

Environmental Assessment
Site 8a, Murray Rose Drive
Sydney Olympic Park, Homebush
Prepared for Watpac Developments Pty Ltd
October 2007



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ARCHITECTURE INTERIOR DESIGN LANDSCAPE ARCHITECTURE PLANNING URBAN DESIGN

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1.1 INTRODUCTION

This Environmental Assessment has been prepared on behalf of Watpac Developments Pty Ltd. It accompanies a development application for a six level building which includes five levels of office use and a ground floor retail premises on Site 8a, Murray Rose Avenue, Homebush. The site represents a significant development within the Town Centre Precinct of Sydney Olympic Park.

This report has been prepared in accordance with the Director-General's *Requirements for the Environmental Assessment of Proposed Commercial Office Building at Site 8a, Sydney Olympic Park, MP 06_0175* issued 22 August 2006. The report addresses the Director-General Requirements and Key Issues as well as the Sydney Olympic Park Urban Design Controls for Site 8. The report has also been updated to incorporate the comments from the Department of Planning's Adequacy Test and further minor design changes as negotiated with the Sydney Olympic Park Authority.

This report and the submitted development application is supported by the following documents:

- Site and architectural plans prepared by HASSELL;
- Existing Site Survey Plan by William L. Backhouse Pty Ltd
- Bassett ESD Strategy Report
- TTPA Assessment of Traffic, Transport and Parking Implications
- Morris-Goding Accessibility Consulting Access Review Report
- Bassett Noise Impacts Report
- WindTech Wind Environment Assessment
- Robert Bird Stormwater Management Report and Plans
- JD MacDonald Waste Management Plan
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1.2 OVERVIEW OF THE PROPOSED DEVELOPMENT

The proposed development is for a six level plus two basement levels commercial building at Site 8a located on the prominent corner of Australia Avenue and Murray Rose Avenue in accordance with the Site 8 Precinct requirements and the SOPA Masterplan 2002. The development will provide over 5770sqm of office space and 673sqm of retail space including a café (NLA).

The proposed building comprises of:

Level	Area	Use
Basement 2	2060sqm	57 car spaces; 21 bicycle spaces, bicycle lockers; water meter/booster
Basement 1	2060sqm	48 car spaces including 2 disabled car spaces; plant

		room; gas meter room
Ground Level	895sqm (GFA)	Two retail tenancies; café; toilets; lobby; managers office; plant rooms; wet and dry garbage areas and 16 car spaces accessed from the service road.
Level 1	1297sqm (GFA)	Office tenancies; toilets including disabled toilet
Level 2	1297sqm (GFA)	Office tenancies; toilets including disabled toilet
Level 3	1297sqm (GFA)	Office tenancy; toilets including disabled toilet
Level 4	1297sqm (GFA)	Office tenancy; toilets including disabled toilet
Level 5	1224sqm (GFA)	Office tenancy; toilets including disabled toilet; terrace
Plant Level	451sqm	Plant room, cooling tower, chiller plant room; heating boiler plant room.

1.3 RESPONSE TO KEY ISSUES

In accordance with the Director General's Requirements, the Environmental Assessment provides a comprehensive assessment of the proposal against the required statutory and non statutory documents, and also addresses each of the key issues listed in the Director General's Requirements, being:

a. Compliance with the Sydney Olympic Park Masterplans

The Sydney Olympic Park Masterplan (2002) identifies Site 8a for a six-level commercial office building with frontage to Australia Avenue and to Murray Rose Avenue, overlooking the railway station and Jacaranda Square. The proposed commercial building fully complies with the Town Centre Design Guidelines as it provides a six level commercial building and creates a high quality pedestrian environment within the town centre through an active frontage to Murray Rose Avenue and Australia Avenue.

The proposed commercial building also complies with the Design Guidelines contained with the Sydney Olympic Park Masterplan (2002). The Environmental Assessment provides a detailed assessment of the proposal against these guidelines in the following sections.

The Sydney Olympic Park-Vision 2025 document is currently being prepared and was recently submitted to the Department of Planning for consideration as part of the new Metropolitan Strategy, therefore the Vision 2025 document is not available for review.

b. Built Form, Urban Design and Landscape

The design and form of the proposal is primarily guided by the SOPA Masterplan 2002 requirements to develop a commercial building on the prominent corner position on Australia Avenue and Murray Rose Avenue, whilst providing active uses at ground level within the Town Centre Precinct. The proposal has been developed in response to feedback from the SOPA Design Review Panel Advice Sheet dated 18 January 2007.

The key features of the proposed commercial building are:

- Articulation of the façade and the use of repetitive elements to provide a contemporary and defining built form to the Australia Avenue and Murray Rose frontages.

- The façade is divided into three main elements being the Jacaranda Square façade which uses a curtain wall system with feature infill panels in a random manner. The corner treatment wraps as a mega-grid (ie accentuation of main architectural grid and horizontal elements of the scheme) around the eastern end of the building. The top floor is setback and has a balcony to provide a defining roof line to the building.
- Active frontages along Murray Rose and Australia Avenue are provided through the location of retailing, a café and the lobby, which will increase the level of interaction between the building and surrounding streetscape.
- Full height shop fronts and a continuous awning add to the prominence of the ground floor street frontage and provide weather protection at a pedestrian level.
- Flexible commercial office space across Levels 1 to 5 for office tenancies.
- Special glazing treatment to the northern and eastern facades to manage acoustic impacts from events within Sydney Olympic Park.
- The proposed building occupies the entire site and there will be no landscaping within the site's bounds.

c. Sustainability

The proposed development recognises and supports the vision of Sydney Olympic Park as an ecological sustainable urban area. The proposed Site 8a Commercial Development has been designed to incorporate ESD initiatives and to meet the objectives of the Environmental Guidelines for the Summer Olympic Games (September 1993) and the SOPA Towards Sustainability- Sustainability Statement for Sydney Olympic Park (December 2002). It achieves this as the proposal:

- Has no impact on any significant natural or cultural environments within Sydney Olympic Park.
- Demonstrates a high level of energy efficiency through the 4.5 Star energy rating AGBR.
- Utilises the existing WRAMS system and has a low level of daily water consumption.
- Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs).
- Will achieve the 4 Green Stars' *Green Building Council Australia's Commercial Design*.

The proposed commercial building also incorporates a variety of best practice ESD features such as passive solar design, high efficiency mechanical appliances, computer based energy metering, the variable air volume (VAV) air conditioning system which manages air flow to meet the demand of the respective space's maximum cooling load during the year, low energy consumption lighting and connection into the SOPA WRAMS system.

d. Traffic Access and Parking

The subject site is located on the corner of the Town Centre Precinct and the main entry drive into Sydney Olympic Park, being Australia Avenue. As a result of the proposed development, the Traffic Report prepared by Transport and Traffic Planning Associates indicates that the projected traffic generation will be consistent with land use, traffic and transport planning for the area set out in the SOPA Masterplan and the Access Guidelines 2002.

Parking on the site is accommodated in basement parking areas. A total car parking provision of 121 spaces will be provided which is consistent with the parking controls in the Sydney Olympic Park Controls for Site 8. As discussed in Section 2.2.3 of this report, the number of accessible car spaces provided in the building will be subject to the outcomes of the SOPA Access Advisory Meeting held later this year.

The Sydney Olympic Park Authority has confirmed that access for both tenants and service vehicles will be maintained during events.

The proposed development will also be referred to the RTA for comment pursuant to State Environmental Planning Policy 11- Traffic Generating Developments.

e. Other Matters for Consideration

In accordance with the Director General's requirements a Noise Assessment, Wind Environment Assessment, Stormwater Management plan, Contamination Assessment and GeoTechnical Assessment have all been undertaken and demonstrate that the proposed 6 level commercial building is suitable for Site 8a.

Test of Adequacy

Between 31 August and 14 September 2007 the application was referred to the Department of Planning for the test of adequacy. The key issues raised through this have been addressed in this report as follows:

Request	Response
<i>1. Require the quantity surveyors report to confirm the Capital Investment Value of the project was calculated correctly.</i>	An extract of the Quantity Surveyors report has been included with the submission which demonstrates that the Capital Investment Value was calculated correctly.
<i>2. Require information of the Staging of the Site 8 development area</i>	SOPA has confirmed the staging for Site 8 and this included in Section 3.1.1 of this report.
<i>3. Provide assessment and reference to the SOPA Towards Sustainability- Sustainability Strategy for SOP December 2002</i>	This proposal has been assessed against this document as outlined in Section 5.7 of this report. A copy of the draft revised SOPA Towards Sustainability document was requested from SOPA but was not provided.
<i>4. Require information on how vehicular access to the building will be maintained when events are held at Sydney Olympic Park.</i>	SOPA has confirmed that access to the site can be maintained during events, this is discussed in Section 4.4 of this report.
<i>5. Confirm the consultation undertaken with authorities</i>	The consultation undertaken with the relevant authorities is detailed below.
<i>7. Confirm Acid Sulphate Classification</i>	The acid sulphate classification is discussed in the Supplementary Contamination Report (refer Consultant reports) and confirms that the area has no known occurrences of acid sulphate soils and hence has a low probability of acid sulphate soils being present.

In addition a revised survey plan dated 13 September 2007, a signed statement from the planning consultants HASSELL and a revised site analysis have been included in this report.

Consultation with Authorities

The Director General Requirements stipulate that a relevant level of consultation should occur with the following authorities:

- Sydney Olympic Park Authority (inclusive but not limited to the Design Review Panel);
- RailCorp;
- Roads and Traffic Authority;

- Auburn Council, and
- NSW Heritage Council.

As detailed through this report and confirmed by the letter of landowners consent, there has been substantial consultation with the Sydney Olympic Park Authority including the Design Review Panel. This is detailed in Section 2.2 of this report.

As outlined in the Robert Bird Preliminary Rail Impact Statement (Consultant Reports), RailCorp will be consulted prior to Construction Certificate.

There were no significant issues relating to the Roads and Traffic Authority, Auburn Council or the NSW Heritage Council and it is considered that these authorities will be consulted during the exhibition period.

1.4 OTHER MATTERS

Site 8a represents the first development within the Site 8 of the Town Centre Precinct. The preliminary design phase has been an opportunity to test and review the design arrangements for the Site 8 Precinct. In consultation with the SOPA Design and Review Panel in January 2005, Watpac Developments Pty Ltd have proposed minor revisions to SOPA Site 8 Development Controls- Built Form Controls (Dwg No. C01 Rev C dated 06/06/06). These include:

- Revised basement configuration for the Site 8 Precinct which extends the basement car parks to the north beneath the Service road and avoids existing services under Murray Rose Avenue
- Revised access arrangement for the Site 8 Precinct where the entrance ramps to each basement are rationalised and a shared entry ramps are provided between Site 8a/8b and between Site 8c/8d.
- Construction on Site 8b to provide shared basement entry to Site 8a and Site 8b.

It is deemed that these amendments to the Built Form Controls will provide a superior outcome and will not prejudice future developments in the Precinct and have been agreed to as part of the design development process with SOPA.

2.1 OVERVIEW OF THE APPLICATION

This application seeks to further the development of the Sydney Olympic Park Town Centre Precinct through the development of a six level office and retail building, with two basement levels at Site 8a, Murray Rose Avenue. This development is in accordance with Design Guidelines set out in the Sydney Olympic Park Masterplan (2002).

The development of Site 8a will introduce approximately 5770sqm of office space (NLA), suitable for accommodating up to approximately 480 workers and assist SOPA to achieve its long term target of a daily workforce population of 20,000 people. It also introduces two retail tenancies and a café to activate the street frontages within the town centre precinct. The key elements of the proposal are:

- Construction of a 6 storey commercial office building with provision of a approximately 5770sqm of office space (NLA) within several tenancies.
- Development of an active frontage along Murray Rose Avenue with 673sqm of ground floor retail/café uses and a lobby with direct frontage to Jacaranda Square;
- Provision of a total of 121 car spaces including 2 disabled car spaces within the two level basement car park and along the rear service road;
- Provision of 21 bicycle spaces and bicycle lockers within Basement Level 2;
- Provision of 10 visitor bicycle spaces on the Murray Rose Avenue in front of the Lobby area.
- Four business identification signs located on the building's façade at parapet and ground level.

2.1.1 Signage

Signage is fully incorporated into the design of the commercial building, with Watpac Developments Pty Ltd signage incorporated into the north, south and eastern façades of the building. An additional sign is proposed along the ground level of the Murray Rose Avenue façade to identify the entrance of the building to pedestrians.

The details of the proposed signs as are as follows:

<i>Sign 1: Building name and number sign</i>	Located on the ground level entry on Murray Rose Façade. The dimensions of the sign are: W2500 and H500 .
<i>Sign 2: Business Identification Sign South</i>	Located on the upper right hand corner of Murray Rose Façade. The dimensions of the sign are approximately W6400;H1300; D300 and the sign will be internally illuminated.
<i>Sign 3: Business Identification Sign East</i>	Located on the upper right hand corner of Australia Avenue Façade. The dimensions of the sign are approximately W4500; H900; and D300. The sign will be internally illuminated.
<i>Sign 4: Business Identification Sign North</i>	Located on the upper left hand corner of northern façade. The dimensions of the sign are approximately W5500, H1100 and D300. The sign will be internally illuminated.

In accordance with the *Guidelines for Outdoor Advertising Identification and Promotional Signage* (SOPA October 2002) the four signs can be described as a Building Name Sign as they will identify the major tenant of the building.

The proposed signs are designed in accordance with the Guidelines. The scale and design of each sign reflects the sign's location on the building and the illuminated signs will not impact on any existing residential areas.

Please refer to Appendix B of this report for further details of the proposed signage.

2.2 PROCESS TO DATE

Numerous meetings have been undertaken between the Applicant and representatives of SOPA to clarify the vision, design requirements and parameters for both the entire Site 8 Precinct and more specifically Site 8a.

2.2.1 Pre-Design Meeting

On 21 November, 2006, Watpac Developments Pty Ltd and HASSELL met with representatives of SOPA to discuss the general design parameters for the Site 8. A key item discussed was the proposed basement configuration outlined in the SOPA Building Envelope Controls which shows the Site 8 Precinct basement carpark projecting beneath Murray Rose Avenue.

At this meeting, SOPA agreed to 'in principle' a revised basement carpark configuration, where the basement carpark extended towards the north under the Service road instead of Murray Rose Avenue as illustrated as Figure 1. This configuration avoided construction and relocation of existing services beneath Murray Rose Avenue.



Figure 1: Basement projecting beneath the service road

2.2.2 Design Review Panel

On January 18, 2007, Watpac Developments Pty Ltd and HASSELL presented the development concept for Site 8a to the Sydney Olympic Park Authority Design Review Panel.

The Panel gave 'in principle' support of the proposed 6 storey commercial office building and noted that the building 'could be expected to become a good precedent for the remaining lots on Site 8'. The Panel also identified some minor design issues which have since been reviewed and incorporated into the revised Site 8a development concept and are detailed in Section 4.3.

At this Panel, Watpac Developments Pty Ltd and HASSELL also presented an alternative access and car park arrangement for the entire Site 8 Precinct which rationalised the entrance ramps to each basement and provided shared entry ramps between Site 8a/8b and between Site 8c/8d.

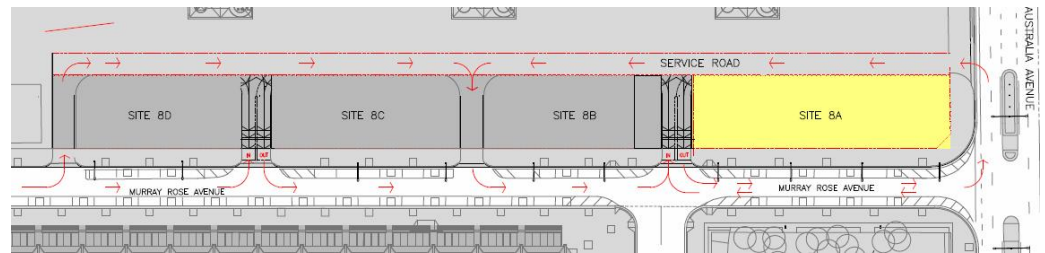


Figure 2: Revised access strategy for Site 8 Precinct

This revised access strategy was supported at the Panel and therefore the current design presented in this Environmental Assessment deviates from the SOPA Masterplan Building Envelope Controls. The revised access arrangements will be facilitated through an access and services easement which will be addressed through the Agreement for Lease between Watpac Developments Pty Ltd and SOPA.

Works on Site 8b

To provide a shared access ramp to Sites 8a and 8b, some of construction and works associated with the Site 8a will occur on the neighbouring Site 8b. Nine car spaces will also be provided on Basement Level 2 underneath the shared ramp. Site 8a will provide the following works on Site 8b to provide this shared access ramp:

- Service road driveway slab as extension of the building ground floor suspended concrete slab to span over service road easement.
- Construction of a two-lane suspended concrete ramp from Murray Rose Avenue to Basement 1 of Site 8a.
- Footings for the benefit of Site 8b to provide structural support for Site 8b structure above the ramp at a later date.
- Temporary roof support structure above the shared access ramp.

The extent of works is shown on the Architectural Plans. The building arrangements will be facilitated through structural and support easements which will be addressed through the Agreement for Lease between Watpac Developments Pty Ltd and SOPA.

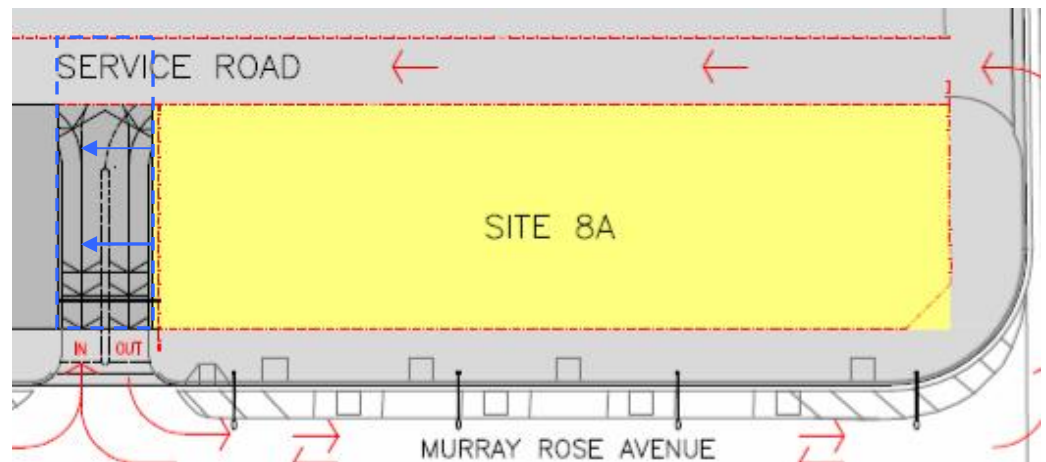


Figure 3: Extent of works on Site 8b

2.2.2.2 Response to design review panel

The Design Review Panel provided the Applicant with a number of specific recommendations. The following outlines how the recommendations have been incorporated into the updated design:

ISSUE: *Car park entry and ramp needs further resolution, particularly with reference to the position of any proposed roller shutter and any other associated structures, signage etc*

RESPONSE: The car park entry and ramp has been reviewed by Transport and Traffic Planning Associates and complies with the relevant Australian Standards.

The proposed driveway will be 7.8m (kerb to kerb) and located on Murray Rose Avenue at the western boundary. This access to/from the basement levels will be shared with vehicles accessing the adjoining Site 8b.

Murray Rose Avenue is straight and level at this location. As required by AS2890.1 there will be a 6m exit zone extending from the driveway to provide sight lines for cars exiting the basement car park. This exit zone will extend 5m into the footway and will have a maximum slope of 1:20. A "STOP" sign will be located on the egress to overcome any potential pedestrian conflict.

The location of the roller shutter is in accordance with AS2890.1 which requires an area clear of obstructions for at least 2.5m to the boundary.

ISSUE: *Disabled car spaces need to be placed as close to the lifts as possible.*

RESPONSE: The two disabled car spaces located on Basement Level 1 have been relocated directly opposite the lifts to improve accessibility.

ISSUE: *The development of the active zone (including awning) could be considered further along*

Australia Avenue, and the substation screened from this important façade by active uses.

- RESPONSE: The awning extending along Murray Rose Avenue frontage wraps around the Australia Avenue corner and now extends along the Australia Avenue façade for 15m of the 20m total façade. This includes the awning extending 3.2m across the substation wall.
- The extension of the awning across the substation wall visually extends the active area past the retail area whilst avoiding any potential clash with trucks turning into the service road.
- The wall to the substation is treated with metal louvring to provide ventilation to the substation.

- ISSUE: *Sun shading elements need to be considered for their performance characteristics as well as aesthetic contribution.*

- RESPONSE: Horizontal projecting sun shading devices have been added to the eastern and northern facades to minimise direct sunlight into the building. The single blades on the north facade protrude approximately 700mm from the building (600mm blade plus 50-100mm air gap). The double blades on north facade and east façade protrude 500mm (400 mm blade plus 50-100 airgap). In addition the awning along the top level protrudes 1m from the façade and shades the upper levels.
- The sunshades provide an important design element and are used as horizontal elements of the façade grid which defines the eastern end of the building.
- The external shading will be designed to meet the sun shading requirements.

- ISSUE: *The roof-top plant room areas shown were larger than the indicative areas required. Every effort should be made to reduce plant room and height-reduce overall bulk.*

- RESPONSE: The roof top plant room has been consolidated to minimise the total area and height of the plant. The revised plant area is now 451sqm of 1354sqm roof area and the height of the plant is up to 4.5m above roof level. This is the minimum area required to accommodate the plant operations.
- To minimise visual impact, the plant area has been setback from the Murray Rose Avenue frontage. As the Visual Analysis in Figure 4 and below shows, the plant will only be visible for a person standing at least 40m back from the southern façade. Therefore the plant area will have minimal impact on the streetscape.

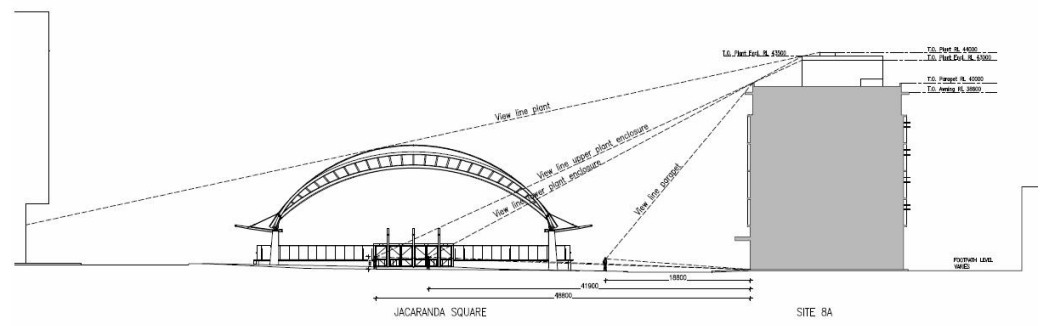


Figure 4: View analysis of Plant Room

(Please refer to Appendix 2 for a scaled copy)

ISSUE: *Reasonable clearance between the rear access right of way and the building should be considered (a kerb should be provided).*

RESPONSE: A 600mm threshold has been provided between the building and service lane to protect the building from vehicles on the service road. The threshold will be defined by either kerbing or bollards and will enable pedestrians and vehicles to pass without potential conflict.

ISSUE: *The use of openable windows and balconies should be considered in view of the fact that the proposal offers no relief or breakout spaces. Balconies could also be used to animate and activate facades and take advantage of views.*

RESPONSE: The design team understands from discussions at the Design Review Panel that the main concern is activation and articulation in the facade which has been achieved by dividing the facade into three main elements, being:

- Jacaranda Square facade which uses a curtain wall system with randomised feature infill panels. Four different sized feature panels will be used to provide a and animated and contemporary elevation.
- The corner treatment wraps as a mega-grid around the eastern end of the building.
- The top floor is setback to provide a defining roof line to the building and incorporates a recessed balcony to take advantage of views across the Sydney Olympic Park.

In terms of breakout spaces, the office tenancies provide flexible spaces and the location of break out areas will be determined by the fit-out designers of the individual tenancies. Furthermore, the precinct benefits from attractive external spaces in addition to the ground floor café and Jacaranda Square.

The building will be ventilated by the variable air volume (VAV) air conditioning system,

which manages air flow to meet the demand of the respective space's maximum cooling load during the year. It also accords with the Green Star criteria and will provide the building with a high degree of thermal comfort.

As such, operable windows are not incorporated into the design. Operable windows are considered to be counter productive to acoustic issues emanating from the carpark across Australia Avenue which is used as an entertainment venue during the Royal Easter Show. The SOPA requirements also specify an internal noise criterion as an average of all the readings taken from different places within the Building of 40 dB(A) inside the Building. This would be compromised with the use of operable windows and is detailed further in the Acoustic Report, contained in the Consultant Reports.

ISSUE: *The environmental control system chosen offers little flexibility with regards to after hours operation, minimal ceiling heights and higher ongoing costs. Consideration should be given to alternative systems and design strategies that add value in these and other respects.*

RESPONSE: The floor plate has been divided into several mechanical zones to provide for a number of separate tenancies to operate independently on each floor. Each tenancy will be able to regulate the lighting and mechanical systems to their own operational requirements and hours of use.

ISSUE: *The width of the awning needs to be considered in relationship with the second row of existing trees (SOPA to confirm their requirements in respect to trees and awnings along Murray Rose Avenue).*

RESPONSE: The awnings along Murray Rose Avenue and Australia Avenue have been reduced from 3.6m to 2m as per the requirements of the SOPA Masterplan. This will provide sufficient separation between the awning and second row of existing street trees along Murray Rose Avenue.

ISSUE: *Presented materials and finishes precedent images showed expensive European models that may not be consistent with the realities of this proposal. Consideration should be given to introduce at least some materials of higher value to 'lift' the design.*

RESPONSE: Materials proposed for this building respect the requirements of SOPA's design guidelines, whilst adding an individual character to this building through composition of the three main façade elements and introduction of feature panels on the south façade, adding interest on the main elevation to Jacaranda Square. The final details of the façade materials are still to be confirmed.

2.2.3 Land Owner's Consent Conditions

During August 2007, the Sydney Olympic Park Authority reviewed the proposal and granted landowner's approval for the application to be lodged with the Department of Planning. The owner's consent letter (dated 3 September 2007) attached as Appendix H, was subject to a number of conditions which have since been addressed and resolved with the Authority. The table below outlines the issues raised and agreed response to each issue:

- | | |
|------------------|--|
| 1. ISSUE: | <i>Provision of a detailed Public Domain Plan prepared by a Landscape Architect which clearly shows proposed levels, material, general landscaping details (particularly the resolution of levels at the street corner)</i> |
| AGREED RESPONSE: | SOPA has accepted that the Ground Floor Plan included in the submission meets their requirements for a Public Domain Plan. Drawing PSA 7515-0100 has been revised to clarify the cross over points at Australia Avenue and Murray Rose Avenue. The updated plan is included in this submission. |
| 2. ISSUE: | <i>A continuous awning from Australia Avenue to Murray Rose Avenue</i> |
| AGREED RESPONSE: | SOPA accepted the awning design around the corner is to emphasize the two separate façades to Australia Avenue as well as to Murray Rose Avenue. As such, there have been no changes to the awning design.

In further discussions with SOPA it was agreed to relocate the door along the eastern façade to the recess at the corner of Murray Rose Avenue and Australia Avenue. The depth of the recess was also reduced. The purpose of these changes was to activate the corner, reduce litter collecting in the recess and to provide a more efficient retail space. It is noted that the ground floor now sits marginally outside the current site boundaries. SOPA have confirmed that the boundary will be resolved at subdivision. |
| 3. ISSUE: | <i>Maintaining the Service Road to bridge the temporary batter, including provision for a turning circle if required for traffic flow</i> |
| AGREED RESPONSE: | In accordance with SOPA's requirements, the temporary batter on the western side of the lane way will be bridged upon completion of Site 8a works to enable continuous access along the service road. Vehicles will be able to exit by continuing along the service road or existing over the vacant adjoining sites.

Drawing PSA 7515-0100-M has been revised to show a deck across the western end of the service road and is included with this submission. |

4. ISSUE: *Review position of external garage entry door to prevent pedestrian/queued vehicle conflicts at footpath*

AGREED
RESPONSE: SOPA supported the commitment to program the roller shutter to stay open to accommodate peak parking needs in order to avoid cars queuing and blocking the footpath. Provisions will be made for the Building Manager to adjust the hold-open duration of the roller shutters as required.

5. ISSUE: *Provision of a level cross over*

AGREED
RESPONSE: SOPA accepted that the cross over to the car park is level with the footpath. Drawing PSA7515-0100 was revised to include additional spot levels and is included in this submission.

6. ISSUE: *Adequate provision of Accessible Parking in accordance with SOPA's guidelines*

AGREED
RESPONSE: Currently, the scheme provides two accessible parking spaces (1.5% of the 121 spaces) in accordance with AS 2890.1:2004 and the DDA recommendations for commercial developments (refer to Access Report provided with the application). The SOPA Accessibility Guidelines require three accessible car parking spaces (3% of the 121 spaces) however, the provision of accessible car parking on Site 8a will be reviewed by the SOPA Access Advisory Committee at a meeting on 20 November 2007.

7. ISSUE: *Relocation of bicycle parking to Level B1 from B2 and include staff change room and shower facilities in Level B1 for bicycle users*

AGREED
RESPONSE: SOPA supported the retention of the staff change rooms and showers on each of the ground and above ground levels as relocating such facilities to the basements was considered a potential safety issue for users, particularly in the case of a multi tenant building.

The applicant has reviewed the potential for dedicated bicycle storage on each level and considers that the need and location of additional bicycle storage will be subject to tenant fit out.

8. ISSUE: *Relocation of bicycle parking from immediately in front of the main ground floor entry door to a more suitable location*

AGREED
RESPONSE: SOPA supported in principle the relocation of the guest bicycle parking spots to between GL 5 and GL 7. This location accords with the Green Star Office Design v2 Manual which requires visitor storage to be "in an accessible location, signposted and near a major public entrance".

Drawing PSA 7515-0100-M has been updated to reflect this change and is included in the submission.

9. ISSUE: *Revision of the lower front entry building identification signage in accordance with the "Sydney Olympic Park Guidelines for Outdoor Advertising Identification and Promotional Signage"*

RESPONSE: SOPA accepted that the lower front entry building identification sign accorded with the SOPA Guidelines of Outdoor Advertising Identification and Promotional Signage.
Drawing PSA7515-0152 has also been updated to correct a minor misrepresentation of the eastern upper façade sign. This updated plan is included with this submission.

2.3 ENVIRONMENTAL CONSIDERATIONS

Sydney Olympic Park has been designed as a world class environmentally-sustainable sporting and commercial facility. In recognition of this, the proposed development of Site 8a has sought to include best practice ESD initiatives as well as meeting the objectives of the Environmental Guidelines for the Summer Olympic Games (September 1993) and the SOPA Towards Sustainability- Sustainability Statement for Sydney Olympic Park (December 2002).

2.3.1 Suitability of the site

The proposed commercial development will be built on an existing car park within the Sydney Olympic Park which is a former industrial area.

Within the context of Sydney Olympic Park, the subject site is located within the designated Town Centre Precinct which is envisaged to accommodate 6-10 storey commercial buildings. The ground floor retail shops and café uses will provide active frontages and a mix of uses within the Town Centre Precinct.

2.3.2 Draft Statement of Commitments

A Draft Statement of Commitments has been prepared to affirm the sustainability goals of the proposed development. It is understood that the Draft Statement of Commitments will form the basis of Management Strategy with SOPA. These are included in Appendix A of this report.

2.3.3 Environmental Impacts

The proposed development is considered to have minimal environmental impacts and is not expected to significantly impact on air or water quality as:

- The proposed development will be situated on a former industrial site;
- The location, built form and design of the proposed commercial building accords with the SOPA Masterplan;
- The site is located away from wetlands and environmentally sensitive areas and will therefore have no impact on species or natural systems within Sydney Olympic Park;
- The site will not directly impact on any natural vegetation or systems, and is also not on or within 100m of a natural wetland, and,
- The Statement of Commitments outlined above lists the proposed environmental mitigation measures that will minimise the impact of the proposed development on surrounding and regional natural systems.

3.1 SITE DESCRIPTION AND CONTEXT

Site 8a is located on the north-eastern corner of the Town Centre Precinct which extends between Australia Avenue and Olympic Boulevard.

Site 8a sits as the eastern most development within the Site 8 Precinct. This long and narrow development precinct extends along Murray Rose Avenue and it currently being used for car parking. The SOPA Masterplan 2002 has divided the precinct into four future commercial development sites located within the Town Centre Precinct.

Site 8a is rectangular in shape and has a total area of 1395sqm, it has approximately 20m frontage to Australia Avenue and 70m frontage to Murray Rose Avenue.

The southern boundary of the Site 8a fronts the Murray Rose Avenue, with Jacaranda Square located on the opposite side of the road. Jacaranda Square forms part of the central boulevard space through the town centre, with the Olympic Park Railway Station at the western end.

To the east, the site fronts Australia Avenue, the main entry axis to Sydney Olympic Park. Currently the land east of Australia Avenue is used as a car park however it is identified as a future development area.

To the north of the site is Royal Agriculture Society (RAS) Pavilion Halls which is used for events such as the Royal Easter Show. This large pavilion extends between Australia Avenue, past the Site 8 Precinct and towards Showgrounds Road. The Service road runs along the southern boundary of the RSA site for the benefit of the Site 8 Precinct.

Site 8a has a gentle fall from the northern side towards Murray Rose Avenue. The site does not contain any vegetation. A substation is located on the north-eastern corner fronting Australia Avenue. The substation will be relocated prior to development.

Access to the Site 8a is from an existing cross over along Murray Rose Avenue and from Australia Avenue via a Right of Way along the southern boundary of the adjoining RAS Pavilion Halls site. This Right of Way is referred to as the Service road, is 6m wide and provides rear access to the entire Site 8 Precinct.

Refer to Appendix B of this document for the scaled Context Plan. The Survey Plan prepared by William L. Blackhouse Pty Ltd is included in this Application.



Figure 4: Section of Context Plan, prepared by HASSELL

3.1.1 Staging of Site 8

It is considered that the development of Site 8 has been commenced in a logical manner, with Site 8a being developed first. However, the Sydney Olympic Park Authority has confirmed the staging and timing of the remaining Site 8 development site. In correspondence dated 27 September 2007 it was noted:

"The balance of Site 8 will be released as market conditions dictate. We envisage that SOPA will prepare a Part 3a Application within the next 12 to 24 months prior to releasing to the market on a staged basis."

3.2 SITE ANALYSIS

A detailed site analysis has been prepared for Site 8a in accordance with the Director General's requirements and is included in Appendix B of this report. This site analysis indicates that the site is relatively flat and contains no significant vegetation. The site also enjoys frontages to two main roads and good solar access. It is therefore considered suitable for a multi level development.

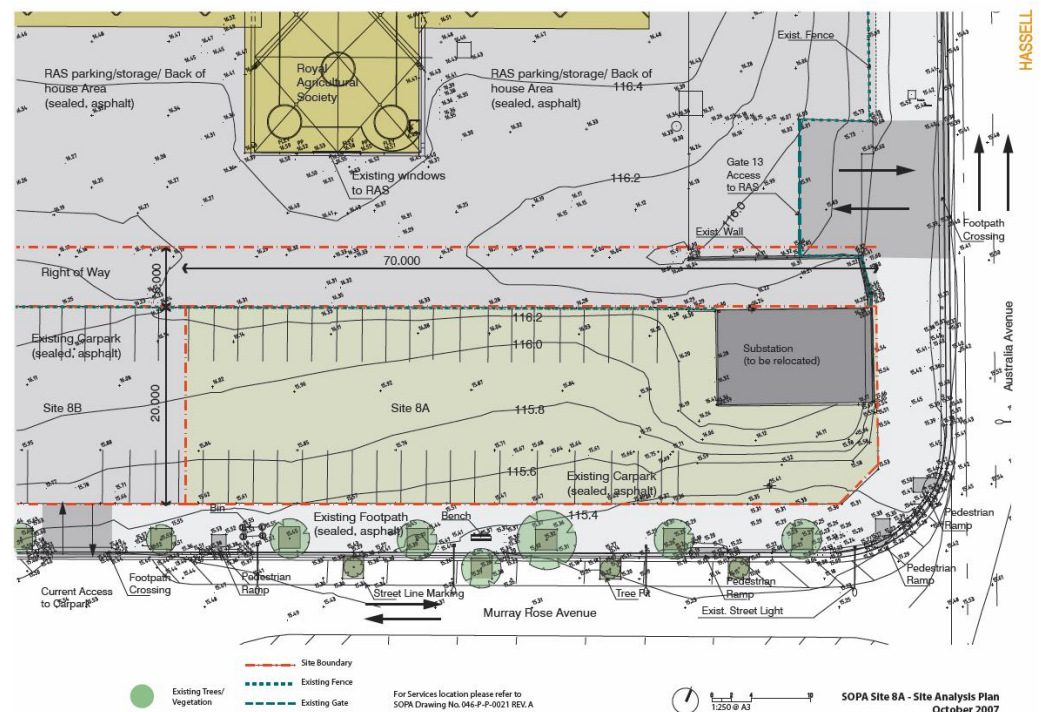


Figure 5: Site Analysis Plan, prepared by HASSELL

4.1 INTRODUCTION

This section provides a detailed discussion and assessment of the Key Issues raised in the Director General Requirements, being Built Form, Urban Design and Landscaping; Sustainability; Traffic, Access and Parking and Other Matters for Consideration.

4.2 BUILT FORM, URBAN DESIGN AND LANDSCAPING

The design and form of the proposal is primarily guided by the SOPA Masterplan 2002 requirements to develop a commercial building on the prominent corner position on Australia Avenue and Murray Rose Avenue, whilst providing retailing and café uses to activate Murray Rose Avenue. Key elements include:

Built Form

- The built form emphasises the prominent location on the corner of Murray Rose Avenue and Australia Avenue with a strong corner articulation in the façade design. A set-back top floor with terrace further highlights the prominent corner position.
- The building has been designed to present as a contemporary and defining built form to the Australia Avenue and Murray Rose frontages, utilising contemporary materials in accordance with the SOPA design guidelines.
- The building is rectangular in form responding to the regular shape of the site and the requirement for buildings to be built to the street alignment. This presents a strong built form to the surrounding streets and helps to define the Jacaranda Square.
- As required by the SOPA Masterplan 2002, the building contains 6 storeys. This includes a ground floor retail/lobby floor area and 5 above ground levels of office space. The height of the building is 24.75m plus an additional 4.5m for the plant area.
- The simple, contemporary approach uses a small palette of materials to establish a subtle language of material and colour in combination with quality detailing.
- With the site's prominent corner location, special attention has been given to establish a feature elevation to Australia Avenue, the main access arterial from Homebush Bay Drive. Whilst the accommodation on the commercial office floors is consistent over the site area, a difference in façade treatment in the end bay of Murray Rose Avenue introduces a curtain wall style that continues to the east elevation addressing Australia Avenue as well as the eastern-most bay of the Service road elevation (North). With a slightly different panel resolution as well as the introduction of a deeper reveal both vertically and horizontally, the entire east end of the building reads subtly different, thus addressing the prominent corner. In the larger context of the entire Site 8 Precinct, this treatment will also assist in defining the termination of the continuous elevation of the four buildings of equal massing.
- The top floor façade is slightly set back from the alignment of the curtain wall on the levels below with a continuous awning defining a strong edge. Again, the corner to Australia Avenue is treated differently, here with the introduction of a balcony over the width of the end bay, aligned with the different treatment of the corner façade below.

- The predominant floor-to-floor height of 6m from ground level to the first office floor is in accordance with the local design guidelines. Full height shop fronts and a continuous awning add to the prominence of the ground floor activation to the street frontage.
- The main entry to the building is via the lobby, which is set back into the building and defined by a skylight through the awning. The Lobby is located at the eastern end of the Murray Rose Avenue frontage to maximise views across Jacaranda Square and enjoys visual exposure from Australia Avenue.
- The office floors from level 1 to 5 offer large and flexible commercial office space. The curtain wall façade to Murray Rose Avenue and Australia Avenue maximize views from the offices over Jacaranda Square and the greater precinct, taking advantage of the location of the site. The use of natural daylight is maximised on the less exposed façade to Jacaranda Square.
- Special attention has also been given to the acoustic requirements and exposure to the sun along the northern façade. Where required, office windows along the northern façade have external shading and high acoustic performance glazing.
- The ground floor façade treatment is governed by its uses and interface with the public. Predominantly glazed shopfronts over the height of the 6 metre floor to floor height allow a high degree of natural light into the retail units, therefore the glazing continues above awning level.
- It is envisaged that appropriate identification signage be located on the façade of the building and also on the entry to the building lobby.

Materials and Colours

The palette of material proposed for this building respects the criteria set out in the SOPA design guidelines with extensive use of glass and aluminium in the curtain wall facades. Individuality beyond the built form is introduced through feature panels in the main curtain wall to Jacaranda Square.

The feature panels are proposed as an additional external layer to the solid curtain wall panels. Detailed as a ventilated curtain the feature panels comprise of a sub-frame supported by the curtain wall panel, which in turn supports a panel with a different texture and colour than the general curtain wall. Currently it is envisaged that a timber veneer visual surface will be used, however, extensive tests of feasibility of this materials are due during the detail design. Please refer to Appendix B of this report for the Material Schedule.

Solar Access

The dimensions of the site have created a narrow building form and provide optimal solar access. The width of the proposed commercial building is 20m and there are no tall developments currently within the vicinity of the building. The building has been designed with a view to maximize the use of daylight whilst taking into consideration the management of heat gain through solar exposure. Generally, the floor plates have expansive window areas to allow views and daylight penetration deep into the narrow plan.

The building design will also minimise impact on solar access to surrounding sites, particularly Jacaranda Square. As demonstrated in the Shadow Diagram study shown in the Architectural Plans, Jacaranda Square will retain a high level of solar access between 11.30am and 2.30pm on June 21, with shadow only falling on the site after 12pm.

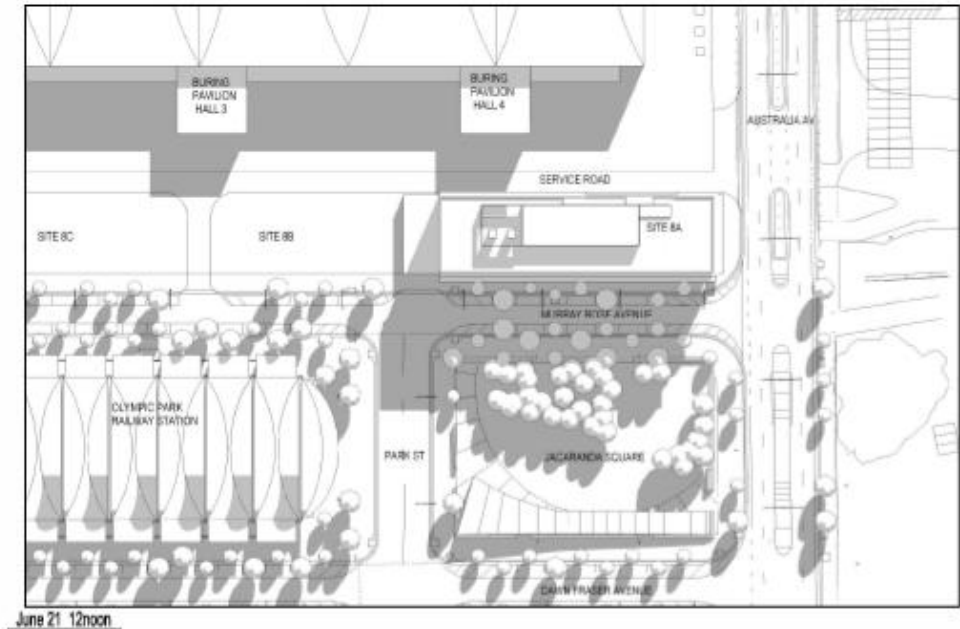


Figure 6: Shadow Diagram prepared by HASSELL

Landscaping

The proposed building occupies the entire site and there will be no landscaping within the site's bounds. However, the proposal integrates with the public domain along Murray Rose Avenue and Jacaranda Square.

It is noted that a street tree towards the western boundary of the site along Murray Rose Avenue will need to be removed to provide for the shared cross over to the basement car park.

Operational Features

The proposed building will encompass two retail tenancies and a café on the ground level and commercial space on the five above ground levels. The ground level contains storage areas for the retail premises and amenities for the use of the café and retail premises.

Maintenance of the common areas and general maintenance will be co-ordinated through a Building Manager. A Building Manager's Office has been located at the rear of the ground floor behind the lifts. The CCTV terminal as well as the as-built drawings and manuals will be stored there.

Safety and Security

The building is designed, and will be detailed in accordance with all relevant standards with regards to safety. An access card system will be installed to manage patron access to controlled areas, at minimum at the front door, car park entry and lifts. CCTV cameras will be installed in key areas, such as basements, service areas, car park entrance and the main lobby on ground floor.

The base units for the security system will be located in the building management room on the ground floor.

4.3 SUSTAINABILITY

Bassett Applied Research has undertaken an ESD Strategy Report which is included in the Consultant Reports. The assessment demonstrates that the proposed commercial development achieves a 4.5 Star base Building Australian Building Greenhouse Rating (ABGR) and a 4 Star Green Star Office Design v2 rating (Green Star) as required by SOPA. The proposed strategies that will be adopted to achieve these ratings are summarised as follows:

Management

Bassett Applied Research are Green Star Accredited Professionals and have been engaged to provide sustainability advice throughout the design and delivery period, and commencing prior to schematic design.

A comprehensive Environmental Management Plan will be prepared in accordance with Section 4 of the NSW Environmental Management System Guidelines (1998) to maintain environmental standards during the construction phase. The construction site will also operate to a Waste Management Plan where 85% of construction waste will be reused or recycled.

A Building Users Guide will be produced to provide relevant building operations information to the building users, occupants and tenants' representatives.

Indoor Environmental Quality

The development will create a high quality indoor environment by utilising solar access for natural lighting to each of the offices. The glass façade also provides substantial views from the upper levels which will contribute to the amenity of the indoor environment.

The variable air volume (VAV) air conditioning system accords with the Green Star criteria and will provide the building with a high degree of thermal comfort. Noise levels relating to the operational mechanical services installation and facade performance will also be within specific limits.

Energy Consumption

The proposed commercial development represents best practice in energy usage by achieving 4.5 Stars for the design under the Australian Building Greenhouse rating (ABGR) scheme.

To achieve this rating the proposed commercial building incorporates high efficiency mechanical appliances, the variable air volume (VAV) air conditioning system which manages air flow to meet the demand of the respective space's maximum cooling load during the year, sub-metering infrastructure to allow accurate analysis and diagnostics of the base building energy consumption, low energy consumption lighting and office lighting zoning.

Transport

The site achieves sustainable transport objectives by good proximity to public transport, predominantly the Olympic Park Railway Station which is directly opposite Site 8a. The proposed commercial building also

encourages non car based modes of travel by providing tenant cycling facilities such as bike racks on Basement Level 2 and shower facilities on each level above ground.

Water

Water consumption will be minimised through the use of water efficient fixtures and fittings and water meters linked to all major water uses, to achieve 5 star WELS rating.

Connection into Sydney Olympic Park's Water Recycling and Management System (WRAMS) will further reduce the building's potable water use. Amongst other uses, recycled water is to be used for toilet flushing at Site 8a thus resulting in a net potable water use of < 9.4 litres per day. This yields an estimated total portable water consumption of 7.76L per day per person.

Materials

Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs).

Land Use and Ecology

The location of the site accords with the sustainability principles for land use and ecology as the proposed commercial development will be built on an existing car park within the Sydney Olympic Park which is a former industrial area. Therefore the site will not directly impact any natural systems.

The subject site is currently covered with bitumen and contains no vegetation. Therefore the proposed commercial development will not impact on any existing ecology on the site.

The subject site is not on or within 100m of a natural wetland.

Emissions

Emissions from the site will be minimised through the use of selected HVAC refrigerants and thermal insulation materials with an Ozone Depletion Potential (ODP) of zero. This will be complemented by the use of refrigerant leak detection and refrigerant recovery systems.

4.4 TRAFFIC, ACCESS AND PARKING

Transport and Traffic Planning Associates have prepared an '*Assessment of Traffic, Transport and Parking Implications*' of the proposed commercial building which accompanies this report and is included in the Consultant Reports.

- A 7.8m (kerb to kerb) wide driveway is located on Murray Rose Avenue at the western boundary. This access to/from the basement levels will be shared with vehicles accessing the adjoining Site 8b site. Murray Rose Avenue is straight and level at this location. As required by AS2890.1 there will be a 6m exit zone extending from the driveway to provide sight lines for cars exiting the building. This exit zone will extend 5m into the footway and will have a maximum slope of 1:20. A "STOP" sign will be located on the egress to overcome any potential pedestrian conflict.

- The design of the internal circulation system for vehicles will accord with the AS 2890.1 and 2 criteria and the simple two way system will ensure suitable flexibility and free flow for all vehicles accessing the site. A turning path assessment for cars is provided in the Traffic Report at Appendix A.
- The proposed 121 spaces meets the Sydney Olympic Park Controls for Site 8 which specify a maximum parking provision of 1 space per 55m², this equates to a maximum of 132.4 spaces for Site 8a.
- The projected traffic generation of the proposed development is 98 vehicle trips peak hour (vtph) and is consistent with land use, traffic and transport planning for the area (specifically the SOPA Masterplan and SOPA Traffic Assessment Study).
- Vehicle access arrangements for the Site 8 Precinct during the periods of special events will be the subject of determination and management by SOPA.

In addition, the Sydney Olympic Park Authority has confirmed the traffic management procedures for the site during major events. As outlined in correspondence dated 27 September 2007:

"During event mode access to the basement entry ramp on Murray Rose Avenue will be via Park Street, directly opposite the main ramp. Entry to the rear service lane will be via Park Street and then across Site 8b."

The Event Access Plan prepared by the Sydney Olympic Park Authority, dated 26 September 2007, is included in Appendix B of this report and demonstrates how this is achieved.

4.5 ACCESS

An Access Review Report has been prepared by Morris-Goding Accessibility and is included in the Consultant Reports. This report demonstrates that the proposed commercial development has equitable access as:

- The building design has continuous accessible paths of travel.
- The Development Application drawings indicate that compliance with the AS1428 'Design for Access and Mobility', Building Code of Australia and the SOPA Access Guidelines (June 2002), pertaining to site access, common areas access, accessible parking and accessible sanitary facilities, can be readily achieved.

As noted in Section 2.2.3 of this report, the number of accessible car spaces provided in the building will be subject to the outcomes of the SOPA Access Advisory Meeting.

4.6 NOISE IMPACTS

A Noise Impacts Assessment of the proposed building has been prepared by Bassett Consulting and accompanies this report and is included in the Consultant Reports. The key findings of the Supplementary Contamination Assessment include:

- There are no acoustic site conditions that would preclude the proposed development from complying with the relevant noise criteria in the Department of Environment and Climate Change (DECC) (formerly the Department of Environment and Conservation) and relevant Australian Standards.

- Road traffic noise intrusion into the commercial development can be adequately attenuated by acoustically designed façade treatments and noise emission from the site controlled by standard noise control techniques.
- Noise from the railway line is not considered significant at the site, this will be confirmed at the detailed design stage of the development.
- Double glazing comprising 0.38 mm laminated glass on one side of a 12 mm air gap with 6 mm float glass on the other was found to be required along parts of the northern and eastern facades to achieve the specified 40 dB(A) averaged over all the readings taken from different places within the building.
- Double glazing comprising 6 mm float glass on either side of a 12 mm air gap would be required along all other facades to meet the above noise criteria. The glazing specified above ensures the building skin achieves a typical sound transmission loss of R_w 32 or better in both cases.

4.7 WIND ENVIRONMENT

A Wind Environment Assessment has been prepared by WindTech and accompanies this report and is included in the Consultant Reports. The key findings of the Wind Environment Assessment are summarised as follows:

- The results of this study indicate that the site is exposed to all three prevailing wind directions that affect the site, namely the north-easterly, southerly and westerly winds.
- The proposed awnings on the southern and eastern facades are important in ameliorating the effect of the northeasterly and south-easterly winds.
- The proposed development is not expected to exacerbate the existing effect of the westerly winds.
- Wind conditions on Level 5 terrace areas within the proposed development are expected to be acceptable for its intended uses with the use of impermeable balustrades.

4.8 STORMWATER MANAGEMENT

A Stormwater Management Report has been prepared by Robert Bird Group and accompanies this report and is included in the Consultant Reports. The key features of the Stormwater Management Plan are summarised as follows:

- It is expected that prior to possession of the site the existing in ground stormwater lines including the pits located within the proposed suspended service road area will be intercepted outside the site boundary and connected to a new drainline running towards the east. The diversion line will connect to an existing stormwater line running along Australia Avenue towards the north which drains to Sydney Olympic Park's existing Water Reclamation and Management System (WRAMS) downstream of the site.
- The whole roof area will be graded to two low points on the roof near the northeast and northwest corners. Stormwater runoff from roofed areas will be collected by two rainwater sumps at the low points
- Stormwater runoff from the Service road area will be directed by pavement falls towards the dish drain and along the dish drain to surface inlet pits at regular intervals.

- Connection into the Sydney Olympic Park's WRAMS System ensures the proposed development meets the objectives of the SOPA Environmental Guidelines.

4.9 WASTE MANAGEMENT

A Waste Management Report has been prepared by JD MacDonald Waste Management Consultants and accompanies this report and is included in the Consultant Reports. The key features of the Operational Waste Management Plan are summarised as follows:

- The ground floor contains designated dry and wet garbage areas which are accessible both internally and from the rear service road.
- General waste will be stored in the Wet Garbage Area in four 660L mobile garbage bins. Recyclable waste will be kept in the Dry Garbage Area. Paper recyclable material will be stored in seven 660L mobile garbage bins and mixed container recyclable material will be stored in two 660L mobile garbage bins.
- A nominated private waste contractor will collect all retail and commercial waste on a twice weekly collection cycle from the garbage room utilising the dedicated service road.

4.10 CONTAMINATION

A Supplementary Contamination Assessment has been prepared by Douglas Partners and is included in the Consultant Reports. The Supplementary Assessment builds upon the HLA-Envirosciences Pty Ltd report "Site Contamination Assessment Sites 2 and 8, Sydney Olympic Park Town Centre, Homebush NSW" dated 18/12/2002.

The key findings of the Supplementary Contamination Assessment include:

- The soil contamination results were consistently low for chemical contaminants and thus the site is considered compatible with the concept design for an office building with basement carpark.
- Based on a review of the Acid Sulphate Soils Risk Map Edition 2 (DLWC, 1997), the site has low probability of acid sulphate soils being present.
- There were significant variations of fill depths observed across the site and the filling material was prescribed in the provisional waste classification on 'Inert Waste' according to the NSW Environmental Guideline. If signs of concern are noted during earthworks/excavation, further testing may be required.
- Perched groundwater was found which may require water management and water may need to be discharged during basement excavation/construction. Water should be tested by an environmental consultant for appropriate disposal.

4.11 GEOTECHNICAL INVESTIGATION

A Geotechnical Investigation has been prepared by Douglas Partners and is included in the Consultant Reports. The assessment found:

- Groundwater was encountered in borehole investigations and a permanent dewatering system was proposed which comprises a system of sub floor drains and strategically located sumps installed beneath the lowest basement floor slabs for periodic pumping.
- Excavation on the site boundaries will require excavation support systems such as temporary retaining structures during construction and a retaining wall system in the long term.

4.12 RAIL IMPACTS

A preliminary Rail Impact Statement has been prepared by Robert Bird Group Pty Ltd and is included in the Consultant Reports. The preliminary assessment found:

- The structural integrity of the rail corridor tunnel will not be affected by the proposed construction at Site 8a.
- The proposed structure for Site 8a will not impose any lateral loading on the existing structure of RailCorp's railway tunnel structure.
- Prior to Construction Certificate, a full Rail Impact Assessment will be prepared and will include further dilapidation surveys, noise and vibration analysis, stray current and electrolysis risk assessment as required.

4.13 HERITAGE

The subject site is not an identified heritage item nor located within a heritage precinct. It is however, situated with proximity to the State Abattoirs Heritage Conservation Area referenced as "Area No 1" in Sydney Regional Environmental Plan No.24- Homebush Bay Area

The proposed building is located approximately 300m from this precinct and is visually separated by the Olympic Park Railway Station. As such, the proposed building is considered to have minimal impact on the Heritage Site in terms of visual aspect, overshadowing or character.

5.1 INTRODUCTION

In accordance with the provisions of the Environmental Planning & Assessment Act, 1979 this section of the report provides an assessment of the significant Environmental Planning Instruments that relate to the proposed development in accordance with Section 79C of the Act.

The Minister for Urban Affairs and Planning is the consent authority under Clause 10 of the Sydney Regional Environmental Plan No-24 Homebush Bay Area (SREP 24).

5.2 STATEMENT OF PERMISSIBILITY

The subject land is not zoned under SREP 24. Pursuant to Clause 11 of SREP, the proposed building is considered permissible with consent as it is consistent with the planning objectives for the Homebush Bay Area set out in Clause 12 of SREP 24.

5.3 ENVIRONMENTAL PLANNING INSTRUMENTS

The following instruments affect the subject site:

- Environmental Planning and Assessment Act 1979;
- Sydney Regional Environmental Plan No.24- Homebush Bay Area;
- State Environmental Planning Policy No. 11 – Traffic Generating Developments;
- State Environment Planning Policy No. 64- Advertising and Signage

5.3.1 Environmental Planning and Assessment Act

Section 79C of the Environmental Planning and Assessment Act, 1979 requires that the following matters be considered in the assessment of the proposed development.

- *The provisions of any relevant environmental planning instrument, draft environmental planning instrument, development control plan, and the regulations that apply to the land to which the development application relates.*

The Sydney Regional Environmental Plan No-24 Homebush Bay Area (SREP 24) is the relevant environment planning instrument in the context of this Application. As outlined in Section 5.3.2, the proposal is consistent with the planning objectives for the Homebush Bay Area set out in Clause 12 of SREP 24.

- *The likely environmental impacts on both the natural and built environments, and social and economic impacts in the locality.*

The proposed development is considered to have a positive social and economic impact on Sydney Olympic Park as it will assist in the creation of a vibrant town centre to support Sydney Olympic Park Precinct.

The development will provide approximately 5770sqm (NLA) of office floor space to Sydney Olympic Park and the surrounding area. This will assist in developing an employment base in the area and provide approximately 480 additional workers to Sydney Olympic Park.

The addition of these workers will help to vitalise the developing Town Centre Precinct. These workers will utilise the local convenience retail in the precinct.

The proposed commercial building will also result in the sustainable use of existing facilities within Sydney Olympic Park. Importantly workers will utilise the existing transport, childcare, entertainment and sporting facilities available in the surrounding area.

— *The suitability of the site for the development.*

As discussed in Section 2.3.1, the proposed six level commercial building is considered suitable for the site.

— *Any submissions made in accordance with this Act or the regulations.*

The application will be exhibited for public comment under the provisions of the Environmental Planning and Assessment Act 1979.

— *The public interest.*

The proposed development is consistent with all relevant planning instruments and the long term objectives of Sydney Olympic Park outlined in the Sydney Olympic Park Masterplan 2002. Furthermore, the proposed commercial building will provide office space to the Sydney Olympic Park, increasing the employment base of the precinct and assisting Sydney Olympic Park to become a regional employment destination. The building will also add activity and vitality to the developing Town Centre Precinct. It is therefore considered to satisfy the public interest.

5.3.2 Sydney Regional Environmental Plan No.24- Homebush Bay Area

The Sydney Regional Plan No. 24 seeks to provide co-ordinated and environmentally sensitive development within the Homebush Bay area, including Sydney Olympic Park. It also facilitates development of Sydney Olympic Park by SOPA and sets out the requirements for exhibition and approval of the Sydney Olympic Park Masterplan in accordance with Section 18 of the Sydney Olympic Park Authority Act 2001.

The proposed commercial development is considered a 'complying development' as it is consistent with a relevant masterplan being the SOPA Masterplan 2002 and complies with the relevant guidelines and management strategies adopted by the Sydney Olympic Park Authority as detailed throughout this report.

The table in Appendix C of this report demonstrates that the proposal is consistent with SREP 24.

5.3.3 State Environmental Planning Policy No. 11 – Traffic Generating Developments

The aim of this policy is to ensure that the Roads and Traffic Authority (RTA) is made aware of and is given an opportunity to make representations in respect to certain development. The proposed commercial development has a gross floor area of approximately 7300sqm and therefore the application will be referred to the RTA for concurrence.

5.3.4 State Environment Planning Policy No. 64- Advertising and Signage

The Guidelines for Outdoor Advertising Identification and Promotional Signage (SOPA October 2002) require the four proposed Identification Signs to comply with the provisions of State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64).

The objectives of SEPP 64 are to ensure that signage:

- *Is compatible with the desired amenity and visual character of an area;*
- *Provides effective communication in suitable locations; and*
- *Is of high quality design and finish.*

SEPP 64 defines the four proposed signs as “building identification signs” and requires the consent authority to consider the assessment criteria contained in Schedule 1 before granting consent to signage.

As demonstrated in Appendix D, the proposed development and associated signage is consistent with the objectives of Assessment Criteria in Schedule 1 of SEPP No. 64. The signage will be compatible with the desired amenity of the site and the visual character of the SOPA Town Centre. The signage is designed and located to provide the most effective communication without compromising amenity or the streetscape, and is of high quality design and finishes.

5.4 SYDNEY OLYMPIC PARK URBAN DESIGN CONTROLS FOR SITE 8

The Urban Design Controls were prepared by SOPA and provide specific controls and requirements for the Site 8 Precinct.

Written Controls

The table in Appendix E demonstrates that the proposed commercial building accords with the Written Controls for Site 8.

Building Envelope Controls

The Written Controls refer to the Building Envelope Controls- Drawings: C01 Rev C; C02 Rev C and C03 Rev C. These Building Envelope Controls set the physical parameters for Site 8a and identify the ‘building zone’.

As an outcome to the pre-design meetings with SOPA and the Design Review Panel, there are variations to the Building Envelopes Controls relating to the basement and access. These minor deviations have been agreed in principle with SOPA and result in a more efficient use of the site. A discussion of these changes is included in Section 2.2 of this report.

However, the proposed development is considered to be generally consistent with the intent of the Building Envelope Control.

5.5 SYDNEY OLYMPIC PARK-VISION 2025-A TOWN OF THE FUTURE

The Vision 2025 document is currently being prepared and was recently submitted to the Department of Planning for consideration as part of the new Metropolitan Strategy, therefore the Vision 2025 document is currently not available for review.

However, the SOPA website provides a brief overview of principles of the Vision 2025 document which are:

- *Preserve and celebrate the Olympic Legacy, including identification of the significant infrastructure of the Sydney 2000 Olympic Games;*
- *Build on Government investment in Sydney Olympic Park to create a poly-functional centre at the heart of metropolitan Sydney*
- *Reinforce Sydney Olympic Park as the venue of choice for hosting major national and international sporting, cultural and entertainment events in New South Wales*
- *Introduce a diverse mix of uses to ensure that Sydney Olympic Park is an active place all year round*
- *Transform the low density land uses, currently occupying large areas of the urban core, into an intense urban centre through establishment of major development opportunities*
- *Build on the grandeur and spatial generosity of the Olympic Boulevard to form one of the world's great contemporary civic spaces*
- *Continue the traditions at Sydney Olympic Park of creating high quality urban design, architectural, landscape and art projects*
- *Promote environmental best practice in all new facilities and events, further extending the best practice standards already achieved at Sydney Olympic Park*
- *Create a diverse and inclusive social mix by providing a wide range of uses and activities throughout the urban core*
- *Retain and enhance high public transport access and use, so that Sydney Olympic Park remains a model of sustainable best practice in transport policy and implementation*
- *Provide better connections to adjoining areas, so that Sydney Olympic Park with its surrounding parklands and communities are easily accessible by a range of transport modes, and become fully integrated.*

The proposed development of Site 8a will assist in the realisation of Vision 2025 as:

- The proposed commercial building will provide commercial and retail uses and will assist in the creation of a vibrant town centre to support Sydney Olympic Park Precinct.
- The development of Site 8a will vitalise the town centre by providing active uses along Murray Rose Avenue and integrating the ground floor uses with the public domain.
- The proposed commercial building also incorporates a variety of best practice ESD features.
- The building has been designed to present as a contemporary and defining built form to both the Australia Avenue and Murray Rose frontages utilising contemporary materials.

5.6 SYDNEY OLYMPIC PARK MASTERPLAN 2002

The Sydney Olympic Park Masterplan 2002 was prepared in accordance with Section 18 of the Sydney Olympic Park Authority Act 2001 and sets out the long-term objectives, role and function of the Sydney Olympic Park for the next 10 to 15 years.

The long term objective is to develop Sydney Olympic Park as a regional destination *"to develop a new and dynamic centre focussed on sport and recreation facilities and an employment area with a strong focus on*

high tech commercial activity" (P12, Sydney Olympic Park Masterplan 2002). This will primarily be achieved by developing a mixed use Town Centre around the existing railway station with a variety of office, retail, leisure and residential uses.

5.6.1 Town Centre Design Guidelines

Site 8a is located within the Town Centre Precinct which will be developed as the urban core of Sydney Olympic Park. The Town Centre will accommodate a mixture of uses and will support a residential population of 3,000 people and a daily workforce population of 20,000 people.

The Masterplan contains specific design guidelines and requirements for buildings within the Town Centre Precinct to ensure it develops as a vibrant urban centre. As demonstrated in the table in Appendix F the proposed development is consistent with the Precinct Guidelines for the Town Centre Precinct

5.6.2 SOPA Masterplan Design Guidelines

Section 6 of the Sydney Olympic Park Masterplan sets out the generic urban design guidelines and environmental standards for all development within Sydney Olympic Park. These guidelines ensure all development achieves high quality architectural and built form, and artistic built form, demonstrates high quality urban design, accords with the principles of Ecologically Sustainable Development and integrates with the surrounding area.

Appendix G provides a detailed assessment of the proposal against the SOPA Masterplan Design Guidelines and demonstrates that the proposed development will enhance the public domain, provide a high standard of building design and character and is sympathetic to the surrounding environment.

5.7 SOPA TOWARDS SUSTAINABILITY: SUSTAINABILITY STATEMENT

Towards Sustainability: Sustainability Strategy for Sydney Olympic Park was prepared in December 2002 to detail the Sydney Olympic Park Authority's commitment to ecological sustainable design and management.

The proposed development is consistent with the Biodiversity Environmental Performance Areas detailed in Section 3 as the development complies with the relevant environmental and cultural legislation being with Environment and Planning Assessment Act (1979) as well as the SOPA Master Plan, therefore it will not have any impact on the surrounding natural and cultural centres .

In accordance with the environmental outcomes for Resource Conservation and Site Impacts Environmental Performance Areas detailed in Section 3 of the document as the proposal:

- Minimises water consumption through the use of water efficient fixtures and is connected into the Sydney Olympic Park's Water Recycling and Management System (WRAMS) to manage storm water.
- Minimises energy use and air emissions as it will achieve the 4 Green Stars' Building Council Australia's Office Design Rating.
- Where possible uses materials with minimal impact including non composite wood and low emission formaldehyde product and materials with low Volatile Organic Compound (VOCs).
- Has no impact on any significant natural or cultural environments within Sydney Olympic Park.
- Minimises noise impacts on the surrounding buildings and complies with the relevant noise criteria of the Department of Environment and Climate Change and the Australian Standards.
- Includes a detailed waste management plan.

- Is located in close proximity to the Sydney Olympic Park rail station and contains secured bicycle parking areas which provides future occupants with the opportunity to utilise alternate modes of transport.

The proposal will also meets the Involving People Environmental Performance area as the development will assist in the creation of a vibrant town centre to support the Sydney Olympic Park Precinct.

5.8 OTHER SOPA DOCUMENTS

5.8.1 Sydney Olympic Park Draft Event Town Plan of Management

The Site 8 Urban Design Controls require consideration of this document. The document is not available on the SOPA website and SOPA was unable to locate the document within their library for review. As such, the proposal has not been assessed against the Sydney Olympic Park Draft Event Town Plan of Management.

5.8.2 Environmental Guidelines for the Summer Olympic Games (September 1993)

The Environmental Guidelines were prepared for the 2000 Sydney Olympic Games bid and outline the key environmental sustainability principles that underpin Sydney Olympic Park. The proposed commercial building responds to each of these principles as outlined throughout this report.

5.8.3 Sydney Olympic Park Access Guidelines

The Access Report prepared by Morris-Goding Accessibility Consulting demonstrates that the proposed commercial building will provide equitable access and accords with the SOPA Access Guidelines as well as the AS1428 'Design for Access and Mobility' and Building Code of Australia

Watpac Developments Pty Ltd is seeking approval for the development of a six storey office and retail premises on Site 8a, Murray Rose Avenue, Homebush. The site represents a significant development within the Town Centre Precinct of Sydney Olympic Park.

The development of Site 8a will introduce approximately 5,770sqm of office space (NLA), suitable for accommodating up to approximately 480 workers and assist SOPA to achieve its long term target of a daily workforce population of 20,000 people. It also introduces two retail tenancies and a café to activate the street frontages within the town centre precinct.

The proposed development Site 8a recognises and supports the vision of Sydney Olympic Park as an ecological sustainable urban area. The proposed Site 8a Commercial Development has been designed to incorporate ESD initiatives and to meet the objectives of the Environmental Guidelines for the Summer Olympic Games (September 1993) and the SOPA Towards Sustainability-Sustainability Statement for Sydney Olympic Park (December 2002).

The design is a result of significant consultation with the relevant authorities, and this report demonstrates the proposed development complies with the Director-General's Requirements for Application 06_0175 for a Commercial Development at Site 8A, Sydney Olympic Park, and issued 22 August 2006. The report addresses the Director-General Requirements and Key Issues as well as the Sydney Olympic Park Urban Design Controls for Site 8. The report has also been updated to incorporate the comments from the Department of Planning's Adequacy Test and further minor design changes as negotiated with the Sydney Olympic Park Authority.

When assessed against Section 79C of the Environmental Planning and Assessment Act 1979, the proposed six storey office and retail premises on Site 8a is appropriate and will not cause any negative environmental, economic or social impacts but will contribute to the economy and vitality of Sydney Olympic Park, and is therefore worthy of consent.

Appendix A

Appendix A Statement of Commitments

STATEMENT OF COMMITMENTS

The following is the Statement of Commitments prepared by Watpac Developments Pty Ltd on how the project will be managed to minimise its impacts both during construction and once the commercial development is in operation.

General

- a. The development will be undertaken in accordance with the Environmental Assessment dated July 2007 prepared by HASSELL (including accompanying Appendices) and the following drawings:

Plans prepared HASSELL Architects numbered:

PSA7515-0010 Site Plan - 1:500 G	PSA7515-0151 Elevation North - 1:200 F
PSA7515-0098 Basement 2 - 1:200 K	PSA7515-0152 Elevation East - 1:200 E
PSA7515-0099 Basement 1 - 1:200 K	PSA7515-0153 Elevation West - 1:200 G
PSA7515-0100 Ground Floor - 1:200 M	PSA7515-0201 Section AA - 1:200 H
PSA7515-0101 Mezzanine Level - 1:200 K	PSA7515-0202 Section BB - 1:200 F
PSA7515-0102 Level 1 - 1:200 J	PSA7515-0210 Section CC - 1:200 J
PSA7515-0103 Level 2 - 1:200 J	PSA7515-0211 Section DD - 1:200 C
PSA7515-0104 Level 3 - 1:200 J	PSA7515-0601 Detail Façade Section – 1:20 B
PSA7515-0105 Level 4 - 1:200 J	PSA7515-1100 Shadow Diagram March B
PSA7515-0106 Level 5 - 1:200 J	PSA7515-1101 Shadow Diagram June B
PSA7515-0107 Plant Level - 1:200 J	PSA7515-1102 Shadow Diagram September B
PSA7515-0108 Roof Plan - 1:200 C	PSA7515-1103 Shadow Diagram December B
PSA7515-0150 Elevation South - 1:200 G	PSA7515-2000 View from Jacaranda Square B

- b. The applicant is committed to the principles of sustainability as defined in the Local Government Act 1993. The construction and operation of the proposed commercial building will be undertaken in accordance with SOPA's Environmental Guidelines and Sustainability Strategy.

Public Domain

- c. Any public domain infrastructure damaged due to building works will be repaired or replaced to the standard in which the infrastructure was found immediately prior to the commencement of works. The repair or replacement will be done to the satisfaction of SOPA prior to the issue of Occupation Certificate.

ESD

- d. The construction and operation will be undertaken in accordance with the ESD Strategy Report prepared by Bassett (June 2007) to achieve energy and water consumption targets as well as other ESD initiatives.

Tree Management

- e. An Arborist experienced in tree retention on building sites will be engaged prior to the commencement of work on the site. The Site Arborist will monitor the impact of the building works on the existing street trees along Murray Rose Avenue and provide as required reports to the Principal Certifying Authority and Applicant on the condition of the trees. Any recommendations in the reports relating to the protection and/or management of the trees will be implemented.
- f. Any canopy pruning will be undertaken under supervision of the Site Arborist.
- g. All pruning must be performed as per Australian Standards AS4373-1996 "Pruning of Trees" and WorkCover Code of Practice for Amenity Tree Industry, 1998.
- h. The proposed excavation must avoid any soil battering towards trees and canopy pruning for piling machinery.

Noise and Vibration

- i. The development will incorporate the recommendations in the Development Application Acoustic Assessment Report prepared by Bassett (August 2007).

Transport

- j. Secure parking for bicycles will be provided in the basement and be provided with lockers.
- k. Access, servicing and layout arrangements will be provided in accordance with AS 2890.1:2004.

Contamination

- l. Any soil requiring disposal off site will be classified in accordance with the NSW EPA (1999) Environmental Guidelines: Assessment, Classification and Management of Liquid and non liquid wastes.

Construction

- m. Prior to commencing construction, a Construction Management Plan will be prepared and provided to the Principle Certifying Authority. This plan will include:
 - Development of a site specific soil erosion and sediment control plan;
 - Air quality/dust control procedures;
 - Noise management procedures;
 - Construction waste management plan;
 - Storage and handling of materials procedures;
 - Details of hoarding requirements;
 - Environmental training and awareness, and,
 - Emergency preparedness and response.

- n. General construction hours will be as follows:

Monday to Friday 7am to 6pm

Saturday 7am to 3pm

- o. Where construction work is undertaken which generates significant noise or vibration impacts, construction hours will be as follows:

Monday to Friday 9am to 12pm and 2pm to 5pm

Saturday 9am to 12pm

- p. A Traffic Management Plan detailing the temporary barriers, line marking and signage that will be set up to control traffic during the construction stage will be prepared and submitted to SOPA prior to commencement of works.

Building Code of Australia

- q. The architectural plans will be subject to review to enable compliance with the deemed-to-satisfy provisions of the BCA, or compliance with the relevant provisions through an alternate solution.
- r. All works will comply with the provisions of the BCA, either in terms of the deemed-to-satisfy provisions or by way of alternate solution.

Access for People with a Disability

- s. The development will comply with the requirements of Australian Standards AS 1428.1 General requirements for Access as well as the Sydney Olympic Park Authority "Access Guidelines- June 2002".

Appendix B

Site Plans:

Traffic Access Plan by HASSELL

Site Context Plan by HASSELL

Site Analysis Plan by HASSELL

Signage Concept by HASSELL

Event Access Plan by SOPA

Visual Analysis by HASSELL

Materials Schedule by HASSELL

Appendix C

Assessment against the Sydney Regional Environmental Plan No.24- Homebush Bay Area

General Design Guidelines	Comment
<p><i>Section 13 Matters for Consideration</i></p> <p>In determining a development application, the consent authority must (in addition to considering the other matters required to be considered by section 79C of the Act) consider such of the following matters as are of relevance to the development the subject of the application:</p>	
(a) any relevant master plan prepared for the Homebush Bay Area,	The proposal is located within the area affected by the Sydney Olympic Park Master Plan (2002) and therefore subject to its provisions. As outlined in Section 5.6 of this document, the proposal is consistent with the Masterplan.
(b) any development control plans prepared for the land to which the application relates,	No Development Control Plans are applicable to the proposal.
(b1) to the extent to which it applies to land within Sydney Olympic Park, the “Environmental Guidelines” within the meaning of the <i>Sydney Olympic Park Authority Act 2001</i> and any plan of management referred to in section 34 of that Act,	<p>The proposed commercial building is proposed to be designed, operated and constructed in accordance with the Environmental Guidelines as the proposed development :</p> <ul style="list-style-type: none"> — Has no impact on any significant natural or cultural environments within Sydney Olympic Park. — Demonstrates a high level of energy efficiency through the design to achieve a 4.5 Star AGBR rating, — Utilises the existing WRAMS system and has a low level of daily water consumption. — Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs). — Will achieve the 4 Green Stars' Green Building Council Australia's Office Design Rating.
(c) the appearance, from the waterway and the foreshores, of the development,	The proposal is not located near a waterway or foreshore and therefore will not be visible from a waterway or foreshore.
(c1) the impact of the development on significant	The proposal will have no impact on any significant cultural or heritage views.

Appendix C

views,	
(d) the effect of the development on drainage patterns, ground water, flood patterns and wetland viability,	The Stormwater Management Plan ensures that there will be minimal impact on existing drainage conditions and all stormwater will be directed to SOPA's WRAMS System.
(e) the extent to which the development encompasses the principles of ecologically sustainable development,	<p>The design of the proposed commercial building incorporates a variety of ESD principles as discussed including:</p> <ul style="list-style-type: none"> -Use of passive solar design; -Minimal energy use (4.5 Star Energy Rating (AGBR) and 4 Green Stars' Green Building Council Australia's Office Design.) -Minimise daily water consumption and connect the stormwater system into SOPA's WRAMS system; - Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs).
(f) the impact of carrying out the development on environmental conservation areas and the natural environment, including flora and fauna and the habitats of the species identified in international agreements for the protection of migratory birds,	The proposal is not located in an environmental conservation area or natural area. Therefore the proposal will not have any negative impact on protected flora and fauna and migratory birds.
(g) the impact of carrying out the development on heritage items, heritage conservation areas and potential historical archaeological sites,	The proposal is not located in a heritage conservation area and it is not identified as a potential historical archaeology site. As such, the proposal will have no negative impact on heritage items or areas.
(h) the views of the public and other authorities which have been consulted by the consent authority under this plan,	<p>As outlined in Section 1.3 of this report, there has been substantial consultation with the Sydney Olympic Park Authority including the Design Review Panel. This is detailed in Section 2.2 of this report.</p> <p>As outlined in the Robert Bird Preliminary Rail Impact Statement (Consultant Reports), RailCorp will be consulted prior to Construction Certificate.</p> <p>There were no significant issues relating to the Roads and Traffic Authority, Auburn Council or the NSW Heritage Council and it is considered that these authorities will be consulted during the exhibition period.</p>
(i) the issues listed in Schedule 7.	The proposal does not constitute a major public facility and is not located within an environmental conservation area.

<i>Section 18 Services</i>	The site is provided with the required reticulated services including water, electricity, sewage and natural gas. Stormwater from the site will be fed into SOPA's WRAMS water treatment system.
<i>Section 20 Contaminated Land</i>	<p>A Supplementary Contamination Assessment was undertaken by Douglas Partners in November 2006.</p> <p>The Assessment found that the site was compatible for the proposed development and soil samples were consistently low for chemical contaminants and did not exceed the selected assessment criteria for commercial/industrial sites. A detailed discussion of the Contamination Assessment is included in Section 4.10.</p>
<i>Section 20a Acidic Sulphate Soils</i>	The Supplementary Contamination Assessment prepared by Douglas Partners noted that the area has no known occurrences of Acid Sulphate Soils and hence has a low probability of acid sulphate soils being present.
<i>Section 29 Development in the vicinity of a heritage Item</i>	The site is in proximity of the Area No 1 Heritage Conservation area which contains the 'Avenue of Palms' and 'Administration' Heritage Items. The proposed building is located 300m from this precinct and is visually separated by the Olympic Park Railway Station. As such, the proposed building is considered to have minimal impact on the Heritage Site in terms of visual aspect, overshadowing or character.

Appendix D

Assessment against State Environment Planning Policy No. 64- Advertising and Signage

Provisions of SEPP No. 64	Compliance
1. Character of the area <ul style="list-style-type: none"> — Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located? — Is the proposal consistent with a particular theme for outdoor advertising in the area or locality? 	<p>The proposed signs are considered compatible with the commercial character of the Town Centre Precinct of Sydney Olympic Park</p> <p>The scale and design of the signs are consistent with the SOPA Guidelines for Outdoor Advertising, Identification and Promotional Signs and therefore consistent with the SOPA outdoor advertising theme.</p>
2. Special areas <ul style="list-style-type: none"> — Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas? 	<p>The dimensions and design of the proposed signs comply with the SOPA Guidelines for Outdoor Advertising, Identification and Promotional Signs and do not detract from the appearance of the proposed building and town centre.</p>
3. Views and vistas <ul style="list-style-type: none"> — Does the proposal obscure or compromise important views? — Does the proposal dominate the skyline and reduce the quality of vistas? — Does the proposal respect the viewing rights of other advertisers? 	<p>The proposed signs are flush to the building and therefore will not obscure or compromise any viewlines, the skyline or obstruct any views to other advertisements in the area.</p>
4. Streetscape setting or landscape <ul style="list-style-type: none"> — Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape? — Does the proposal contribute to the visual interest of the streetscape, setting or landscape? — Does the proposal reduce clutter by rationalising and simplifying existing advertising? — Does the proposal screen unsightliness? — Does the proposal protrude above buildings, structures or tree canopies in the area or locality? 	<p>The proposed size and scale of each of the proposed signs respond to their location on the proposed six level building.</p> <p>The purpose of the signs is to identify the proposed building and to reinforce the commercial character of the town centre.</p> <p>There are no existing signs on the proposed building.</p> <p>The signs are incorporated into the design of the building and are not intended to screen unsightliness.</p> <p>The proposed signage is located below the roof line and therefore will not protrude above buildings.</p>

Provisions of SEPP No. 64	Compliance
5. Site and building <ul style="list-style-type: none"> — Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located? — Does the proposal respect important features of the site or building, or both? — Does the proposal show innovation and imagination in its relationship to the site or building, or both? 	<p>The four proposed signs are incorporated into the design of the façade and therefore respect the scale and characteristics of the building. The signs are used to identify the commercial building and therefore are consistent with the commercial and retail nature of the town centre.</p>
6. Associated devices and logos with advertisements and advertising structures <ul style="list-style-type: none"> — Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage structure on which it is to be displayed? 	<p>Lighting is the only associated device for the proposed signage, for enhancing the visibility of the signage. The proposed lighting is internal and therefore fully integrated into the design of the sign.</p>
7. Illumination <ul style="list-style-type: none"> — Would illumination result in unacceptable glare? — Would illumination affect safety for pedestrians, vehicles or aircraft? — Would illumination detract from the amenity of any residence or other form of accommodation? — Can the intensity of the illumination be adjusted if necessary? — Is the illumination subject to a curfew? 	<p>The signs will be illuminated by 'internal daylight fluorescent lighting'. The structural and output qualities of these light boxes will comply with the Building Code of Australia and Australian Standards and will not result in unacceptable glare.</p> <p>The illumination of the signage will not have any affect on the safety of pedestrians, vehicles or aircraft.</p> <p>The illumination of the proposed signage will not detract from the amenity of surrounding development, as the output of light from the signage is minimal. There is no existing residential development in close proximity to the site.</p> <p>Technicians can adjust the intensity of the lighting if necessary.</p> <p>The illumination is not proposed to be subject to a curfew.</p>
8. Safety <ul style="list-style-type: none"> — Would the proposal reduce the safety of any public road? — Would the proposal reduce the safety for pedestrians or bicyclists? — Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightliness from public areas? 	<p>The signs are flush against the commercial building and located on the upper levels of the façades. It is therefore considered that the signs will not reduce the safety of any public road or reduce the safety for pedestrians or cyclists.</p> <p>The signage is located within the building form therefore will not obscure any sightlines from public areas.</p>

Appendix E

Assessment against the Sydney Olympic Park Urban Design Controls for Site 8

Control	Comment
Generally Comply with the Sydney Olympic Park Masterplan	As outlined in Section 5.6 of this report, the proposal is fully compliant with the Sydney Park Masterplan 2002.
Maintain consistency with SOPA's Vision 2025 Design Framework and any approved nearby developments ie Site 5, Site 6 and Site 7	As outlined in Section 5.5 of this report, the proposal is consistent with SOPA's Vision 2025 and consistent in terms of design, form and scale with the developments recently approved on Sites 5, 6 and 8.
Comply with the Sydney Olympic Park Draft Town Plan of Management	As discussed in Section 5.7.1 of this report the Sydney Olympic Park Draft Town Plan of Management was requested from SOPA but not available for review.
High quality architecture fitting to the site's prominent location is required. A registered architect experienced in and recognised for their design of a prominent commercial buildings must prepare the Development Application and Construction Certificate.	<p>The building has been designed to present as a contemporary and defining built form to the Australia Avenue and Murray Rose frontages, utilising contemporary materials in accordance with the SOPA design guidelines. The built form emphasises the prominent location on the corner of Murray Rose Avenue and Australia Avenue with the façade design divided into three main components to define the Jacaranda Square frontage, corner setting and the roof top line.</p> <p>HASSELL Architects have been engaged to design the commercial buildings, prepare the Development Application and Construction Certificate.</p>
Uses All ground floor areas with frontage to Murray Rose Avenue and Australia Avenue are to be active uses such as cafes, restaurants, retail, lobbies lounges and the like.	The ground floor incorporates two retail tenancies, a central lobby and cafe along the Murray Rose Avenue frontage.
A minimum depth of 6m-9m is recommended for all ground level active uses	The retail and cafe areas have a minimum depth of 8.5m to provide usable areas to ground floor premises.
Only commercial and office uses are allowed above ground floor.	Levels 1 to 5 are designed for office and commercial use only.
All service areas are to be: accessed from the driveways and screened from public view	The services areas are located and accessed from the service road at the rear of the building. Additional services located on the plant level are screened and setback from view.
Height The maximum building height shall be 6 stories and 25m.	The proposed commercial building contains 6 above ground levels and 2 basement levels. The height of the building is 24.75m excluding roof top articulation zone.

Appendix E

<p><i>Skyline</i></p> <p>The 5.0m roof top articulation zone is to allow the creation of an architectural silhouette and integration of services such as; Lift overrun; plant rooms; and the like.</p> <p>The total area in plan above 25.0m may not exceed 10% of the roof area of the building.</p> <p>All portions above 25.0m shall be setback from the site boundaries as shown in elevations.</p>	<p>The roof top articulation zone is 4.5m above roof level height and accommodates lift overrun, plant rooms and cooling towers.</p> <p>The total area of the roof top articulation zone is 451sqm of 1354sqm roof area which represent 33% of the roof area. This area has been rationalised and the result is the minimum area required to accommodate the required plant operations. To minimise visual impact, the plant area has been setback from the Murray Rose Avenue frontage. The Visual Analysis in Appendix B shows that the plant will only be visible for a person standing at least 40m back from the southern façade. Therefore the plant area will have minimal impact on the streetscape.</p> <p>The Building Envelope Controls indicate that the plant area should be setback 7m from the east and west boundaries and 3m from the north and south boundaries. Whilst the plant could sit within this envelope, it has been placed closer to the northern boundary of the site to minimise visual impact from Jacaranda Square. As such, the resulting setbacks are 11.3m and 10.95m from the west and east boundaries respectively; 6.7m from the south boundary and 2.6m from the northern boundary. The non-compliance of the northern boundary is considered appropriate as the southern façade is more visually prominent from the Town Centre precinct than the northern façade.</p>
<p><i>Floor to ceiling heights</i></p> <p>The floor to ceiling height at ground floor is 5m to maintain the scale of the approved commercial developments in the town center, site5, site 6 and site 7. Floor to ceiling heights above ground level are minimum 2.7m.</p>	<p>The floor to floor height of the ground floor is 6m which complements the foyers Sites 5,6 and 7.</p> <p>The minimum floor to ceiling height in above ground levels is 2.7m.</p>
<p>Weather Protection at Street Level</p> <p>Provide sun shading and weather protection for pedestrians at street level, in the form of a continuous awning with a 3.6m width along Murray Rose Ave and Australia Avenue.</p> <p>Align the underside of the awning with the existing awning nearby on the Visitors Centre (approx 4m high). Above the driveways the height to the underside of the awning may be raised to 5m.</p>	<p>An awning extends along the southern and eastern frontages of the building. As recommended by the SOPA Design Panel, the width of the awning was reduced to 2m to provide a clearance to the existing trees along Murray Rose Avenue. The revised width complies with the requirements of the SOPA Masterplan 2002.</p> <p>The height of the awning is aligned to complement the 4m awning on the nearby Visitors Centre.</p>
<p>Building Zone</p> <p>Locate the buildings wholly within the building zone.</p> <p>Provide the corner setback at ground level for site 8A.</p> <p>A minimum of 80% of the length of building is to be located on the property boundary (including balconies, sun-shading and the like).</p>	<p>The proposed commercial building is located within the building zone shown on the Built Form Controls (Dwg No. C-02-Version C) and the boundaries of the site.</p> <p>The ground level corner to Murray Rose Avenue and Australia Avenue is setback from the boundary however the south eastern corner to the upper levels protrude slightly past the boundary.</p> <p>The proposed building will be constructed along the entire length of the Murray Rose Avenue and Australia Avenue frontages, however the lobby entrance is setback by 3.3m.</p>

Appendix E

<p>The west elevation of site 8A will be highly prominent until the remaining portion of site 8 is developed. This elevation is to incorporate high quality articulation and/or fenestration suitable for its highly visible location.</p>	<p>The western elevation will have a paint finish which matches the remainder of the Site 8a building and will provide a suitable temporary finish until Site 8b commences.</p>
<p>Access</p> <p><i>Pedestrian Entries</i></p> <p>Main building entries shall address and be directly visible and accessible from Murray Rose Avenue.</p> <p><i>Vehicular entries</i></p> <p>All vehicular access is to be from driveways accessed from Murray Rose Avenue.</p>	<p>The building is accessed from the centrally located lobby which fronts Murray Rose Avenue. The lobby looks directly across Jacaranda Square and is in close proximity to the Olympic Park Railway Station.</p> <p>The primary vehicular access to the basements will be via the shared driveway on Murray Rose Avenue. The 16 car spaces located adjacent to the service road will be accessed from Australia Avenue (Refer Section 2.2).</p>
<p>No vehicular access to below grade parking, service areas and the like is permitted from Australia Avenue.</p> <p>Minimise the impact of vehicular access on the Murray Rose Streetscape.</p> <p>Maximum size for vehicle crossovers is 6m.</p>	<p>SOPA has agreed in principle to the revised access strategy which provides service and limited car access from Australia Ave as outlined in Section 2.2.</p> <p>The Murray Rose Avenue access will be shared with vehicles accessing the adjoining Site 8b site. Murray Rose Avenue is straight and level at this location, the driveway will accord with AS 2890.1 and there will be good sight distances available.</p> <p>The driveway located on Murray Rose Avenue at the Western boundary is 7.2m wide kerb to kerb and the service road running along the northern side of the site is also 6m wide.</p>
<p>Parking and Service</p> <p><i>Maximum Rate</i></p> <p>1 space per 55m² GFA.</p> <p><i>Type</i></p> <p>Only basement parking is permitted.</p> <p>The footprint for the basement car parking is the basement of the building zone an additional 16m width beneath Murray Rose Avenue. Any parking beneath the street is retain or reinstate all 4 rows of street trees. Allow a minimum soil area of 2.0m², 1.5 m deep for each tree.</p>	<p>The proposed 121 spaces meet the Sydney Olympic Park Controls for Site 8 which specify a maximum parking provision of 1 space per 55m², this equates to a maximum of 132.4 spaces for Site 8a.</p> <p>The majority of the car spaces are located within the two car park levels, however an additional 16 spaces have been located at the rear of the building, fronting the service road. Some of these car spaces are double stacked to provide a sufficient number of car spaces to the occupants of the building.</p> <p>These additional spaces are not visible from the public domain and will utilise the rear service lane.</p> <p>As discussed with SOPA on 21 November 2006 and at the Design Review Panel (18/01/07), the basement footprint will extend underneath the Service road located along the northern boundary of the site rather than under Murray Rose Avenue (Refer Section 2.2).</p>

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<p>Locate the car park entrance on the western edge. Incorporate an access driveway that accommodates 12 m rigid vehicles to access the loading dock on the western side of the building.</p> <p>For appearance and security the service areas and the car-parking ramp are to have automatic roller doors setback maximum 1m from the property boundary.</p>	<p>The basement car park entrance is located on the western edge and accessed from Murray Rose Avenue as required by the SOPA Site 8 Guidelines. The Service road, located along the northern boundary of the site is 6m wide and suitable for use by service vehicles (including 12m rigid vehicles).</p> <p>The basement car parking entrance at Murray Rose Avenue is enclosed by a roller shutter, the shutter is aligned to the building façade. The roller shutter will be setback 2.5m to provide adequate sightlines for exiting vehicles and to comply with AS2890.1:2004. The roller shutter will be programmed to stay open to accommodate peak parking needs in order to avoid cars queuing and blocking the footpath. Provisions will be made for the Building Manager to adjust the hold-open duration of the roller shutters as required.</p>
<p>Environmentally Sensitive Design</p> <p>SOPA strongly recommends the proponents engage a dedicated ESD consultant as a core member of the project team and for that person to be retained throughout the detailed design, construction and operational hand over phases - this will aid the development to deliver an affordable fully integrated sustainable design.</p>	<p>Walpac Developments Pty Ltd has engaged Bassett Applied Research as a dedicated ESD Consultant and core member of the project team.</p>
<p>Ensure the proposal attains current best practice sustainable design.</p>	<p>The proposal attains to best practise sustainable design as it:</p> <ul style="list-style-type: none"> -Has no impact on any significant natural or cultural environments within Sydney Olympic Park. -Demonstrates a high level of energy efficiency through the design to 4.5 Star AGBR rating. -Utilises the existing WRAMS system and has a low level of daily water consumption. - Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs). -Will achieve the 4 Stars Green Building Council Australia's Office Design rating.
<p>Ensure the proposal meets the following ESD requirements</p> <ul style="list-style-type: none"> The Sydney Olympic Park Master Plan 2002 The Sydney Olympic Park Sustainability Strategy and Policy The Sydney Olympic Park Environmental Guidelines. <i>The Sydney Olympic Park Sustainable Design Excellence Information for Respondents Site 8.</i> A minimum 4.5 star energy rating (ABGR) A minimum 4 Green Stars' Green Building Council Australia's Commercial Design 	<p>The proposal accords with all ESD requirements as discussed throughout this Environmental Assessment.</p> <p>The proposal will be designed to achieve 4.5 star energy rating (ABGR) and the 4 Star <i>Green Building Council Australia's Office Design rating.</i></p>

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Actively explore opportunities for offsetting base building energy loads through the innovative application of renewable energy sources eg natural gas or co generative systems.	Natural gas is available to the site via existing gas mains in the footpaths along Australia Avenue and Murray Rose Avenue. The natural gas will be used to heat water.
<p>Accessibility</p> <p>An Access Strategy must be included in the DA submission.</p> <p>Comply with SOP Access Guidelines 1st Ed 2002 and SOP Master plan requirements relating to accessible accommodation.</p>	An Access Strategy has been prepared by Morris Goding Accessibility Consulting and is included in Consultant Reports. This report demonstrates that the proposed commercial building complies with the SOPA Access Guidelines 1st Ed 2002 and SOP Master Plan requirements relating to access, as well as the relevant Australian Standards. As discussed in Section 2.2.3 of this report, the number of accessible car spaces provided in the building will be subject to the outcomes of the SOPA Access Advisory Meeting.
<p>Building Expression</p> <p>Use materials and architectural treatment that is consistent with the steel and glass language of existing buildings within Sydney Olympic Park and reflects the town's strong tradition of design excellence.</p>	The building facade uses a small palette of materials to establish a subtle language of material and colour in combination with quality detailing. The ground floor is dominated by glazing to provide interaction with the public domain.
<p>All building facades should be well articulated.</p> <p>In addition to balconies, sun shading in the form of external adjustable sun louvres, sliding screens, brise-soleils, and the like are recommended.</p> <p>Eastern, northern and western facades are to be designed to minimise summer solar access and maximise winter solar access.</p>	<p>The façade is divided into three main elements. The Jacaranda Square façade uses curtain wall system with feature infill panels in a randomised manner. The corner treatment wraps as a mega-grid around the eastern end of the building. The top floor is setback and has a balcony to provide a defining roof line to the building.</p> <p>All glazing panels are also provided with sunshades that project at 90 degrees from the façade.</p> <p>The eastern façade is a curtain wall of tinted glazing. Sunshades provide horizontal articulation and reduce direct solar access into the building.</p> <p>The northern façade has been design to minimise direct solar penetration. Tinted glazing panels are dispersed by rendered panels to reduce direct solar access. Glazing panels are provided with sunshades that project at 90 degrees from the façade.</p> <p>The western façade will front Site 8b and therefore no glazing is proposed on this façade.</p>
<p>Materials</p> <p>Construct the building from high quality, durable materials, that are well finished, detailed and crafted.</p> <p>Minimise environmental impact by selecting materials that:</p> <ul style="list-style-type: none"> - Have low embodied energy; - Are durable; - Are able to be recycled - Are sourced from renewable resources and materials and -Are non-polluting in manufacture, use and in disposal. 	<p>The proposed building materials are high quality and durable and will respond to the contemporary style of the proposed development.</p> <p>Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs).</p>

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<p>Fire Engineering</p> <p>The proximity of the building to the site boundary will necessitate a fire engineering solution on the north elevation.</p>	<p>The fire engineering solution will be addressed through the detail design phase.</p>
<p>Acoustic Controls</p> <p>Applicants must prepare a report from a suitably qualified noise expert assessing the possibility of land use conflicts as a result of the development. The land use conflict could be, for example, from an entertainment venue on the closest residential receiver or it could be the result of a new temporary accommodation development possibly restricting the use of an existing entertainment venue. The suitability of the development for the site is the responsibility of the Developer, to assess the noise impact and to incorporate appropriate mitigation measures into the development.</p> <p>All noise impact assessments require ambient noise levels measured at the noise sensitive premises during representative periods to ensure that all major intermittent noises are measured and quantified. This particularly applies to outdoor concerts, sporting events and late night parties. The results of the noise measurements should be used to design noise mitigation measures relevant to the proposed development.</p> <p>The building skin is to achieve a typical sound transmission loss of Rw32 or better.</p> <p>All glazing must be a minimum 10.38mm thick.</p> <p>All plant rooms shall be designed to meet the requirements of the NSW Industrial Noise Policy.</p> <p>Note that more stringent noise attenuation measures may be required for noise sensitive tenancies.</p>	<p>An Acoustic Assessment Report has been prepared by Bassett and is included in Consultant Reports.</p> <p>The report takes into account the surrounding activities within Sydney Olympic Park and recommends suitable acoustic controls to achieve the specified 40 dB(A) in all parts of the building.</p> <p>The report confirms that the noise associated with the entertainment noise from the venue during the Royal Easter Show can be managed to appropriate internal levels through the use of double glazing, comprising 0.38 mm laminated glass on one side of a 12 mm air gap with 6 mm float glass on the other, on the other along the affected facades.</p> <p>Double glazing comprising 6 mm float glass on either side of a 12 mm air gap would be required along all other facades to meet the above noise criterion.</p> <p>The glazing specified above ensures the building skin achieves a typical sound transmission loss of Rw 32 or better in both cases.</p> <p>The report demonstrates that double glazing comprising 0.38 mm laminated glass on one side of a 12 mm air gap with 6 mm float glass on the other will be required along part of the northern and eastern facades. Double glazing comprising 6 mm float glass on either side of a 12 mm air gap would be required along all other facades.</p> <p>Environmental noise emission from mechanical and air conditioning plant will be assessed during the detailed design stage of the project, when details of the selected plant are known. External noise controls are likely to include barriers, enclosures and attenuators and will be designed to ensure compliance with the DECC Industrial Noise Policy.</p> <p>There are no acoustic site conditions that would preclude the proposed development from complying with the relevant noise criteria.</p>
<p>Public Domain</p> <p>Ensure the main building entrance is level with adjacent footpath.</p> <p>Make good all footpaths, carriageways and public areas to the SOP Urban Elements Design Manual (UEDM), SOP Public Domain Strategy (pending) and SOPA advice.</p>	<p>The lobby entrance is level with the adjacent footpath and suitable for wheelchair access.</p> <p>The proposed building will not alter any existing footpaths or carriageways. The basement access driveway and service road will be constructed to the relevant SOPA standards.</p>

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Build the driveway and vehicle crossover to the SOP UEDM and SOPA Advice.
A public domain plan at minimum scale 1:200 must be submitted for DA approval.
The plan is to include the location and treatment of all kerb ramps, vehicle crossovers, street trees, driveways, bollards, fences and other relevant public domain features.

The basement driveway and vehicle cross over from Murray Rose Avenue will be constructed to the relevant SOPA standards.
The Public Domain Plan elements are shown in the Ground Floor Plan in the Consultant Reports.

Appendix F

Assessment against the SOPA Masterplan Town Centre Design Guidelines

General Design Guidelines	Comment
<i>Edges</i>	
<p>New buildings are to be built predominantly to the street alignment to provide street edge definition excluding awnings and louvres.</p> <p>New buildings on Sites 5, 6 and 7 are to be built predominantly to the line of the street edge along Dawn Fraser Avenue and aligned with the retaining wall adjacent to the Vernon Buildings.</p> <p>Diverse street frontage activities are encouraged to reinforce the liveliness and attractiveness of the public domain of the Town Centre.</p> <p>Interaction between interior activities and the street is encouraged.</p>	<p>The proposed commercial building is built to the street edges along Murray Rose Avenue and Australia Avenue to provide a strong built form and to activate the streetscape.</p> <p>Not applicable.</p> <p>The ground level of the proposed building incorporates both retail and café uses to integrate the building with the public domain and to activate the town centre streetscape.</p> <p>Interaction between the proposed commercial building and streetscape is achieved through the location of the retail shops and lobby along the Murray Rose Avenue streetscape. The café located centrally along the Murray Avenue frontage, will incorporate on street dining which will enhance the amenity and character of the town centre.</p>
<i>Amenity</i>	
<p>Development to provide high quality pedestrian amenity and provide a focus for public orientated uses.</p> <p>New buildings to provide active street frontages at the ground level where possible.</p> <p>Pedestrian shelter in the form of 2 storey colonnades should be provided along the full building frontages of Dawn Fraser Avenue and Australia Avenue.</p> <p>Pedestrian shelter in the form a 2m wide awning should be provided along the full building frontage of Murray Rose Avenue.</p> <p>Awnings or colonnades around the railway station are to be of a consistent height and appearance, and continuous.</p> <p>Colonnades are located along the northern, eastern or western facades of developments to provide public access, weather protection and potential spaces for outdoor dining.</p> <p>Awnings providing address and weather protection are preferred along the southern facades of developments as there is less solar access from that orientation.</p>	<p>The proposal provides a high quality pedestrian environment by creating an active frontage along Murray Rose Avenue and Australia Avenue. The use of awnings and façade details provide a sense of scale and add interest to the public domain.</p> <p>Retail uses, a lobby and café occupy the ground floor frontages along Murray Rose Avenue and Australia Avenue.</p> <p>The design of the Australia Avenue façade incorporates with the remainder of the building. The 4m high awning from Murray Rose Avenue wraps around the building to the Australia Avenue frontage to provide pedestrian shelter.</p> <p>A 2m wide awning has been provided along the length of the Murray Rose Avenue frontage.</p> <p>Not applicable to Site 8a.</p> <p>A 4m high and 2m wide awning as required by the SOPA Masterplan wraps along the main frontages of the building and will provide pedestrian shelter.</p> <p>An awning is located along the southern façade of the building which fronts Murray Rose Avenue.</p>

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Linking structures at ground level can be used to connect development along Dawn Fraser Avenue and provide shade and shelter for pedestrians.	Not applicable to Site 8a.
Pedestrian through block connections should be maintained and enhanced from Dawn Fraser Avenue to Herb Elliott Avenue, from Herb Elliott Avenue to Olympic Boulevard at Site 4, and also from Jacaranda Square to the Brickpit edge.	Not applicable to Site 8a.
<i>Vehicular Access</i>	
Vehicular access to new buildings in the Town Centre will not be permitted from Olympic Boulevard.	Not applicable to Site 8a.
Vehicular access to Site 5 is preferred from Herb Elliot Avenue.	Not applicable to Site 8a.
Access to Sites 6 and 7 is preferred from Herb Elliot Avenue or Park Street.	Not applicable to Site 8a.
<i>Height</i>	
Maximum storey's of a new development to be provided in accordance with Figure 5.3.11.	The proposed commercial building on Site 8a has six (6) storeys which complies with the six storey maximum height shown in Figure 5.3.11.
<i>Other</i>	
Provision of a pedestrian entrance at the eastern end of the railway station is required to service the incoming workforce and residential population on Sites 2, 3, 6, 7 and 8 and the ern part of the Australia Centre.	Not applicable.
Associated car parking to be provided predominantly below ground.	The proposed car parking associated with Site 8a is located within two basement levels as well as a small ground level area along the north service road frontage.
Protect and enhance the existing landscape network.	The proposed development on Site 8 will not impact on the existing landscape network.

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Assessment against the SOPA Masterplan Design Guidelines

6.1 Public Domain Guidelines	Comment
<p>6.1.1 General Guidelines</p> <p><i>Active Uses</i></p> <ul style="list-style-type: none"> • New buildings should provide direct contact or access between the street and the interior of the building. • New buildings should where feasible provide pedestrian oriented activities at ground level contributing to the vitality of the public domain. • Temporary uses associated with festivals, events, markets or carnivals are encouraged as they contribute to the vitality, attractiveness and liveliness of Sydney Olympic Park. These can include the erection of temporary buildings for short term merchandising and food and beverage outlets. 	<p>Interaction between the proposed commercial building and streetscape is achieved through the location of the retail shops and lobby along the Murray Rose Avenue streetscape. The Café located centrally along the Murray Avenue frontage, will incorporate on street dining which will enhance the amenity and character of the town centre.</p> <p>Pedestrian oriented activities such as retail and on street café dining are provided along the ground level.</p> <p>Not applicable.</p>
<p><i>Amenity</i></p> <ul style="list-style-type: none"> • New buildings should provide shelter, such as, awnings or colonnades along street frontages • The use of footpaths for outdoor seating and dining is encouraged where local conditions are favourable and high pedestrian amenity can be preserved. • External lighting of buildings and the public domain at night should be of an appropriate level to encourage use and enjoyment of the public spaces, architectural appreciation and public safety. • Downlighting and highlighting is encouraged; uplighting, floodlighting and bud-lighting is discouraged. • Solar access to key parkland areas and other important public spaces should be optimised between 11.30am and 2.30pm on June 21. Shadow impact assessments are required by all new developments to demonstrate impacts on solar access in winter and shade in summer. 	<p>A 4m high awning from Murray Rose Avenue wraps around the building to the Australia Avenue frontage and provides pedestrian shelter as well as visual interest.</p> <p>The Murray Rose Avenue frontage will incorporate on street dining which will enhance the amenity and character of the Town Centre.</p> <p>There is existing street lighting along the Murray Rose Avenue and Australia Avenue pedestrian areas. Additional lighting is proposed under the ground level awnings to enhance the public domain.</p> <p>Down lights will be installed under the ground level awning.</p> <p>The Shadow Diagram study provided in the Architectural Plans demonstrates that Jacaranda Square will retain a high level of solar access between 11.30am and 2.30pm on June 21, with shadow only falling on the site after 12pm.</p>

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<p><i>Public Domain Elements and Public Art</i></p> <ul style="list-style-type: none"> • All public domain furniture elements are to be designed in accordance with the <i>Urban Elements Design Manual (1998)</i>. • All Parklands elements are to be designed in accordance with the <i>Parklands Elements Design Manual (1999)</i>. • All proposed public art projects are to be developed in full consultation with the Authority. • Any new public building project should allocate between 0.5% and 2.0% of total construction budget to public art. 	<p>There are no public domain elements or public art proposed.</p>
<p><i>Vehicle Access</i></p> <ul style="list-style-type: none"> • Vehicular access across footpaths should be minimised and designed to limit conflict with pedestrians and visual intrusion. • Where practical, access to car parking and loading areas is to be located to the rear of buildings away from the main pedestrian thoroughfares. • Vehicular entries should address the street and be as close as practical to the street alignment. Deeply recessed vehicle entries are discouraged. • Parking is to be predominantly underground or concealed from public view and within development sites. 	<p>The Murray Rose Avenue access will be shared with vehicles accessing the adjoining Site 8b site. Murray Rose Avenue is straight and level at this location, the driveway will accord with AS 2890.1 and there will be good sight distances available.</p> <p>A dedicated loading area will be located on the Service road suitable for accommodating LRV's for garbage collection and office supplies etc.</p> <p>The driveway located on Murray Rose Avenue at the Western boundary is 7.2m wide and the service road running along the northern side of the site is also 6m wide.</p> <p>The 6m wide service road running along the northern side of the site will provide access for the ground level parking spaces and for service vehicle activities.</p>
<p>6.1.2 Building Line</p> <ul style="list-style-type: none"> • New commercial buildings and mixed use buildings with commercial/retail street level uses should generally be built to street frontages (see Figure 5.3.6). • New buildings should reinforce the major site axes and provide connections with surrounding local public domain and Parklands. • The entrances of buildings are to be orientated to the principal pedestrian thoroughfares. 	<p>The proposed building is built to the site boundaries to ensure that the ground level retail, lobby and cafes uses activate the Murray Rose streetscape.</p> <p>The proposed building provides active frontages to the main streets and to Jacaranda Square. The façade to Jacaranda Square has been treated in a contemporary manner to provide suitable address and character to the proposed building.</p> <p>The main entry lobby to the building fronts Murray Rose Avenue and is in close proximity to the entry to the Olympic Park Railway Station.</p>
<p>6.1.3 Street Address</p> <ul style="list-style-type: none"> • Building alignment to reinforce the street edge. 	<p>The proposed building is built to the street boundaries and provides active frontages along Murray Rose Avenue and Australia Avenue.</p>

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<ul style="list-style-type: none"> • Pedestrian entry points to be clearly demarcated by the articulation of the façade and ground plane. • Vehicular entry points to be accessed from minor, less trafficked thoroughfares. • Vehicular crossings to be minimised at the kerb and footpath. • Garage entries width to be minimised, the maximum width of a garage entry point should be 4m. 	<p>The lobby is the main pedestrian entry and is setback 3.3m from Murray Rose Avenue and identified through a skylight in the canopy.</p> <p>The main vehicular access point is via a driveway on Murray Rose Avenue which accords with the SOPA Site 8 guidelines.</p> <p>There is a single access point across the Murray Rose Avenue footpath which provides access to Site 8a and Site 8b.</p> <p>Not applicable.</p>
<p>6.1.4 Through Block Connections</p> <ul style="list-style-type: none"> • Provide a clear sight line from one end of a block to the other for orientation, surveillance and accessibility. • Through block connections should be designed as clear and legible extensions of the public domain. • Provide lighting to achieve luminescence levels consistent with community safety and security and to the appropriate Australian Standards. • See Section 5, Figure 5.3.10. 	<p>There is no through block connections proposed.</p>
<p>6.1.5 Safety and Security</p> <ul style="list-style-type: none"> • Provide well lit and defined pathways and entries to buildings at night. • Provide a well lit and defined public domain. • Allow casual surveillance of the street by inhabitants of the buildings. • Promote lively public and semi-public areas through location and number of front entries or commercial uses on the ground floor. • Activate street frontages through maximising public uses at street level. • Encourage interaction between ground level building spaces and the street through fenestration at ground level. • Landscaping should contribute to a high level of safety and security. 	<p>There is existing street lighting along Murray Rose Avenue which will provide sufficient lighting along this public area. Down lights will be provided beneath the awning to complement the public domain.</p> <p>The glass facades along the Murray Rose Avenue and Australia Avenue frontages will allow for informal surveillance of public areas including Jacaranda Square and the entrance to Olympic Park Railway Station.</p> <p>The ground floor area promotes interaction to the public domain through the use of commercial retail uses, a café with outdoor seating and the main lobby entrance to the building.</p> <p>All ground level uses allow for interaction with the public.</p> <p>The proposal provides a high quality pedestrian environment by creating an active frontage along Murray Rose Avenue and Australia Avenue. The use of awnings and façade details provide a sense of scale and add interest to the public domain.</p> <p>No landscaping is proposed.</p>

6.2 Building Form and Character Guidelines	Comment
<p>6.2.1 Character</p> <ul style="list-style-type: none"> • New buildings are to apply the Ecologically Sustainable Development principles referred to in the <i>Environmental Guidelines for the Summer Olympic Games (September 1993)</i>. • New buildings are to be designed, constructed and operated consistent with the environmental protection measures established in the Authority's Environment Policy and Environment Strategy. 	<p>The proposal incorporated the principles of Ecological Sustainable Development as referred to in the <i>Environmental Guidelines for the Summer Olympic Games (September 1993)</i> and the directions of the Authority's Environment Policy and Environment Strategy as the proposal:</p> <ul style="list-style-type: none"> — Has no impact on any significant natural or cultural environments within Sydney Olympic Park. — Demonstrates a high level of energy efficiency through the design to 4.5 Star AGBR rating. — Utilises the existing WRAMS system and has a low level of daily water consumption. — Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs). — Will achieve the 4 Green Stars' Green Building Council Australia's Office Design rating.
<ul style="list-style-type: none"> • New buildings are to relate to the attributes of the Sydney Olympic Park setting, define local streets and reinforce the character of the public domain. 	<p>The proposed building is 6 levels high and will help to provide commercial uses to Town Centre Precinct, activate the Murray Rose Avenue streetscape and complement the proposed multistorey buildings within the Town Centre Precinct.</p>
<p>6.2.2 Building and Height</p> <ul style="list-style-type: none"> • Developments should not generally exceed the number of storeys indicated on Figure 3.4.1 excluding plant and architectural features. • Generous floor to ceiling heights in all building types is encouraged. The range for typical floor to ceiling heights in commercial buildings is 3.6m-4.0m at the ground level and 2.7m-3.0m at other levels. • The minimum typical floor to ceiling height in residential buildings is 2.7m. 	<p>The proposed building contains 6 storeys which complies with the identified 6 storey height limit for Site 8, shown in Figure 3.4.1 of the SOPA Masterplan.</p> <p>The height of the ground floor is 6m and all above floors have a floor to ceiling height of 2.7m.</p> <p>Not applicable to commercial buildings.</p>
<p>6.2.3 Articulation</p> <p><i>Guidelines</i></p> <ul style="list-style-type: none"> • Articulation of the building should be integrated with the building design and its massing. 	<p>The building facade uses a small palette of materials to establish a subtle language of material and colour in combination with quality detailing. The ground floor is dominated by glazing to provide interaction with the public domain. A feature curtain wall style elevation is used along Australia Avenue and wraps around to the front façade. The main façade uses a curtain wall system with randomised feature infill panels to contrast with the corner treatment which wraps as a mega-grid around the eastern end of the building.</p>
<p><i>Facade</i></p>	

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<ul style="list-style-type: none"> Composition of the façade should clearly define a base, middle and top with well balanced vertical and horizontal proportions. 	<p>The façade is designed to emphasise the key components of the building elements being the Jacaranda Square façade which uses curtain wall system with feature infill panels in a randomised manner. The corner treatment wraps as a mega-grid around the eastern end of the building. The top floor is setback and has a balcony to provide a defining roof line to the building. The ground floor is defined by the awning and the lobby entrance.</p>
<ul style="list-style-type: none"> Building entries should be clearly articulated. 	<p>The lobby entrance to the building has been setback from the main façade and the overhead awning is transparent to allow light into the main entry.</p>
<ul style="list-style-type: none"> Where the building line is along the street alignment, articulation of the building is encouraged above the colonnade or awning. 	<p>The above ground levels are articulated through the use of varied materials on the façade and a contrasting façade on the eastern side to define the frontage to Australia Avenue.</p>
<ul style="list-style-type: none"> Where the building line is setback from the street alignment, articulation may be built forward of the building line. 	<p>Some architectural features will protrude past the boundary along Murray Rose Avenue, Australia Avenue and to the north. The awning will protrude 2m; feature frame on façade level 1 to 5 (south/east/north) will protrude 400mm; Level 5 awning approximately 700mm (however the façade is setback). The sunshades on the northern and eastern facades protrude 700mm and 500mm respectively.</p>
<p><i>Roof Level</i></p> <ul style="list-style-type: none"> The roof level of buildings may be used as communal open space or to be articulated with differentiated roof forms that do not visually compete with the Vernon Buildings in the Town Centre precinct. 	<p>The roof level is used as an additional plant area, which is set back from public view. The Visual Analysis in Appendix B demonstrates that the plant area will only be visible to a person standing at least 40m back from the southern façade.</p>
<ul style="list-style-type: none"> The top level of buildings including plant should be integrated with the overall design of the building. Mechanical exhaust/plant located on roof tops should be within the building fabric or concealed behind a parapet. 	<p>The plant area on the roof is incorporated into the design of the building and is concealed behind meshed screen, walls and parapets.</p>
<ul style="list-style-type: none"> Use low glare roof materials. 	<p>The roofing materials are low glare.</p>
<ul style="list-style-type: none"> Roof tops are encouraged to be landscaped to provide increased thermal performance to spaces directly below. 	<p>The roof top will be used for plant operations and therefore it is not suitable for landscaping.</p>
<ul style="list-style-type: none"> Provide continuous awning, or colonnade to street frontage containing ground floor commercial, retail or entertainment uses as shown in Figures 5.3.8 and 5.3.9. 	<p>A continuous awning is provided at ground level to Murray Rose Avenue and Australia Avenue to contain the retail and café uses.</p>
<ul style="list-style-type: none"> Awning height should be a minimum of 3.6m from ground floor level. 	<p>The height of the ground level awning is approximately 4m.</p>
<ul style="list-style-type: none"> Awning width should be set back a minimum of 800mm from the face of the kerb, a greater setback is permitted to allow for street trees and lightpoles, cutouts for these street 	<p>The awning has been 3m setback from Murray Rose Ave and approximately 5m from Australia Ave from the face of the</p>

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elements are not permitted.	kerb and approximately 1.5 m from the existing street trees along Murray Rose Avenue.
<ul style="list-style-type: none"> The minimum width of awnings is 2.0m. Awnings are to provide protection from the sun and the rain. 	As recommended by the SOPA Design Panel, the width of the awning was reduced to 2m to provide a clearance to the existing trees along Murray Rose Avenue. The revised width complies with the requirements of the SOPA Masterplan 2002.
<ul style="list-style-type: none"> Provide lighting under the awning, or wall mounted lighting on the building to achieve luminescence levels consistent with the Australian Standards. 	Downlights will be provided under the awnings and will comply with the relevant Australian Standards.
<ul style="list-style-type: none"> Colonnades should be a minimum of 5.0m wide and two storeys in height. 	No colonnades area proposed.
<p>6.2.4 Building Material, Colours and Finishes</p> <ul style="list-style-type: none"> Materials selection to be consistent with the <i>Environmental Guidelines for the Summer Olympic Games (September 1993)</i> and the Authority's <i>Environment Policy and Environment Strategy</i>. Achieve developments that use finishes that are of high quality and have long life. The material selection of the existing buildings within Sydney Olympic Park display the use of materials current to the best practice of the time, new buildings should continue this built character in the material selection. Building materials selected should display a combination of the following Ecologically Sustainable Development qualities: a low embodied energy, durability, recycled or able to be recycled, non-polluting in manufacture, use and disposal, contribute to a healthy indoor air quality through minimized toxic fume emission and out-gassing from paints, carpets, glues and pest control practices. Use building materials and interior design that minimises the need for chemical pest control and maximises opportunities for integrated pest management. The principles and properties of thermal mass, glazing and insulation are to be incorporated into the design of new buildings to reduce the need to artificially heat or cool these buildings. Use appropriate combinations of bulk and reflective insulation in walls, ceilings and roofs to improve thermal performance. Use of timber should not result in the destruction of old growth forests, native or foreign rainforest. A chain of custody is required for any timber selected as building material that indicates this timber is from a sustainable source. Visible light reflectivity from building materials used on the façades of new buildings should not exceed 20%. All glass should be clear and untinted unless otherwise approved by the Authority. 	<p>Where possible, the construction materials reflect the principles set out in <i>Environmental Guidelines for the Summer Olympic Games (September 1993)</i> and the Authority's <i>Environment Policy and Environment Strategy</i>.</p> <p>The proposed building materials are high quality and durable and will respond to the contemporary style of the proposed development.</p> <p>These materials reflect the contemporary design evident across Sydney Olympic Park.</p> <p>Where possible, materials with minimal environmental impact will be used in the building, including non composite wood and low emission formaldehyde products and materials with low Volatile Organic Compound (VOCs).</p> <p>The proposed materials and interior design utilise materials that will not attract pests.</p> <p>Glazing is used on all windows to manage solar penetration and acoustic impacts. In accordance with Green Star rating, the specification of thermal insulation will avoid the use of ozone depleting substances in both manufacture and composition.</p> <p>The specific thermal insulation materials will be finalised through the detailed design phase.</p> <p>The specific timber materials will be finalised through the detailed design phase.</p> <p>The specific façade building materials will be finalised through the detailed design phase.</p> <p>The specific glazing will be finalised through the detailed design phase.</p>

<p>6.2.5 Building Depth</p> <ul style="list-style-type: none"> • Achieve cross ventilation and daylighting through atria, light wells and courtyards. • Provide operable window openings in walls facing different and opposite directions where possible. • Avoid or minimise use of air conditioning or mechanical ventilation. • To achieve good daylight and optimal energy performance the depth of residential building should be preferably a maximum of 18m including balconies. • For residential towers (ie above 6 storeys), the maximum depth may exceed 18m providing that at least 60% of the apartments have dual aspect. • The maximum footprint for residential towers should not exceed 900m². • The maximum depth of a habitable room from a window providing light and air should be 10m. • To achieve good daylight and optimal energy performance the depth of commercial buildings should, where functional and design requirements permit, be a maximum of 20m. 	<p>The dimensions of the site have created a narrow building form and a high level of solar access. Each level has expansive window areas to allow views and daylight penetration deep into the narrow plan.</p> <p>A variable air volume (VAV) air conditioning system is to be adopted which is designed to decrease air supply or “turn down” when the space does not require the maximum volumetric flow rate and also accords with the Green Star-Office Design (V2) requirements.</p> <p>As noted above a variable air volume (VAV) air conditioning system has been selected to provide the most efficient form of ventilation.</p> <p>Not applicable to commercial developments.</p> <p>Not applicable to commercial developments.</p> <p>Not applicable to commercial developments.</p> <p>Not applicable to commercial developments.</p> <p>The depth of the proposed commercial building is 20m which will provide excellent solar access across the entire building.</p>
<p>6.2.6 Passive Solar Design</p> <ul style="list-style-type: none"> • While optimum solar access is desirable, building orientation to the street pattern should be respected. • New buildings are to maintain solar access to residential buildings and open spaces. • Use devices such as overhangs, projecting blade walls, vertical screens, heat absorptive and reflective glass curtains and external blinds to control solar access in summer. • Locate glazed areas to optimise sun access in winter and daylight access in general. 	<p>The building is oriented south towards Murray Rose Avenue however, given the height and narrow width of the building, solar access is also achieved on the northern and eastern façades.</p> <p>As demonstrated in the Shadow Diagrams in the Architectural Plans, the proposed commercial building maintains a high level of solar access to Jacaranda Square, with shadows only cast at the winter solstice (June 21).</p> <p>The northern façade has been designed to minimise direct solar penetration. Tinted glazing panels are dispersed by rendered panels to reduce direct solar access. All glazing panels are also provided with sunshades that project at 90 degrees from the façade.</p> <p>The eastern façade is a curtain wall of tinted glazing. Sunshades provide horizontal articulation and reduce direct solar access into the building. The northern façade has been design to minimise direct solar penetration. Tinted glazing panels are dispersed by rendered panels to reduce direct solar access. All glazing panels are also provided with sunshades that project at 90 degrees from the façade. The western façade will front Site 8b and therefore no glazing is proposed on this façade.</p>

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<ul style="list-style-type: none"> The most used rooms and private open space should be located to maximise solar access and energy gain in winter months between the equinoxes. 	Not applicable.
<p>6.2.7 Ventilation</p> <ul style="list-style-type: none"> Natural cross ventilation should be maximised in all new developments as far as possible. 	<p>The building relies upon the variable air volume (VAV) air conditioning system which manages air flow to meet the demand of the respective space's maximum cooling load during the year. It also accords with the Green Star criteria and will provide the building with a high degree of thermal comfort.</p> <p>As such, operable windows are not incorporated into the design. Operable windows are considered to be counter productive to acoustic issues emulating from the carpark across Australia Avenue which is used as an entertainment venue during the two week Royal Easter Show. The SOPA requirements also specify an internal noise criterion as an average of all the readings taken from different places within the Building of 40 dB(A) inside the Building. This would be compromised with the use of operable windows.</p>
<ul style="list-style-type: none"> This can be achieved by having operable openings on walls facing two different, preferably opposite directions. 	Not applicable to the proposed building.
<ul style="list-style-type: none"> The total opening size should be greater than 5% of the floor area of the room to be ventilated. 	Not applicable to the proposed building..
<ul style="list-style-type: none"> Apartments that are not cross ventilated should have higher floor to ceilings and demonstrate how they are designed to assist ventilation. 	Not applicable commercial buildings.
<ul style="list-style-type: none"> Mechanical ventilation may be incorporated as a supplementary measure in high noise or pollution situations, or where site constraints prohibit apartment layouts that facilitate natural ventilation. 	As discussed above the variable air volume (VAV) mechanical ventilation system has been utilised as the site has acoustic issues emulating from the north.
<ul style="list-style-type: none"> If chemical refrigerants are required for permanent or temporary cooling and/or refrigeration systems, priority should be given to non-ozone depleting, non-greenhouse gas warming refrigerants. <i>Refer to the Environmental Guidelines for the Summer Olympic Games (September 1993).</i> 	The proposed mechanical refrigerant specification will operate at a high efficiency and all refrigerants will have an Ozone Depletion Potential of zero.
<p>6.2.8 Flexible Design</p> <ul style="list-style-type: none"> Design service areas and service risers to be accessible and capable of additional capacity in the future. 	Three lift shafts are proposed to service the five office levels and basement levels which complies with the A-Grade office building standard (Property Council of Australia) for a building of this size.
<ul style="list-style-type: none"> Concentrate service cores to allow for the maximum flexibility of floor layouts. 	The three lift shafts are located together towards the eastern end of the building to maximise the flexibility of floor layouts.
<p>6.2.9 Information and Communication Technologies</p> <ul style="list-style-type: none"> Development should have the capacity to be hardwired to allow future inclusion of affordable services. 	The development has capacity to be fully wired for future telecommunications and internet connection.

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<ul style="list-style-type: none"> • Consideration should be given to incorporating common trenching and duct sharing (in the public and private domain). 	Common trenching and duct sharing will be available in the proposed commercial building.
<ul style="list-style-type: none"> • All services and strategies should comply with best practice guidelines. 	All telecommunications and internet connection services will be in accordance with the relevant SOPA strategies.
<p>6.2.10 Access</p> <p><i>Guidelines</i></p> <ul style="list-style-type: none"> • All new development is required to comply with the Authority's <i>Access Guidelines (2002)</i>. • All new developments are required to prepare an 'Access Strategy' to the satisfaction of the Authority and the consent authority which shall satisfy AS 4299 as a minimum. • Ensure that barrier free access is provided to common areas of all buildings, and not less than 20% of apartments in each development. <p><i>Commercial</i></p> <ul style="list-style-type: none"> • At least one main entry shall be provided with barrier free access. 	<p>The Access Review by Morris-Goding Accessibility Consulting demonstrates that the proposed development complies with the SOPA Access Guidelines 2002. As discussed in Section 2.2.3 of this report, the number of accessible car spaces provided in the building will be subject to the outcomes of the SOPA Access Advisory Meeting.</p> <p>The Access Review by Morris-Goding Accessibility Consulting (refer Section 5.5) demonstrates the proposal complies with the relevant AS 1428 'Design for Access and Mobility'. AS 4299 relates to 'Adaptable Housing' and therefore is not relevant to the proposed commercial development.</p> <p>Not applicable to commercial development.</p> <p>The main lobby entrance has a max 1 in 40 gradient fall from the footpath to the automatic sliding doors. The entrance doors have circulation areas and width in accordance with AS1428.2. There is a level and accessible path of entrance to the lifts on the ground floor.</p>

6.3 Environmental Guidelines	Comment
<p>6.3.1 Waste Management and Minimisation</p> <p><i>Guidelines</i></p> <ul style="list-style-type: none"> • A Waste Management Strategy is required to be submitted with all development applications to the satisfaction of the Sydney Olympic Park Authority and the consent authority. The strategy should address the potential for composting and recycling facilities within the development. • Refer to the Environmental Guidelines for the Summer Olympic Games (September 1993), The Homebush Bay Environment Strategy (1995) and the principles of ESD as defined in the Local Government Act 1993. • Designate areas on site for the storage and recycling of waste. These areas are to be located so as not to cause offence to public areas, adjoining properties or occupants with regard to smell, visual appearance or noise disturbance. • Bin holding rooms and garbage rooms should be wholly within building basements and should be able to be entered and exited by garbage trucks in a forward direction. 	<p>A Waste Management Plan has been prepared by JD MacDonald and is included in the Consultant Reports. This report outlines strategies for managing general waste and recycling.</p> <p>The Waste Management Plan accords with the principles of waste minimisation and recycling and therefore meets the relevant environmental guidelines.</p> <p>The ground floor contains designated dry and wet garbage areas which are accessible both internally and from the rear service lane. These rooms are located at the rear of the property and away from any surrounding buildings.</p> <p>The bin holding rooms and garbage rooms are wholly within the building and accessible by the garbage trucks.</p>
<p><i>Construction and Maintenance</i></p> <ul style="list-style-type: none"> • Minimise waste during the design of a building by coordinating building dimensions to the standard size of building materials, utilising component parts that can be easily replaced. • Building materials should be ordered with minimal or no external packaging. • Prioritise the procurement of sustainable building materials (based on life cycle assessments). • Provide source separation facilities on building sites so that different types of waste can be separated during the construction and the demolition to reuse and recycle materials. • Where demolition is proposed, maximise materials to be recycled and dispose of materials in an environmentally sustainable manner. 	<p>A detailed Construction Management Plan will be prepared and submitted before issue of Construction Certificate.</p> <p>Where possible external packaging for materials will be minimised.</p> <p>At construction stage the applicant will consider sustainable building materials</p> <p>A detailed Construction Management Plan will be prepared and submitted before issue of Construction Certificate.</p> <p>No demolition is proposed.</p>
<p>6.3.2 Biological Diversity and Significant Natural and Cultural Environments</p> <ul style="list-style-type: none"> • Ensure all development is designed, constructed and operated in a manner which protects biodiversity and conserves areas of heritage conservation and significant natural 	<p>The proposed development complies with the relevant environmental and cultural legislation being the Environment and Planning Assessment Act (1979) as well as the SOPA Masterplan, therefore it will have no impact on the surrounding</p>

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<p>and cultural environments.</p> <ul style="list-style-type: none"> • Refer to the <i>Environmental Guidelines for the Summer Olympic Games (September 1993)</i>. • Where relevant ensure compliance with all State and Commonwealth legislation (environmental and cultural) and compliance with all relevant international biodiversity agreements. • Where relevant, ensure compliance with the Plan of Management for Millennium Parklands. • Where relevant, ensure compliance with the Authority's <i>Frog Management Plan (2001)</i>. • Encourage the use of integrated pest management practices and biorational use of natural organisms and predator control. • Minimise the use of pesticides and if required, select the least toxic to minimise environmental impact. • New development to consider the impact of lightspill in parkland areas. 	<p>natural and cultural systems.</p> <p>As previously discussed the proposal accords with the principles of ESD as outlined in the <i>Environmental Guidelines for the Summer Olympic Games (September 1993)</i>.</p> <p>Not applicable.</p> <p>Not applicable.</p> <p>Not applicable.</p> <p>Not applicable.</p>
<p>6.3.3 Water Conservation</p> <ul style="list-style-type: none"> • A Site Stormwater Management Plan is required to be submitted with development applications to the satisfaction of the Sydney Olympic Park Authority and the consent authority. • Refer to the Environmental Guidelines for the Summer Olympic Games (September 1993), The Homebush Bay Environment Strategy (1995) the principles of ESD as defined in the Local Government Act 1993. • Maximise opportunities for ground water recharge and water conservation for reuse by providing on-site detention. • Water efficient shower heads, flow regulators, to basins sinks and dual toilets should be installed. • Landscape design that decreases water requirements with emphasis selection of plants appropriate to climate and region. • All new development is required to be connected to the Water Reclamation and Management Scheme (WRAMS) at Sydney Olympic Park. 	<p>A Stormwater Management Report has been prepared by Robert Bird Group and is included in the Consultant Reports.</p> <p>Connection into the Sydney Olympic Park's WRAMS System ensures the proposed development meets the objectives of the SOPA Environmental Guidelines.</p> <p>No on site detention is required for this site as the WRAMS System provides for the attenuation of peak stormwater runoff for the entire Sydney Olympic Park. The proposed development will not increase the impervious area and hence peak runoff will not increase above existing flows.</p> <p>The proposed water fixtures and fittings achieve the Green Star Requirement and include 4L Dual Flush toilets; 0.8L/Flush urinals; 5.5L/min taps and 7.5L/min showers.</p> <p>There is no landscaping included with this proposal.</p> <p>Runoff from the site will be connected via diversion line to existing stormwater drainage lines which drain to SOPA's existing WRAMS System.</p>

<p>6.3.4 Energy Conservation</p> <ul style="list-style-type: none"> • Refer to the Environmental Guidelines for the Summer Olympic Games (September 1993), The Homebush Bay Environment Strategy (1995) and the principles of ESD as defined in the Local Government Act 1993. • Incorporate passive solar design principles in building design to minimize reliance on additional heating and cooling (refer Figure 6.4.1). • Minimise greenhouse gas emissions through the use of renewable energy sources. • Energy efficient building services should be installed, including but not limited to low energy heating and cooling systems and low energy lighting. • Gas or solar hot water heating should be provided. • Commercial and Residential buildings are to have a minimum 4.5 star rating. • Household appliances should have a minimum 3 star rating. 	<p>The proposed commercial development responds to each of the environmental issues raised in the Environmental Guidelines as demonstrated through the compliancy of this development with the specific criteria.</p> <p>The proposed commercial development is designed to maximise solar access. The eastern façade is a curtain wall of tinted glazing. Sunshades provide horizontal articulation and reduce direct solar access into the building.</p> <p>The northern façade has been designed to minimise direct solar penetration. Tinted glazing panels are dispersed by rendered panels to reduce direct solar access. All glazing panels are also provided with sunshades that project at 90 degrees from the façade.</p> <p>The western façade will front Site 8b and therefore no glazing is proposed on this façade.</p> <p>There are currently no renewable energy sources available to the site.</p> <p>The design incorporates high efficiency chillers, low turndown Variable Air Volume (VAV) air-conditioning system, high efficiency motors to fans, a lighting control system and electronic ballasts to the low energy consuming light fittings.</p> <p>The building will utilise natural gas to heat water which is available from the existing mains which run along Australia Avenue and Murray Rose Avenue.</p> <p>The building will be designed to achieve a 4.5 Star ABGR Rating and 4 Green Star rating.</p> <p>Not applicable to commercial developments.</p>
<p>6.3.5 Wind Standards</p> <ul style="list-style-type: none"> • A wind impact statement is to be submitted with all development applications for buildings over 25m in height and shall address any amelioration measures required to protect the amenity of the public domain. • Building design should minimise adverse wind effects on recreation facilities and on open terraces/balconies. 	<p>A Wind Environment Assessment has been prepared by WindTech and is included in Consultant Reports. The report demonstrates that the proposed commercial building will have no adverse effect on the existing local wind climate and that the proposed awnings on the Murray Rose Avenue and Australia Avenue frontages are important in ameliorating the effect of the north-easterly and south-easterly winds.</p> <p>There are no recreation facilities within proximity of Site 8a and the use of impermeable balustrades on the Level 5 terrace areas will reduce wind impacts and provide an acceptable outdoor environment.</p>

Appendix H
Correspondence to and from SOPA