Greater Sydney 2056	7
Table 3	Proposal's consistency with the relevant priorities and actions of the Eastern City District Plan	8
Table 4	Proposal's consistency with the outcomes of the Rockdale City Community Strategic Plan	8
Table 5	Table Caption Consistency with SEPPs	9
Table 6	Consistency with applicable Ministerial Directions	10
Table 7	Assessment of the proposal's consistency with the objective of the ADG	12
Table 8	Table Caption Approximate project timeline	18

## Appendices

### A. Indicative Architectural Drawings

*SJB*

### B. Sales and Marketing Overview Letter

*Colliers*

### C. Traffic Impact Assessment

*GTA*

### D. Retail Tenancy Economic Assessment

*Essential Economics*

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

## 1.0 Introduction

This Planning Proposal explains the intended effect of, and justification for, the proposed amendment to the *Rockdale Local Environmental Plan 2011* ('Rockdale LEP 2011'). It has been prepared in accordance with Section 3.33 of the *Environmental Planning and Assessment Act 1979* and the relevant Department of Planning and Environment guidelines, including 'A Guide to Preparing Local Environment Plans' and 'A Guide to Preparing Planning Proposals'.

### 1.1 The Site

The site to which this planning proposal relates is located at 8 Princess Street, Brighton-Le-Sands and is legally described as SP92060. The subject strata units located on the ground floor are Lot 70, Lot 4 and Lot 5 within SP92060. **Figure 1** illustrates the subject site.



The Site

**Figure 1 Site Location**

Source: Nearmap

### 1.2 Background

In 1988, development consent (DA175/87) was granted by Council for the construction of a 15-storey hotel – the Novotel Hotel Brighton Le Sands – at the Grand Parade, Brighton Le Sands. Thakral Holdings Limited is the current owner of the Novotel Hotel.

Recently in 2007, Thakral Holdings Limited purchased the vacant site (8-14 Princess Street, Brighton Le Sands) to the immediate west adjoining the Novotel.

Between early 2008 and early 2011, a series of meetings were held at Rockdale City Council to discuss a possible extension of the existing Novotel hotel onto the subject site. During this time, discussions were also held with the Department of Planning & Infrastructure (the Department) and Council regarding the proposed lodgement of a Part 3A Concept Plan for the refurbishment of the existing hotel and its extension onto the subject site. In January 2009, the proposed hotel expansion project was declared to be a project to which Part 3A of the EP&A Act applies, and the then Minister for Planning authorised the preparation of a Concept Plan.

As part of the comprehensive LEP process, the site was re-zoned from Residential 2(c) under the preceding Rockdale LEP 2000 to SP3 Tourist under the Rockdale LEP 2011, which would appear to be in response to the declaration of the Part 3A Concept Plan.



8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

In June 2011, Thakral advised the Council that a hotel expansion onto the subject site would not be pursued for a range of commercial and strategic reasons outside the control of Thakral Holdings. Accordingly, Thakral Holdings pursued a 'shop top housing' development of the site and lodged a Development Application on 20 April 2012. During the course of the DA assessment, the current landowner, Lumex Property Group acquired the site.

The existing development at the site, being a shop top housing building, was approved by (the former) Rockdale City Council on 12 December 2012 as part of DA-2012/325. A shop top housing building was proposed under DA-2012/325 as a result of the prohibition of residential flat buildings within the SP3 Tourist zone which applies to the site.

DA-2012/325 provided consent for the construction and use of a 9-storey mixed-use development comprising three (3) non-residential tenancies, 67 residential units and basement parking for 71 vehicles. The building was completed and occupied in September 2015.

### 1.3 Description of the Planning Proposal

This planning proposal seeks to amend the zoning of land at 8 Princess Street, Brighton-Le-Sands (legally known as SP 92060) from SP3 Tourist to B4 Mixed Use in the Land Zoning Map of the Rockdale LEP 2011.

No amendment to the existing building height or floor space ratio development standards is proposed.

### 1.4 Rationale for the Proposal

The rationale for this planning proposal is that the site is currently being underutilised and is not contributing to the amenity of Brighton-Le-Sands. The landowner has actively marketed the three ground level tenancies for either leasing or sale through a national specialist commercial real estate agent, Cushman and Wakefield and thereafter engaging Colliers and LJ Hooker to extend the campaign. During the past 2.5 years since its completion, no reasonable offers were received for the purchase or leasing of the space. A letter providing an overview of the sales and marketing campaign is provided at **Appendix B**.

Shortly after construction of the exiting building in September 2015, the non-residential tenancies were advertised for lease or sale through a comprehensive marketing campaign involving:

- online listings on Real Commercial;
- listings within the Sydney Morning Herald and the St George and Sutherland Shire Leader newspapers;
- notifications of an e-flyer within a national database for commercial real estate agents; and
- onsite sign boards.

The three tenancies are subdivided into separate titles, each with a regular and highly usable shape. The tenancies were marketed as 'empty shells' (i.e. no fit out), allowing for flexibility in their final use. Furthermore, the design of each tenancy was maximised for retail exposure, with floor to ceiling glazing towards Princess Street. Building upgrades were also completed for a 1,000 Litre Grease arrestor and mechanical exhaust, allowing for reduced fit out costs for food and beverage operators utilising the spaces.

Despite the above and an asking rent reduction, interest in the tenancies was still limited, as outlined in the letter provided at **Appendix B**. Colliers note the following key factors contributing to the lack of commercial interest:

- a lack of foot traffic along Princess Street;
- reduced critical mass of other retail operations immediately surrounding the site;
- potential conflict of non-residential and residential uses, particularly in regard to noise and hours of operation; and
- a shortage of customer parking (particularly on weekends) in the surrounding street network.

Given the long term vacancy status of the site, Essential Economics were engaged to undertake an independent market appraisal of the ground floor retail/commercial space to determine its future financial viability (attached in **Appendix D**). The report finds that the subject site has below-average attributes for the operation of successful ground-floor retailing based on 12 commonly applied locational assessment criteria. The assessment result also confirms that the poor locational attributes of the site is one of the key reasons for a lack of interest.

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

In light of the above, this planning proposal is necessary to facilitate the conversion of the non-residential tenancies to residential apartments. All reasonable efforts have been exhausted to secure the occupation of these tenancies for commercial purposes, therefore it is considered necessary to allow for an alternative use which is in demand and will allow for the ground level to contribute to the streetscape and activity in the locality.

It is noted that the conversion of the ground floor commercial tenancies to residential apartments will be subject to a subsequent Development Application.

## 2.0 Objectives or Intended Outcomes

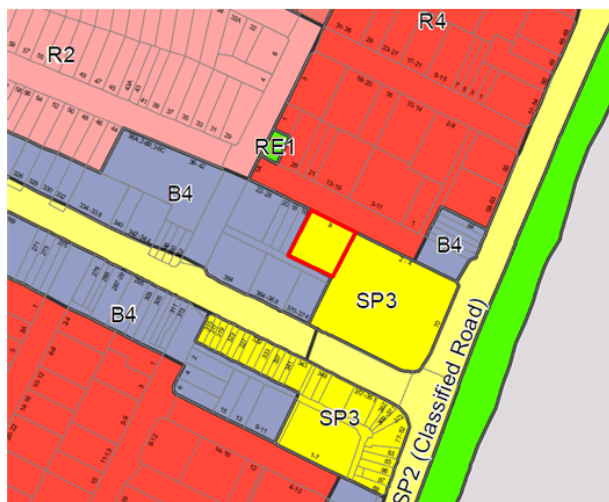
The key objective and intended outcome of the planning proposal is to amend the *Rockdale LEP 2011* to enable the infill redevelopment of three vacant non-residential tenancies at the subject site. The infill of these three non-residential tenancies will allow for the delivery of two residential apartments.

The broader objectives of this planning proposal are to:

- Amend the zoning of the land from SP3 Tourist to B4 Mixed Use to in order to permit residential uses on the ground floor;
- Enhance the degree to which the existing building integrates with the immediate surrounds, which predominantly consists of residential uses;
- Provide a comparatively enhanced level of street front activation and urban design outcome through the occupation of the lower levels of the building; and
- Establish additional opportunities for housing within the Brighton-Le-Sands centre, in turn offering residents the opportunity to live within immediate access to key services, amenities, and infrastructure within walking distance.

## 3.0 Explanation of Changes

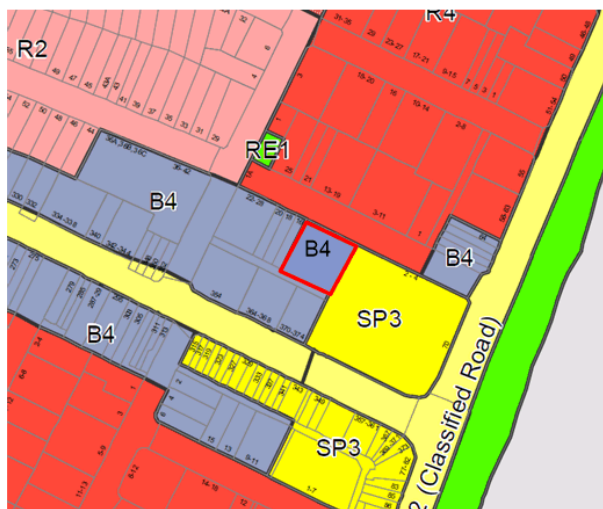
The proposed outcome, as outlined at **Section 2.0**, will be achieved by amending Sheet LZN\_004 Land Zoning Map of Rockdale LEP 2011 as follows:



**Figure 2 Existing Zoning Map**

Source: Rockdale LEP 2011

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018



**Figure 3 Proposed Zoning Map**

Source: Ethos Urban

## 4.0 Justification

### 4.1 Need for the planning proposal

#### 4.1.1 Is the planning proposal a result of any strategic study or report?

This planning proposal is not in direct response to any strategic study or report, but more broadly implements the goals and aspirations of the adopted metropolitan and district strategic plans. The relationship of the proposal with the relevant strategic planning documents is addressed in Section 4.2 below.

The need for the planning proposal has mainly arisen from a lack of interest in the non-residential tenancies and the long-term vacancies (2.5 years), given a number of constraints. As such, it is more appropriate to rezone the site to B4 Mixed Use to allow for residential flat buildings given the prolonged vacancy of the ground floor commercial tenancies.

The future provision of residential uses on the ground level in lieu of the non-residential tenancies will also result in an improvement to the contribution of the building in the streetscape, particularly given the vacant nature of the current tenancies. Currently, the vacant tenancies present a blank response to the street, being empty shells with no visual interest or activity provided. The future envisaged residential apartments will enable a level of activation to the ground level and will ensure that the presentation of the building is purposeful rather than vacant tenancies.

#### 4.1.2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The planning proposal is the most appropriate means of achieving the objectives and intended outcomes outlined at Section 2.0. Currently, the zoning of the site does not permit residential flat buildings, meaning that ground level tenancies within the existing building are required to be utilised for non-residential uses. As such, there is a clear need for an amendment to the current permissible uses on the site to permit the conversion of the ground level non-residential tenancies to residential apartments.

The planning proposal will amend the zoning of the site from SP3 Tourist zone to a B4 Mixed Use zoning in order to permit 'residential flat buildings' on the site. The proposed rezoning will respond to the underlying commercial zone of the Brighton-Le-Sands Town Centre and will be commensurate with uses foreshadowed in the zone.

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

An alternative to the amendment sought with the planning proposal would be to amend Schedule 1 'Additional permitted uses' to insert "residential flat buildings" as a permissible use on the land without amending the existing SP3 Tourist zone. This alternative would not provide a desirable outcome for the site as it will create an unnecessary provision in the LEP and is not reflective of the underlying objective of the SP3 zone which is to promote tourist related uses. It is noted that given the recent re-development of the site, it is considered that the SP3 Tourist zoning of the site is effectively redundant.

Overall, the amendment to the zoning of the site pursuant to the Rockdale LEP 2011 is the most efficient and time effective approach to meet the intended outcomes of the planning proposal.

## 4.2 Relationship to Strategic Planning Framework

### 4.2.1 Is the planning proposal consistent with the objectives and actions contained within the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?

The planning proposal is consistent with the objectives and actions of the relevant regional, sub-regional or district strategic plans as set out below.

#### A Plan for Growing Sydney

The proposed amendment to the Rockdale LEP 2011 is consistent with the goals outlined under *A Plan for Growing Sydney* as discussed in **Table 1** below.

**Table 1** Table Caption Proposal's consistency with the goals of A Plan for Growing Sydney

Goal	Comment
GOAL 1: A competitive economy with world-class services and transport	The planning proposal will not affect the achievement of a competitive economy with world-class services and transport. The subject tenancies have been marketed for over 2.5 years for leasing or sale without any success. As such, it is evident that the commercial/retail tenancies do not contribute to a competitive economy in their current form. These tenancies are expected to contribute to the economy when converted to residential apartments.
GOAL 2: A city of housing choice, with homes that meet our needs and lifestyles	The proposed amendment of the Rockdale LEP 2011 will facilitate additional housing within the locality.
GOAL 3: A great place to live with communities that are strong, healthy and well connected	The planning proposal will facilitate the improvement of the current building, allowing for the replacement of vacant non-residential tenancies with residential apartments. These new apartments will enhance the streetscape and increase community members, offering opportunities for a strengthened sense of community.
GOAL 4: A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources	The proposal will facilitate the conversion of vacant non-residential tenancies to residential apartments, ensuring that the land is utilised to its full potential and housing is consolidated in a location with close proximity to existing services, facilities and infrastructure.

#### Greater Sydney Region Plan - Vision to 2056

The Greater Sydney Commission (GSC) has published a finalised new Greater Sydney Region Plan titled *Our Greater Sydney 2056 A metropolis of three cities*, aligns the metropolitan plan for the Greater Sydney with the more targeted district plans. The planning proposal is consistent with the Directions of *Our Greater Sydney 2056* as set out in **Table 2** below.

**Table 2** Table Caption Proposal's consistency with Our Greater Sydney 2056

Priority	Comment
A city for people Celebrating diversity and putting people at the heart of planning	The planning proposal will accommodate the growing population of Sydney and contribute to a healthy resilient community.
Housing the city Giving people housing choices	The additional residential apartments facilitated through the planning proposal will accommodate new residents, contributing to the housing target of the Eastern City.

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

Priority	Comment
A city of great places Designing places for people	The planning proposal will increase capacity for residential development and will improve viability and sustainability of the place, while enhancing the street interface.
A well-connected city Developing a more accessible and walkable city	The site is located in an identified local centre with close proximity to Kogarah Health and Education Precinct and Bayside West Precincts urban renewal area. The proposal will allow for additional housing in a well located area to support the local centre and contribute to a more accessible and walkable city.

#### Eastern City District Plan

The proposed amendment to the Rockdale LEP 2011 is consistent with the priorities and actions for the eastern city outlined within the adopted Eastern City District Plan. The proposal's consistency with the relevant priorities is set out in **Table 3** below.

**Table 3 Proposal's consistency with the relevant priorities and actions of the Eastern City District Plan**

Priority	Comment
Planning Priority E5: Providing housing supply, choice and affordability with access to jobs and services	The planning proposal will allow for future residential apartments in an accessible location with access to jobs and services. These apartments will contribute to housing target, choice and diversity in the locality.
Planning Priority E6: Creating and renewing great places and local centres, and respecting the District's heritage	The additional residential apartments facilitated through the planning proposal will provide a unique housing proposition, being courtyard apartments accessed directly from the street in a local centre. These apartments will provide diversity to the building and more broadly contributing to greater choice in the housing market.
Planning Priority E10: Delivering integrated land use and transport planning and a 30-minute city	The planning proposal will support the principle of integrating land use and transport by facilitating the provision of residential apartments in close proximity to existing facilities and services, allowing residents to live within 30 minutes of existing infrastructure, facilities, services and employment.

#### 4.2.2 Is the planning proposal consistent with the local council's Community Strategic Plan or other local strategic plan?

The planning proposal is consistent with the Rockdale City Community Strategic Plan. The Community Strategic Plan sets out the vision for the local area until 2025, establishing four key outcomes. **Table 4** sets out the consistency of the proposal with these outcomes and the relevant objective.

**Table 4 Proposal's consistency with the outcomes of the Rockdale City Community Strategic Plan**

Outcome	Comment
Outcome 1 – Rockdale is a welcoming and creative City with active, healthy and safe communities	The planning proposal will contribute to this outcome by facilitating residential apartments which will allow people to live in the Brighton-Le-Sands centre. The integration of new housing in this centre will allow people to live a healthy and active lifestyle.
Outcome 2 – Rockdale is a City with a high quality natural and built environment and valued heritage in liveable neighbourhoods. A City that is easy to get around and has good links and connections to other parts of Sydney and beyond.	The proposal will facilitate improvements to the existing building, being the enhancement and activation of the ground floor plate. This will ultimately contribute to the quality of the built environment.
Objective 2.2 Our City has a well managed and sustainable built environment, quality and diverse development with effective housing choice	The planning proposal will facilitate the conversion of non-residential tenancies into residential apartments, contributing to greater housing choice in the locality.
Outcome 3 – Rockdale is a City with a thriving economy that provides jobs for local people and opportunities for lifelong learning	The planning proposal seeks to permit the use of vacant non-residential tenancies for use as residential apartments. Ultimately, this will allow for a greater population in the locality, in turn enhancing the local economy.
Outcome 4 – Rockdale is a City with engaged communities, effective leadership and access to decision making.	The planning proposal will not affect the ability for effective leadership and access to decision making.



8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

#### 4.2.3 Is the planning proposal consistent with applicable State Environmental Planning Policies (SEPPs)?

The consistency of the planning proposal to applicable SEPPs is discussed in **Table 5** below.

**Table 5 Table Caption Consistency with SEPPs**

No.	Title	Consistency with planning proposal
1	Development Standards	Not applicable as per Clause 1.9 of the Rockdale LEP 2011.
14	Coastal Wetlands	Not applicable
19	Bushland in Urban Areas	Not applicable
21	Caravan Parks	Not applicable
26	Littoral Rainforests	Not applicable
30	Intensive Aquaculture	Not applicable
33	Hazardous and Offensive Development	Not applicable
36	Manufactured Home Estates	Not applicable
44	Koala Habitat Protection	Not applicable
47	Moore Park Showground	Not applicable
50	Canal Estate Development	Not applicable
52	Farm Dams and Other Works in Land and Water Management Plan Areas	Not applicable
55	Remediation of Land	The site was deemed suitable for residential uses under DA-2012/325. The findings of this original assessment are considered to remain valid.
62	Sustainable Aquaculture	Not applicable
64	Advertising and Signage	Not applicable
65	Design Quality of Residential Apartment Development	Consistency with the principles of SEPP 65 and accompanying Apartment Design Guide will be further demonstrated in a future development application for the change of use. A high level overview of the proposals consistency with these matters and residential amenity more generally is set out in <b>Section 4.3.2</b> below.
70	Affordable Housing (Revised Schemes)	Not applicable
71	Coastal Protection	Not applicable
-	(Affordable Rental Housing) 2009	Not applicable
-	(Building Sustainability Index: BASIX) 2004	Detailed compliance with SEPP (BASIX) will be demonstrated in a future separate development application for the change of use facilitated by this planning proposal.
-	(Exempt and Complying Development Codes) 2008	SEPP (Exempt and Complying Development Codes) 2008 may apply to the future development, however is not relevant to this planning proposal.
-	(Housing for Seniors or People with a Disability) 2004	Not applicable
-	(Infrastructure) 2007	Not applicable
-	(Kosciuszko National Park Alpine Resorts) 2007	Not applicable
-	(Kurnell Peninsula) 1989	Not applicable
-	(Mining, Petroleum Production and Extractive Industries) 2007	Not applicable
-	(Miscellaneous Consent Provisions) 2007	Not applicable
-	(Penrith Lakes Scheme) 1989	Not applicable
-	(Rural Lands) 2008	Not applicable
-	(State and Regional Development) 2011	Not applicable



8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

No.	Title	Consistency with planning proposal
-	(State Significant Precincts) 2005	Not applicable
-	(Sydney Drinking Water Catchment) 2011	Not applicable
-	(Sydney Region Growth Centres) 2006	Not applicable
-	(Three Ports) 2013	Not applicable
-	(Urban Renewal) 2010	Not applicable
-	(Western Sydney Employment Area) 2009	Not applicable
-	(Western Sydney Parklands) 2009	Not applicable

#### 4.2.4 Is the planning proposal consistent with applicable Ministerial Directions (s. 9.1 directions)?

The consistency of the planning proposal to the relevant Ministerial Directions for Local Environmental Plans under Section 9.1 of the *Environmental Planning and Assessment Act 1979* is discussed in **Table 6** below.

**Table 6 Consistency with applicable Ministerial Directions**

No.	Title	Consistency with planning proposal
<b>1. Employment and Resources</b>		
1.1	Business and Industrial Zones	The planning proposal seeks to amend the zoning of the site from SP3 Tourist zone to B4 Mixed use under the Rockdale LEP 2011. This amendment will permit residential flat buildings on the site and will encourage greater variety and choice of housing types close to facilities and services.
1.2	Rural Zones	Not applicable
1.3	Mining, Petroleum Production & Extractive Industries	Not applicable
1.4	Oyster Aquaculture	Not applicable
1.5	Rural Lands	Not applicable
<b>2. Environment and Heritage</b>		
2.1	Environmental Protection Zones	Not applicable
2.2	Coastal Protection	Not applicable
2.3	Heritage Conservation	Not applicable
2.4	Recreation Vehicle Areas	Not applicable
<b>3. Housing, Infrastructure and Urban Development</b>		
3.1	Residential Zones	The planning proposal seeks to amend the zoning of the site from SP3 Tourist zone to B4 Mixed use under the Rockdale LEP 2011. This amendment will permit residential flat buildings on the site and will encourage greater variety and choice of housing types close to facilities and services.
3.2	Caravan Parks and Manufactured Home Estates	Not applicable
3.3	Home Occupations	Not applicable
3.4	Integrating land use and Transport	The planning proposal will support the principle of integrating land use and transport by facilitating the provision of residential apartments in close proximity to existing facilities and services.
3.5	Development near Licensed Aerodromes	Not applicable
3.6	Shooting ranges	Not applicable
<b>4. Hazard and Risk</b>		
4.1	Acid Sulfate Soils	Not applicable
4.2	Mine Subsidence and Unstable Land	Not applicable
4.3	Flood Prone Land	Not applicable

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

No.	Title	Consistency with planning proposal
4.4	Planning for Bushfire Protection	Not applicable
<b>5. Regional Planning</b>		
5.1	Implementation of Regional Strategies	The planning proposal is of minor significance in terms of regional planning and is consistent with the objectives of the adopted Greater Sydney Region Plan and Sydney Eastern District Plan.
5.2	Sydney Drinking Water Catchments	Not applicable
5.3	Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable
5.4	Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable
5.5	Development on the vicinity of Ellalong	(Revoked)
5.6	Sydney to Canberra Corridor	(Revoked)
5.7	Central Coast	(Revoked)
5.8	Second Sydney Airport: Badgerys Creek	Not applicable
5.9	North West Rail Link Corridor Strategy	Not applicable
<b>6. Local Plan Making</b>		
6.1	Approval and Referral Requirements	The planning proposal does not relate to matters which are likely to require the referral or approval from a public authority.
6.2	Reserving land for Public Purposes	Not applicable
6.3	Site Specific Provisions	The planning proposal seeks to amend the site zoning on the zoning map and will not involve amendments to any site-specific clause. Further, no amendments are proposed to the existing development standards for the site.
<b>7. Metropolitan Planning</b>		
7.1	Implementation of A Plan for Growing Sydney	The planning proposal is of minor significance in terms of metropolitan planning and supports the goals of A Metropolis of Three Cities.
7.2	Implementation of Greater Macarthur Land Release Investigation	Not applicable
7.3	Parramatta Road Corridor Urban Transformation Strategy	Not applicable
7.4	Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not applicable
7.5	Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable
7.6	Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable
7.7	Implementation of Glenfield to Macarthur Urban Renewal Corridor	Not applicable

#### 4.3 Environmental, social and economic impact

##### 4.3.1 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The planning proposal will not result in any impact on critical habitat or threatened species, populations or ecological communities, or their habitats, given the site's urban location.

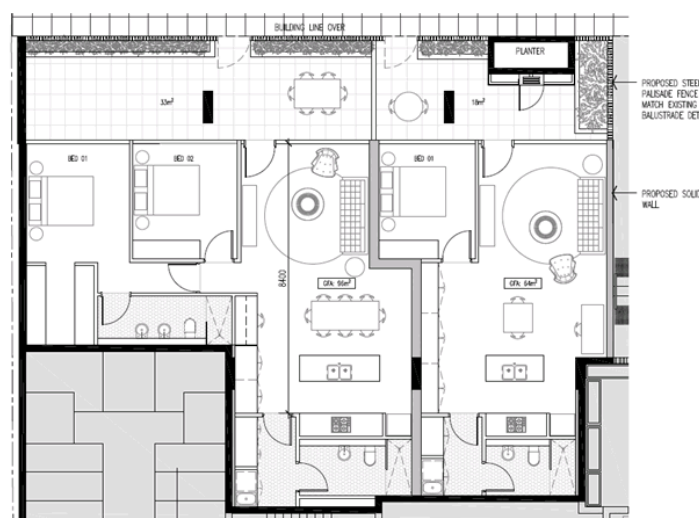
#### 4.3.2 Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

It is not anticipated that there will be any significant environmental effects as a result of the planning proposal. Potential environmental effects requiring further consideration are addressed below.

##### Residential Amenity

The planning proposal will facilitate the future conversion of three commercial tenancies to potentially two residential apartments subject to a separate Development Application. The residential amenity of these apartments in accordance with SEPP 65 and the Apartment Design Guide has been considered.

**Figure 2** illustrates the potential layout of two apartments prepared by SJB Architects. The configuration will allow for 1 x one bedroom unit and 1 x two bedroom unit. The indicative layout demonstrates that each unit will achieve natural light and will be afforded a functional floor layout with direct access to a private courtyard.



**Figure 4 Anticipated Apartment Layout**

Source: SJB Architects

SJB has designed the anticipated layouts in reference to the nine principles of *State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development* (SEPP 65) and the accompanying Apartment Design Guide ('the ADG'). **Table 7** outlines the consistency of the proposal with the design criteria of the ADG.

**Table 7 Assessment of the proposal's consistency with the objective of the ADG**

Design Criteria	Proposal
Part 3 Siting the Development	
3D Communal and Public Open Space	
<i>Objective</i> An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	✓
<i>Design Criteria</i> Communal open space has a minimum area equal to 25% of the site	✓
Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter).	✓ (Refer to Shadow Diagrams at Attachment A)

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

Design Criteria		Proposal												
<b>3E Deep Soil Zones</b>														
<u>Objective</u> Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality.		✓												
<u>Design Criteria</u> Deep soil zones are to meet the following minimum requirements: <table border="1"> <thead> <tr> <th>Site Area</th><th>Min. Dimensions</th><th>Deep Soil Zone*</th></tr> </thead> <tbody> <tr> <td>Less than 650m<sup>2</sup></td><td>-</td><td rowspan="4">7%</td></tr> <tr> <td>650m<sup>2</sup> – 1,500m<sup>2</sup></td><td>3m</td></tr> <tr> <td>Greater than 1,500m<sup>2</sup></td><td>6m</td></tr> <tr> <td>Greater than 1,500m<sup>2</sup> with significant existing tree cover</td><td>6m</td></tr> </tbody> </table> * % of site area		Site Area	Min. Dimensions	Deep Soil Zone*	Less than 650m <sup>2</sup>	-	7%	650m <sup>2</sup> – 1,500m <sup>2</sup>	3m	Greater than 1,500m <sup>2</sup>	6m	Greater than 1,500m <sup>2</sup> with significant existing tree cover	6m	✓
Site Area	Min. Dimensions	Deep Soil Zone*												
Less than 650m <sup>2</sup>	-	7%												
650m <sup>2</sup> – 1,500m <sup>2</sup>	3m													
Greater than 1,500m <sup>2</sup>	6m													
Greater than 1,500m <sup>2</sup> with significant existing tree cover	6m													
<b>3F Visual Privacy</b>														
<u>Objective</u> Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.		✓												
<u>Design Criteria</u> Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows: <table border="1"> <thead> <tr> <th>Building Height</th><th>Habitable Rooms &amp; Balconies</th><th>Non-habitable Rooms</th></tr> </thead> <tbody> <tr> <td>Up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr> <tr> <td>Up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr> <tr> <td>Over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr> </tbody> </table>		Building Height	Habitable Rooms & Balconies	Non-habitable Rooms	Up to 12m (4 storeys)	6m	3m	Up to 25m (5-8 storeys)	9m	4.5m	Over 25m (9+ storeys)	12m	6m	✓
Building Height	Habitable Rooms & Balconies	Non-habitable Rooms												
Up to 12m (4 storeys)	6m	3m												
Up to 25m (5-8 storeys)	9m	4.5m												
Over 25m (9+ storeys)	12m	6m												
<b>3K Bicycle and Car Parking</b>														
<u>Objective</u> Car Parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas		✓												
<u>Design Criteria</u> For development in the following locations: on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre  The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.  The car parking needs for a development must be provided off street.		✓												
<b>Part 4 Designing the Buildings</b>														
<b>4A Solar and Daylight access</b>														
<u>Objective</u> To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space		✓												
<u>Design Criteria</u>		✓ (76% overall)												

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

**3F Visual Privacy**

Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.

A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.

✓

**4B Natural Ventilation**Objective

The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents

✓

Design Criteria

At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.

✓  
(76%)

Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.

N/A

**4C Ceiling Height**Objective

Ceiling height achieves sufficient natural ventilation and daylight access

✓

Design Criteria

Measured from finished floor level to finished ceiling level, minimum ceiling heights are:

✓

Habitable rooms	2.7m
Non-habitable	2.4m
For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area
Attic spaces	1.8m at edge of room with a 30 degree minimum ceiling slope

These minimums do not preclude higher ceilings if desired.

**4D Apartment Size and Layout**Objective

The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity

✓

Design Criteria

Apartments are required to have the following minimum internal areas:

✓

Apartment Type	Minimum internal area
Studio	35m <sup>2</sup>
1 bedroom	50m <sup>2</sup>
2 bedroom	70m <sup>2</sup>
3 bedroom	90m <sup>2</sup>

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m<sup>2</sup> each.

Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.

✓

Objective

Environmental performance of the apartment is maximised

✓

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

**4C Ceiling Height**

<i>Design Criteria</i> Habitable room depths are limited to a maximum of 2.5 x the ceiling height.	Further discussion provided below.
In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.	Further discussion provided below.
<i>Objective</i> Apartment layouts are designed to accommodate a variety of household activities and needs	✓
<i>Design Criteria</i> Master bedrooms have a minimum area of 10m <sup>2</sup> and other bedrooms 9m <sup>2</sup> (excluding wardrobe space).	✓
Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	✓
Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments 4m for 2 and 3 bedroom apartments	✓
The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.	✓

**4E Private Open Space and Balconies**

<u>Objectives</u> Apartments provide appropriately sized private open space and balconies to enhance residential amenity	✓															
<u>Design Criteria</u> All apartments are required to have primary balconies as follows:	✓															
<table><tr><th>Dwelling Type</th><th>Minimum Area</th><th>Minimum Internal area</th></tr><tr><td>Studio apartment</td><td>4m<sup>2</sup></td><td>-</td></tr><tr><td>1 bedroom apartment</td><td>8m<sup>2</sup></td><td>2m</td></tr><tr><td>2 bedroom apartment</td><td>10m<sup>2</sup></td><td>2m</td></tr><tr><td>3+ bedroom apartment</td><td>12m<sup>2</sup></td><td>2.4m</td></tr></table>	Dwelling Type	Minimum Area	Minimum Internal area	Studio apartment	4m <sup>2</sup>	-	1 bedroom apartment	8m <sup>2</sup>	2m	2 bedroom apartment	10m <sup>2</sup>	2m	3+ bedroom apartment	12m <sup>2</sup>	2.4m	
Dwelling Type	Minimum Area	Minimum Internal area														
Studio apartment	4m <sup>2</sup>	-														
1 bedroom apartment	8m <sup>2</sup>	2m														
2 bedroom apartment	10m <sup>2</sup>	2m														
3+ bedroom apartment	12m <sup>2</sup>	2.4m														
The minimum balcony depth to be counted as contributing to the balcony area is 1m.																
For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m <sup>2</sup> and a minimum depth of 3m.	✓															

**4F Common Circulation and Spaces**

<i>Objective</i> Common circulation spaces achieve good amenity and properly service the number of apartments	N/A
<i>Design Criteria</i> The maximum number of apartments off a circulation core on a single level is eight.	N/A
For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	N/A

**4G Storage**

<i>Objective</i> Adequate, well designed storage is provided in each apartment	✓										
<i>Design Criteria</i> In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	✓										
<table border="1"> <thead> <tr> <th>Dwelling Type</th><th>Minimum Area</th></tr> </thead> <tbody> <tr> <td>Studio apartment</td><td>4m<sup>2</sup></td></tr> <tr> <td>1 bedroom apartment</td><td>6m<sup>2</sup></td></tr> <tr> <td>2 bedroom apartment</td><td>8m<sup>2</sup></td></tr> <tr> <td>3+ bedroom apartment</td><td>10m<sup>2</sup></td></tr> </tbody> </table>	Dwelling Type	Minimum Area	Studio apartment	4m <sup>2</sup>	1 bedroom apartment	6m <sup>2</sup>	2 bedroom apartment	8m <sup>2</sup>	3+ bedroom apartment	10m <sup>2</sup>	
Dwelling Type	Minimum Area										
Studio apartment	4m <sup>2</sup>										
1 bedroom apartment	6m <sup>2</sup>										
2 bedroom apartment	8m <sup>2</sup>										
3+ bedroom apartment	10m <sup>2</sup>										
At least 50% of the required storage is to be located within the apartment.											



### Apartment Depth

The two future residential apartments would be provided with a combined habitable living, dining and kitchen depth of 8.4m, marginally exceeding the 8m maximum depth recommended under Objective 4D-2 of the ADG.

Notwithstanding this minor variation, the future room depth is acceptable given the subject apartments will overall achieve a suitable level of residential amenity. The exceedance of 0.4m over the recommended depth is marginal and compliance would not result in a significant level of added amenity.

The internal area of each apartment has been designed to exceed minimum requirements, ensuring that a satisfactory degree of solar access and ventilation is achieved. Both apartments will also have access to a large private outdoor space which will promote surveillance of the street given its location on the ground plane.

It is also noted that the primary habitable areas within each apartment, including the living, dining and bedroom areas, have been located closest to the external face of the building to ensure a high level of solar access and daylight.

### Traffic and Parking

A Traffic and Parking Assessment has been prepared by GTA Consultants ('GTA') and is provided at **Appendix C**.

With respect to the supply of car parking, GTA has determined that:

*'...the proposed development changes [facilitated by this Planning Proposal] will not affect the overall parking provision of the approved DA when assessed against [Rockdale Development Control Plan] 2011 requirements'.*

The Rockdale DCP 2011 stipulates that one parking space per one or two-bedroom apartment is required within a residential flat building. As the five (5) retail parking spaces approved under DA-2012/325 will no longer be required for retail use, these would be proposed to be converted for residential uses. Overall, no additional parking will be provided to the site. The planning proposal will also remain consistent with the current arrangements for visitor parking.

Furthermore, GTA has determined that any impact on the surrounding road network as a result of this planning proposal would be negligible. Within the *Guide to Traffic Generating Developments*, the Roads and Maritime Service recognises that residential apartments generate less traffic than retail premises, therefore the traffic generation of the site would likely decrease.

### 4.3.3 How has the planning proposal adequately addressed any social and economic effects?

The proposed development will result in positive social and economic effects for the local area through the generation of local employment opportunities during construction and post-construction and through provision of additional housing stock.

The site currently accommodates three commercial tenancies on the ground level which have remained vacant since the completion of the development in September 2015. These ground floor retail/commercial tenancies have failed to attract market interest. In particular, Cushman and Wakefield, Colliers International and LJ Hooker Commercial are well-regarded and capable commercial agencies who have been unable to lease the tenancies over a period of 2.5 years, even after a reduced asking rent in response to the lack of interest.

In order to achieve a positive and sustainable outcome and in response to an unsuccessful market campaign, the landowner engaged Essential Economics to undertake an independent market appraisal of the ground floor retail/commercial space to assess the viability and likelihood of securing long term sustainable tenancies (refer to **Appendix D**).

The report finds that despite the design of the ground floor space is suitable to a range of potential tenants, the poor locational attributes of the site is the key reason for a lack of tenant interest based on the feedback. It analysed the site's location context, local provision of retail shops and services, local population and demographic characteristics, and its leasing program history. Essential Economics concludes that the subject site has *below-average attributes* for the operation of successful ground-floor retailing, which is confirmed by the following indications of the assessment result:

- A low desirability for potential tenants

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

- *Poor locational attributes which may undermine the long-term trading success of any tenants which are attracted to the site*
- *A high 'vacancy risk' for the shop tenancies.*

In particular, the subject site has very low ratings of 1.9 out of 5 to a set of 12 criteria commonly applied in locational advice for factors including:

- *Competition (extensive competition already exists for food-based retailing on Bay Street)*
- *Pedestrian Traffic (the subject site has minimal levels of pedestrian traffic and no direct sight lines to highly trafficked areas)*
- *Visibility to Passing Traffic (low levels of vehicle traffic in Princess Street and complex access arrangements from The Grand Parade)*
- *Adjacencies (the adjacent Novotel provides very limited activity to the subject site, no other significant attractors are in the immediate vicinity with the exception of Coles which has no interface or sight line to the Blue Apartments)*
- *Critical mass/destinational appeal (the subject site is located a block north of Bay Street and derives no benefit from the activity levels and visitation generated from the Brighton-Le-Sands activity centre).*

The conclusion is further supported by the demographics data of the suburb which is characterised by a slightly older than average population, with a high percentage of lone person households and below average medium individual income. Following the two and half years vacancy, it is evident that the long term financial viability of the ground floor retail/commercial tenancies is highly at risk

The planning proposal responds to the undesirable traits of the site with respect to facilitating commercial ground floor uses and will facilitate the conversion of these tenancies into residential apartments.

#### 4.4 State and Commonwealth interests

##### 4.4.1 Is there adequate public infrastructure for the planning proposal?

The proposal is intended to facilitate the delivery of two additional residential apartments within the existing building. This minimal increase in residential density is not expected to result in any significant strain on existing infrastructure such as local roads, public transport schools or the existing mixed use centre of Brighton-Le-Sands.

Any potential required amplification/upgrade of existing services will be further investigated in the separate planning application for the construction and use of the residential apartments.

##### 4.4.2 What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?

Consultation has not yet occurred with any State and Commonwealth public authorities given the stage of the planning proposal. Any feedback provided with the Gateway determination will be taken into consideration and addressed in the final planning proposal.

## 5.0 Community Consultation

Community consultation will be undertaken in accordance with section 57 of the EP&A Act. This planning proposal will be publicly exhibited for at least 28 days following the LEP Gateway determination. It is expected that all exhibition material will be available on Council's website. Public notice of the public exhibition is expected to be given in local papers and on Council's website.

All submissions received during the exhibition period will be considered in the finalisation of the planning proposal.

8 Princess Street, Brighton-Le-Sands | Planning Proposal | 09 April 2018

## 6.0 Project Timeline

**Table 8**      **Table Caption Approximate project timeline**

Task	Timing
Date of Gateway determination	August 2018
Anticipated timeframe for the completion of required technical information	September 2018
Timeframe for government agency consultation (pre and post exhibition as required by Gateway determination)	November 2018
Commencement and completion dates for public exhibition period	September – October 2018
Dates for public hearing (if required)	N/A
Timeframe for consideration of submissions	November 2018 – January 2019
Timeframe for the consideration of a PP following exhibition	November 2018 – January 2019
Consideration of PP by Council (Council Meeting)	February 2019
Date of submission to the department to finalise the LEP	February 2019
Anticipated date RPA will make the plan (if delegated) or Anticipated date RPA will forward to the department for notification	March 2019
Anticipated publication date	March 2019

Level 30, Grosvenor Place  
225 George Street  
Sydney NSW 2000

PO R61 Royal Exchange  
NSW 1225  
www.colliers.com.au

MAIN +61 2 9257 0222  
FAX +61 2 9257 0288  
MOB +61 400 222 666  
EMAIL peter.seeto@colliers.com



16 May 2017

Mau Huynh  
Director  
Lumex Property Group Pty Ltd  
PO BOX 20  
Homebush West NSW 2140

Dear Mau Huynh,

We write to you regarding the sales and leasing campaign we conducted for the three retail tenancies at 8 Princess Street, Brighton-Le-Sands. We have been engaged by Lumex to assist in the sale or lease of the three tenancies for a period of 6 months, and have received minimal interest in the properties and recommended that the campaign be suspended. A brief summary of the campaign and an overview of the enquiries received is provided below.

As is standard practice for sales and leasing campaigns, a suite of mediums were adopted to market the tenancies. These mediums included:

- Online advertising (Real commercial, Commercial Real estate listing, company websites)
- Advertising in print media (the St George and Sutherland Shire Leader and the Sydney Morning Herald)
- E-flyer distribution
- Signboard at the site

In addition to the promotion of the tenancies through these mediums, I utilised the existing database available at Cushman and Wakefield and Colliers to distribute information regarding the tenancies. Through this database, a total of 6234 individuals were contacted by private email.

As a result of this campaign, sum 90 enquiries were received. These enquiries related to a number of potential uses, including offices, massage businesses and gymnasiums. These uses were not considered appropriate or desirable on the site for a number of reasons, including the lack of activation they would deliver and as such, these uses were discounted and the discussions with the respective tenants were not progressed to formal offers.

Overall, the sales and leasing campaign was conducted for a period of 6 months as set out above, limited interest was received in the tenancies and no suitable formal offers were provided. In light of the length of time dedicated to the campaign, and the lack of interest resulting from our efforts, it was my recommendation that the active campaign be ceased.

In my opinion, the tenancies are not located in a desirable position for non-residential uses which we believe are ordinarily suitable for such a site, such as a café or retail premise. The tenancies are removed from the core retail/commercial strip of Bay Street and Grand Parade, resulting in substantially less foot traffic which is unattractive to potential tenants. Furthermore, the context of the tenancies on Princess Street is largely residential, with limited attraction for non-residential uses due to concerns about noise impacts and potential complaints limiting or affecting operations.

I trust the above information is sufficient to demonstrate the campaign undertaken and lack of interest shown in the sale and lease of the tenancies.

Regards,

  
**Peter Seeto**  
Director  
Sales and Investments – Retail  
Phone 0400 222 666

Land Economists, Property & Hotel Consultants, Valuers, Property Managers, Real Estate Agents, Auctioneers  
Colliers International (NSW) Pty Limited | ABN 65 001 401 681





ESSENTIAL ECONOMICS

## **6-14 Princess St, Brighton-Le-Sands Shop Tenancy Assessment**

Prepared for  
Lumex Property Group  
c/o Ethos Urban

by  
Essential Economics Pty Ltd

**April 2018**

**Authorship**

Report stage	Author	Date	Review	Date
Draft report	Sean Stephens Malcolm Spence	23 February 2018	Client	
Final report	Sean Stephens	16 April 2018		

**Disclaimer**

Although every effort has been made to ensure the accuracy of the material and the integrity of the analysis presented herein, Essential Economics Pty Ltd accepts no liability for any actions taken on the basis of the contents of this report.

The information in this report has been prepared specifically for the stated client. This document should not be used or replicated in any way by any other party without first receiving written consent from Essential Economics Pty Ltd.

**Contact details**

For further details please contact Essential Economics Pty Ltd at one of our offices:

96 Pelham Street  
Carlton  
Victoria 3053  
Australia  
PH +61 3 9347 5255  
FAX +61 3 9347 5355

Level 26 / 44 Market Street  
Sydney  
New South Wales 2000  
Australia  
PH +61 2 9089 8654

EMAIL [mail@essentialeconomics.com](mailto:mail@essentialeconomics.com)

WEB [www.essentialeconomics.com](http://www.essentialeconomics.com)

ABN 92 079 850 427

Our Reference: 17255



## Contents

<b>Introduction .....</b>	<b>1</b>
<b>Executive Summary .....</b>	<b>3</b>
<b>1 Brighton-Le-Sands Description and Context .....</b>	<b>5</b>
1.1 Location and Accessibility .....	5
1.2 Brighton-Le-Sands Town Centre .....	6
1.3 Population, Demographics and Retail Spending .....	6
1.4 Implications for Subject Site .....	9
<b>2 Subject Site Analysis.....</b>	<b>10</b>
2.1 Location .....	10
2.2 Site Description .....	11
2.3 Surrounding Land Uses .....	11
2.4 Accessibility .....	13
2.5 Description of Shop Tenancies .....	14
2.6 Implications for Subject Site .....	16
<b>3 Leasing Considerations .....</b>	<b>17</b>
3.1 Leasing History .....	17
3.2 Comments on Leasing Program .....	18
3.3 Implications for Subject Site .....	19
<b>4 Location Assessment .....</b>	<b>20</b>
4.1 Methodology and Criteria .....	20
4.2 Implications for Subject Site .....	21

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

## INTRODUCTION

---

### Background

Lumex Property Group Pty Ltd (Lumex) completed construction of a mixed use building at 6-14 Princess Street in 2015. The property comprises below ground parking, ground floor retail/commercial space and apartments on above ground levels 1-8.

While the apartments have been sold and are fully occupied, the ground floor retail/commercial tenancies have failed to attract market interest. Several real estate agents have been engaged at various times to lease the tenancies, without success.

In view of the difficulty in securing tenants for the ground floor space, Lumex has approached Bayside Council to seek approval to convert the retail/commercial space to a residential use. This conversion will require a change to the planning permit that currently applies to the property.

Council requires evidence to be supplied with a planning proposal. In email correspondence, Council have specified supporting evidence to include:

- *Land use analysis – analysis of existing uses within the centre and the demand (or otherwise) for tourist related uses and subsequently the zoning;*
- *Evidence of tenant interest – documentation showing that the owner has exhausted all reasonable efforts to secure tenants for the shop fronts;*
- *Impact analysis – details on the proposed future uses of the ground floor space and the impact it may have in regards to the surrounding context;*
- *Traffic and parking analysis – this could be coupled with the ‘impact analysis’ and should include a look at whether the proposed future use of the ground floor space will have a significant impact on traffic movement in and out of the site as well as the surrounding area. This should also include information on whether there is sufficient space for parking (depending on the use).*

As additional evidence Ethos Urban, on behalf of Lumex, are seeking an independent market appraisal of the ground floor retail/commercial space to assess the likelihood of securing long term sustainable tenancies. Essential Economics is engaged to undertake this independent appraisal.

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

## Objectives

The objective of this report is to broadly assess the potential for retail or commercial tenants to occupy the ground floor tenancies at 6-14 Princess St, taking into account:

- General location and retail market characteristics
- Site specific features.

## This Report

This report contains the following chapters:

- 1 **Brighton-Le-Sands** discusses the suburb, its location, provision of retail shops and services, and population and demographic characteristics.
- 2 **Site Analysis** describes the ground floor tenancies at 6-14 Princess Street, key adjacencies, vehicle and pedestrian access, and improvements undertaken by the owner.
- 3 **Leasing History** provides evidence of leasing campaigns and interest in the tenancies.
- 4 **Location Assessment** measures broad retail potential of the site using a scorecard methodology.

6-14 PRINCESS STREET BRIGHTON-LE-SANDS  
SHOP TENANCY ASSESSMENT**EXECUTIVE SUMMARY**

---

- 1 The Blue Apartments (or the 'subject site') were developed in 2015 and are located at 6-14 Princess Street Brighton-Le-Sands approximately 13km south-west of the Sydney CBD. Centred on Bay Street, the Brighton-Le-Sands activity centre is one of three main activity centres located in the City of Bayside. The centre is a well-known dining destination, particularly on weekends. In contrast to other large street-based centres, Brighton-Le-Sands has a relatively low share of shops in non-food categories.
- 2 The population of Brighton-Le-Sands has experienced some moderate growth over the past decade associated with infill residential development opportunities, including at the subject site. The rate of population growth is expected to slow over the next decade.
- 3 Overall retail spending per capita by residents of Brighton-Le-Sands is approximately 3% below the Greater Sydney average, although spending is slightly above average for cafes and restaurants and takeaway food. The demographics of the suburb are slightly older than average, with a high share of lone person households. The median individual income is slightly below average.
- 4 The location of the Blue Apartments is on the southern side of Princess Street, one block north of Bay Street and the high activity areas of the Brighton-Le-Sands centre. Located in the SP3 Tourist Zone, the development of the apartments was required to incorporate ground floor shops. It is understood the application of the SP3 Tourist Zone to the subject site reflects the historical potential for expansion to the adjacent Novotel Brighton Beach. That potential no longer exists.
- 5 Princess Street is primarily residential in nature at this location, with low levels of vehicle and pedestrian traffic. The Novotel Brighton Beach immediately to the east, at best, provides only very limited levels of activity which would benefit tenants at the subject site. Similarly, the nearby Coles and Bay Street shopping strip do not generate activity in Princess Street which would create sales and visitation for potential tenants at the subject site.
- 6 The ground floor shops at the Blue Apartments have been designed in a manner which meets contemporary tenant expectations. This includes commercial grade paving in the outdoor areas, exhaust fans and grease traps installed to accommodate a commercial kitchen, and a flexible layout to maximise attractiveness to possible operators. From a tenancy design perspective only, the shops are suitable to a range of potential users.
- 7 A leasing program for the ground floor shops has been underway since mid-2015, without success. Cushman and Wakefield, Colliers International and LJ Hooker Commercial are well-regarded commercial agencies who have been unable to lease the tenancies over a period of 2.5 years. This is despite reductions in the asking rent, and improvements (exhaust system and grease trap) designed to attract tenants. Feedback from the leasing agents has identified the poor locational attributes of the site as the key reason for a lack of tenant interest.

Essential Economics Pty Ltd

3

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

- 8 Applying a scorecard methodology to a set of 12 criteria commonly applied in locational advice, identifies that the subject site has relatively poor overall locational attributes. In particular, the subject site has very low ratings for factors including:
- Competition (extensive competition already exists for food-based retailing on Bay Street)
  - Pedestrian Traffic (the subject site has minimal levels of pedestrian traffic and no direct sight lines to highly trafficked areas)
  - Visibility to Passing Traffic (low levels of vehicle traffic in Princess Street and complex access arrangements from The Grand Parade)
  - Adjacencies (the adjacent Novotel provides very limited activity to the subject site, no other significant attractors are in the immediate vicinity with the exception of Coles which has no interface or sight line to the Blue Apartments)
  - Critical mass/destinational appeal (the subject site is located a block north of Bay Street and derives no benefit from the activity levels and visitation generated from the Brighton-Le-Sands activity centre).
- 9 Overall, it is our view that the subject site has below-average attributes for the operation of successful ground-floor retailing, which indicates:
- A low desirability for potential tenants
  - Poor locational attributes which may undermine the long-term trading success of any tenants which are attracted to the site
  - A high 'vacancy risk' for the shop tenancies.

6-14 PRINCESS STREET BRIGHTON-LE-SANDS  
SHOP TENANCY ASSESSMENT

## 1 BRIGHTON-LE-SANDS DESCRIPTION AND CONTEXT

This Chapter of the report describes the broad locational context for the subject site at 6-14 Princess Street, Brighton-Le-Sands.

### 1.1 Location and Accessibility

Brighton-Le-Sands is located 13km south-west of the Sydney CBD, on the western shore of Botany Bay within the City of Bayside.

As shown in Map 1.1, the suburb is bordered by: Bestic Street in the north; Botany Bay in the east; President Avenue in the south; and an irregular boundary in the west, including part of Memorial Fields, West Botany Street and Muddy Creek.

**Map 1.1 Brighton-Le-Sands Suburb Outline**



Source: BingMaps with MapInfo

The Grand Parade, runs north-south along the eastern border of the suburb, adjacent to the beach. The Grand Parade is 2 or 3 lanes in either direction through Brighton-Le-Sands, depending on the prevailing parking restrictions. Along with the Princess Highway further west, the Grand Parade is the main north south arterial route connecting the suburb with other parts of Sydney.



6-14 PRINCESS STREET BRIGHTON-LE-SANDS  
SHOP TENANCY ASSESSMENT

Bay Street runs east-west through Brighton-Le-Sands, connecting with Rockdale in the west.

The suburb is not served by rail, although a bus operates to Rockdale Station. Otherwise, State Transit provides a limited bus service linking Brighton-Le-Sands to Sydney CBD and Miranda.

## 1.2 Brighton-Le-Sands Town Centre

The Brighton-Le-Sands town centre is one of the three main activity centres located in the City of Bayside (the other being Rockdale and Wolli Creek).

Bay Street and The Grand Parade comprise the main commercial and retail areas of the town centre. Both sides of Bay Street between The Grand Parade and Crawford Road feature ground floor shops facing onto relatively wide footpaths. The southern side of Bay Street mainly comprises two level buildings, while the northern side has a number of multi-storey apartment and commercial buildings.

The western side of The Grand Parade between The Boulevard and Princess Street also has ground floor shop uses.

Novotel Brighton Beach is located on the northern side of The Grand Parade and Bay Street intersection. The 296 room 4.5 star hotel benefits from water views, frontage to The Grand Parade and Brighton-Le-Sands beach, and proximity to Sydney Airport.

The Brighton-Le-Sands town centre is well known as a multi-cultural food destination, particularly for numerous Greek cafes, restaurants and businesses. Accordingly, the retail mix on Bay Street and The Grand Parade has a high share of cafes, restaurants, food and convenience stores.

In contrast, the share of shops in non-food categories (such as apparel, homewares, general merchandise) is well-below that for similar sized street-based activity centres in Sydney.

A small Coles supermarket, located on the corner of Princess Street and Moate Avenue, is the only significant national brand store in the centre.

## 1.3 Population, Demographics and Retail Spending

### *Population Trends and Forecasts*

The population of Brighton-Le-Sands has experienced consistent growth in recent years, increasing from 7,950 residents in 2006 to 9,100 residents in 2017. Over the period to 2031, the population of the suburb is forecast to increase further to approximately 10,350 residents.

A summary of historic and forecast population trends for Brighton-Le-Sands is shown in Table 1.1.

6-14 PRINCESS STREET BRIGHTON-LE-SANDS  
SHOP TENANCY ASSESSMENT**Table 1.1 Brighton-Le-Sands Population Trends and Forecasts**

	2006	2011	2017	2021	2026	2031
<b>Population (No.)</b>						
Brighton-Le-Sands	7,800	8,480	9,100	9,600	10,000	10,350
<b>Average Annual Growth (%)</b>						
Brighton-Le-Sands		1.7%	1.2%	1.3%	0.8%	0.7%
<b>Average Annual Growth (No.)</b>						
Brighton-Le-Sands		+140	+100	+130	+80	+70

Source: Essential Economics and published sources

**Retail Spending**

Estimates of per capita retail spending by residents of Brighton-Le-Sands have been prepared with reference to the *MarketInfo* retail spending model. *MarketInfo* is a micro-simulation model which uses data from the ABS Household Expenditure Survey, the ABS Census of Population and Housing, ABS Australian National Accounts, and other relevant sources.

Average per capita retail spending in 2017 for residents of Brighton-Le-Sands is summarised in Table 1.2 and compared with the metropolitan Sydney average. The retail spending data is presented in four major spending category groupings.

- **Food, Liquor and Groceries** – includes spending on fresh food, groceries and take home liquor. This main category is relevant to supermarket based shopping.
- **Food catering** – includes cafes, restaurants and take-away food.
- **Non-Food** - includes apparel, homewares, bulky merchandise and general merchandise
- **Services** – such as hairdressers, beauty salons etc.

**Table 1.2 Per Capita Retail Spending by Brighton-Le-Sands Residents, 2017 (\$2017)**

	Food, Liquor and Groceries	Food Catering	Non Food	Services	Total Retail
<b>Per Capita Spending (\$2017)</b>					
Brighton-Le-Sands	\$5,560	\$2,160	\$5,100	\$510	<b>\$13,330</b>
Greater Sydney Average	\$5,470	\$2,110	\$5,620	\$510	<b>\$13,710</b>
<b>Variation from Greater Sydney Average (%)</b>					
Brighton-Le-Sands	+1.6%	+2.4%	-9.3%	+0.0%	<b>-2.8%</b>

Source: MarketInfo, Essential Economics

Total spending per capita by residents of Brighton-Le-Sands on retail goods and services in 2017 was \$13,330 per capita, or 2.8% lower than the Greater Sydney average of \$13,710.

6-14 PRINCESS STREET BRIGHTON-LE-SANDS  
SHOP TENANCY ASSESSMENT

However, for food catering spending, which includes cafes, restaurants and takeaway food outlets, per capita spending by residents of Brighton-Le-Sands is +2.4% above the Greater Sydney average. This indicates an above average propensity of residents living in the area to dine out.

### ***Socio-Economic Characteristics***

According to the 2016 ABS Census of Population and Housing, the suburb of Brighton-Le-Sands is characterised by:

- Personal income levels (\$36,850) marginally below the Greater Sydney average (\$37,460)
- An older age profile with a median age of 40.1 years in the suburb relative to the Greater Sydney average of 36.4 years
- A lower than average share of family households, and a higher proportion of lone person households
- An above average share of dwellings rented (45.9%) relative to the Greater Sydney benchmark (35.1%).

**Table 1.3 Brighton-Le-Sands Socio-Economic Characteristics, 2016**

	<b>Brighton-Le-Sands</b>	<b>Greater Sydney</b>
<b><u>Income</u></b>		
Median individual income (annual)	\$36,850	\$37,460
Variation from Greater Sydney median	-1.6%	na
% of persons (15 years or older) earning \$1,000pw or more	35.1%	37.3%
<b><u>Age Structure</u></b>		
Median Age (years)	40.1	36.4
<b><u>Household Composition</u></b>		
<i>Couple family with no children</i>	23.0%	23.8%
<i>Couple family with children</i>	26.3%	37.5%
Couple family - Total	49.4%	61.3%
One parent family	12.5%	11.1%
Other families	1.3%	1.3%
Family Households - Total	63.2%	73.7%
Lone person household	32.2%	21.7%
Group Household	4.6%	4.6%
Average household size	2.3	2.8
<b><u>Tenure Type (Occupied Private Dwellings)</u></b>		
Owned outright	30.8%	30.0%
Owned with a mortgage	22.5%	34.2%
Rented	45.9%	35.1%

Source: 2016 ABS Census of Population and Housing

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

#### 1.4 Implications for Subject Site

A review of the locational context for the subject site indicates the suburb of Brighton-Le-Sands which is experiencing moderate rates of population growth, although this is expected to slow over coming years. Overall levels of per capita retail spending are 3% below the Greater Sydney average, with income levels of local residents also marginally below the Greater Sydney average.

The Brighton-Le-Sands town centre, centred on Bay Street, is one the three main activity centres located in the City of Bayside. On weekends, the town centre has high volumes of people visiting the numerous cafes and restaurants, while during the week the centre has much lower levels of activity. A significant range of food-related shops are already located in the Brighton-Le-Sands town centre, indicating any such tenants for the subject site would be operating in a highly competitive environment.

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

## 2 SUBJECT SITE ANALYSIS

This Chapter of the report considers the locational context and features of the ground floor tenancies at the subject site of 6-14 Princess Street, Brighton-Le-Sands.

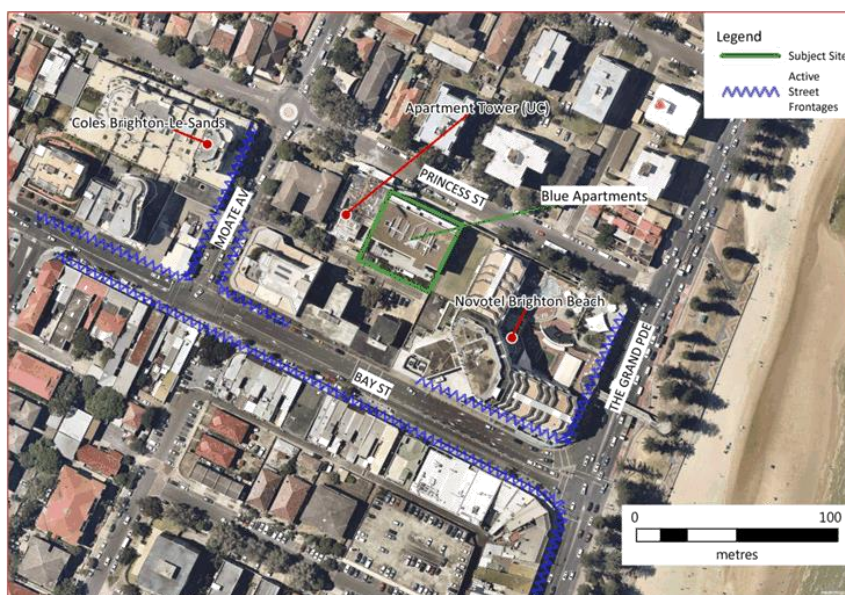
### 2.1 Location

The subject site, called the 'Blue' apartment building, is located on the southern side of Princess Street between The Grand Parade in the east and Moate Avenue in the west. Immediately east is the Novotel Brighton Beach, while to the west is a residential apartment building currently under-construction.

Immediately opposite the site on the northern side of Princess Street are residential uses, primarily apartments.

The subject site is located one block north of the main commercial area in Bay Street.

**Map 2.1 Blue Apartments Location and Site Context**



Source: Essential Economics with Nearmap and MapInfo  
UC – under construction

## 2.2 Site Description

The three tenancies considered in this report are located on the ground floor of the 8-level Blue apartment tower.

Construction of the Blue Apartments was completed in September 2015. The building comprises a total of 67 1-bed, 2-bed and 3-bed apartments. All dwellings have been sold to owner-occupiers or investors.

Below ground parking is provided for residents with an entry point at the eastern end of the building. Pedestrian entry is provided centrally to the site, while the three ground floor tenancies are located at the western end of the site, farthest from the Novotel Brighton Beach.

Parking has been reserved for prospective tenants of the ground floor shops.

## 2.3 Surrounding Land Uses

### Novotel

The Blue Apartments are immediately adjacent to the Novotel Brighton Beach, a 296 room hotel. The hotel serves business travellers and tourists, and offers facilities for meetings and events, including weddings. In 2015, the hotel was sold to new owners and indications from the sale campaign at that time are the facility has relatively strong occupancy levels.

In common with the four and five star hotel market, the Novotel Brighton Beach includes dining and bar facilities which aim to maximise guest spending within the building. Furthermore, although an entrance to the hotel is provided from Princess Street, this provides only limited exposure to the Blue apartment building. An internalised retail mall links the hotel foyer to Bay Street.

Active uses fronting The Grand Parade are located at the ground-level of the Novotel building, including a large restaurant and a number of cafes/takeaway outlets. These businesses have direct sightlines to Botany Bay and the Brighton-Le-Sands beach.

In contrast, the shop tenancies in the Blue Apartment building front what is primarily a quiet residential street.

For this reason, we do not believe that it is reasonable to expect that guests and visitors to the Novotel Brighton Beach can be considered to be a strong and consistent source of sales and patronage to potential shop tenants at the subject site.

### Apartment Tower (Under Construction)

A new apartment block is currently under construction immediately west of the Blue Apartments at 16-20 Princess Street. This development will be comparable in height and scale to the Blue Apartments, although it will not include ground floor shop tenancies.



6-14 PRINCESS STREET BRIGHTON-LE-SANDS  
SHOP TENANCY ASSESSMENT

The apartment tower at 16-20 Princess Street is located in the R4 High Density Residential Zone which does not require active ground floor shops. In contrast, the immediately adjacent subject site is located within the SP3 Tourist Zone which does encourage ground floor active uses.

This difference in the planning zone applying to each site is inconsistent with the relatively similar locational and development context for both sites.

**Coles Brighton-Le-Sands**

Further to the west at the south-west corner of Princess Street and Moate Street, a Coles supermarket is located on the ground floor of an apartment building. The Coles generates substantial customer traffic, by virtue of it being the only major supermarket in the neighbourhood, although the overall size of the store (2,200m<sup>2</sup>) is well-below the typical size of a full range Coles supermarket (3,000m<sup>2</sup>-plus).

Supermarket shopping is largely based on convenience. A key convenience is the ability to park near the supermarket, shop at the supermarket and other complementary nearby shops (often with a trolley), then take bought items back to the car.

This convenience would not be facilitated by the relative locations of Coles and shops in the Blue apartment building, even if Blue shops could offer complementary goods or services.

Accordingly, it is not reasonable to expect that Coles would be a significant driver of customer traffic to shops on the ground floor of the Blue Apartments.

**Bay Street**

Bay Street is the primary 'spine' of the Brighton-Le-Sands activity centre and is comprised of shops located on both sides of the street extending approximately 400 metres from The Grande Parade in the east to Francis Avenue in the west.

As previously noted, the centre has a higher than average share of food-based tenancies including cafes, restaurants and takeaway stores. In this sense, any similar outlets located at the Blue Apartment building would be operating in a highly competitive environment, with an extensive range of alternative operators located in the nearby, and much higher profile, Bay Street.

As shown in Map 2.1, the subject site has a northern aspect to Princess Street and is effectively one block removed from Bay Street. No mid-block pedestrian through-links are available, and no continuous active frontage links the subject site to the shops in Bay Street. A site visit confirms that the level of pedestrian activity in Princess Street and in front of the subject site is very low, compared with the level of activity and vibrancy in Bay Street.

The Bay Street strip includes numerous food-based tenants including cafes and restaurants. Importantly, despite the relative success of the centre as a dining and entertainment destination, some tenancies in the street are vacant (see Photo 2.1 as an example). This indicates that:

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

- The vacant tenancies on Bay Street are likely to be preferred by operators seeking to locate at Brighton-Le-Sands, and
- The current leasing conditions in the area do not support full occupancy in the prime commercial Bay Street strip, let alone the more secondary location of the Blue Apartments in Princess Street.

Despite the relative proximity of the Blue Apartments to the Bay Street centre, the synergies between both locations are limited. That is, the subject site is relatively isolated from the visitation generated by the wider Brighton-Le-Sands activity centre, and thus any tenants at the Blue Apartments site will not benefit from customer traffic generated by traders in Bay Street.

**Photo 2.1 Vacant Shop Tenancies in Bay Street**



## 2.4 Accessibility

### Vehicle Traffic

The Grand Parade carries both northbound and southbound traffic. However, vehicles travelling south are unable to turn right into Princess Street. Cars would need to turn right at Bay Street, right at Moate Avenue then right again into Princess Street.

Cars travelling north on The Grand Parade can turn directly left into Princess Street, although no left turn is permitted between 9pm to 2am on Friday, Saturday and Sunday.

Furthermore, on-street parking, while available, is limited.

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

Overall, the quality of vehicle access and the levels of passing vehicle traffic to the ground floor shops at the Blue Apartments could be best described as poor to fair.

**Pedestrian Traffic**

Ample footpath space is located on both sides of Princess Street near the Blue Apartments. Those pedestrians passing the shops located at the subject site would be easily able to see and visit the tenancies.

However, as discussed in Section 2.3, no consistent and regular drivers of pedestrian traffic exist which are able to generate patronage to the shops at the subject site.

As is the case for vehicle traffic, the volume and consistency of pedestrian traffic in front of the Blue Apartments shop tenancies can be best described as poor to fair.

## 2.5 Description of Shop Tenancies

The layout of the three ground floor tenancies in the Blue apartment building are shown in Map 2.2, while Photo 2.2 show the street-frontage of the tenancies.

In relation to the tenancies we note the following aspects:

- **Frontage.** All three shops have generous frontages onto Princess Street, and are set back 3.25m from the building line.
- **Tenancy Size.** The three shop tenancies have a combined floorspace of 166m<sup>2</sup>, comprising of Shop 1, 44m<sup>2</sup>; Shop 2, 73m<sup>2</sup> and Shop 3, 49m<sup>2</sup>. The design of the three tenancies allows for combining adjacent tenancies if required. That is, the shops are configured in such a way that one, two or three tenants could operate from the site subject to tenant demand. This flexibility is 'best practice' from a leasing perspective as it maximises the attractiveness of the tenancies to a wider variety of potential operators.
- **Outdoor Area.** An outdoor seating area is available outside each tenancy, which is particularly useful given the northern aspect of the site and thus consistent access to sunshine. The paving at the front of the shops and extending onto the footpath is commercial grade, and suitable for external seating and high levels of traffic.
- **Fit-out.** Although the tenancies are currently in 'shell' condition (i.e. empty), exhaust fans and a grease trap have been installed to service potential commercial kitchen operators. In effect, the landlord has already undertaken some improvements to the shop tenancies to attract potential food operators.
- **Carparking.** Three basement car spaces have been reserved for potential tenants, with bollards protecting those spaces from casual use by residents and visitors.

In terms of target tenant types, the shops have physical attributes that would accommodate:

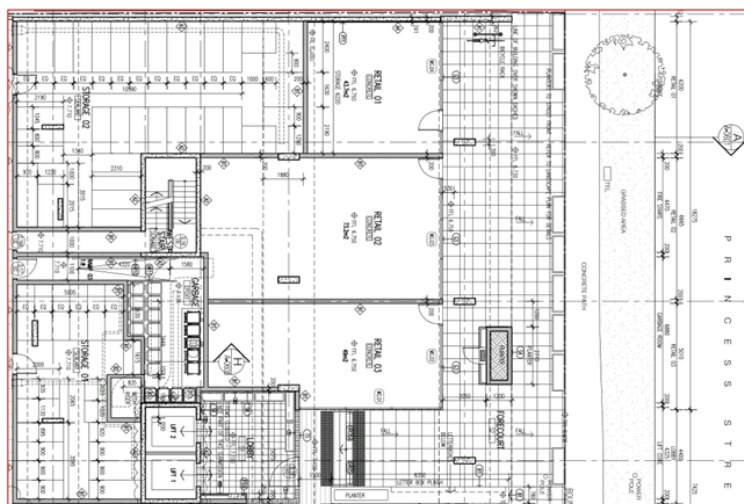
- Small restaurant, café, take-away food (cooked on the premises), deli or sandwich shop.

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

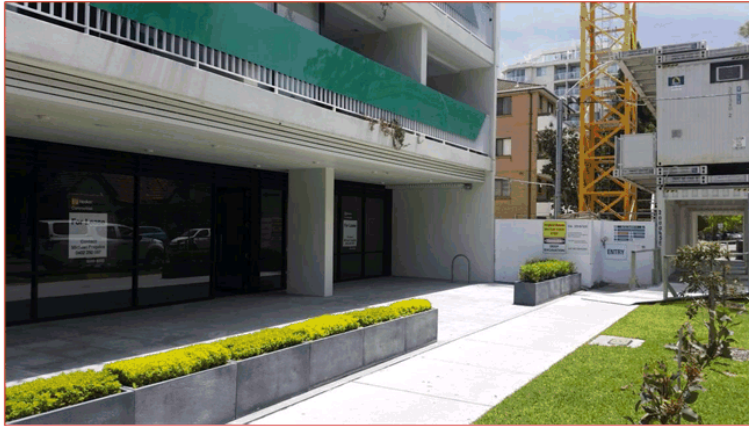
- Small convenience store.
- Small liquor store.
- Non-food retail, such as toys, clothing boutique, hairdresser, beauty salon etc
- Commercial uses, such as real estate agency.

These shop spaces could be suitable for independent specialty traders or small chains. The shops would not attract interest from nationally branded retailers, who generally seek sites with higher exposure.

**Map 2.2 Layout of Blue Apartments Ground Floor Tenancies**



Source: SJB Architects

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT**Photo 2.2 Blue Apartments Ground Floor Tenancies****2.6 Implications for Subject Site**

In terms of physical attributes only, the existing shop tenancies at the subject site are appropriate for a range of potential tenants, and have attributes and features likely to be attractive to possible operators.

However, that the spaces have not been leased suggests strongly that other factors, principally locational issues, are not conducive to sustaining a viable retail or commercial use at the site.

These locational issues are further discussed in Chapter 4 of this report.

### 3 LEASING CONSIDERATIONS

This Chapter of the report considers the leasing program implemented for the shop tenancies at the subject site.

#### 3.1 Leasing History

On completion of the Blue Apartments building in September 2015, a leasing program was implemented for the shop tenancies. Notwithstanding the leasing program, the shops remain untenanted to this day.

A summary of the leasing program, based on information made available by the client and a review of online real estate data, is as follows:

##### Cushman and Wakefield

The original leasing program was undertaken by Cushman and Wakefield. A global commercial real estate services company, Cushman and Wakefield has a strong commercial real-estate leasing team in Sydney, with a specialisation in small and mid-scale commercial developments.

It is understood that the leasing program undertaken by Cushman and Wakefield in 2015 included advertising in the Sydney Morning Herald and St George Leader and other print media, emails to C&W database, site signage and an online listing.

Given the lack of initial interest from prospective tenants, in early-2016 Cushman and Wakefield was replaced as the leasing agent by Colliers International. I understand that appointing a new agent was a response to the lack of tenant interest, rather than any specific issues with the quality of representation from Cushman and Wakefield.



##### Colliers International

Colliers International is one of the largest Commercial real estate agencies in Australia, with a market share of 16.5% of total commercial real estate transactions in 2016 (Source IBISWorld).

In early-2016 Colliers International implemented a 6-month leasing strategy for the shop tenancies at the subject site, including:

- Website advertising – including Colliers website, Real Commercial etc
- Print media – SMH and St George and Sutherland Leader newspapers



6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

- Distribution of E-Flyer to prospective tenants
- Email contact with tenant database
- On-site sign boards

A total of 90 enquiries to the Colliers campaign did not result in any suitable candidates to lease the shop tenancies at the subject site.

In a letter to Lumex (16 May 2017), Colliers concluded:

*“Overall, the sales and leasing campaign was conducted for a period of 6 months as set out above, limited interest was received in the tenancies and no suitable formal offers were provided. In light of the length of time dedicated to the campaign, and the lack of interest resulting from our efforts, it was my recommendation that the active campaign be ceased.*

*In my opinion, the tenancies are not located in a desirable position for non-residential uses which we believe are ordinarily suitable for such a site, such as a cafe or retail premise. The tenancies are removed from the core retail/commercial strip of Bay Street and Grand Parade, resulting in substantially less foot traffic which is unattractive to potential tenants. Furthermore, the context of the tenancies on Princess Street is largely residential, with limited attraction for non-residential uses due to concerns about noise impacts and potential complaint limiting or affecting operations.”*

#### **LJ Hooker Commercial**

Given the lack of interest generated from the leasing campaigns operated by the previous two ‘corporate’ commercial leasing agents, the local office of LJ Hooker Commercial was engaged to continue the leasing program in June 2017.

LJ Hooker Commercial tends to operate from smaller regional offices who have a closer relationship with the local business community within the area that they serve.

Since June 2017, LJ Hooker Commercial has continued to market the property to potential tenants, with only six formal enquiries made in the past 6-months. None of these inquiries have proceeded to a formal commitment to lease the shops.

### **3.2 Comments on Leasing Program**

The leasing program undertaken for the ground floor shops at the subject site has been comprehensive, with three well-regarded commercial agencies unable to lease the tenancies over a period exceeding 2.5 years.

Feedback from the leasing agents, including written advice from Colliers International, is that the tenancies lack the locational attributes able to attract commercial tenants.

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

It is understood that the asking rental level for the shops has been reduced over the period since June 2015, in response to the lack of tenant interest. The current asking rent for the shops is at a discount to that being achieved in Bay Street.

Furthermore, the leasing agents for the subject site have successfully leased space at other locations controlled by the client.

### 3.3 Implications for Subject Site

Overall, the leasing program implemented for the ground floor shops at the Blue Apartments is consistent with normal industry expectations. Three well-known and competent leasing agencies have been engaged to undertake the leasing program, and available evidence suggests that all agents have made genuine efforts to attract tenants to the site.

The lack of interest in the site for potential tenants is not associated with the specific layout and design of the tenancies, rather the leasing agents have identified the poor locational attributes of the site as a key reason for a lack of tenant interest. The asking rents and leasing terms being sought by the owner for the shops are reasonable in the context of standard tenant expectations.

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

## 4 LOCATION ASSESSMENT

This Chapter undertakes a locational assessment for the subject site at the Blue Apartments in Brighton-Le-Sands with the application of criteria normally applied to commercial location decisions in private client advice by our firm.

### 4.1 Methodology and Criteria

An important consideration in the trading performance of any shop or retail outlet is the relative locational and design merits of the individual tenancy in which the outlet operates.

Two factors which are usually fundamental to business success in the retail industry are exposure and accessibility to potential customers.

A scorecard methodology can be used to assess the merits of shop tenancies for potential operators. A summary of 12 location criteria which are commonly applied in locational advice to clients is summarised in Table 4.1, with the relative performance of the subject identified according to each measure. In general, developers/landlords/tenants are seeking sites with an average score of 3 (average) or better.

**Table 4.1 Location Assessment Criteria**

Criteria	Considerations	Subject Site Score <sup>a</sup>
Retail Spending	Per capita food and non-food retail spending	3 - Average
Socio-Economic Profile	Are demographics of local population supportive of potential tenants	3 - Average
Resident Population	Is the local population stable, declining or growing.	3 - Average
Daytime population	Number of daytime workers and/or students	2- Below Average
Visitor spending	Visitors on weekends or during holidays	3 -Average
Significant retailers	Exposure to customers generated by national brand major, mini major and specialty stores	2- Below Average
Competition	Is the location well-placed relative to local competitors	1 - Very Low
Vehicle traffic and parking	Ease or difficulty of accessing the site by car. Availability of parking. Volume of passing vehicle traffic.	2 – Below Average
Pedestrian traffic	Ease or difficult of accessing the site for pedestrians. Volume of pedestrian traffic.	1 - Very Low
Visibility to passing traffic	Sight lines, signage opportunities	1 – Very Low
Adjacencies	Benefit of adjacent land uses to retail traders	1 – Very Low
Critical mass/destination appeal	Number and size of surrounding shops. Local attractiveness of site for shoppers.	1 – Very Low
<b>Overall Average</b>		<b>1.9 Below Average</b>
Source:	Essential Economics	
a.	1=Very Low, 2=Below Average, 3=Average, 4=Above Average, 5=Very High	

6-14 PRINCESS STREET BRIGHT-LE-SANDS  
SHOP TENANCY ASSESSMENT

#### 4.2 Implications for Subject Site

An average of score of 1.9 has been assessed for the subject site, which reflects locational attributes well-below average and indicates:

- A low desirability for potential tenants
- Poor locational attributes which may undermine the long-term trading success of any tenants which are attracted to the site
- A high 'vacancy risk' for the shop tenancies.

## **Bayside Local Planning Panel**

**16/07/2019**

Item No	5.2
Subject	<b>Draft Planning Proposal: 146-154 O'Riordan St, Mascot</b>
Report by	Michael McCabe, Director City Futures
File	F19/4

---

### **Summary**

Council has received a draft Planning Proposal (**Attachment 1**) in relation to land at 146-154 O'Riordan Street, Mascot (subject site).

The draft Planning Proposal seeks to:

1. Amend the *Botany Bay Local Environmental Plan 2013* (Botany Bay LEP 2013) by increasing the maximum height of buildings (HOB) over part of the land from 22 metres to 44 metres.

The intended outcome of the draft Planning Proposal is to facilitate additional building height on industrial and urban services land within the Green Square-Mascot strategic centre, identified in the Eastern City District Plan.

---

### **Officer Recommendation**

- 1 That the Bayside Local Planning Panel recommend to Council that pursuant to s3.33 of the *Environmental Planning and Assessment Act 1979* (EPAA) the draft Planning Proposal for land known as 146-154 O'Riordan Street, Mascot be submitted to the Department of Planning and Environment (DPE) for a Gateway Determination; and
  - 2 That the Bayside Local Planning Panel recommend to Council that should a Gateway Determination be issued, a further report be presented to Council following the public exhibition period to demonstrate compliance with the Gateway Determination, and to provide details of any submissions received throughout that process.
- 

### **Background**

#### Applicant:

Toplace Pty Ltd.

Director: Mr Jean Nassif

Secretary: Mr Jean Nassif

#### Owner:

JKN Park Pty Ltd.

Director: Mr Jean Nassif

Secretary: Mr Jean Nassif

Site description:

Lots subject to the draft Planning Proposal are shown in **Table 1**, below:

**Table 1:** Lots subject to draft Planning Proposal

Lot	DP	Address	Current zoning	Current Height of Buildings	Owner
13	1232496	146 O'Riordan Street, Mascot	B5 Business Development	22 metres	JKN Park Pty Ltd
14	1232496	154 O'Riordan Street, Mascot			
15	1232496				
A	402876				

The site is legally described as Lots 13, 14 and 15 in Deposited Plan 1232496 and Lot A in Deposited Plan 402876, and commonly known as 146-154 O'Riordan Street, Mascot.

The site is irregular in shape and has a western frontage to O'Riordan Street approximately 152 metres in length; a southern boundary adjoining a range of commercial land uses approximately 165 metres in length; a staggered northern boundary adjoining Mascot Park and a Council owned car park of approximately 69 metres and 40 metres (respectively); and a staggered eastern boundary adjoining a Council owned car park and medium density residential development of approximately 57 metres and 79 metres (respectively). The site has an area of approximately 17,020.5 m<sup>2</sup>.

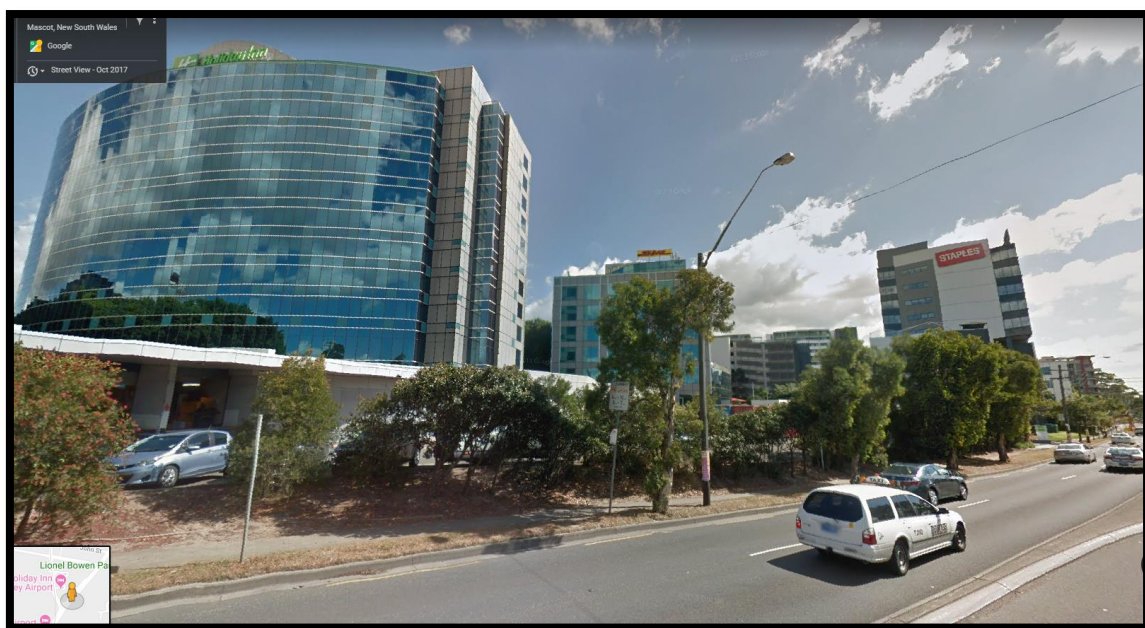
The site currently contains a range of commercial land uses, as listed in the submitted draft Planning Proposal, and include commercial food preparation; freight forwarding; and transport services and the like.

Sydney Water infrastructure, namely the Mascot Park Branch, traverses the mid-section of the site and the Southern and Western Suburbs Ocean Outfall Sewer traverses the south-western corner of the site.

Site Context:*- General*

Development along the western side of O'Riordan Street, opposite the subject site, is characterised by commercial development (on land with a maximum building height of 44 metres) as shown in **Photograph 1**, below:





**Photograph 1:** Typical built form fronting the western side of O'Riordan Street.  
(Source: [www.google.com.au/maps/](http://www.google.com.au/maps/))

Development on the subject site comprises low rise commercial development as shown in **Photograph 2**, below:



**Photograph 2:** The subject site  
(Source: [www.google.com.au/maps/](http://www.google.com.au/maps/))

Development fronting the eastern side of O'Riordan Street and adjoining the subject site to the south is also characterised by low rise commercial development as shown in **Photograph 3**, below:

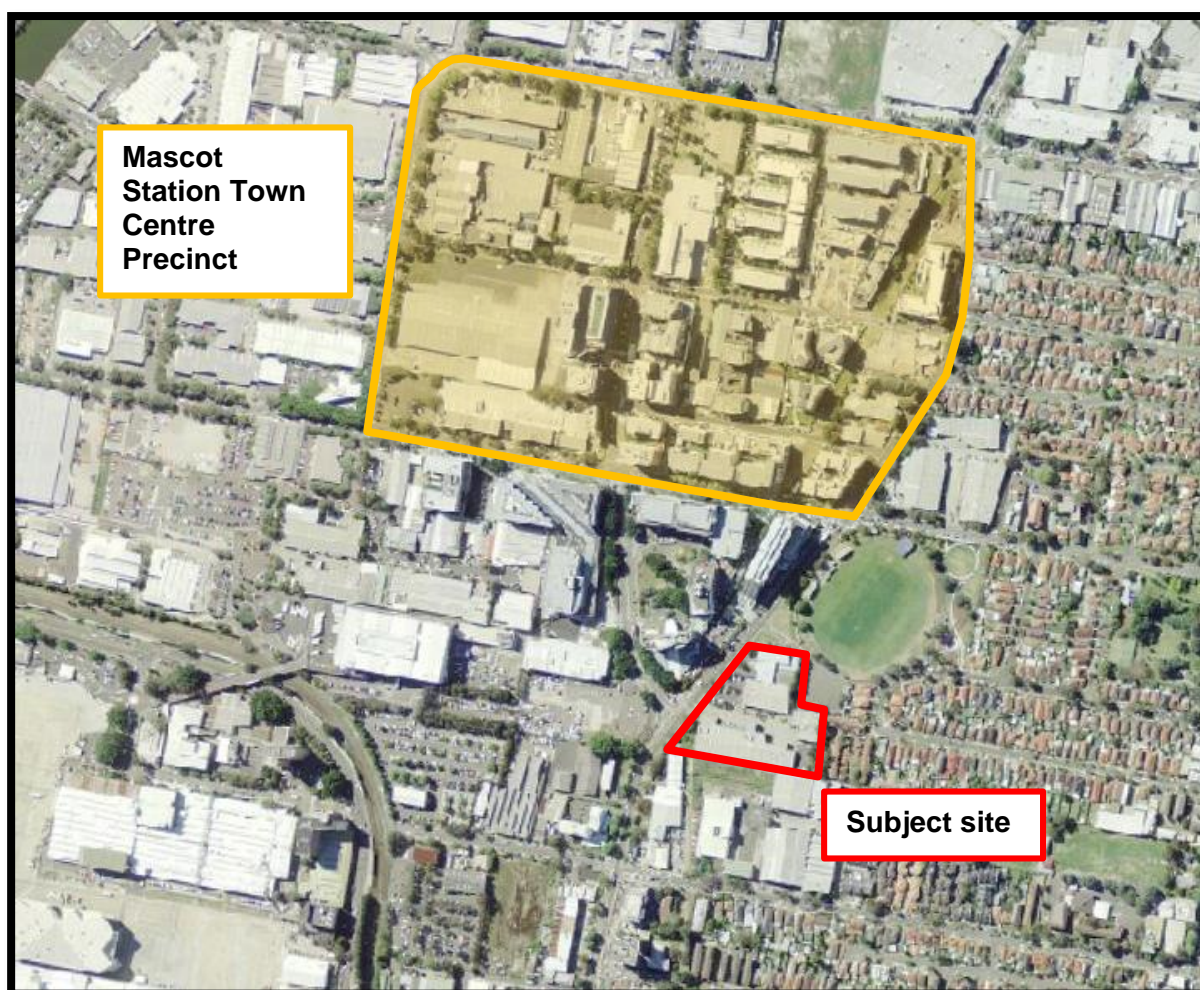


**Photograph 3:** Typical built form fronting the eastern side of O’Riordan Street, adjoining the subject site to the south

(Source: [www.google.com.au/maps/](http://www.google.com.au/maps/))

Mascot Park and the Council owned car park adjoin the northern boundary of the site. Medium density residential development and the Council owned car park adjoin the eastern boundary of the site. More broadly, the site lies to the south east of the Mascot Station Town Centre Precinct, shown bold yellow in the context map at **Figure 1**, and approximately 450 metres walking distance from Mascot rail station.

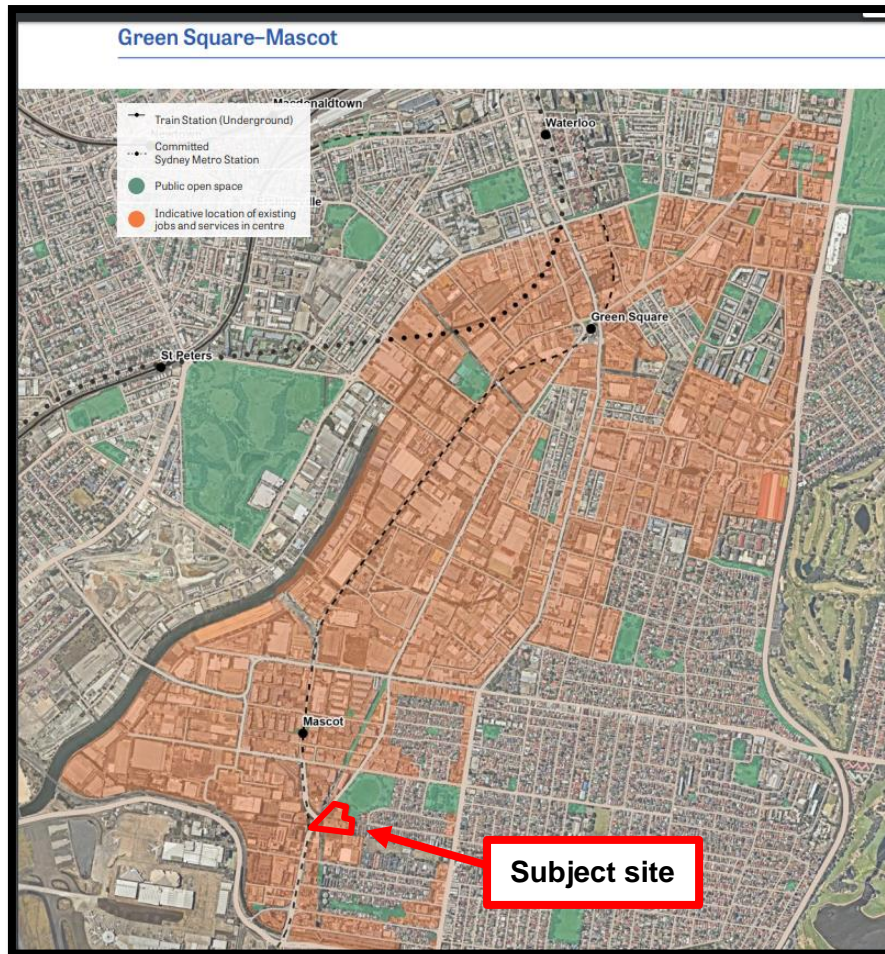




**Figure 1:** Site context map  
(Source: Land and Property Information [www.maps.six.nsw.gov.au](http://www.maps.six.nsw.gov.au))

*- Strategic*

The site is located within the Green Square-Mascot strategic centre identified in the Eastern City District Plan (refer to **Figure 2**, overleaf).



**Figure 2:** Green Square-Mascot strategic centre  
(Source: Eastern City District Plan)

The Eastern City District Plan notes the following about the Green Square-Mascot strategic centre:

*'Green Square-Mascot is a significant centre for the District and a supporting centre for the nearby Harbour CBD, Port Botany and Sydney Airport. It is undergoing major urban renewal from a predominantly industrial area to one of increased residential use. This renewal has also resulted in the loss of half the commercial office space within the precinct since 2014, a reduction from 400,000 to 200,000 square metres.'*

The actions contained in the plan aim to strengthen the strategic centre with a 'retain and manage approach' to industrial and urban services lands.

For further discussion about the Green Square-Mascot strategic centre, refer to **Table 4**.

#### Planning controls

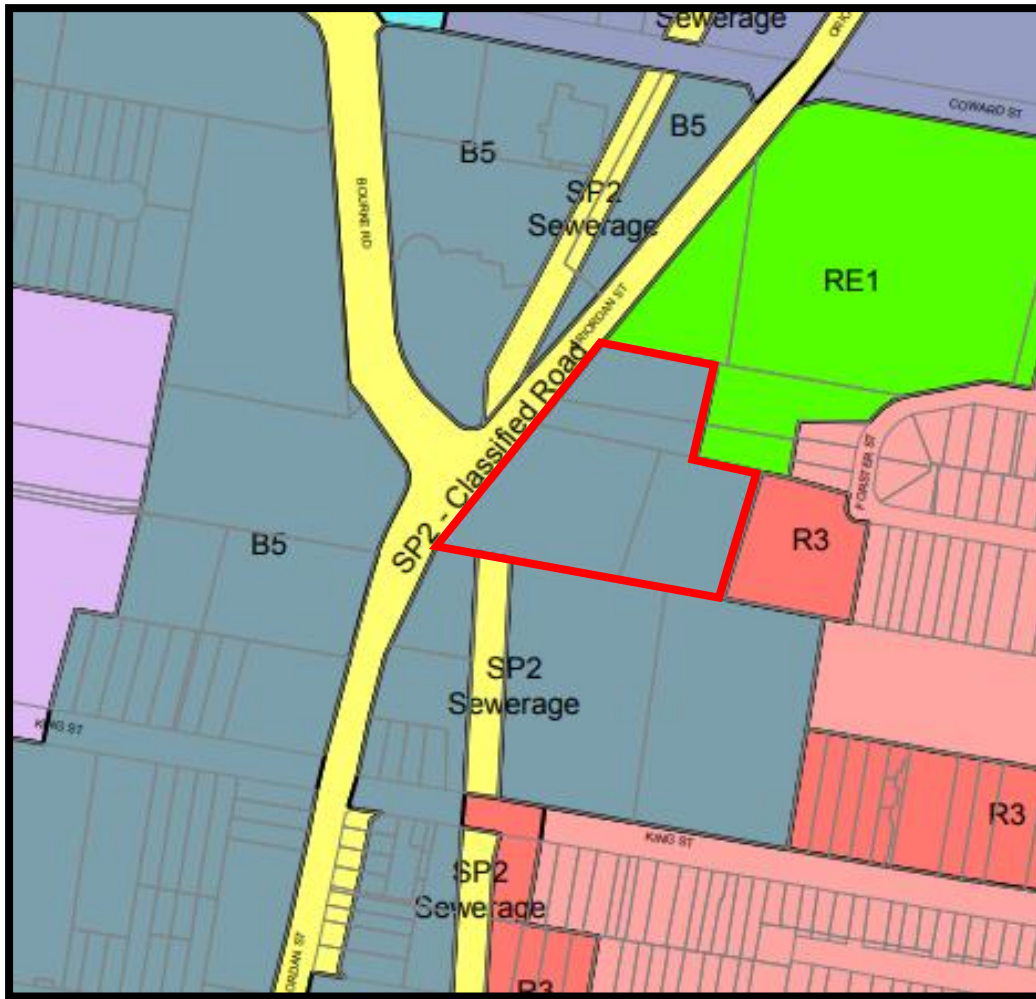
Extracts from the Botany Bay LEP 2013 for the site and immediately surrounding land are provided below (refer to **Figures 3-6**) that describe current planning controls. Please note that the subject site is shown in thick red line outline.

#### *- Land use zones*

Land use zones immediately surrounding the site comprise predominantly B5 Business Development to the west and south; RE1 Public Recreation (car park) and R3 Medium



Density Residential immediately to the east; and RE1 Public Recreation (Mascot Park and car park) adjoins the site to the north as shown in **Figure 3**:



**Figure 3** – Botany Bay LEP 2013 Zoning Map\_LZN\_001 (B5 Business Development (Site); R3 Medium Density Residential; RE1 Public Recreation)  
(Source: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au))

#### - Height of Buildings

The current height of buildings for the site under the Botany Bay LEP 2013 is 22 metres. Building heights fronting the western side of O'Riordan Street between Gardeners Road to the north and Joyce Drive/ Qantas Drive to the south are currently 44 metres. Heights are limited to between 9 metres and 12 metres in the adjoining medium density residential areas to the east of the site. An extract from the Botany Bay LEP 2013 Height of Buildings Map is provided at **Figure 4**:

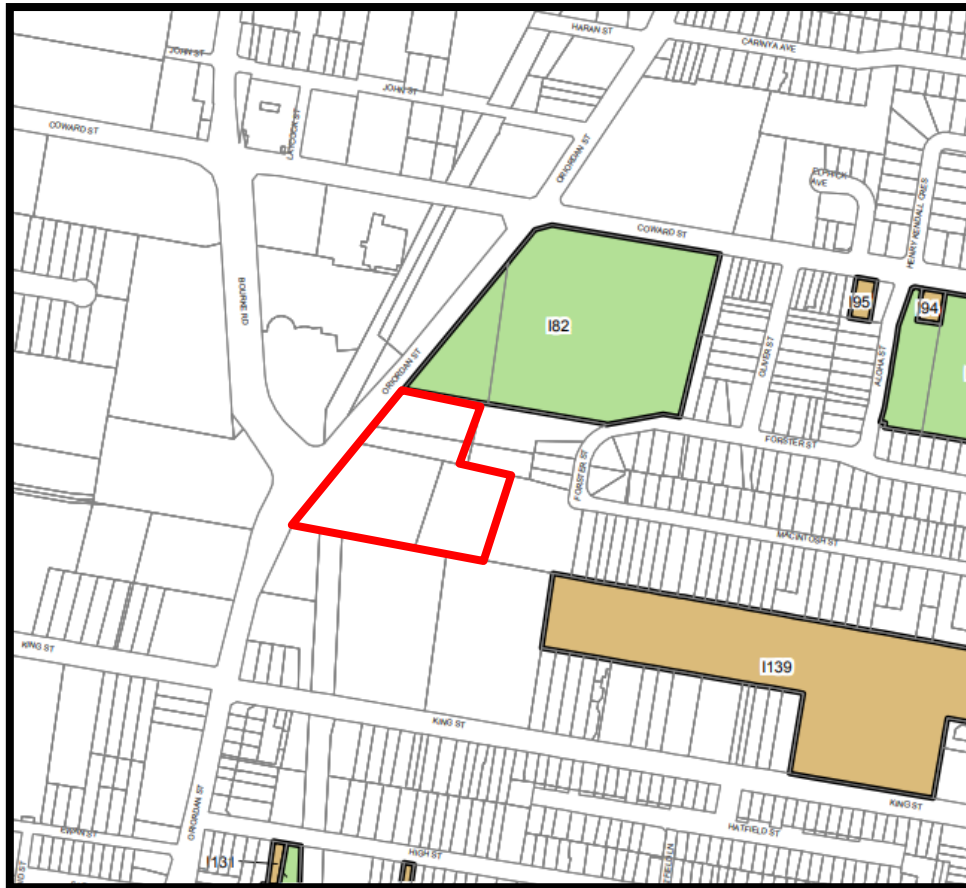


**Figure 4** – Botany Bay LEP 2013 Height of Buildings\_HOB\_001 (R - 22 metres (subject site); W - 44 metres; T2 - 26 metres; M - 12 metres; J - 9 metres)  
(Source: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au))

#### - Heritage

The site adjoins an item of local heritage significance under the Botany Bay LEP 2013, namely, Mascot Park which adjoins the northern boundary of the site. The site is also in close proximity to the Mascot Public School building group, an item of local heritage significance under the Botany Bay LEP 2013. An extract from the Botany Bay LEP 2013 Heritage Map is provided at **Figure 5**:



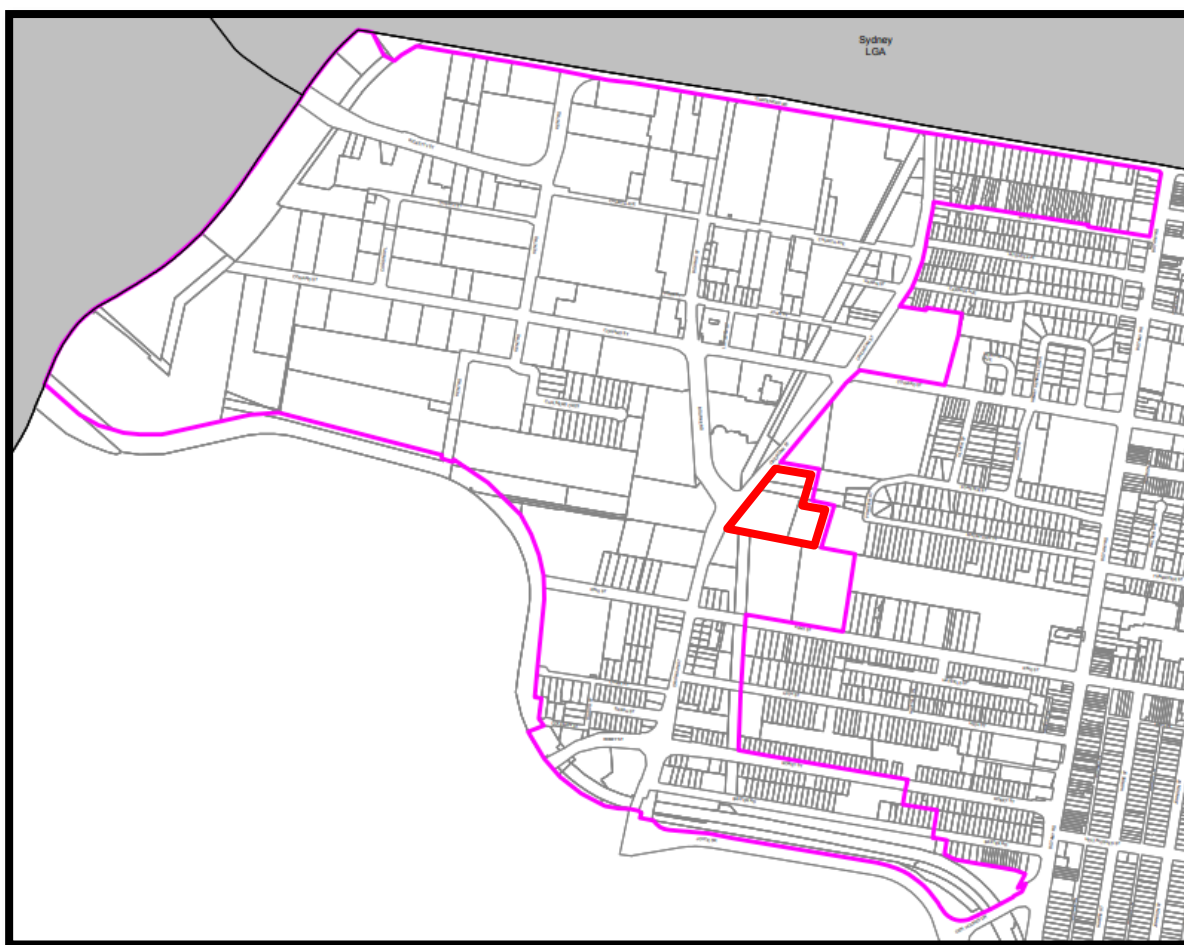


**Figure 5** – Botany Bay LEP 2013 Heritage Map\_HER\_001  
(Source: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au))

The draft Planning Proposal is supported by a Statement of Heritage Impact (**Attachment 2**), which was assessed by Council staff, and no issues were raised in relation to heritage.

*- Key sites map*

The site is identified on the Botany Bay LEP 2013 Key Sites Map. Any future Development Application will be subject to the requirements of clause 6.16 Design Excellence under the Botany Bay LEP 2013, noting that the submitted Urban Design Report (**Attachment 3**) has included a set of principles to demonstrate how the objectives of the Design Excellence Clause can be achieved. An extract of the Botany Bay LEP 2013 Key Sites Map is provided at **Figure 6**:



**Figure 6** – Botany Bay LEP 2013 Key Sites Map\_KYS\_001  
(Source: [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au))

## DRAFT PLANNING PROPOSAL SUMMARY

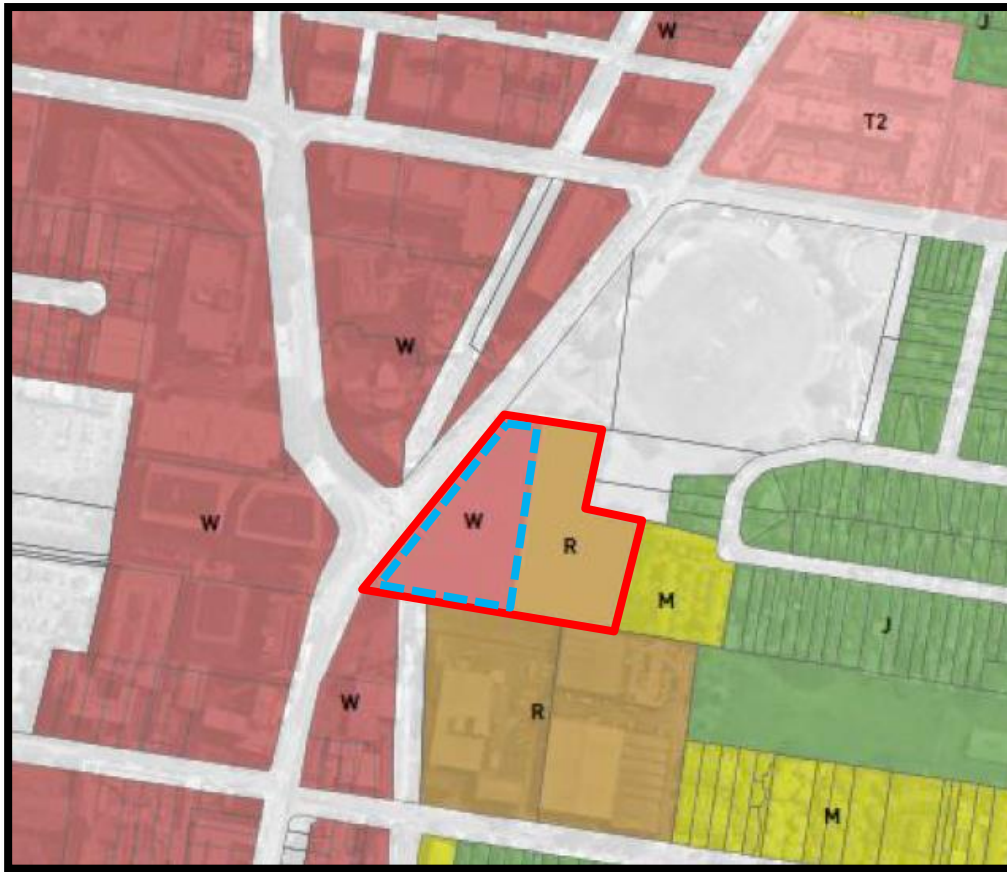
The draft Planning Proposal seeks the following amendment to the Botany Bay LEP 2013:

- Increase the Height of Buildings (HOB) over the part of the site fronting O’Riordan Street from 22 metres to 44 metres (refer to **Figure 7**, below).

## Assessment of draft provisions

### Proposed Height of Buildings

The draft Planning Proposal seeks to amend the current Height of Building (HOB) notation on Council’s HOB map from ‘R’ (22 metres) to ‘W’ (44 metres) over the portion of the site shown in bold blue (dashed).



**Figure 7:** Proposed Height of Building  
(Source: Proponent's Planning Proposal report)

There are no other provisions proposed to be amended as part of this draft Planning Proposal.

### Justification

#### Environmental Planning and Assessment Act 1979 (EPAA)

The NSW Department of Planning and Environment's publication '*Planning Proposals – A guide to preparing planning proposals*' (guide), issued under s3.33 (3) of the EPAA, provides guidance and information on the process for preparing Planning Proposals. The assessment of the submitted draft Planning Proposal by Council staff has been undertaken in accordance with the latest version of this guide (dated August 2016).

#### Section 9.1 Directions by the Minister

Section 9.1 Directions by the Minister (s9.1 directions) set out what a Relevant Planning Authority (RPA) must do if a s9.1 direction applies to a Planning Proposal, and provides details on how inconsistencies with the terms of a direction *may* be justified.

An assessment of the draft Planning Proposal against the applicable s9.1 directions is provided in **Table 2** below:

**Table 2:** Draft Planning Proposal consistency with s9.1 directions.

Ministerial Direction	Draft Planning Proposal consistency with terms of direction	Consistent: Yes/ No (If No, is the inconsistency adequately justified?)
<b>1.1 Business and Industrial Zones</b>	<p><b>What a RPA must do:</b> A RPA must include in a draft Planning Proposal provisions that give effect to the objectives of this direction (i.e. encourage employment growth in suitable locations; protect employment land in business and industrial zones; and support the viability of identified centres); retain areas of existing business zones; and not reduce potential floor space area for employment uses and related public services.</p> <p><u>Comment:</u> The draft Planning Proposal is considered consistent with the objectives of this direction given that the draft Planning Proposal does not amend the existing B5 Business Development zone and does not reduce potential floor space area within the zone and broader strategic centre.</p> <p><b>Consistency:</b> No inconsistencies with the terms of the direction were identified.</p>	YES
<b>2.3 Heritage Conservation</b>	<p><b>What a RPA must do:</b> A RPA must ensure that a Planning Proposal contains provisions that facilitate the conservation of heritage items, places, building works or precincts of environmental heritage significance to an area.</p> <p><u>Comment:</u> The draft Planning Proposal is supported by a Statement of Heritage Impact (<b>Attachment 2</b>), which was assessed by Council staff, and no issues were raised in relation to heritage.</p> <p><b>Consistency:</b> No inconsistencies with the terms of the direction were identified.</p>	YES
<b>3.4 Integrating Land Use and Transport</b>	<p><b>What a RPA must do:</b> A Planning Proposal must locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of <i>Improving Transport Choice – Guidelines for planning and development (DUAP 2001)</i> (guidelines).</p> <p><u>Comment:</u> The draft Planning Proposal is considered consistent with the guidelines, as the draft Planning Proposal encourages business development in an identified strategic centre, namely, Green Square-Mascot strategic centre.</p> <p><b>Consistency:</b> No inconsistencies with the terms of the direction were identified.</p>	YES
<b>3.5 Development Near Regulated Airports and Defence Airfields</b>	<p><b>What a RPA must do:</b> In the preparation of a Planning Proposal, RPA must:</p> <ul style="list-style-type: none"> <li>- consult with the Department of the Commonwealth responsible for aerodromes and the lessee of the aerodrome</li> <li>- take into consideration the Obstacle Limitation Surface (OLS) and prepare appropriate development standards such as height where the land is affected by the OLS</li> </ul>	YES

	<ul style="list-style-type: none"> <li>- obtain permission from the Department of the Commonwealth where the height encroaches the OLS prior to undertaking community consultation</li> </ul> <p><u>Comment:</u> This direction applies because the draft Planning Proposal seeks to alter provisions relating to land in the vicinity of a regulated airport, namely, Sydney Airport.</p> <p>The site is located within the 51m AHD OLS contour and proposes a Height of Buildings of 44 metres above ground level (existing) on land with a reduced level of approximately 8 metres above Australian Height Datum (AHD).</p> <p>An Preliminary Aeronautical Impact Assessment (<b>Attachment 4</b>) was submitted with the draft Planning Proposal, which concludes that the proposed building height would not result in penetration of the OLS.</p> <p><b>Consistency:</b> No inconsistencies with the terms of the direction were identified noting the requirement to consult with the lessee/ operator of the airport.</p>	
<b>4.1 Acid Sulfate Soils</b>	<p><b>What a RPA must do:</b> This Direction requires that a RPA must consider an acid sulfate soils study assessing the appropriateness of the intensification of land use given the presence of acid sulfate soils.</p> <p><u>Comment:</u> The Botany Bay LEP 2013 Acid Sulfate Soils Map identifies the site as having Class 4 acid sulfate soils. The draft Planning Proposal was not supported by an acid sulfate soils study.</p> <p><b>Consistency</b> A Planning Proposal may be inconsistent with the terms of the direction if the inconsistency is justified by a study prepared in support of the Planning Proposal.</p> <p><u>Comment:</u> Clause 6.1 of the Botany Bay LEP 2013 requires an acid sulfate soils management plan at Development Application stage, before carrying out any development on the land. The inconsistency with this direction is therefore considered minor and justifiable.</p>	<b>NO - Inconsistency justified.</b>
<b>4.3 Flood Prone Land</b>	<p>The site is located within a Flood Planning Area. In this regard, the draft Planning Proposal is supported by a Flood Assessment (<b>Attachment 5</b>). Whilst it is noted that the draft Planning Proposal does not seek to alter provisions to significantly increase the development of the land, the Flood Assessment was referred to Council's technical officers for comment:</p> <p><i>"The following documentation shall be submitted at DA lodgement:</i></p> <ol style="list-style-type: none"> <li><i>1. Undertake a detailed site specific two dimensional hydraulic modelling to estimate the flood behaviour of the pre- and post-development scenarios. Detailed site survey to be undertaken.</i></li> <li><i>2. The development is not to increase the water level or hazard on adjoining properties. Opportunities should be investigated to design a development that is clear of the overland floodway and acts to reduce the impacts of these flows, possibly by removing inappropriate travel paths and/or reducing the hazard.</i></li> </ol>	<b>YES</b>

	<p>3. <i>Prepare a flood risk management plan in accordance with the floodplain development manual including but not limited to flood risk analysis, emergency response and evacuation procedure up to PMF flooding.</i></p> <p>4. <i>Any portion of the building or structure lower than the applicable flood planning level (FPL) shall be built from flood compatible materials to be specified by a Structural Engineer.</i></p> <p>5. <i>All services associated with the development and driveway access to the basement shall be flood proofed to the habitable floor level.</i></p> <p>6. <i>Council is aware of an existing 1050mm diameter stormwater drainage pipe running across the middle of the site (refer to figure 1-1 [of the submitted Flood Assessment] for the approximate location). Council records show that this pipe is owned by Sydney Water. This pipe should be physically located by a surveyor along with the depth. The depth of the pipe and the alignment of the pipe should be clearly shown on the plans submitted for the application for planning consent. Approval from Sydney Water shall be sought for the stormwater network diversion/building over the existing pipe. The proposed acute angle will not be permitted as it will result in loss of network efficiency and head and will cause problems with ongoing maintenance of the drainage asset.</i></p> <p><b>Consistency:</b> No inconsistencies with the terms of the direction were identified.</p>	
<p><b>7.1 Implementation of A Plan for Growing Sydney</b></p>	<p><b>What a RPA must do:</b> A RPA must ensure that a Planning Proposal is consistent with A Plan for Growing Sydney (superseded by 'A Metropolis of Three Cities – The Greater Sydney Region Plan' (Greater Sydney Region Plan).</p> <p><u>Comment:</u> The draft Planning Proposal is consistent with the overall aims and objectives of the Greater Sydney Region Plan, in particular:</p> <ul style="list-style-type: none"> <li>• <u>Direction 5: Productivity</u></li> </ul> <p><i>Objective 14: Integrated land use and transport creates walkable and 30-minute cities.</i> The draft Planning Proposal supports permissible land uses located approximately 400m walking distance from Mascot rail station.</p> <p><i>Objective 22: Investment and business activity in centres.</i> The draft Planning Proposal is consistent with the objective as it supports business activity within an identified strategic centre.</p> <p><i>Objective 23: Industrial and urban services land is planned, retained and managed.</i> The draft Planning Proposal is consistent with the objective to retain industrial and urban services land.</p> <p><b>Consistency:</b> No inconsistencies with the terms of the direction were identified.</p>	YES

- **State Environmental Planning Policies (SEPPs)**

An assessment of the draft Planning Proposal against the relevant SEPPs is provided in **Table 3**, below.

**Table 3:** Relevant State Environmental Planning Policies

Name of SEPP	Compliance of draft Planning Proposal with SEPP	Complies Y/ N
SEPP (Infrastructure) 2007	<p><b>Clause 87 - Impact of rail noise or vibration on non-rail development</b></p> <p>The B5 Business Development zone permits, with consent, <i>centre-based child care facilities</i> and the site is located in close proximity to the airport rail tunnel.</p> <p>Should a future development application be made, the publication '<i>Development near rail corridors and busy roads – interim guideline</i>' issued by the former Department of Planning would need to be considered.</p> <p><b>Clause 101 - Development with frontage to classified road</b></p> <p>O'Riordan Street is identified by Roads and Maritime Services (RMS) as a Classified Road.</p> <p>The submitted Traffic and Parking Impact Statement (<b>Attachment 6</b>) report was referred to a Traffic Consultant for peer review. The peer review found that there are no traffic or transport issues that would preclude the draft Planning Proposal from proceeding.</p> <p>Should Council and the DPE support the draft Planning Proposal, any future DA will be referred to Roads and Maritime Services (RMS) given that the site has frontage to a classified road.</p>	YES
SEPP No 55—Remediation of Land	<p>The submitted Detailed Site Investigation (<b>Attachment 7</b>) was assessed by Council staff, and the following key points were raised:</p> <ul style="list-style-type: none"> <li>▪ The Detailed Site Investigation identified a number of potential contamination and acid sulfate soil issues at the site. However, from a Planning Proposal perspective, an increase in building height alone would not present an increase in land use sensitivity with respect to contamination or acid sulfate soil exposure.</li> <li>▪ Contamination and acid sulfate soil issues must be addressed in accordance with the standard Development Application assessment process.</li> </ul>	YES

There are no other SEPPs applicable to the draft Planning Proposal.

- **Sydney Regional Environmental Plans (SREPs)**

There are no SREPs applicable to the draft Planning Proposal.

- **Strategic Planning Framework**

Regional, sub-regional and district plans and strategies include outcomes and specific actions for a range of different matters including housing and employment targets, and identify regionally important natural resources, transport networks and social infrastructure.



An assessment of the draft Planning Proposals consistency with the strategic planning framework is provided in **Table 4**, below.

**Table 4:** Strategic Planning Framework

Name of Strategic Plan	Directions, priorities, objectives and actions	Draft Planning Proposal consistency with Strategic Plan	Consistency Y/N
<b>Regional Plans</b>			
A Metropolis of Three Cities – The Greater Sydney Region Plan	Refer to the assessment at Table 2, above.	Refer to the assessment at Table 2, above.	<b>YES</b> - Refer to the assessment at Table 2, above which found that the draft Planning Proposal is considered generally consistent with the overarching aims and objectives of A Metropolis of Three Cities – The Greater Sydney Region Plan.
<b>District Plans</b>			
Eastern City District Plan (Plan)	<p>The draft Planning Proposal is consistent with the overall intent of the Plan, in particular:</p> <p><i>Planning Priority E10 – Delivering integrated land use and transport planning and a 30-minute city</i></p> <p><i>Planning Priority E11 – Growing investment, business opportunities and job in strategic centres</i></p> <p><i>Planning Priority E12 – Retaining and managing industrial and urban services land</i></p>	<p>The draft Planning Proposal improves access to local jobs and services as the proposal encourages the growth of the strategic centre, reducing the need for people to travel long distances to access jobs and local services.</p> <p>The site is located within the Green Square-Mascot strategic centre. The proposal supports development opportunity within the centre, consistent with the Planning Priority.</p> <p>The draft Planning Proposal retains the existing B5 Business Development zoning for the site and is therefore consistent with the Planning Priority.</p>	<b>YES</b>
<b>Local Strategies</b>			
Botany Bay Planning Strategy 2031 (Strategy 2031)	Strategy 2031 recommended that the site be zoned IN1 General Industry.	The IN1 General Industry zone was not adopted.	<b>N/A</b>

**Botany Bay Local Environmental Plan 2013 (Botany Bay LEP 2013)****Clause 4.3 Height of Buildings**

The draft Planning Proposal is generally consistent with the objectives set out in Clause 4.3 of the Botany Bay LEP 2013, as it does not result in unreasonable overshadowing, visual impact or loss of views, and is appropriate in terms of the surrounding context.

**Clause 4.4 Floor Space Ratio**

It should be noted that the draft Planning Proposal does not propose any changes to the existing Floor Space Ratio. The subject site has an area of approximately 17,020.5m<sup>2</sup>. The BBLEP 2013 identifies an FSR of 3:1, meaning that the maximum FSR that can be achieved at the site is 51,061.5m<sup>2</sup>.

A Development Application (DA2019/6) is currently under assessment by Council. The DA includes the demolition of existing buildings, construction of a mixed use development including 2 x seven(7) storey buildings and 2 x six(6) storey buildings containing 94 hotel rooms, 457 serviced apartments, a restaurant, commercial tenancies and basement parking. The DA incorporates a Gross Floor Area (GFA) of approximately 36,718m<sup>2</sup>, which equates to an FSR of approximately 2.16:1.

If the DA were to be approved, and if the draft Planning Proposal was to be supported by Council and finalised by DPE, the residual FSR of 0.84:1 could be accommodated within the additional 22m building height sought under the draft Planning Proposal.

**Clause 6.16 Design Excellence**

The site is identified on the Botany Bay LEP 2013 Key Sites Map. Any future Development Application will be subject to the requirements of clause 6.16 Design Excellence under the Botany Bay LEP 2013, noting that the submitted Urban Design Report has included a set of principles to demonstrate how the objectives of the Design Excellence Clause can be achieved.

**Botany Bay DCP 2013****Part 6 – Employment Zones**

This Part of the DCP provides a framework to guide future development in the IN1 and IN2 industrial zones, and the B5 and B7 business zones in the Botany Bay LEP 2013. These zones generate a significant amount of employment opportunities and play an important role in the economy of the State. The purpose of this part is to provide more detailed objectives and controls for these employment zones, to support the provisions within the Botany Bay LEP 2013.

**6.2.4 Mascot Business Development Precinct**Objectives

The relevant objectives for the Mascot Business Development Precinct are as follows:

*O1 To encourage and provide for business development that has an affinity or locational need to be near to Sydney (Kingsford Smith) Airport;*

The draft Planning Proposal maintains the B5 Business Development zoning, therefore it is considered to be consistent with this objective.

*O2 To ensure that the scale, design, material of construction and nature of the development, in the opinion of the Council, contributes positively to the visual amenity and the gateway function of the area;*

Any future Development Application would need to address Clause 6.1 Design Excellence of the Botany Bay LEP 2013.

*O3 To ensure that development supports an efficient and sustainable transport system with a high level of access to public transport;*

The draft Planning Proposal will support development opportunities within a 400m (approximately) walking distance of Mascot rail station.

*O5 To ensure the protection of the Airport Line Tunnel which is generally located under Bourke Road and O'Riordan Street.*

Should the Bayside Local Planning Panel and Council support the draft Planning Proposal and request the Department of Planning and Environment to issue a Gateway determination, Transport for NSW will be consulted about the proposal.

---

### **Any other likely environmental effects as a result of the planning proposal?**

#### **Urban Context and Evaluation**

An Urban Design Report was submitted with the draft Planning Proposal which has been subject to review by Council's Technical Officers.

The proposed building height control on the site is considered acceptable in the context of building heights fronting O'Riordan Street in the vicinity of the site, along the O'Riordan Street corridor.

Should Council and the DPE support the draft Planning Proposal, any proposed Development Application(s) (DAs) would need to be supported by further detailed urban design analysis, to illustrate the intended built form outcome proposed at that time.

#### **Traffic and Vehicular Access**

A Traffic and Parking Impact Statement (TPIS) report (refer **Attachment 6**) has been prepared to inform the draft Planning Proposal, which concluded that there would be no unacceptable impacts on traffic safety and that the road network, including intersections, could accommodate the redevelopment of the land.

An independent review of the submitted TPIS concluded the following:

*"In principle, there are no traffic or transport issues identified with the TPA that would preclude its Planning Proposal approval."*

If Council and the DPE support the draft Planning Proposal, any proposed Development Application(s) would need to be supported by further detailed traffic impact assessment.

### **Sydney Water Assets**

Sydney Water infrastructure, namely the Mascot Park Branch, traverses the mid-section of the site. In this regard, the draft Planning Proposal was referred to Sydney Water's Growth Planning and Development team for comment.

The draft Planning Proposal to increase building height will not alter Sydney Water's requirements for building over and adjacent to stormwater assets, which would need to be obtained at Development Application (DA) stage, should Council and the DPE determine to support the draft Planning Proposal.

### **Voluntary Planning Agreement**

A Voluntary Planning Agreement has not been offered by the proponent based on the draft Planning Proposal not intensifying any in gross floor area. The draft Planning Proposal is limited to an increase in height only that would allow for a more vertically oriented distribution of floor space within the site.

---

### **Attachments**

- 1 Planning Proposal [↓](#)
- 2 Statement of Heritage Impact [↓](#)
- 3 Urban Design Report [↓](#)
- 4 Preliminary Aeronautical Impact Assessment [↓](#)
- 5 Flood Assessment [↓](#)
- 6 Traffic and Parking Impact Statement [↓](#)
- 7 Detailed Site Investigation [↓](#)

## **Planning Proposal**

### **Botany Local Environmental Plan 2013 Amendment to Clause 4.3 – Building Height**



12 March 2019

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## Contents

- Part 1** Objectives or Intended Outcomes
- Part 2** Explanation of Provisions
- Part 3** Justification
  - A. Need for the Planning Proposal
  - B. Relationship to Strategic Planning Framework
  - C. Environmental, Social & Economic Impact
  - D. State and Commonwealth Interests
- Part 4** Mapping
- Part 5** Community Consultation
- Part 6** Project Timeline

## Table of revisions

<b>A</b>	Prepared by LJB Urban Planning dated 20.2.19
----------	--

## Appendix

<b>1</b>	Urban Design Report prepared by PTW
<b>2</b>	Traffic Report prepared by TSA
<b>3</b>	Heritage Report prepared by Extent Heritage
<b>4</b>	Flood Statement prepared by Cardno
<b>5</b>	Economic Report prepared by MacroPlanDimesi
<b>6</b>	Aeronautical Report prepared by AVLAW Consulting
<b>7</b>	Detailed Site Investigation report by Trace Environmental

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Introduction**

This Planning Proposal explains the intended effect of, and justification, for the proposed amendment to *Botany Local Environmental Plan 2013*. It has been prepared in accordance with Section 3.33 of the *Environmental Planning and Assessment Act 1979* and *A Guide to Preparing Planning Proposals* (NSW Department of Planning & Environment, August 2016).

## **Background**

This Planning Proposal has been prepared by LJB Urban Planning Pty Ltd on behalf of Toplace Pty Ltd and is submitted to Bayside Council for consideration.

The Planning Proposal contains an explanation of the intended effect and justification of a proposed amendment to Botany Bay Local Environmental Plan 2013. (BBLEP 2013)

The LEP amendment relates to land known as 146 to 154 O’Riordan Street, Mascot. The site is located on the eastern side of O’Riordan Street to the east of the Bourke Street intersection. Mascot Park adjoins the site to the north.

This Planning Proposal seeks to increase the height permitted across part of the site from 22 metres to part 44 metres. No change is proposed to the zoning of the site, the maximum permitted FSR of 3:1 or the height at the rear of the site. The proposed increase in height will provide a continuation of the 44 metre height limit in this section of O’Riordan Street. It will enable the permitted density to be achieved and ensure a transition of building heights to the lower density zoned properties to the east.

This Planning Proposal has been prepared in conjunction with PTW Architects and is a direct result of an architectural Urban Design study, review of strategic plans and policies as well as the surrounding built form in the locality.

## **Local Planning Framework**

The site is zoned B5 Business Development under Botany Bay Local Environmental Plan 2013

Clause 4.3 of the LEP specifies a maximum building height of 22 metres.

Clause 4.4 of the LEP specifies a FSR of 3:1.

The land to which this Planning Proposal relates does not contain a heritage item and is not within a heritage conservation area.

The site is located adjacent to Mascot Park (182), which is heritage listed. A heritage report accompanies this submission at **Appendix 3**. The conclusion of the report is considered in this Planning Proposal report.

Clause 6.8 of the LEP requires consultation with the relevant Commonwealth body if the development will penetrate the Limitation or Operations Surface. The proposed



*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

Planning Proposal will require referral, as the Planning Proposal is seeking additional height. An Aeronautical Impact Assessment Report accompanies this submission at **Appendix 6**. The conclusion of the report is considered in this Planning Proposal report.

Clause 6.16 of the LEP applies as the site is nominated as a Key Site, being located with the Mascot Station Precinct. Future development of the site will need to exhibit design excellence. An Urban Design Report accompanies this submission at **Appendix 1**. The constraints and opportunities of the site as identified in the report are considered in this Planning Proposal report.

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

### **Part 1 - Objectives or Intended Outcomes**

The objective of the Planning Proposal is to:

- *Amend Botany Bay 2013 LEP controls to allow for more appropriate height controls along O’Riordan Street; and*
- *Provide for the orderly and economic development of land.*

The increased building height will provide a continuation of the existing height controls along the western side of O’Riordan Street and properties to the south. A continuation of the 44 metre height control will result in a more balanced building form which transitions across the site to 22 metres to mitigate impacts towards lower density properties to the east.

This Planning Proposal provides for the orderly and economic development with the additional height enabling the permitted density to be achieved while still maintaining a transition of building heights across the site. The retention of the existing height control will not enable the orderly or economic development of the land.

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## Part 2 - Explanation of Provisions

The proposed outcome will be achieved by:

- Amending *Botany Bay LEP 2013* Height of Building Map to achieve a maximum permissible height of 44 metres along part of the site adjacent to O’Riordan Street as shown on the map provided at Part 4 of this report.

**Table 1** – Proposed Map Amendments

Map Sheet No.	Amendment	Explanation
HOB_001	<ul style="list-style-type: none"> <li>• Increase the western half of the site from 22 metres to 44 metres. Retaining 22 metre height limit along the eastern half of the site.</li> </ul>	Increase height along O’Riordan Street to be consistent with existing and future building form while maintaining a lower height at the rear to transition to lower densities and Mascot Oval.

The LEP will conform to the Standard Instrument (Local Environmental Plans) Order 2006.

The zoning, floor space ratio, heritage, and acid sulfate soil maps, which currently form part of the BBLEP 2013, will remain unchanged as a result of the Planning Proposal.

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

### **Part 3 – Justification**

#### **A Need for the Planning Proposal**

##### **Q1 Is the Planning Proposal a result of any strategic study or report?**

The Planning Proposal is not a direct result of a strategic study. This Planning Proposal has been prepared in response to an Urban Design Report prepared by PTW Architects accompanying this submission at **Appendix 1**.

The purpose of the study was to inform the proposal in terms of potential heights considering the existing urban form along O’Riordan Street. It also considered the potential impact on the increased height and whether this achieved a better outcome for this site.

The Urban Design Report recommends an increase in building height for the following reasons:

- The site is located at a key and highly visible intersection of Bourke and O’Riordan Street;
- The sites proximity to Mascot Station;
- The existing built form which includes: 11 storey Holiday Inn, 14 storey Pullman Hotel, 14 storey Travelodge and 7 storey Ibis Hotel;
- The heights along O’Riordan Street corridor and achieving a consistent height as all other sites with frontage to O’Riordan Street south of the Park; and
- Ability to achieve more consistent heights along O’Riordan Street that will transition across the site towards the east.

The key concepts underlying the above strategy, identified by PTW Architects, are:

- *Height transition;*
- *Park activation;*
- *Enhanced natural surveillance; and*
- *Acoustic buffer.*

The urban design analysis recommends an increase of across approximately 50% of the site to 44 metres (western side) and retaining the 22 metres to the remainder of the site (eastern side).

The analysis confirms that the increased height is appropriate on this site and will not result in adverse impacts. The increased height will assist in reducing the acoustic impacts of traffic noise along O’Riordan Street for the medium density residential dwellings to the east.

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

The Planning Proposal does not seek to change the maximum permitted FSR of 3:1. It is unlikely that the permitted FSR could be achieved within the 22-metre height control without a significantly large footprint that is likely to impact on the residential dwellings to the east and reduce passive surveillance of Mascot Oval.

The proposed massing enables flexibility for a future building design that will have the potential to achieve design excellence and construction of high-quality buildings that will provide an active street frontage and improve the public domain.

The additional height will provide an appropriate balance of building form along O’Riordan Street and will be a consistent approach to the building form in the surrounding locality.

The LEP Standards and Urban Design Controls Study for the City of Botany Bay LEP 2011 were prepared in September 2010. The report recommended a height of 44 metres to the entire site as shown below:

Figure 5.7: Proposed height controls for Study Area 1



The LEP as gazetted maintained a continuous 44 metre height control to O’Riordan Street in the B5 zone with the exception of the subject site and the site to the south, east of the SP2 land. There does not seem to be a logical reason why this site did not continue the 44m height alignment along O’Riordan Street. Given the importance of this corridor and the intersection with Botany Road, increased height in this location is considered a better urban design outcome.

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

**Q2 Is the Planning Proposal the best means of achieving the objectives or intended outcomes, or is there a better way?**

The Planning Proposal is the best way of achieving the objectives and intended outcomes. The extent of variation to the height controls proposed under this Planning Proposal is most appropriately addressed by a change to the sites height controls.

The additional height is appropriate along O’Riordan Street given the existing and future building forms and the importance of the Global Economic Corridor.

There are no alternate approaches that would effectively achieve the intended outcome of this site. The proposed increase in building height is only appropriate in this location following a detailed consideration of the opportunities and constraints of this site including, but not limited to:

- Prominence of the Global Economic Corridor and relationship with the intersection with Bourke Street;
- Creation of a strong and defined edge to O’Riordan Street;
- Proximity to lower density residential to the east and desire to retain a transition of building heights;
- Proximity to Mascot Oval and opportunity for increased passive surveillance of the public domain.

**B Relationship to strategic planning framework**

**Q3 Is the Planning Proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?**

The Planning Proposal is consistent with the objectives and actions of the current metropolitan plan, known as Greater Sydney Region Plan – A Metropolis of Three Cities – 2056. This is discussed below.

**Greater Sydney Region Plan 2056**

The Greater Sydney Commission prepared the current regional plan ‘Greater Sydney Region Plan – A Metropolis of Three Cities – 2056’. This plan was recently updated in March 2018.

The following diagram outlines the planning of greater Sydney and how relevant directions, plans, strategies and programs will be applied and implemented:

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

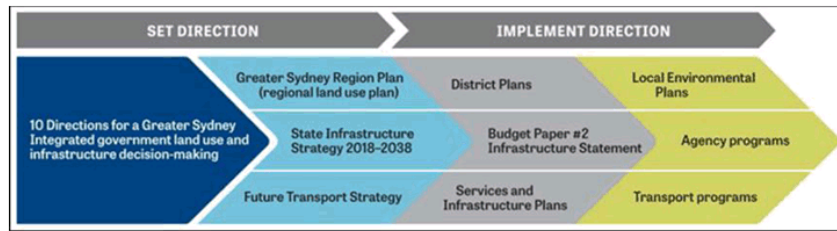


Figure 1: Directions for a Greater Sydney, Prepared by Greater Sydney Commission

The regional plan has incorporated the 10 guiding directions to create a greater Sydney by 2056. The Plan provides a broad vision with detailed strategies and actions having an emphasis on creating a global metropolis of three cities being:

- *Eastern Harbour City;*
- *Central River City; and*
- *Western Parkland City.*

The Plan incorporates a 40-year vision and establishes a 20-year plan to manage population growth and change. It has also assisted in informing the recent district plans, the assessment of planning proposals and will continue to assist in infrastructure planning.

The Plan places a strong emphasis on creating a '30-minute' city with greater consideration on transport and infrastructure.

Mascot is in the Eastern Harbour City area. The site is also positioned within the 'Green Square to Mascot Eastern Economic Corridor'. The Plan recognises the importance of this corridor:

*The Eastern Economic Corridor from Macquarie Park to Sydney Airport is the State's greatest economic asset – contributing two-thirds of NSW's economic growth in the 2015-16 financial year. It will build on its credentials and leverage its strong financial, professional, health, education and innovation sectors.*

The Planning Proposal does not seek to change the existing B5 Business Development zone as it relates to height only. The proposed height will provide greater consistency with the existing and future urban form along O'Riordan Street enhancing its role as part of the Economic Corridor.

The additional height will continue to positively contribute to a further increase in local job opportunities and support the Mascot Station Town Centre Precinct to the north, which has seen a significant growth of residential dwellings in recent years.

The Planning Proposal will satisfy Section 4 *Liveability* Objective 12 *Great Places* that Bring People Together within the Regional Plan. The additional height and future redevelopment of the site will have the potential to create



*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

an improved built environment that provides more consistent building scale along O’Riordan Street, between the Airport (Joyce Drive) and Mascot Town centre, further emphasising the importance of the locality.

The future redevelopment of the site with the increased height as shown in accompanying Urban Design Study will be capable of improving links to Mascot Town Centre and surrounding businesses/residences.

Section 5 Productivity, Objectives 14, 15, 16, 22 and 23, will continue to be satisfied. The zoning will remain B5 Business Development. There are 775,000 jobs located within the Eastern Economic Corridor and the additional height will enable development of the site to its potential and provide greater employment prospects in the future. 817,000 jobs are required over the next 20 years to 2036.

The increased height that can be achieved by this Planning Proposal is consistent with the direction and objectives within this Plan.

#### **Eastern City District Plan**

The Eastern City District Plan seeks to implement the directions established within the Greater Sydney Region Plan 2056. It seeks to ensure that the district is developed in accordance with the ‘three cities’ approach to improve social, economic and environmental conditions.

The population growth within the district is proposed to increase from approximately 1 million to 1.34 million in 2036, with a projected housing rate increase of 157,500 new dwellings.

Mascot is located with the ‘Green Square – Mascot’ Strategic Centre. In 2016 it was estimated to have approximately 59,500 jobs. This is likely to increase to between 75,000 and 80,000 by 2036.

The planning proposal does not change the zoning of the site or the permitted FSR. The additional height sought on the site will not affect the achievement of the Planning Priorities within the district plan. In effect, it will allow for the site to be developed to its full economic potential, retaining the FSR of 3:1.

In addition, the Planning Proposal will continue to satisfy the following Planning Priorities:

- E9 – Growing International Trade Gateways;
- E10 – Delivering Integrated Land Use and Transport Planning and a 30 Minute City;
- E11 – Growing Investment, Business Opportunities and Jobs in Strategic Centres; and
- E12 – Retaining and Managing Industrial and Urban Services Land.

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

The Planning Priorities will still be satisfied in the following ways:

- Development of the site as permitted in the B5 Business Development zone;
- The additional height will be consistent with the existing and future built environment along O’Riordan Street between the airport and Mascot Town Centre;
- Future redevelopment of the site has the opportunity to improve the interface between surrounding streets and the nearby Mascot Town Centre and Mascot Park, with improved public domain and safety for pedestrians;
- Mascot is identified as a strategic centre and the additional height will provide further articulation of the skyline towards the Mascot town centre; and
- The increase in height along O’Riordan Street will ensure a suitable transition of built form from 44m to 22m across the site, continuing to the existing 12 metres in the lower density zones to the east.

Planning Priority E16 Protecting and Enhancing Scenic and Cultural Landscapes will be satisfied as the Mascot Park to the north will not be affected by any additional shadow due to orientation of the site. Any future development of this site has the opportunity to improve the interface with and use of the open space making it a safer environment for enjoyment of visitors and potential employees.

As outlined above, the Planning Proposal demonstrates consistency with the applicable ‘Planning Priorities’ and therefore is consistent with the Eastern City District Plan.

**Q4 Is the Planning Proposal consistent with Council’s local strategy or other local strategic plan?**

Table 2 below identifies how the Planning Proposal is consistent with the community outcomes.

**Table 2** – Consistency with the Bayside Community Strategic Plan 2030

Theme One – Bayside will be a vibrant place	How We Will Get There	Consistency
<b>Strategic Direction –</b> Our places are people-focussed	Local areas are activated with cafes, restaurants and cultural events	Ability for future non-residential uses to be provided at ground level adjacent to O’Riordan Street.
	Places have their own village atmosphere and sense of identity	Planning Proposal relates to additional height. Existing zoning retained and can be achieved by the range of uses permitted.
	My community and council work in	This Planning proposal will not affect the community and Council

## Planning Proposal – 146 to 154 O’Riordan Street, Mascot

	partnership to deliver better local outcomes	partnership. This Planning Proposal will be publicly exhibited for consideration of the community.
	The public spaces I use are innovative and put people first	The Planning Proposal does not relate to public spaces.
	There is an appropriate and community-owned response to threats	No affected by this Planning Proposal.
<b>Strategic Direction – Our places connect people</b>	Walking and cycling is easy in the City and is located in open space where possible	The site is in close proximity to Mascot Town Centre, Railway station, bus services and the airport.
	We are one community with shared objectives and desires	The Planning Proposal is consistent with the surrounding building form and existing LEP heights along O’Riordan Street.
	Our heritage and history is valued and respected	The additional height will not affect the heritage significance of Mascot Park. It is intended that the interface with the park can be improved with additional opportunity for passive surveillance.
<b>Strategic Direction – Our places are acceptable to all</b>	Open space is accessible and provides a range of active and passive recreation opportunities to match our growing community	The Planning Proposal will not affect any existing or future open space. Any future redevelopment in line with the Planning Proposal is likely to improve the public domain along O’Riordan Street and connection with adjoining open space.
	SMART Cities – making life better through smart use of technologies	The proposed height will have no impact on the use of technologies.
	Assets meet community expectations	Proposed height is consistent with existing LEP heights along O’Riordan Street. Community expectations will not be significantly affected.
	Bayside provides safe and engaging spaces, places and interactions	Existing zoning and FSR will remain unchanged and the additional height
	People who need to can access affordable housing	Zoning does not permit residential development.
	We welcome visitors and tourists to our City	Additional height will not detrimentally affect the welcoming of visitors.
<b>Strategic Direction – My place will be special to me</b>	Local developments reflect innovative, good design and incorporate open space and consider vertical families	Planning Proposal relates to additional height which is consistent with surrounding building form along O’Riordan Street.
	Bayside will be a 30 minute City – residents work locally or work off-site – no-one has to	The site is positioned to be able to meet the 30-minute city principle.

## Planning Proposal – 146 to 154 O’Riordan Street, Mascot

	travel for more than 30 minutes to work	
	Traffic and parking issues are a thing of the past	The Planning Proposal will not adversely affect the existing traffic network or create parking concerns, refer to accompanying Traffic Report.
	Road, rates and rubbish are not forgotten	Noted. Planning Proposal does not affect this. Any future detailed applications will have consideration.
	Gateway sites are welcoming and attractive	The increased height along O’Riordan Street will be consistent with the surrounding built form and further identify the major gateway that O’Riordan Street is. This goal will be achieved with this Planning Proposal.
<b>Theme Two – In 2030 our people will be connected in a smart City</b>	<b>How We Will Get There</b>	<b>Consistency</b>
<b>Strategic Direction – We benefit from technology</b>	Council engages with us and decision making is transparent, and data driven	Noted. This Planning Proposal will be exhibited in accordance with Council Policy.
	We can access information and services online and through social media	Planning Proposal will not affect this.
	We are a digital community	Noted.
	Technological change has been harnessed and we are sharing the benefits	Noted.
<b>Strategic Direction – We are unified and excited about our future</b>	Community leadership is developed and supported	Noted. Planning Proposal will not affect this.
	We are all included and have a part to play in the City	The Planning Proposal is consistent with existing and future building form along O’Riordan Street and will be exhibited accordingly for community consideration.
	The City is run by, with and for the people	Noted.
	We are proud of where we live	Noted.
<b>Strategic Direction – The community is valued</b>	Aboriginal culture and history is recognised and celebrated	Noted.
	We are a healthy community with access to active recreation and health education	The site adjoins Mascot Park which provides public open space for existing and future employees across the site. The height will affect this.
	All segments of our	Noted. Planning Proposal will not

Planning Proposal – 146 to 154 O'Riordan Street, Mascot

	community are catered for – children, families, young people and seniors	affect this goal.
	Opportunities for passive and active activities are available to community members, including people with pets	Noted. Planning Proposal will not affect this goal.
	The value of pets in the community is recognised and they are welcomed across the city	Noted. Planning Proposal will not affect this goal.
<b>Strategic Direction –</b> We treat each other with dignity and respect	We can participate in cultural and arts events which reflect and involve the community	The additional height will not affect this goal.
	Flexible care/support arrangements for seniors, children and people with disabilities are available across the LGA	The additional height will not affect this goal.
	Cultural diversity is reflected and celebrated in the City's activities	The proposed height will not affect cultural diversity.
	Our public buildings are important community hubs and are well maintained and accessible	Not applicable.
<b>Theme Three – In 2030 bayside will be green, leafy and sustainable</b>	<b>How We Will Get There</b>	<b>Consistency</b>
<b>Strategic Direction –</b> Our waste is well managed	I can reduce my waste through recycling and community education	The Planning Proposal seeks to increase height only. Any future detailed application will need to have consideration for waste measures before, during and after construction.
	Illegal dumping is a thing of the past	The additional height will not affect this goal.
<b>Strategic Direction –</b> We are prepared for climate change	We understand climate change and are prepared for the impacts	The additional height will not affect this goal.
	Our City is prepared for/able to cope with severe weather events	The additional height will not affect this goal.
	Our streetscapes are green and welcoming	The additional height will not affect this goal. A future detailed development application will have consideration for this.
<b>Strategic Direction –</b> We increase our use of renewable energy	Our City promotes the use of renewable energy through community education	This Planning proposal will not affect the continuing community education.
	Our City models use of renewable energy and reports gains benefits to the community	This Planning proposal will not affect the use of renewable energy and reports for the community.

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

<b>Strategic Direction –</b> Waterways and green corridors are regenerated and preserved	Water is recycled and re-used	The additional height will not affect this goal.
	The community is involved in the preservation of our natural areas	The additional height will not affect this goal. A future detailed development application will have consideration to this.
	We have an enhanced green grid/tree canopy	The additional height will not affect this goal. A future detailed development application will have consideration to this.
<b>Theme Four – In 2030 we will be a prosperous community</b>	<b>How We Will Get There</b>	<b>Consistency</b>
<b>Strategic Direction –</b> Opportunities for economic development are recognised	Major employers support/partner with local small business	The additional height will not affect this goal. Any future redevelopment will have consideration to this.
	We are an international hub for transport and logistics-related business	This has been discussed in the Planning Proposal. The increased height will be consistent with the surrounding character and assist in identifying the significance of O’Riordan Street as a gateway between Sydney Airport and the CBD.
	Industrial lands and employment lands are preserved – partnering with major employers to support local jobs	There is no change of use to the existing zone under the Planning Proposal. The permitted uses will remain unchanged and consistent with the LEP zones.
<b>Strategic Direction –</b> Local housing, employment and business opportunities area generated	Bayside will be a 30-minute City – residents work local or work off-site – no-one has to travel for more than 30 minutes to work	The site is situated within close proximity to Mascot Railway Station which has frequent train services to Airport and CBD. The site achieves the ‘30-minute’ city objective.
	Council is a major employer, supports local apprenticeships and cadetships	The additional height will not affect this goal.
	People who need to can access affordable housing	Residential uses are not permitted within the current zone. However, future employment on the site is in close proximity to the evolving Mascot Town Centre Precinct, containing residential dwellings.
<b>Strategic Direction –</b> The transport system works	We can easily travel around the LGA – traffic problems/gridlock are a thing of the past	The accompanying Traffic Report has determined that the additional height will not detrimentally affect existing and future traffic networks within the locality.
	We can easily travel to	The site is in close proximity to



Planning Proposal – 146 to 154 O’Riordan Street, Mascot

	work by accessible, reliable public transport	frequent bus and trains services that service the City and surrounding suburbs.
<b>Strategic Direction –</b> We are prepared for a sharing economy	Innovative businesses are supported to locate in Bayside	The additional height will not affect this goal. A future detailed development application will have consideration for this.
	Local Plans and regulations have kept pace with the sharing economy	

**Q5 Is the Planning Proposal consistent with applicable State Environmental Planning Policies (SEPPs)?**

Consistency with the State Environmental Planning Policies is provided in Table 3, below.

**Table 3** - Consistency with State Environmental Planning Policies

No.	Title	Consistency with Planning Proposal
1	Development Standards	(Repealed by <i>RLEP 2011</i> )
19	Bushland in Urban Areas	Not Applicable
21	Caravan Parks	Not Applicable
30	Intensive Aquaculture	Not Applicable
32	Urban Consolidation (Redevelopment of Urban Land)	
33	Hazardous and Offensive Development	Not Applicable
36	Manufactured Home Estates	Not Applicable
44	Koala Habitat Protection	Not Applicable
47	Moore Park Showground	Not Applicable
50	Canal Estate Development	Not Applicable
52	Farm Dams and Other Works in Land and Water Management Plan Areas	Not Applicable
55	Remediation of Land	Not inconsistent. A Detailed Site Assessment accompanies the Planning Proposal at <b>Appendix 7</b> and determined that the site is capable of being made suitable for the intended development.
62	Sustainable Aquaculture	Not Applicable
64	Advertising and Signage	Not Applicable
65	Design Quality of Residential Apartment Development	Not Applicable
70	Affordable Housing (Revised Schemes)	Not Applicable
	(Affordable Rental Housing) 2009	Not Applicable
	(Building Sustainability Index: BASIX) 2004	Not Applicable
	(Coastal Management) 2018	Not Applicable
	(Educational Establishments and Child Care Facilities) 2017	Not Applicable
	(Exempt and Complying Development Codes) 2008	Not Applicable
	(Housing for Seniors or People with a Disability) 2004	Not Applicable
	(Infrastructure) 2007	Not inconsistent. No increase in FSR is proposed. The accompanying traffic assessment at <b>Appendix 2</b> has

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

		determined that the additional height will not create adverse traffic and parking conditions.
	(Kosciuszko National Park – Alpine Resorts) 2007	Not Applicable
	(Kurnell Peninsula) 1989	Not Applicable
	(Mining, Petroleum Production and Extractive Industries) 2007	Not Applicable
	(Miscellaneous Consent Provisions) 2007	Not Applicable
	(Penrith Lakes Scheme) 1989	Not Applicable
	(Rural Lands) 2008	Not Applicable
	(State and Regional Development) 2011	The future development of the site is likely to be deemed as regional development, meeting the relevant threshold. The Planning Panel will be the determining authority.
	(State Significant Precincts) 2005	Not Applicable
	(Sydney Drinking Water Catchment) 2011	The Planning Proposal will not have an effect on water quality and therefore remains consistent with the SEPP.
	(Sydney Region Growth Centres) 2006	Not Applicable
	(Three Ports) 2013	Not Applicable
	(Urban Renewal) 2010	Not Applicable
	(Vegetation in Non-Rural Areas) 2017	Not Applicable
	(Western Sydney Employment Area) 2009	Not Applicable
	(Western Sydney Parklands) 2009	Not Applicable

See Table 4 below which reviews the consistency with the formerly named State Regional Environmental Plans, now identified as deemed SEPPs.

**Table 4 - Consistency with deemed State Environmental Planning Policies**

No.	Title	Consistency with Planning Proposal
8	(Central Coast Plateau Areas)	Not Applicable
9	Extractive Industry (No.2 – 1995)	Not Applicable
16	Walsh Bay	Not Applicable
20	Hawkesbury-Nepean River (No.2 – 1997)	Not Applicable
24	Homebush Bay Area	Not Applicable
26	City West	Not Applicable
30	St Marys	Not Applicable
33	Cooks Cove	Not Applicable
	(Sydney Harbour Catchment) 2005	Not Applicable
	Greater Metropolitan Regional Environmental Plan No 2—Georges River Catchment	Not Applicable

**Q6 Is the Planning Proposal consistent with applicable Ministerial Directions (s.9.1 directions)?**

See Table 5 below which reviews the consistency with the Ministerial Directions for LEPs under section 9.1 (formerly section 117) of the *Environmental Planning and Assessment Act 1979*.

**Table 5 - Consistency with applicable Ministerial Directions**

1. Employment and Resources		
No.	Title	Consistency with Planning Proposal
1.1	Business and Industrial Zones	The Planning Proposal does not seek to change the land use zone and therefore does not reduce the extent of uses permitted

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

		within the B5 Business Development zone. The additional height will be consistent with existing and future built form along O’Riordan Street and will ensure the orderly economic development of land. The proposed Planning Proposal is not inconsistent with this direction.
1.2	Rural Zones	Not Applicable
1.3	Mining, Petroleum Production & Extractive Industries	Not Applicable
1.4	Oyster Aquaculture	Not Applicable
1.5	Rural Lands	Not Applicable

## 2. Environment and Heritage

No.	Title	Consistency with Planning Proposal
2.1	Environmental Protection Zones	Not Applicable
2.2	Coastal Protection	Not Applicable
2.3	Heritage Conservation	<p>The site is within close to the heritage listed Mascot Park. The additional height and potential future redevelopment of the site will not detrimentally affect the significance of the item given the surrounding context.</p> <p>The proposed height will be stepped across the site and the existing car park for Mascot Park provides additional separation to minimise bulk and scale.</p> <p>As the site is located to the south of Mascot Park, there will be no additional shadow effect on the heritage listed open space. The heritage report confirms that the increase in height will have a minor impact on Mascot Park; however this is acceptable given the proposed stepping of height across the site.</p> <p>A Heritage report prepared by Extent Heritage Advisors accompanies this report at <b>Appendix 3</b> concludes the following:</p> <p><i>The planning proposal application to raise the permissible height of future buildings at 146-154 O’Riordan Street will have a minor impact to the views, but not the setting of the adjacent Mascot Park.</i></p> <p><i>The proposed change of the permissible height from 22 metre to 44 metres only applies to the western area of the subject site, where the surrounding building heights would match the proposed uplift. Other areas of the subject site have lowered height limits that step toward Mascot Park, creating a better sense of proportion. Additionally, the orientation of the narrow face of the building toward O’Riordan Street aligns the greater building mass and scale toward the centre of the subject site. Collectively, these mitigations address the sense of enclosure otherwise created by the proposed height increase.</i></p> <p><i>Though development in the vicinity is not in keeping with some controls in the Botany Bay DCP (see Part 9.3, C.2 and C.10),</i></p>

Planning Proposal – 146 to 154 O'Riordan Street, Mascot

		accepting that those controls may not be anticipating landscape items, overall the impact of the proposed uplift to Mascot Park is minor. This is an acceptable level of impact, particularly with stepped height.
2.4	Recreation Vehicle Areas	Not Applicable
2.5	Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	Not Applicable

### 3. Housing, Infrastructure and Urban Development

No.	Title	Consistency with Planning Proposal
3.1	Residential Zones	Not Applicable
3.2	Caravan Parks and Manufactured Home Estates	Not Applicable
3.3	Home Occupations	Not Applicable
3.4	Integrating Land Use and Transport	<p>The Planning Proposal seeks to provide additional height to provide a more consistent building form along both the eastern and western side of O'Riordan Street.</p> <p>Any future development of the site is supported by the proximity to Mascot Station. The site is approximately 550 metre walk from the station, taking approximately 7 minutes on foot. Train services will provide frequent services to and from the site connecting south-western Sydney and the CBD as well as suburbs to the west and north. This contributes towards the '30-minute city'.</p> <p>In addition, the site is a 9-minute walk and train ride away to the airport (1.5 kms to the south) and the Sydney CBD is a 20-minute walk and train ride away (5.5km to the north). Increased height and a viable future redevelopment, in this location will further encourage the use of public transport and may reduce the reliance on private vehicle use.</p> <p>The proposal is consistent with the aims, objectives and principles within the following publications:</p> <ul style="list-style-type: none"> <li>• <i>Improving Transport Choice – Guidelines for Planning and Development (DUAP 2001); and</i></li> <li>• <i>The Right Place for Business and Services – Planning Policy (DUAP 2001).</i></li> </ul>
3.5	Development near Regulated Airports and Defence Airfields	The Planning Proposal site is located near Sydney Airport. A Preliminary Aeronautical Impact Assessment prepared by AVLAW Consulting accompanies this report at <b>Appendix 6</b> concludes the following:

Planning Proposal – 146 to 154 O'Riordan Street, Mascot

		<p>The proposed Toplace development at the site will not involve penetration of the OLS, PANS-OPS, Omni Direction or RTCC surfaces. The preparation of a complete aeronautical impact assessment with detailed analysis of these surfaces and others is usually required to support an application for necessary aviation approvals to be given in circumstances where any surfaces defining the prescribed airspace are penetrated. AvLaw therefore considers that no detailed aeronautical impact is required, however, AvLaw recommends Toplace advise SACL of the development through the SACL approval process for their information and also for consideration of aid clearances assessment by Airservices.</p>
--	--	---

#### 4. Hazard and Risk

No.	Title	Consistency with Planning Proposal
4.1	Acid Sulfate Soils	<p>The land to which this Planning Proposal relates is identified on Councils Acid Sulfate Soils map as Class 4. The Botany Bay LEP 2013 requires the submission of an acid sulfate soils management plan. This matter will be addressed at the development application stage.</p>
4.2	Mine Subsidence and Unstable Land	Not Applicable
4.3	Flood Prone Land	<p>The subject site is identified within the 'Mascot, Rosebery &amp; Eastlakes Flood Study Final Draft dated May 2015 prepared by WMA Water' as being potentially flood affect. This report formed Part 1 and 2 of the NSW Flood Program.</p> <p>The more recent study 'Mascot, Rosebery and Eastlakes Floodplain Risk Management Study and Plan' dated 9 April 2017 prepared by Royal Haskoning DHV forms Part 3 and Part 4 of the NSW Flood Program.</p> <p>Preliminary Flood Advice prepared by Cardno Pty Ltd accompanies this report at <b>Appendix 4</b> confirms that the site is not affected by the 1% AEP or the Probable Maximum Flood (PMF). There is localised ponding of up to 0.3-0.5m in depth, but this is likely to be caused by internal site runoff as the ground levels are higher than the external levels and some flow paths from the site may be blocked by buildings / ground levels. The report provides flood planning levels for the future redevelopment of the site.</p> <p>The report also concludes that the 'raising of floor levels, or site levels shall not create or exacerbate flooding on any other private land or public properties, including roads and open space'. Council's engineers have indicated that no flood study is required.</p>

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

		It is noted that an increase in building height will have no impact on the flooding behaviour.
4.4	Planning for Bushfire Protection	Not applicable, the land is not identified as bushfire prone land.

#### 5. Regional Planning

No.	Title	Consistency with Planning Proposal
5.1	Implementation of Regional Strategies	Revoked 17 October 2017
5.2	Sydney Drinking Water Catchments	Not Applicable
5.3	Farmland of State and Regional Significance on the NSW Far North Coast	Not Applicable
5.4	Commercial and Retail Development along the Pacific Highway, North Coast	Not Applicable
5.5	Development in the vicinity of Ellalong, Paxton and Millfield	Revoked 18 June 2010
5.6	Sydney to Canberra Corridor	Revoked 10 July 2008
5.7	Central Coast	Revoked 10 July 2008
5.8	Second Sydney Airport: Badgerys Creek	Not Applicable
5.9	North West Rail Link Corridor Strategy	Not Applicable
5.10	Implementation of Regional Plans	Not Applicable

#### 6. Local Plan Making

No.	Title	Consistency with Planning Proposal
6.1	Approval and Referral Requirements	The Planning Proposal does not include additional provisions that require the concurrence, consultation or referral of development applications to a Minister or public authority.
6.2	Reserving Land for Public Purposes	This Planning Proposal does not seek to create, alter or reduce existing zonings or reservations of land for public purposes.
6.3	Site Specific Provisions	The Planning Proposal seeks an increase of height from 22 metres, to 44 metres along O’Riordan Street. The Planning Proposal contains an Urban Design study which provides indicative building envelopes. The study illustrates that the height will not create detrimental effect for adjoining sites and will be consistent with the built form along O’Riordan Street based on the existing LEP controls.

#### 7. Metropolitan Planning

No.	Title	Consistency with Planning Proposal
7.1	Implementation of A Plan for Growing Sydney	The Planning Proposal achieves the overall intent of the current plan (Greater Sydney Region Plan 2056) and does not undermine the achievement of its vision, land use strategy, policies or outcomes. The proposal will remain consistent with the ‘30-minute City’ strategy, being only: <ul style="list-style-type: none"> <li>7-minute walk from Mascot Railway Station;</li> <li>9-minute walk and train ride from Sydney Airport;</li> <li>20-minute walk and train ride from</li> </ul>

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

		<p>Sydney CBD; and</p> <ul style="list-style-type: none"> <li>Within 30 minutes of many suburbs located along the ‘airport’ railway line.</li> </ul> <p>The increased height will have no effect on the permitted uses across the site as the zone will remain B5 Business Development. The additional height will remain stepped to minimise bulk and scale, particularly for lower density zones to the east but will allow for the orderly economic development of the land, that can evolve to reflect the built form desired within a ‘strategic centre’ and achieve the permissible FSR of 3:1, which remains unchanged.</p> <p>The subject site is within an area that is highly accessible and has excellent access to public transport and increasing housing, both of which will support future uses across the site and will assist in meeting employment targets.</p> <p>The Planning Proposal maintains consistency with a Greater Sydney Region Plan 2056.</p>
7.2	Implementation of Greater Macarthur Land Release Investigation	Not Applicable
7.3	Parramatta Road Corridor Urban Transformation Strategy	Not Applicable
7.4	Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not Applicable
7.5	Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not Applicable
7.6	Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not Applicable
7.7	Implementation of Glenfield to Macarthur Urban Renewal Corridor	Not Applicable
7.8	Implementation of Western Sydney Aerotropolis Interim Land Use and Infrastructure Implementation Plan	Not Applicable
7.9	Implementation of Bayside West Precincts 2036 Plan	Not Applicable
7.10	Implementation of Planning Principles for the Cooks Cove Precinct	Not Applicable

## C Environmental, social and economic impact

**Q7 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?**

No. The Planning Proposal will not result in any impact to any critical habitats, threatened species, populations or ecological communities.

**Q8 Are there any other likely environmental effects as a result of the Planning Proposal and how are they proposed to be managed?**



*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

### **Flooding**

As discussed above, the site is potentially flood affected. The accompanying flood assessment has determined the flood planning level for the future development of the site.

Preliminary Flood Advice prepared by Cardno Pty Ltd accompanies this report at **Appendix 4** confirms that the site is not affected by the 1% AEP or the Probable Maximum Flood (PMF). There is localised ponding of up to 0.3-0.5m in depth, but this is likely to be caused by internal site runoff as the ground levels are higher than the external levels and some flow paths from the site may be blocked by buildings / ground levels. The report provides flood planning levels for the future redevelopment of the site.

The report also concludes that the 'raising of floor levels, or site levels shall not create or exacerbate flooding on any other private land or public properties, including roads and open space'. Council's engineers have indicated that no flood study is required.

It is noted that an increase in building height will have no impact on the flooding behaviour.

There are no further likely environmental effects associated with the development of this site that cannot be suitably mitigated through the detailed design process.

### **Traffic:**

A Traffic Impact Report prepared by TSA accompanies this report at **Appendix 2** has concluded the following:

*This Practice has undertaken an assessment of the potential traffic and transport implications associated with the Planning Proposal to redevelop land at 146 – 154 O’Riordan Street, Mascot. Based on this assessment, the following conclusions are now made:*

- *The subject proposal involves increasing building height controls with respect to Botany LEP 2013 to allow for a mixed use development;*
- *The surrounding road network operates with a good level of service during peak periods;*
- *The subject development has been projected to generate in the order of 326 peak hour vehicle trips to and from the subject site, which is estimated to be approximately 99 trips over and above the existing site generation; and*
- *The strategic planning process for surrounding precincts associated with the redevelopment of Sydney Airport has considered the broader traffic and transport infrastructure requirements to service the additional demand associated with future land uses (including the proposed development). The proposed development is generally in accordance with the strategic planning intent for the subject land and the broader impacts of the development have therefore been considered in past studies.*

*Having regard to the conclusions abovementioned, this Practice is satisfied that the proposed development is worthy of support in relation to the traffic and transport issues discussed.*

### **Overshadowing and Solar Access:**

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

The accompanying Urban Design Report at **Appendix 1** demonstrates that the increased height will not result in unreasonable shadow effects and will still maintain high levels of solar access to adjoining properties and Mascot Oval.

**Noise:**

Any future development and uses within the building will be required to satisfy the BCA and Council noise requirements.

**Visual Impact:**

The proposed height controls and accompanying envelopes within the Urban Design study prepared by PTW Architects, respond appropriately to adjoining sites. In particular, the 44-metre height along O’Riordan Street is consistent with the existing and future developments. While maintaining the reduced height to the east and north-east is appropriate to minimise impacts on medium density residential dwellings and the heritage listed Mascot Park.

The likely building envelope and visual impact has been assessed in detail in the Urban Design study prepared by PTW Architects, attached at **Appendix 1**.

No. There are no other identified environmental effects, other than those discussed above, of the Planning Proposal.

**Q9 Has the Planning Proposal adequately addressed any social and economic effects?**

The Planning Proposal is consistent with the Greater Sydney Region Plan 2056, which seeks to create three cities and the '30 minute' city principle. As the site is located within 7 minutes' walk of Mascot Station it will achieve the '30-minute city' principle. The future redevelopment of the site is acceptable, and the land use will be appropriately integrated with public transport options.

An Economic Impact Report prepared by MacroPlanDimasi accompanies this report at **Appendix 5** has determined:

*The proposal supports a more viable employment outcome for the site, and one that responds to and supports employment growth and demand conditions*

**D State and Commonwealth interests**

**Q10 Is there adequate public infrastructure for the Planning Proposal?**

The subject site is well serviced by existing and future transport and infrastructure. The site is located within an established urban area which is well serviced by road networks, public transport, utilities and housing opportunities.

A Traffic Impact Report prepared by TSA accompanies this report at **Appendix 2** has concluded the following:

*This Practice has undertaken an assessment of the potential traffic and transport implications associated with the Planning Proposal to redevelop land at 146 – 154 O’Riordan Street, Mascot. Based on this assessment, the following conclusions are now made:*

- *The subject proposal involves increasing building height controls with respect to Botany LEP 2013 to allow for a mixed use development;*

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

- *The surrounding road network operates with a good level of service during peak periods;*
- *The subject development has been projected to generate in the order of 326 peak hour vehicle trips to and from the subject site, which is estimated to be approximately 99 trips over and above the existing site generation; and*
- *The strategic planning process for surrounding precincts associated with the redevelopment of Sydney Airport has considered the broader traffic and transport infrastructure requirements to service the additional demand associated with future land uses (including the proposed development). The proposed development is generally in accordance with the strategic planning intent for the subject land and the broader impacts of the development have therefore been considered in past studies.*

*Having regard to the conclusions abovementioned, this Practice is satisfied that the proposed development is worthy of support in relation to the traffic and transport issues discussed.*

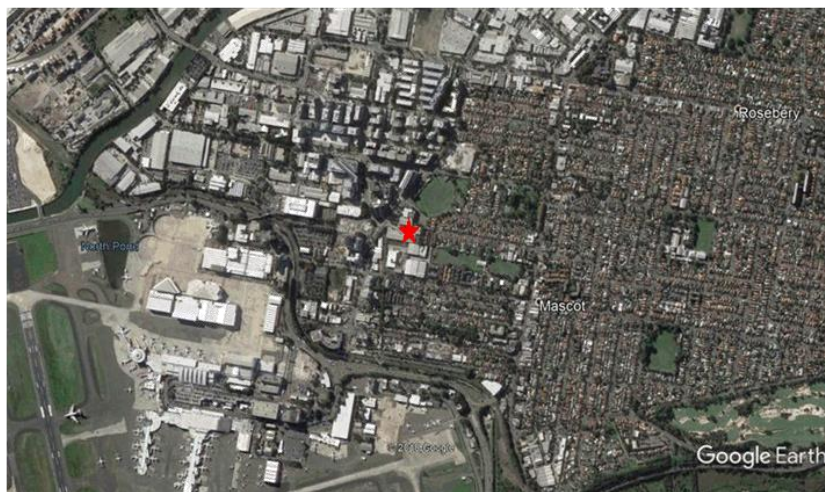
**Q11 What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?**

At this stage, the appropriate State and Commonwealth public authorities have not been identified or consulted. This will occur following the Gateway Determination.

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## Part 4 – Mapping

Figures 1 and 2 illustrate the subject site in relation to wider locality and immediate surrounds:



**Figure 1: Subject site and surrounding locality.**



**Figure 2: Subject site and immediate surrounds.**

The Botany Bay LEP 2013 Height of Buildings Map – Sheet HOB\_001 shall be amended as follows:

Figures 1 illustrate the current control maps as well as proposed controls. Specifically, height of building is proposed to be modified by this Planning Proposal.

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

Existing LEP Height



Figure 3: Existing Botany Bay LEP 2013 Height of Buildings Map

Planning Proposal – 146 to 154 O’Riordan Street, Mascot

Proposed LEP Height



Figure 4: Proposed Botany Bay LEP 2013 Height of Buildings Map

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Part 5 - Community Consultation**

Given the scale of the proposal the consultation mechanism is likely to include:

- Notification letter to adjoining owners
- Advertisement in the local paper
- Information provided on Council's website

Following the Gateway Determination, the Department of Planning will advise the extent of 'formal' public consultation that is required.



*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## Part 6 – Project Timeline

The table below provides a proposed timeframe for the project.

**Table 6** – Approximate Project Timeline

Task	Timing
Anticipated commencement date (date of Gateway determination)	May 2019
Anticipated timeframe for the completion of required technical information	June 2019
Timeframe for government agency consultation (pre and post exhibition as required by Gateway determination)	June/July 2019
Commencement and completion dates for public exhibition period	July 2019
Dates for public hearing (if required)	Not Applicable
Timeframe for consideration of submissions	August 2019
Timeframe for the consideration of a Planning Proposal post-exhibition	September 2019
Date of submission to the Department to finalise the LEP	October 2019
Anticipated date Planning Proposal Authority (PPA) will make the plan (if delegated)	November 2019
Anticipated date RPA will forward to the Department for notification	November 2019

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Appendix 1 – Urban Design Report**

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Appendix 2 – Traffic Report**

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Appendix 3 – Heritage Report**

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Appendix 4 – Flood Report**

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Appendix 5 – Economic Report**

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Appendix 6 – Aeronautical Report**



*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*

## **Appendix 7 – Detailed Site Investigation (Appendix B to I of DSI provided electronically)**

*Planning Proposal – 146 to 154 O’Riordan Street, Mascot*



## 146-154 O' Riordan Street, Mascot

### Statement of Heritage Impact

Prepared for TOPLACE Pty Ltd

March 2019 - FINAL

Sydney  
Melbourne  
Brisbane  
Perth

[extent.com.au](http://extent.com.au)





### Document Control Page

CLIENT: TOPLACE Pty Ltd

PROJECT: 146-154 O' Riordan Street Mascot Statement of Heritage Impact

SITE NAME: 146-154 O' Riordan Street, Mascot

EXTENT HERITAGE PTY LTD INTERNAL REVIEW/SIGN OFF						
WRITTEN BY	DATE	VERSION	REVIEWED	EDITED	EDIT LEVEL	APPROVED
Kim Watson Ben Calvert	01.02.2019	Ver_1 DRAFT	Eleanor Banaag Vidhu Gandhi			
Ben Calvert	04.03.2019	Ver_2 FINAL	Corinne Softley			04.03.2019

### Copyright and Moral Rights

Historical sources and reference materials used in the preparation of this report are acknowledged and referenced in figure captions or in text citations. Reasonable effort has been made to identify, contact, acknowledge and obtain permission to use material from the relevant copyright owners.

Unless otherwise specified in the contract terms for this project Extent Heritage Pty Ltd

- vests copyright of all material produced by Extent Heritage Pty Ltd (but excluding pre-existing material and material in which copyright is held by a third party) in the client for this project (and the client's successors in title);
- retains the use of all material produced by Extent Heritage Pty Ltd for this project, for the ongoing business of Extent Heritage Pty Ltd, and for professional presentations, academic papers or publications.

**EXTENT HERITAGE PTY LTD**  
 SYDNEY | MELBOURNE | BRISBANE | PERTH



## Contents

1.	INTRODUCTION .....	1
1.1	PROJECT DESCRIPTION .....	1
1.2	APPROACH AND METHODOLOGY .....	1
1.3	LIMITATIONS .....	1
1.4	AUTHORSHIP .....	1
1.5	OWNERSHIP .....	2
1.6	TERMINOLOGY .....	2
2.	SITE IDENTIFICATION .....	4
2.1	LOCATION .....	4
2.2	DESCRIPTION OF AREA .....	6
3.	HERITAGE STATUS .....	7
3.1	STATUTORY HERITAGE LISTINGS .....	7
3.2	NON-STATUTORY LISTINGS .....	7
3.3	STATEMENT OF SIGNIFICANCE .....	7
3.4	HERITAGE ITEMS IN THE VICINITY .....	8
4.	HISTORICAL CONTEXT .....	10
4.1	INTRODUCTION .....	10
4.2	MUNICIPAL GROWTH OF MASCOT .....	10
4.3	MASCOT PARK .....	11
5.	PHYSICAL DESCRIPTION .....	14
5.1	146-154 O' RIORDAN STREET .....	14
5.2	MASCOT PARK & LIONEL BOWEN PARK .....	16
6.	SETTINGS AND VIEWS .....	20
6.1	SETTING .....	20
6.2	VIEWS .....	21
7.	PROPOSED WORKS .....	23
7.1	OUTLINE .....	23
7.2	RATIONALE .....	30
8.	ASSESSMENT OF HERITAGE IMPACT .....	34
8.1	BUILT HERITAGE .....	34
8.2	LANDSCAPE HERITAGE .....	34
8.3	SETTING AND VIEWS .....	34
8.4	HERITAGE ITEMS IN THE VICINITY .....	35



9.	STATUTORY CONTROLS .....	36
9.1	ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979.....	36
9.2	BOTANY BAY LOCAL ENVIRONMENTAL PLAN 2013 .....	37
9.3	BOTANY BAY DEVELOPMENT CONTROL PLAN 2013 .....	37
10.	CONCLUSION AND RECOMMENDATIONS.....	40
10.1	CONCLUSION .....	40
10.2	RECOMMENDATIONS.....	40



## 1. Introduction

### 1.1 Project Description

EXTENT Heritage Pty Ltd was commissioned by TOPLACE Pty Ltd to prepare a Statement of Heritage Impact (SOHI) in response to a planning proposal to increase the current permissible zoning height at 146-154 O' Riordan Street, Mascot (hereafter, the 'subject site'). As per the brief for this project, the report provides the following:

- Preparation of brief heritage analysis of Mascot Park and its context;
- Detail the Planning Proposal;
- Review relevant legislation and planning controls;
- Assessing of heritage impacts of the planning proposal on Mascot Park and additional building height at the subject site;
- Provision of project recommendations, if necessary.

The subject site itself is not a listed heritage item, however, it is adjacent Mascot Park which is an item of local heritage significance under the *Schedule 5 - Environmental Heritage* of the *Botany Bay Local Environmental Plan 2013*.

### 1.2 Approach and Methodology

The methodology used in the preparation of this SOHI is in accordance with the principles and definitions as set out in the guidelines to *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Burra Charter)* and the latest version of the Statement of Heritage Impact Guidelines (2002), produced by the NSW Office of Environment and Heritage.

This SOHI will review the relevant statutory heritage controls, assess the impact of the proposal on the adjacent heritage item and make recommendations as to the level of impact.

### 1.3 Limitations

The subject site area was inspected and photographed by Kim Watson on 29 January 2019. The inspection was undertaken as a visual study only.

The historical overview provides sufficient historical background to provide an understanding of the place in order to assess the significance and provide relevant recommendations, however, it is not intended as an exhaustive history of the subject site.

### 1.4 Authorship

The following staff members at EXTENT Heritage Pty Ltd have prepared this SOHI:

Eleanor Banaag	Historic Places Team Manager
Vidhu Gandhi	Senior Heritage Advisor





Kim Watson

Heritage Advisor

Ben Calvert

Heritage Advisor

## 1.5 Ownership

The subject site is owned and managed by various private entities.

At present the following businesses occupy retail and commercial spaces within the subject site:

- Sushi Train;
- Work ventures (Social Inclusion Through Policy);
- Sydney ITC Repair Centre;
- Gearhouse broadcast;
- Dawai Foods;
- Glassons Head office (Fashion);
- Ti – Freight Forwarders;
- T & P International Trading;
- IPL Communications;
- OKI Printing Solutions;
- Jet Services;
- Transport Services.

## 1.6 Terminology

The terminology in this report follows that in the *Burra Charter*. Article 1 provides the following definitions:

**Place** means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

**Cultural significance** means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*.

Places may have a range of values for different individuals or groups.

**Fabric** means all the physical material of the place including elements, fixtures, contents and objects.

**Conservation** means all the processes of looking after a *place* so as to retain its *cultural significance*.

**Maintenance** means the continuous protective care of a *place*, and its *setting*.

Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.



**Preservation** means maintaining a *place* in its existing state and retarding deterioration.

**Restoration** means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.

**Reconstruction** means returning the *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.

**Adaptation** means changing a *place* to suit the existing *use* or a proposed use.

**Use** means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

**Compatible use** means a *use* that respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.

**Setting** means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.

**Related place** means a *place* that contributes to the *cultural significance* of another place.

**Related object** means an object that contributes to the *cultural significance* of a *place* but is not at the place.

**Associations** mean the connections that exist between people and a *place*.

**Meanings** denote what a *place* signifies, indicates, evokes or expresses to people.

**Interpretation** means all the ways of presenting the *cultural significance* of a *place*.



## 2. Site Identification

### 2.1 Location

The subject site is the inner south suburb of Sydney at 146-154 O'Riordan Street, Mascot. This is situated within the Bayside Local Government Area (LGA) and occupies land legally defined as:

- Lot 13-15 DP1232496.
- Lot A DP 402876.
- Lot A DP 364217.
- Lot A DP 364217.

The subject site is situated along the eastern side of O'Riordan Street, east of the Bourke Street intersection. The area is bounded to the north by Mascot Park and commercial premises to the south. The subject site has a foot print of 17,020.5m<sup>2</sup> and a frontage to O'Riordan street of 140.09m.

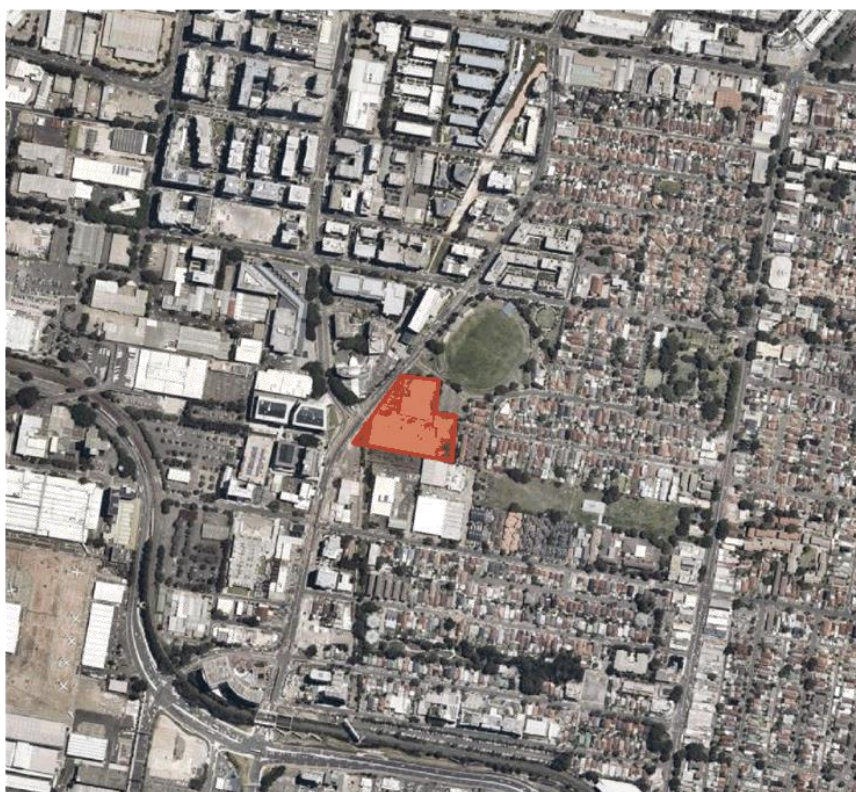


Figure 1. Aerial location of 146-154 O' Riordan Street shaded in red, showing a broader view of the general land use in the vicinity (Source: NearMap, accessed 2019).

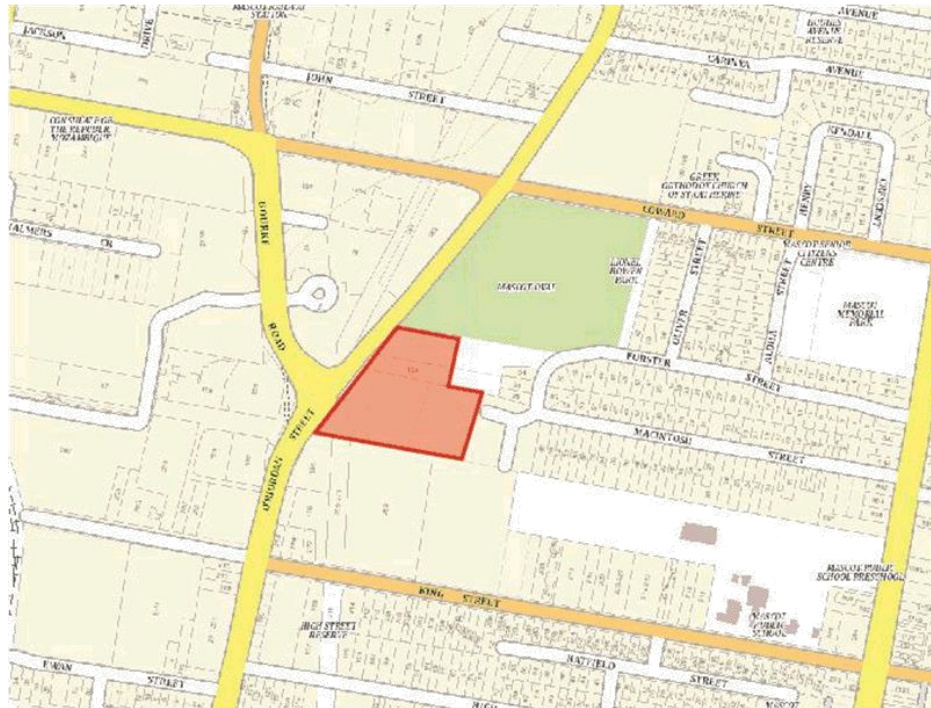


Figure 2. Map indicating location of 146-154 O' Riordan Street, Mascot, shaded in red. (Source: SIXMaps, accessed 2019).





Figure 3. Aerial Photo indicating location of 146-154 O' Riordan Street, Mascot, shaded in red. (Source: NearMap, accessed 2019).

## 2.2 Description of Area

The suburb of Mascot is known for its large industrial and commercial precinct supplemented by its growing residential presence. The surrounding area is characterised by large, multi-storey commercial premises interspersed with residential dwellings to the east, hotel accommodation to the west, industrial uses to the north and north-west, open green space and mix industrial residential use to the north.

The commercial character of Mascot is dominated by multi-storeyed buildings. These are generally located along O'Riordan Street, a main arterial road that travels on a north-south axis, connecting the suburb of Mascot to Sydney. The residential zone to the east of the subject site contains medium density dwellings.



### 3. Heritage Status

#### 3.1 Statutory Heritage Listings

##### 3.1.1 Environmental Protection and Biodiversity Act 1999

The subject site **is not** included on the National Heritage List under the Environmental Protection and Biodiversity Act 1999.

##### 3.1.2 NSW Heritage Act 1977

The subject site **is not** listed on the State Heritage Register (SHR) under the NSW Heritage Act 1977.

##### 3.1.3 Botany Bay Local Environmental Plan 2013

The subject site **is not** listed as a local heritage item in *Schedule 5 – Environmental Heritage* of the *Botany Bay LEP 2013*.

#### 3.2 Non-Statutory Listings

##### 3.2.1 National Trust of Australia (NSW)

The subject site **is not** identified by the National Trust of Australia (NSW).

##### 3.2.2 Register of Significant Buildings in NSW (Australian Institute of Architects)

The subject site **is not** listed on the Register of Significant Buildings in NSW by the Australian Institute of Architects).

#### 3.3 Statement of Significance

*Mascot Oval and the adjacent park, now known as Lionel Bowen Park, are historically and aesthetically significant as a representative example of a traditional local oval and area of open space that has provided the home ground for the major local junior football team, Souths Juniors. The item is of historical significance as the site of one of the best known of the early farms in the area, Marsfield, owned by Robert Macintosh, the boundaries of the farm and market garden closely approximating those of the item. The Souths Junior Rugby League team has historically been the local team for the residents of the area and is likely still to be held in esteem by the local community. The recently upgraded park is also likely to be valued as an area of open space in the rapidly developing area along O'Riordan Street.*



*The oval and park have recently been refurbished and demonstrate very good aesthetic heritage values as a traditional local oval which has retained the characteristic elements of the local sports ground, including a white picket perimeter fence and grassed embankments for spectators that reference the 1911 date of the park's nominal establishment, although the facilities and oval were not completed until 1949. The adjacent area of open space, recently (2013) dedicated to local Member for the seat of Kingsford Smith and Attorney-General Lionel Bowen, includes creative furniture, play equipment and public art and is a quality space for passive recreation. The site is also significant for its 'hidden' aesthetic experience, reading from the street as a standard area of local open space, but once inside the perimeter planting, demonstrate very good cultural landscape values.*

### 3.4 Heritage Items in the Vicinity

The subject site is in the vicinity of local heritage items listed in *Schedule 5 - Environmental Heritage of the Botany Bay LEP 2013*.

Name	Address	Significance	Item number
<b>Item – General</b>			
Mascot Public School building group	King Street, Mascot	Local	I139
<b>Item - Landscape</b>			
Mascot Park	Corner of O' Riordan and Coward Streets, Mascot	Local	I82





Extent Heritage Pty Ltd | 146-154 O'Riordan Street Mascot SOHI - FINAL CS



## 4. Historical Context

### 4.1 Introduction

The following history has been reproduced from the office of Environment and Heritage listing sheet for Mascot Park. Where other sources have been used, they are identified.

### 4.2 Municipal Growth of Mascot

In the early years of settlement at Sydney, Mascot was first known as a part of the wider Botany region, with the first land grants in that area comprising of holdings for small to medium sized farmsteads. This included ex-convicts such as Edwards Redmond (135 acres), Andrew Byrne (30 acres) and Mary Lewin (30 acres), though, by the nineteenth century most plots were granted to yeoman. The two other major land holders in early Mascot were Simeon Lord who was surveyed a plot of 600 acres in 1823, and the Crown, which held 4,195 acres of land in reserve. The plot of land owned by the Crown was intended to provide the Crown with money through the subdivision and sale of land to fund the Anglican Church. However, by 1833, the scheme had been abolished and much of the land in the Botany District was not released for sale until the late nineteenth century.

By 1888, the area had incorporated into a municipality, following the burst of residential development that had taken place along the shoreline. Initially the municipality was known as North Botany and would retain that name for over thirty years until in 1911, the name was changed to Mascot. The majority of land in North Botany was given over to light residential housing and Chinese market gardening. Most residential lots were between 20 to 30 acres and were at first granted in a grid pattern bounded by what is now O'Riordan Street, Gardeners Road and Botany Road. Further subdivision soon followed. Landholders saw the value in Mascot's good soil and either grew produce for market themselves or leased their land for Chinese Gardens.

Most of the noxious trade industries that dominated the south of Sydney in the 1830s were located along the waters course of Sheas Creek (Now Alexandria Canal) and the swamps centred around Waterloo. However, a major tannery, Birdsall Tannery, was established in 1883 in Beresford Street Mascot.

The economy and population provided by the influx of market gardeners and to a lesser extent, the noxious industries, in North Botany led to the development of a small village in the area by the 1880s. This came to included businesses which were small in scale and targeted to the needs of the local community. The township at North Botany rapidly grew a sense of community, with the opening of two major pubs, a post office, a fire brigade service and public school. In 1906 Ascot Racecourse was established near the Mascot Aerodrome, followed by the Ascot theatre on botany Road in 1912.

An important development in Mascot was the establishment of the Kingsford Smith Airport in 1933. Originally consisting of some gravel runways in a fattening paddock between Alexandria Canal and Ascot Racecourse, the airport expanded several times over the twentieth century.



These subsequent developments eventually resulted in the reclamation of land in Mascot and the re-alignment of the Cooks River providing for a more convenient airport runway and terminal.

In the nineteenth century, residential development grew steadily in Mascot's east. However, by the twentieth century this process had accelerated as the original market gardens were subdivided. By the mid twentieth century, a growing population and the introduction of the motor car saw residential suburbs gradually replaced by industrial precincts, specifically multi-storey office blocks.

Today, Mascot suburb is dominated by the airport and an industrial precinct which houses many businesses related to the Port Botany and airport freight industry. Residential occupation in Mascot has grown in recent years with the increase of high-density apartments in and around the airport.

### 4.3 Mascot Park

The land in what is now Mascot Park was first a part of a 65-acre parcel of land purchased by John Roby Hatfield in c.1839. An 1857 Reuss and Browne plan shows the site of the parcel was later owned by 'Nichols', and in 1868 a survey by Ferdinand Reuss jnr. shows a substantial farm called 'Marsfield' was established on the western side of the Botany Road between Coward Street and Macintosh Street, owned by Robert Macintosh. The farm house was located on the south-eastern corner of the subject site and by 1882, the eastern part of the grounds was shown as sublet to *Qun War* for market gardening.

A Water Board Detail Sheet drawn in 1892 with revisions in 1910 shows part of the Marsfield estate had been subdivided and some land was now reserved as 'Mascot Park'. The sheet appears to have had further revisions later than 1910 for the dedications of Mascot Park, though that did not occur until 1911. The sheet also shows the alignment of Forester Street which had not been formed in 1910 and the outline Interwar Cottages. Also shown on the plan are a collection of farm buildings grouped around the Marsfield farmhouse, some of which were located within the boundary of today's Mascot Park (in the south-eastern corner).

The Mascot Oval was proclaimed by Government gazette in March of 1911. A little over 3.2 hectares (8 acres) of Marsfield estate was acquired by Mascot Council. In 1912 Mascot Council advised that the oval was not to be handed to any one existing club and that each player was to be charged for use of the Park. During this time Mascot Park was used for a wide range of activities including but not limited to, Soccer (Sydney Sportsman 1918, Botany Bicycle Club, p.8), Athletics (Referee 1917, Sports at Mascot Park, p.10), Quoits (Evening News 1913 Quoits, p.6) as well as more common team sports. However, action towards formalising the Park with boundaries and club amenities was slow. In 1943 only one of the farm buildings, a brick cottage, had survived. The farmhouse had been demolished by this time, its site being indicated by a pile of rubble in the aerial photograph.



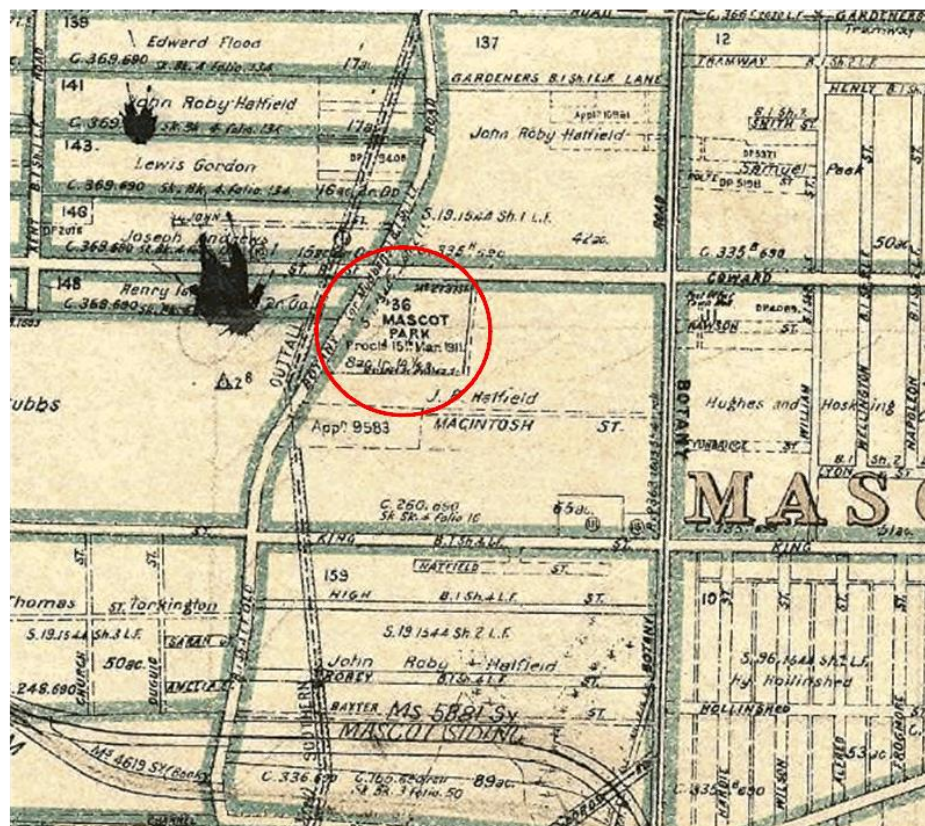


Figure 5. parish of Botany map dated to 1905, showing the showing the proclamation of Mascot Park in 1911. Update of map likely occurred after creation in 1905 (Source: Historic land Viewer, Parish of Botany, 1905).

By 1943, there were no substantive facilities at Mascot Oval. An article was published by the Sunday Herald in 1947 stating that the recently opened Mascot Oval, formally known as Mascot Park, was fully enclosed and had a capacity for 20,000 spectators. The oval was opened on 17 April 1949 and would become the home of the South Sydney District Junior Rugby Football League. Mascot Oval became the site for many team sports, including Australian Rules Football (The Bitz, 1950, Australian Rules Football, p.4), Cricket (St George Call, 1949, Grade Cricket-cont. p.6) Rugby League (The Daily Telegraph, 1950, All Blacks to Play Rovers, p.25).

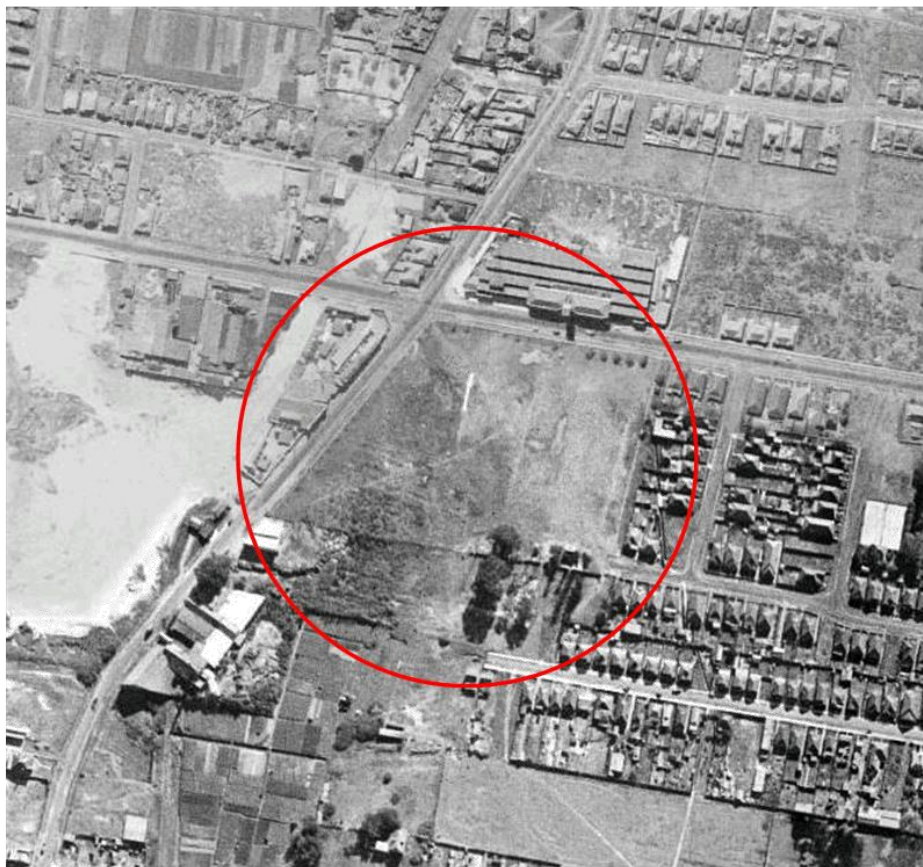


Figure 6. 1943 Aerial of Sydney showing the condition of the Park prior to its upgrade in 1949 (Source: LPI Viewer).

The Park underwent a significant upgrade in 2013 and was renamed in honour of former Deputy Prime Minister, Lionel Bowen. Bowen was a long-time resident of Kensington for many years. The Oval itself retains the name of Mascot Oval, with the south west section of the Park taking over the title of Lionel Bowen Park.





## 5. Physical Description

EXTENT Heritage Pty Ltd carried out a physical assessment of 146-154 O' Riordan Street and Mascot Park on 29 January 2019. The analysis involved an investigation into the built form and landscape setting. It does not provide a detailed investigation of all fabric but an overview of the elements of the place to assist in determining significance.

### 5.1 146-154 O' Riordan Street

At present, the subject site consists of four, multi-storeyed commercial warehouse buildings with a deep setback and a car park fronting O' Riordan Street. The warehouses are contemporary buildings constructed of brick and concrete, with aluminium panelling and corrugated iron roofs hidden behind square parapets.

The land immediately north of the subject site features a grassed area which adjoins Mascot Oval and the Mascot Oval Car Park. The area is generally well vegetated with a number of established trees along O' Riordan Street.



Figure 7. View south to subject site from O' Riordan Street (Source: Extent Heritage, 2019).



Figure 8. View east from O' Riordan Street to grassed area fronting subject site (Source: Extent Heritage, 2019).



Figure 9. View south to the Mascot Oval carpark at the rear of the subject site (Source: Extent Heritage, 2019).



Figure 10. View north from O' Riordan Street to subject site (Source: Extent Heritage, 2019).



Figure 11. View northeast from O' Riordan Street to subject site (Source: Extent Heritage, 2019).



Figure 12. View east from O' Riordan Street to subject site (Source: Extent Heritage, 2019).



Figure 13. View north along the pedestrian path along O' Riordan Street to subject site (Source: Extent Heritage, 2019).





## 5.2 Mascot Park & Lionel Bowen Park

Mascot Park and Lionel Bowen Park are two separate parks contained within the one open green space bound by O' Riordan and Coward Streets.

Mascot Oval is a traditional local sporting oval fenced with an off-white picket boundary barrier. The eastern embankment features a large sandstone block retaining wall that frames the entrance between Lionel Bowen Park and grassy shrubs along the eastern edge of the embankments. The western side of the oval has small grandstands and sporting amenities including a canteen, change rooms, and toilet blocks. The wider perimeter of Mascot Oval is enclosed by a dark green, steel palisade fence and tall, mature trees. This is particularly dense along O'Riordan and Coward Streets and seamlessly blends into the vegetation of Lionel Bowen Park.

Lionel Bowen Park is a moderately-sized local park which has recently been upgraded to include public art, playground equipment, park seating and new footpaths. The Park is enclosed with mature plantings along the perimeter. While the north of the Park features open space and areas for leisure activities, the south, which fronts the residential area, is dominated by playground equipment and barbecue structures.



Figure 14. View south from Coward Street intersection to Mascot Oval. (Source: Extent Heritage, 2019).



Figure 15. View north from carpark entrance to Mascot Oval. (Source: Extent Heritage, 2019).



Figure 16. View northeast from carpark entrance to Mascot Oval (Source: Extent Heritage, 2019).



Figure 17. View west to Mascot Oval from Lionel Bowen Park (Source: Extent Heritage, 2019).



Figure 18. View west to sports building framing the north of the oval (Source: Extent Heritage, 2019).



Figure 19. View west to sports building framing the north of the oval (Source: Extent Heritage, 2019).



Figure 20. View southeast along Mascot Ovals picket fence and embankment (Source: Extent Heritage, 2019).



Figure 21. View southeast along Mascot Ovals picket fence and embankment (Source: Extent Heritage, 2019).



Figure 22. View to west to the eastern entrance from Lionel Bowen Park, featuring sandstone retaining wall and grassed embankment (Source: Extent Heritage, 2019).



Figure 23. View northeast to Lionel Bowen Park (Source: Extent Heritage, 2019).



Figure 24. View east to Lionel Bowen Park (Source: Extent Heritage, 2019).



Figure 25. View south to Lionel Bowen Park (Source: Extent Heritage, 2019).



Figure 26. View north to Lionel Bowen Park (Source: Extent Heritage, 2019).





Figure 27. View south to the play equipment within Lionel Bowen Park (Source: Extent Heritage, 2019).



Figure 28. View east to play equipment located in the Lionel Bowen Park (Source: Extent Heritage, 2019).



Figure 29. View north to the entrance of Lionel Bowen Park from Forster Street (Source: Extent Heritage, 2019).



Figure 30. View to Mascot Oval from entrance of Lionel Bowen Park at Forster Street (Source: Extent Heritage, 2019).



## 6. Settings and Views

### 6.1 Setting

The suburb of Mascot is undergoing urban transformation from a mixed industrial and commercial precinct to an area of high-density housing. O'Riordan Street is one of the main arterial routes to the airport from the city. The locality surrounding the immediate area typifies the urban setting of Mascot which is characterised by large, multi-storey commercial premises interspersed by medium density residential dwellings to the north, south and west of the subject site. The residential dwellings to the east of the subject site are a mix of single and double storeyed houses.

Located on the eastern side of O'Riordan Street, Mascot Park is set within the boundary between a large grained, multi-storey urbanised environment to the west and the finer grained residential streets of Foster Street and Oliver Street. The park and oval are framed along the perimeter with large, mature plantings that screen the urban space at a human-scale.



Figure 31: View north along O'Riordan Street (Source: Extent Heritage, 2019).



Figure 32: View north from southwest corner of Mascot Oval (Source: Extent Heritage, 2019).



Figure 33: View to multi-storeyed commercial building along O' Riordan Street adjacent to subject site (Source: Extent Heritage, 2019).



Figure 34: View of multi-storeyed residential apartments along Coward Street (Source: Extent Heritage, 2019).



Figure 35: View of residential area along Forster Street (Source: Extent Heritage, 2019).



Figure 36: Residential character of dwellings along Forster Street (Source: Extent Heritage, 2019).

## 6.2 Views

Views to the subject site are most prominent from the Bourke Street and O' Riordan Street intersection. Owing to the vegetation along Coward Street and O' Riordan Street, the subject site is not visually prominent within the urban landscape.

At present, the subject site does not impede on the visual curtilage of the Mascot Oval.



Figure 37: View from O' Riordan Street to the subject site (Source: LJB Planning Proposal, 2018, p. 6).



Figure 38: View from O' Riordan Street to the subject site (Source: LJB Planning Proposal, 2018, p. 6).





Figure 39: View to Bourke Street intersection (Source: Extent Heritage, 2019).



Figure 40: View from western edge of Mascot Oval to subject site, marked with red arrow (Source: Extent Heritage, 2019).



Figure 41: View from western edge of Mascot Oval to subject site, marked with red arrow (Source: Extent Heritage, 2019).





## 7. Proposed Works

### 7.1 Outline

The Planning Proposal developed by LJB Urban Planning for 146-154 O'Riordan Street, Mascot seeks to increase the current permissible zoning height from 22-metre to 44-metre under the *Botany Bay Local Environmental Plan 2013*, for the subject site.

The current planning proposal seeks to increase the building height of approximately half the site to 44-metre, while retaining the 22-metre height control to the rear of the site.

**EXTENT**  
HERITAGE ADVISORS  
TO AUSTRALIA AND  
THE ASIA PACIFIC



Figure 42. The image on the left represents the current zoning for permissible height and the image on the right represents the proposed zone change under the planning proposal. Subject site circled in red (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.12).

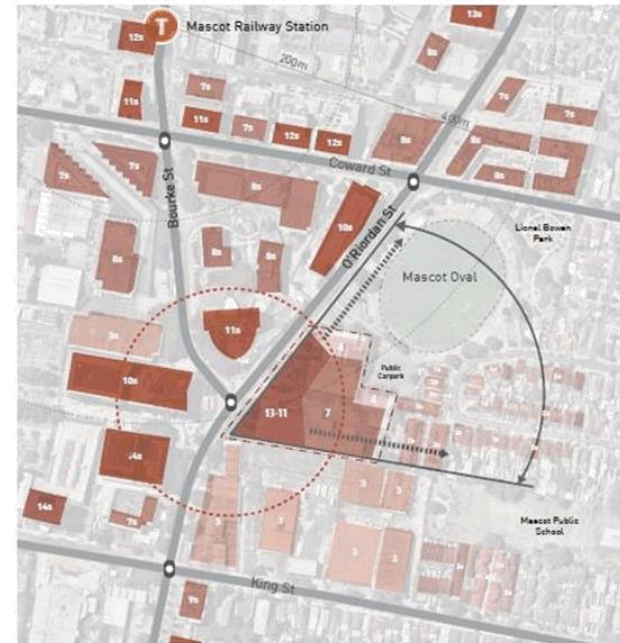


Figure 43. The image on the left shows the current height of buildings in the vicinity of the subject site and the image on the right shows the height of buildings in the vicinity in relation to the proposed planning proposal height (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.14).



Figure 44. The image on the left depicts building heights as per the permissible development while the image on the right depicts the proposed height of buildings under the planning proposal (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.21).



**EXTENT**  
HERITAGE ADVISORS  
TO AUSTRALIA AND  
THE ASIA PACIFIC

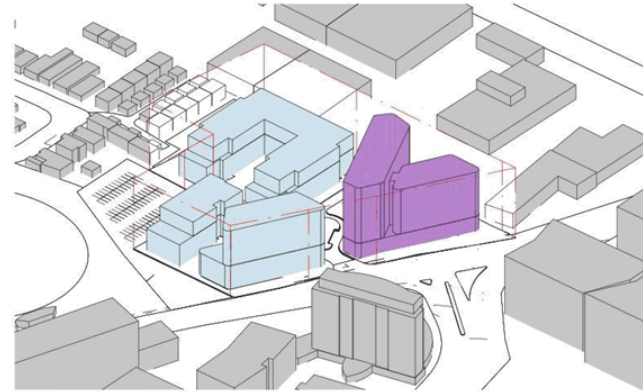
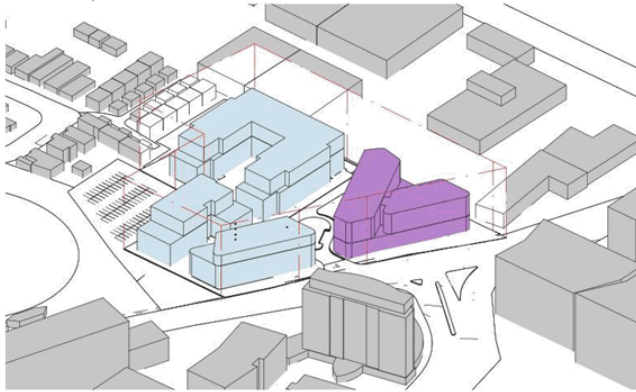


Figure 45. The diagram on the left shows the Floor Space use as per the permissible development, while the image on the right shows the proposed Floor Space use under the planning proposal (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.23).

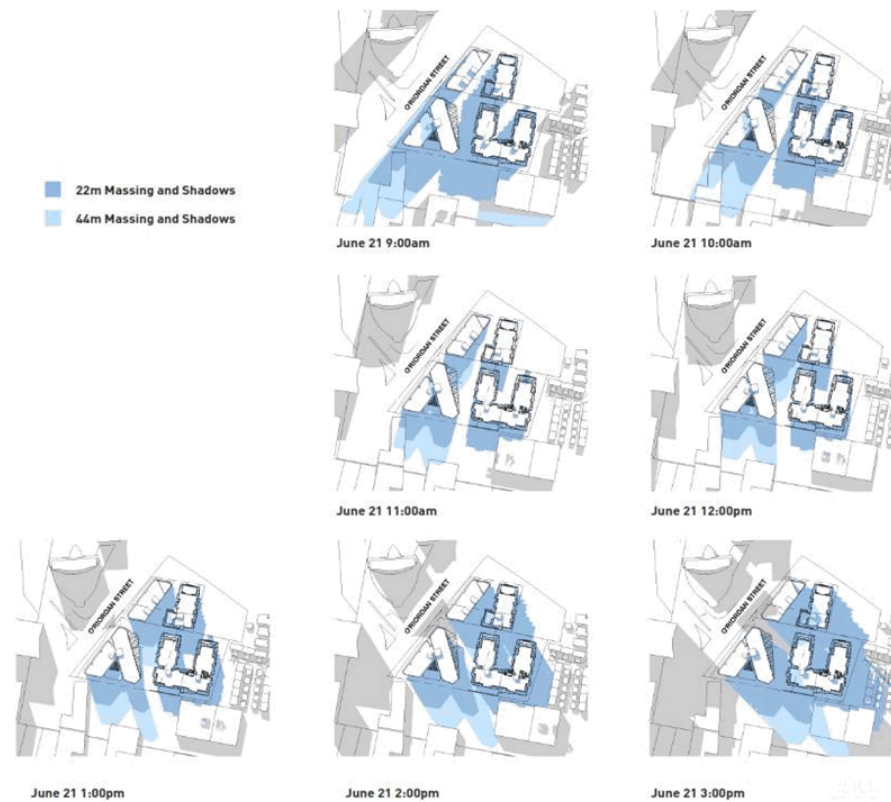


Figure 46. Shadow Diagram showing relative massing and shadowing of permissible development compared to the planning proposal. Mascot Park is located to the top-right of each image (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.28).





Figure 47. 3D render depicting the relative difference in height between the 7-storey (permissible development) and 13-storey buildings (Planning Proposal) (Source: PTW Architects 146-154 O'Riordan Street, Mascot, Urban Design Report, p.27).



## 7.2 Rationale

The planning proposal intends to increase the permissible height allowed at the subject site to improve future redevelopment and create a better built environment. It intends to do this by maximizing the current available FSR (Floor Space Ratio) of 3:1 which is currently not able to be utilised under the existing height controls. In general, it is expected that the built environment under the planning proposal will create a more consistent scale along O'Riordan Street, in keeping with the emerging built nature of the locality.

An Urban Design Report has been prepared by PTW Architects to achieve a more consistent height at the Bourke Street and O'Riordan Street intersection, while allowing for a respectful transition down to the medium density residential precinct situated to the east. In particular, it demonstrates improvements to the built environment, facilitated through the following opportunities:

- Activation of Mascot Park through improving the outward orientation of views and better visually linking the development toward the oval (see Figure 48).
- Enhanced surveillance of Mascot Park by providing more views towards the Park from the western-most buildings on the subject site (see Figure 49).
- Reduced traffic noise as an increase to the height of the traffic wall will dampen traffic noise to the eastern residential area (see Figure 50).

The increase in height will have no impact on permitted uses across the subject site, as the current zoning, B5 Business Development, will remain unchanged. The additional height underscored by the planning proposal will be stepped to minimise bulk and scale, particularly towards lower residential housing.



Figure 48. Diagram showing the relative park activation attained by different building heights, with the permissible development to the left and Planning Proposal on the right (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.16).

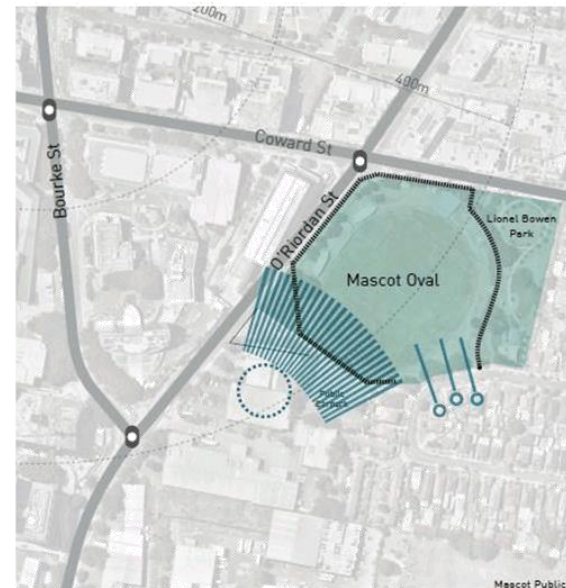
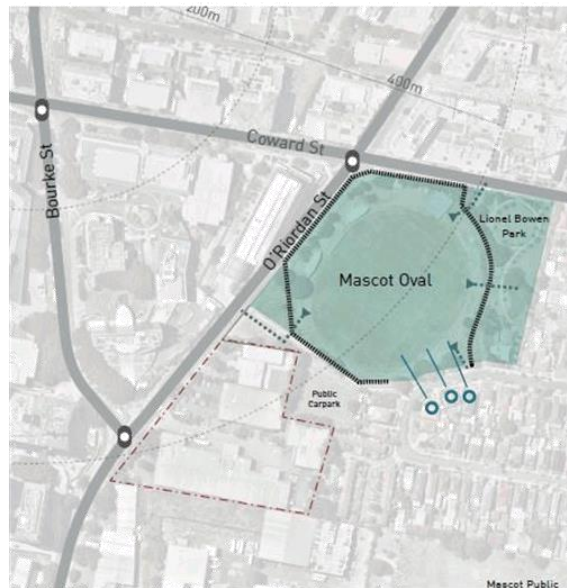


Figure 49. Diagram showing the increased level of surveillance provided by different building heights, with the permissible development to the left and Planning Proposal on the right (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.17).



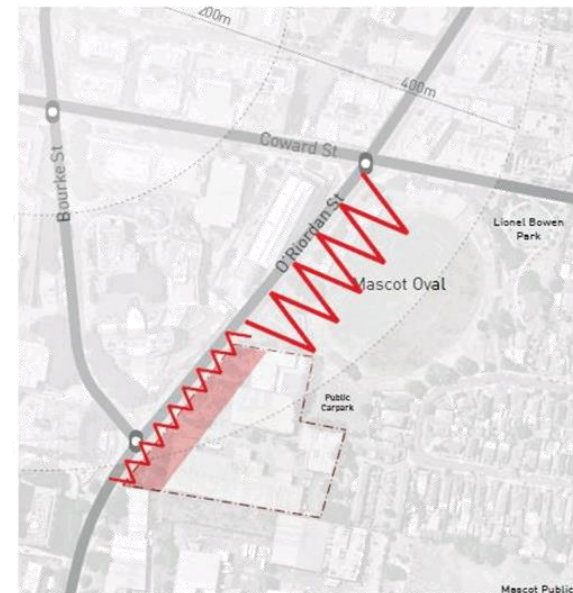
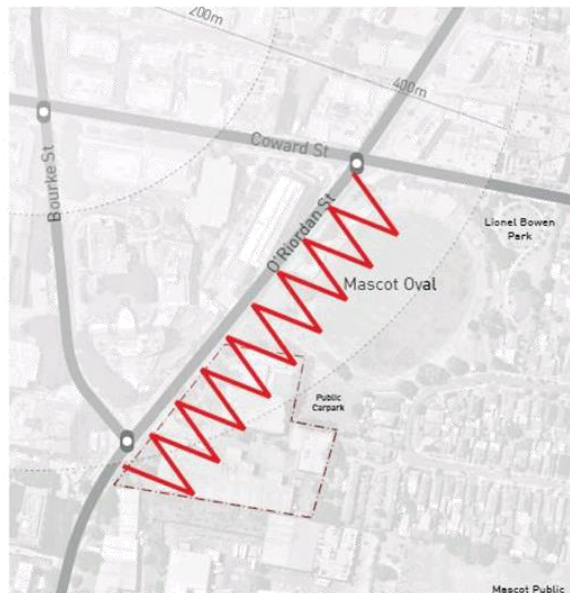


Figure 50. Diagram demonstrating the reduced noise level provided by the increased building height, with the permissible development to the left and Planning Proposal on the right (Source: PTW Architects, 146-154 O'Riordan Street, Mascot, Urban Design Report, p.18).



## 8. Assessment of Heritage Impact

### 8.1 Built Heritage

There is no built heritage within the subject site, consequently the proposal will have no impact in this regard.

### 8.2 Landscape Heritage

#### 146-154 O'Riordan Street

There is no landscape heritage within the subject site, consequently the proposal will have no impact in this regard.

#### Mascot Park

Overshadowing of built heritage items and landscape features can promote the growth of vegetation and algae that are detrimental to fabric and the maintenance of the landscape. The Shadow Study (Figure 46) provided by PTW Architects in the Urban Design Report identifies the extent of shadow movement in winter months (July). In this study, shadow movement is on a west to south orientation. Based on the current available analysis, overshadowing will not impact the condition of significant fabric in Mascot Park.

### 8.3 Setting and Views

#### Setting

Mascot Park is an important open space that acts as a buffer in the transition between the large grained multi-story buildings west of O'Riordan Street and the finer grained residential housing of Forester Street and Oliver Street. Mascot Park provides a place of open space along the rapidly urbanising O'Riordan Street, and retains cultural landscape elements associated with local sports developed in the early 20<sup>th</sup> century. These elements include the white picket perimeter fencing and grassed embankments.

The proposed change of the permissible height from 22 metre to 44 metres only applies to the western area of the subject site, where the surrounding building heights would match the proposed uplift. Other areas of the subject site have lowered height limits that step toward Mascot Park, creating a better sense of proportion, that acts to mitigate the impact of the proposed heights.

The proposed increase in height to 22 and 44 metres will be in keeping with the height of existing recent developments at 163-175 O'Riordan Street, 19 Bourke Road and, 201 O'Riordan Street. Furthermore, the block indicated to be 44 metres has its narrow face aligned to O'Riordan Street, facing the greater mass of the building toward the centre of the site, reducing the overall impact toward Mascot Park.





The planning proposal is also concordant with the established mixed-use commercial character of O'Riordan Street, as identified in the Botany Bay Development Control Plan (DCP). As is demonstrated in Part 6 of the SOHI, the streetscape character along O'Riordan Street mostly consists of large-grained and large-scaled (ten to eleven storeys), mixed-use buildings. The hotel and apartment in this planning proposal currently matches the grain, scale, and use of these other buildings, adjacent Mascot Park (see Figure 32 and Figure 40).

### Views

Views from within Mascot Park of the proposed development will be impacted by the proposed increase in height (see Figure 47). However, this will be mitigated by the transition in height and set back from Mascot Park, and will therefore have a reduced impact.

### Conclusion

Overall, the impact to the setting of Mascot Park, if the planning proposal is accepted, would be minor. Though the increase in height would combine with existing large-scale buildings to enclose the space around Mascot Park, this is addressed by a stepped height limit, that directs sympathetic design.

## 8.4 Heritage Items in the Vicinity

In addition to being adjacent the Mascot Park, the proposed development is in the vicinity of the western portion of the local heritage item *Mascot Public School building group*. However, the sections of the item which are in the vicinity consist of playing fields and are not the subject of the listing, *building group*. Consequently, the proposed height changes will not impact the views and setting of the item.



## 9. Statutory Controls

### 9.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979*, Part 4 requires a determining authority to consider the environmental impact of all development applying to land included within an environmental planning instrument. Heritage is included as one of the matters for consideration when considering a Development Application.

As the subject site is included in the Botany Bay LEP 2013, the proposed works will require a Development Application prepared for approval under Part 4 of the *Environmental Planning and Assessment Act 1979*.

In determining the current application, the consent authority is required to consider those relevant matters listed in Section 4.15 (1) of the *Environmental Planning and Assessment Act, 1979*;

- a) the provisions of:
  - i. any environmental planning instrument; and
  - ii. any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority;
  - iii. any development control plan; and
  - iv. any matters prescribed by the regulations, that apply to the land to which the development application relates.

#### **i. Section 4.15(1)(a)(i) the provision of any environmental planning instrument**

Consideration of the relevant planning instruments has been undertaken within Part 9.2 and 9.3 of this report. These include the Botany Bay LEP 2013 and the Botany Bay DCP 2017.

#### **ii. Section 4.15(1)(a)(ii) the provision of any draft environmental planning instrument**

There are no drafts to be considered as part of this assessment.

#### **iii. Section 4.15(1)(a)(iii) any development control plan**

The relevant DCP is the Botany Bay DCP 2013, which is considered in Part 9.3.

**Section 4.15(1)(b) likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.**

- ♦ Public Domain  
The proposed development is in keeping with the existing character of the area Street with multi-storeyed hotels existing at the Holiday Inn on the corner of O'Riordan Street and Bourke Road and the Adina Apartment Hotel at 17 Bourke Road.
- ♦ Heritage



The subject site is not a heritage item, but it is located adjacent the heritage item Mascot Park. This Statement of Heritage Impact will be submitted as part of this application.

♦ Cumulative Impacts

The cumulative impact of the proposed works is expected to be minimal, as it will allow greater utilisation of the subject site by increasing the residential component of the site while continuing its commercial/retail usage along the street front.

**Section 4.15(1)(d) any submissions made in accordance with this Act or the Regulations**

**Section 4.15(1)(e) the public interest**

Following is an assessment of the matters of relevance referred to in Section 4.15(1) of the Act.

## 9.2 Botany Bay Local Environmental Plan 2013

Provisions and Planning Controls	Extent Heritage Comment	Complies (y/n)
<b>Part 2 Permitted or prohibited development</b>		
<b>5.10 Heritage Conservation</b>		
The consent authority may, before granting consent to any development: (a) on land on which a heritage item is located, or (b) on land that is within a heritage conservation area, or (c) on land that is within the vicinity of land referred to in paragraph (a) or (b), require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.	The subject site is located adjacent the Mascot Park heritage item. A Statement of Heritage Impact prepared by Extent Heritage will be submitted as part of this planning proposal to Mascot Council, as this planning proposal will pre-empt works for an eventual development.	<b>Y</b>

## 9.3 Botany Bay Development Control Plan 2013

Provisions and Planning Controls	Extent Heritage Comment	Complies (y/n)
<b>PART 3B – HERITAGE</b>		
<b>3B.7 Development in the Vicinity of Heritage Items or Heritage Conservation Areas</b>		
<b>General</b>		
C1. New development in the vicinity, (nearby, adjoining or adjacent) of a Heritage Item or a Heritage Conservation Area must be designed	The planning proposal at 146-154 O'Riordan Street will facilitate the development of a large grained,	<b>Y</b>



Provisions and Planning Controls	Extent Heritage Comment	Complies (y/n)
to maintain the setting and the character of the street in which it is located.  Note: A preferred approach is to design new buildings in a contemporary manner, which is sympathetic to the surrounding area, and to the Heritage Item or Heritage Conservation Area to which it is nearby, adjoining or adjacent to	multi-storey building complex that matches the current mass, size, and rhythm of existing developments located on the west and south of O'Riordan Street.	
C2. New development should be consistent in scale with the Heritage Item or Heritage Conservation Area.  Note: To prevent changes in the scale of development, the building height of the Heritage Item or Heritage Conservation Area should be used as a benchmark for the maximum achievable building height of the proposed new development.	The planning proposal at 146-154 Riordan Street cannot be consistent with Mascot Park, as the nature of the heritage item is fundamentally different from the current zoning and usage of the land. However, the planning proposal does intend to retain the current land use and current FSR (3:1), of the current permissible controls at 146-154 Riordan Street, making it proposed development largely consistent with the existing scale of the current buildings at 146-154 Riordan Street.	<b>N</b>
C4. The design and siting of new work must compliment the form, orientation, scale and style of a Heritage Item or Conservation Area in the vicinity of the site.	The planning proposal facilitates a building with stepped building heights towards Mascot Park. Additionally, to maintain an FSR of 3:1, the study will have roads and towers separating the development allowing for visual permeability in the subject site. These design features mitigate the impact of the height increase allowed for under any future building facilitated by the planning proposal, and complement the existing form of Mascot Park as a delineated green space buffering multi-storey and large grained development.	<b>Y</b>
C5. Adequate space must be provided around the Heritage Item or Heritage Conservation Area in order to maintain significant or historic public domain views to and from the Heritage Item or Heritage Conservation Area.	There are no historic or significant domain area views to and from Mascot Park.	<b>Y</b>
C6. Original or significant landscape features that are associated with the Heritage Item or Heritage Conservation Area and which contribute to the setting must be retained.	The white picket fencing and grassed embankments around mascot Park will not be impacted by these works.	<b>Y</b>
<b>Height</b>		
C.10 Notwithstanding the maximum height limit under Botany Bay LEP 2013, new or infill development shall not exceed the height of an adjoining, adjacent or nearby Heritage Item.	The new planning proposal will facilitate construction that exceeds the height of the adjacent Mascot Park. However, the current buildings	<b>N</b>



Provisions and Planning Controls	Extent Heritage Comment	Complies (y/n)
	onsite already exceed the height of Mascot Park and, in addition, other buildings on O'Riordan Street and in the vicinity of Mascot park already match the proposed height change in the planning proposal.	
C13. Any new development or additions, which have a negative impact on the character of the streetscape or a Heritage Item, will not be permitted.	The increase of height under the planning proposal will not provide for a development which will have a negative impact on the streetscape character, though it will have a minor impact to the setting of Mascot Park.	Y



## 10. Conclusion and recommendations

### 10.1 Conclusion

The planning proposal application to raise the permissible height of future buildings at 146-154 O'Riordan Street will have a minor impact to the views, but not the setting of the adjacent Mascot Park.

The proposed change of the permissible height from 22 metre to 44 metres only applies to the western area of the subject site, where the surrounding building heights would match the proposed uplift. Other areas of the subject site have lowered height limits that step toward Mascot Park, creating a better sense of proportion. Additionally, the orientation of the narrow face of the building toward Oroidin Street aligns the greater building mass and scale toward the centre of the subject site. Collectively, these mitigations address the sense of enclosure otherwise created by the proposed height increase.

Though development in the vicinity is not in keeping with some controls in the Botany Bay DPC (see Part 9.3, C.2 and C.10), accepting that those controls may not be anticipating landscape items, overall the impact of the proposed uplift to Mascot Park is minor. This is an acceptable level of impact, particularly with stepped height.

### 10.2 Recommendations

To assist and mitigate the impacts of the planning proposal application it is recommended that:

- The *Design Context: Guidelines for Infill Development in the Historic Environment* prepared by the Royal Australian Institute of Architects NSW Chapter and NSW OEH be referred to for future design detail development.
- Overshadowing in the summer months should be considered to ascertain the full impact of the increase height to the proposed development.



PTW

146 -154 O'Riordan St,  
Mascot

## Urban Design Report

Prepared for Toplace

Revision C  
May 2019

## Peddle Thorp & Walker Pty Ltd

### Locations

#### Sydney

Level 11  
88 Phillip Street  
Sydney NSW 2000  
Australia  
T +61 2 9232 5877  
F +61 2 9221 4139  
  
info-sydney@ptw.com.au  
ptw.com.au

#### Beijing

Unit 1706, Zhong Yu Plaza  
6 Gongti Bei Road  
Chaoyang District  
Beijing 100027  
People's Republic of China  
T +86 10 8571 2635  
F +86 10 8571 2637

#### Ho Chi Minh City

Studio 6.02  
Level 6, An Phu Plaza  
117-119 Ly Chinh Thang  
Ward 7, District 3  
Ho Chi Minh City  
Vietnam 700000  
T +84 8 3931 8779  
F +84 8 3931 8778

#### Shanghai

3F, Building B  
1758 Siping Road  
Yangpu District  
Shanghai 200433  
People's Republic of China  
T +86 21 6180 3952

#### Hanoi

Level 5  
Han-Viet Tower  
203 Minh Khai Street  
Hai Ba Trung District  
Hanoi, Vietnam 100000  
T +84 4 3974 4252  
F +84 4 3974 4255

Peddle Thorp & Walker Pty Ltd  
ABN 23 000 454 624  
trading as PTW Architects

NSW Nominated Architects  
S Parsons Architect No.6098  
D Jones Architect No 4778

CONTENTS

01

THE SITE

1.1

Introduction

1.2

Site Context

1.3

View Analysis

1.4

Site Context

02

THE STRATEGY

2.1

Proposed massing generative diagram

2.2

LEP height map

2.3

Proposed height general principle diagram

2.4

Height transition diagrams

2.5

Site elevation and section-height transition

2.6

Height transition diagrams  
- height transition to heritage oval

2.7

Park activation

03

THE PROPOSAL: DA AS REFERENCE DESIGN BASE

2.8

Enhanced surveillance

2.9

Noise buffer

3.1

Proposed height using DA footprint

3.2

Massing height and FSR comparison

3.3

Proposed traffic and landscape strategy

3.4

Reference design floor plan

3.5

Perspective view comparison

3.6

Shadow studies



# 1.0 THE SITE

## 1.1 INTRODUCTION



The site is located at 146-154 O'Riordan St, Mascot. It is situated to the South of Mascot Oval and at the intersection of Bourke St and O'Riordan St

There is a new 14 storey Pullman Hotel and a new 10 storey commercial block opposite the site, in addition to the Holiday Inn Hotel at 11 storeys. A new Travelodge of 14 storeys sits directly behind the Ibis Hotel.

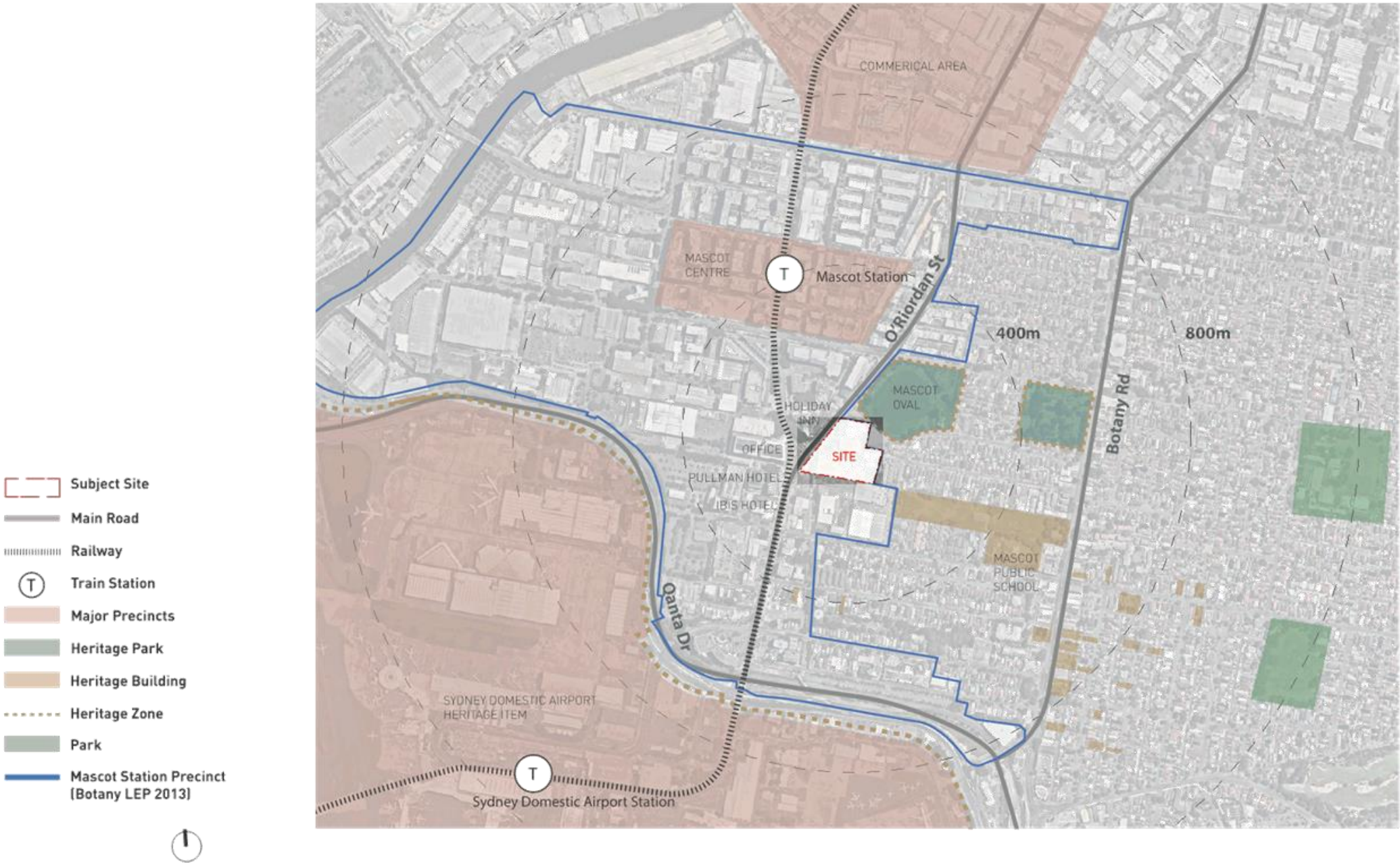
The site has medium density housing immediately to the east.

The site is located 400m from Mascot Station

To the south of the subject site on O'Riordan St, a DA has been approved for a 14 storey building on the corner south of King St.



1.2 SITE CONTEXT





1.3 VIEW ANALYSIS

The site enjoys best distant potential views to city, ocean + botany bay.

By far the best potential foreground view is northeast towards Mascot Oval and over the low residential rooftops to the east which are green with gardens and tree canopies.

Airport takeoffs and landings can be viewed in the foreground to the south, for those more inclined to enjoy the eccentric joys of transport.

8



View to Botany Bay



View to Coogee Beach



View to City





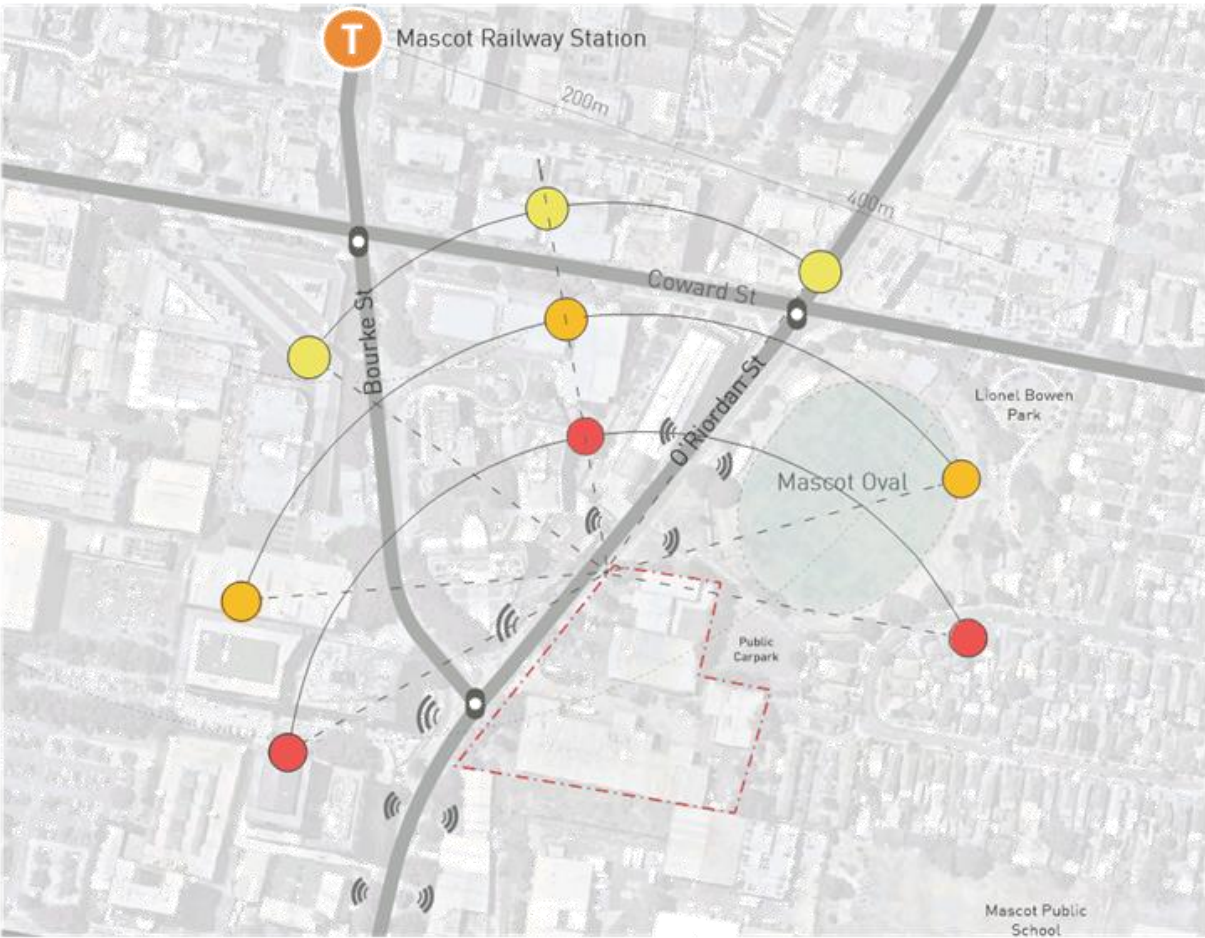
1.4 SITE CONTEXT

Context Urban Fabric



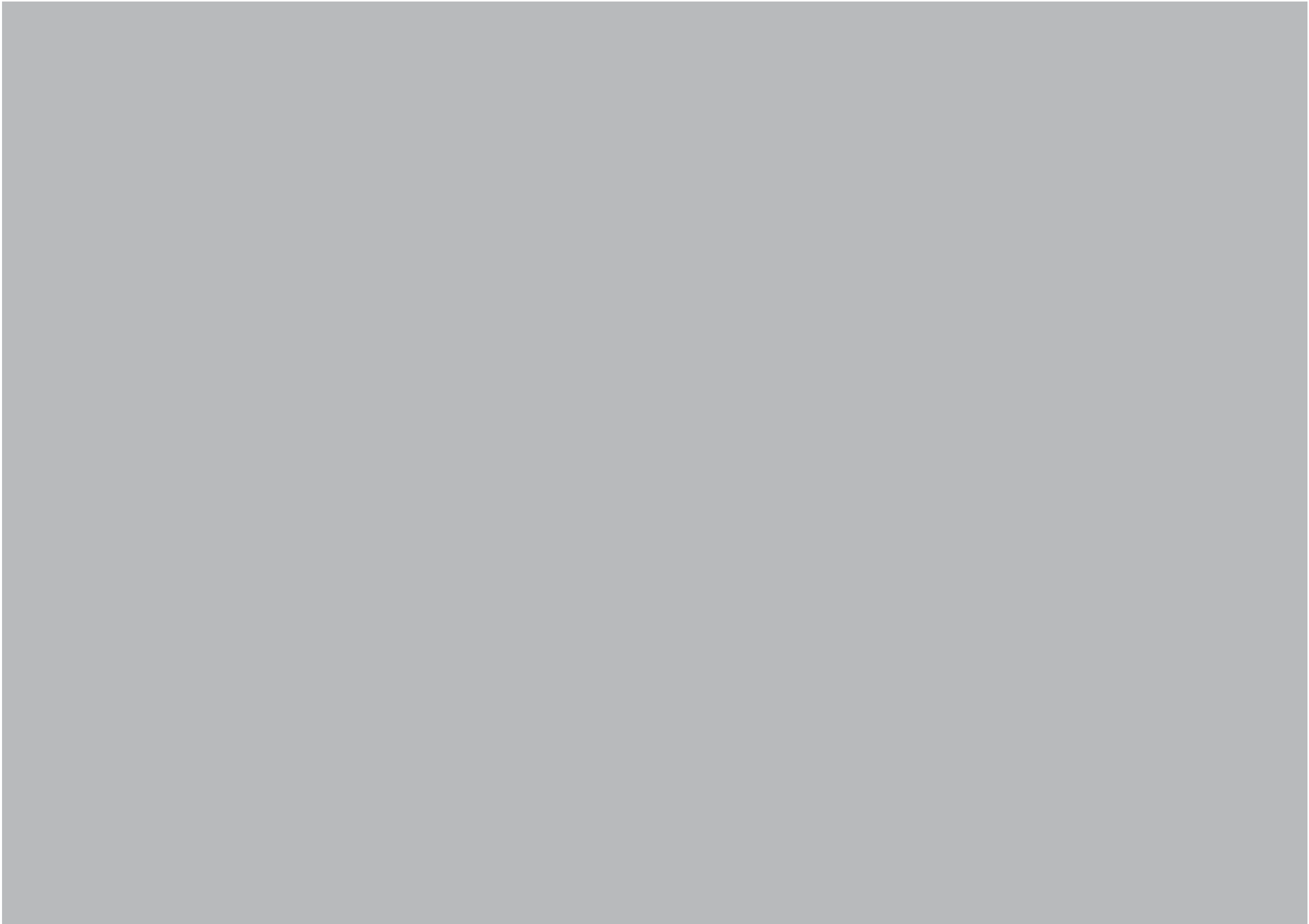
- |                    |                    |                            |
|--------------------|--------------------|----------------------------|
| Hotel              | School & Community | High density residential   |
| Commercial         | Retail             | Medium density residential |
| Industrial         | Church             | Low density residential    |
| Active streetfront |                    |                            |

Environmental Factors



- Summer Solstice   Equinox   Winter Solstice   Noise

9





## 2.0 THE STRATEGY

PTW believe that the site has merit as a significant landmark, which warrants additional height and is intended to meet design excellence through:

Proximity to transport:

The proximity of the site to Mascot Station and direct access to a state road.

Location:

The site being visibly centred on the key intersection of Bourke St and O'Riordan St. Activity and Streetscape: This site currently consists of a group of one, two and three-storey industrial buildings, facing a central hard-paved car park. Their geometries are at odds with the current street alignment. There is little visible activity.

This proposal has the capacity to transform an important street intersection with lively and compatible hotel activities, visible from the street itself. The proposed buildings hold the street alignment, and are located opposite new commercial offices and existing hotels on the western side of the road, thus creating a positive place. Placemaking is at the centre of urban design and this is a clear opportunity to form a true local hub for locals, tourists and office workers. Within the site, generous communal courtyards are created to generate high levels of activation and to encourage social interaction for both workers and visitors.

Character:

This proposal has the capacity to transform the existing very one-sided hotel character on the western edge of O'Riordan St, into a hotel-focussed cohesive place centred on the street intersection. This will encourage a civic quality to the existing public realm. Pedestrian paths of movement through the site can also connect through to the Oval and to the local residential precinct beyond. The sites to our South are zoned for similar uses and for 44m heights along O'Riordan St, so that this PP is entirely compatible in scale to future massing and use.

Compatible Uses and Height:

The presence of a critical mass of signature hotels located at this intersection including a Holiday Inn Hotel, a Pullman Hotel, a Travelodge and an Ibis Hotel which are 11, 14, 14 and 7 storeys respectively.

This site is an exception to the 44m height plane currently adopted along this section of O'Riordan St. The 22m height limit currently extends all the way from O'Riordan St to the east of the site, which is a 180m distance.

This PP aims to achieve a more consistent height at the intersection of Bourke & O'Riordan streets, while allowing for a respectful transition down to the medium density residential precinct behind. Future Proofing:

The massing of the 44m buildings on O'Riordan can be designed for commercial office building use, if this number of hotel rooms are not viable in the future. PTW has the capacity to deliver high quality design throughout the life of the project.

Environmental Features:

Landscaping is intended to create green havens of calm within the site, beyond the hustle and noise of the busy traffic. Rainwater use to be maximised and water use to be minimised through the use of native species of trees, shrubs and grasses.

Endemic grasses, groundcovers and shrubs will mimic the natural biome and ecology, providing habitat for birds and small wildlife and insects. The use of permeable pavements and pathways will increase the effective absorption of water and recharge of the aquifer.

The landscape is to provide a high level of amenity, but equally have an exaggerated natural character with ripples and furrows, with distinctive large areas of native grasses and groundcovers providing a robust visual identity expressing themes of sustainability and urban ecology.

Water sensitive urban design (wsud) principles can be utilised in the detailed landscape design. Depressions in lawns will be well drained to ensure they are suitable as amenity areas, and are able to serve as informal water detention areas after heavy rainfall.

Botany LEP 2013 - Clause 6.16

The maps accompanying Botany Bay LEP 2013 nominates the subject site as a Key Site to which Clause 6.16 of the LEP applies. The provisions of Clause 6.16 are to be taken into consideration by the consent authority when determining a Development Application. Clause 6.16 states:

(1) The objective of this clause is to deliver the highest standard of sustainable architectural and urban design.  
(2) This clause applies to land at Mascot Station Precinct, as shown edged heavy pink, and the BATA site at Eastgardens, as shown edged heavy orange, on the Key Sites Map.  
(3) Development consent must not be granted to development involving the construction of a new building or to external alterations to an existing building on land to which this clause applies unless the consent authority considers that the development exhibits design excellence.  
(4) In considering whether the development exhibits design excellence, the consent authority must have regard to the following matters:

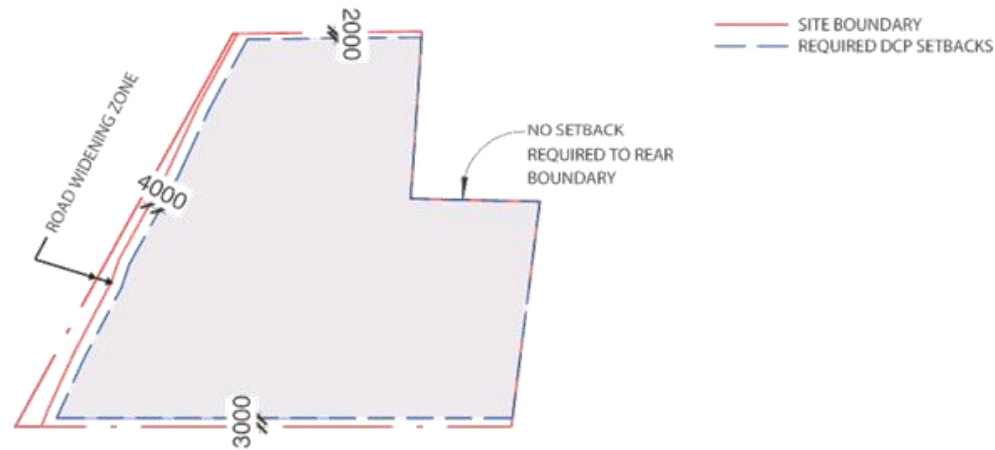
- (a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
- (b) whether the form and external appearance of the development will improve the quality and amenity of the public domain,
- (c) whether the development detrimentally impacts on view corridors,
- (d) the achievement of the principles of ecologically sustainable development.

To ensure compliance with Clause 6.16, any future DA must meet these requirements and in particular shall address the following principles:

- All buildings must exhibit a high standard of architecture and use of quality materials and detailing. Buildings at the northern end of the site will be highly visible when travelling south along O'Riordan, from Mascot Oval and Coward Street. Buildings at the northern end must ensure interesting architectural elements and detailing to ensure a quality visual outcome from these vistas. Buildings at the southern end of O'Riordan Street shall address and consider the intersection with Bourke Street and treat this interface as a terminating view.
- Buildings on the site shall be positioned and designed to address the public domain and provide passive surveillance in particular with Mascot Oval, the public carpark and the O'Riordan Street frontage;
- The location of buildings on the site should consider the opportunity for visual connections within and through the site, in particular towards Mascot Oval.
- Future development should address ecologically sustainable development and in particular shall considered Water Sensitive Urban Design opportunities.

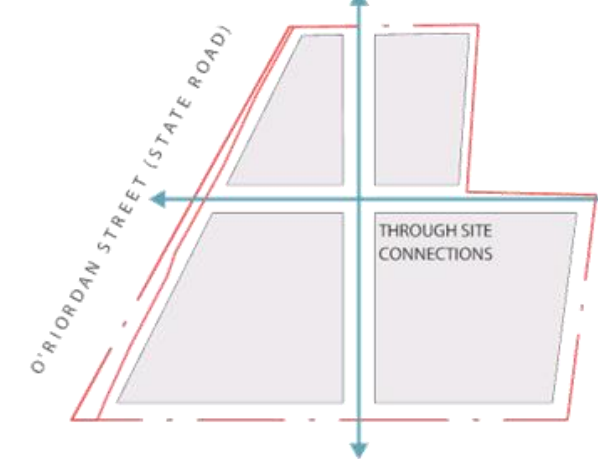
## 2.1 PROPOSED MASSING GENERATIVE DIAGRAM

### SETBACKS



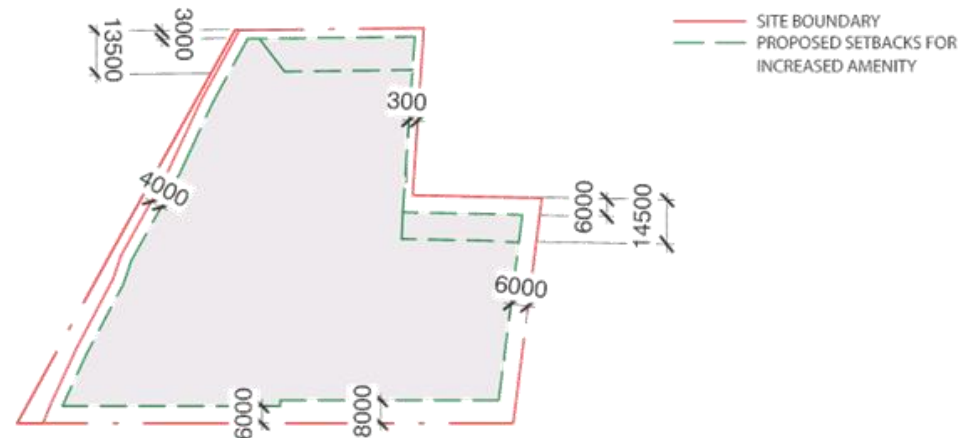
A1. REQUIRED

### CONNECTIONS & ACCESS

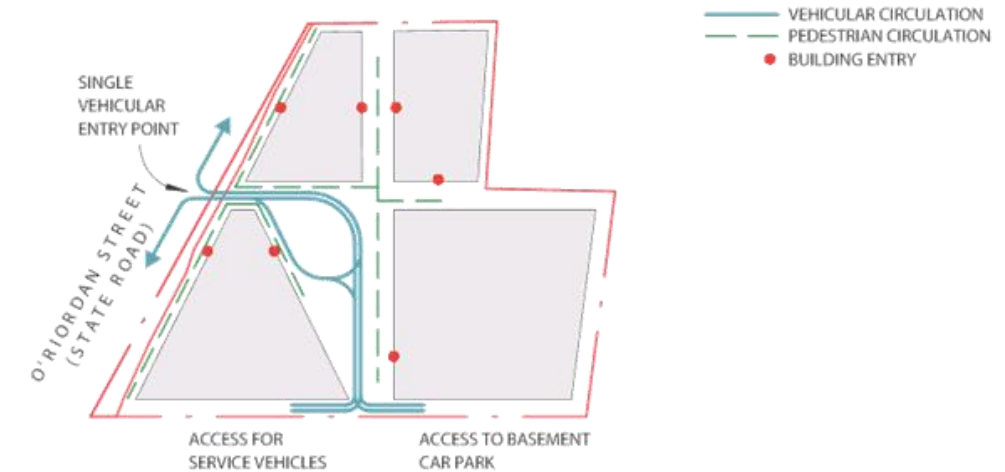


B1. IN PRINCIPLE

12



A2. PROPOSED



B2. PROPOSED

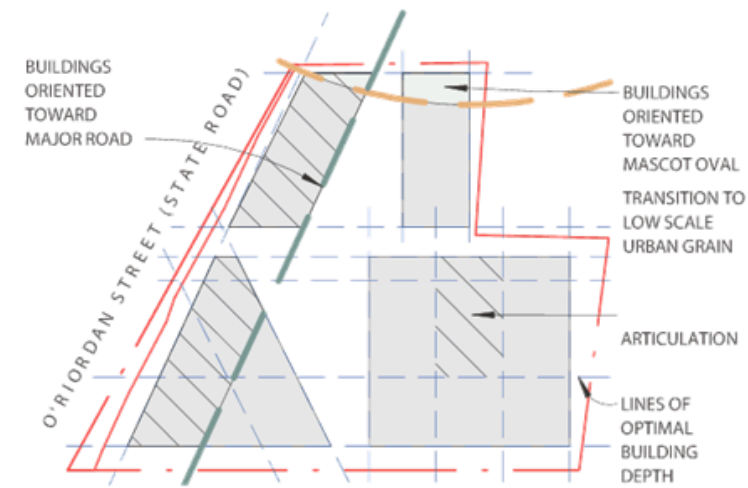
Botany Bay DCP 2013 requires a 4m setback to O'Riordan St, 2m setback to Mascot Oval, 3m setback to the side and no rear setback. Further setbacks are considered to allow a higher degree of amenity to future buildings. This also allows a buffer zone around the site that can be heavily landscaped. Deep soil zones can be considered on the setback zones to the north and east of the site for large planting. This will allow for amenable separation between the site and the Mascot Oval to the north and residential uses to the east.

PTW

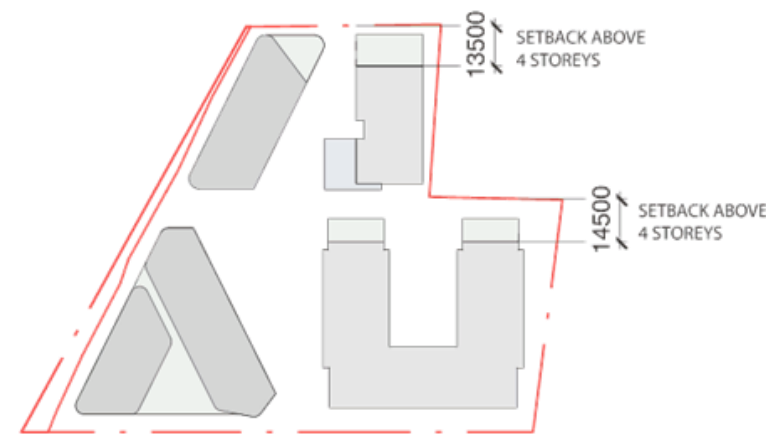


2.1 PROPOSED MASSING GENERATIVE DIAGRAM

FORM

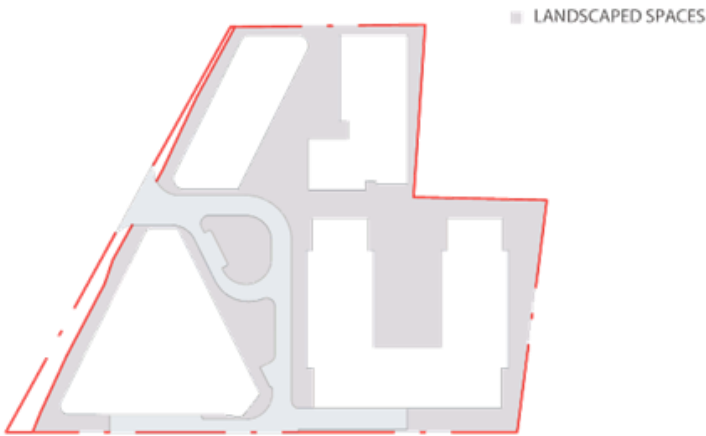


A1. BUILDING BLOCKS IN PRINCIPLE

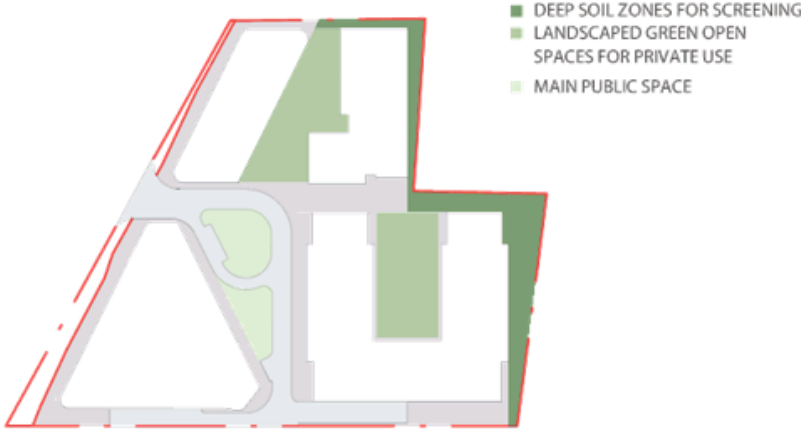


A2. PROPOSED FORMS INCLUDING PODIUM SETBACKS TO HERITAGE OVAL

OPEN SPACE

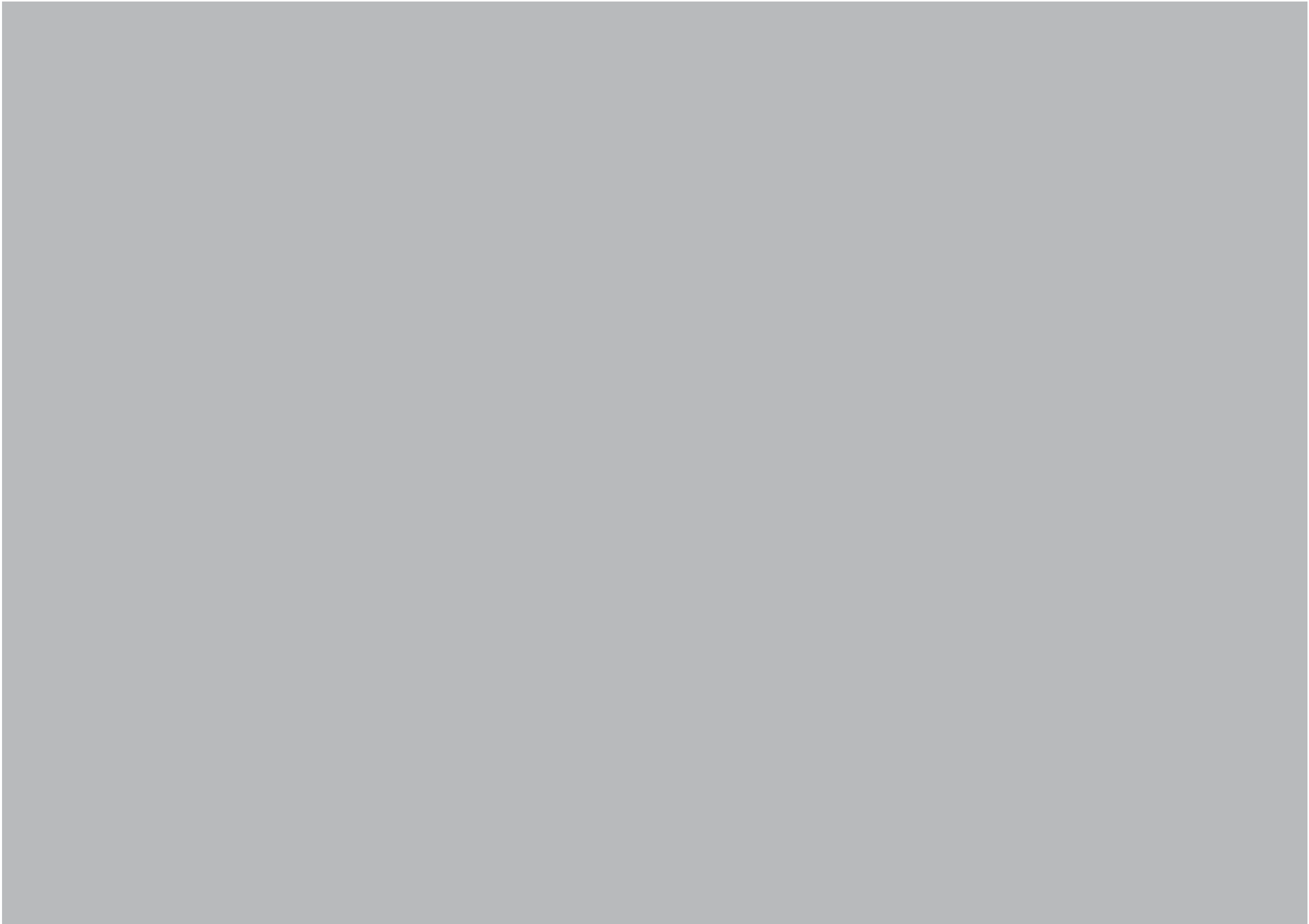


B1. OPEN SPACE DEFINED BY BUILDING IN PRINCIPLE



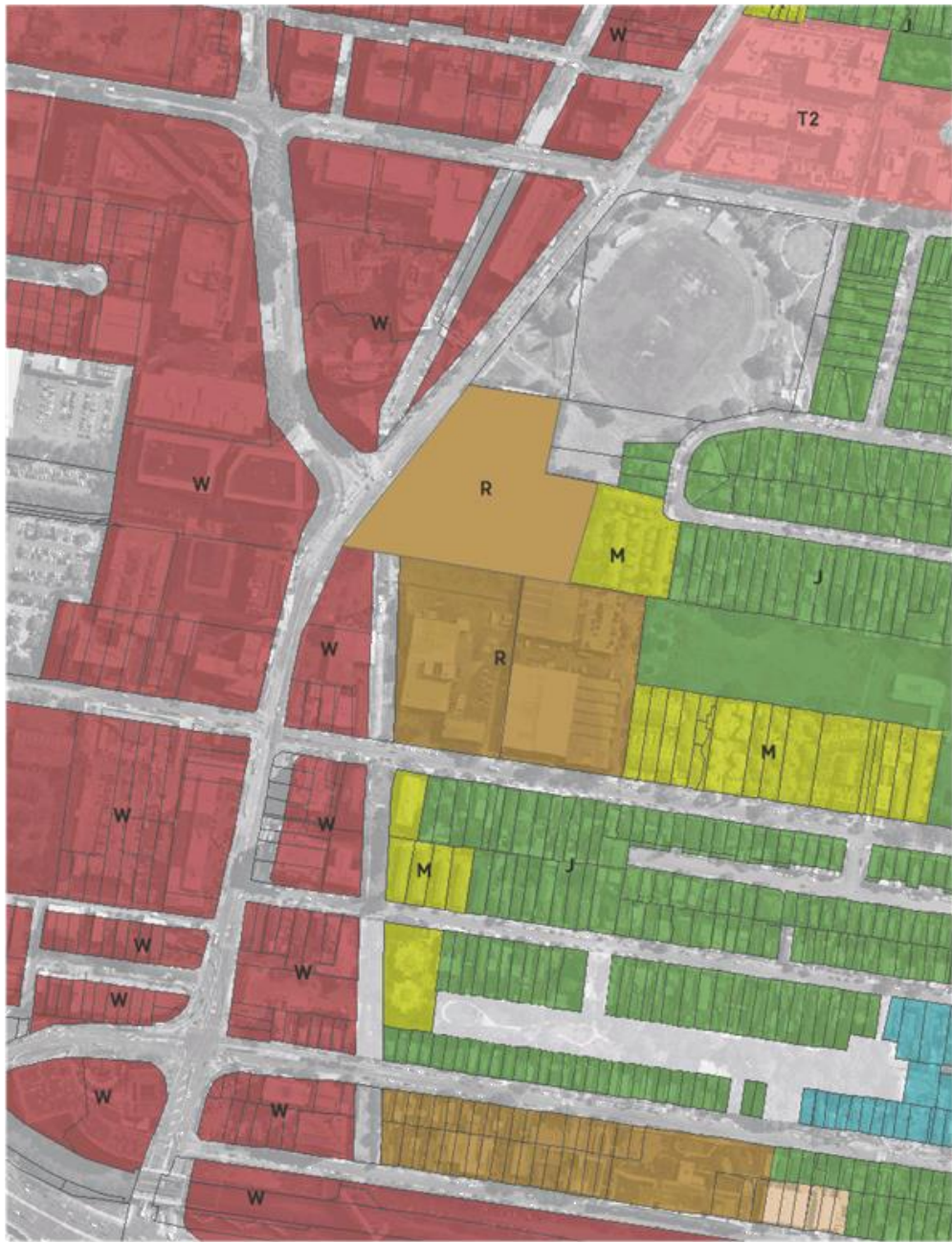
B2. PROPOSED LANDSCAPE STRATEGY

13



2.2 LEP HEIGHT MAP

EXISTING



Botany Bay Local environmental Plan 2013, 10 December 2018  
<https://www.legislation.nsw.gov.au/#/view/EPI/2013/313/maps>

PROPOSED



W	44m	M	12m
T2	26m	J	9m
R	22m		



2.3 PROPOSED HEIGHT GENERAL PRINCIPLE DIAGRAM

- Highest buildings to be located on street intersection
- Height transition from O’Riordan St to the less dense residential precinct to the east to be retained.

16



PLAN



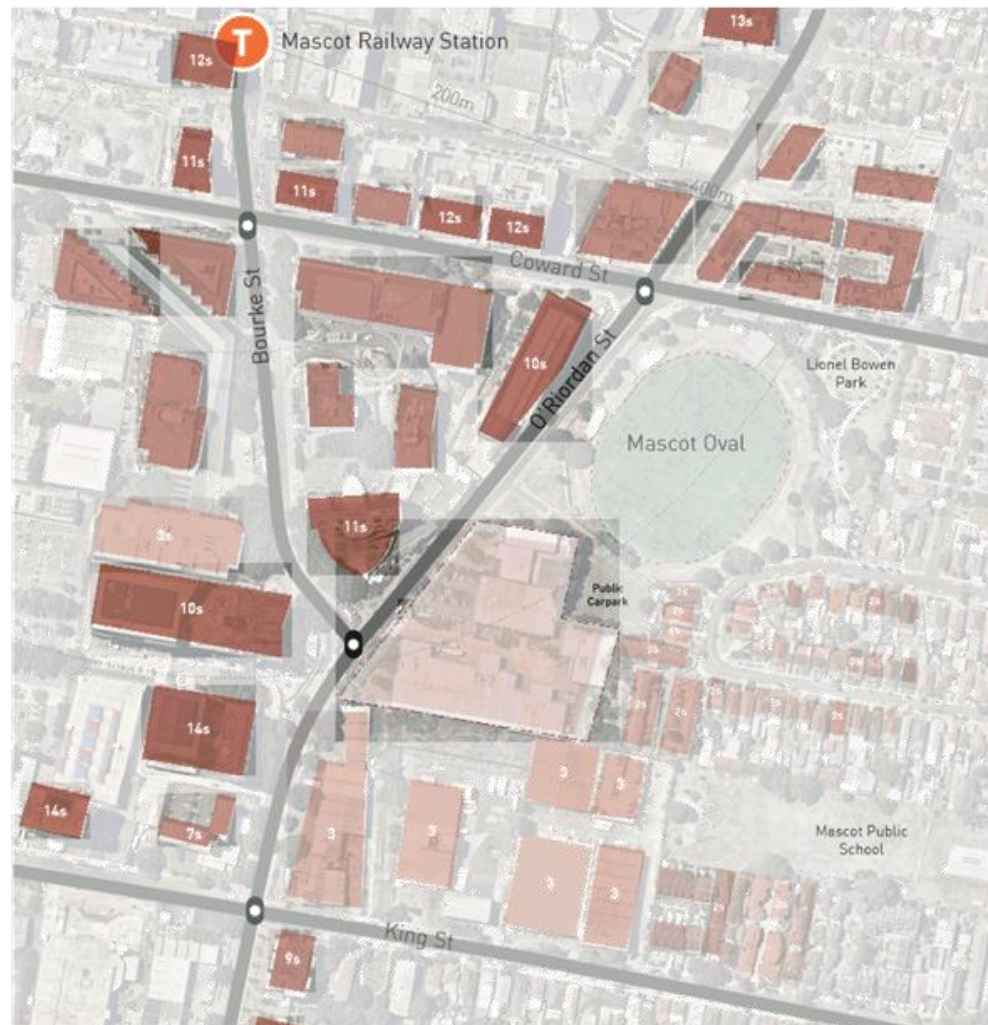
SECTION





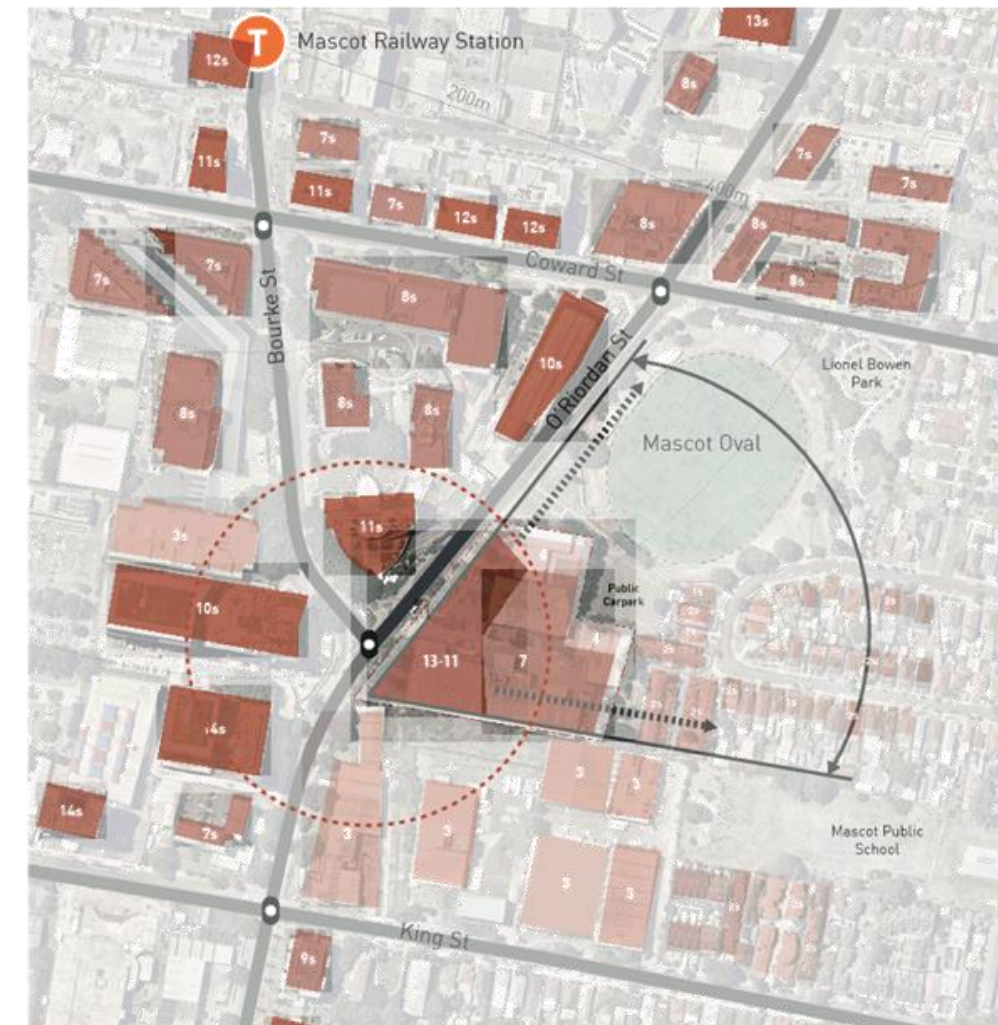
## 2.4 HEIGHT TRANSITION DIAGRAMS

### EXISTING CONTEXT BUILDINGS IN STOREYS



- Existing height control only allows development with 22m height across the entire site. There is no transition to the oval, the park and to the neighbouring residential area.
- There is no urban design marker to acknowledge the intersection of Bourke and O'Riordan Street.

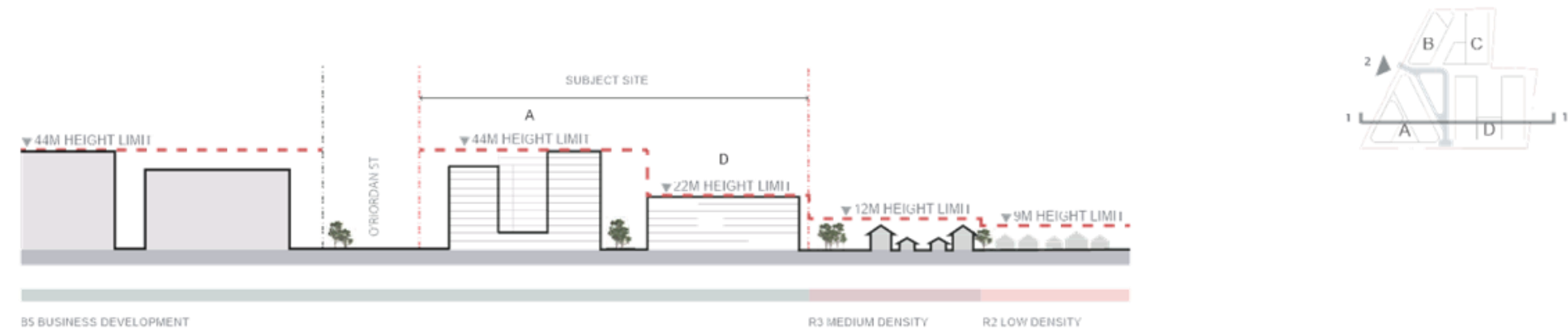
### PROPOSED MASSING ENVELOPE IN STOREYS



- The proposed change in height only relates to the zone along O'Riordan St. It matches the site to the immediate South.
- The Bourke and O'Riordan Street intersection is marked by high building form
- Future proposed development provides a smoother height transition North/South along O'Riordan Street, and down towards the Heirtage Oval.
- Equally there is a smoother height transaction East/West from O'Riordan Street to the existing residential precinct to the east.

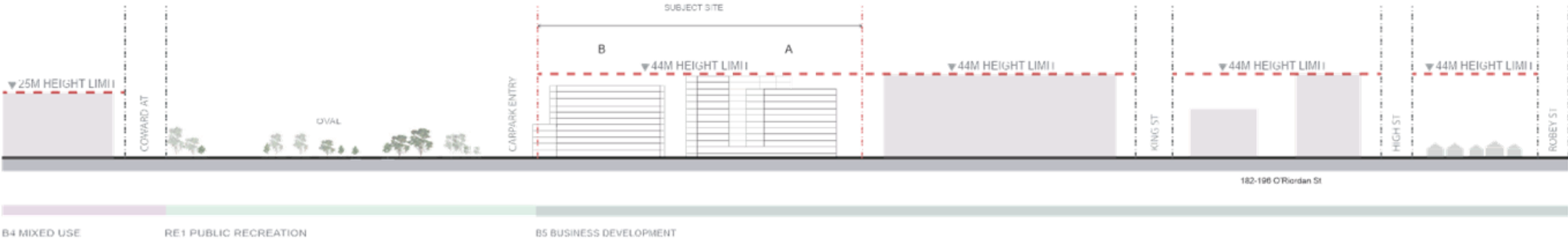
17

2.5 SITE SECTION AND ELEVATION - HEIGHT TRANSITION



1.O'RIORDAN ST CROSS SECTION DIAGRAM  
1:1000

18

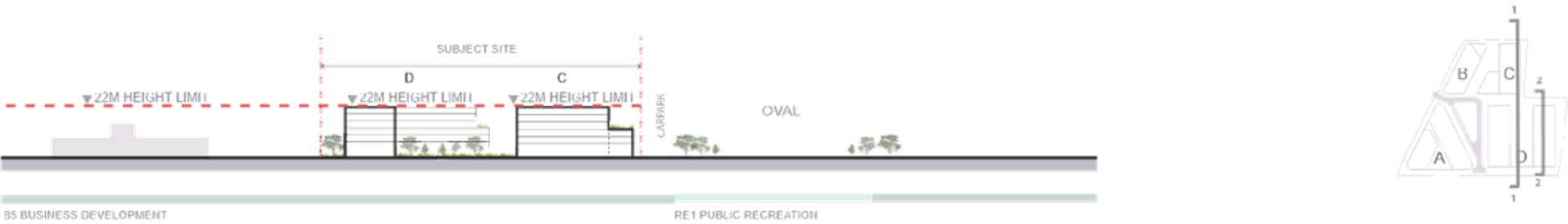


2.O'RIORDAN ELEVATION DIAGRAM  
1:1000

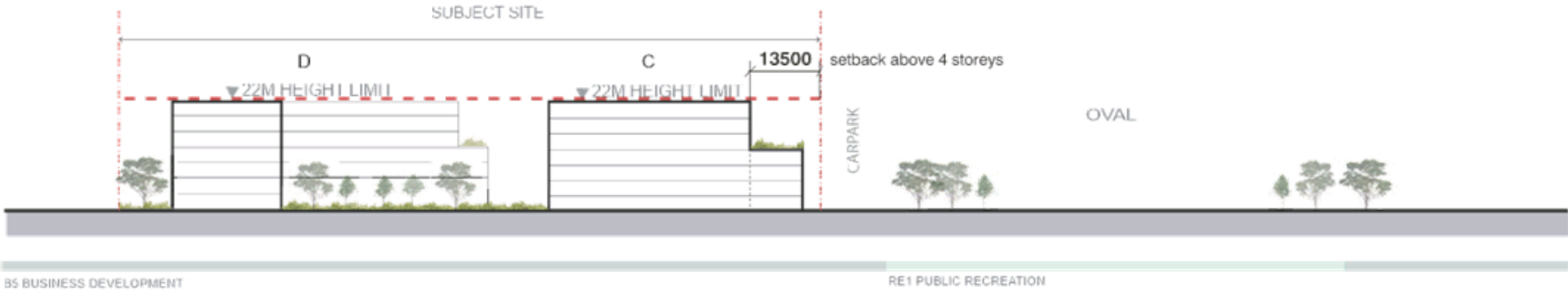




2.6 HEIGHT TRANSITION DIAGRAMS - HEIGHT TRANSITION TO HERITAGE OVAL



1. OVAL SECTION DIAGRAM  
1:1000



1. OVAL SECTION DETAIL DIAGRAM 1  
1:500



2. OVAL SECTION DETAIL DIAGRAM 2  
1:500

## 2.7 PARK ACTIVATION

### EXISTING



Mascot Oval is primarily used for rugby league. It is fully fenced with 4 gated entry points. Lionel Bowen Park has north-south street entries from Forster and Coward St. A public surface carpark is located between the Oval and the site. It has no surveillance and 87 carparking spaces. It's empty most of the year.

- Currently an inward-looking group of buildings
- The central space visually connects only to the street

### PROPOSED



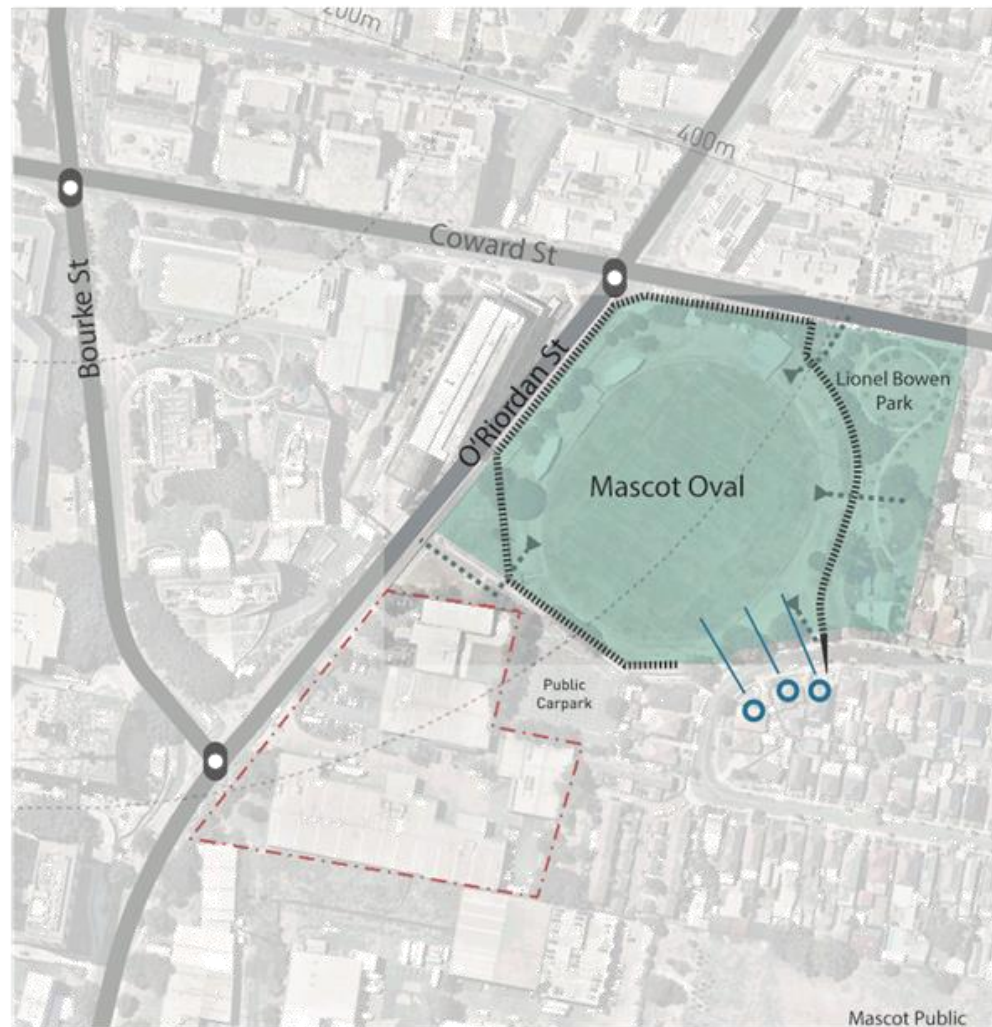
Council is encouraging multi-sport uses at Mascot Oval to expand the range of users.

- Opportunity to create outward looking group of buildings
- Central space visually linked to Oval
- Taller buildings on O'Riordan St to have improved views of Oval



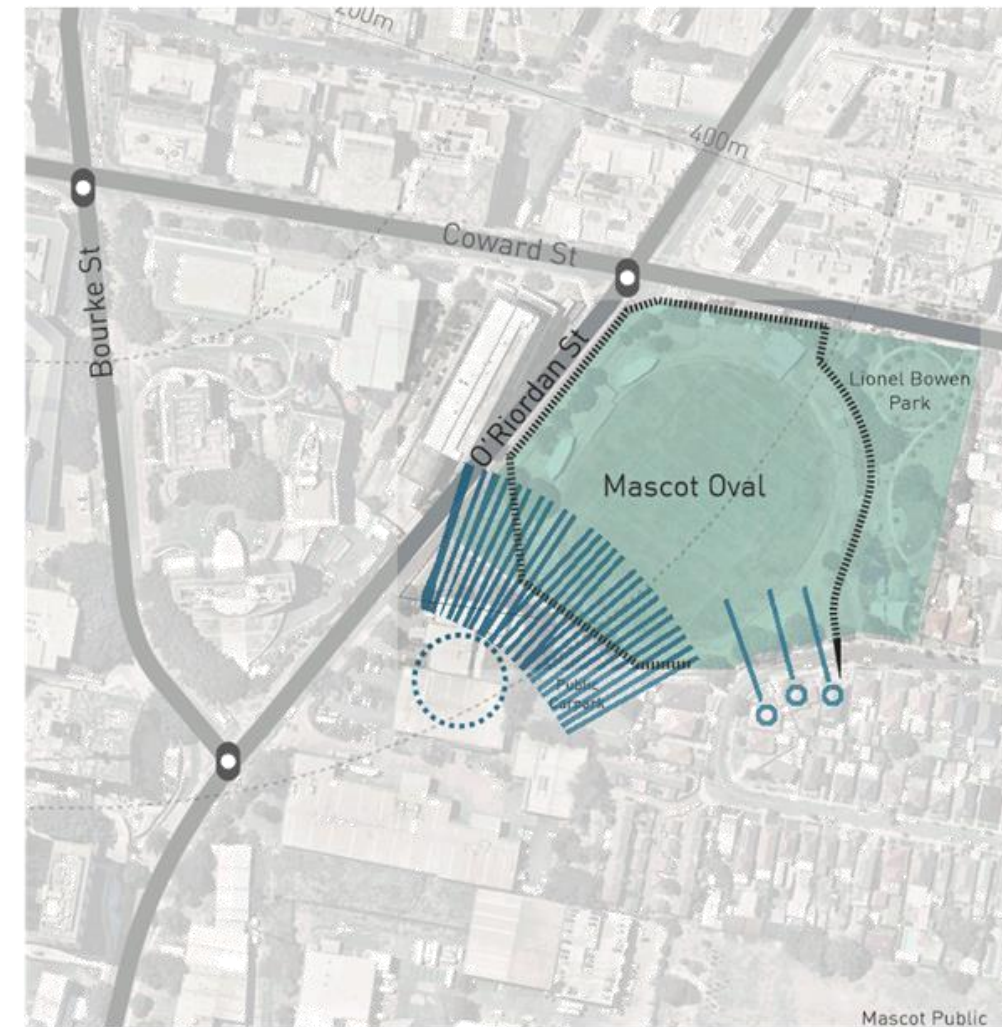
## 2.8 ENHANCED SURVEILLANCE

### EXISTING PASSIVE SURVEILLANCE OF OVAL



- Limited surveillance of Mascot Oval from only 3 private properties. Remaining properties are street-facing only.

### PROPOSED INCREASED SURVEILLANCE



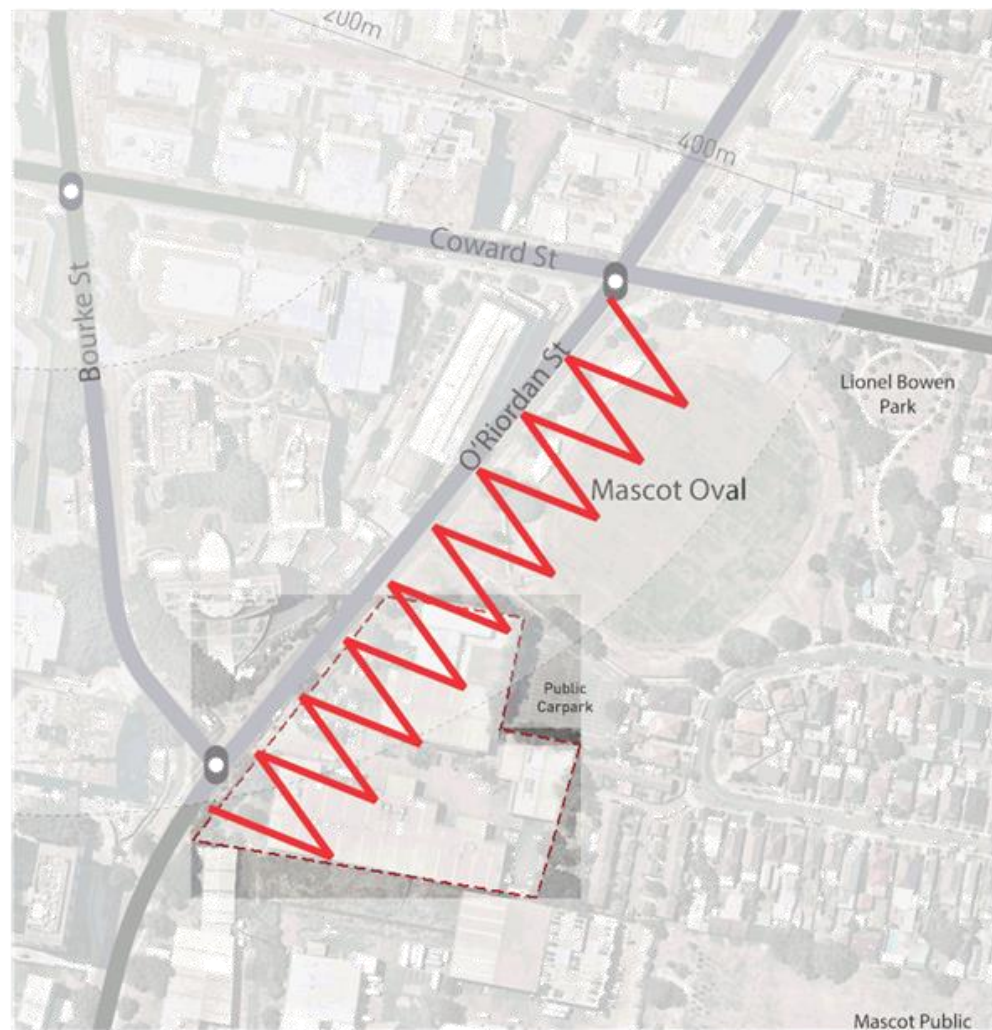
- Opportunity for future development stepping continuously lower towards the Oval, will provide more surveillance to Mascot Oval
- Increased height of the wester-most buildings on subject site will also increase surveillance of the Oval

21



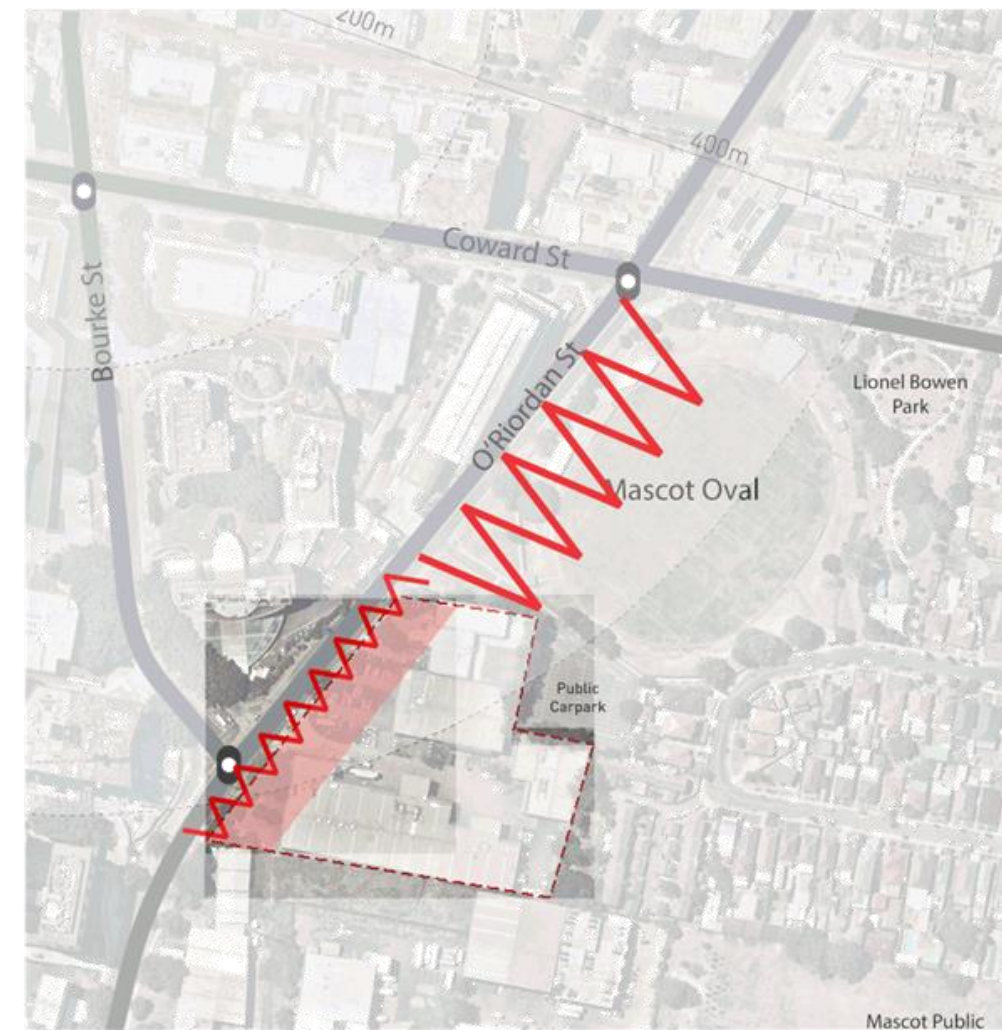
## 2.9 STREET

### EXISTING



- The acoustic context along O'Riordan Street is constant traffic noise.
- There is a permeable foil of buildings between the eastern residential use area and O'Riordan St.

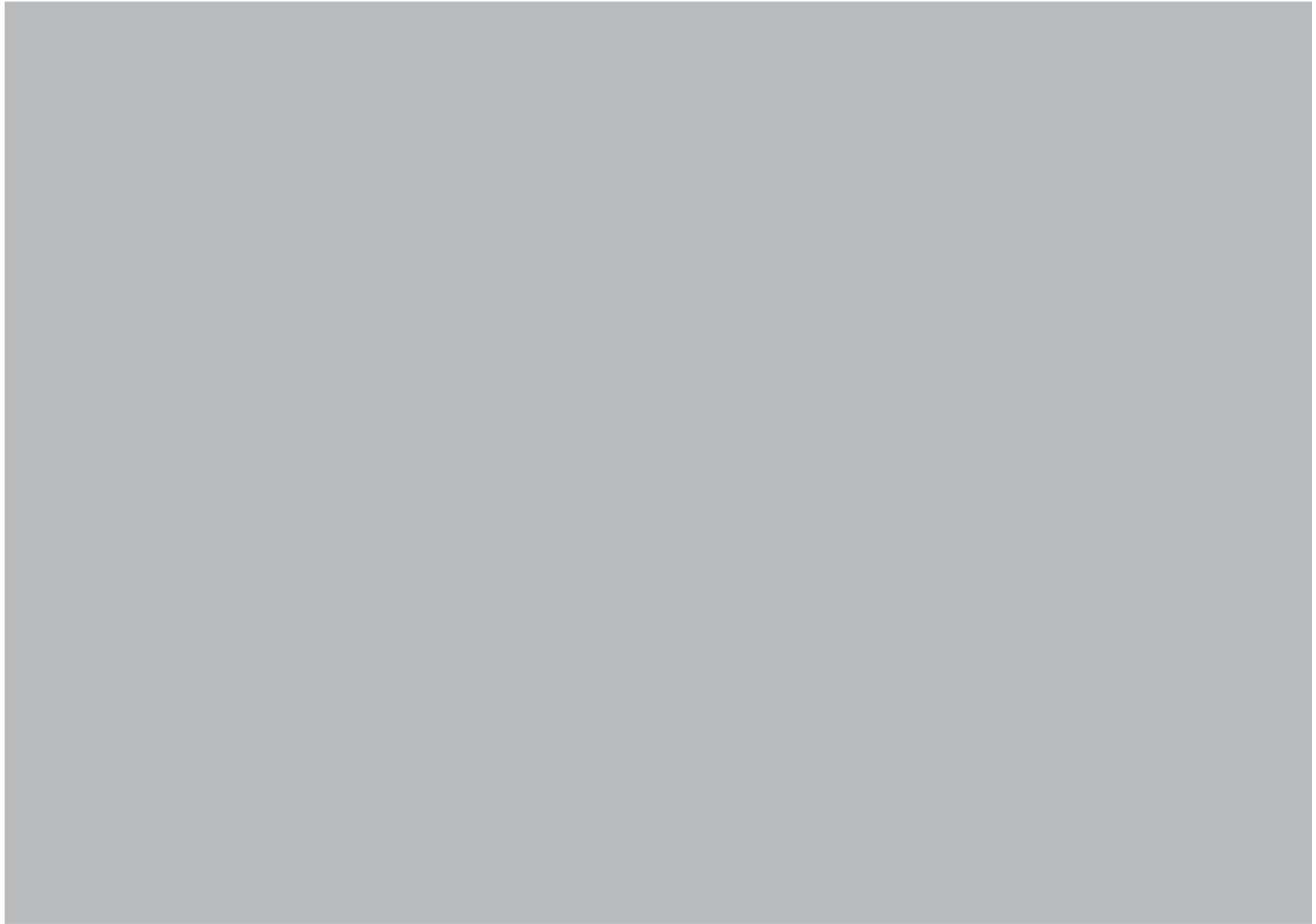
### PROPOSED

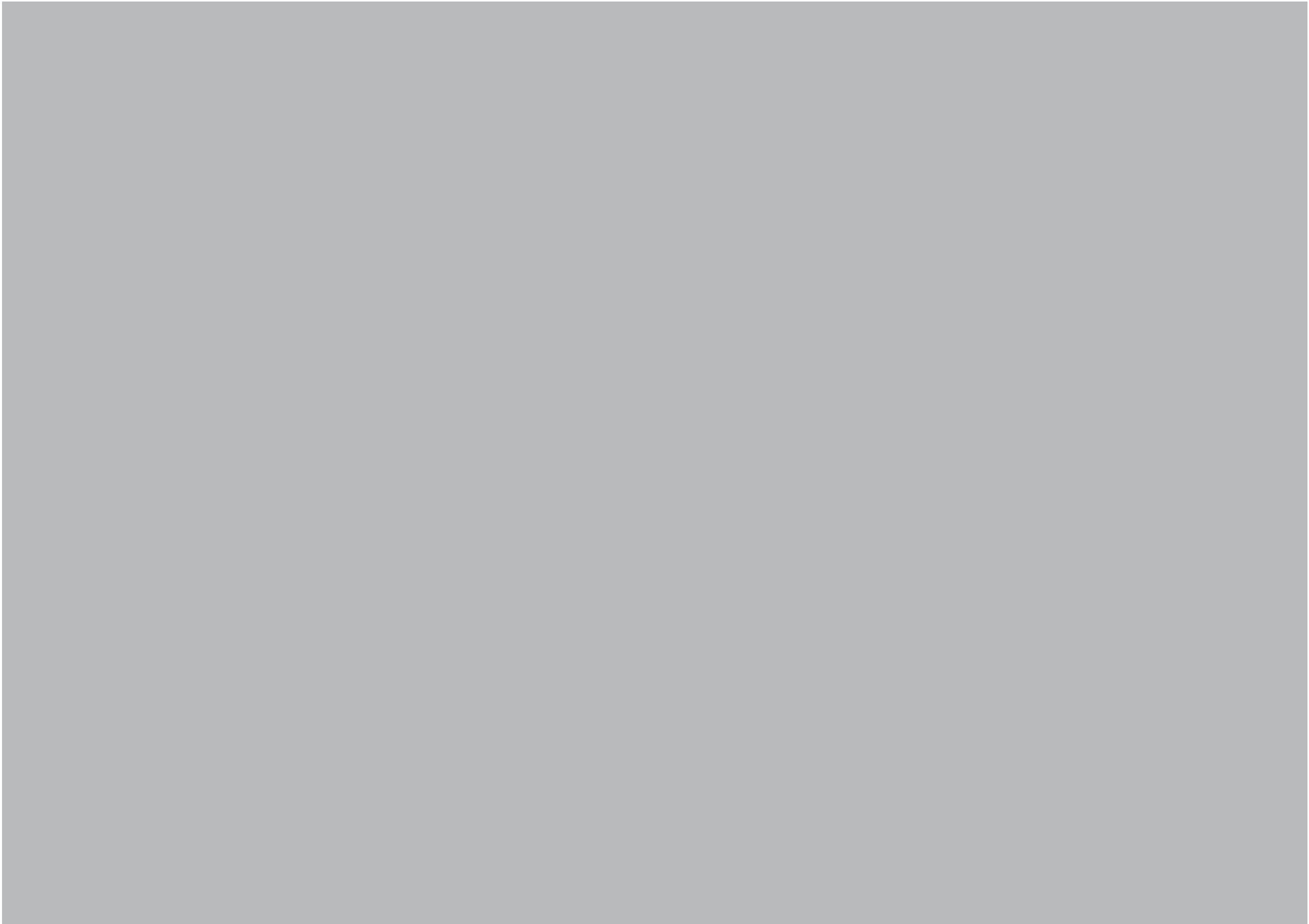


- A higher street wall development along O'Riordan Street will reduce traffic noise to the eastern residential areas, as buildings are parallel to the main noise source.

PTW

146 - 154 O'Riordan St, Mascot - Urban Design Report - Toplace - Revision B - May 2019 | PTW ARCHITECTS







## 3.0 THE PROPOSAL

### 3.1 PROPOSED HEIGHT (USING DA FOOTPRINTS)

Current 22m HEIGHT LIMIT MASSING



- FSR of 2.16:1 (maximum FSR not achieved)

PROPOSED 44m MASSING

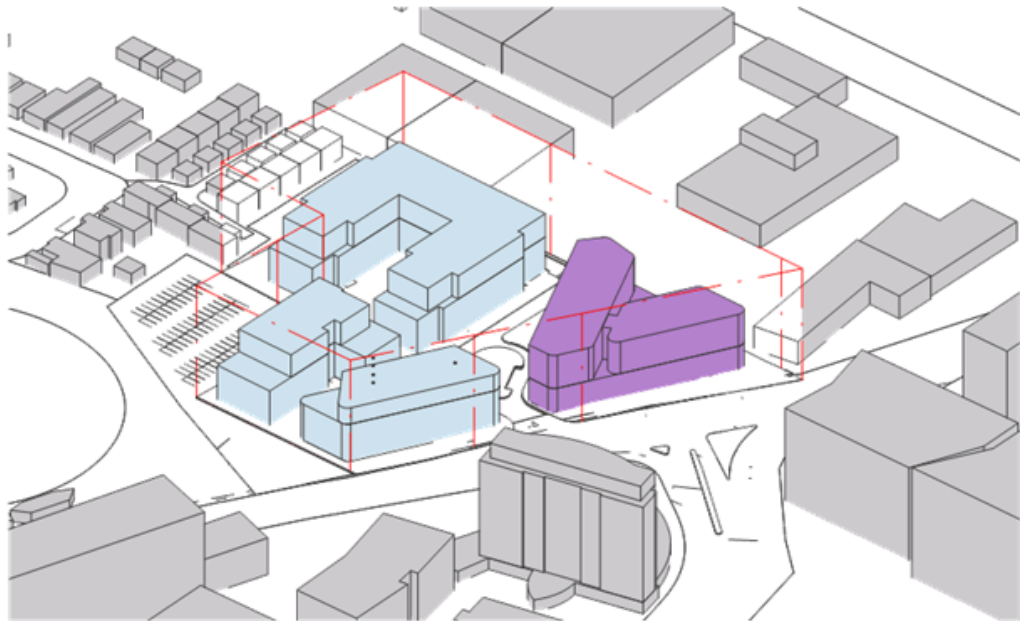


- The concurrently proposed DA does not achieve the maximum allowable FSR, but with this arrangement an FSR of 3:1 can be achieved.
- There is a reduction in height adjacent to the Coward St and carpark between the new development and the Oval.
- The highest building is within the site, with only an end elevation marking the site's entrance.
- The 13 storey hotel block addresses the Oval and distant views

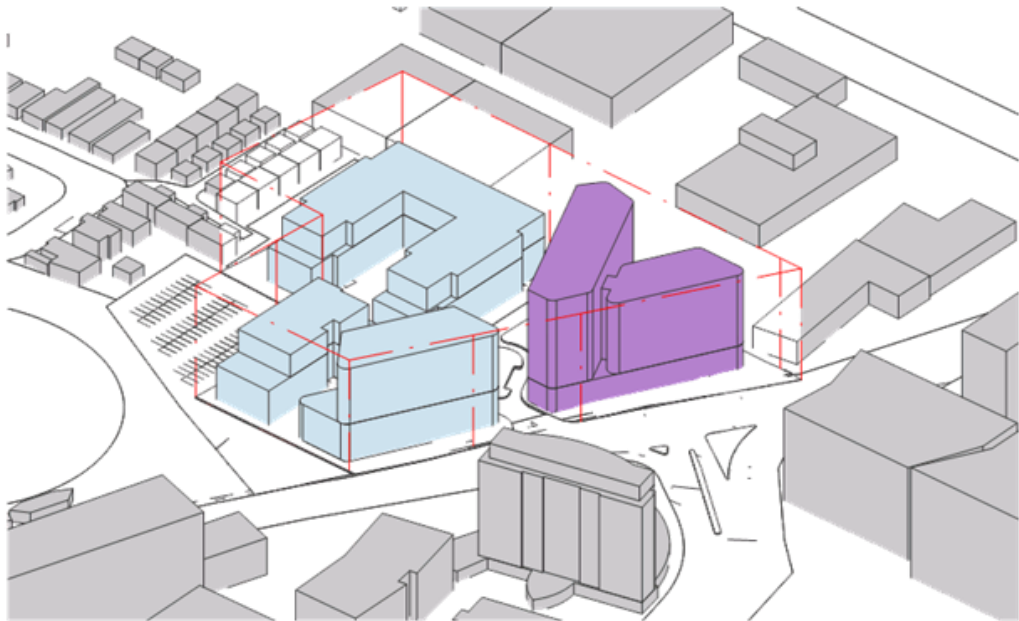
PTW

146 - 154 O'Riordan St, Mascot - Urban Design Report - Toplace - Revision B - May 2019 | PTW ARCHITECTS

3.2 MASSING HEIGHT AND FSR COMPARISON



GFA: 36,850 m2  
FSR: 2.61:1 (MAXIMUM FSR NOT ACHIEVED)



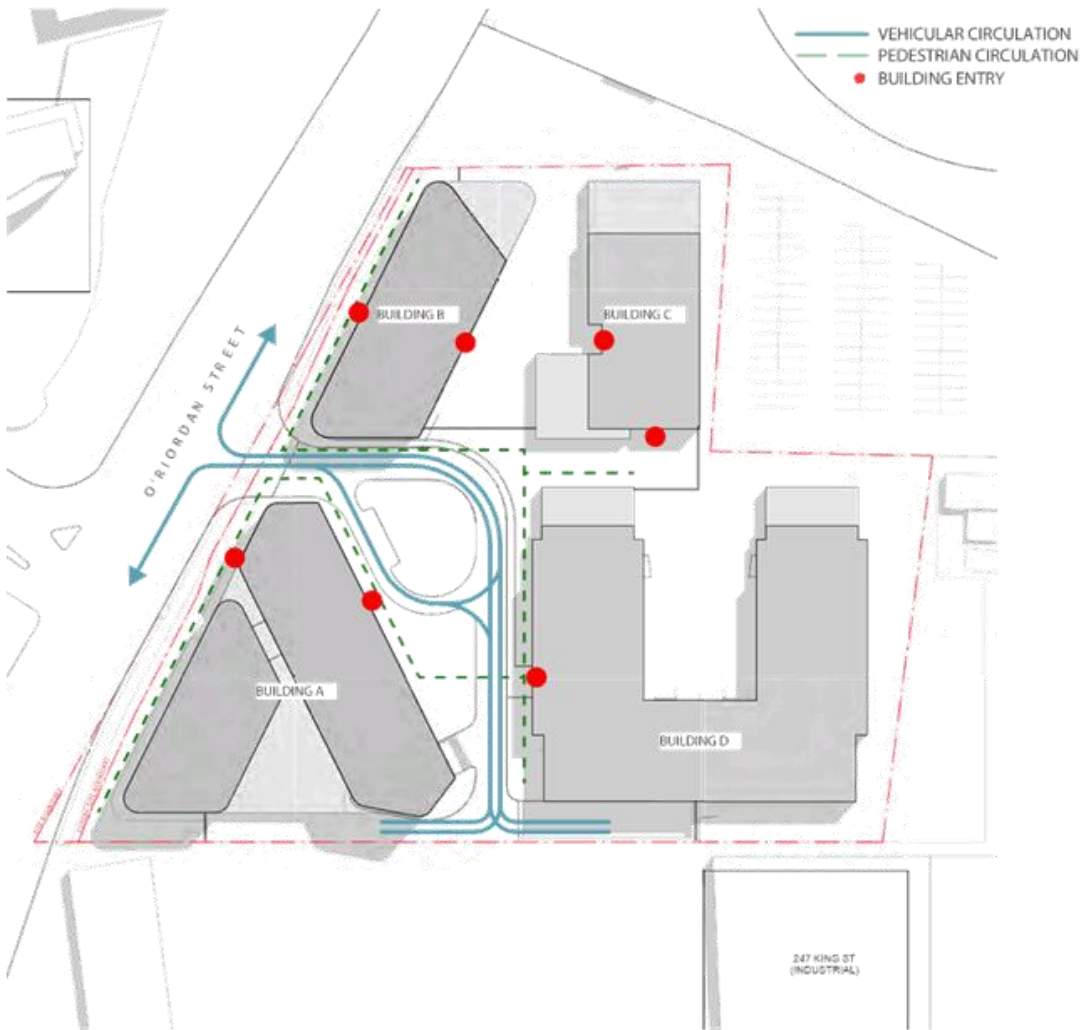
GFA: 51,063 m2  
FSR: 3:1 (MAXIMUM CAN BE ACHIEVED)

27



3.3 PROPOSED TRAFFIC AND LANDSCAPE STRATEGY

28



TRAFFIC DIAGRAM



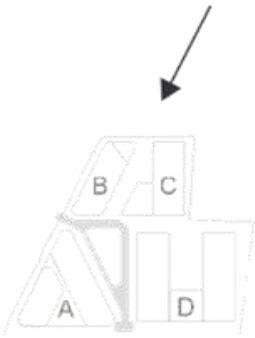
LANDSCAPE DIAGRAM



3.5 PERSPECTIVE VIEW COMPARISON



Current 22m Massing



29



Proposed 44m Massing

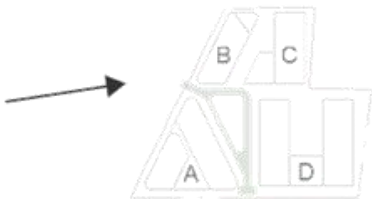


3.5 PERSPECTIVE VIEW COMPARISON

30



Current 22m Massing



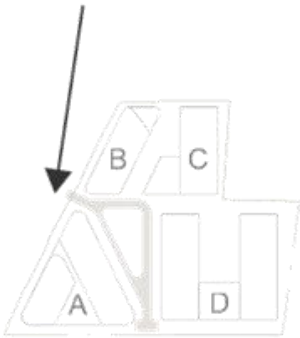
Proposed 44m Massing



3.5 PERSPECTIVE VIEW COMPARISON



Current 22m Massing



31

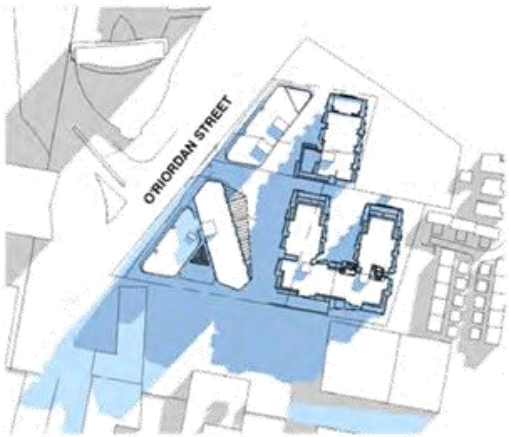


Proposed 44m Massing



3.6 SHADOW STUDIES

- 22m Massing and Shadows
- 44m Massing and Shadows



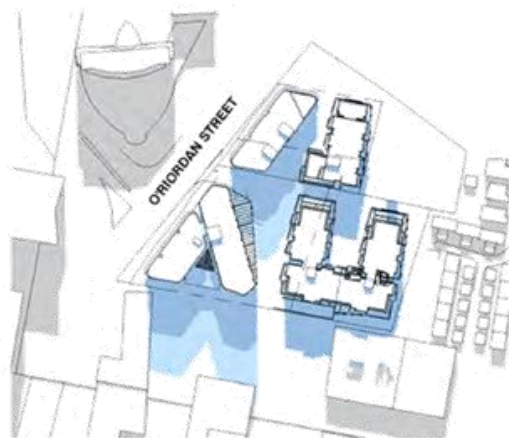
June 21 9:00am



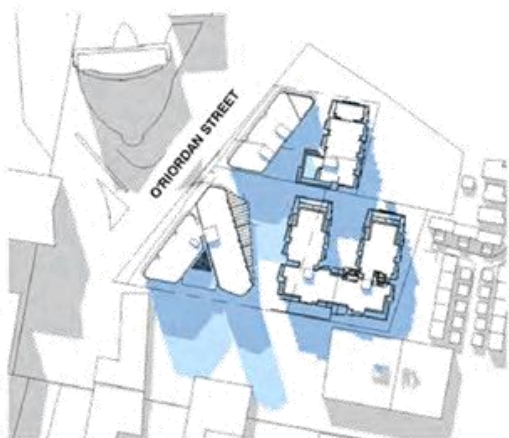
June 21 10:00am



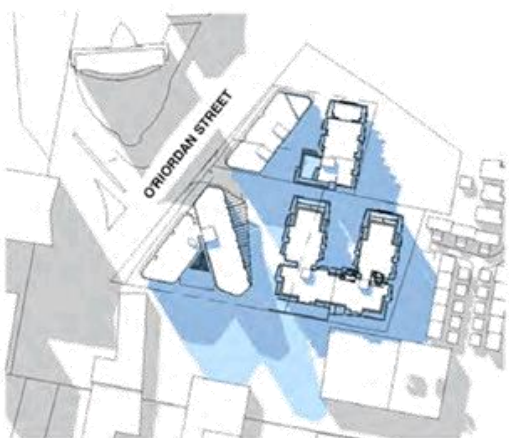
June 21 11:00am



June 21 12:00pm



June 21 1:00pm

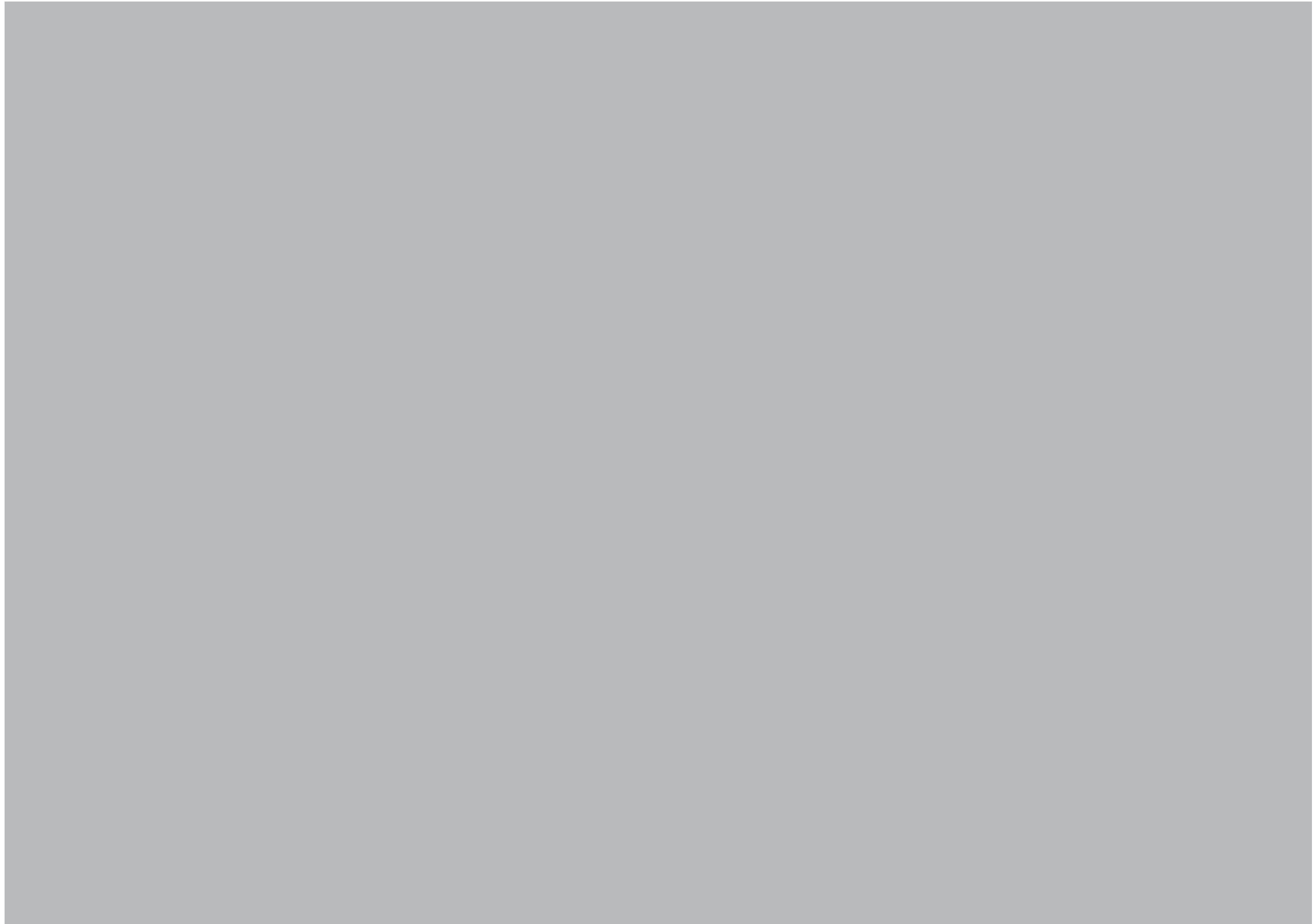


June 21 2:00pm



June 21 3:00pm







**Avlaw Pty Ltd**  
Suite 6.13  
6 Middlemiss Street  
Lavender Bay NSW 2060  
Australia  
T: +61 2 9980 7717  
E: info@avlaw.com.au  
ABN: 98 147 789 204

20 March 2019

Mr David Krepp  
Toplace Pty Ltd  
Development Manager  
121 Majors Bay Road  
Concord NSW 2137

**PRELIMINARY AERONAUTICAL IMPACT ASSESSMENT:  
146-154 O'RIORDAN STREET, MASCOT NSW**

Dear Mr Krepp,

I refer to your request for advice in relation to potential aeronautical limitations associated with the proposed development located on the site at 146-154 O'Riordan Street, Mascot NSW, referred to herein as "the site". Avlaw Pty Ltd (AvLaw) notes that your proposal involves a staggered building development to a maximum height of 44m AHD abutting O'Riordan St and tapering down to 22m AHD to the east of the site, and maximum crane activity to 51m AHD. AvLaw has conducted a preliminary assessment of the maximum building height restrictions at the site against prescribed airspace limits which exist due to necessary safety clearances (mandated in legislation) that must be provided between an aircraft and an obstacle.

AvLaw's assessment is based on the property boundaries, proposed building heights and proposed crane heights at the address provided by Toplace Pty Ltd (Toplace), Obstacle Limitation Surfaces (OLS) requirements, Procedures for Air Navigation Surfaces-Aircraft Operations (PANS-OPS) limitations, Radar Lowest Sector Altitude (RLSALT)/Radar Terrain Clearance Chart (RTCC) sector boundaries, Omni Direction Departure Surface limitations, visual and navigation aid clearance surfaces, transit/approach/take-off routes used by helicopters, Precision Approach Path Indicator (PAPI) protection surfaces and satellite imagery.

AvLaw's assessment is that the current published airspace protected surface heights for Sydney Airport across the site are as follows:

- the OLS Inner horizontal Surface at 51m AHD;
- the PANS-OPS surface at 56.5m to 71.3m AHD rising generally west to east;
- the RLSALT/RTCC horizontal surface at 152m AHD, though this is generally more relevant further away from the airport;



- The PAPI protection surfaces splay to cover the site at heights similar to other nearby obstacles; and
- the Omni Direction Surface limitation at nominally 70m AHD.

AvLaw's assessment is that the critical surface is the OLS and that the proposed development height (inclusive of temporary construction cranes) does not penetrate this critical surface.

AvLaw has determined that the National Airport Safeguarding Framework (NASF) – Guideline H for strategically important helicopter landing sites does not apply with respect to the development. AvLaw could not identify any relevant helicopter landing sites within the guideline's referral trigger of 3,500m.

AvLaw notes that if proposed building heights penetrate the OLS, then they will be classified as a "controlled activity" and require detailed assessment by various aviation stakeholders, and that in this case the building and temporary construction cranes will remain below the OLS.

Provided temporary construction cranes and the overall building envelope inclusive of plant room, towers, masts, building maintenance unit (BMU) when in operation and ancillary features all remain below the OLS, then aviation approval is not strictly required but advice to Sydney Airport Corporation Limited (SACL) is preferred. No permanent structure is possible through the PANS-OPS, however if temporary crane activity is proposed to extend through the OLS or PANS-OPS, aviation approval is required.

Each item specified in the scope of AvLaw's proposal to Toplace is addressed from the following page.

### 1. *Relevant stakeholders*

Applications to carry out a controlled activity, defined as any permanent or temporary penetration of prescribed airspace, are to be made to the airport operator in writing. Where more than one airport may be affected, the application must be sent to each. The information required in the application must include:

- a description of the proposed controlled activity (building construction, crane operation etc.)
- its precise location (street address and grid reference)
- if the controlled activity consists of the erection of a building or structure:
  - the proposed maximum height of the structure above the Australian Height Datum (including any antennae, towers, BMU etc.), and
  - the proposed maximum height of any temporary structure or equipment (e.g. cranes) intended to be used in the erection of the structure

The airport operator will conduct the initial assessment of the application in terms of:

- whether the activity results in an intrusion into its prescribed airspace and is therefore a controlled activity,
- the extent of the intrusion, and
- the precise location of the development or activity.

The airport operator may approve the application itself if there is no intrusion of the prescribed surfaces, however is required to invite the following organisations to assess or comment on an application if there is an intrusion which is not considered short-term (i.e. not expected to last more than three months):

- the Civil Aviation Safety Authority (CASA)** for an assessment of the impact on aviation safety
- Airservices Australia** for assessments of proposals resulting in a penetration of the PANS-OPS surface or temporary redirection of flight paths
- the local council authority** responsible for building approvals
- the Department of Defence** in the case of joint-user airports.

The final approving authority for penetration of prescribed surfaces is the Department of Infrastructure, Regional Development and Cities (DIRDC) as specified in the \_\_\_\_\_ and the \_\_\_\_\_. In making its determination, the DIRDC is required to assess the respective assessments of the airport operator, Airservices Australia and CASA, however cannot issue an approval in the event CASA's assessment is not supportive of the application.

The approval process requires separate assessments of the permanent building structure and temporary construction crane(s). Applications can be made in advance of planning approval for both. CASA however does require detailed architectural drawings to be provided prior to completing its assessment.

## 2. Aviation legislation governing building and crane heights

Part 12 of the *Aviation Act 1996* and the *Aviation Regulations 1996* establish a framework for the protection of airspace at and around airports. The Airports Act 1996 defines any activity resulting in an intrusion into an airport's prescribed airspace to be a "controlled activity" and requires that controlled activities cannot be carried out without approval. The Regulations provide for the DIRDC or the airport operator to approve applications to carry out controlled activities, and to impose conditions on an approval.

With respect to Sydney Airport, OLS, PANS-OPS and RTCC surfaces have been "declared" by the Commonwealth DIRDC on 20 March 2015 and are therefore enshrined in legislation as its prescribed airspace. AvLaw has however obtained advanced extracts from the draft approved revised 2018 OLS and PANS-OPS drawings per Figure 1 and Figure 2 below.

Legislation provides for some temporary (no more than 3 months) penetration of the PANS-OPS for construction cranes. It is preferable not to penetrate the PANS-OPS and any penetration must be supported by a detailed aeronautical impact assessment and equivalent safety argument.

## 3. Controlled activity approval process

Any activity that infringes an airport's prescribed airspace is called a **controlled activity** and requires approval before it can be carried out. Controlled activities include the following:

- permanent structures, such as buildings, intruding into the prescribed airspace
- temporary structures such as cranes intruding into the prescribed airspace
- any activities causing intrusions into the prescribed airspace through glare from artificial light or reflected sunlight, air turbulence from stacks or vents, smoke, dust, steam or other gases or particulate matter.

Carrying out a controlled activity without approval is an offence under Section 183 of the Airports Act 1996 and is punishable by a fine of up to 250 penalty units. It is an offence under Section 185 of the Act to contravene any conditions imposed on an approval. Under Section 186 of the Act it is an offence not to give information to the airport operator that is relevant to a proposed controlled activity.

International standards have been adopted which define sets of invisible surfaces above the ground around an airport. The airspace above these surfaces forms the airport's **prescribed airspace**. AvLaw has identified the Sydney Airport airspace surfaces relevant to the site as the following:

- Obstacle Limitation Surface (OLS);
- Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) surfaces;
- Combined Radar Departure Assessment Surfaces (Omni Directional);
- Radar Terrain Clearance Chart (RTCC) or Radar Lowest Sector Altitude (RSALT) surfaces;
- PAPI Light Planes Protection Surfaces; and
- Navigational Aids Protection Surfaces.

The Regulations differentiate between **short-term** (not expected to continue longer than 3 months) and **long-term** controlled activities. The Regulations provide for the airport operator to approve short-term controlled activities, excluding PANS-OPS infringements, and for the DIRDC to approve long-term

controlled activities, or short-term controlled activities referred to it by the airport operator, including short-term infringements of the PANS-OPS. However, long term intrusions of the PANS-OPS surface are prohibited.

The heights advised in the application for approval must include all towers, masts, BMU, construction crane(s), and ancillary features. An application will be considered in two elements, one being for the building itself (inclusive of all features) and one for construction crane(s).

Each penetration of the OLS, PANS-OPS or RTCC has to be assessed against the effect on published Departure and Approach procedures and other matters. These include published survey data and Air Traffic Control (ATC) procedures and practices, including compatibility with the promulgated ATC RTCC that is used to safely vector aircraft in instrument meteorological conditions (non-visual). Each proposal has to be checked for proximity to published procedures to ensure statutory tolerances and safety buffers are maintained. The tolerances vary according to the type of navigation or aid being utilised and cover vertical, lateral and longitudinal aspects.

Timing to assess applications varies depending on the complexity of the assessment and the workload within the respective agencies at the time of receipt. AvLaw's experience suggests proponents should allow seven (7) months for project planning purposes with respect to processing time with Sydney Airport, Airservices Australia, CASA and the DIRDC conducting their own assessments in succession. AvLaw recommends that applications for both building and crane height approval be made as early as possible.

#### **4. Preliminary Aeronautical Impact Assessment**

Based on the site location provided by Toplace, interrogation of satellite imagery, OLS requirements, PANS-OPS limitations and RTCC stipulations, AvLaw's assessment of the heights above which an aviation approval is required has determined the following:

The OLS (draft 2018 version) over the site is the Inner Horizontal Surface at 51m AHD (refer Figure 1 on following page)

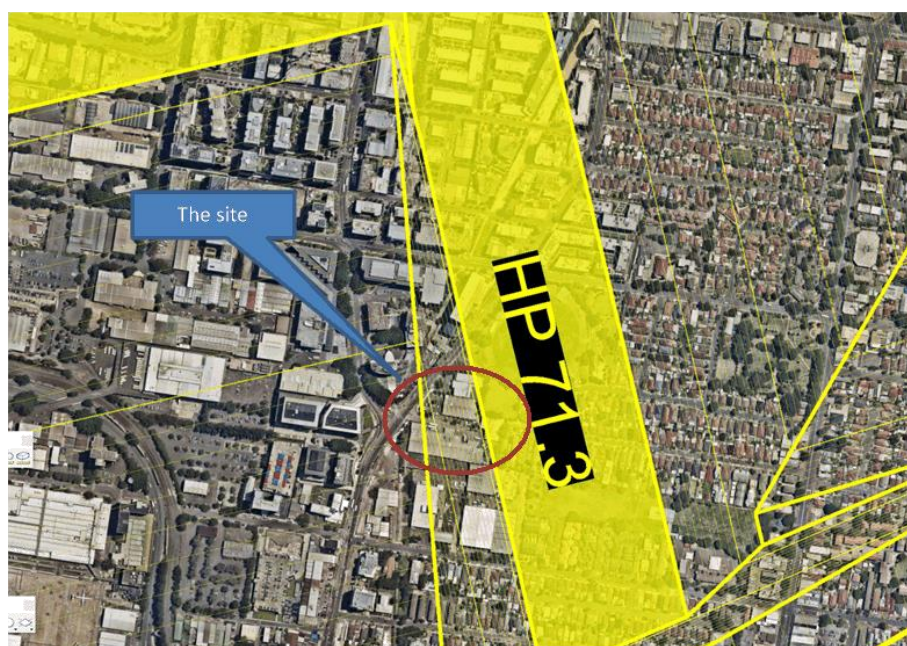
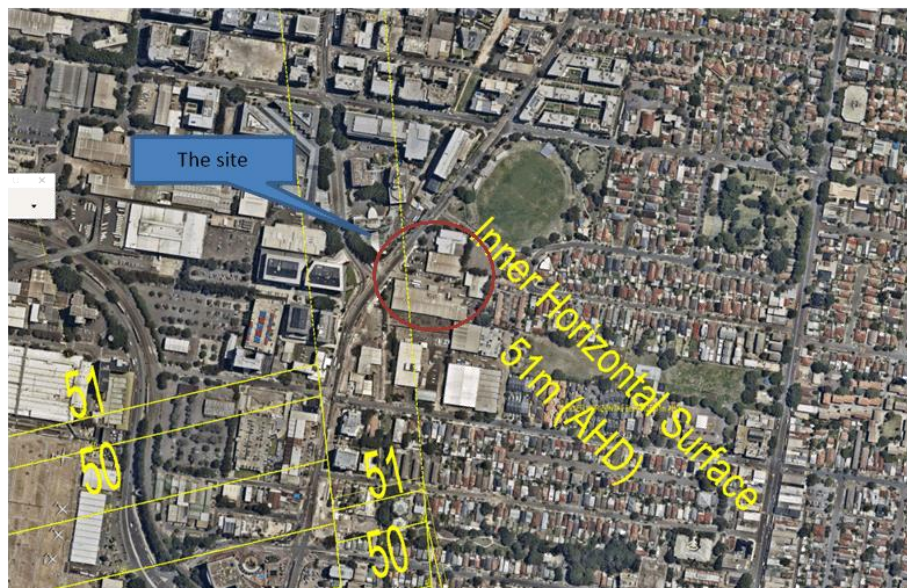
The PANS-OPS surface (draft 2018 version) over the site is a sloping surface generally rising west to east from 56.5m to 71.3m AHD (refer Figure 2 following page)

The RTCC limitation (2015 version) over the site is nominally 152m AHD

The Omni Direction Departure Surface (2015 declared version) is nominally 70m AHD

The PAPI protection surface splays out to cover the site

The Navigation Aids Protected Surfaces is nominally 45m AHD rising to the north (refer Figure 3)

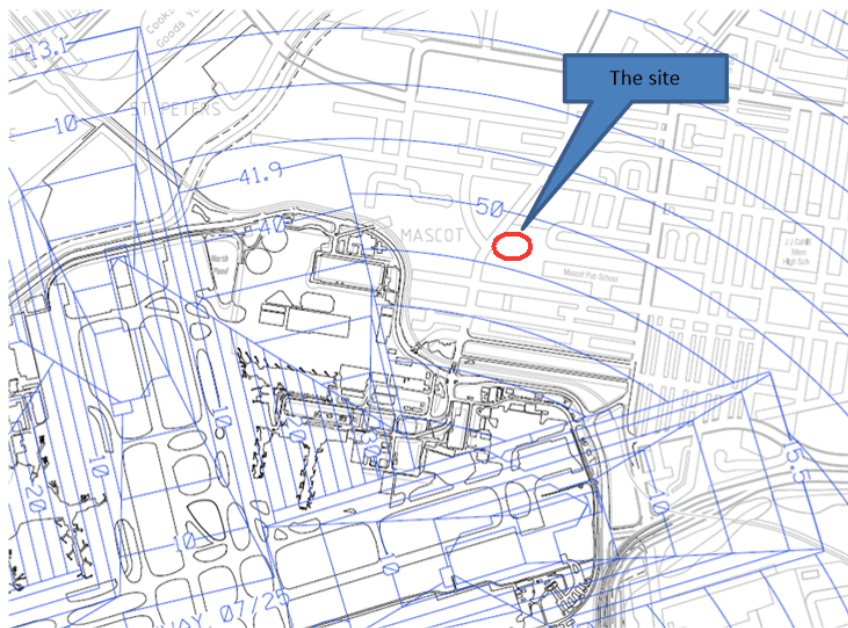




The critical controlling operational surfaces over the site are the OLS, PANS-OPS and RTCC surfaces. None of these surfaces are proposed to be penetrated by the building structure or temporary construction cranes so will therefore not be considered a controlled activity and trigger detailed aviation assessment.

The PAPI protection surfaces are designed so that the pilot of an aircraft conducting a visual approach may see the red warning lights indicating that the aircraft is below the specified approach slope. The site is on the edge of the PAPI splay further from the extended centreline of the 16L approach than the existing Holiday Inn multi story building. Detailed assessment of this aspect will be conducted by Airservices Australia (Airservices) but AvLaw expects the proposed development will not introduce any additional limitations on the use of airspace or impact on safety detrimentally.

Navigational Aids Protection Surfaces provide an indication of limits that may be imposed so no interference is caused to the aids. Detailed assessment will be undertaken by Airservices, taking design clearances and local factors into account to determine the impact any encroachment may or may not have. AvLaw notes that the proposed development is on the limit identified in the 2015 protection surfaces but expects the proposed development will not introduce any additional limitations on the use of airspace or impact on safety detrimentally.



A maximum building envelope including any protrusions from a building (e.g. masts, BMU etc.) must be included in the final height of the building itself for aviation approval, as does temporary construction crane activity. AvLaw notes that there is a small buffer above the maximum building height and below the OLS to provide for temporary construction crane(s).

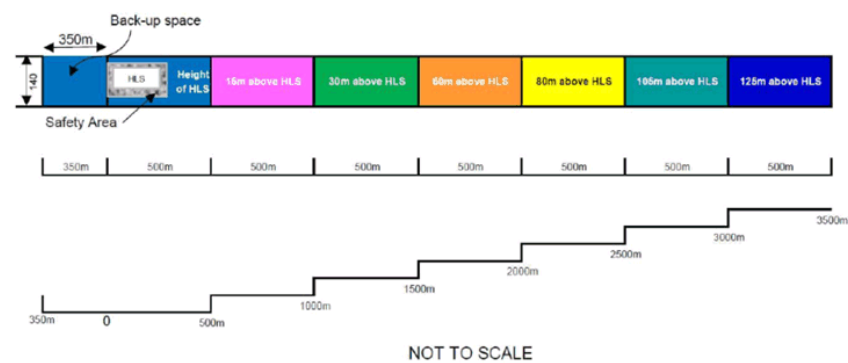
Toplace propose a multi-story building development. Providing the buildings and temporary construction crane(s) remain below the OLS, PANS-OPS and RTCC, then current published flight operation surfaces will not be affected by the proposed development at the site.

5. Impact on helicopter operations

The nearest corner of site is located approximately 2,385m NE of Sydney Airport aerodrome reference point. There are a number of prescribed helicopter transit routes published in Aeronautical Information Publication (AIP) En-Route Supplement Australia (ERSA) for helicopter operations in the Sydney Control Zone. These are included in the Coded Clearances and Operating Requirements for Sydney Airport, with the coded clearances containing the specific routes and prescribed altitudes to be flown.

Legislation requires the pilot of a helicopter to determine the safe take-off and landing approach taking into account all factors including aircraft performance, wind direction, obstacles, and emergency landing in the event of engine failure. The proposed development is clear of specific helicopter transit routes. The helicopter operations assessed are all conducted under Visual Flight Rules (VFR) whereby the pilot in command (PIC) is solely responsible for safe navigation clear of any obstacles.

A National Airport Safeguarding Framework (NASF) [Guideline H](#) has been issued regarding protection of what are being termed . Under the guideline, hospital helipads would be considered as SHLS and therefore protected from obstacles being erected in close proximity to it. The guideline provides for 140m wide rectangular steps in the direction of approach/take-off in 500m increments until reaching 125m above the SHLS which would be protected from obstacles such as buildings and cranes. The figure below has been sourced from the guideline and illustrates this proposed protection of SHLS and the heights above which it is triggered.



AvLaw has not identified any relevant helicopter landing sites within the extremity of the 3,500 metre Guideline H defined area. The Prince of Wales Hospital is approximately 4,800m to the ENE, the Royal Prince Alfred Hospital approximately 4,230m to the N, and the St George Hospital approximately 6,750m to the SW.

The Sydney Airport helicopter area adjacent to the threshold of runway 25 is approximately 1,320m to the S of the site. Any approach or take-off in the direction of the site will also be over the existing Holiday Inn at a similar height to the proposed development so will not cause additional safety impact than currently exists.

**6. Rationale for obtaining approval**

The Regulations require any decision by the DIRDC to be made in the interests of the safety, efficiency or regularity of existing or future air transport operations into or out of the airport. An approval may be subject to specific conditions, which may concern how the controlled activity is carried out (e.g. hours of operation of a crane) or may require the building or structure to be marked or lit in a certain way as detailed in Manual of Standards (MOS) 139. These conditions must also be in the interests of the safety, efficiency and regularity of existing or future air transport operations.

AvLaw notes that there is no penetration of the OLS for Sydney Airport over the site to trigger aviation safety assessment by CASA and Airservices Australia, however, AvLaw recommends that SACL is notified of the development and SACL will refer the proposal to Airservices with respect to protection of aids in the vicinity of the airport as appropriate.

**7. Future controlled activity approval requirements**

The proposed Toplace development at the site will not involve penetration of the OLS, PANS-OPS, Omni Direction or RTCC surfaces. The preparation of a complete aeronautical impact assessment with detailed analysis of these surfaces and others is usually required to support an application for necessary aviation approvals to be given in circumstances where any surfaces defining the prescribed airspace are penetrated. AvLaw therefore considers that no detailed aeronautical impact is required, however, AvLaw recommends Toplace advise SACL of the development through the SACL approval process for their information and also for consideration of aid clearances assessment by Airservices.

Yours sincerely,



**Amin Hamzavian**  
Managing Director

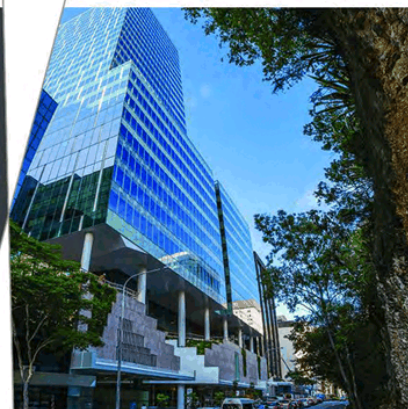
## Flood Assessment

146, 154 & 154A O'Riordan Street  
Mascot

59919063

Prepared for  
Toplace

29 May 2019





Flood Assessment  
146, 154 & 154A O'Riordan Street Mascot

### Contact Information

#### Cardno (NSW/ACT) Pty Ltd

ABN 95 001 145 035

Level 9 - The Forum

203 Pacific Highway

St Leonards NSW 2065

Australia

www.cardno.com

Phone +61 2 9496 7700

Fax +61 2 9439 5170

### Document Information

Prepared for Toplace

Project Name 146, 154 & 154A O'Riordan  
Street Mascot

File Reference 59919063 R001 RevA  
146ORiordanStMascot  
FIA.docx

Job Reference 59919063

Date 29 May 2019

Version Number A

Author(s):

Stephen Gribble  
Senior Civil Engineer

Effective Date 29/05/2019

Approved By:

Andrew Reid  
Senior Engineer

Date Approved 29/05/2019

### Document History

Version	Effective Date	Description of Revision	Prepared by	Reviewed by
A	29/5/2019	Preliminary	SG	AR

© Cardno. Copyright in the whole and every part of this document belongs to Cardno and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person other than by agreement with Cardno.

This document is produced by Cardno solely for the benefit and use by the client in accordance with the terms of the engagement. Cardno does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document.

59919063 | 29 May 2019 | Commercial in Confidence

ii





## Table of Contents

1	Introduction	1
1.1	Stormwater Network and Topography	1
2	Available Data	3
2.1	Council Flood Advice	3
2.2	MRE Flood Study Model	4
2.3	Site Inspection	5
3	Development Controls	11
3.1	Flood Related Development Controls	11
3.2	Internal Stormwater Drainage	11
3.3	Recommended Flood Planning Levels	11
3.4	Sydney Water Requirements	11
4	Proposed Development	13
4.1	Flood Levels	13
4.2	Floor Levels	13
4.3	Flood Impacts	14
4.4	Trunk Drainage Realignment	14
4.5	Flood Risk Management Plan	14
5	Summary	15

## Appendices

- Appendix A** Bayside Council Flood Advice
- Appendix B** Trunk Drainage Diversion Concept
- Appendix C** Architectural Drawings
- Appendix D** Flood Risk Management Plan Outline

## Tables

Table 2-1	Flood Levels from Mascot, Rosebery & Eastlakes Flood Model	5
-----------	--	---

## Figures

Figure 1-1	Extract from Mascot, Rosebery & Eastlakes Flood Study (WMA Water 2015)	2
Figure 2-1	General Lot Layout (Aerial image source Nearmap)	3
Figure 2-2	MRE Flood Study Configuration	4
Figure 4-1	General Development Layout (Aerial image source Nearmap)	13



## 1 Introduction

The site, comprising three lots - 146, 154, and 154A O'Riordan Street Mascot; is proposed for redevelopment as residential and retail units in four multi-storey buildings with combined basement carparking. Bayside Council has indicated the properties are flood-affected and have requested details of floodplain management:

- > *The applicant shall acquire flood advice for all lots proposed for the development from council.*
- > *A flood study shall be provided for the development assessing the impacts the development will have (including any proposed stormwater diversions) on the natural flood behaviour of the site in line with Council flood study requirements. Architectural plans are to be amended if necessary to ensure all required flood planning levels are met by the development.*
- > *A flood risk management plan is to be prepared for the development.*

Cardno prepared a preliminary flood advice letter (dated 19 December 2019) which outlined the general flood behaviour, existing stormwater drainage network, and development controls (flood planning levels) for the development. This report is a detailed review of the flooding and proposed development at the site, noting that additional flood modelling and assessment is recommended to refine the estimated extents of the pre- and post-development flood behaviour.

### 1.1 Stormwater Network and Topography

Figure 1-1 is an extract from the Mascot, Rosebery & Eastlakes Flood Study showing the estimated 1% Annual Exceedance Probability (AEP) peak flood depth and the stormwater infrastructure in the vicinity of the site.

The site is within Sydney Water's West Mascot Catchment Stormwater Network No.63. Figure 1-1 shows both Sydney Water (yellow) and Council (black) stormwater assets in the vicinity of the Site. The main Sydney Water channel runs from east to west adjacent to the southern boundary of the site and the Mascot Park Branch runs from north to south through the middle of site. The catchment area for the Mascot Park Branch includes O'Riordan Street between Coward Street and Bourke Street, Mascot Oval and the subject site.

The Mascot Park Branch is a significant constraint both hydraulically and to the architectural footprint of the proposed development. The easements for the Mascot Park Branch are indicated by (C), (G) and (H) on the site survey by Ramsey & Co. Surveyors. The data from the MRE Flood Study indicates that this branch consists of a  $\phi 900\text{mm}$  pipe and a  $\phi 1050\text{mm}$  pipe.

The site also has an internal stormwater network. This consists of the following:

- > Roof gutters and downpipes connected to underground drainage pipes;
- > Surface inlet pits. The site survey identifies a total of 12 grated inlet pits. It was observed at the site inspection that some of these pits were quite deep.
- > An underground pipe network connecting the above elements to the SWC drainage infrastructure. Cardno does not have any details of the underground pipes.

The site is on a ridge between the main West Mascot stormwater channel to the south and two trapped sag points, the O'Riordan Street sag and Lionel Bowen Park, to the north. A Council stormwater line runs from the O'Riordan Street sag to the Mascot Park Branch. However there are no surface inlet pits near the south west corner of Lionel Bowen Park. Runoff in the park would pond to a depth of about 0.3m before it can flow overland into the O'Riordan Street Sag.

RMS is undertaking road widening works on O'Riordan St which includes new stormwater infrastructure. These works might reduce flooding in the O'Riordan Street sag but are unlikely to have any flooding at the site. Details of proposed stormwater have been requested from RMS and John Holland but no reply has been provided to date.

Figure 1-1 also shows that the Southern and Western Suburbs Ocean Outfall Sewer (SWSOOS) is located at the south west corner of the site. Although unrelated to flooding and stormwater, it is likely to be a constraint to the footprint of the proposed development. The site survey indicates that where this sewer is partially exposed it has a soffit level of at least 8.77m AHD.

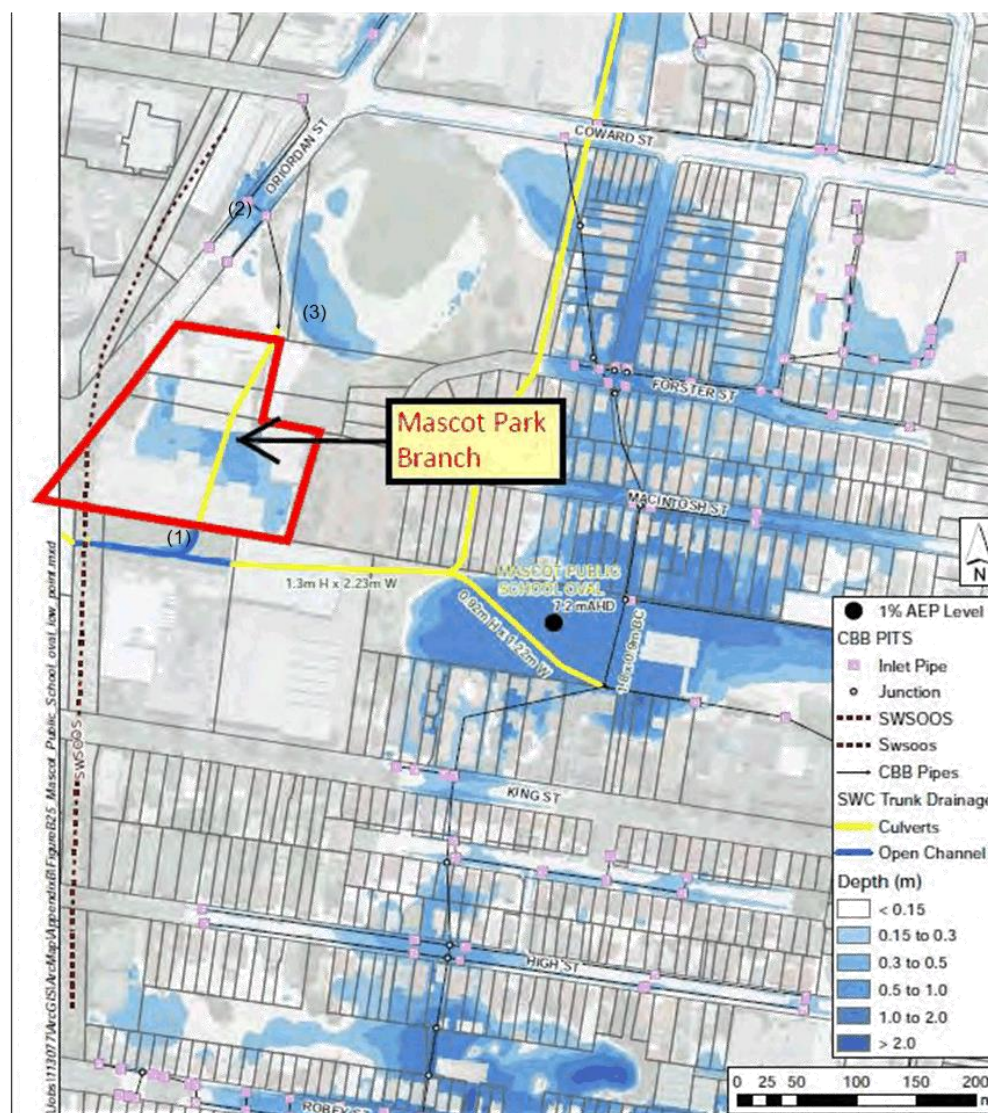


Figure 1-1 Extract from Mascot, Rosebery & Eastlakes Flood Study (WMA Water 2015)

## 2 Available Data

This flood assessment has been based on available data of the site, proposed development, flood estimation, and development controls, including:

- > Bayside Council flood advice letters:
  - FA-2019/2 dated 21 January 2019 for 146 O'Riordan Street Mascot; and
  - FA-2019/30 dated 11 April 2019 for 154 & 154A O'Riordan Street Mascot.
- > Mascot, Rosebery & Eastlakes Flood Study (WMA Water 2015);
- > Site inspection;
- > Survey Drawing No.8216 of the site by Ramsay & Co. Surveyors dated 7 November 2018 (attached in Appendix C);
- > DA Drawings by PTW Architects dated 10 January 2019;
- > Mascot, Rosebery and Eastlakes Floodplain Risk Management Study & Plan (Royal HaskoningDHV, Draft May 2017);
- > Council of Botany Bay Development Control Plan (2013);
- > Building over and adjacent to Sydney Water stormwater assets (Guideline by Sydney Water, 2015);
- > Alexandra Canal Mascot Station Precinct Stormwater Study (AWT 2001);
- > Work-As-Executed Drawings for Government Contract 64-33-34.

Additional flood modelling is recommended to refine the estimated extents of the pre- and post-development flood behaviour.

### 2.1 Council Flood Advice

Bayside Council's flood advice letters (attached as Appendix A) summarise peak flood levels based on the Mascot, Rosebery & Eastlakes (MRE) Flood Study of 2015 and development controls for the sites. Figure 2-1 shows the general layout of the lots.

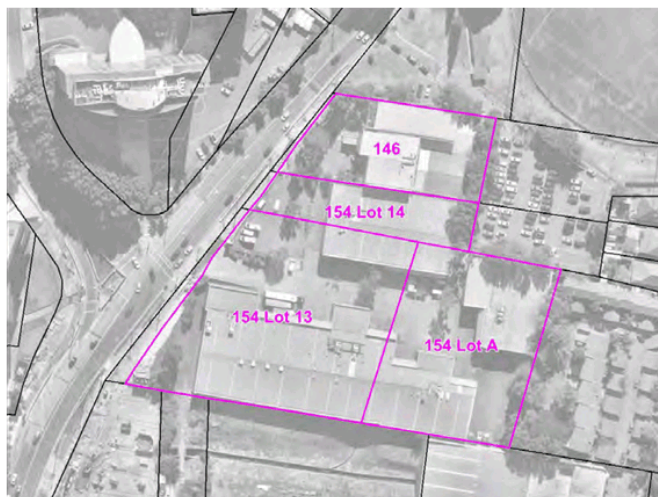


Figure 2-1 General Lot Layout (Aerial image source Nearmap)





Properties 154 and 154A O'Riordan Street are noted as affected by the 1% AEP and Number 146 is noted as being affected by the PMF but not the 1% AEP event. Peak flood levels advised for both sites are 8.49m and approximately 8.6m for the 1% AEP and PMF events respectively. These levels are consistent with the results of the MRE TUFLOW model. However as noted in Section 2.2, the MRE hydraulic model may overestimate the flood level within the site as it is a broadscale catchment model.

Properties 154 & 154A O'Riordan are noted as being subject to overland flooding. The site is generally higher than the surrounding area thus runoff on the site results from contributing areas on the site, not flow from external subcatchments.

The Flood Advice Letter for 154 & 154A O'Riordan Street specifies a minimum habitable floor level for new development of 8.99m AHD and minimum level of 8.79m for non-habitable buildings and structures. However, final FPL's for the site may differ as the flood behaviour of the post-development scenario would be altered due to the revised site grading and building layout. Key considerations are the freeboards specified and the requirement for the development to not increase the water level or hazard on adjoining properties.

## 2.2 MRE Flood Study Model

Flood behaviour estimated in the Mascot, Rosebery & Eastlakes Flood Study used a DRAINS hydrologic model and a 2-dimensional TUFLOW hydraulic model of pipe, channel and overland flows. The TUFLOW model elevations adopt a 2m x 2m grid size based on LiDAR data collected in 2007-2008. It includes pit and pipe data provided by Council and Sydney Water. Features that significantly influence flood behaviour such as flow paths, buildings, kerbs and gutters, road embankments, the drainage network, fences and bridges were also represented in the hydraulic model. However, as a broadscale catchment model it has limitations for flood estimation at a site-specific context as internal drainage systems, elevations, and discrete contributing catchments cannot be defined.

Figure 2-2 shows some general components of the TUFLOW model:

- > Subcatchment for hydrologic calculations shown in red;
- > Hydrologic inflows applied to the TUFLOW model at locations shown in green;
- > Buildings obstructions shown in orange hatch;
- > 1% AEP flood extents shown as white-blue-black shading.

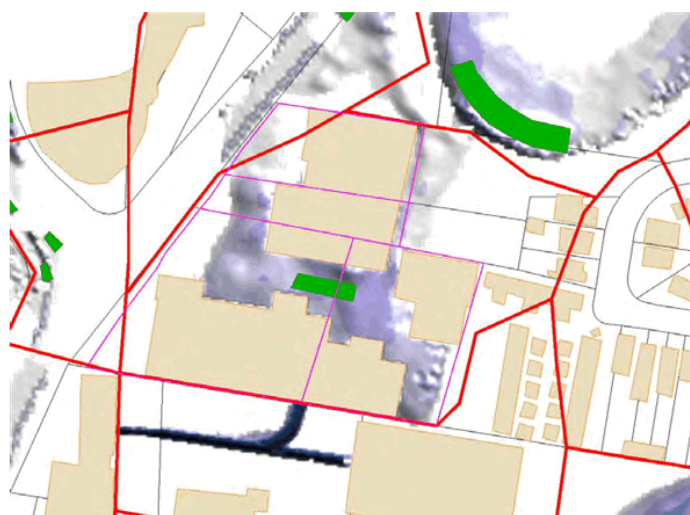


Figure 2-2 MRE Flood Study Configuration





Generally, the TUFLOW modelling shows runoff ponds within the site (due to existing lowpoints and retaining walls) and spills to the north. The TUFLOW model results suggest that runoff within the site will pond to up to 0.3-0.5m depth in a 1% AEP event, before flowing overland towards the O'Riordan Street sag. Flooding in the channel adjacent to the southern boundary is estimated as confined to a narrow overbank area and does not extend into the site in the 1% AEP nor the Probable Maximum Flood (PMF). Trapped sag points are located to the north of the site in O'Riordan Street and Mascot Oval. Peak flood levels from the Study are summarised in Table 2-1. Existing ground levels on the site are above the estimated 1% AEP flood levels at these locations.

Table 2-1 Flood Levels from Mascot, Rosebery & Eastlakes Flood Model

Location (refer Figure 1-1)	1% AEP	PMF
(1) Channel adjacent to southern boundary	6.0m AHD	7.2m AHD
(2) O'Riordan Street sag	7.5m AHD	8.2m AHD
(3) Mascot Oval	7.6 m AHD	8.2m AHD

The model results are considered conservative as:

- > The Mascot Oval carpark is not contributing to the site inundation as it falls to the north;
- > Internal pits and pipes are not modelled (pipes less than 450mm diameter are modelled as 100% blocked);
- > A narrow overland flowpath from the site towards the south is not represented in the TUFLOW model (due to the model grid cell size).

Therefore it is recommended to undertake additional TUFLOW modelling to refine the estimate flood behaviour at the site, potentially using rainfall-on-grid methodology or further discretisation of the contributing subcatchments. Modelling of the pre- and post-development scenarios is recommended to define potential changes to flood behaviour and flood planning levels.

## 2.3 Site Inspection

A site inspection was undertaken on Friday 24 May 2019. The following areas were inspected:

- > The O'Riordan Street Sag (Photo 1). It was clear that this sag covers a large area. There was no obvious overland flow route from the sag.
- > Mascot Oval and carpark (Photo 2). No surface inlet pits were observed in the park, which is consistent with what has been modelled (MRE). The carpark obviously falls away from the 146-154 O'Riordan Street towards the oval which is inconsistent with the catchment area. Residential lots east of the carpark are noticeable higher than the carpark.
- > 146-154 O'Riordan Street. Photo 3 shows the surface grading and one of the internal drainage pits. It was observed that a portion of the SWOOS is exposed in the south western corner of the site due to failure of a log retaining wall (Photo 6).
- > The Mascot West Drainage Channel to the South of the Site (Photos 4 & 5). The channel was accessed through No.263-273 King Street. The channel banks and overbank areas had been cleared of vegetation. Photo 5 is looking towards the SWOOS where it crosses the channel.



Flood Assessment  
146, 154 & 154A O'Riordan Street Mascot



Photo 1



Photo 2



Flood Assessment  
146, 154 & 154A O'Riordan Street Mascot



Photo 3





Flood Assessment  
146, 154 & 154A O'Riordan Street Mascot



Photo 4



Flood Assessment  
146, 154 & 154A O'Riordan Street Mascot



Photo 5





Photo 6



### 3 Development Controls

#### 3.1 Flood Related Development Controls

Council's Flood Advice letter for No.146 specifies the following controls:

- > any new habitable floor level shall be designed a minimum of 200mm above the ground level to avoid shallow surface water entering the building; and
- > any new low level driveway to basement garage shall be designed a minimum of 100mm above the top of road kerb level to prevent street water flow entering the driveway.

Council's Flood Advice letter for No.154 & 154A specifies the following controls:

- > For the design of a new developments on this land the minimum habitable floor level is: 8.99m AHD; and
- > The minimum level for non-habitable buildings and structures such as garages and ramps to basement car parking is: 8.79 m AHD.

#### 3.2 Internal Stormwater Drainage

Councils' DCP requires that internal drainage is designed in accordance with Australian / New Zealand Standard 3500.3. This Standard requires that floor levels be 300mm above the ponding level of any sag pits where water may pond against or enter a building.

#### 3.3 Recommended Flood Planning Levels

Flood planning levels for this site would generally be determined based on the peak flood levels external to the site, not the internal flood levels from the modelling as these would be dependent on internal site conditions which are not explicitly modelled. It is assumed that roof gutter and surface drainage would be designed to manage internal runoff.

A minimum flood planning level of 8.1m AHD is estimated for habitable areas based on a 500mm freeboard to the peak external 1% AEP flood level of 7.6m AHD (noting the peak flood level on the southern boundary is lower at 6.0m AHD). However the above criteria of "a minimum of 200mm above the ground level to avoid shallow surface water entering the building" gives a higher floor level.

#### 3.4 Sydney Water Requirements

Sydney Water has comprehensive guidelines for Building over and adjacent to their stormwater assets. This document is on their website

[http://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mdux/~edisp/dd\\_051552.pdf](http://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mdux/~edisp/dd_051552.pdf). The general requirements include (which are further detailed in the document):

- 1m horizontal clearance and 0.6m vertical clearance to any proposed structure;
- A Flood Impact Assessment may be required.

Potentially there are three options for developing adjacent to the Mascot Park Branch stormwater:

1. *Leave as is and reduce the development footprint to be outside of the easement*
2. *Divert the Mascot Park Branch stormwater pipe along the site boundaries, potentially as shown on the figures in Appendix B.*
  - This is Sydney Water's preferred option;
  - Will allow the development to have a single basement;
  - Currently proposed building setbacks almost allow enough space for this; and



- Work will be required in the lot to the south to construct a new connection to the main branch channel
- 3. *Leave Mascot Park Branch on current alignment and develop over it.*
  - Sydney Water would only permit this if diversion is not feasible;
  - Separate basements would be required;
  - Stormwater pipe would likely to require reconstruction as its expected life may be less than that of a new building;
  - Building structure would need to be structurally independent to stormwater pipe.

It is recommended that a Water Servicing Coordinator (WSC) be engaged to liaise with Sydney Water regarding requirements for their assets in proposed development of the site. Further analysis and modelling would be required to design, assess conveyance capacity, and review potential flood impacts.

## 4 Proposed Development

Proposed development of the site comprises four multi-storey buildings (with residential and retail units), an internal road, and three levels of basement across the whole site servicing all the separate buildings. A general layout of the buildings is shown in Figure 4-1. Architectural drawings by PTW Architects are included as Appendix C (note only a selection of drawings is attached).



Figure 4-1 General Development Layout (Aerial image source Nearmap)

### 4.1 Flood Levels

As noted in the preceding sections of this report, it is recommended that additional flood modelling is undertaken to estimate flood behaviour of the pre- and post-development conditions. A refined flood model of the site would account for the contributing subcatchment (comprising effectively just the site itself) and localised hydraulic controls (from detailed site survey and internal drainage). Flood behaviour on the site would change post-development due to the proposed ground elevations and building position.

### 4.2 Floor Levels

Refined flood modelling (noted above) would estimate peak flood levels for determining flood planning levels for the proposed floor levels. Potential freeboards required for habitable and non-habitable areas as well as basement entries is dependent on the characteristics of the flood behaviour at the particular location.



#### **4.3 Flood Impacts**

A development requirement is that the water level or hazard on adjoining properties is not increased. Stormwater runoff on the site results from catchment areas within the site and there are no significant flowpaths across the site from external catchments. Refined flood modelling would be assessed in this regard.

#### **4.4 Trunk Drainage Realignment**

Realignment of the existing stormwater drainage pipe across the site would be required due to the proposed three levels of basement. A potential diversion is discussed in Section 3.4. The trunk drainage realignment may be analysed separately to the peak flood level modelling.

#### **4.5 Flood Risk Management Plan**

Council has requested a flood risk management plan be prepared and an outline document was included with the flood advice letters (refer to Appendix D). A plan would be prepared when the post-development flood behaviour is estimated and the potential risk and management can be determined.





## 5 Summary

---

Bayside Council records indicate the subject site is affected by flooding. The MRE catchment study is conservative in estimation of the flood behaviour on the site.

Stormwater runoff on the site results from catchment areas within the site and there are no significant flowpaths across the site from external catchments. It is recommended that further site-specific detailed modelling is undertaken to estimate the flood behaviour of the pre- and post-development scenarios.

Proposed floor and basement entry levels can be assessed based on the additional flood modelling outcomes.





11 April 2019

Our Ref: FA-2019/30  
Contact: Pulak Saha

Toplace Pty Ltd  
121 Majors Bay Rd  
CONCORD NSW 2137

Dear Sir/Madam

**Re: Flood Advice Letter for 154 & 154A O'Riordan Street, MASCOT (LOT 14 DP1232496, LOT 13 DP 1232496, LOT A DP402876)**

**When lodging a Development Application you must enclose a copy of this letter.**

**FLOOD NOTATION** Council has notated this property as being affected by the 1% Annual Exceedance Probability (AEP) flood. The 1% AEP flood means there is a 1% (i.e. a 1 in 100) chance of a flood of this height, or higher occurring in any one year.

**FLOOD STUDY** The Council Flood Study applicable to the property is: Mascot, Rosebery & Eastlakes Flood Study, WMA Water Ltd, 2015

**FLOOD LEVELS** **All levels are to Australian Height Datum (AHD)**  
1% AEP Flood level: 8.49m  
2% AEP Flood level: 8.47m  
5% AEP Flood level: 8.45m  
10% AEP Flood level: 8.43m  
20% AEP Flood level: 8.41m

**Probable Maximum Flood (PMF) Level:**  
8.60m AHD

**FLOOD RISK EXPOSURE** The Flood Risk Exposure of the site has been assessed as  
**Overland Flooding: Flood Fringe: Hazard varies from H1 to H2**

**FLOOD COMMENTARY**

- Refer to figure 1 for flood extent map.
- Attached example of flood management plan is applicable for minor addition/alteration to the existing development. For complex/major development, detailed flood risk management plan will be required.
- No accurate information is recorded regarding the impact of tsunamis in the Bayside Local Government area.

**Eastgardens Customer Service Centre**  
Westfield Eastgardens  
152 Bunnerong Road  
Eastgardens NSW 2036, Australia  
ABN 80 690 785 443 Branch 004

**Rockdale Customer Service Centre**  
444-446 Princes Highway  
Rockdale NSW 2216, Australia  
ABN 80 690 785 443 Branch 003  
DX 25308 Rockdale

**Phone 1300 581 299**  
**T (02) 9562 1666 F 9562 1777**  
**E [council@bayside.nsw.gov.au](mailto:council@bayside.nsw.gov.au)**  
**W [www.bayside.nsw.gov.au](http://www.bayside.nsw.gov.au)**

**Postal address:** PO Box 21, Rockdale NSW 2216



**Telephone Interpreter Services - 131 450**

Τηλεφωνικές Υπηρεσίες Διερμηνέων

بخدمة الترجمة الهاتفية

電話傳譯服務處

Служба за преведување по телефон

<b>HAZARD CATEGORY DETAILS</b>	<p>H1 - Generally safe for vehicles, people and buildings.</p> <p>H2 - Unsafe for small vehicles.</p>
<b>FLOOD PLANNING LEVEL (FPL)</b>	<p>The Flood Planning Level (FPL) is a height used to set floor levels for property development in flood prone areas. It is generally defined as the 1% AEP flood level plus an appropriate freeboard.</p> <p>For the design of a new developments on this land the minimum habitable floor level is: 8.99m AHD</p> <p>The minimum level for non-habitable buildings and structures such as garages and ramps to basement car parking is: 8.79 m AHD</p> <p>As noted these floor levels are minimums, floor levels higher than these are allowable subject to normal planning rules. In order to relate these levels to your property you will need to obtain a survey to determine the ground level to AHD at the site.</p>
<b>OVERLAND FLOW</b>	<p>The development is not to increase the water level or hazard on adjoining properties. Opportunities should be investigated to design a development that is clear of the overland floodway and acts to reduce the impacts of these flows, possibly by removing inappropriate travel paths and/or reducing the hazard.</p> <p>For the design of all new developments, alterations and additions on this land a civil/hydraulic engineer is to be engaged to assess the impacts of these overland flows before and after development using a hydraulic model. A <i>TUFLOW</i> model has been created by WMA Water Pty Ltd for Bayside Council reflecting catchment conditions in 2015. The model will be made available to a nominated Consulting Engineer subject to entering a Model and Data Licence Agreement and payment of the required fee as listed in Council's fees and charges – Flood studies/ GIS drainage.</p>
<b>FLOW THROUGH FENCING</b>	<p>Flow through open form fencing (louvres or pool fencing) is required for all new front, side and rear fencing and gates up to the 1% AEP Flood level to allow flood water flow through.</p>
<b>FLOOD RELATED DEVELOPMENT CONTROLS</b>	<p>The following additional flood related development controls apply:</p> <ol style="list-style-type: none"> <li>1. Any portion of the building or structure lower than the applicable flood planning level (FPL) shall be built from flood compatible materials to be specified by a Structural Engineer.</li> <li>2. All services associated with the development shall be flood proofed to the habitable floor level.</li> <li>3. Filling on this land may impact on flood behaviour and may increase the hazard on adjoining properties. A qualified civil/hydraulic engineer is to be engaged to assess the impacts of the filling before and after development using a hydraulic model.</li> <li>4. A suitably qualified engineer is to certify that the structure can withstand</li> </ol>

the forces of floodwater, debris and buoyancy in a 1% AEP flood event.

5. A Flood Management Plan is required to be lodged with the DA which will detail whether evacuation procedures are required and if so how they will be initiated, warning signs and preservation of flood awareness as owners and/or occupants change through time. An example is attached.

**EXISTING  
DRAINAGE  
NETWORK  
ADVICE**

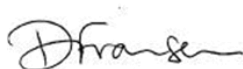
Council is aware of an existing 1050mm diameter stormwater drainage pipe running across the middle of the site (refer to figure 1 for the approximate location). Council records show that this pipe is owned by Sydney Water.

This pipe should be physically located by a surveyor along with the depth. The depth of the pipe and the alignment of the pipe should be clearly shown on the plans submitted for the application for planning consent (DA or CDC). Requirements for construction adjacent to the pipe or relocation of existing drainage asset shall be sought from Sydney Water prior to the lodgement of the DA.

Council considers that this is the best information currently available on flooding in the area, but Council cannot comment on the accuracy of the result.

Should you require any further information, please contact Council's Strategic Floodplain Engineer, Pulak Saha on 9562 1652.

Yours faithfully



Debbie Fransen  
**COORDINATOR ASSET STRATEGY**



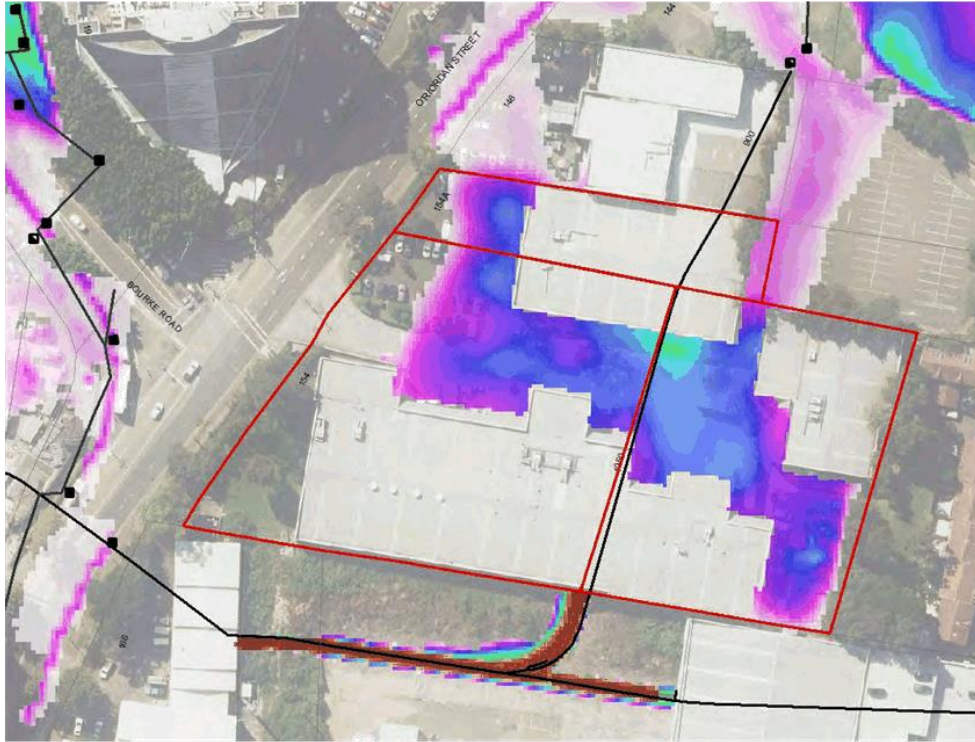


Figure 1: 1% AEP Flood extent map (brown and dark blue graduating to green indicates greater depth of water and pale pink indicates shallower depth, black line indicates approximate location of the existing drainage network)



21 January 2019

Our Ref: FA-2019/2  
Contact: Pulak Saha

JKN Park Pty Ltd  
121 Majors Bay Rd  
CONCORD NSW 2137

Dear Sir/Madam

**Re: Flood Advice Letter for 146 O'Riordan Street, MASCOT**

**When lodging a Development Application you must enclose a copy of this letter.**

<b>FLOOD NOTATION</b>	Council has <b>not</b> notated this property as being affected by the 1% Annual Exceedance Probability (AEP) flood.
	Council has notated this property as being affected by a Probable Maximum Flood (PMF) flood.
	The PMF is the largest flood that could conceivably occur at a particular location. Generally, it is not physically or economically feasible to provide complete protection against this event.
<b>FLOOD STUDY</b>	The Council Flood Study applicable to the property is: Mascot, Rosebery & Eastlakes Flood Study, WMA Water Ltd, 2015
<b>FLOOD LEVELS</b>	<b>1% AEP Flood level:</b> 8.49m Australian Height Datum (AHD)
	<b>Probable Maximum Flood (PMF) Level:</b> 8.58m AHD
<b>FLOOD RISK EXPOSURE</b>	The Flood Risk Exposure of the site has been assessed as <b>Low Hazard: Land below probable maximum flood level.</b>
<b>FLOOD COMMENTARY</b>	No accurate information is recorded regarding the impact of tsunamis in the Bayside Local Government area.

**Eastgardens Customer Service Centre**  
Westfield Eastgardens  
152 Bunnerong Road  
Eastgardens NSW 2036, Australia  
ABN 80 690 785 443 Branch 004

**Rockdale Customer Service Centre**  
444-446 Princes Highway  
Rockdale NSW 2216, Australia  
ABN 80 690 785 443 Branch 003  
DX 25308 Rockdale

**Phone 1300 581 299**  
**T (02) 9562 1666 F 9562 1777**  
**E [council@bayside.nsw.gov.au](mailto:council@bayside.nsw.gov.au)**  
**W [www.bayside.nsw.gov.au](http://www.bayside.nsw.gov.au)**

**Postal address:** PO Box 21, Rockdale NSW 2216



**Telephone Interpreter Services - 131 450**

Τηλεφωνικές Υπηρεσίες Διερμηνείας

بخدمه الترجمة الهاتفية

電話傳譯服務處

Служба за преведување по телефон

**FLOOD  
RELATED  
DEVELOPMENT  
CONTROLS**

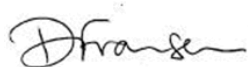
While no flood control is applicable to this site, it is advised that any new habitable floor level shall be designed a minimum of 200mm above the ground level to avoid shallow surface water entering the building.

It is also advised that any new low level driveway to basement garage shall be designed a minimum of 100mm above the top of road kerb level to prevent street water flow entering the driveway.

Council considers that this is the best information currently available on flooding in the area, but Council cannot comment on the accuracy of the result.

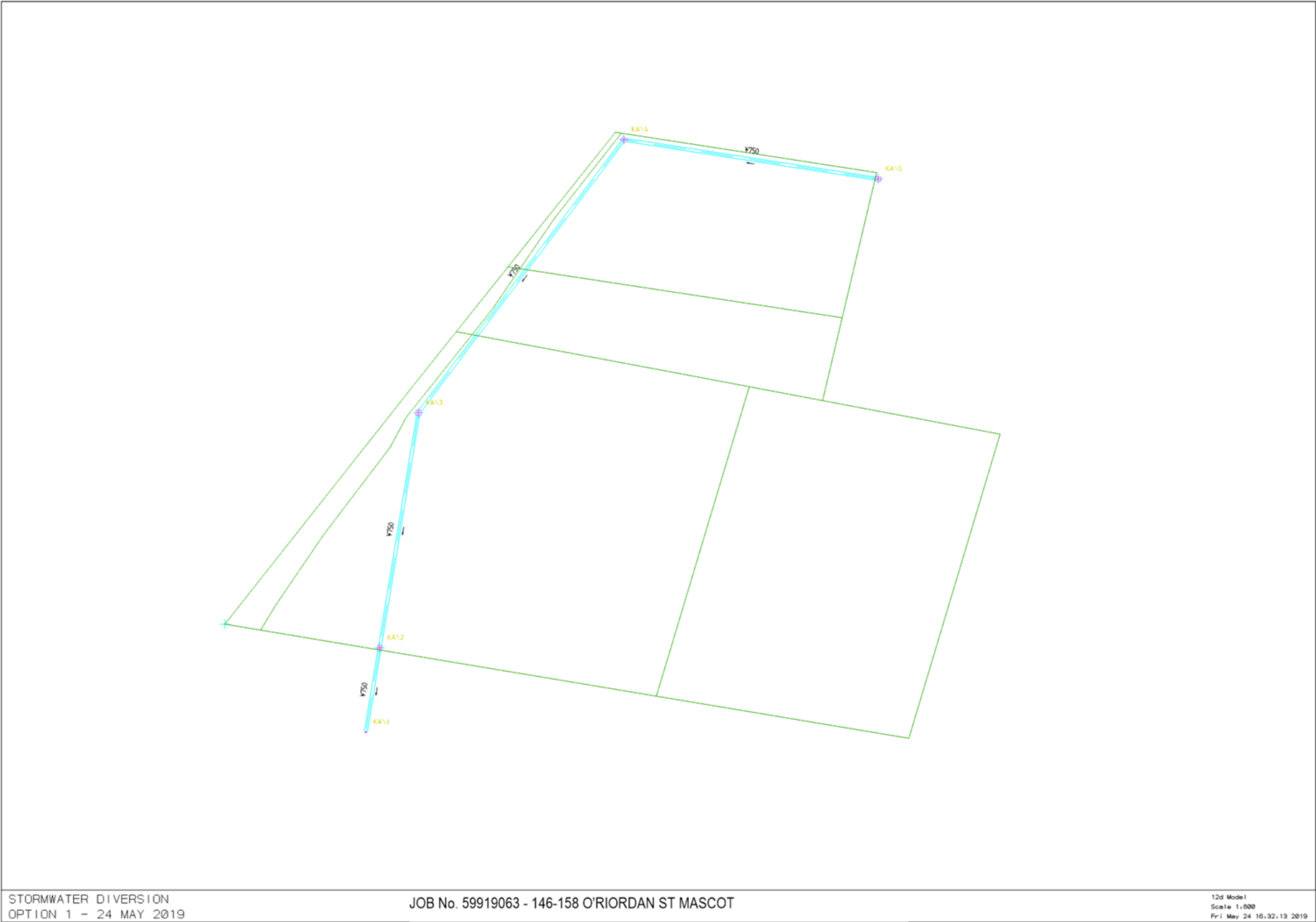
Should you require any further information, please contact Council's Strategic Floodplain Engineer, Pulak Saha on 9562 1652.

Yours faithfully

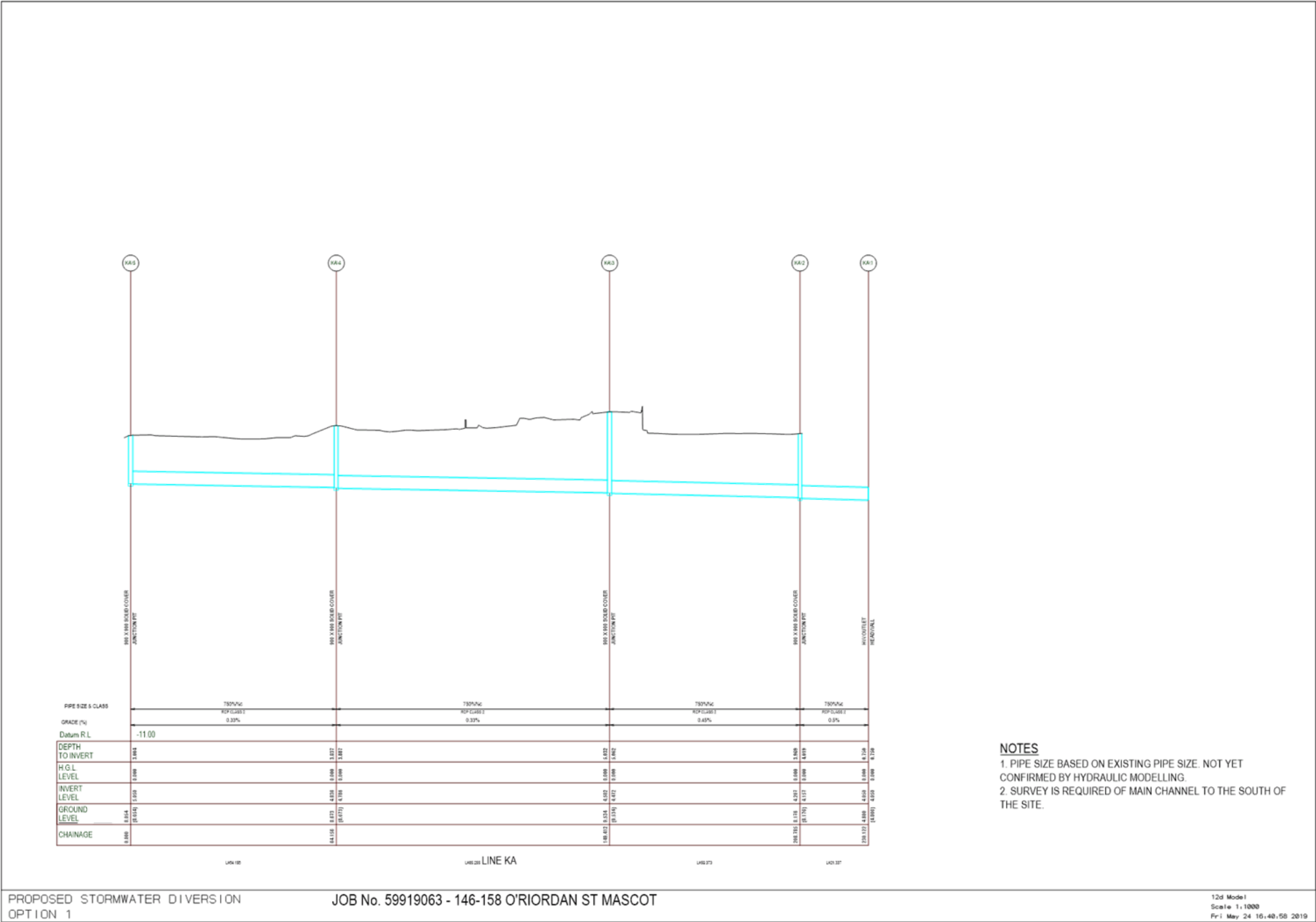


Debbie Fransen  
**COORDINATOR ASSET STRATEGY**

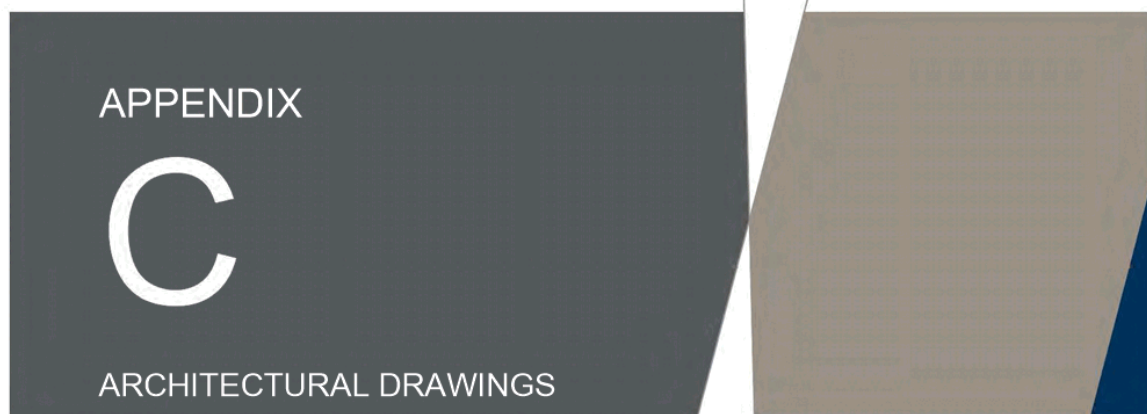


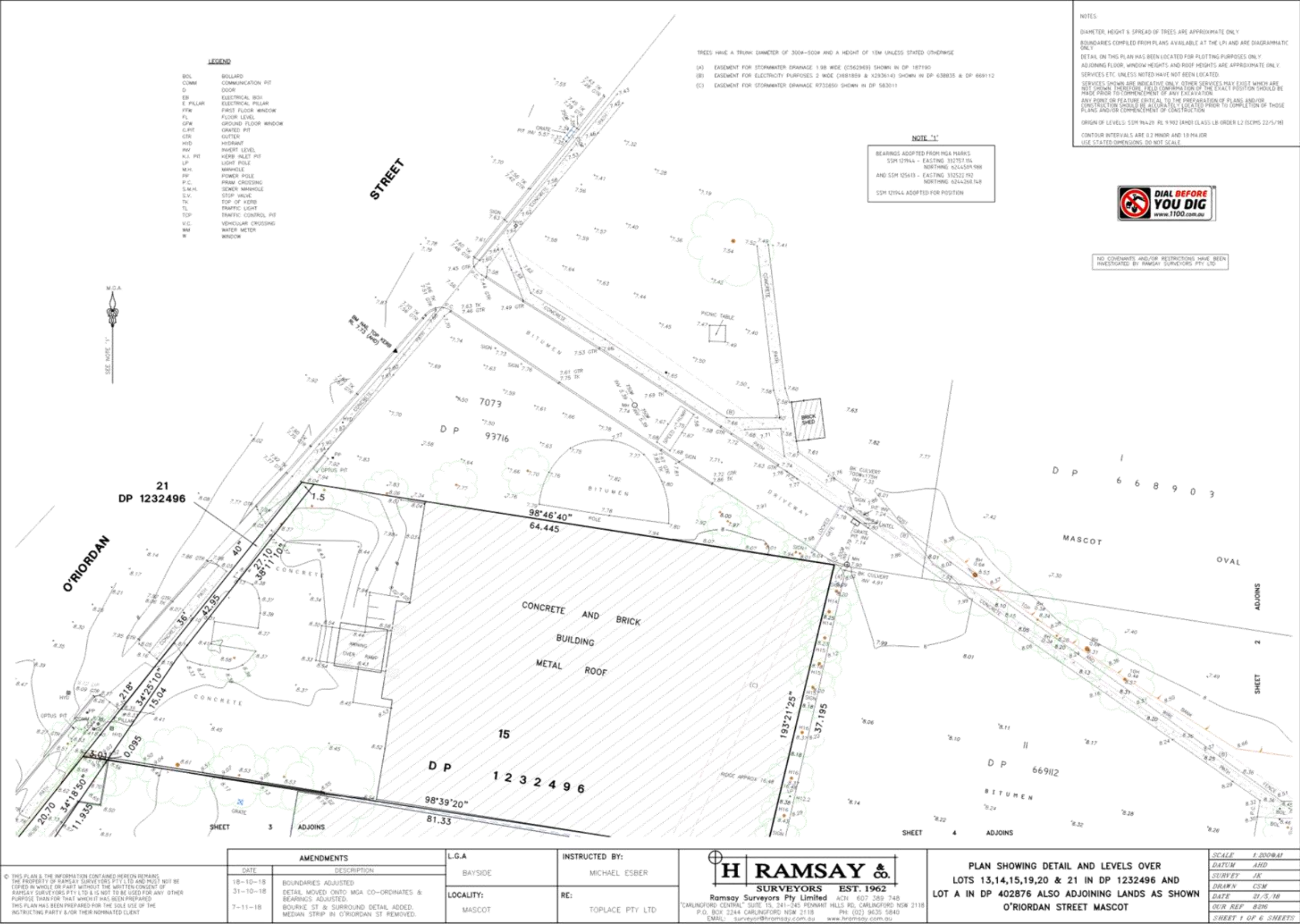






NOTES  
1. PIPE SIZE BASED ON EXISTING PIPE SIZE. NOT YET  
CONFIRMED BY HYDRAULIC MODELLING.  
2. SURVEY IS REQUIRED OF MAIN CHANNEL TO THE SOUTH OF  
THE SITE.





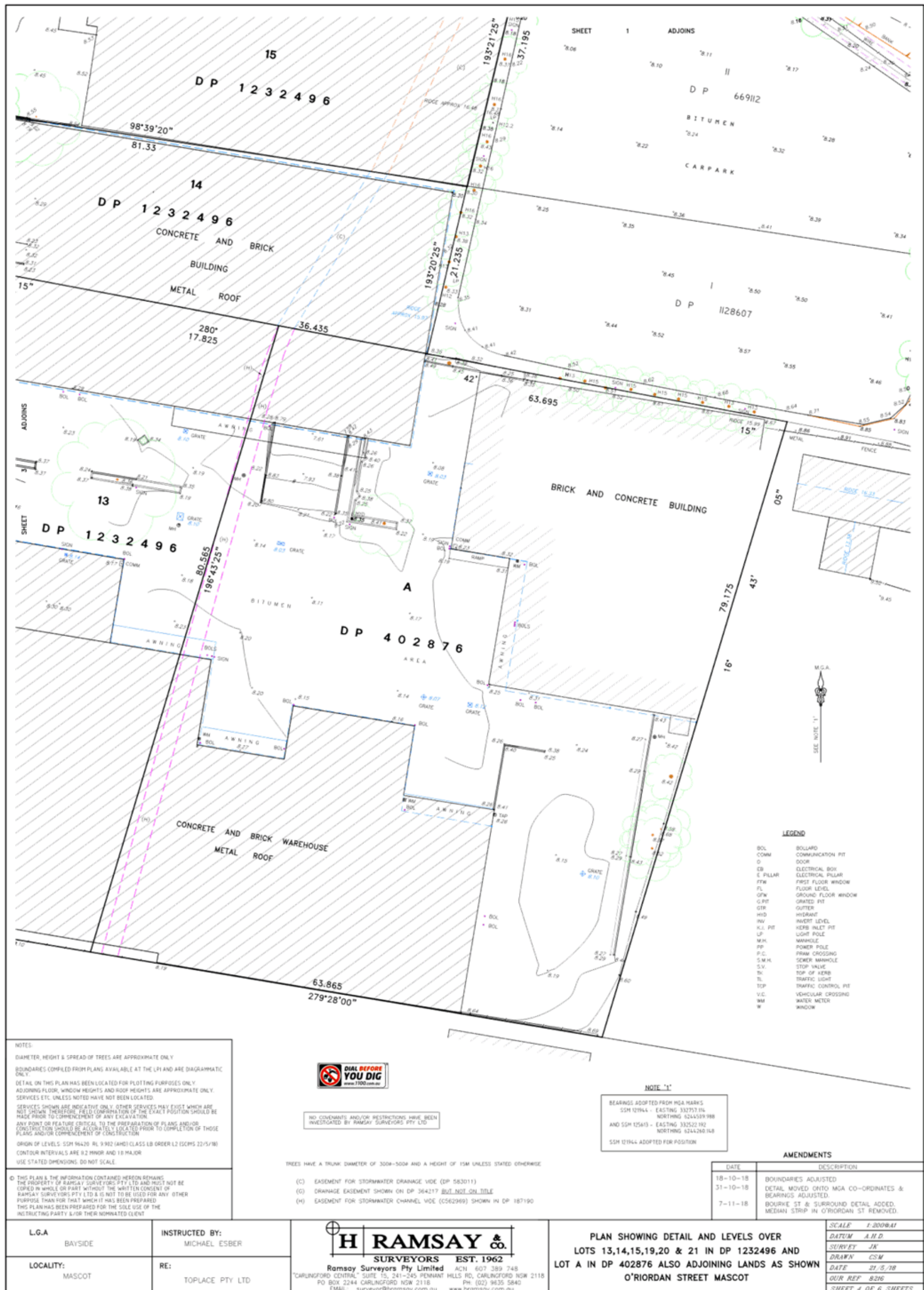


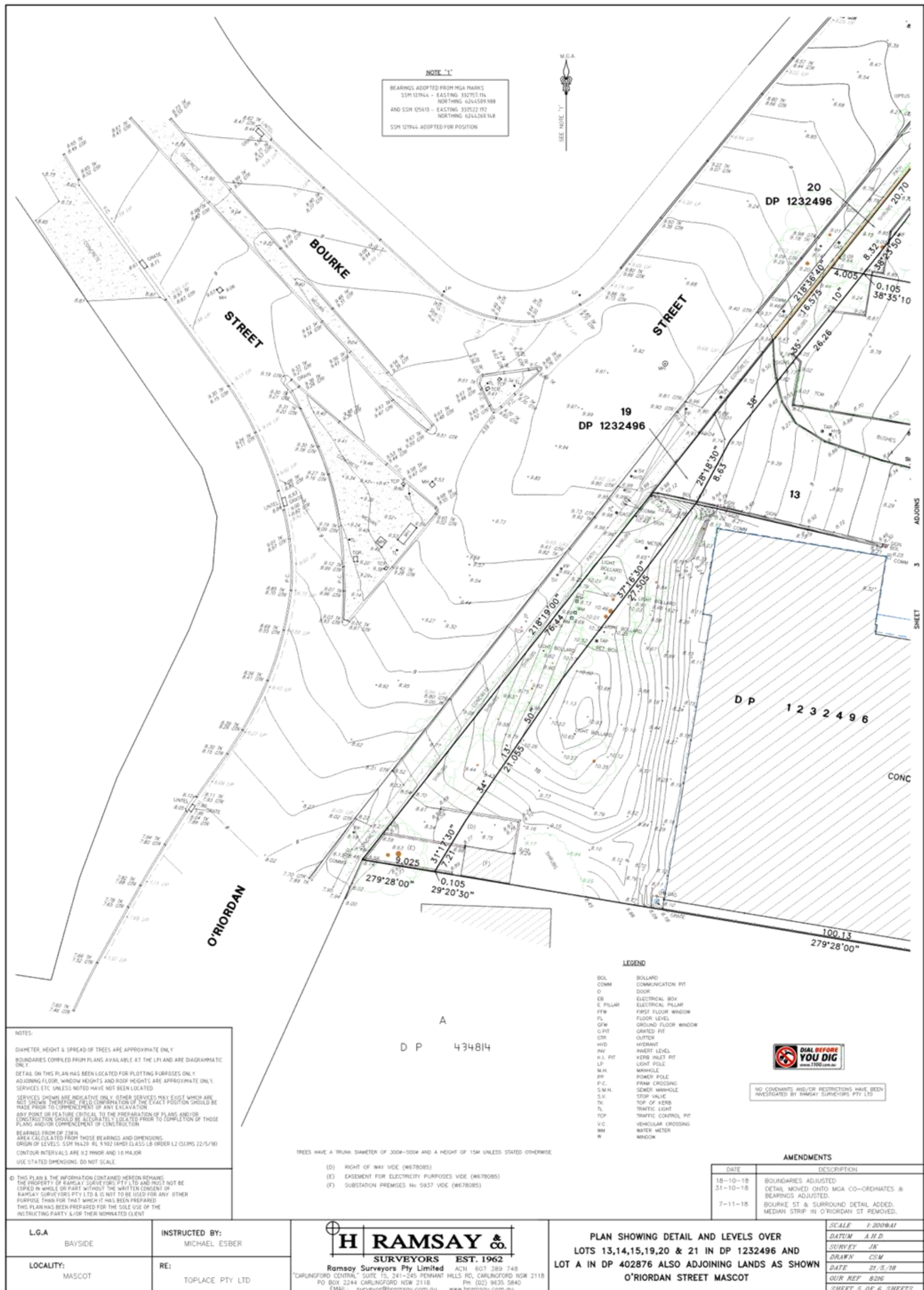




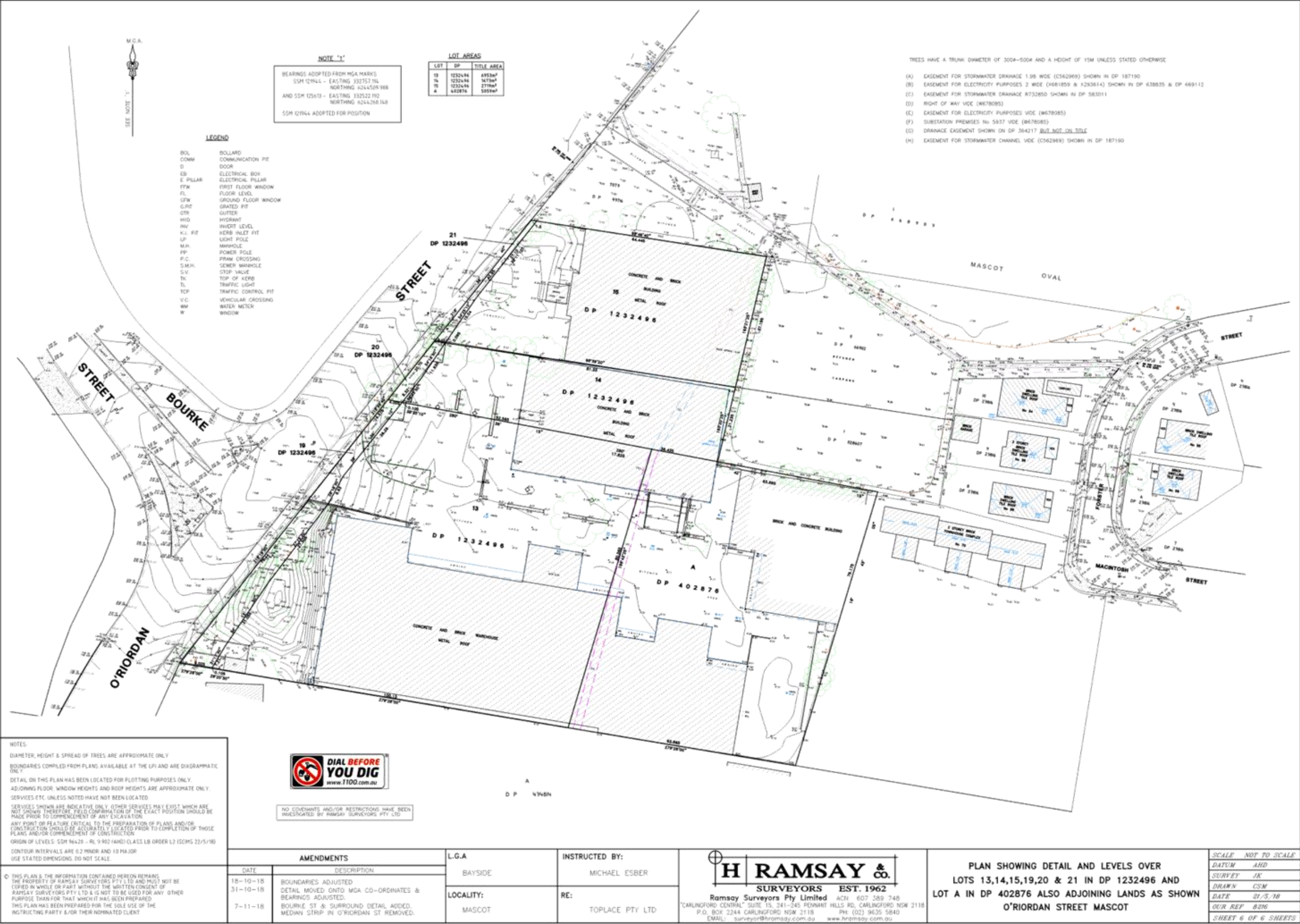




























**FLOOD MANAGEMENT PLAN FOR .....****Background**

Council has advised that this property is subject to flooding in a 1% AEP (1 in 100 year AEP) storm event. The Probable Maximum Flood (PMF) is the highest flood level that is ever likely to occur, however it is extremely rare.

Council has no information regarding Tsunami in Bayside Local Government.

Relevant levels are: *Complete as appropriate for your property*

1% AEP Flood Level =	m Australian Height Datum (AHD)
Probable Maximum Flood =	m AHD
Garage Floor Level =	m AHD
Driveway Crest Level =	m AHD (below ground garages only)
Habitable Floor Level =	m AHD
Second Floor Level =	m AHD
Front Boundary Level =	m AHD
Lowest Ground Level =	m AHD at .....

The above levels give an indication of how the various floods will impact this property and what level of protection is provided. Habitable living areas are designed to be a minimum of 0.5 m above the 1% AEP Flood Level and staying within the home will provide protection for a wide range of floods.

**Procedure**

1. Floods in Bayside Local Government are considered as "flash floods" and no warning system is available. Storms leading to major flooding are typically 2 hours long, however shorter storms as little as 30 minutes long can produce significant flooding. Once the storm passes floodwaters usually disappear rapidly.

2. During floods many local and major streets and roads will be cut by floodwaters.

Traveling through floodwaters on foot, or in a vehicle can be very dangerous as the water may be polluted, obstructions can be hidden under the floodwaters, or you could be swept away. Council recommends staying within the home as much as practical as this is the safest option. If you need to leave the home do so early in the flood event, before the flood level reaches ..... *(the trigger location for your property)* ....

3. Develop your own family flood plan and be prepared if flooding should occur while the kids are coming home from school or when you are returning from work. Talk to the Council to determine the safer travel routes that are less likely to be cut by floodwaters.

4. For below ground garages do not attempt to save the car if floodwaters start to enter the garage, it is too dangerous as water levels will rise rapidly and you could be trapped.

5. As the flood level approaches the garage floor level (but only if safe to do so) relocate any items that may be damaged by water, or poisons, or wastes to as high a level as possible.

6. As the flood level approaches the habitable floor level:

i) gather medicines, special requirements for babies or the elderly, mobile phones, first aid kit, special papers and any valuables into one location,

ii) put on strong shoes, raise any items within the home that may be damaged by water (e.g. photo albums) to as high a level as possible, with electrical items on top. Turn off and disconnect any large electrical items such as a TV that cannot be raised.

iii) place wet towels across the bottom and lower sides of external doors to slow down the entry of water through the door.

7. In the very rare event that floodwaters may enter the home collect items from 6.i) above and move to an upper level if possible, or if in a single level dwelling provide a chair in the kitchen to enable access to the kitchen bench preferably adjacent to the window. Ensure window is not locked or key readily available. Do not evacuate the home unless instructed to do so by the SES or the Police. Remember floodwaters are much deeper and flow much faster outside.

8. In the case of a medical emergency ring 000 as normal, but explain about the flooding.

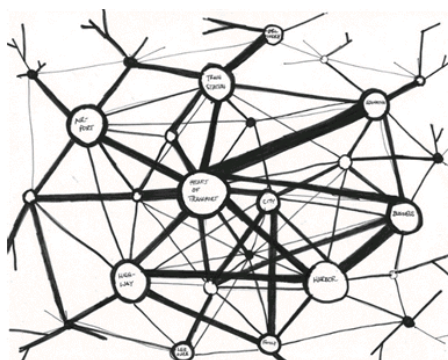
9. A laminated copy of this flood plan should be permanently attached (glued) on an inside cupboard door in the kitchen and laundry and to the inside of the electrical meter box.
10. This flood management plan should be reviewed every 5 years, particularly with the potential effects of Climate Change with sea level rise and increased rainfall intensities.





# TRAFFIC AND PARKING IMPACT STATEMENT

146 – 154 O'RIORDAN  
STREET, MASCOT  
(PROPOSED PLANNING  
PROPOSAL)



**Date:**  
12 March 2019

**Office:**  
Suite 15/9 Hoyle Ave., Castle Hill  
NSW 2154

**All Correspondence:**  
75 Gindurra Ave., Castle Hill NSW  
2154

Ph: (02) 8850 2799

Mob:  
0418 262 125 (David Thompson)  
0450 747 401 (Yafeng Zhu)

Email:  
david@thompsonstanbury.com.au  
yafeng@thompsonstanbury.com.au

Website:  
www.thompsonstanbury.com.au

**COPYRIGHT:** The concepts and information contained within this document are the property of T S A. Use or copying of this document in whole or in part without the written permission of T S A constitutes an infringement of copyright.

### TABLE OF CONTENTS

	PAGE NO.
<b>1. INTRODUCTION.....</b>	<b>3</b>
<b>2. SITE DETAILS.....</b>	<b>4</b>
2.1 SITE LOCATION.....	4
2.2 SITE DESCRIPTION .....	4
2.3 EXISTING USES .....	4
2.4 SURROUNDING USES.....	4
<b>3. PROPOSED DEVELOPMENT .....</b>	<b>6</b>
3.1 BUILT FORM .....	6
<b>4. EXISTING TRAFFIC CONDITIONS .....</b>	<b>7</b>
4.1 SURROUNDING ROAD NETWORK .....	7
4.2 EXISTING TRAFFIC VOLUMES AND CONDITIONS .....	9
4.3 PUBLIC TRANSPORT .....	10
4.4 PEDESTRIAN INFRASTRUCTURE.....	11
<b>5. PROJECTED TRAFFIC CONDITIONS.....</b>	<b>12</b>
5.1 TRAFFIC GENERATION .....	12
5.1.1 <i>Current Site Generation</i> .....	12
5.1.2 <i>Projected Development Traffic Generation</i> .....	12
5.2 GENERAL DISCUSSION OF TRANSPORT IMPACTS.....	12
<b>6. CONCLUSION .....</b>	<b>14</b>
<b>APPENDIX</b>	
1. Existing Peak Morning and Evening Traffic Surveys	

## 1. INTRODUCTION

This Practice has been commissioned by Toplace Pty. Ltd. to prepare a Traffic and Transport Impact Assessment report to accompany a Planning Proposal for the redevelopment of land, located 146 – 154 O’Riordan Street, Mascot (‘subject site’). The Planning Proposal to be lodged with Bayside Council (‘Council’) seeks to increase the maximum permissible building height from 22m (currently allowed under Botany Local Environmental Plan 2013) to part 44m. It is noted that no changes are proposed to the zoning of the land or permitted density as part of the Planning Proposal.

The future traffic impacts of the surrounding precinct have been assessed by others as part of the proposed upgrade of the adjoining road network in the immediate vicinity of the subject site associated with the redevelopment of Sydney Airport. The purpose of this report is therefore to primarily assess the potential traffic and transport implications associated with the planning proposal and where necessary, recommend appropriate treatment measures to ameliorate any adverse impacts. Specifically, this report:

- Describe the existing transport conditions in vicinity of the subject site, including the existing traffic network, traffic volumes and available public transport network;
- The likely additional traffic potentially generated by the Planning Proposal estimated based on traffic generation rates provided with RMS’ Guide to Traffic Generating Developments and its *Updated Traffic Surveys* (TD 2013/04a); and
- The impact of this additional traffic on the existing surrounding road network.

Throughout this report, reference is made to the following documents:

- The Roads and Maritime Services’ *Guide to Traffic Generating Developments* and its *Updated Traffic Surveys* (TD 2013/04a);
- Transport Modellers Alliance’s *Traffic and Transport Assessment (West Connex Enabling Works – Airport West)*.

This report has been prepared pursuant to State Environmental Planning Policy (Infrastructure) 2007.

The report should be read in conjunction with the Urban Design Report prepared by PTW Architects.

## **2. SITE DETAILS**

### **2.1 Site Location**

The subject site is situated on the eastern side of O’Riordan Street, opposite Bourke Road, Mascot. The site location is shown overleaf within its surrounding road hierarchy and local land use context in **Figures 1** and **2** respectively.

### **2.2 Site Description**

The site comprises a number of allotments, providing a collective street address of 146 – 154 O’Riordan Street, Mascot. The consolidated lots forms an irregular shaped parcel of land providing a single frontage to O’Riordan Street of approximately 158m. The total site area is in the order of 17,318m<sup>2</sup>.

### **2.3 Existing Uses**

The site currently accommodates a number of commercial office tenancies. Vehicular access to the existing on-site development occupying 146 O’Riordan Street, Mascot is currently facilitated by separate ingress and egress driveways connecting with O’Riordan Street at the north-western and south-western corners of this property.

Property No. 154 O’Riordan Street, Mascot, which forms the southern portion of the subject site is currently serviced by a combined ingress/egress driveway connecting with O’Riordan Street at the centre of the property boundary.

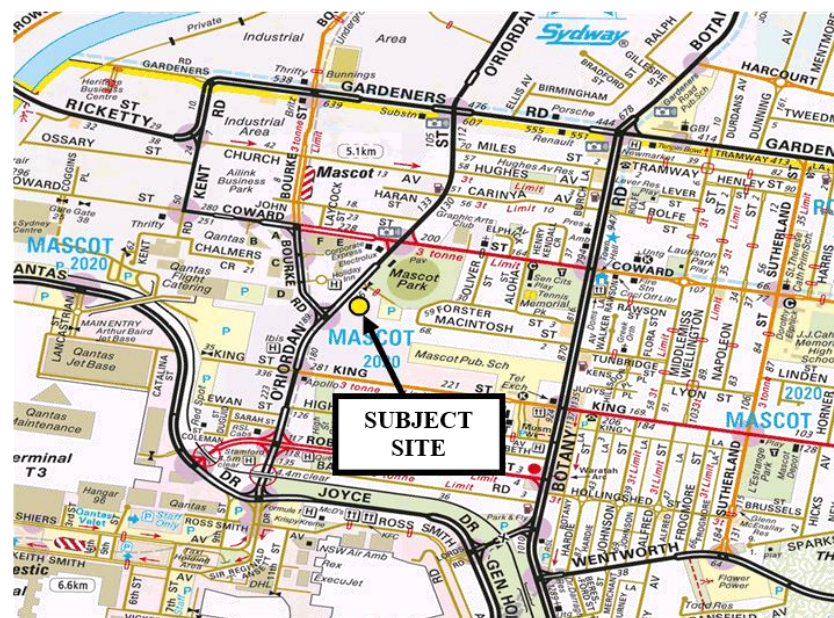
The existing on-site development described above, is proposed to be demolished as part of the subject DA

### **2.4 Surrounding Uses**

The site is surrounded by the following mix of land-uses:

- A sporting oval is located to the immediate north;
- Detached residential dwellings occupy the land to the east;
- Commercial and warehouse tenancies are located to the immediate south; and
- A hotel development is situated to the immediate west (across O’Riordan Street).

**FIGURE 1**  
**SITE LOCATION – SURROUNDING ROAD NETWORK CONTEXT**



Source: <http://www.street-directory.com.au> (Accessed 14/12/18)

**FIGURE 2**  
**SITE LOCATION – LOCAL LAND USE CONTEXT**



Source: Six Maps (Accessed 14/12/18)



### **3. PROPOSED DEVELOPMENT**

#### **3.1 Built Form**

The subject development seeks to modify Botany Local Environmental Plan 2013 to increase the maximum allowable building height from 22m to 44m. The Planning Proposal does not seek to alter the zoning of the land or the permitted density.

It is understood that the change in building height will not change the types and forms of development that are permitted in the zone. An increase in height is likely to facilitate the site utilising the permitted FSR. In order to consider the possible traffic implications of the increased height, an analysis will be undertaken in the form of permitted development in the zone. This report will consider an intensification of the hotel and serviced apartments' usage on the site. It is understood that the increased height is likely to yield approximately 562 serviced apartments and 253 hotel rooms.

As the development site only has a single frontage to O'Riordan Street, any future access to the site would occur via this public road. The existing raised central median with O'Riordan Street in the immediate vicinity of site frontage is such that access movements is restricted to left in/left out.

#### 4. EXISTING TRAFFIC CONDITIONS

##### 4.1 Surrounding Road Network

It is usual to classify roads according to road hierarchy in order to determine their functional role within the road network. Changes to traffic flows on the roads can then be assessed within the context of the road hierarchy. Roads are classified according to the role they fulfil and the volume of traffic they should appropriately carry. In this regard, the Roads & Maritime Services has set down the following guidelines for the functional classification of roads:

- **Arterial Road** – typically a main road carrying over 15,000 vehicles per day and fulfilling a role as a major inter-regional link (over 1,500 vehicles per peak hour);
- **Sub-Arterial Road** – defined as secondary inter-regional links, typically carrying volumes between 5,000 and 20,000 vehicles per day (500 to 2,000 vehicles per peak hour);
- **Collector Road** – provides a link between local roads and regional roads, typically carrying between 2,000 and 10,000 vehicles per day (250 to 1,000 vehicles per peak hour). At volumes greater than 5,000 vehicles per day, residential amenity begins to decline noticeably; and
- **Local Road** – provides access to individual allotments, carrying low volumes, typically less than 2,000 vehicles per day (250 vehicles per peak hour).

Peak hour volumes on most roads are typically eight to twelve percent of the daily volumes. In accordance with the above, the roads in the vicinity of the subject site are therefore described below:

- **O’Riordan Street** performs a State Road function under the care and control of the Roads and Maritime Services. It provides an important arterial route between Botany Road/Bourke Street in the north and Qantas Drive/Joyce Drive in the south, immediately adjacent to Sydney Airport.

O’Riordan Street generally forms a dual carriageway, providing two through lanes of traffic in each direction in the immediate vicinity of the site. It forms a T-junction with Bourke Road under traffic signal control, at which, the pavement widens to accommodate an exclusive right turn lane within the northern approach.

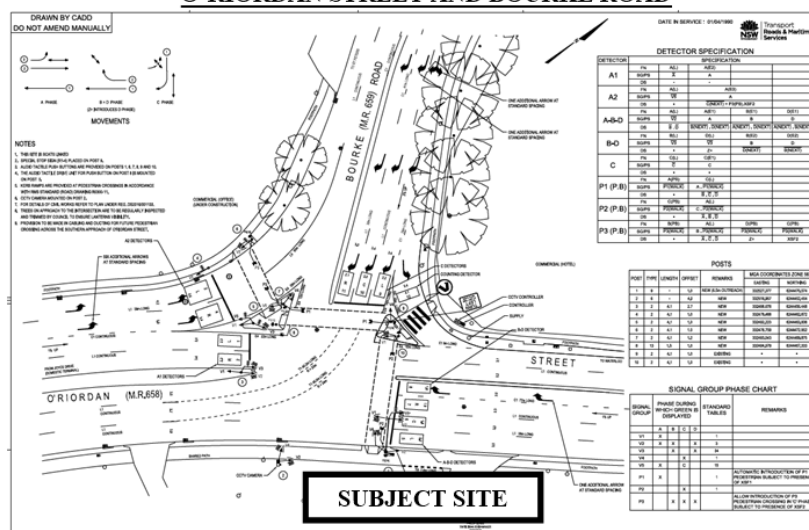
- **Bourke Road** performs a State Road function, providing an east-west connection between Ricketty Street/Canal Road and O’Riordan Street in conjunction with Kent Road and Coward Street. On approach to O’Riordan Street, Bourke Road currently provides two exclusive right turning lanes and an auxiliary left turn slip lane.

Traffic flow within both O’Riordan Street and Bourke Road is governed by a sign posted speed limit of 60km/h.

It has been previously mentioned that the surrounding road network (i.e. O'Riordan Street and Bourke Road) immediately adjacent to the subject site is proposed to be upgraded to provide additional travel/turning lanes, as part of the redevelopment of Sydney Airport. **Figure 3** depicts the future intersection layout of O'Riordan Street and Bourke Road, being an extract of the future traffic signal design for this intersection, obtained from the Roads & Maritime Services (RMS), whilst the following provides a summary of key road works:

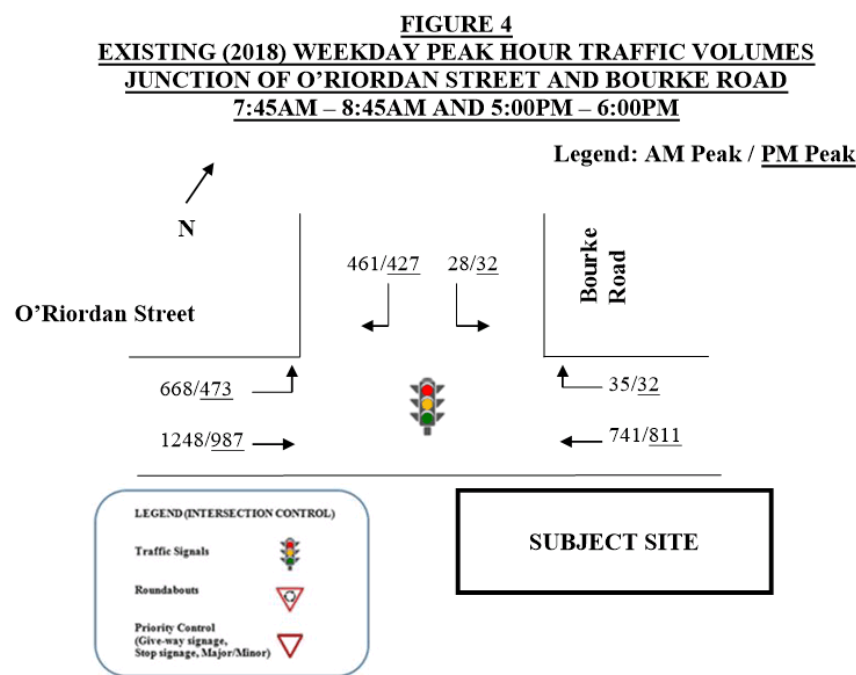
- Widening along the eastern side of O'Riordan Street to support three (3) through lanes of traffic. The property boundary of the subject site along with adjoining sites abutting the eastern side of O'Riordan Street have been set back to accommodate the additional travel lane;
- The western side of O'Riordan Street to the south of Bourke Road is also proposed to be widened to support two (2) exclusive left turning lanes (Currently one (1) left turning lane is provided); and
- Bourke Road is proposed to be upgraded to provide three (3) right turning lanes and a left turning slip lane at its intersection approach with O'Riordan Street (Currently, two (2) right turning lanes and an exclusive left turning slip lane forms the existing layout).

**FIGURE 3**  
**FUTURE INTERSECTION CONFIGURATION OF**  
**O'RIORDAN STREET AND BOURKE ROAD**



4.2 Existing Traffic Volumes and Conditions

In order to obtain an indication of the existing operation of the local road network adjacent to the site, reference is made to morning and evening peak hour traffic surveys undertaken by professional traffic surveyors on behalf of this Practice. Traffic surveys were undertaken at the junction of O’Riordan Street and Bourke Road between 7.00am – 9.00am and 4.00pm – 6.00pm on 29 September 2018. The peak hour traffic volumes obtained from these surveys (identified to be between 7:45am – 8:45am and 5:00pm – 6:00pm) are represented diagrammatically in **Figure 4**, whilst full details are provided in **Appendix 1**.



It is noted that the surveyed peak hour traffic demands presented above are similar to the existing volumes provided within the Traffic and Transport Assessment report previously prepared by Transport Modellers Alliance (TMA), in relation to the proposed RMS road works, associated with the airport upgrade. **Table 1** overleaf presents a comparison of the peak hour traffic volumes between this assessment and TMA’s report.

TABLE 1 EXISTING (2018) PEAK HOUR TRAFFIC DEMANDS				
Intersection Approach	TSA Report (This Study)		TMA Report (Previous Precinct Study)	
	AM PEAK	PM PEAK	AM PEAK	PM PEAK
O’Riordan Street (North)	776	843	673	1089
O’Riordan Street (South)	1916	1460	2187	1376
Bourke Road	489	459	418	584

The minor differences in traffic volumes reflected in **Table 1**, indicates that the existing conditions of the adjoining road network adjacent to the subject site is not expected to vary to any significant extent compared to the assessment presented in the previous study undertaken by TMA. Indeed, computer based intersection analysis programs such as SIDRA are generally not sensitive to such minor fluctuations in traffic demand. In this regard, the SIDRA results presented within the TMA report associated with the existing road network operational performance is still applicable for the purposes of this study.

Based on TMA’s traffic and transport study, the junction of O’Riordan Street and Bourke Road currently operates with an overall intersection level of service ‘B’ during the morning peak hour period and a level of service ‘C’ during the evening peak hour period. Such levels of service is defined within RMS’ *Guide to Traffic Generating Developments* as being good and satisfactory operating conditions for the AM and PM peak periods respectively.

In addition to the above, whilst traffic demands within O’Riordan Street are significant during peak periods, commensurate with their arterial function, traffic flows are punctuated by the operation of traffic signals to the north and south of subject site (within O’Riordan Street) at Bourke Road and Coward Street. This punctuation of traffic flows provides gaps in the O’Riordan Street southbound traffic stream thereby allowing motorists to undertake left turn movements from the subject site to the adjoining State Road with a good level of safety and efficiency.

### 4.3 Public Transport

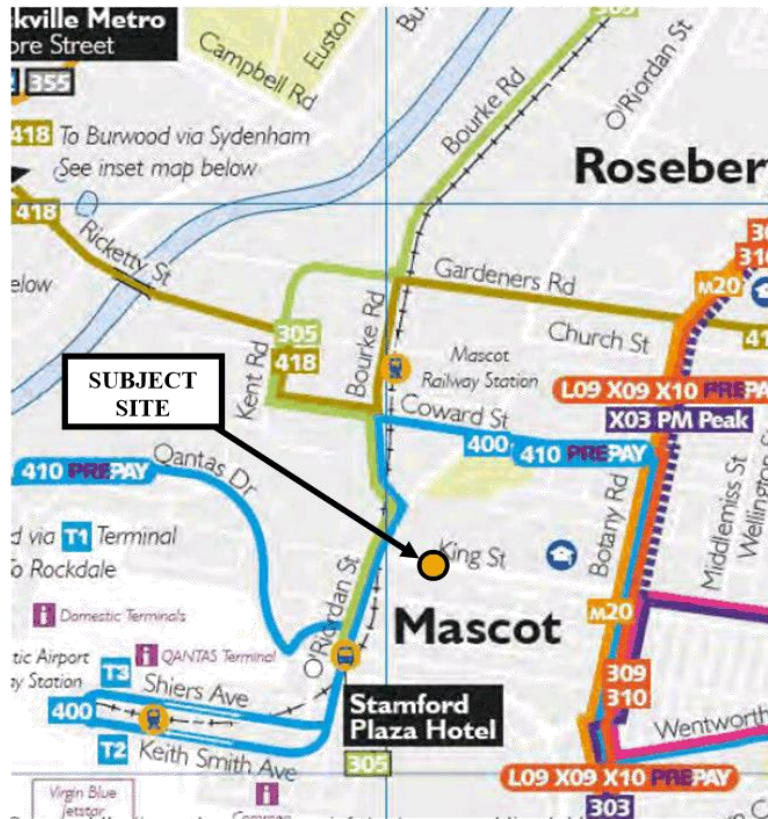
The subject site is located approximately 400m to the south of Mascot Railway Station. This Station forms part of the Airport and South Line accommodating services between Town Hall and Macarthur with 10 to 15 minute frequencies during peak commuter and business periods. The subject site is also located within close proximity to the following bus services illustrated overleaf in Figure 5 and summarised below:

- Route 305 operates between Stamford Plaza Hotel and Railway Square;
- Route 400 operates between Burwood and Bondi Junction via the airport, Eastgardens and the University of NSW;
- Route 410 operates between Rockdale and Bondi Junction via Eastgardens and the University of UNSW; and



- Route 418 operates between Kingsford and Burwood via Mascot, Sydenham & Dulwich Hill.

**FIGURE 5**  
**BUS SERVICES IN THE VICINITY OF THE SITE**



Source: Transport Modellers Alliance' Traffic and Transport Assessment (West Connex Enabling Works – Airport West)

The abovementioned bus services provide approximate combined frequencies of approximately 20 minutes during commuter peaks and business periods.

#### 4.4 Pedestrian Infrastructure

Paved footways are provided along both sides of O'Riordan Street and Bourke Road. Signalised crossings linking these paths are provided over the northern and western approaches of the intersection of O'Riordan Street and Bourke Road, facilitating efficient pedestrian connectivity between the subject site and public transport in the surrounding area.

## **5. PROJECTED TRAFFIC CONDITIONS**

### **5.1 Traffic Generation**

#### **5.1.1 Current Site Generation**

Section 2.3 of this report indicated that the subject site currently accommodates a number of commercial office land uses. Based on the aerial imagery provided within Six Maps, it would appear that the existing buildings on site occupy approximately 2/3 of the subject site. In this regard, these buildings are assumed to provide a consolidated internal office floor space of approximately 11,347m<sup>2</sup> (i.e. 2/3 of the site area).

In order to undertake an assessment of the previous traffic generating ability of the site, reference is made to the Roads & Maritime Services' (RMS) *Guide to Traffic Generating Developments*. This publication provides the following peak hour traffic generation rates relevant to the existing developments on site:

#### ***Commercial***

*2 peak hour trips per 100m<sup>2</sup> Gross Floor Area*

Based on an estimated 11,347m<sup>2</sup> of existing commercial GFA, the following calculations are provided based on the above RMS rates:

$$(11,347\text{m}^2 / 100\text{m}^2) \times 2 = 226.9 \text{ (say 227) trips}$$

The current site developments are therefore estimated to generate in the order of 227 peak hour trips to and from the site.

#### **5.1.2 Projected Development Traffic Generation**

The Roads & Maritime Services' (RMS) *Guide to Traffic Generating Developments* recommends a traffic generation rate of 0.4 peak hour vehicle trips per unit for a Motel, which is what has been adopted for hotel/serviced apartment component of the subject development, as it is assumed to have similar characteristics.

Based on a combined total of 815 units (562 serviced apartments and 253 hotel rooms), the subject development is projected to generate up to 326 peak hour vehicle trips to and from the site, which represents 99 trips over and above the existing site generation.

### **5.2 General Discussion of Transport Impacts**

It has been previously mentioned that the future (2021) external traffic impacts of the proposed development and indeed, the surrounding precincts have been assessed by others as part of the airport upgrade. One of the studies that formed part of this assessment is the *Traffic and Transport Assessment (West Connex Enabling Works – Airport West)* prepared by Transport Modellers Alliance (TMA).

**Table 2** summarises the projected 2021 peak hour traffic volumes at the junction of O’Riordan Street and Bourke Road in the immediate vicinity of the site, which incorporates traffic from the subject and adjoining land uses, as detailed within Transport Modellers Alliance’s *Traffic and Transport Assessment (West Connex Enabling Works – Airport West)*.

<b>TABLE 2 FUTURE (2021) PEAK HOUR TRAFFIC DEMANDS</b>		
<b>Intersection Approach</b>	<b>TMA’s Traffic and Transport Assessment (West Connex Enabling Works – Airport West)</b>	
	<b>AM PEAK</b>	<b>PM PEAK</b>
<b>O’Riordan Street (North)</b>	910	1110
<b>O’Riordan Street (South)</b>	2373	1615
<b>Bourke Road</b>	467	658

**Table 3** provides a summary of the 2021 of the projected level of service as detailed within Transport Modellers Alliance’s *Traffic and Transport Assessment (West Connex Enabling Works – Airport West)*, which is based on the abovementioned peak hour traffic demands and the future planned road layout as previously depicted in **Figure 3** of this report.

<b>TABLE 3 PROJECTED (2021) OPERATIONAL PERFORMANCE AT THE JUNCTION OF O’RIORDAN STREET AND BOURKE ROAD DURING PEAK HOUR PERIODS</b>		
<b>TMA’s Traffic and Transport Assessment (West Connex Enabling Works – Airport West)</b>	<b>AM PEAK</b>	<b>PM PEAK</b>
<b>Delay</b>	24 seconds	31 seconds
<b>Level of Service</b>	B	C

**Table 3** indicates that the junction of O’Riordan Street and Bourke Road is projected to continue to operate with a good/satisfactory level of service with spare capacity based on 2021 peak hour traffic demands.

The impact of the subject development therefore on these projected conditions is simply the addition of 99 vehicle trips over and above that which is generated by the current site land use. Such an impact is negligible.

Therefore, any assessment of the subject development and its impact is most likely to be a factor of the level of safety afforded by the site access arrangements, being generally a factor of the provision of sight distance between the frontage road and the site access driveway, which has been previously assessed to be appropriate. Further, this coupled with the existing central median within O’Riordan Street restricting access movements to left in/left out, further assists with the safety and efficiency of turning movements to and from the site. This is also assisted by the regular gaps within the southbound O’Riordan Street traffic flow created by the synchronisation of the existing traffic signals along O’Riordan Street.

## 6. CONCLUSION

This Practice has undertaken an assessment of the potential traffic and transport implications associated with the Planning Proposal to redevelop land at 146 - 154 O'Riordan Street, Mascot. Based on this assessment, the following conclusions are now made:

- The subject proposal involves increasing building height controls with respect to Botany LEP 2013 to allow for a mixed use development;
- The surrounding road network operates with a good level of service during peak periods;
- The subject development has been projected to generate in the order of 326 peak hour vehicle trips to and from the subject site, which is estimated to be approximately 99 trips over and above the existing site generation; and
- The strategic planning process for surrounding precincts associated with the redevelopment of Sydney Airport has considered the broader traffic and transport infrastructure requirements to service the additional demand associated with future land uses (including the proposed development). The proposed development is generally in accordance with the strategic planning intent for the subject land and the broader impacts of the development have therefore been considered in past studies.

Having regard to the conclusions abovementioned, this Practice is satisfied that the proposed development is worthy of support in relation to the traffic and transport issues discussed.

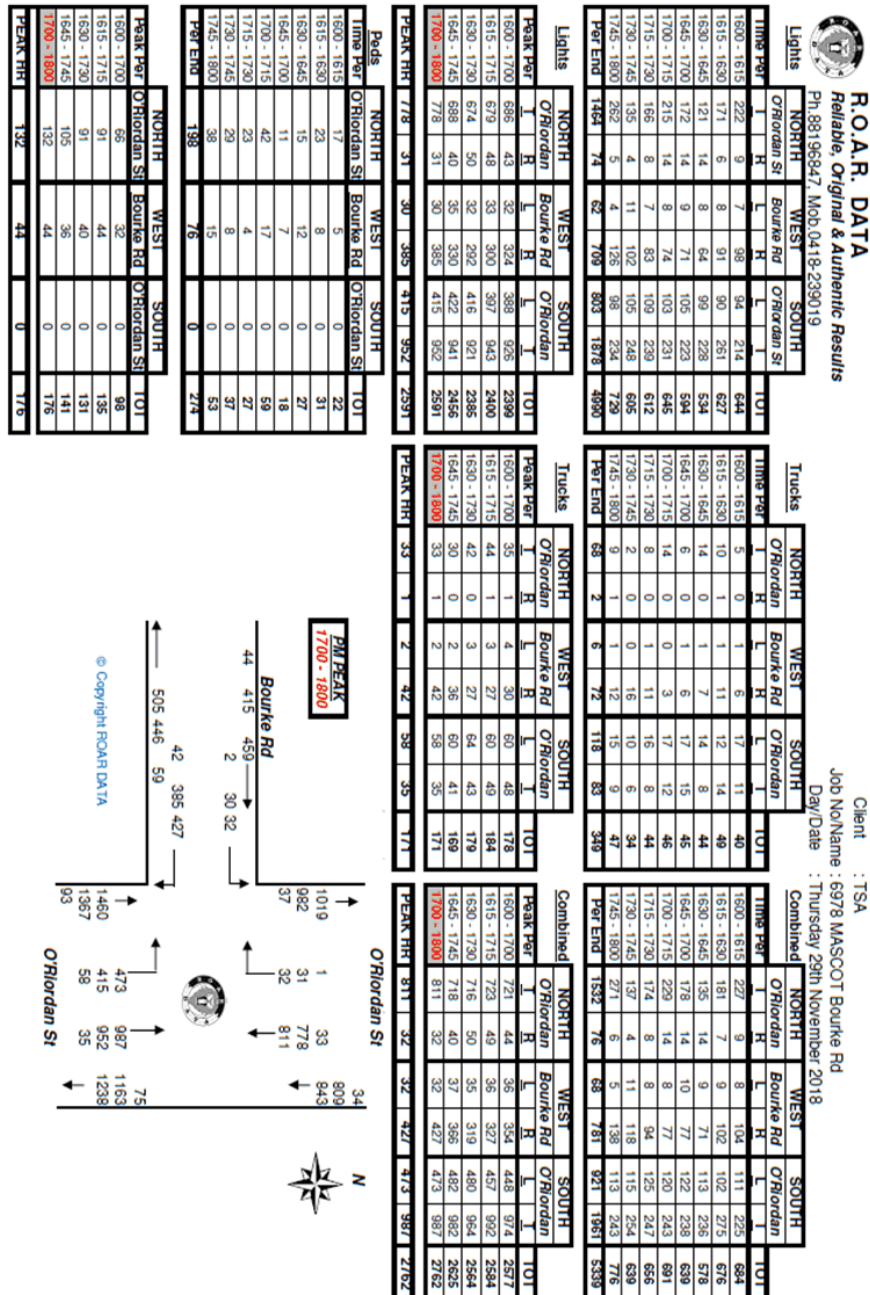
## APPENDIX 1



18-136-1

TSA

Page 17



O'Riordan Street, Mascot

18-136-1



## **DETAILED SITE INVESTIGATION**

**146-154 O'Riordan Street, Mascot, NSW**



**1 November 2018**





## DETAILED SITE INVESTIGATION

146-154 O'Riordan Street, Mascot, NSW

Prepared for:

**Toplace Pty Ltd**

Revision	Date	Author	Approver	Issued
Draft	19/10/18	JE	KH	19/10/18
Rev0	1/11/18	JE	KH	1/11/18

Author	Reviewed and Approved
 <hr/> <p>Jack Ellis Environmental Scientist B.Sc. M.Geol. (Geological Sciences)</p>	 <hr/> <p>Ken Henderson Principal Environmental Scientist B.Sc. (Hons Geology) EIANZ CEnvP (SC) #795</p> <div style="display: flex; justify-content: center; gap: 10px;">   </div>

Ref. No.:	1.16
Disclaimer:	THIS DOCUMENT IS SUBJECT TO LIMITATIONS NOTED

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)





## Table of Contents

Executive Summary .....	iv
1 Introduction .....	1
1.1 Objectives .....	1
1.2 Scope of Works .....	1
1.3 Statutory and Regulatory Framework .....	2
2 Site Description and Setting .....	4
2.1 Site Identification .....	4
2.2 Site Description .....	4
2.3 Surrounding Land Use .....	6
2.4 Surface Water Bodies .....	6
2.5 Regional Geology & Hydrogeology .....	6
2.6 Acid Sulfate Soils .....	7
2.7 Registered Groundwater Bore Search .....	7
3 Site History and Background .....	8
3.1 Certificates of Title .....	8
3.2 Historical Aerial Photograph Review .....	11
3.3 Relevant Planning Information .....	13
3.4 Contaminated Land Record Review .....	13
3.5 SafeWork NSW Storage of Hazardous Chemicals Search .....	14
3.6 Historical Business Directories .....	14
3.7 Heritage Database Searches .....	15
4 Sampling and Analysis Quality Plan (SAQP) .....	16
4.1 Data Quality Objectives .....	16
4.2 Data Quality Indicators .....	19
4.3 Sampling Plan .....	20
5 Adopted Assessment Criteria .....	22
5.1 Soil Criteria .....	22
5.2 Groundwater Beneficial Uses .....	23
5.3 Groundwater Investigation Levels .....	24
6 Field Program .....	25
6.1 Soil Investigation Program .....	25
6.2 Groundwater Investigation Program .....	26
6.3 Soil Analytical Program .....	27
6.4 Groundwater Analytical Program .....	28
7 Assessment Results .....	30

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

i





7.1	Site Observations and Lithology .....	30
7.2	Soil Analytical Results .....	30
7.3	Hydrogeological Conditions .....	32
7.4	Groundwater Analytical Results .....	32
7.5	Acid Sulfate Soils Analysis .....	32
7.6	Quality Assurance/Quality Control .....	33
7.6.1	Laboratory QA/QC .....	34
7.6.2	Data Useability .....	34
8	Conceptual Site Model .....	35
8.1	Preliminary CSM .....	35
8.2	Preliminary CSM Summary and Risk Assessment .....	37
8.3	Data Gaps and Uncertainties .....	38
9	Conclusions and Recommendations .....	40
9.1	Summary and Conclusions .....	40
9.2	Recommendations .....	41
10	References .....	43
11	Limitations .....	45

## Figures

Title	Figure
Site Locality Plan .....	1
Site Map .....	2
Borehole and Groundwater Monitoring Well Locations .....	3
Soil Human Health Criteria Exceedances .....	4
Groundwater Human Health Criteria Exceedances .....	5
Inferred Groundwater Flow Direction .....	6

## Tables

Title	Table
Summary of Soil Samples Collected .....	1
Summary of Soil Analytical Results – TRH and BTEX .....	2A
Summary of Soil Analytical Results – TRH and BTEX – Soil HSLs for Vapour Intrusion .....	2B
Summary of Soil Analytical Results – PAHs .....	3
Summary of Soil Analytical Results – Heavy Metals .....	4



Summary of Soil Analytical Results – OCPs and OPPs .....	5
Summary of Soil Analytical Results – PCBs and Phenols .....	6
Summary of Soil Analytical Results – VOCs .....	7
Summary of Soil Analytical Results – Asbestos .....	8
Summary of Soil Analytical Results – Acid Sulfate Soils .....	9
Summary of Soil Analytical Results – TCLP .....	10
Summary of Soil Quality Assurance/Quality Control Data .....	11
Summary of Trip Blank, Trip Spike and Rinsate Analytical Data (Soil and Groundwater Sampling) .....	12
Summary of Groundwater Analytical Data .....	13

## Appendices

Title	Appendix
Site Photographs .....	A
Lotsearch Environmental Risk and Planning Report .....	B
Certificates of Titles .....	C
Planning and Zoning Reports .....	D
Contaminated Land Register .....	E
SafeWork NSW Storage of Hazardous Chemicals Search .....	F
Field Data (Including Bore Logs and Groundwater Sampling Logs) .....	G
Laboratory Analytical Reports .....	H
QA/QC Summary and Calibration Certificates .....	I



## Executive Summary

Toplace Pty. Ltd. engaged TRACE Environmental to undertake a Detailed Site Investigation (DSI), at 146-154 O'Riordan Street, Mascot, NSW ('the site'). The site is identified as Lot 1 of DP85597 (146 O'Riordan Street) and Lot A of DP320192, Lot A of DP402876 and Lot A of DP364217 (154 O'Riordan Street). The investigation was conducted to assess the site condition relative to the current commercial/light industrial land uses and proposed redevelopment of the site for medium to high density residential land use.

The scope of works undertaken for this investigation included:

- Undertake a review of available historical information, such as Certificates of Title, Council records and Environment Protection Authority New South Wales (EPA NSW) contaminated land registers;
- Undertake a field investigation including advancement of 21 boreholes across the site (utilising a Geoprobe drilling rig and/or hand auger) and analysis of selected soil samples for a selection of contaminants of potential concern (COPCs); as well as installation of four groundwater monitoring wells across the site and analysis of water samples for a selection of COPCs;
- Develop a preliminary conceptual site model (CSM) of the site outlining potential contamination sources and exposure pathways and receptors which may be impacted; and
- Preparation and submission of this report, which also includes recommendations for additional investigations.

Based on the findings of this investigation, TRACE Environmental provides the following summary and conclusions:

- The site has been used for a variety of light industrial and commercial purposes since the mid-1970's, prior to which, the site appears to have consisted of a mix of commercial/industrial-type structures, vegetated land and farmland (circa 1940s). The site has historically been used for a variety of purposes, including several types of manufacturing (e.g. fork lift trucks, electronic equipment, motor garage equipment, lubricating equipment and spraying equipment). The site is currently used for commercial/light industrial purposes, including electronics repair, fashion distribution, broadcasting, air freight transport, rail maintenance organisation workshop and food production/distribution. A potential underground stormwater detention basin is located in the south-western corner of the site, indicated by the land topography;
- Historical site uses, including a variety of manufacturing operations, are potential sources of sub-surface impact. Additionally, the likely historical importation of fill material from unknown sources has the potential to impact the sub-surface;
- Fill material was encountered during the investigation across the site to depths up to 3.0mbgs, and was observed to contain anthropogenic waste materials at most soil bore locations;
- Fill and natural soil samples were collected from 21 soil bores advanced across the site. A total of 87 soil samples were analysed for a variety of COPCs to determine if historical site uses had impacted the sub-surface at the site, of these 22 natural soil samples submitted for acid sulfate soil (ASS) analysis;



- Four of the soil bores were completed as permanent groundwater monitoring wells (MW-1 to MW-4) and were developed, gauged, purged and sampled. Groundwater was encountered at depths between approximately 3.7 and 4.6 mBTC. Groundwater was calculated to flow south-westerly, towards Alexandra Canal;
- The results of the soil assessment showed COPCs at levels exceeding human health assessment criteria for the proposed medium to high density residential land use in fill material at locations across the site, with some COPCs reported above the ecological assessment criteria for urban residential and public open space from fill materials across the site;
- Asbestos (ACM and/or FA+AF) was identified in shallow fill material in the western and central areas of the site above the human health assessment criteria for the proposed land use;
- The results of the groundwater assessment showed heavy metal COPCs at levels exceeding the applicable guideline criteria in samples collected from all groundwater monitoring wells. Due to the urban setting of the site, these impacts are likely representative of background conditions at the site and surrounding site area; and
- Based on the laboratory analytical results for soil samples analysed for ASS parameters, it is considered likely that potential or actual acid sulfate soils are present in natural materials sampled at the site. As such, an Acid Sulfate Soil Management Plan (ASSMP) will be required prior to future development works or disturbance of the natural material at the site.

Based on the findings of the DSI, it is considered that the site can be made suitable for the proposed medium to high density residential land use following implementation of a Remedial Action Plan (RAP) for the site, incorporating a Data Gap Investigation (DGI), and the delineation, remediation and validation of identified soil impacts on the site. It is expected that implementation of the RAP would occur following demolition of site structures at the commencement of site redevelopment activities.

Based on the findings of the DSI, TRACE Environmental provides the following recommendations:

- A RAP should be prepared which outlines the remediation and/or management strategy for the identified impacts in fill material at the site for the proposed medium to high density residential land use. The remediation and/or management requirements outlined in the RAP should consider the findings of the current DSI in the context of the final redevelopment design, including ecological considerations as well as aesthetic observations made during the DSI fieldworks. The RAP should also include an unexpected finds protocol for the discovery of previously unidentified soil and/or groundwater impacts (including ACM and ASS) during hardstand removal and site redevelopment works;
- Due to access restrictions at some areas of the site, assessment of soil conditions could not be completed at all locations during the DSI. As such, the RAP should also incorporate a DGI which includes additional intrusive soil (and/or groundwater) investigations are required at the site to address current data gaps and to meet the recommended sampling densities outlined in NSW EPA 2006. This should also include additional investigation of areas of the site currently containing buildings, and shallow fill materials across the site should also be inspected following removal of concrete hardstand to assess for potential residual impacts relating to previous site infrastructure/operations;
- Prior to any disturbance of the sub-surface being undertaken at the site as part of the proposed site redevelopment, an Asbestos Management Plan (AMP) should be prepared in accordance with SafeWork NSW Codes of Practice, which identified the locations of the ACM, FA and AF detected

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

v



during this DSI and outlines how the asbestos risks will be controlled during work (including any air monitoring procedures that may be required);

- Due to the age and construction of the on-site structures, a hazardous materials survey should be conducted, and a hazardous materials register be prepared for the site prior to commencement of any demolition activities;
- Prior to any disturbance of the sub-surface being undertaken at the site as part of the proposed site development, an ASSMP should be prepared which identifies the locations of potential and/or actual ASS detected during this DSI and outlines how the ASS risks will be controlled during work;
- Any material to be removed must be classified in accordance with the NSW EPA (2014) *Waste Classification Guidelines*, and the soil be disposed appropriately to a facility licensed to accept the material; and
- Any imported material brought onto the site for any purpose must first be validated as being suitable for the intended land use, prior to being imported onto the site.





## 1 Introduction

Toplace Pty. Ltd. (Toplace) engaged TRACE Environmental to undertake a Detailed Site Investigation (DSI), incorporating a Preliminary Site Investigation (PSI) and Limited Soil Sampling Program for the property located at 146-154 O'Riordan Street, Mascot, NSW ('the site'). The site is identified as Lot 1 of DP85597 (146 O'Riordan Street) and Lot A of DP320192, Lot A of DP402876 and Lot A of DP364217 (154 O'Riordan Street).

A Locality Plan is presented in **Figure 1** showing the location of the site, and a Site Layout Plan is presented in **Figure 2**.

The investigation was conducted to assess the site condition relative to present and historical land uses, in particular the site condition relating to current commercial/light industrial land uses and proposed redevelopment of the site for medium to high density residential land use.

This investigation was completed in accordance with the National Environment Protection Measure (*Assessment of Site Contamination*) Measure, Amendment 2013 (NEPM) and relevant Environment Protection Authority New South Wales (EPA NSW) Guidelines.

### 1.1 Objectives

The specific objectives of this investigation are to:

- Assess the site condition relative to present and historical land uses;
- Identify any current or historical potentially contaminating activities;
- If applicable, identify the potential types and nature of contamination;
- If applicable, identify potential human and ecological receptors;
- Develop a preliminary Conceptual Site Model (CSM) to identify potential risks to human health and/or ecological receptors that may affect the suitability of the site for proposed residential land use with open space areas, and to inform further assessment at the site (if required); and
- Provide conclusions and recommendations regarding the contamination status of the site, and identify any further investigation, management and/or remediation measures for potential site contamination, if considered warranted.

### 1.2 Scope of Works

In order to achieve the objectives, the following scope of works were undertaken at the site:

- Undertake a review of historical information for the site, including:
  - Current and historical Certificates of Title;
  - Local Council records, including Planning Certificates;
  - EPA NSW administered environment management and contaminated land registers; and
  - Historical city directories; and

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

1



- Available historical aerial photographs.
- Undertake a review of the following information for the site and surrounds:
  - Registered groundwater bore database for groundwater bores in the vicinity of the site to assist in gaining an understanding of the local and regional hydrogeology;
  - Acid Sulfate Soils (ASS) and potential salinity risk maps; and
  - Available geological and hydrogeological information.
- Undertake a field investigation, including the following:
  - Conduct an inspection of the site to assist with the identification of potential on- and off-site sources of contamination;
  - Advancement of 21 boreholes (SB-1, SB-4, SB-6 to SB-12, SB-13, SB-14 and SB-17 to SB-27) at locations across the site and collection of fill and natural soil samples from each of the boreholes;
  - Analysis of selected soil samples for a selection of contaminants of potential concern (COPCs);
  - Conversion of four soil bores to permanent groundwater monitoring wells and collection of groundwater samples from each newly installed monitoring well; and
  - Analysis of collected groundwater samples for a selection of COPCs.
- Based on the results of the investigation, develop a preliminary CSM of the site, outlining potential contamination sources, exposure pathways and receptors which may be impacted, and undertake a preliminary environmental risk assessment; and
- Provide conclusions and recommendations regarding the contamination status of the site, and identify any further investigation, management and/or remediation measures for potential site contamination, if considered warranted.

Refer to **Sections 4 and 6** below for additional detail of the undertaken field investigation.

### 1.3 Statutory and Regulatory Framework

Field activities and reporting were carried out in accordance with the following guidelines, regulations and standards:

- CRC CARE (2011) *Technical Report No. 10 Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater Part 1: Technical Development Document*, September 2011;
- National Environmental Protection Council (NEPC), National Environmental Protection (*Assessment of Site Contamination*) Measure (NEPM), 1999, Amendment 2013;
- NEPM (2013) *Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater*, NEPM, 1999, Amendment 2013;
- NEPM (2013) *Schedule B(2) Guideline on Site Characterisation*, NEPM, 1999, Amendment 2013;



- National Health and Medical Research Council (2018) *Australian Drinking Water Guidelines* (ADWG), Updated August 2018;
- NSW ASSMAC (1998) *Acid Sulfate Soils Manual*, New South Wales Acid Sulfate Soils Management Advisory Committee (ASSMAC), August 1998;
- NSW ASSMAC (1998) *Acid Sulfate Soils Assessment Guidelines*, ASSMAC, August 1998;
- NSW Department of Environment and Conservation (DEC) (2006) *Guidelines for the NSW Site Auditor Scheme (2nd Ed.)*, April 2006;
- NSW Department of Urban Affairs and Planning (1998) *Managing Land Contamination: Planning Guidelines: SEPP 55 Remediation of Land*, August 1998;
- NSW EPA (1995) *Sampling Design Guidelines*, September 1995;
- NSW EPA (2014), *Waste Classification Guidelines. Part 1: Classifying Waste*. NSW EPA, November 2014;
- NSW OEH (2011), *Guidelines for Consultants Reporting on Contaminated Sites*. NSW Office of Environment & Heritage (OEH), November 1997, Reprinted September 2000 and August 2011;
- NSW EPA (2015), *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act*. NSW EPA, September 2015;
- Standards Australia. *Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds*, AS4482.1 (2005) and Part 2: Volatile substances, AS4482.2 (1999);
- NSW WorkCover 2011a, *How to Manage and Control Asbestos in the Workplace Code of Practice*, WorkCover NSW, December 2011; and
- NSW WorkCover 2011b, *How to Safely Remove Asbestos Code of Practice*, WorkCover NSW, December 2011.



## 2 Site Description and Setting

### 2.1 Site Identification

Details of the site are included in **Tables 2-1** and **2-2** below. Photographs of the site are included in **Appendix A**.

**Table 2-1: Summary of Site Identification Details – 146 O'Riordan Street**

ID Element	Description
Site Address	146 O'Riordan Street
Standard Parcel Identifier	Lot 1 of DP85597
Local Council	Bayside Council
Site Coordinates	-33.926458, 151.189119
Zoning	Business Development (B5)
Approximate Site Elevation	17m AHD
Approximate Site Area	2,500 m <sup>2</sup>

**Table 2-2: Summary of Site Identification Details – 154 O'Riordan Street**

ID Element	Description
Site Address	154 O'Riordan Street
Standard Parcel Identifier	Lot A of DP320192, Lot A of DP402876 and Lot A of DP364217
Local Council	Bayside Council
Site Coordinates	-33.926987, 151.188651
Zoning	Business Development (B5)
Approximate Site Elevation	17m AHD to 9m AHD
Approximate Site Area	13,800 m <sup>2</sup>

The Locality Plan is presented in **Figure 1** and the Site Layout Plan is presented in **Figure 2**. Refer also to **Section 3.3** below for additional detail of each property comprising the site.

### 2.2 Site Description

A site inspection was completed by TRACE Environmental personnel on 3 August 2018. Photographs taken during the inspection are included in **Appendix A**. Details of the site, as observed during the inspection, are outlined in **Table 2-3** below and are shown on **Figure 2**.

**Table 2-3: Site Description**

Category	Findings
Current Use and Users/Occupiers	The 146 O'Riordan Street site parcel currently comprises a large warehouse/office building with a car parking area in the western portion of the site. The warehouse is used for a variety of commercial purposes, including IT training and electronics repair and refurbishment.





	<p>The 154 O'Riordan Street site parcel currently comprises of three large warehouse/office buildings, located in the northern, southern and eastern portions of the site parcel. Car parking areas are located in the western, central and south-eastern portions of the site. The on-site buildings are used for a variety of commercial and/or light industrial purposes, including fashion distribution, broadcasting, air freight transport, food production/distribution and rail maintenance organisation workshop.</p>
Future Use and Users/Occupiers	<p>It is understood that the proposed future land use of the site is medium to high density residential land use.</p> <p>The future users of the site will be third parties/visitors/customers/employees of the building or future residents (should the site be redeveloped for residential purposes). Intrusive maintenance workers would also be expected to undertake works periodically at the site.</p>
Current Site Features	<p>146 O'Riordan Street – Access to this portion of the site is from the western boundary, from O'Riordan Street. An irregular shaped warehouse/office building is present in the central and eastern portions of the site parcel. A car parking area with landscaped areas at the boundaries is present in the western portion of the site parcel.</p> <p>154 O'Riordan Street – Access to this portion of the site is from the western boundary, from O'Riordan Street. An oblong shaped warehouse/office building is located in the northern portion of the site parcel and borders the 146 O'Riordan Street warehouse building. A larger warehouse building is present in the southern portion of the site parcel and extends for approximately 80% of the southern site boundary. A smaller warehouse building is located in the eastern portion of the site parcel. Car parking areas are located in the north-west, central and south-east portions of the site parcel, with a driveway linking them through the centre of the site (orientated west to east). A small landscaped area is located in the south-western portion of the site, with access from O'Riordan Street. An underground storage tank (UST) (likely a stormwater detention basin) appears to be located in this area, however its presence could not be confirmed by a service locator and underground service plans relating to the on-site infrastructure were unavailable to TRACE Environmental during the site investigation.</p>
Proposed Site Features	<p>It is understood that the site may potentially be redeveloped to medium to high density residential land use.</p>
Chemicals, raw materials and intermediate products storage and use	<p>A potential UST was identified in the south-western portion of the 154 O'Riordan Street site parcel; however, the potential uses of this UST are unknown (and appears to be associated with the on-site stormwater drainage). In addition, other chemicals such oils may have been stored at some locations across the site (e.g. workshops).</p>
Waste Management	<p>No hazardous waste is currently generated or stored on-site. Light commercial waste is temporarily stored in bins prior to off-site disposal.</p>
Reported spills, chemical losses, discharges to land/water and/or incidents/accidents	<p>No visible evidence of significant chemical spills was observed on the site. A review of available EPA databases indicates that the site has not been listed by the EPA NSW (refer to <b>Section 3.4</b>).</p>
Surface covering/Vegetation	<p>The majority of the 146 and 154 O'Riordan Street site parcels comprises concrete or bitumen hardstand associated with the on-site buildings and car parking areas. Landscaped areas are present along the eastern and western site boundaries and between car parking spaces in the western and central car parking areas. A larger landscaped area is present in the south-west corner of the 154 O'Riordan Street site parcel.</p>
Electrical transformers/power generation	<p>The site is provided power via underground services. No electrical transformers were observed at the site.</p> <p>An electrical substation is located in the south-western corner of the 154 O'Riordan Street site parcel.</p>
Topography and infilling	<p>The 146 O'Riordan Street site parcel is generally flat, and the 154 O'Riordan Street site parcel generally slopes towards the east. No visible areas of significant infilling</p>





	were observed or suspected during the site inspection, however, it is noted that a small mound was observed at the south-west corner of the site which appeared to be associated with a suspected underground stormwater detention basin.
Surface drainage	<p>Details of the on-site surface water drainage system were not provided. However, based on site observations, surface water from the building roof areas is expected to drain to the municipal storm drainage system. Sheet flow across the car park areas is expected to flow to storm drains located within the car parks and central driveway and discharge to the municipal storm drainage system.</p> <p>The discharge point of the on-site surface water drainage in the site area is likely the municipal stormwater system.</p>

### 2.3 Surrounding Land Use

The current adjoining properties of the site comprised:

- North of the site: Mascot Oval;
- East of the site: low to medium density residential properties;
- South of the site: commercial/light industrial properties; and
- West of the site: O'Riordan Street and a construction site beyond (at the time of investigation, construction of a multi-story building was near completion across O'Riordan Street).

### 2.4 Surface Water Bodies

The nearest surface water body is an unnamed drain, located approximately 600m west of the site, that empties into the Alexandria canal, located approximately 1km north-west/west of the site. The nearest natural surface water body is Mill Stream, approximately 1.5km south-east of the site.

It is also noted that Botany Bay is located approximately 3km south of the site.

### 2.5 Regional Geology & Hydrogeology

The Lotsearch Pty Ltd (Lotsearch) *Environmental Risk and Planning Report* (provided in **Appendix B**) provides details of the geological information at the site, sourced from NSW Department of Industry, Resources and Energy.

The Lotsearch report indicates that the site is underlain by Quaternary age marine sands with podsols. No geological faults, dykes, marker beds, veins or shear zones are indicated to be located beneath or within a 1km radius of the site.

The Lotsearch report indicates that the on-site soil type consists of Podosol; coastal sand plains and dunes, lagoons and swampy areas. The chief soil type is indicated to be leached sands.

The Lotsearch report also indicates that the aquifer directly underlying the site is porous and an extensive highly productive aquifer. Based on the location of the nearest natural surface water body to the site (Mill Stream), and the close proximity to Botany Bay, it is inferred that regional groundwater at the site likely flows to the south/south-west.



## 2.6 Acid Sulfate Soils

The Lotsearch report indicates that the site is located within Acid Sulfate Soil (ASS) Plan Class 4, indicating that works more than 2m below natural ground surface present an environmental risk and works by which the water table is likely to be lowered more than 2m below natural ground surface present an environmental risk. In addition, a review of the maps provided online by the Australian Soil Resource Information System (ASRIS) (<http://www.asris.csiro.au/>) shows the site to be in a zone of low probability of occurrence for ASS. An ASS map is included in the Lotsearch report, provided in **Attachment B**.

Given the high risk of ASS at the site, an ASS investigation was undertaken.

## 2.7 Registered Groundwater Bore Search

Searches of the NSW Department of Primary Industries – Office of Water/Water Administration Ministerial Corporation and Commonwealth of Australia (Bureau of Meteorology) were conducted by Lotsearch on 6 August 2018 and identified 148 registered bores within a 1km radius of the site. Of these bores, 12 are listed as domestic bores, four are listed as recreation bores, 110 are listed as monitoring bores, 10 are listed as industrial bores, two are listed as dewatering bores, one is listed as a groundwater exploration bore, six are listed as general use bores and three are listed as groundwater remediation bores. The approximate depths of the bores with available data ranges between 0.90 and 20.10 metres below ground surface (mbgs). It is noted that the nearest bore to the site (a domestic bore located 24m east of the site) was drilled to a maximum depth of 42mbgs, however, no data regarding the final depth of the installed well was provided.



### 3 Site History and Background

Historical information was obtained for the site from a number of sources as presented in **Table 3-1**, below. The results of the site historical and background information are further discussed in the following sections.

**Table 3-1: Historical and Background Information Search**

Item	Source	Comments
Current Certificate of Title	Advance Legal Searchers Pty. Ltd.	Current Certificate of Title documents are discussed below, and copies are included in <b>Appendix C</b> .
Historical Certificate of Title	Advance Legal Searchers Pty. Ltd.	Historical Certificate of Title documents are discussed below, and copies are included in <b>Appendix C</b> .
Planning and Zoning Information	NSW Department of Planning & Environment Property Report	The Property Reports are discussed below, and copies are included in <b>Appendix D</b> .
Contaminated Land Register	NSW EPA	No records were found for the site. The search results are included in <b>Appendix E</b> .
SafeWork NSW Storage of Hazardous Chemicals Search	SafeWork NSW	Storage of Hazardous Chemicals search is discussed below, and a copy of the search results is included in <b>Appendix F</b> .
Aerial Photographs	NSW Department Finance, Services and Innovation, Google Earth	Aerial Photographs are discussed below, and the images are included in the Lotsearch report in <b>Appendix B</b> .

#### 3.1 Certificates of Title

Current and historical Certificates of Title were obtained for the lots comprising the site including Lot 1 of DP85597 (146 O'Riordan Street) and Lot A of DP320192, Lot A of DP402876 and Lot A of DP364217 (154 O'Riordan Street). It is noted that the search for certificates of titles indicated that the folio identifiers of the site parcels appears to have been recently changed and are referred to Lot 15 of DP1232496 (146 O'Riordan Street) and Lots 13 and 14 of DP1231496 and Lot A of DP402876. Copies are included in **Appendix C**. Details are provided in **Tables 3-2, 3-3, 3-4 and 3-5** below.

**Table 3-2: Summary of Titles - 146 O'Riordan Road – Lot 1 DP85597 / Lot 15 DP1232496:**

Year	Proprietor(s)
	<b>(Lot 15 DP 1232496)</b>
2018 – to date	JKN Park Pty Ltd
	<b>(Lot 1 DP 85597)</b>
2013 – 2018	JKN Park Pty Ltd
2003 – 2013	Stead Denton
1994 – 2003	Balfour Grange Pty Limited
(1989 – 2018)	(various leases shown on Historical Folio 1/85597)
1988 – 1994	Tohaha Pty Limited
	<b>(Lot 1 DP 85597 – CTVol 12181 Fol 96)</b>
1987 – 1988	Tohaha Pty Limited



1980 – 1987	State Superannuation Board
1973 – 1980	CDL Developments (No.1) Pty Limited
1973 – 1973	J.E.L Developments (Australia) Pty Limited
	<b>(Part Portion 136 Parish Botany – Area 2 Roods 30 ¼ Perches – CT Vol 5565 Fol 36)</b>
1972 – 1973	J.E.L Developments (Australia) Pty Limited
(1968 – 1972)	(lease to Dowel Industries (NSW) Pty Limited)
1950 – 1972	Westcott Hazell Engineering & Steel Limited
1946 – 1950	Norge Investments Pty Limited
1946 – 1946	Peder Martin Andersen, mechanical engineer
	<b>(Part Portion 136 Parish Botany – Area 2 Roods 30 ¼ Perches – Conv Bk 1917 No 776)</b>
1942 – 1946	Peder Martin Andersen, mechanical engineer
	<b>(Part Portion 136 Parish Botany – Area 2 Roods 30 ¼ Perches – New Trustee Bk 1917 No 79)</b>
1942 – 1942	William James Lodge, carter / trustee Charles Henry Lodge, retired Gardner / trustee John Lodge, estate

**Table 3-3: Summary of Titles - 154 O'Riordan Road – Lot A DP364217 / Lot 14 DP1232496:**

Year	Proprietor(s)
	<b>(Lot 14 DP 1232496)</b>
2018 – todate	JKN Park Pty Ltd
(2018 – todate)	(various current leases shown on Folio Identifier 14/1232496)
	<b>(Lot A DP 364217)</b>
2013 – 2018	JKN Park Pty Ltd
2013 – 2013	Dexus Funds Management Limited
2002 – 2013	Perpetual Trustee Company Limited
2002 – 2002	Paladin Australia Limited
1997 – 2002	Trust Company of Australia Limited
1991 – 1997	Fai Life Insurance Society Limited
1989 – 1991	Fai Properties Pty Limited
(1989 – 2018)	(various leases shown on Historical Folio A/364217)
	<b>(Lot A DP364217 – CTVol 15474 Fol 100)</b>
1987 – 1989	Fai Properties Pty Limited
(1987 – 1989)	(various leases shown on CTVol 15474 Fol 100)
	<b>(Part Portion 136 Parish Botany – Area 1 Rood 30 ¼ Perches – CT Vol 6084 Fol 26)</b>
1982 – 1987	Lexane Pty Limited
1950 – 1982	Gearin O'Riordan Limited
1950 – 1950	Norge Investments Pty Limited
	<b>(Part Portion 136, Parish Botany – Area 1 Acre 1 Rood 20 Perches – CTVol 5826 Fol 128)</b>

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

9



1949 – 1950	Norge Investments Pty Limited
1948 – 1949	The Council of the Municipality of Mascot
	<b>(Part Portion 136, Parish Botany – Area 1 Acre 1 Rood 20 Perches)</b>
Prior – 1948	Sarah Emily Forster

**Table 3-4: Summary of Titles - 154 O'Riordan Road – Lot A DP320192 / Lot 14 DP1232496:**

Year	Proprietor(s)
	<b>(Lot 13 DP 1232496)</b>
2018 – todate	JKN Park Pty Ltd
(2018 – todate)	(various current leases shown on Folio Identifier 13/1232496)
	<b>(Lot A DP 320192)</b>
2013 – 2018	JKN Park Pty Ltd
2013 – 2013	Dexus Funds Management Limited
2002 – 2013	Perpetual Trustee Company Limited
2002 – 2002	Paladin Australia Limited
1997 – 2002	Trust Company of Australia Limited
1991 – 1997	Fai Life Insurance Society Limited
1989 – 1991	Fai Properties Pty Limited
(1989 – 2018)	(various leases shown on Historical Folio A/364217)
	<b>(Lot A DP320192 – CTVol 15474 Fol 99)</b>
1987 – 1989	Fai Properties Pty Limited
(1987 – 1989)	(various leases shown on CTVol 15474 Fol 99)
	<b>(Part Portion 136, Parish Botany – Area 1 Acre 1 Rood 13 ¼ Perches – CT Vol 4142 Fol 133)</b>
1982 – 1987	Lexane Pty Limited
1967 – 1982	Gearin O'Riordan Pty Limited
1928 – 1967	Gearin-O'Riordan Limited
	<b>(Part Portion 136, Parish Botany – Area 4 Acres 2 Rood 8 Perches – CT Vol 1383 Fol 199)</b>
1922 – 1928	M.Gearin and Sons Limited
1901 – 1922	Michael Gearin, fat extractor

**Table 3-5: Summary of Titles - 154 O'Riordan Road – Lot A DP320192 / Lot 14 DP1232496:**

Year	Proprietor(s)
	<b>(Lot A DP 402876)</b>
2015 – todate	JKN Park Pty Ltd
2013 – 2015	Dexus Funds Management Limited
2013 – 2013	Perpetual Trustee Company Limited
(2008 – todate)	(various current leases shown on Folio Identifier A/402876)
2002 – 2013	Paladin Australia Limited
2002 – 2002	Trust Company of Australia Limited
1997 – 2002	Fai Life Insurance Society Limited





1991 – 1997	Fai Properties Pty Limited
(1991 – todate)	(various leases shown on Historical Folio A/402876)
	<b>(Lot A DP402876 – CTVol 15474 Fol 101)</b>
1987 – 1991	Fai Properties Pty Limited
(1987 – 1989)	(various leases shown on CTVol 15474 Fol 101)
	<b>(Part Portion 136 Parish Botany – Area 1 Acre 1 Rood 0 Perches – CT Vol 7457 Fol 156)</b>
1982 – 1987	Lexane Pty Limited
1967 – 1982	Gearin-O'Riordan Pty Limited
1958 – 1967	Gearin-O'Riordan Limited
	<b>(Part Portion 136 Parish Botany – Area 2 Acres 2 Rood 19 Perches – CT Vol 5564 Fol 144)</b>
1946 – 1958	W.F. Campbell Pty Limited
	<b>(Part Portion 136, Parish Botany – Area 2 Acres 2 Rood 33 ¾ Perches – CT Vol 5297 Fol 24)</b>
1942 – 1946	M. Gearin and Sons Limited
	<b>(Part Portion 136, Parish Botany – Area 4 Acres 2 Rood 8 Perches – CT Vol 1383 Fol 199)</b>
1922 – 1942	M. Gearin and Sons Limited
1901 – 1922	Michael Gearin, fat extractor

### 3.2 Historical Aerial Photograph Review

Aerial photographs of the site for the years 1943, 1951, 1955, 1961, 1965, 1970, 1976, 1982, 1991, 2000, 2009 and 2015 were sourced from NSW Department of Finance, Services and Innovation. Aerial photographs for the years 2000, 2009 and 2015 were sourced from Google Inc.

A summary of the photographs is provided in **Table 3-6**, below. Aerial photograph extract images are presented in the Lotsearch report in **Appendix B**.

**Table 3-6: Summary of Historical Aerial Photographs**

Aerial Photograph	Description
1943 Black and White	<p>Several irregular shaped buildings were present in the western portion of the site at this time and were potentially used for commercial/light industrial purposes. An additional building of unknown purpose was present in the north-west corner of the site. The remaining portion of the western half of the site appeared to be covered in vegetation, with an area of possible cleared land (or possible excavation) visible in the south-central west portion of the site. The eastern half of the site consisted of apparent agricultural fields (possible market gardens), with small buildings (possible sheds) located in the south-eastern corner of the site.</p> <p>The surrounding land use appeared to be a mix of industrial, residential and agricultural (possible market gardens). Several warehouse-style buildings were present approximately 30m and 120m north of the site and agricultural land directly south of the site. Residential properties are visible to the east (100m) and south (150m) of the site. A large plot of vacant land, which appeared to be cleared of vegetation, was present to the west of the site during this time.</p>



Aerial Photograph	Description
1951 Black and White	<p>The buildings in the north-west corner of the site had been extended eastwards and appear to be warehouses or industrial (possible factory-style) buildings. Remaining areas of the site appear generally consistent with the 1943 aerial photograph.</p> <p>An apparent factory building had been constructed on the vacant land to the west of the site, with the space between structures used for what appears to be container storage. The present-day Mascot Oval is visible to the north of the site.</p>
1955 Black and White	<p>The site layout is generally consistent with the 1951 aerial photograph, with less vegetation cover visible in the western portion of the site. An apparent drainage ditch oriented north-south appears to be located at the south-central portion of the site (immediately west of the on-site agricultural fields).</p> <p>Further development is visible at the formerly vacant property to the west of O'Riordan Street, with at least three additional warehouse-style buildings visible.</p>
1961 Black and White	<p>An apparent driveway is visible at the western portion of the site, providing access from O'Riordan Street to the eastern side of the warehouses in the western half of the site. The agricultural portion of the site (at the eastern portion of the site) appears partially overgrown.</p> <p>Further development of warehouses to the west and north-west of the site (across O'Riordan Street). Additional industrial land had been developed to the east and south of the site</p>
1965 Black and White	<p>An additional rectangular building is visible immediately east of the warehouses located in the southern half of the site. An apparent driveway is visible at the western portion of the site, extending south-east to the central portion of the site from O'Riordan Street. The eastern portion of the site appears to be used for miscellaneous storage (possibly miscellaneous debris).</p> <p>Further industrial development to the west and north and south of the site.</p>
1970 Black and White	<p>The site remained generally unchanged, with the exception that the central area of the site appears to have been paved</p> <p>The area surrounding the site remained generally unchanged.</p>
1976 Black and White	<p>The warehouses in the northern half of the site had been demolished. The eastern portion of the site was now in use as a car park.</p> <p>The area surrounding the site remained generally unchanged.</p>
1982 Colour	<p>Almost all warehouse buildings in the south-western portion of the site had been demolished, with the exception of a warehouse in the south-west corner and centre of the site. A warehouse building had been constructed in the northern portion of the site (at the 146 O'Riordan Street parcel).</p> <p>The present day carpark located immediately north-east of the site had been constructed.</p>
1991 Colour	<p>The southern half of the site (i.e. 154 O'Riordan Street site parcel) had been developed to its present day configuration, with warehouse buildings constructed in the southern, northern and eastern portions of the site parcel.</p> <p>Bourke Road had been developed to the west of the site. Redevelopment of the area north-west of the site, with new buildings similar to the present day hotels, offices and shops. The warehouses previously located immediately adjacent to the east of the site had been replaced with residential property.</p>
2000 Colour	<p>The site remained generally unchanged.</p> <p>The area surrounding the site remained generally unchanged.</p>
2009 Colour	<p>The warehouse in the northern portion of the site (i.e. 146 O'Riordan Street site parcel) had been developed to its present-day configuration (it is unclear if this is the same building that</p>

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

12



Aerial Photograph	Description
	was first visible in the 1982 aerial photograph and was renovated, or if the original building was replaced).
	The area surrounding the site remained largely unchanged.
2015 Colour	The site remained generally unchanged.
	The area surrounding the site remained generally unchanged.

### 3.3 Relevant Planning Information

The property reports for the site were obtained from Bayside Council on 13 September 2018. A review of the property reports for the site indicates the following Lot and TP/LP information associated with the site:

- 146 O'Riordan Street:
  - Land Use Zone: B5 – Business Development;
  - Acid Sulfate Soils: Class 4
  - The land is not situated in a designated bushfire prone area;
- 154 O'Riordan Street:
  - Land Use Zone: B5 – Business Development;
  - Acid Sulfate Soils: Class 4
  - The land is not situated in a designated bushfire prone area;

It is also noted that the site is not listed on the property reports as being the subject of an environmental audit.

Copies of the property reports are provided in **Appendix D**.

### 3.4 Contaminated Land Record Review

The List of NSW Contaminated Sites Notified to EPA was accessed online on 16 August 2018 (<https://www.epa.nsw.gov.au/your-environment/contaminated-land/notification-policy/contaminated-sites-list>) and is provided in **Appendix E**. No notices or declarations under Section 60 of the Contaminated Land Management Act 1997 (CLM Act) were listed for the site.

The current list of activities licensed by NSW EPA under Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO Act) was accessed online on 15 October 2018 (<https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers/about-prpoeo/list-of-licences>). No activities are currently licensed by NSW EPA at the site. In addition, the current list of unlicensed premises regulated by NSW EPA under the POEO Act was accessed online on 15 October 2018 (<https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers/about-prpoeo/unlicensed-premises-epa-reg>). No unlicensed premises regulated by NSW EPA are listed at the site.



The NSW EPA Contaminated Land Management (CLM) register was accessed online on 15 October 2018 (<https://apps.epa.nsw.gov.au/prclmapp/searchregister.aspx>). No notices were listed for the site.

The nearest property relative to the site listed on the List of Contaminated Sites is a former zinc smelter and paint manufacturing facility at 163 O'Riordan Road, approximately 50m north of the site. This site is listed as 'Regulation under CLM Act not Required'. Based on distance and direction, this site is considered a potential source of contamination for the site.

No other properties listed on the register were in the site area which are considered to have the potential to impact the site.

### 3.5 SafeWork NSW Storage of Hazardous Chemicals Search

A search on Storage of Hazardous Chemicals for the site was conducted by SafeWork on 10 August 2018, with no records identified. A copy of the SafeWork Storage of Hazardous Chemicals Search is presented in **Appendix F**.

### 3.6 Historical Business Directories

A search of historical UBD Business Directories for the years 1950, 1961, 1965, 1970, 1975, 1978, 1982 and 1991 was conducted by Lotsearch on 6 August 2018 (refer to **Appendix B**).

A summary of the historical UBD Business Directories for the site is provided in **Table 3-7**, below:

**Table 3-7: Summary of UBD Business Directories Search**

Year	Business Activity
1950	No business activities were recorded for the site at this time.
1961	Steam generator manufacturers
1965	Fork lift truck manufacturers Electronic equipment manufacturers and/or distributors Motor garage equipment manufacturers and/or distributors Spraying equipment manufacturers Motor foundation hard trim Lawn mowers importer and/or distributor Lubricating equipment manufacturers Material handling equipment manufacturers Conveyors and conveying equipment manufacturers Motor testing/tuning equipment manufacturers/distributors Battery charging and testing equipment distributors
1970	No business activities were recorded for the site at this time.
1975	No business activities were recorded for the site at this time.
1978	No business activities were recorded for the site at this time.
1982	Air cargo agents
1991	Freight forwarders Air cargo agents

Several businesses with potential to cause subsurface contamination were also identified within the surrounding area of the site that may or may not have potential to impact the site. These include motor service stations, a joinery, a crane hire yard and a variety of manufacturers (including paints, machinery and adhesives).



### 3.7 Heritage Database Searches

A review of available NSW Department of Finance, Services and Innovation was conducted by Lotsearch on 6 August 2018 to determine if the site contains any heritage items on statutory lists in New South Wales. No notices or heritage items were listed for the site (refer to the Lotsearch report in **Appendix B**).





## 4 Sampling and Analysis Quality Plan (SAQP)

### 4.1 Data Quality Objectives

Data Quality Objectives (DQOs) were adopted for this assessment. The DQO process is described within US EPA (2000) *Guidance for the Data Quality Objectives Process and Data Quality Objectives Process for Hazardous Waste Site Investigations*.

The DQOs for the site investigation are summarised in **Table 4-1**, below.

**Table 4-1: Data Quality Objectives**

Data Quality Objective	Description
Step 1 State the Problem	<p>An intrusive investigation is required to assess the contamination status of soil and groundwater at the site. The results of the investigation will show the type, concentrations, and extent of potential contamination impacting the site, in exceedance of applicable guideline criteria (if any) as a preliminary assessment.</p> <p>Appropriate remedial measures, if required, to ensure the site is made suitable for the current and future land use, cannot be devised until a subsurface investigation has been completed.</p>
Step 2 Identify the Decisions	<p>The decisions that must be made are:</p> <ul style="list-style-type: none"> <li>• Is the site potentially contaminated from historical land use?</li> <li>• What is the risk posed to potential on-site (and off-site) receptors from the concentrations of COPCs identified at the site (if any)?</li> <li>• Are site soils and groundwater suitable for the intended land uses from a land contamination perspective?</li> <li>• If not, is remediation of site soils and/or groundwater necessary to ensure the site is made suitable for the intended land use?</li> </ul>



Data Quality Objective	Description
Step 3 Identify Inputs to the Decision	<p>This investigation has been devised to obtain the contamination status of the site. The primary inputs to the decisions described above are:</p> <ul style="list-style-type: none"> <li>• Conduct database searches and review of historical information;</li> <li>• Determine the local environmental sensitivity, including geological, hydrogeological and hydrological information and identification of nearby sensitive receptors;</li> <li>• Assessment of fill and natural soils, with samples collected from soil boreholes advanced across the site;</li> <li>• Assessment of groundwater beneath the site, with samples collected from monitoring wells installed following advancement of soil bores across the site;</li> <li>• Ensuring a sufficient number of samples are collected, in accordance with regulatory guidelines, to characterise site soils and groundwater, where present (i.e. as required as part of this investigation with an assessment to be made following review of the investigation results for any additional works that may be required at the site);</li> <li>• Laboratory analysis of soil and groundwater samples for relevant COPCs, based on current and historical land use;</li> <li>• Assessment of the analytical results against applicable guideline criteria, based on the current and future anticipated land use;</li> <li>• Assessment of the suitability of the analytical data obtained, against the Data Quality Indicators (DQIs); and</li> <li>• Aesthetic observations of soils and groundwater, including odours, staining, sheen and/or waste inclusions.</li> </ul>
Step 4 Define the Study Boundaries	<p>The site is located at 146 O'Riordan Street (identified as Lot 1 of DP85597) and 154 O'Riordan Street (identified as Lot A of DP320192, Lot A of DP402876 and Lot A of DP364217, respectively). The lateral extent of the study is the site boundaries (as shown on <b>Figure 2</b>). The vertical extent of the study extends to the depth of maximum drilling at 12.0 metres below ground surface (mbgs) in natural sands.</p>
Step 5 Develop a Decision Rule	<p>The decision rules for this investigation include:</p> <ul style="list-style-type: none"> <li>• If the concentration of a soil and/or groundwater COPC in a sample is below the applicable guideline criteria, then no further assessment/remediation will be required with respect to that COPC;</li> <li>• If soil and/or groundwater COPCs exceed the applicable guideline criteria, the site will be deemed to potentially contain 'hot spots' of contamination;</li> <li>• If the 95% upper confidence limit (UCL) of a soil and/or groundwater COPC is less than applicable guideline criteria, standard deviation is less than 50%, and no reported concentration is greater than 250% of criteria, then no further assessment/remediation will be required with respect to that COPC; and</li> <li>• If the concentration of a soil and/or groundwater COPC in a sample exceeds the applicable guideline criteria, the additional works (e.g. remediation or quantitative risk assessment) may be required to minimise the risk.</li> </ul>



Data Quality Objective	Description
Step 6 Specify Limits on Decision Errors	<p>Data Quality Indicators (DQIs) are used to assess the reliability of field procedures and analytical results. DQIs are described as follows and are presented in <b>Table 4-2</b>, below:</p> <ul style="list-style-type: none"> <li>Completeness – a measure of the amount of useful data (expressed as %) from a data collection activity;</li> <li>Comparability – the confidence (expressed qualitatively) that data may be equivalent for each sampling and analytical event;</li> <li>Representativeness – the confidence (expressed qualitatively) that data are representative of each media present on the site;</li> <li>Precision – a quantitative measure of the variability (or reproducibility) of data; and</li> <li>Accuracy (bias) – a quantitative measure of the closeness of reported data to the true rule.</li> </ul> <p>In addition, this step should include the following considerations to quantify tolerable limits:</p> <ul style="list-style-type: none"> <li>If 95% UCLs are adopted for a particular soil COPC, a decision can be made based on a 95% probability that the 'true' arithmetic average contaminant concentration within the sampling area will not exceed the value determined by this method. Therefore, the limit on the decision error will be that there is a 5% probability that the calculated arithmetic average contaminant concentration may be incorrect; and</li> <li>If the minimum soil sampling points required for site characterisation based on detected circular hot spots by using a systematic sampling pattern is adopted (Standards Australia (2005) <i>Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds</i>), a decision can be made based on a 95% confidence of detecting a hot spot of a particular diameter. Therefore, the limit on the decision error will be that there is a 5% probability that a hotspot of a particular diameter may not be detected. However, as noted above in Step 3, this investigation is devised to obtain a preliminary overview of the contamination status of the site and an assessment to be made following review of the investigation results for any additional works that may be required at the site.</li> </ul>



Data Quality Objective	Description
Step 7 Optimise the Design for Obtaining Data	<p>To achieve the DQOs and DQIs, the following sampling procedures will be implemented to optimise the design for obtaining data:</p> <ul style="list-style-type: none"> <li>Primary, duplicate and triplicate soil and groundwater samples will be analysed at NATA accredited laboratories;</li> <li>Field and laboratory quality assurance/quality control (QA/QC) results will indicate reliability and representativeness of the data set;</li> <li>Laboratory LORs will be below the applicable guideline criteria for the analysed COPC, where possible;</li> <li>Applicable guideline criteria will be sourced from NEPM (2013) guidelines and other EPA NSW endorsed guidelines (as necessary);</li> <li>Any soil and/or groundwater aesthetic issues will be evaluated including areas of discolouration, odour, sheen and/or hazardous waste inclusions;</li> <li>Fill and natural soil samples will be collected, where possible, from 21 soil bores advanced at the site to target potential areas of impact at the site;</li> <li>Groundwater samples will be collected from 4 groundwater monitoring wells installed at the site during investigation works, to obtain a representative view of groundwater conditions beneath the site;</li> <li>Soil and groundwater COPCs will be selected based on a review of historical activities at the site and the surrounding area. Based on current and known historical site uses, the COPCs are considered to include asbestos, total recoverable hydrocarbons (TRH)/total petroleum hydrocarbons (TPH), benzene, toluene, ethyl-benzene, xylenes and naphthalene (BTEXN), heavy metals (arsenic, cadmium, copper, chromium, nickel, mercury and zinc), polycyclic aromatic hydrocarbons (PAHs), phenols, polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs), organophosphorus pesticides (OPPs), volatile organic compounds (VOCs) and/or per- and poly-fluoroalkyl substances (PFAS);</li> <li>Samples will be collected by suitably qualified and experienced environmental consultants;</li> <li>Soil and groundwater samples will be collected and preserved in accordance with relevant standards/guidelines;</li> <li>Soil observations including odours, staining and photoionization detector (PID) readings will assist with selection of samples for laboratory analysis; and</li> <li>Field and laboratory QA/QC procedures will be adopted and reviewed to indicate the reliability of the results obtained.</li> </ul>

## 4.2 Data Quality Indicators

The DQIs outlined in **Table 4-2** below assist with decisions regarding the contamination status of the site, including the quality of the laboratory data obtained.

**Table 4-2: Data Quality Indicators**

Data Quality Indicator	Frequency	Data Acceptance Criteria
<b>Completeness</b>		
Field documentation correct	All samples	All samples
Soil bore logs complete and correct	All samples	All samples
Suitably qualified and experience sampler	All samples	All samples
Appropriate lab methods and LORs	All samples	All samples

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

19



Data Quality Indicator	Frequency	Data Acceptance Criteria
Chain of custodies (COCs) completed appropriately	All samples	All samples
Sample holding times complied with	All samples	All samples
Proposed/critical locations sampled	-	Proposed/critical locations sampled
<b>Comparability</b>		
Consistent standard operating procedures for collection of each sample. Samples should be collected, preserved and handled in a consistent manner	All samples	All samples
Experienced sampler	All samples	All samples
Climatic conditions (temp, rain etc.) recorded and influence on samples quantified (if required)	All samples	All samples
Consistent analytical methods, laboratories and units	All samples	All samples
<b>Representativeness</b>		
Sampling appropriate for media and analytes (appropriate collection, handling and storage)	All samples	All Samples
Samples homogenous	All samples	All Samples
Detection of laboratory artefacts, e.g. contamination blanks	-	Laboratory artefacts detected and assessed
Samples extracted and analysed within holding times	All samples	-
<b>Precision</b>		
Blind duplicates (intra-laboratory duplicates)	1 per 20 samples	<30% RPD (Inorganics) <50% RPD (Organics) No Limit RPD Result <10 × LOR
Split duplicates (inter-laboratory duplicates)	1 per 20 samples	<30% RPD (Inorganics) <50% RPD (Organics) No Limit RPD Result <10 × LOR
Laboratory duplicates	1 per 20 samples	<20% RPD Result > 20 × LOR <50% RPD Result 10-20 × LOR No Limit RPD Result <10 × LOR
<b>Accuracy (Bias)</b>		
Trip blanks	1 per sampling event	COPCs <LOR
Trip Spikes	1 per sampling event	70-130%
Surrogate spikes	All organic samples	50-150%
Matrix spikes	1 per 20 samples	70-130%
Laboratory control samples	1 per 20 samples	70-130%
Method blanks	1 per 20 samples	<LOR
Rinsate Blanks	1 per day of sampling	<LOR

### 4.3 Sampling Plan

The NSW EPA (1995) *Sampling Design Guidelines* state that 27 sampling points are required for a site the size of 1.7ha, however, due to accessibility across the site (i.e. high traffic areas and/or permission to some building areas not provided by tenants), 21 sampling locations were possible. The investigation includes advancement of soil borings at 21 strategic locations across the site with soil samples collected for analysis of





the COPCs outlined above in **Table 4-1**. In addition, four of these soil bores advanced were converted into permanent groundwater monitoring wells, with groundwater samples collected for analysis of the COPCs outlined above in **Table 4-1**.

Details of the undertaken sampling program, including the soil and groundwater investigation methodology, the undertaken soil and groundwater analytical program, and the undertaken QA/QC program, are outlined below in **Section 6**. Soil boring and groundwater monitoring well locations are shown on **Figure 3**.



## 5 Adopted Assessment Criteria

In consideration of the potential redevelopment of the site to medium-high density residential land uses (which may include gardens/accessible soils), the following soil criteria have been selected for this investigation.

### 5.1 Soil Criteria

- TRH and BTEXN:
  - NEPM (2013) Soil Health Screening Levels (HSLs) for Vapour Intrusion (VI) for residential (HSL A & B) and recreational/open space (HSL C) land use. Based on the soil characteristics recorded at the time of sampling, the sand HSLs are applicable at the site;
  - CRC CARE (2011) Soil HSLs for VI for Intrusive Maintenance Workers (Shallow Trench). Based on the soil characteristics recorded at the time of sampling, the sand HSLs are applicable at the site. These criteria are relevant for workers involved in shallow trenches of depths 0-<2m, 2-<4m and >4m;
  - CRC CARE (2011) Soil HSLs for Direct Contact for Intrusive Maintenance Workers and Low Density Residential land users; and
  - NEPM (2013) Management Limits for TPH fractions F1 – F4 in soil for residential, parkland and public open space land use. A review of the bore logs indicates that fine and coarse soil texture is applicable, dependent upon the sampling depth.
- Heavy metals, OCPs, OPPs, PAHs, phenols and PCBs:
  - NEPM (2013) Health Investigation Levels (HILs) for soil contaminants for residential land use with minimal opportunities for soil access (HIL B) and recreational/public open space land use (HIL C).
- Asbestos:
  - NEPM (2013) HSLs for asbestos contamination in soil for residential with minimal opportunities for soil access (HSL B) and recreational/public open space land use (HSL C).
- Ecological Investigation Levels/Ecological Screening Levels:
  - ESLs and EILs for urban residential and public open spaces included in NEPM (2013), Schedule B1, Tables 1B (1) to (6). The EILs for Cr, Cu, Ni, and Zn were calculated based on the methodology detailed in Schedule B1 in the NEPM (2013), and based on the average soil pH and conservative values of CEC and Organic Carbon Content.
- Acid Sulfate Soils:
  - Action criteria for coarse texture – sands to loamy sands included in Acid Sulfate Soil Management Advisory Committee (1998) *Acid Sulfate Soils Assessment Guidelines*.

A list of collected soil samples is included in **Table 1**. A summary of the soil analytical results compared to applicable human health and environmental criteria are presented in **Tables 2 to 9**.



## 5.2 Groundwater Beneficial Uses

This section details the applicable guideline criteria utilised as groundwater investigation levels (GILs) for comparison to the groundwater analytical data collected during this DSI. The GILs are utilised as initial screening values only to determine if there is potential risk to human health and the environment associated with the dissolved phase impacts. The adopted GILs were based on an evaluation of potential beneficial groundwater uses both on and off site. For the purposes of evaluating groundwater conditions at the site, a review of the potential on-site and off-site groundwater beneficial uses has been conducted. The results of the review are provided in **Table 5-1**.

**Table 5-1: Data Quality Indicators**

Beneficial Use		Likelihood of Use		Comment
		On site	Off site	
Aquatic Ecosystems	Groundwater	Nil	Unlikely	There are no aquatic ecosystems on site and none are anticipated after site redevelopment. An unnamed drain, located approximately 600m west of the site, drains into Alexandra Canal approximately 1km north-west/west of the site, which eventually discharges into Cooks River and Botany Bay. Based on the distance to these surface water bodies, they are considered unlikely to be receptors of groundwater impacts at the site (if any). However, as a conservative approach, the protection of aquatic ecosystems off-site has been evaluated as part of this DSI.
Human Uses	Potable Water	Unlikely	Potential	Although the site and surrounding suburb have an established reticulated water supply, 12 domestic bores are registered within a 1km radius of the site (the nearest located 24m east of the site) (refer to <b>Section 2.7</b> ). As such, potential risks to human health from drinking water have been evaluated.
	Primary/Secondary Contact/Recreation/Aesthetic	Unlikely	Unlikely	The site and surrounding area have no rivers, creeks or other surface water bodies that would potentially be utilised for swimming and other recreational activities within a 500 m radius of the site.
	Irrigation	Unlikely	Unlikely	At its closest point, Mascot Oval is located approximately 18m north-east of the site and may extract water for irrigation purposes. However, no irrigation use groundwater bores were identified within 1km of the site (refer to <b>Section 2.7</b> ). Irrigation beneficial uses have not been considered for this DSI.
	Stock Watering	Unlikely	Unlikely	Given that the site is located within the Sydney metropolitan area, it is unlikely that groundwater will be extracted for stock watering purposes.
	Industrial Use	Unlikely	Potential	The potential exists for off-site industrial use of groundwater.
	Aquaculture	Unlikely	Unlikely	The nearest surface water bodies (i.e. unnamed drain and Alexandra Canal, located approximately 600m west and 1km north-west/west of the site) are considered unlikely to be utilised for aquaculture.
Intrusive Maintenance/Trench/Excavation Worker		Potential	Potential	On-site and off-site sub-surface activities have the potential for workers to come in direct contact with groundwater and COPCs if it is impacted.



### 5.3 Groundwater Investigation Levels

Based on **Table 5-1**, there are no on-site beneficial uses to be protected. However, the potential exists for on-site sub-surface workers to come in direct contact with groundwater in the future, both on and off site. The groundwater analytical data have been compared to the following criteria to account for the most conservative use of groundwater on site and potential off-site uses:

- NEPM (2013) Drinking Water GILs;
- NEPM (2013) Maintenance of Aquatic (Freshwater) Ecosystems;
- NEPM (2013) Groundwater HSLs for low to high density residential land use (HSL A/B);
- NEMP (2018) Health based guidance values; and
- NEMP (2018) Guidance values for 95% species protection – slightly to moderately disturbed systems.

Given that groundwater was encountered within sand during drilling of boreholes MW1 to MW4, the sand HSLs have been adopted for this DSI. The applicable guideline criteria with the groundwater analytical data are listed in **Table 13**.

Specific guidance on water quality parameters for industrial use are not provided in ANZECC (2000) *Australian Water Quality Guidelines for Fresh and Marine Waters* but are provided in the ANZECC (1992) *Australian Water Quality Guidelines for Fresh and Marine Waters*. However, the applicable criteria for industrial water uses are highly specific to the type of process, and therefore criteria for industrial water use have not been specified for the site.



## 6 Field Program

The field program included an intrusive investigation to assess the subsurface conditions at the site. Soil samples were collected from the 21 boreholes drilled at the site for laboratory analysis. The sampling methodologies are outlined in the following sections. Field documentation (borehole logs) is included in **Appendix G**.

### 6.1 Soil Investigation Program

The initial site inspection was conducted on 3 August 2018, with the soil environmental investigation undertaken on 8, 9, 10, 13 and 14 August 2018 by TRACE Environmental Scientists who are trained and experienced in the supervision and direction of drilling works, environmental logging and collection of environmental soil samples. All subsurface investigations were conducted with reference to the NEPM (2013) Schedule B2 and EPA VIC guidelines, as necessary.

Due to site restraints, including warehouse access restrictions, several areas of the site could not be investigated (i.e. the north-eastern portion of 146 O'Riordan Street and the eastern portion of 154 O'Riordan Street). As a result, the number of soil bores completed as part of the DSI does not conform to the minimum number of sampling points required to assess site contamination for a site area of approximately 1.6 ha, as defined in NSW EPA (1995) *Sampling Design Guidelines*. This is further discussed in **Section 8.3**. Borehole locations, including planned boreholes that could not be advanced due to access restrictions; are shown on **Figure 3**.

The sampling methodology adopted for the soil investigation conducted is detailed in **Table 6-1** below. Laboratory analytical results are discussed in **Section 7** and laboratory analytical reports are provided in **Appendix H**.

**Table 6-1: Soil Investigation Methodology**

Activities	Details
Concrete Coring	Concrete/bitumen coring was required at sixteen (SB-1, SB-6 to SB-8, SB-10, SB-11, SB-14, SB-17 to SB-20 and SB-23 to SB-27) locations to access the underlying soils during borehole drilling. Concrete/bitumen thickness ranged between 0.11 and 0.175m at these locations.
Borehole drilling	Soil bores were advanced at 21 locations (SB-1, SB-4, SB-6 to SB-11, SB-13, SB-14 and SB-17 to SB-27, refer to <b>Figure 3</b> ) across the site. Eleven of the soil bores (SB-6, SB-11, SB-14, SB-17 to SB-22, SB-26 and SB-27) were advanced to depths between 0.8 and 12.0 mbgs using a combination of a hand auger and a Geoprobe drilling rig (using push tubes and rotating auger). Ten of the soil bores (SB-1, SB-4, SB-7 to SB-10, SB-13 and SB-23 to SB-25) were advanced to depths between 0.25 and 1.1 mbgs using a hand auger. Soil samples were collected directly from the hand auger, push tube liners and/or rotating auger at each location.
Field Logging	Logging of soil samples was conducted in general accordance with the Unified Soil Classification System. Soil materials were logged, and the following information was recorded in the field: soil/rock type, colour, grain size, inclusions, moisture conditions, staining and observation of any anthropogenic material (e.g., odours, and waste materials).





Activities	Details
Sampling Intervals	<p>Samples were collected from each borehole from:</p> <ul style="list-style-type: none"> <li>the surface (0.15 to 0.25 mbgs);</li> <li>0.3-0.9 mbgs;</li> <li>At one metre intervals to the end of each borehole;</li> <li>at changes in lithology;</li> <li>at evidence of contamination (e.g. odours, staining, waste inclusions) (if any); and</li> <li>at areas of elevated PID readings (if any).</li> </ul>
Soil Sampling Procedures	<p>Soil samples were collected from each borehole by hand (protected by a dedicated nitrile glove) from the hand auger and/or push tube liner. The soil samples were collected in laboratory supplied 250 mL jars and were labelled and immediately stored on ice for transport to the laboratory. Samples collected for asbestos analysis were collected in laboratory supplied 500mL plastic bags with a press ('Ziploc') seal.</p> <p>A total of 119 primary soil samples were collected for field screening and potential laboratory analysis from the soil bores advanced on 8, 9, 10, 13 and 14 August 2018. Based on a review of depth of sample, future land use, lithology, presence of staining, odours, waste inclusions and PID results, laboratory analysis was requested for 87 primary samples. Of these 22 natural soil samples were submitted for ASS analysis.</p>
Field QC Samples	<p>Field duplicates and triplicates of the soil samples were prepared in the field by collecting split samples of the same material from the same depth. Samples were not mixed or homogenised during collection or splitting. Samples for duplicate analyses were selected from sampling locations characterised by indicators of contamination, odour and/or elevated PID responses (if encountered). Additionally, a trip blank and trip spike sample was transported with the samples during the soil sampling and were analysed at the laboratory. Duplicates and triplicates were collected at the minimum rate of one per 20 primary samples analysed at the laboratory. A full discussion of the QA/QC procedures is included in <b>Section 7.6</b> and <b>Appendix I</b>. Laboratory analytical reports are provided in <b>Appendix H</b>.</p>
Sample Labelling, Storage and Transport	<p>All samples were clearly labelled with a unique sample identification consisting of the date, sample location, depth of sample and sampler's initials. In the case of field duplicates and triplicates, sample containers were labelled in a manner that did not reveal which primary sample the duplicate or triplicate belonged to.</p>
Field Screening for VOCs	<p>Additional soil from each sample depth range was placed in a sealed plastic bag for field screening purposes. After waiting approximately five minutes for the sample and the headspace to equilibrate, the headspace in the bagged samples was assessed by a calibrated (<math>100 \pm 3</math> parts per million (ppm) isobutylene) PID with a 10.6 eV lamp to measure the presence of total VOCs. PID readings are included <b>Table 1</b>. The PID calibration certificate is provided in <b>Appendix G</b>.</p>
Decontamination	<p>The hand auger was decontaminated between each borehole location, and a clean pair of disposable nitrile sampling gloves was used between collection of each sample. Rinsate samples were collected during soil sampling as discussed in <b>Appendix I</b>.</p>
Waste Disposal	<p>Soil cuttings generated during borehole drilling were returned to the borehole following sampling and boreholes were reinstated with concrete (where required).</p>

## 6.2 Groundwater Investigation Program

Four of the boreholes advanced during the DSI were converted into permanent groundwater monitoring wells (MW1 to MW4) and were sampled to determine the condition of groundwater at the site. The groundwater monitoring well locations are shown on **Figure 3**.

Groundwater sampling was undertaken on 15 August 2018 by a TRACE Environmental Scientist who is trained and experienced in the collection of environmental groundwater samples. All groundwater installation works, and investigations were conducted with reference to the NEPM (2013) Schedule B2 and relevant guidelines



endorsed by NSW EPA. The sampling methodology adopted for the groundwater investigation conducted is detailed in **Table 6-2**, below.

**Table 6-2: Groundwater Sampling Methodology**

Activities	Details
Monitoring Well Construction	The four newly installed monitoring wells (MW1 to MW4) were constructed using Class 18 uPVC 50 mm inside diameter machine threaded casing and 0.4 mm slotted screen and casing. Well construction, including screen lengths, was based on observations made during drilling. Once the well screen was installed, a filtered sand of 2 mm in diameter was introduced as a filter pack to reduce sediment infiltrating the well annulus. The filter pack was placed around the screened section of the well to approximately 0.5 m above the top of the screen. Fine-grained bentonite pellets were placed above the sand filter pack around the well to approximately 0.5 m above the top of the filter pack and was slightly wetted to ensure an adequate seal was formed to prevent surface infiltration into the well. The annulus was subsequently backfilled using grout to approximately 0.1 mbgs. A well cap was then inserted and a steel gatic cover was installed flush mounted to the ground surface and secured with concrete at the top of the monitoring well to prevent tampering and damage. The bore logs are included in <b>Appendix G</b> .
Monitoring Well Development	The newly installed monitoring wells were developed using a bailer as soon as practical following installation. The bailer was used to disturb the water column within the well annulus to remove any groundwater and well debris that may have been introduced during the installation process.
Monitoring Well Gauging	Measurement of the standing water level in the groundwater monitoring well was undertaken prior to purging using an electronic interface probe. Both the standing water level and the depth to the base of the well were measured. Groundwater gauging data is presented in the groundwater sampling logs in <b>Appendix G</b> .
Monitoring Well Purging	The four monitoring wells were purged prior to sampling using low-flow sampling equipment on 15 August 2018. Water quality parameters including temperature, electrical conductivity, dissolved oxygen, redox potential and pH were measured during purging using a calibrated water quality meter. Sampling was completed following the stabilisation of the water quality parameters. Post purging water quality parameters and purging data is shown in <b>Appendix G</b> .
Monitoring Well Sampling	Sampling of the monitoring wells was completed using the same methods as for purging (i.e. low-flow sampling technique) and was completed following stabilisation of water quality parameters. Samples were collected into appropriate laboratory supplied sample containers. Samples collected for analysis for metals were first filtered through a 0.45 micron filter prior to being dispensed into an appropriate laboratory supplied sample container. All bottles were then sealed immediately using a Teflon lined cap, labelled and placed on ice.
Field QC Samples	Groundwater field duplicate and field triplicate samples were prepared in the field by collecting split samples from the same monitoring well. To meet the QA/QC program objectives, one duplicate was analysed at the laboratory for the COPCs and one triplicate sample was analysed at a secondary laboratory for the COPCs. Trip blank and trip spike samples that were transported with the samples during the groundwater sampling were also analysed at the laboratory.
Sample Labelling, Storage and Transport	All samples were clearly labelled with unique sample identification numbers consisting of the date, sample location and sampler's initials. In the case of field duplicates, sample containers were labelled so as to not reveal their purpose or sample location to the laboratory. All samples were kept chilled in an ice-filled esky prior to dispatch and during transport to the NATA registered laboratory under chain-of-custody procedures.
Decontamination	During the gauging of monitoring wells, an interface probe was used. The interface probe was decontaminated prior to its use by scrubbing with PFAS-free decontamination water. New tubing was used to purge the monitoring well during sampling. No reusable equipment was used during groundwater sampling.

### 6.3 Soil Analytical Program

The collected fill and natural soil samples were submitted for laboratory analysis of various COPCs potentially related to the current food distribution and historical transport and logistics operations, as well as the site located within an area primarily used for industrial purposes. Primary and intra-laboratory duplicate samples



were submitted to Eurofins-mgt of Lane Cove West, NSW and the inter-laboratory duplicate samples were submitted to ALS in Smithfield, NSW. A summary of the soil analytical program is provided in **Table 6-3**, below.

**Table 6-3: Summary of Soil Analytical Program**

Analysis	Analytical Method	LORs (mg/kg)	# Primary Samples	# QA/QC Samples
TRH Fraction F1 and F2 TPH C <sub>6</sub> to C <sub>40</sub>	TRH C6-C40 - LTM-ORG-2010	20 to 100	33	6
BTEXN	TRH C6-C40 - LTM-ORG-2010	0.1 to 0.5	33	6
Polycyclic Aromatic Hydrocarbons	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	0.5	43	6
Metals (As, Cd, Total Cr, Cu, Pb, Hg, Ni, Zn)	LTM-MET-3040_R0	0.1 to 5	43	6
OCPs/OPPs	LTM-ORG-2220 OCP & PCB in Soil/LTM-ORG-2200 Organophosphorus Pesticides by GC-MS	0.05 to 2	21	0
PCBs	LTM-ORG-2220 OCP & PCB in Soil	0.1 to 0.5	21	0
Phenols	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	0.2 to 20	18	0
VOCs	LTM-ORG-2150 VOCs in Soils	0.1 to 0.5	7	0
Asbestos	LTM-ASB-8020	0.001 %	24	4
pH	LTM-GEN-7090 pH in soil by ISE	0.1 units	5	0
Electrical Conductivity	LTM-INO-4030	10 µS/cm	5	0
ASS – SPOCAS	LTM-GEN-7050	Various	13	0
ASS – S <sub>CR</sub>	LTM-GEN-7070 LTM-GEN-7050/7070	Various	14	0
TCLP	(TCLP) USEPA Method 1311 (ASLP) AS 4439.2; AS 4439.3	0.1	9	0

#### 6.4 Groundwater Analytical Program

The collected groundwater samples were submitted for laboratory analysis of various COPCs potentially related to the current and historic site uses as identified during the DSI completed by TRACE Environmental (2017). A summary of the overall groundwater analytical program is presented in **Table 6-4**, below.

**Table 6-4: Summary of Groundwater Analytical Program**

Analysis	Analytical Method	LORs (mg/L)	# Primary Samples	# QA/QC Samples
TRH Fraction F1 and F2 TPH C <sub>6</sub> to C <sub>40</sub>	TRH C6-C40 - LTM-ORG-2010	0.02 to 0.1	4	2

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

28



Analysis	Analytical Method	LORs (mg/L)	# Primary Samples	# QA/QC Samples
BTEXN	IRH C6-C40 - LTM-ORG-2010	0.001 to 0.01	4	2
Polycyclic Aromatic Hydrocarbons	LTM-ORG-2130 PAH and Phenols in Water by GCMS	0.001	4	2
Metals (As, Cd, Total Cr, Cu, Pb, Hg, Ni, Zn)	LTM-MET-3040 Metals in Waters by ICP-MS	0.0001 to 0.005	4	2
OCPs/OPPs	LTM-ORG-2220 OCP & PCB in Soil and Water/LTM-ORG-2200 Organophosphorus Pesticides by GC-MS	0.0001 to 0.02	4	0
PCBs	LTM-ORG-2220 OCP & PCB in Soil and Water	0.001 to 0.005	4	0
Phenols	LTM-ORG-2130 PAH and Phenols in Water by GCMS	0.001 to 0.1	4	2
VOCs	LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices	0.005	4	0
PFASs	USEPA Method 537	0.05 to 0.01	4	0





## 7 Assessment Results

### 7.1 Site Observations and Lithology

The soil profile encountered by TRACE Environmental during drilling of boreholes at the site is summarised below:

- Fill (consisting of sand, gravel, cobbles, sandy gravel, silty sand and/or sandy clay) with bricks, concrete, glass, metal, organic material (such as wood and roots) and/or slag, to between 0.8 and 3.0 mbgs; overlying
- Natural sand, medium grained, white/grey to orange/brown to black.

In addition to the anthropogenic material described above, hydrocarbon odour was noted in fill and natural material at borehole SB-26 at depths between 1.5 and 6.0 mbgs.

PID measurements of 0.4 ppm and 0.3 ppm in soil samples SB-14/0.4 and 2.0, 0.8 ppm and 1.0 ppm in soil samples SB-19/0.8 and 1.5 and 2.0 ppm to 8.9 ppm in the soil samples obtained from soil bore SB-26 at depths ranging between 1.0 and 8.0 mbgs were recorded during borehole drilling. All other PID measurements for soil samples collected during borehole drilling were recorded at 0.0 ppm.

Boreholes SB-4, SB-7, SB-8, SB-9, SB-13, SB-23, SB-24 and SB-25 encountered hand auger refusal in fill material at depths ranging between 0.25 (SB-4) and 0.6. These boreholes were terminated at the hand auger refusal depth. Boreholes SB-1 and SB-21 encountered rotating auger refusal in fill material at depths of 0.75 and 0.8 mbgs, respectively, on potential concrete material. Boreholes SB-10 and SB-18 were terminated at depths of 1.1 and 1.0 mbgs in sand potentially indicating service trenches in close proximity to these locations (based on on-site observations and available Dial Before You Dig plans).

Borehole logs are provided in **Appendix G**.

### 7.2 Soil Analytical Results

Soil analytical results are summarised in **Tables 2A to 10** and laboratory analytical reports are included in **Appendix H**. A summary of the soil analytical results is presented below:

- TPH/TRH compounds were reported at concentrations exceeding the laboratory LORs in various analysed soil samples across the site. Of these, TRH C<sub>10</sub>-C<sub>16</sub> (Fraction F2) was detected at concentrations exceeding the NEPM (2013) ESL (Urban Residential and Public Open Space) criteria in soil samples SB-4/0.2, SB-18/1.0 and SB-26/1.5-2.0. In addition, TRH Fraction F2 in soil sample SB-26/1.5-2.0 was reported at a concentration exceeding the NEPM (2013) Management Limits for TPH in residential, parkland and public open space criteria (for coarse and fine soils);
- TRH compound C<sub>10</sub>-C<sub>16</sub> (Fraction F2) in soil samples SB-4/0.2, SB-18/1.0 and SB-26/1.5-2.0 were reported at concentrations exceeding the NEPM (2013) soil HSL for vapour intrusion criteria for low to high density residential land use (in sand depths of 0 to <1m and 1 to <2m) (HSL A & B). All other samples were reported below the laboratory LORs and applicable guideline criteria for TPH/TRH compounds in soil;





- Ethylbenzene, m&p-xylenes, o-xylenes and total xylenes were detected at concentrations exceeding the laboratory LORs, but below applicable guideline criteria, in the analysed soil sample SB-26/1.5-2.0. Naphthalene was also detected in this sample at a concentration exceeding the NEPM (2013) HSL A & B criteria. In addition, toluene was detected at a concentration exceeding the laboratory LOR, but below applicable guideline criteria, in the analysed soil sample SB-7/0.25. BTEXN compounds were not reported at concentrations exceeding the laboratory LORs in any other analysed soil sample;
- PAH compounds were reported in various analysed soil samples at concentrations exceeding the laboratory LORs. Of these, benzo(a)pyrene TEQ was reported at a concentration exceeding the NEPM (2013) HIL B criteria (Residential B) in analysed soil sample SB-14/1.2, and benzo(a)pyrene was reported at concentrations exceeding the NEPM (2013) ESL (Urban Residential and Public Open Space) in analysed soil samples SB-1/0.5, SB-6/1.0, SB-14/1.2, SB-19/1.5 and SB-26/1.5-2.0. It is noted that the concentration of benzo(a)pyrene in soil sample SB-19/0.8 was reported at a concentration equal to the NEPM (2013) ESL criteria;
- Heavy metals arsenic, chromium, copper, lead, mercury, nickel and/or zinc were reported at concentrations exceeding the laboratory LORs in all analysed soil samples, with the exception of soil samples SB-11/4.4, SB-14/10.0, SB-19/3.7, SB-20/3.8 and SB-27/6.0. Arsenic, copper, lead, nickel and/or zinc were reported at concentrations exceeding the NEPM (2013) EILs (Urban Residential and Public Open Space) in analysed soil samples SB-1/0.5, SB-6/1.0, SB-7/0.25, SB-11/0.5, SB-11/1.2, SB-11/1.6, SB-14/1.2, SB-18/1.0, SB-19/0.8, SB-19/1.5, SB-20/0.3, SB-20/1.0, SB-20/1.5, SB-21/0.15, SB-22/0.5, SB-25-0.25, SB-26/0.2, SB-26/1.5-2.0 and/or SB-27/0.5. In addition, the concentration of lead reported in soil samples SB-1/0.5, SB-14/1.2 and SB-18/1.0 exceeds the NEPM (2013) HIL C criteria (recreational/open space land use) and SB-26/1.5-2.0 exceeds the NEPM (2013) HIL B (residential land use);
- No OCPs or OPPs were reported at concentrations exceeding the laboratory LORs and/or applicable guideline criteria in any of the analysed soil samples;
- No PCBs or phenols were reported at concentrations exceeding the laboratory LORs and/or applicable guideline criteria in any of the analysed soil samples;
- VOCs were not reported at concentrations exceeding the laboratory LORs in any of the analysed soil samples. It is noted that EPA NSW has not endorsed applicable guideline criteria for VOCs in soil; and
- Asbestos was detected in soil samples SB-1/0.5 (ACM), SB-6/0.4 (ACM and FA+AF), SB-8/0.3 (AF), QA1A (FA+AF) and SB-27/0.2 (ACM). Of these samples, ACM and FA+AF in soil sample SB-6/0.4 and FA in soil sample SB-7/0.25 were reported at weight percentages exceeding the NEPM (2013) HSLs for Residential B (bonded/non-friable ACM) and for FA and AF asbestos. In addition, ACM in soil sample SB-1/0.5 was reported at a weight percentage exceeding the NEPM (2013) HSLs for Recreational C (bonded/non-friable ACM). No respirable fibres were detected in any of the analysed soil samples.

The soil samples with COPCs that have been reported at concentrations exceeding the applicable guideline criteria are summarised in **Figure 4**.



### 7.3 Hydrogeological Conditions

Monitoring wells MW1 to MW4 were installed at the site between 8 and 13 August 2018. Groundwater well installation details are shown on the bore logs presented in **Appendix G**. Details regarding the encountered site hydrogeological conditions are summarised in **Table 7.1**, below.

**Table 7-1: Site Hydrogeology**

Component	Description
Depth to Groundwater	Gauged between 3.682 mbtoc (MW1) and 4.596 mbtoc (MW4)
Non-aqueous phase liquid (NAPL)	No measurable NAPL was detected at the site
Inferred Flow Direction	Based on the measured depth to groundwater and monitoring well survey data (refer to <b>Appendix G</b> ), the calculated groundwater flow direction is to the west/south-west, with apparent mounding in the centre of the site. Groundwater flow direction is presented in <b>Figure 6</b> .
Water Bearing Unit	Sand
Lateral Hydraulic Gradient	0.0099 m/m
Total Dissolved Solids	Between approximately 737 mg/L (MW-1 and MW2) and 1407 mg/L (MW-4)
Potential Groundwater Discharge Zones	Alexandra Canal located approximately 1 km west/north-west of the site

**Notes:**

mbtoc: metres below top of casing

### 7.4 Groundwater Analytical Results

Based on review of the laboratory analytical results for groundwater samples collected at the site, the following summary of identified COPCs and assessment criteria exceedances is provided:

- Arsenic, copper, lead, nickel and/or zinc were reported at concentrations exceeding the laboratory LORs in groundwater samples MW-1, MW-2, MW-3 and/or MW-4. Of these, arsenic (MW-2) and lead (MW-1) were reported at concentrations exceeding the NEPM (2013) Drinking Water GILs, and copper (MW-1 to MW-4), lead (MW-2 and MW-3) and zinc (MW-1 to MW-4) were reported at concentrations exceeding the NEPM (2013) Freshwater GILs;
- PFAS compounds were reported at concentrations slightly exceeding the laboratory LORs, but below the applicable guideline criteria, in the groundwater samples analysed (MW-1 to MW-4); and
- BTEXN, PAHs, OCPs, OPPs, phenols, PCBs and VOCs were not reported above laboratory LORs in the groundwater samples analysed.

A summary of laboratory analytical data for groundwater samples collected at the site is presented in **Table 13**, and guideline exceedances are further discussed in **Section 8**.

The groundwater samples with COPCs that have been reported at concentrations exceeding the applicable guideline criteria are summarised in **Figure 5**.

### 7.5 Acid Sulfate Soils Analysis

A total of 22 natural soil samples collected from boreholes drilled across the site were submitted for ASS field screening analysis to investigate the potential for ASS to be present at the site. Laboratory analytical results for ASS field screening showed pH-F and pH-FOX values  $\geq 5.6$  and  $\geq 2.2$ , respectively, for the analysed soil



samples. Of the samples analysed, pH-FOX was reported between 2.2 and 3.3 in soil samples SB-6/5.0, SB-14/8.0, SB14/10.0, SB-17/8.0, SB-17/10.0, SB-20/8.0, SB-20/10.0, SB-20/12.0, SB-26/6.0, SB-26/8.0 and SB-26/10.0.

Based on the above results, 17 of the 22 natural soil samples were submitted for chromium reducible sulfur ( $S_{CR}$ ) and/or SPOCAS analysis to further assess the potential for ASS to be present at the site. The results of the  $S_{CR}$  and SPOCAS analysis reported that net acidity and sulfur – peroxide oxidisable sulfur exceeded the ASSMAC criteria in multiple soil samples collected from across the site. This indicates that PASS or AASS are likely to be present in natural materials sampled at the site. As such, an Acid Sulfate Soil Management Plan (ASSMP) will be required prior to future development works or disturbance of the natural material (refer to **Section 9** below for additional detail).

A summary of ASS laboratory analytical data for soil samples collected at the site is presented in **Table 9**.

## 7.6 Quality Assurance/Quality Control

The overall project QA/QC program included collecting of duplicate, triplicate and field blanks and internal laboratory QA/QC. A summary of the results of the QA/QC results are included in the following sections. The full QA/QC evaluation is included in **Appendix I**.

Three intra-laboratory soil duplicates (QS1, QS2 and QS3) and three inter-laboratory soil duplicates (QS1A, QS2A and QS3A) were collected during this investigation. In addition, two intra-laboratory soil duplicates for asbestos analysis (QA1 and QA2) and two inter-laboratory soil duplicates for asbestos analysis (QA1A and QA2A) were collected during this investigation. Furthermore, one intra-laboratory water duplicate (QW1) and one inter-laboratory water duplicate (QW1A) was collected during this investigation.

A summary of the QA/QC samples is included in **Table 7-2**, below.

**Table 7-2: Summary of QA/QC Samples**

Parent Sample	Date	Blind Duplicate	Blind Triplicate	Analysis
SB-27/3.8	08/08/2018	QS1	QS1A	BTEXN, vTRH, PAHs, Metals
SB-14/0.2	10/08/2018	QS2	QS2A	BTEXN, vTRH, PAHs, Metals
SB-22/6.0	13/08/2018	QS3	QS3A	BTEXN, vTRH, PAHs, Metals
SB-21/0.4	13/08/2018	QA1	QA1A	Asbestos
SB-23/0.4	14/08/2018	QA2	QA2A	Asbestos
MW2	15/08/2018	QW1	QW1A	BTEXN, vTRH, PAHs, Metals, Phenols

The Relative Percent Difference (RPD) was calculated between the primary and QA/QC samples (groundwater) and the QA/QC samples (soil) and are shown on **Table 11**.

Standards AS 4482.1-1997, AS 4482.2-1999, AS/NZ 5667.1-1998, AS/NZ 5667.11-1998 and NEPM (2013) state that replicate and original sample RPDs should generally be within 30%. However, this variation can be expected to be higher for organic compounds than for inorganics. In addition, greater variation is observed where low concentrations of analytes are present. Therefore, the following RPD acceptance criteria were adopted during this investigation:



- Inorganics – 30% RPD;
- Organics – 50% RPD; and
- If primary and/or duplicate concentration  $<10 \times \text{LOR}$  – No Limit.

A discussion of the RPD results is included in **Appendix I**.

#### 7.6.1 Laboratory QA/QC

The chosen analytical laboratories undertake internal QA/QC procedures which include the analysis of method blanks, internal duplicate samples, laboratory control samples, matrix spikes and surrogate recovery. Additionally, laboratory QA/QC procedures include sample receipt, logging, storage, preservation and analysis within the method specified holding time. The full review of the laboratory QA/QC program is included in **Appendix I**. A review of the laboratory QA/QC procedures indicated that the laboratory QA/QC samples percent recoveries were generally within the laboratory recommended range for acceptable reproducibility. Additionally, samples were received and stored appropriately, and all samples were analysed within the specified holding times.

#### 7.6.2 Data Useability

Assessment of the field and laboratory QA/QC procedures and results indicates that the DQOs were met and therefore that the analytical data is considered representative of site conditions at the time of the investigation and suitable to enable an investigation of the site. The majority of internal laboratory QA/QC procedures were met. The data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the conditions at the sample locations and that the analytical data can be relied upon for the purpose of this investigation. It is concluded that overall the quality of the analytical data produced is reliable for the purposes of evaluating the potential risks posed by subsurface impacts to human health and the environment at the site.





## 8 Conceptual Site Model

### 8.1 Preliminary CSM

The environmental risk assessment is based on a contaminant (source) - exposure pathway - receptor methodology. This relationship allows an assessment of potential environmental risk to be determined, in accordance with the current national guidelines. Central to the requirements for the assessment of risk is the development of an initial CSM, identifying each contaminant source and the associated receptor exposures.

Generally, a CSM provides an assessment of the fate and transport of COPCs relative to site-specific subsurface conditions with regard to their potential risk to human health and the environment. The CSM considers site specific factors including:

- Sources of subsurface impacts;
- Identification of COPCs derived from the sources;
- Vertical and lateral distribution of COPCs;
- Site specific lithologic information including soil type(s), depth to groundwater, effective porosity, and groundwater flow velocity; and
- Actual or potential receptors focusing on future and current land use both of the site and adjacent properties and sensitive ecological receptors.

Based on the information sourced in this investigation, a preliminary CSM has been developed and is outlined in **Table 8-1**, below. Additional details are included in the sections that follow as necessary.

**Table 8-1: Preliminary Conceptual Site Model**

Conceptual Site Model Element	Description
Site History/Contaminant Sources	<p>The site historically comprised of a mix of structures, vegetated and farmed land from circa 1940's to mid-1970's, the vegetated/farm land was developed into a car park until the early 1990's when a warehouse was developed in the southern portion of the site (remaining largely unchanged to present day). The northern portion of the site was developed into its current configuration circa 2009. The site is currently used for a variety of commercial and light industrial purposes, such as electronics repair, fashion distribution, office space, broadcasting, air freight transport, food production/distribution and rail maintenance organisation workshop.</p> <p>Historical site operations, including a variety of manufacturers (such as fork lift truck, electronic equipment, motor garage equipment, lubricating equipment, and spraying equipment) is a potential source of subsurface impact at the site (i.e. via storage of hazardous chemicals, refuelling of machinery and/or vehicles etc.). Additionally, the likely historical importation of fill material from unknown sources has the potential to impact the subsurface.</p>
Site Current and Future Use	<p>The site is currently occupied by a large warehouse/office building in the northern portion of the site (146 O'Riordan Street) and large warehouses in the central, eastern and southern portions of the site (154 O'Riordan Street). These warehouses/office spaces are used for a variety of commercial and light industrial purposes, as noted above.</p> <p>It is understood that the intended future land use of the site is medium to high density residential with open space areas.</p>





Conceptual Site Model Element	Description
Site Geology	The results of the investigation showed a range of fill materials across the site, including sands and gravels, extending to a maximum depth of approximately 3.0 mbgs. Underlying the fill materials were natural sands. Further details of the site lithology are outlined above in <b>Section 7.1</b> , with bore logs provided in <b>Appendix G</b> .
Site Hydrogeology	Groundwater was gauged between 3.682 mbtoc (MW1) and 4.596 mbtoc (MW4) in the four groundwater monitoring wells installed by TRACE Environmental during this DSI and was encountered in natural sand beneath the site at depths between 3.5 mbgs (SB-11/MW3) and 4.2 mbgs (SB-22/MW4). The inferred groundwater flow direction at the site is towards the west/south-west, with apparent mounding in the centre of the site. Based on topography and the location of surrounding surface water bodies, groundwater beneath the site would be expected to flow toward an unnamed drain, located approximately 600m west of the site that drains into Alexandra Canal approximately 1km north-west/west of the site. Alexandra Canal eventually discharges into Cooks River and Botany Bay
COPCs – Soil	<p>The following COPCs were detected at concentrations above applicable site assessment criteria for human health:</p> <ul style="list-style-type: none"> <li>• TRH C<sub>10</sub>-C<sub>16</sub> (fraction F2) exceeded the NEPM (2013) HSL A/B criterion for VI in fill samples SB-4/0.2, SB-18/1.0 and SB-26/1.5-2.0;</li> <li>• Naphthalene exceeded the NEPM (2013) HSL A/B criterion for VI in fill sample SB-26/1.5-2.0;</li> <li>• Benzo(a)pyrene TEQ exceeded the NEPM (2013) HIL B criterion in fill sample SB-14/1.2;</li> <li>• Lead exceeded the NEPM (2013) HIL B criterion in fill sample SB-26/1.5-2.0 and HIL C in fill samples SB-1/0.5, SB-14/1.2 and SB-18/1.0;</li> <li>• ACM exceeded the NEPM (2013) HSL B criterion in fill sample SB-6/0.4 and HSL C in fill sample SB-1/0.5;</li> <li>• FA and AF exceeded the NEPM (2013) HIL B criterion in fill sample SB-6/0.4; and</li> <li>• AF exceeded the NEPM (2013) HIL B criterion in fill sample SB-7/0.25.</li> </ul> <p>The following COPCs were detected at concentrations above applicable ecological assessment criteria for the site:</p> <ul style="list-style-type: none"> <li>• TRH C<sub>10</sub>-C<sub>16</sub> (fraction F2) exceeded the NEPM (2013) ESL criteria for urban residential and public open space land use in fill samples SB-4/0.2, SB-18/1.0 and SB-26/1.5-2.0;</li> <li>• TRH C<sub>10</sub>-C<sub>16</sub> (fraction F2) exceeded the NEPM (2013) management limits for TPH in residential, parkland and public open space criteria in fill sample SB-26/1.5-2.0;</li> <li>• Benzo(a)pyrene exceeded the NEPM (2013) ESL for urban residential and public open space land use in fill samples SB-1/0.5, SB-6/1.0, SB-14/1.2, SB-19/0.8, SB-19/1.5 and SB-26/1.5-2.0;</li> <li>• Arsenic exceeded the NEPM (2013) EIL criterion for urban residential and public open space land use in fill samples SB-1/0.5, SB-6/1.0, SB-11/1.6 and SB-26/1.5-2.0;</li> <li>• Copper exceeded the NEPM (2013) EIL criterion for urban residential and public open space land use in fill samples SB-1/0.5, SB-6/1.0, SB-11/1.6, SB-14/1.2, SB-21/0.15 and SB-26/1.5-2.0;</li> <li>• Lead exceeded the NEPM (2013) EIL criterion for urban residential and public open space land use in fill sample SB-26/1.5-2.0;</li> <li>• Nickel exceeded the NEPM (2013) EIL criterion for urban residential and public open space land use in fill samples SB-6/1.0, SB-7/0.25, SB-11/1.6, SB-19/0.8, SB-19/1.5, SB-20/0.3, SB-20/1.0, SB-20/1.5, SB-26/1.5-2.0 and SB-27/0.5; and</li> <li>• Zinc exceeded the NEPM (2013) EIL criterion for urban residential and public open space land use in fill samples SB-6/1.0, SB-7/0.25, SB-11/0.5, SB-11/1.2, SB-11/1.6, SB-14/1.2, SB-18/1.0, SB-19/0.8, SB-20/0.3, SB-21/0.15, SB-22/0.5, SB-25/0.25, SB-26/0.2, SB-26/1.5-2.0, SB-27/0.5.</li> </ul> <p>COPCs were not detected at concentrations above the applicable human health or ecological site assessment criteria in natural soil samples collected at the site.</p>



Conceptual Site Model Element	Description
COPCs – Groundwater	<p>The following COPCs were detected at concentrations above applicable site assessment criteria for human health:</p> <ul style="list-style-type: none"> <li>Arsenic exceeded the NEPM (2013) Drinking Water GILs criterion in groundwater sample MW-2; and</li> <li>Lead exceeded the NEPM (2013) Drinking Water GILs criterion in groundwater sample MW-1.</li> </ul> <p>The following COPCs were detected at concentrations above applicable ecological assessment criteria for the site:</p> <ul style="list-style-type: none"> <li>Copper exceeded the NEPM (2013) Freshwater GILs criterion in groundwater samples MW-1, MW-2, MW-3 and MW-4;</li> <li>Lead exceeded the NEPM (2013) Freshwater GILs criterion in groundwater samples MW-2 and MW-3; and</li> <li>Zinc exceeded the NEPM (2013) Freshwater GILs criterion in groundwater samples MW-1, MW-2, MW-3 and MW-4.</li> </ul>
COPCs – Soil Vapour	<p>While a soil vapour assessment was not undertaken as part of the DSI, a potential VI risk may be present to future high density residential site users in the vicinity of boreholes SB-4, SB-18 and SB-26, based on the identified NEPM (2013) HSL A/B criteria exceedances in fill samples collected at these locations.</p> <p>Concentrations of analysed volatile compounds were reported below the respective criteria for the proposed medium to high density redevelopment of the site in the analysed groundwater samples.</p>
Extent of Impacts – Soil	<p>Based on the laboratory analytical results for soil samples collected at the site, fill material appears to be impacted by the COPCs at levels exceeding human health assessment criteria for the proposed medium to high density residential land use in the north-east (SB-4 and SB-6), central (SB-7), east (SB-14) and central south (SB-18 and SB-26) areas of the site, and at concentrations above ecological assessment criteria across the general site area.</p> <p>Soil impacts exceeding human health and ecological assessment criteria appear to be generally limited to the shallow fill material.</p> <p>Data gaps have been identified relating to the assessment of soil conditions at the site following the DSI works and are discussed further in <b>Section 8.3</b>.</p>
Extent of Impacts – Groundwater	<p>With the exception of arsenic, lead, copper and/or zinc reported above the NEPM (2013) Drinking Water and/or Freshwater GILs in the groundwater samples collected from monitoring wells MW-1 to MW-4, no COPCs were reported above the groundwater assessment criteria.</p>

## 8.2 Preliminary CSM Summary and Risk Assessment

The site has been used for a variety of light industrial and commercial purposes since the mid-1970's, prior to which, the site appears to have consisted of a mix of structures, vegetated land and farmland circa 1940s. The site has historically been used for a variety of purposes, including several types of manufacturing (e.g. fork lift trucks, electronic equipment, motor garage equipment, lubricating equipment and spraying equipment). The site is currently used for commercial/light industrial purposes, including electronics repair, fashion distribution, broadcasting, air freight transport, food production/distribution and rail maintenance organisation workshop.

The following potential sources of subsurface contamination have been identified at the site:

- Historical land uses on site and in the vicinity of the site;
- Potential import of fill from unknown sources to facilitate construction of the site's current configuration; and



Based on the results of the soil investigation conducted at the site by TRACE Environmental, fill material appears to be impacted by COPCs at levels exceeding human health assessment criteria for the proposed medium to high density residential land use in the north-east (SB-4 and SB-6), central (SB-7), east (SB-14) and central south (SB-18 and SB-26) areas of the site, and may present a health risk to future site users in a medium to high density residential setting in the vicinity of these hot spots.

Asbestos was identified in shallow fill material (<0.5mbgs) in the centre (SB-7) and north-west (SB-7) of the site at concentrations exceeding the NEPM (2013) HIL B criterion for asbestos in soils. It is likely that fill material on the site will be removed during future excavation completed as part of the site redevelopment and will require delineation and appropriate classification (in accordance with NSW EPA (2014) *Waste Classification Guidelines*) prior to off-site disposal of fill material.

COPCs were also identified at concentrations exceeding ecological assessment criteria in fill at soil bore locations across the general site area.

COPCs were not detected at concentrations above the applicable human health or ecological site assessment criteria in natural soil samples collected at the site. Based on the findings of the DSI, soil impacts exceeding human health and ecological assessment criteria appear to be vertically delineated to fill material on the site.

Groundwater beneath the site is generally free of measurable COPC concentrations, with the exception of heavy metals reported in all groundwater monitoring wells at the site. As no other COPCs were reported at concentration exceeding applicable guideline criteria, and considering the site is located in an urban environment, the reported metals concentrations are likely representative of background conditions at the site. It is also noted that the site is located in close proximity to a domestic ban associated with the Botany Sands aquifer (with the ban area located across O'Riordan Street to the north and west as noted in the Lotsearch report in **Appendix B**), and as such it is considered likely that any groundwater impacts associated with the domestic ban area could also potentially impact the site.

### 8.3 Data Gaps and Uncertainties

Due to access restrictions in buildings in the north-east, central and east portions of the site and in the driveway in the west of the site (i.e. planned soil bores SB-2, SB-3, SB-5, SB-12, SB-15 and SB-16), assessment of soil conditions in these areas could not be completed during the DSI. In addition, vertical delineation of identified impacts in fill material in soil bore locations SB-1, SB-7 and SB-25 due to hand auger refusal in fill material. Soil bore SB-21 was also abandoned due to mechanical drilling refusal on concrete, and soil bore and SB-18 was abandoned due to the likely presence of underground utility services in close proximity to this location. It also is noted that soil bore SB-1 encountered an apparent concrete slab at the respective depth of refusal.

As a result of the above site restraints, the sampling density completed as part of this DSI does not conform to the minimum number of sampling points required to assess the site (as defined in NSW EPA (1995) *Sampling Design Guidelines*) and it is recommended that further assessment beneath the current building footprints in the north-east, central and east of the site, and the driveway in the west of the site, be undertaken prior to site development. In addition, vertical delineation of identified impacts at soil bore locations SB-1, SB-7, SB-18, SB-21 and SB-25 should be undertaken prior to site development.

In addition, inspection of the shallow fill materials across the site during removal of the concrete hardstand is recommended to assess for potential residual impacts relating to previous site infrastructure/operations. The shallow fill materials should be carefully inspected for the presence of ACM, stained soils and/or below-ground residual former site infrastructure that could not be observed during the DSI field activities.



It is recommended that the above additional areas requiring investigation and/or remediation/validation be summarised in a Remedial Action Plan (RAP), which should also include an unexpected finds protocol to address unexpected finds that may be encountered during hardstand removal and/or during site redevelopment works. Refer to **Section 9.2** below for further details.





## 9 Conclusions and Recommendations

### 9.1 Summary and Conclusions

Based on the findings of this investigation, TRACE Environmental provides the following summary and conclusions:

- The site has been used for a variety of light industrial and commercial purposes since the mid-1970s, prior to which, the site appears to have consisted of a mix of structures, vegetated land and farmland circa 1940s. The site has historically been used for a variety of purposes, including several types of manufacturing (e.g. fork lift trucks, electronic equipment, motor garage equipment, lubricating equipment and spraying equipment). The site is currently used for commercial/light industrial purposes, including electronics repair, fashion distribution, broadcasting, air freight transport, food production/distribution and rail maintenance organisation workshop. It is understood the site will be redeveloped for medium to high density residential purposes;
- A potential underground stormwater detention basin is located in the south-western corner of the site, indicated by the land topography, underground utility service cover and mechanical drilling refusal on likely concrete. Historical site uses, including a variety of manufacturing operations, are potential sources of sub-surface impact. Additionally, the likely historical importation of fill material from unknown sources has the potential to impact the sub-surface;
- Based on the age of the on-site structures, in particular the building at the northern portion of the site, lead based paint and/or other hazardous building materials (such as ACM) may be present;
- Fill material was encountered across the site to depths up to 3.0mbgs and was observed to contain anthropogenic waste materials at most soil bore locations;
- A total of 119 primary fill and natural soil samples were collected from 21 soil bores advanced across the site. Of these, a total of 87 selected soil samples were analysed for a variety of COPCs to determine if historical site uses had impacted the sub-surface at the site. 22 of the natural soil samples were submitted for ASS analysis;
- Four of the soil bores were completed as permanent groundwater monitoring wells (MW-1 to MW-4) and were developed, gauged, purged and sampled. Groundwater was encountered at depths between approximately 3.7 and 4.6 mBTC. Groundwater was calculated to flow south-westerly, towards Alexandra Canal;
- The results of the soil assessment showed COPCs at levels exceeding human health assessment criteria for the proposed medium to high density residential land use in fill material in the north-west (SB-4 and SB-6), centre (SB-7), South (SB-18 and SB-26) and north-east (SB-14) areas of the site;
- PAH, arsenic, copper, lead, nickel and/or zinc were reported above the ecological assessment criteria for urban residential and public open space from fill materials across the site;
- ACM and/or FA+AF was identified in shallow fill material (V0.5mbgs) in the northern (SB-1), western (SB-6) and central (SB-7) areas of the site, above the human health assessment criteria for the proposed land use;





- Due to the presence of anthropogenic waste materials, the aesthetic characteristics of fill material should be considered during future site development;
- The results of the groundwater assessment showed heavy metal COPCs (arsenic and lead) at levels exceeding Drinking Water assessment in the south-east (MW-1) and north-west (MW-2) of the site;
- Copper, lead and/or zinc were reported above the Freshwater criteria across the site, in monitoring wells MW-1, MW-2, MW-3 and/or MW-4. Due to the urban setting of the site, these impacts are likely representative of background conditions at the site and surrounding site area; and
- Based on the laboratory analytical results for soil samples analysed for ASS parameters, it is considered likely that PASS or AASS are present in natural materials sampled at the site. As such, an ASSMP will be required prior to future development works or disturbance of the natural material.

Based on the findings of the DSI, it is considered that the site can be made suitable for the proposed medium to high density residential land use following implementation of a RAP for the site, incorporating a Data Gap Investigation (DGI), and the delineation, remediation and validation of identified soil impacts on the site. It is expected that implementation of the RAP would occur following demolition of site structures at the commencement of site redevelopment activities.

## 9.2 Recommendations

Based on the findings of the DSI, TRACE Environmental provides the following recommendations:

- A RAP should be prepared which outlines the remediation and/or management strategy for the identified impacts in fill material at the site for the proposed medium to high density residential land use. The remediation and/or management requirements outlined in the RAP should consider the findings of the current DSI in the context of the final redevelopment design (e.g. the RAP should assess the applicability of ecological criteria exceedances identified during the current DSI based on the presence/absence and/or locations of gardens/landscaped areas in the final redevelopment design), including aesthetic observations made during the DSI fieldworks. The RAP should also include an unexpected finds protocol for the discovery of previously unidentified soil and/or groundwater impacts (including ACM and ASS) during hardstand removal and site redevelopment works;
- Given the data gaps identified during the DSI (refer to **Section 8.3**), the RAP should incorporate a DGI, which needs to be completed at the site to assess the soil conditions in areas of the site that were inaccessible during this DSI. This includes beneath the current building footprints in the north-eastern, central and eastern areas of the site and the driveway in the western portion of the site, in addition to vertical delineation of identified impacts in fill material at soil bore locations SB-1, SB-7, SB-18, SB-21 and SB-25 following demolition of existing site infrastructure and prior to site development. Shallow fill materials across the site should also be inspected following removal of concrete hardstand to assess for potential residual impacts relating to previous site infrastructure/operations;
- Due to the age and construction of the on-site structures, a hazardous materials survey should be conducted, and a hazardous materials register be prepared for the site prior to commencement of any demolition activities;
- Prior to any disturbance of the sub-surface being undertaken at the site as part of the proposed site redevelopment, an Asbestos Management Plan (AMP) should be prepared in accordance with SafeWork NSW Codes of Practice, which identified the locations of the ACM, FA and AF detected



during this DSI and outlines how the asbestos risks will be controlled during work (including any air monitoring procedures that may be required);

- Prior to any disturbance of the sub-surface being undertaken at the site as part of the proposed site development, an ASS Management Plan (ASSMP) should be prepared prior to future development works or disturbance of the natural material, which identifies the locations of PASS/AASS detected during this DSI and outlines how the ASS risks will be controlled during work;
- Any material to be removed must be classified in accordance with the NSW EPA (2014) *Waste Classification Guidelines*, and the soil be disposed appropriately to a facility licensed to accept the material; and
- Any imported material brought onto the site for any purpose must first be validated as being suitable for the intended land use, prior to being imported onto the site.



## 10 References

- ANZECC (1992) *Australian Water Quality Guidelines for Fresh and Marine Waters*. Australian and New Zealand Environment and Conservation Council, Canberra.
- ANZECC (2000) *Australian Water Quality Guidelines for Fresh and Marine Waters*. Australian and New Zealand Environment and Conservation Council, Canberra.
- Contaminated Land Management Act 1997.
- CRC CARE (2011) *Technical Report No. 10, Health Screening Levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application Document*, Dated September 2011.
- NEPC (1999), National Environment Protection (Assessment of Site Contamination) Measure (NEPM). National Environment Protection Council (NEPC) 1999.
- NEPC (2013), National Environment Protection (Assessment of Site Contamination) Measure (NEPM). National Environment Protection Council (NEPC) 1999, Amendment 2013.
- National Health and Medical Research Council (2016) *Australian Drinking Water Guidelines* (ADWG), Updated February 2016.
- NSW ASSMAC (1998) *Acid Sulfate Soils Manual*, New South Wales Acid Sulfate Soils Management Advisory Committee (ASSMAC), August 1998.
- NSW ASSMAC (1998) *Acid Sulfate Soils Assessment Guidelines*, ASSMAC, August 1998.
- NSW DEC (2006), *Contaminated Sites Guidelines for the NSW Site Auditor Scheme* (2nd Edition). NSW DEC, April 2006.
- NSW Department of Urban Affairs and Planning (1998), *Managing Land Contamination: Planning Guidelines: SEPP 55 Remediation of Land*, 1998.
- NSW EPA (1995), *Contaminated Sites Sampling Design Guidelines*. NSW EPA, September 1995.
- NSW EPA (2014), *Waste Classification Guidelines. Part 1: Classifying Waste*. NSW EPA, November 2014.
- NSW EPA (2015), *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act*. NSW EPA, September 2015.
- NSW OEH (2011), *Guidelines for Consultants Reporting on Contaminated Sites*. NSW Office of Environment & Heritage (OEH), November 1997, Reprinted September 2000 and August 2011.
- NSW WorkCover 2011a, *How to Manage and Control Asbestos in the Workplace Code of Practice*, WorkCover NSW, December 2011.
- NSW WorkCover 2011b, *How to Safely Remove Asbestos Code of Practice*, WorkCover NSW, December 2011.
- Standards Australia (2005), Australian Standard AS 4482.1-2005 – *Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds*. Standards Australia, Homebush, NSW;

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

43



- Standards Australia (1999), Australian Standard AS 4482.2-1999 - *Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances*. Standards Australia, Homebush, NSW.

Shop 2, 793-799 New Canterbury Road, Dulwich Hill, NSW, 2203

[www.traceenviro.com](http://www.traceenviro.com)

44



## 11 Limitations

This report has been prepared for Toplace Pty. Ltd. and for the specific purpose to which it refers. No responsibility is accepted to any third party and neither the whole of the report or any part or reference thereto may be published in any document, statement or circular nor in any communication with third parties without our prior written approval of the form and context in which it will appear.

TRACE Environmental has used a degree of skill and care ordinarily exercised by reputable members of our profession practicing in the same or similar locality. The conclusions presented in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report. We do not make any representation or warranty that the conclusions in this report were applicable in the future as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report.

This report and the information contained in it is the intellectual property of Toplace Pty. Ltd. and is granted an exclusive licence for the use of the report for the purpose described in the report.





## Figures

