# 3.4 Landscaping

Turf Design Studio has prepared Landscape Plans (refer to **Appendix F**) for The Ledge and the Paddock Park as illustrated in **Figure 14**.

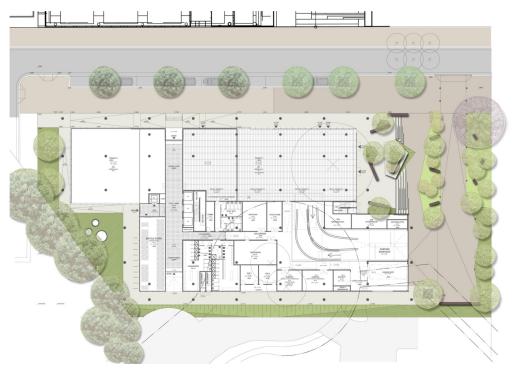


Figure 13 - Proposed landscape design

## 3.4.1 Landscape Principles

The proposed design of the overall scheme includes the planting of approximately 26 new trees, new brush box planting and a feature tree. The scheme is based upon the following principles:

- Draw on design elements from the surrounding Brickpit Park, The Cutting and The Chase;
- Respond to the character and amenity of the Brickpit through pavement types, material and tones reflecting the Brickpit's strata;
- Retain existing brush box street planting where possible along Murray Rose Avenue; and
- Provide plant species consisting of hardy low water use indigenous species consistent with the site's natural vegetation community.

## 3.4.2 The Ledge

The Ledge aims to complement the surrounding landscape elements of The Chase, The Cutting, Brickpit Park and seeks to reflect the Brickpit's many shelves and ledges through its design. The Ledge incorporates a raised platform straddling the stair case and seating areas providing shade trees. Native grasses, sedges and rushes will be provided throughout the ledge area along with small shade trees in island planting. A single feature tree positioned on the corner of Murray Rose Avenue will serve to improve the perception of the development to the public domain and improve amenity for the subject site and surrounds.

## 3.4.3 Paddock Park

The proposed Paddock Park will provide a planted ground plane on which the new building will be located. New planting will be provided between the property boundary and the new building skirt connection paths. The planting will consist of under-storey planting a maximum of 1 metre in height immediately adjacent to the building and eucalypt planting toward the corner of Murray Rose Avenue to soften the bulk and scale of the building while maintaining view lines and safety.

The Paddock Park will be completed when the surrounding road network is fully realised (subject to a separate application), providing a strong corner presence with reference to the old stock holding yards that once covered the site. A future shade tree will be provided on the corner of the site to act as an umbrella for the park. A new pathway will be provided to improve accessibility to the park. Future seating will also be provided to improve the amenity of this area.

## 3.5 Parking and Access

The proposed development includes three levels of parking below grade. A total of 284 car spaces, 120 bicycle spaces (100 for employees and 20 for visitors) and 16 motorcycle spaces are proposed. A total of 9 accessible parking spaces are dispersed throughout the levels and a total of 30 spaces for small cars are proposed. A shuttle lift and fire stairs are provided for access from basement levels to the ground floor. The ground level incorporates showers and changing facilities for cyclists.

The car park is to be accessed from the private road shared pedestrian / vehicle zone off Murray Rose Avenue. The entrance to the car park will be controlled by boom gates operated by a card reader. Circulation through the car park is via centrally located ramps.

A loading dock is provided at Ground Level, accessed via the shared vehicle / pedestrian driveway which leads from Murray Rose Avenue. The loading dock is capable of accommodating medium rigid trucks, and vehicles are able to enter and leave the site to Murray Rose Avenue in a forward direction.

# 3.6 Ecologically Sustainable Development

The development at 4 Murray Rose Avenue has been designed to achieve a minimum performance of 5 Stars under the Green Building Council of Australia Green Star Office Design (v3) rating system. In addition, the design seeks also to achieve a 5 Star NABERS rating for both water and energy performance. The ESD Statement and Green Star Matrix at **Appendix G** show how the 5 Star ratings can be achieved.

In summary, the following elements have been and continue to be considered to facilitate achievement of ESD.

#### Management Strategies

- Engagement of a Green Star accredited professional to advise on design and construction.
- Comprehensive commissioning and quarterly building tuning.
- Implementation of a simple building user's guide.
- Engagement of an Independent Commissioning Agent (ICA) to oversee the design and commissioning process.

### Indoor Environment Quality

- Orientation of the building to maximise passive solar access and views.
- Inclusion of design features to reduce discomfort from glare.
- Monitoring of carbon dioxide.
- Use of low VOC paints, adhesives, sealants and flooring to minimise the amount of contaminants within the workplace.
- Provision of a dedicated tenant exhaust riser.

## Energy

- Installation of an energy efficient variable air volume air conditioning system and high efficiency mechanical equipment.
- Installation of variable speed drives on pumps and fans.
- Construction of a high performance facade to balance the heat loads into the building, whilst meeting IEQ requirements.
- Installation of energy efficient T5 lights.
- Installation of office lighting zoning which is sized less than 100m<sup>2</sup> per zone.

#### Transport

- Inclusion of cyclist facilities.
- Consideration of the close proximity of the site to major public transport hubs.

#### Water

- Use of SOPA's Water Reclamation and Management Scheme (WRAMS) recycled water network in conjunction with water efficient fittings and fixtures to minimise the use of potable water onsite.
- Use of an efficient landscape irrigation system connected to the WRAMS network.

#### Materials

- Provision of a waste recycling storage area.
- Selection of environmentally sustainable construction materials.

### Land Use and Ecology

Commitment to ensure that there is no degradation to existing site conditions.

#### **Emissions**

- Use of zero ODP refrigerants and refrigerant leak detection.
- Provision of thermal insulation which is ODP free.

# 3.7 Site Preparation

## 3.7.1 Demolition

The existing car park, temporary road and existing roundabout on the site are to be demolished to allow for the construction of the development.

A plan illustrating the extent of the proposed demolition has been prepared by Turner and Associates Architects and is included at **Appendix D**.

## 3.7.2 Excavation and Bulk Earthworks

Once the existing hard stand areas have been demolished, bulk earthworks will commence in accordance with the recommendations of the Geotechnical Investigation Report (**Appendix H**) to provide appropriate benching and levels.

## 3.8 Tree Removal

The proposed development necessitates the removal of ten trees and the hedge located along the western and north western boundaries adjacent to the roundabout in Parkview Parade as identified in **Figure 15 and 16** and Demolition Plan at **Appendix D**. (Two annotated aerial figures are provided as the arborist as additional review was required, with the results presented in a supplementary report.

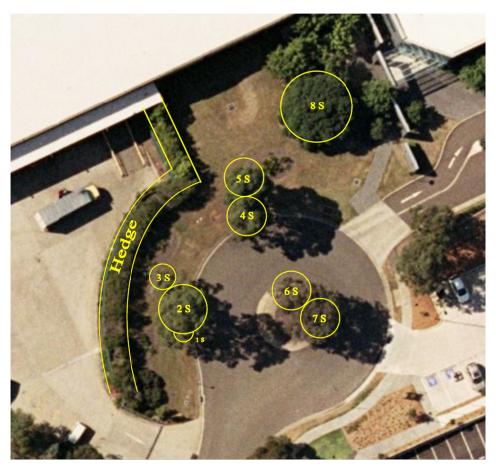


Figure 14 - Trees to be removed, part 1

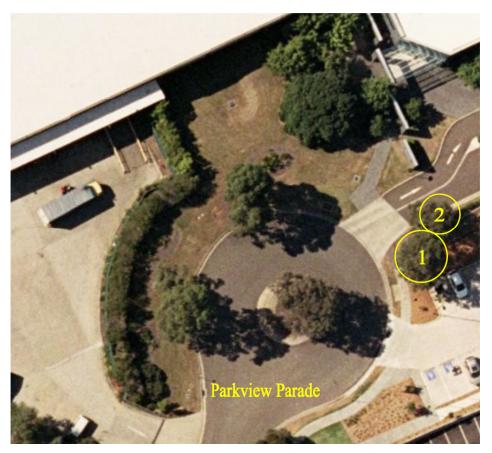


Figure 15 - Trees to be removed, part 2

# 3.9 Stormwater Drainage

The proposed stormwater drainage system for the development has been designed by J&M Group and is illustrated on the plans at **Appendix J**.

The roof slab will have a slight fall to ensure stormwater will be guided to rainwater outlets and down pipes which gravity drain to a siphonic drainage system at Ground level which then drains to the SOPA drainage infrastructure on Dawn Fraser Avenue.

Stormwater from the basement levels will drain to basement level 3, where it will be pumped via a sub-soil pump to stormwater pits.

## 3.10 Utilities and Services

The proposed development will be connected to the available services to the site, in accordance with the requirements of the relevant service providers.

# 3.11 Staging

The building will be constructed in one stage. The delivery of infrastructure will be sequenced in accordance with the Infrastructure Plan included at **Appendix D**.

## 3.12 Subdivision

This application does not propose any subdivision, and approval for any future subdivision will be sought as part of a future separate application.

## 4.0 Consultation

In accordance with the Environmental Assessment Requirements for this project, issued by the Director-General an appropriate and justified level of consultation must be undertaken in accordance with the Department of Planning & Infrastructure's 'Major Project Community Consultation Guidelines October 2007'.

GPT RE Limited undertook extensive consultation in regard to the 1-5 Murray Rose Avenue site prior to the submission of the 5 Murray Rose Avenue Project Application. This is fully documented in the Environmental Assessment Report submitted under MP 07 0157 for 5 Murray Rose Avenue.

This chapter details the specific consultation undertaken by GPT RE Limited as part of the preparation of this application for 4 Murray Rose Avenue.

# 4.1 SOPA Design Review Panel

A formal Design Review Panel (DRP) presentation was held on 26 September 2013. The DRP was generally supportive of the site resolution and noted the recent positive public domain contributions made by the 3 and 5 Murray Rose Avenue development, the extension of Murray Rose Avenue and Brickpit Park. Overall the elements of the scheme that the DRP indicated were matters for further consideration are set out below along with a description of how they have been addressed.

Table 3 - Response to the issues raised by DRP

Issue	Response
The ground level treatment could be unappealing as it appears the façade and columns are dark in colour. Further detail of materials and finishes are required to understand the coloration and treatment of the ground floor.	This façade treatment features vertical aluminium elements to add scale and represent the trunk of a metaphorical tree. The frequency of these varies, and the material and colour managed to ensure the ground interface is light and inviting.
Double height colonnade could present solar access issues, particularly for outdoor dining associated with ground floor tenancies. Solar analysis is to be carried out for the double height colonnade to ensure that the colonnade will be a usable space for its intended final function, as well as pedestrians.	Solar and shadow analysis studies submitted as part of the SSD application, demonstrate that the extent of building projection to the upper levels over the colonnade provides adequate shading during the summer months.
Breakout space should be included within the building, outside decks/balconies or winter gardens can easily be added with no impact to FSR. The design should be further refined to include outside decks/balconies or winter gardens.	The design team reviewed and tested balcony options to improve occupant amenity and access to the outdoors. It was considered that balconies would add imited value to a building with five star Green Star amenity, sited directly adjacent to extensive parklands.
Further development is to be given to maximizing environmental initiatives, consider utilizing the roof for a solar farm or roof garden.	The five star Green Star rating target includes the provision of possible future solar panels. It is proposed to use a similar planning approach to the other two projects, and provision has been made for the possible future installation of solar panels on the roof.
The vehicular access to the basement parking is by a private road, but is to be designed to read as a pedestriar zone. The private road is to be a pedestrian zone. Finishes, levels and the design are to be further refined to ensure this area is pedestrian friendly.	be used to seamlessly blend into the surrounding

# 4.2 Auburn City Council

In conjunction with the public exhibition of this SSD DA, consultation will be undertaken with Auburn City Council in regard to potential impacts of any infrastructure assets owned by Council.

# 5.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposal. It addresses the matters for consideration set out in the Director-General's Environmental Assessment Requirements (DGRs) located at **Appendix A**. The draft Statement of Commitments at **Section 6** complements the findings of this section.

# 5.1 Director General's Environmental Assessment Requirements

**Table 4** provides the location in this report and/or the appended technical studies where the matters listed in the DGRs are addressed.

Table 4 - Director General's Environmental Assessment Requirements

Director General's requirements	Location in Report/Appendix
Key Issues	
Relevant EPI's policies and guidelines to be addressed	Section 5.2
Built Form and Urban Design	
<ul> <li>Height, depth, bulk and scale</li> </ul>	Sections 3.2 and 5.3
- Design quality	Sections 3 and 5
- Servicing	Sections 3 and 5
<ul> <li>Response to SOPA's Design Review Panel</li> </ul>	Section 3.2.1
Environmental Amenity	
<ul> <li>Solar Access and Overshadowing</li> </ul>	Section 5.4.3
<ul> <li>Acoustic impacts</li> </ul>	Section 5.4.5
<ul> <li>Visual privacy</li> </ul>	Section 5.4.6
<ul> <li>View loss and wind impacts</li> </ul>	Sections 5.4.2 and 5.4.4
Ecologically Sustainable Development	
<ul> <li>ESD Principles incorporated into design</li> </ul>	Sections 3.6 and 5.13
<ul> <li>Measures implemented</li> </ul>	Sections 3.6 and 5.13
<ul> <li>Water Sensitive Urban Design Strategy</li> </ul>	Section 3.9
Major Events	Section 5.7
Noise and Vibration	Section 5.4.5
Transport and Accessibility	Sections 3.5 and 5.5
Aboriginal Heritage	Section 5.17
Sediment, Erosion and Dust Control	Section 5.15
Utilities	Section 2.5 and 3.11
Contributions	Section 5.18
Flora and Fauna	Section 5.9
Drainage	Section 3.10 and Appendix I
Servicing and Waste	Sections 5.15 and 5.16
Consultation	Section 4

Director General's requirements	Location in Report/Appendix	
General Requirements		
Executive Summary	Pages ii - iv	
Site Analysis	Section 2	
Description of the proposed development	Section 3	
Assessment of the key issues	Section 5	
Table of how the key issues have been addressed	Section 5.1	
Assessment of the potential impacts of the project	Section 5	
Draft Statement of Commitments	Section 6	
Plans and Documents	Appendices A- Q	
Statement of Validity	Page i	
QS Certificate of Cost	Appendix B	
Conclusion and justification of the project	Section 7	
Plans and Documents		
Site Survey Plan	Appendix C	
Site Analysis Plan	Appendix D	
Locality/Context Plan	Section 2 and Appendix D	
Architectural Drawings	Appendix D	
Staging Plan	Appendix D	
Stormwater Concept Plan	Appendix I	
Erosion and Sediment Control Plan	Appendix I	
Geotechnical & Structural Report	Appendix H	
Cross Sectional Drawings	Appendix D	
View Analysis	Appendix D	
Landscape Plan	Appendix F	
Public Domain Plan	Appendix F	
Materials Samples Board	Appendix D	
Shadow Diagrams	Appendix D	

# 5.2 Consistency with Relevant Legislation, Strategic and Statutory Plans

## 5.2.1 Environmental Planning & Assessment Act 1979

The DGRs require that the consistency of the project with the objects of the EP&A Act be considered. Clause 5 of the Act sets out that the Objects of the Act are:

- (a) to encourage:
  - (i) the proper management, development and conservation of natural and artificial resources including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
  - (ii) the promotion and co-ordination of the orderly and economic use and development of land,
  - (iii) the protection, provision and co-ordination of communication and utility services,
  - (iv) the provision of land for public purposes,
  - (v) the provision and co-ordination of community services and facilities, and
  - (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
  - (vii) ecologically sustainable development, and
  - (viii) the provision and maintenance of affordable housing, and
- (b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and
- (c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

The Objects of the Act relevant to the proposed are (a)(i),(ii), (vi) and (vii). The SSD Application is consistent with the Objects of the EP&A Act, for the following reasons:

- It provides a new commercial development within the Parkview Precinct at Sydney Olympic Park, which is consistent with the Major Project SEPP and MP 2030. It therefore contributes to the proper development of Sydney Olympic Park.
- It provides for the orderly and co-ordinated use of the land by replacing existing car parking with a high quality commercial development which is in keeping with surrounding developments and will provide a better quality environment.
- It provides an ecologically sustainable development with a minimum 5 Star Green Star Office Design rating and a 5 Star NABERS rating for both water and energy performance.
- There will be few or no environmental impacts arising from the construction and operation of the development, and none that cannot be managed.

## 5.2.2 NSW 2021

NSW 2021 is a 10 year plan to rebuild the economy, return quality services, renovate infrastructure, restore accountability to government, and strengthen local environment and communities. It replaces the State Plan as the NSW Government's strategic business plan.

The proposed development will contribute to achieving the priority goal of the plan (generating economic growth) by providing a new commercial building within the revitalised Parkview Precinct of Sydney Olympic Park.

# 5.2.3 State Environmental Planning Policy (Major Development) 2005

Sydney Olympic Park is listed as a State Significant Site in Schedule 3 of the Major Development SEPP. Part 23 refers to Sydney Olympic Park and sets out the planning provisions which apply to development within the site. The relevant planning provisions are addressed below.

The site is zoned B4 Mixed Use. The objectives of B4 Mixed Use zone and the proposed development's consistency with the objectives are addressed in **Table 5**. The proposed development is also consistent with the development control provisions as detailed in **Table 6**.

Table 5 - Consistency with the objectives of the B4 Mixed Use zone

Ob	jective	Response
a)	to protect and promote the major events capability of the Sydney Olympic Park site and to ensure that it becomes a premium destination for major events	The proposed development has been designed to ensure it does not significantly impact upon the capability of Sydney Olympic Park to host major events. Refer to <b>Section 5.7</b> .
b)	to integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling	The proposed commercial development is accessible to public transport and attractive to cyclists and pedestrians. Refer to <b>Section 5.5</b> .
c)	to ensure that the Sydney Olympic Park site becomes an active and vibrant town centre within metropolitan Sydney	The proposed development will encourage the growth of Sydney Olympic Park's town centre by providing a quality commercial development set within an attractive environment.
d)	to provide for a mixture of compatible land uses	The proposed development of 4 Murray Rose Avenue is located within a broader development precinct which incorporates a mix of land uses, including residential and commercial development.
e)	to encourage diverse employment opportunities	The internal layout of the proposed building has been designed to ensure it is suitable for a variety of commercial businesses.
f)	to promote ecologically sustainable development and minimise any adverse effect of land uses on the environment	ESD principles have guided the detailed design of the proposed development, ensuring that it will minimise its impacts on the environment. Refer to <b>Sections 3.6</b> and <b>5.13</b> .
g)	to encourage the provision and maintenance of affordable housing	This objective is not applicable to the proposed development.

 $\textbf{Table 6} \ - \ \textbf{The proposed development's consistency with the provisions of Part 23 of Schedule 3} \\ \textbf{of the Major Development SEPP}$ 

Clause	Control	Proposal
18. Height of Buildings	33m	27.8m
19. Floor Space Ratio	2.5:1	1.1:1 (Cumulative FSR of 3, 5 and 4 Murray Rose Avenue)
20A Demolition requires consent	The demolition of a building work may be carried out only with consent.	Approval for the demolition of an existing car park and road is sought as part of this DA.
23. Public utility infrastructure	The development must have public utility infrastructure available or adequate arrangements in place to make that infrastructure available when required.	SOPA will provide all relevant service utility infrastructure connections.
24. Major event capability	Protect and promote the major events capability for the Sydney Olympic park site and ensure it remains a premium destination for major events.	- Traffic generated by the development will not cause the local road network and connections to the regional road network to become saturated.  - The development will not prevent the effective management of crowd movement and transport services.  - The development will not compromise the effective functioning of major event infrastructure.  - The development will not conflict with the emergency management plans of government agencies or the emergency evacuation plans of major events venues.  - Refer to Section 5.5.
25. Transport	The development must include measures to promote public transport use, cycling and walking.	The measures incorporated into the development to encourage the use of public transport, cycling and walking are detailed in <b>Section 5.5</b> .
26. Master plan	The development must consider MP 2030.	Consistency of the proposed development with MP 2030 is addressed in <b>Section 5.2</b> .
30. Design excellence	Development consent must not be granted for the erection of a new building unless the consent authority has considered whether the proposed development exhibits design excellence.	To demonstrate design excellence, the proposed development was the subject of a design competition as detailed in <b>Section 3.2</b> .

# 5.2.4 State Environmental Planning Policy (Infrastructure) 2007

Under clause 104 and Schedule 3 of State Environmental Planning Policy (Infrastructure) 2007 (ISEPP), development for the following must be referred to NSW Roads and Maritime Services (RMS):

- commercial premises 10,000m² or more in area; or
- parking for 200 or more motor vehicles.

Given the proposed development provides a commercial building comprising 15,713m<sup>2</sup> GFA and 284 car spaces, this application is required to be referred to the RMS for comment.

# 5.2.5 State Environmental Planning Policy No.55 - Remediation of Land

State Environmental Planning Policy No.55 - Remediation of Land provides controls and guidelines for the remediation of contaminated land. In particular the policy aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. As discussed in **Section 5.12** and **Appendix J**, the site can be made suitable for the development.

## 5.2.6 Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

The site is not located in the Foreshore & Waterways area and is not 'zoned' under the SREP, where the majority of the plans aims and provisions apply. However, the proposal is consistent with these aims in that the development will:

- create a high quality and ecologically sustainable urban development on the site;
- ensure a healthy, sustainable environment by effectively managing all environmental impacts associated with the development (erosion, sediment control, stormwater, etc.);
- contribute to the vibrancy of the precinct through high quality commercial space with an active public domain at ground level.
- will not impede public access to foreshore; and
- maintain a high quality urban environment through urban design, and will not detract from long distance views and vistas that may be available from the surrounding public domain to and from the harbour (with the proposal not being directly visible from the harbour).

## 5.2.7 Draft Metropolitan Strategy for Sydney

The draft Metropolitan Strategy will set the framework for Sydney's growth and prosperity to 2031 and beyond. To drive the sustainable growth of Sydney to 2031 and beyond, the draft Metropolitan Strategy is built around achieving five key outcomes for Sydney:

- balanced growth;
- a liveable city;
- productivity and prosperity;
- healthy and resilient environment; and
- accessibility and connectivity.

The proposed development is consistent with the desired outcomes of the draft Metropolitan Strategy.

## 5.2.8 Sydney Metropolitan Plan for Sydney 2036

The Metropolitan Plan is a broad strategic framework to establish Sydney as a global economic city by promoting and managing growth. Its focus is to concentrate growth into centres to ensure all residents have access to jobs, services and entertainment across the metropolitan area.

Within the Metropolitan Plan, Sydney Olympic Park is identified as a specialised centre. Specialised centres are considered to typically have a stronger employment or economic function than other centres, however over time Sydney Olympic Park is set to take on the role of more traditional major centres with a mix of housing, retail, office-based employment and services, complemented by good public transport and access to open space and recreational facilities.

The Metropolitan Plan seeks to address identified challenges facing Sydney through an integrated, long-term planning framework based on nine strategic directions and correlating objectives. Those targets relevant to this Project Application and how the project will contribute to achieving these targets are listed below in **Table 7**.

Table 7 - Consistency with the Metropolitan Plan for Sydney 2036

Strategic Directions	Objectives	Project Compliance
Strengthening the City of Cities	A3 – To contain the urban footprint and achieve a balance between greenfields growth and renewal in existing urban areas	The proposal utilises a site within an existing urban area and the development will assist in the on-going renewal of Sydney Olympic Park.
	A4 – To continue strengthening Sydney's capacity to attract and retain global businesses and investment	The proposal will provide a new 5 Star Green Star commercial development to attract and support new and existing global businesses and investment within Sydney.
	A7 – To ensure Sydney continues to support major events in iconic locations, and remains competitive in the global even and convention market	The proposed development will not impede major events within Sydney Olympic Park, as discussed in <b>Section 5.7</b> .
	A9 – To support, protect and enhance nationally and internationally significant infrastructure in the metropolitan area	The proposal will result in an increase in the local workforce, which will increase the demand for public transport infrastructure. It is noted however that to date, not all the transport facilities and services originally planned for the Sydney Olympic Park have been provided, consequently the public

		transport provisions do not meet the current needs of the daily population of the Park.
Growing and Renewing Centres	B1 – To focus activity in accessible centres	The proposed development is located within Sydney Olympic Park which is an accessible centre.
	B2 – To strengthen major and specialised centres to support sustainable growth of the city	The proposal will provide a new 5 Star Green Star commercial development which will attract companies to locate within the Park. The development therefore supports the growth of the specialised centre.
	B3 – To plan for new centres, and instigate a program for high quality urban renewal in existing centres serviced by public transport	The proposed development will support the continued urban renewal of the Sydney Olympic Park through the provision of a new commercial building and public domain areas, which will link to surrounding public areas.
Growing Sydney's Economy	E2 – To focus Sydney's economic growth and renewal, employment and education in centres	The proposal provides new commercial floorspace within the Sydney Olympic Park specialised centre in accordance with this objective.
Balancing Land Uses on the City Fringe	F1 – To contain Sydney's urban footprint	The proposal utilises a site within an existing urban area, therefore is consistent with this objective.
Tackling Climate Change and Protecting Sydney's Natural Environment	G1 – To reduce Sydney's greenhouse gas emission G5 – To achieve a sustainable water use	The proposed design seeks to achieve a minimum 5 Star NABERS rating for both water and energy performance and achieve a minimum performance of 5 Stars under the Green Building Council of Australia Green Star Office Design (v3) rating system.
	G9 – To minimise and recycle waste	The construction and on-going operation of the proposed development will incorporate waste management practices to minimise and recycle waste as much as possible.

## 5.2.9 Draft West Central Subregional Strategy

The draft West Central Subregional Strategy was released in December 2007 and is intended to guide land-use planning until 2031 in the Parramatta, Bankstown, Auburn, Fairfield and Holroyd local government areas as well as the SOP.

The vision for the draft Strategy involves achieving seven key outcomes of the life of the strategy. The proposed development will facilitate an employee population of approximately 1,500; therefore it is consistent with the only relevant key direction - "provide local employment opportunities".

## 5.2.10Sydney Olympic Park Master Plan 2030

MP 2030 was prepared in accordance with the requirements of the *Sydney Olympic Park Authority Act 2001* and the Major Development SEPP. The purpose of MP 2030 is to:

- provide a comprehensive approach to the development of Sydney Olympic Park;
- ensure Sydney Olympic Park becomes an attractive and vibrant town within Metropolitan Sydney;
- protect the role of Sydney Olympic Park as the premier destination for cultural, entertainment, recreation and sporting events;

- protect and enhance the public domain;
- protect and enhance the Sydney Olympic Park parklands; and
- provide detailed planning and design principles and controls to encourage development that responds to its context and contributes to the quality of the built environment and the future character and cultural significance of the site.

Section 95 of the EP&A Act deems that MP 2030 is taken to be a development control plan adopted by the Director General of the Department of Planning & Infrastructure under Section 74D of the EP&A Act.

The proposed development is generally consistent with the general and precinct specific controls as set out below.

#### General Controls

- Sustainability (Clause 4.2):
  - an ESD consultant has been engaged as a core member of the project team;
  - the development will be connected to SOP's recycled water system;
  - materials have been selected on the basis of their sustainability; and
  - the development will meet the relevant minimum environmental ratings, being 5 star Green star and 5 star NABERS (Energy and Water).

Further details are provided in **Section 3.6**.

- Public Domain (Clause 4.3):
  - the proposed development makes provision for through-site links between Murray Rose Avenue and future Dawn Fraser Avenue and between Dawn Fraser Avenue and Parkview Drive;
  - continuous and accessible pedestrian access is provided from Murray Rose Avenue through to the future Dawn Fraser Avenue;
  - weather protection will be provided at the entrances of the building;
  - opportunities for casual surveillance over the public areas will be provided via the high level of glazing incorporated into the development's design;
  - multiple entrances into the building will be provided; and
  - the facades of the proposed building are modulated through design features, materials, and balconies to provide interest for passers-by.
- Event Access and Closures (Clause 4.4):
  - as outlined in Section 5.5 access to the site will not be compromised by road closures for minor or major events.
- Land Use and Density (Clause 4.5):
  - office and business premises are an allowable land use within the commercial land use category applicable to the site;
  - the overall concept for the 4 Murray Rose Avenue site will be consistent with the building envelope controls stipulated in MP 2030 and will achieve a floor space ratio less than the maximum allowable FSR of 2.5:1 across the 1-5 Murray Rose site;
  - the existing and proposed road networks will have adequate capacity to support the development, as outlined in Section 5.5.
- Building Form and Amenity
  - the proposed building is wholly within the prescribed building zone;
  - the proposed building will incorporate through-site links and maintain view corridors;

- the proposed building incorporates appropriate solar access, access to natural light and ventilation, communal outdoor areas and access to views;
- the maximum building depth is 46m which exceeds the preferred maximum building depth control of 25m. Further, some workstations within the building could be located over 12m from an external window. However, as demonstrated in **Section 5.3** below, the proposed building depth is considered acceptable;
- car parking is located beneath the building footprint;
- the proposed height (6 storeys) is less than the prescribed maximum of eight storeys;
- the floor to ceiling heights generally comply with the minimum floor to ceiling height requirements;
- the design of the rooftop service zone has been integrated into the overall aesthetic of the building, is not more than 5m in height and is set back more than 3m from the parapet;
- no specific setback controls relate to the site, however the building facade has adopted a similar setback to the buildings located opposite at 3 and 5 Murray Rose Avenue to reinforce the street alignment;
- an accessibility review report has been prepared by Morris Goding Accessibility Consulting as required by the controls (refer to Section 5.6 and Appendix K);
- design excellence has been achieved as demonstrated at Section 3.2;
- the proposed built form is appropriately expressed as detailed in Sections 3.2 and 5.3;
- appropriate consideration has been given to the safety and security of the proposed development throughout the design process as demonstrated in Section 5.4.7;
- acoustic impacts have been considered as required by the controls, refer to Section 5.4.5 and Appendix L; and
- an operational waste management plan will be prepared that demonstrates how the principles of waste avoidance, reduction, re-use and recycling will be implemented into the operation of the proposed development (refer to Section 5.16).
- Access and Parking (Clause 4.7 and Clause 4.8)
  - the proposal's consistency with regard to the access, parking and transport controls is discussed in detail in Section 5.5.
- Landscape and Site (Clause 4.9)
  - the proposed landscaping responds to the existing contours and features of the site;
  - sufficient open space is provided to present a high quality setting for the proposed building and to complement the surrounding public domain;
  - the proposed through-site links are less than the required 20m wide minimum dimension. However, as demonstrated in Section 5.3, the proposed width of the through-site links are considered acceptable; and
  - the proposed car park is located under the building footprint to maximise the area of deep soil.

## **Precinct Controls**

The Parkview Precinct controls relevant to the site are all embodied in the MP 2030 general controls. However it is noted that the proposed development is consistent with the land use plan for the precinct, including the vehicle access points.

## 5.3 Built Form

The built form of 4 Murray Rose Avenue has been primarily informed by the development controls contained in MP 2030 (refer to **Section 5.2**) and the design of 3 and 5 Murray Rose Avenue, and has been refined through consultation process with SOPA (refer to **Sections 3.2.1** and **4**).

As outlined in **Section 3**, the building is 6 storeys in height and rectilinear in design, is orientated to address the surrounding public domain, and therefore has no secondary or rear elevations. It will have a maximum GFA of 15,713m², an FSR of 1.1:1(based on the 1-5 Murray Rose Avenue site area) and a maximum building height of 27.8m.

The primary building entrance is located along Murray Rose Avenue and secondary entrances are located along Dawn Fraser Avenue and through the Paddock Park on Parkview Drive. The ground floor retail tenancies and the provision of the landscaped areas including The Ledge and the Paddock Park serve to activate the street frontages to Murray Rose Avenue, Dawn Fraser Avenue and Parkview Drive.

Further, the horizontal and vertical elements incorporated into the elevations serve to articulate the façade of the building, softening its entrance to the street frontages.

#### **Building Depth**

It is noted that the depth of the building, being 46m, exceeds the preferred maximum building depth control of 25m, which may result in future work stations being located more than 12m from an external window. The reasoning in MP 2030 for the building depth control is "to encourage naturally lit and well ventilated buildings with generous courtyards and setback to avoid bulky buildings that block views and impede ESD requirements". Despite the proposed building depth, the proposed development is consistent with the purpose of the control in that:

- the building will be able to achieve a 5 Star Green Star rating in Office Design, and energy performance (refer to Section 3.6);
- the proposed floor to ceiling heights, generally comply with the minimum height requirements, so facilitating a well-ventilated and well lit internal environment; and
- the proposed building depth is consistent with that approved and constructed at 5 Murray Rose Avenue.

## **Building Separation**

The minimum separation distance between 4 Murray Rose Avenue and the indicative footprint of 2 Murray Rose Avenue is approximately 18.5m. The proposed built form therefore does not achieve the minimum separation distance of 24m between commercial buildings and facing habitable rooms in residential buildings, as required by MP 2030. Further the minimum 20m through-site link width for the private road is also not achieved.

The reason for the building separation control is "to ensure visual and acoustic privacy and amenity is maintained between buildings". It is considered that the building separation distance adopted between 4 and 2 Murray Rose Avenue is based upon the separation distances set out within the Residential Flat Design Code, which requires 18m between buildings of 12-25m in height.

In addition, given 2 Murray Rose Avenue will be able to capture views of the Brickpit, Homebush Bay, the Badu Mangroves and the CBD, it is likely that habitable rooms will be orientated towards the north, south and east, and not face west (i.e. 4 Murray Rose Avenue). Furthermore, technical solutions can be applied to both the proposed commercial and future residential buildings to ensure that acoustic privacy will be maintained.

## 5.4 Amenity

## 5.4.1 Visual Impact

## **Existing Conditions**

The site is surrounded by a variety of commercial buildings and will be in keeping with the design and aesthetics of those existing buildings. The proposed height and bulk of the building at 4 Murray Rose Avenue is consistent with the surrounding buildings and below the 8 storey limit set out in the SOPA MP 2030. Therefore, when viewed from surrounding suburbs the proposed building will not be visually obtrusive due to the existing built form as well as the vegetation existing on Murray Rose Avenue serving to mask the bulk of the development. In light of this, the proposed development is not expected to be significantly visible from the railway station concourse (refer **Figure 17**).



The site

Railway Station Forecourt

Figure 16 - Proposed building envelope

#### Assessment

Turner and Associates have prepared envelope drawings that demonstrate the proposed location of the development in a 3-dimensional view (refer to **Appendix D**). The form, height and proportions of 4 Murray Rose Avenue will be of a similar scale to 5 Murray Rose Avenue, the proposed 3 Murray Rose Avenue and other existing buildings in the locality, such as the Quad Business Park.

MP 2030 envisages an 'urban spine' along the ridge located on Murray Rose Avenue. Extensive consultation has been undertaken with SOPA in relation to the proposed development sites along Murray Rose Avenue to ensure that the proposed building envelopes contribute to this spine and therefore provide the appropriate built form when viewed from outside SOP. In particular 4 Murray Rose Avenue will not impede the significant view corridors to ANZ Stadium from Ryde and Bicentennial Park.

The development of the 4 Murray Rose Avenue site is consistent with the envelopes in MP 2030, therefore the final form of the development will be appropriate in terms of its visual impact and contribute to the desired future character of the locality.

## 5.4.2 View Loss

The site currently accommodates a car parking area and road. These existing hard stand areas do not block views from surrounding properties. 4 Murray Rose Avenue will be constructed in place of the existing car park and road on the site and will therefore result in a loss of views from the surrounding properties and for pedestrians. As the envelope of 4 Murray Rose Avenue is consistent with that defined in MP 2030, any potential loss of views would be consistent with the envisaged character of the precinct.

## 5.4.3 Overshadowing

Shadow Diagrams have been prepared by Turner and Associates Architects that illustrate the impacts of overshadowing resulting from the proposed development. They are included at **Appendix D**.

The public domain areas being The Ledge, Paddock Park and Murray Rose Avenue will generally be overshadowed by the proposed development and other surrounding developments at some time during the winter solstice. However, the extent and impact of the overshadowing is considered acceptable on the basis that the built form is consistent with the envelopes set by MP 2030.

## 5.4.4 Wind

The impact of the proposed development on the pedestrian level local wind environment has been assessed by Cermak Peterka Petersen (refer to  $Appendix\ M$ ).

## **Existing Conditions**

An analysis of the existing wind environment was undertaken using meteorological data from the Bankstown Airport Bureau of Meteorology (BoM) anemometer, which is located approximately 11km north-west of the site. (The BoM anemometer at Homebush is known to be directionally influenced by surrounding buildings, topography and landscaping, therefore readings are considered to be unreliable for pedestrian level wind comfort analysis).

The key characteristics of the local wind climate are:

- South-east quadrant winds, which have a cold tendency and can last several days and occur throughout the year;
- West quadrant winds which tend to produce the strongest winds affecting the site throughout the year; and
- South and west quadrants winds associated with rain.

#### Assessment

The wind environment around Sydney Olympic Park is considered to be relatively mild. Furthermore, all areas around the development are expected to be suitable for use as a main public access way (as previously confirmed by wind tunnel testing conducted around 5 Murray Rose Avenue).

The key findings of the assessment are:

- South-east winds are expected to stagnate on the southern building facade and accelerate around the corners creating local windier conditions.
- Winds from the west are relatively undisturbed on reaching the site and will be channelled between 4 and 5 Murray Rose Avenue, creating local windy conditions. The windiest location is expected to be under the colonnade on Murray Rose Avenue to the west of The Ledge.
- The Ledge is located appropriately to provide wind protection for pedestrians and is most suitable for outdoor stationary activities around the building.
- The articulation of the facades at the main entrance will assist in protecting the entrances from flow travelling along the face of the building expanding into the space causing internal flow issues.

Overall, the report concludes that the wind conditions around the site are expected to be suitable for use for pedestrian walking from a comfort perspective and pass the distress criterion without any additional wind mitigation measures.

## 5.4.5 Acoustic and Noise Impacts

A detailed Acoustic Assessment has been undertaken in relation to the proposed development by Acoustic Logic (refer to **Appendix L**). The assessment considered the current noise conditions, the likely noise intrusion from external sources and also the potential noise emissions generated by the development.

#### **Existing Conditions**

Ambient noise levels in the vicinity of the site were determined using long term, unattended noise logging conducted on site between 11 and 16 March 2008 as part of the assessment for the 5 Murray Rose Avenue development. Acoustic Logic consider that the background noise levels measured at this time remain applicable to the proposed development.

Accordingly the background noise levels were measured to be:

- Daytime (7am 6pm) 49 dB (A) L<sub>90</sub>;
- Evening (6pm 10pm) 49 dB (A) L<sub>90</sub>; and
- Night time (10pm 7am) 41 dB (A) L<sub>90</sub>.

#### **External Noise Impact Assessment**

Noise from the following sources has the potential to create an adverse acoustic impact upon the proposed development:

- from ANZ Stadium and the Sydney Showground; and
- from rides during the Sydney Easter Show.

Given that the site is situated more than 60m from the rail line, Rail Infrastructure Corporation guidelines do not require an assessment of potential noise or vibration impacts. Therefore this assessment only considers the potential noise from rides during the Sydney Easter Show and noise from ANZ Stadium and the Sydney Showground.

In addition to the background noise survey for 5 Murray Rose Avenue, noise from ANZ Stadium was measured on 4 October 2009 during the Rugby League Grand Final. Given that the size of the Sydney Showground is similar to ANZ Stadium and that they are both located a similar distance from the site, the noise level from the Showground is expected to be similar to that from ANZ Stadium. During the site visit, noise from ANZ Stadium (crowd and amplified music) was inaudible at Parkview Drive and the only audible noise associated with the event was from the media helicopters flying over the stadium.

The most significant potential noise impact on the site, is from Easter Show rides, as amusement rides will be located approximately 60m from the northern facade of 4 Murray Rose Avenue. In order to determine the noise levels likely to be generated, a noise survey of the Luna Park amusement park (Milsons Point) was undertaken.

Using the results of noise surveys Acoustic Logic has set the same amenity criterion for 4 Murray Rose Avenue as it did for 5 Murray Rose Avenue. This criterion is detailed in **Table 8**, and will ensure the protection of the acoustic amenity for future occupants.

Table 8 - Acoustic amenity criterion

Space amenity criterion	Time	Criteria
Commercial	When in Use	45 dB(A) Leq (Worst 1 hour)

To meet the specified amenity criterion, a minimum glazing requirement of 8mm laminated / 12mm air gap / 6mm with acoustic seals to the north and west facades and a minimum of 6mm laminated/12mm air gap/6mm with acoustic seals to the remaining facades has been prescribed. Furthermore, the minimum STC rating for the installed window on north and west facades is 31 and 33 for the remaining facades. This glazing requirement will be implemented in the proposed development.

#### Noise Emissions Assessment

Potential noise sources associated with the proposed development are:

- noise from external mechanical plant; and
- construction noise.

Noise from mechanical services is required to comply with EPA Industrial Noise Policy and the *Noise Control Manual Sleep Disturbance Guidelines*. Accordingly, Acoustic Logic has determined the allowable noise levels at the nearest residential properties to be as follows (refer to **Table 9**):

Table 9 - EPA Intrusiveness Criteria

Time	Background Noise Level dB(A)L90	Acceptable Level dB(A)Leq(15min)
Daytime (7am-6pm)	49	54
Evening (6pm-10pm)	49	54
Night (10pm-7am)	41	46

Acoustic Logic consider that noise emissions from plant items can be adequately addressed using standard acoustic treatments. Therefore the design of the mechanical plant will ensure that:

- chillers are located within an enclosed plant room;
- cooling towers will be located on the western side of the plant room, as far as practicable from future residential properties; and

 all plant items will be installed using vibration isolation mounts to prevent structure borne noise transfer to offices below.

#### Construction Noise

As with any major construction sites, there will be noise associated with construction activities. Acoustic Logic considers that adequate control of construction noise can be achieved through the development of a Construction/Demolition Noise Management Plan. This Plan will form part of the overall Construction and Environmental Management Plan for the site which will be prepared by the appointed contractor prior to commencement of works (refer to Section 5.15).

## 5.4.6 Privacy

The building separation distances (as discussed in **Section 5.3**) between 4 Murray Rose Avenue and existing and future buildings within close proximity of the site are considered to be acceptable to maintain appropriate levels of privacy.

## 5.4.7 Safety and Security

Consideration of safety and security has been integral to the design for 4 Murray Rose Avenue, as follows:

- public and communal spaces have been designed to be open, well lit and clearly visible with legible 'lines of sight' from key nodal points around the site and beyond;
- building entry points are easily identifiable;
- alcoves have been avoided;
- the facades of the building, particularly at ground level are substantially glazed to encourage natural surveillance;
- the bicycle storage area is visible from Park View Drive rather than being relegated to a basement level;
- the basement has been designed with a linear car parking configuration and legible pedestrian access points; and
- landscaping around the building has been designed to minimise opportunities for concealment.

## 5.5 Traffic and Access

Better Transport Futures has prepared a Traffic and Transport Access Report (refer to  $Appendix\ N$ ) to assess the traffic, transport access and parking implications of the proposed development. In particular it:

- outlines the Sydney Olympic Park Masterplan 2030 transport strategy and comments on how the proposed development is integral to the development scenarios adopted;
- describes the existing road network and its operating characteristics;
- describes the proposed development;
- describes the public transport, walking and cycling implications of the proposed development;
- provides an analysis of the impact of the proposed development on the surrounding road network; and
- considers the operation of the site during construction and major events

## 5.5.1 Existing Conditions

#### Local Road System

The following roads form the local system:

- Homebush Bay Drive: a major arterial road with a dual carriageway and graded separated interchanges with other major roads.
- Australia Avenue: a sub-arterial road providing the primary access to the SOP.
- Bennelong Road: a collector road that provides access to the Brickpit and Bicentennial Park.
- Murray Rose Avenue: a local road which connects to Australia Avenue in the west and provides access to 4 Murray Rose Avenue.
- Herb Elliot Avenue and Dawn Fraser Avenue: local access roads.
- Parkview Drive: a local access road which connects to Murray Rose Avenue.

## **Existing Traffic Volumes**

Traffic volume data was collected at the intersection of Australia Avenue with Murray Rose Avenue and Australia Avenue with Parkview Drive on 5 February 2013 during the morning (7.00am-9.00am) and afternoon (4.00pm-6.00pm) peaks. This data indicates that the traffic flow on the intersection of Murray Rose Avenue and Australia Avenue was in the order of 770 vehicles during the morning peak hour (8.00am-9.00) and 843 during the afternoon peak hour (5.00pm-6.00pm). Further, the traffic flow at the intersection of Parkview Drive and Australia Avenue was in the order of 1,488 vehicles during the morning peak hour and 1,440 vehicles during the afternoon peak hour. The level of service of Murray Rose Avenue and Australia Avenue was assessed to be operating with significant spare capacity.

### Car Parking

Time restricted on-street car parking is provided on Murray Rose Avenue, and other local roads such as Parkview Drive, Dawn Fraser Avenue and Herb Elliot Avenue.

In addition, four SOP operated car parks are located in the vicinity of the site, which have a total capacity of approximately 890 spaces.

#### Public Transport

SOP was planned to operate with excellent public transport facilities, however these facilities are being provided gradually as demand justifies their construction or provision. To date, not all planned transport facilities and services have been provided. It is widely accepted that public transport, in particular rail services, are inadequate to serve the current daily population of SOP.

Sydney Olympic Park railway station is within 330m walking distance of the site. The Olympic Sprint service to Lidcombe operates on a 10 minute schedule during peak periods and 20 minute schedule during non-peak periods, but commuters have to change trains at Lidcombe.

The four bus routes servicing Olympic Park are:

- 401 to Lidcombe running on a 20 minute service in the peak hour, dropping to a 30 minute service off peak;
- 533 to Chatswood running on a 15 minute service during the peak hours;
- 525 Burwood to Parramatta via Olympic Park, running on a 10 minute service during peak hours; and

526 to Strathfield running on a 10 minute service during peak hours.

These provide commuters with a reasonable service during peak hours but any travel outside these peak hours can result in a long wait.

Existing facilities for pedestrians and cyclists are extensive and in the general vicinity of the site, primarily for recreational purposes to access the nearby Bicentennial Park, the Brickpit and the Parramatta River foreshore. There are approximately 16 km of on-road cycle lanes and approximately 24 km of pedestrian paths and cycle ways within SOP linking various attractions, residential areas and parks. The path network also links to the regional cycleway network, and as such provides a quality alternative to car based travel.

## 5.5.2 Access

Access to the site will be provided from both Murray Rose Avenue and Dawn Fraser Avenue; the latter is to be extended east of Australia Avenue where it currently terminates.

The driveway to the car park at 4 Murray Rose Avenue is located on the private road on the eastern edge of the site which will link Murray Rose Avenue with the extended Dawn Fraser Avenue. The driveways will be designed to accommodate the swept path requirements of the service vehicles entering and exiting the site. All vehicles will be able to enter and leave the site in a forward direction.

The functionality of the shared access driveway to the loading dock is considered acceptable due to the provision of different coloured paving to signify pedestrian only areas, the expected low number of vehicles making deliveries (5-12 vehicles per day) and that trucks will be required to give way to pedestrians.

## 5.5.3 Parking

4 Murray Rose Avenue provides parking for 284 vehicles which equates to a rate of one space per 55m<sup>2</sup> of gross floor area. This provision is not consistent with the MP 2030 controls which require a maximum of 1 space per 80m<sup>2</sup>.

SOPA is seeking to restrict the provision of parking as a travel demand management tool. The MP 2030 control will, in the long term, reduce reliance on private vehicles. This restricted parking rate was originally intended to be introduced when public transport services to SOP had improved to the stage where they offered a viable alternative to the private car for the majority of workers.

Notwithstanding this, SOPA introduced this restricted rate prior to public transport becoming a viable alternative for the majority of workers. Further, RMS has confirmed that an intended bus route (Route 13) is not identified as being part of current works, and the development of a metro rail link between Western Sydney and Sydney CBD (through SOP) was cancelled in February 2010 and is not currently part of the NSW Government's transport strategy.

The provision of one space per 80m² would result in 4 Murray Rose Avenue incorporating only 198 parking spaces. Given there could be up to 1,500 staff accommodated in the building, this level of parking combined with the limited capacity of the local public transport system would result in limited options for people to get to work.

It is fundamental to the growth of SOP that the parking provision reverts to the previous maximum rate of one space per  $55\text{m}^2$  of gross floor area until such time that available public transport significantly improves.

This view was supported by the SOP Transport Strategy, which listed amongst its key findings that the provision of commercial private parking should be decreased from one space per  $55m^2$  to one space per  $80m^2$  over time, linked to major public transport improvements. Accordingly, one space per  $55m^2$  is the most appropriate level of provision at this stage.

The internal layout of the proposed car park is in accordance with requirements of AS 2890.1.2004, which requires that a queuing length of 5 vehicles be provided. The layout will provide space to accommodate 288 parking spaces on a series of split level basement floors. Nine spaces will be accessible spaces (3% of total spaces provided).

#### Access

Access into the car park will be controlled by a boom gate operated by a card reader. AS 2890.1.2004 indicates that entry lanes controlled by a card reader should have capacity for 400 vehicles per hour per lane, which suggests that the entry has theoretical capacity to allow entry to the entire car park in any one hour. This volume is, however unlikely to occur. Whilst there will be some peak arrivals resulting in temporary queuing across the footpath, the footpath and verge are 5m wide allowing pedestrians to walk around any queuing vehicle. Further, the pedestrian entrance into the building is approximately 60m from the vehicular entrance.

## 5.5.4 Promotion of Sustainable Means of Transport

The proposal incorporates bicycle parking in excess of SOPA's minimum permanent space requirement, in that 100 spaces are required and 120 spaces are to be provided. The bicycle storage area has been placed in a prominent position overlooking the Paddock Park to increase the activation of the streetscape.

Furthermore, in order to promote other sustainable forms of transport Workplace Travel Plans, which may include a Travel Access Guide and measures appropriate for their circumstances and business, will be prepared by each tenant of the building and this requirement will be incorporated into GPT's lease documentation.

#### 5.5.5 Traffic Generation

Based upon the same generation rates adopted for the MP 2030 Transport Strategy for commercial development (i.e. 1.66 peak hour vehicle trips per 100m² GFA) which are based on the RMS rates for "Office Commercial" development, the traffic generation for the proposed development is 264 vehicle trips per peak hour.

For the purposes of this assessment, Better Transport Futures have assumed that all traffic will use the Australia Avenue/ Murray Rose intersection and Australia Avenue/Parkview Drive intersection on days excluding Major Event days, with 80% of trips being inbound and 20% outbound during the morning peak and the reverse during the afternoon peak.

A SIDRA analysis of the Australia Avenue/ Murray Rose Avenue intersection has been undertaken to determine the vehicle waiting time and a level of service rating to indicate the relative performance of the intersection. Levels of service of A to C are considered to be satisfactory, a level of service of D is acceptable, and levels of E and F are considered unsatisfactory. A summary of the SIDRA results is included at **Table 10**.

Table 10 - SIDRA intersection analysis results

Road Section	AM Peak		PM Peak	
	Existing LOS	Proposed LOS	Existing LOS	Proposed LOS
Australia Avenue - South	Α	Α	Α	А
Australia Avenue - North	Α	Α	Α	А
Murray Rose Avenue - East	В	В	В	F
Murray Rose Avenue - West	В	В	В	В

Overall, the SIDRA analysis confirms that the additional traffic flows associated with the construction of 3 and 4 Murray Rose Avenue can be adequately accommodated within the surrounding road network except for Murray Rose Avenue East in the PM peak. All other traffic movements on Australia Avenue and Murray Rose Avenue will operate well within the minimal delays and congestion for traffic during both the morning and afternoon peak periods. Better Transport Futures suggests that the capacity problems on the Murray Rose Avenue East in the PM peak are likely to be short lived as excess traffic will divert to the alternative Murray Rose intersection with Bennelong Road when this is constructed.

## 5.6 Accessibility

The accessible paths of travel throughout the proposed development at 4 Murray Rose Avenue are illustrated in the Interim Site Plan included at **Appendix D**. In addition, an Accessibility Review has been prepared by Morris Goding Accessibility Consulting (Morris Goding) in relation to the proposed development (refer to **Appendix K**). The review was undertaken to ensure that ingress and egress, paths of travel, circulation areas, lifts, toilets and car parking comply with relevant statutory guidelines, including SOPA's Access Guidelines.

The review demonstrates that the proposed development provides an appropriate degree of accessibility. The architectural drawings indicate compliance with statutory requirements pertaining to site access, common area access, accessible parking and accessible sanitary facilities can be readily achieved.

Morris Goding has made a number of recommendations in its report to ensure that the development meets the relevant statutory requirements and standards. The recommendations will be incorporated into the detailed design of the development and submitted with the construction certificate documentation.

# 5.7 Major Events

The proposed development has been considered against the relevant provisions of SOPA's Major Event Impact Assessment Guideline, as discussed below.

#### **5.7.1** Noise

Potential noise impacts from major events such as the use of ANZ Stadium, the Sydney Showground and the Royal Easter Show have been assessed to ensure that there will be no unacceptable impact on the proposed development. The Acoustic Assessment (refer to **Appendix L**) concludes that provided the recommended windows and glazing are provided to attenuate the noise, compliance with the required acoustic criteria will be achieved.

The noise impacts from the rail line and the V8 Supercar Street circuit were not assessed for the following reasons:

- the rail line is situated more than 80m from the site and the Rail Infrastructure Corporation guidelines do not require assessment of potential noise and vibration impacts in such circumstances;
- the closest the circuit will come to the site is approximately 250m and as the circuit will only be in use for one working day per year, it is not considered necessary to assess potential impacts or upgrade the building to negate such an infrequent event.

## 5.7.2 Traffic

4 Murray Rose Avenue is located on the periphery of the "Major Event Operations Zone" and will be impacted by some major events and associated road closures on major event days such as the Royal Easter Show and the V8 Super Car Racing. Car park 6F, which is located north west of 5 Murray Rose Avenue is used for the Royal Easter Show, and it is anticipated that a section of Murray Rose Avenue in proximity to Australia Avenue will be closed for a month during this event each year.

Discussions with SOPA have indicated that Australia Avenue south of Dawn Fraser Avenue is always open during major events to retain access to the commercial areas of SOP. Parkview Drive will also always remain open and consequently vehicles will be able to access the site via Murray Rose Avenue from Bennelong Parkway and from Parkview Drive.

The biggest impact on the operation of 4 Murray Rose Avenue during a major event is likely to be the reduction in on-street public parking. This will require users to find alternative methods of transport or parking facilities. In these situations, commuters will be encouraged to use public transport, through the circulation of Travel Plans to inform workers of transport options available.

Further, the operation of the proposed development is also unlikely to impact on any of the key event operation measures (i.e. the bus or coach routes, parking access, rail station access, pedestrian links and crowd access routes). This is because the proposed development is not located on a route where daily arrivals and departures will adversely impact on a major event operation.

## 5.8 Tree Removal

The proposed development necessitates the removal of ten (10) trees (being trees 1s – 8s and trees 1 and 2) and the hedge located along the western and north western boundaries adjacent to the roundabout in Parkview Parade as identified in **Figure 18** and **19** and Demolition Plan at **Appendix D**. The majority of the trees are located along the northern site boundary and comprise:

- 6 Spotted Gums;
- 1 Small Leaved Iron Bark;
- 2 Mugga Ironbarks; and
- 1 Port Jackson fig.

An Arboricultural Assessment has been undertaken by Hunter Horticultural Services (refer to **Appendix P**) to assess all the trees and hedges within the site. The results of the assessment found that:

 Tree 1(Spotted Gum) is in good condition and its relocation may be a viable option since protection cannot be implemented;

- Tree 2 (Spotted Gum) is in fair condition and its removal and replacement with a good specimen may be a more viable option;
- Trees 1s 7s (Four Spotted Gums, one Small Leaved Ironbark and two Mugga Ironbarks) are recommended for removal due to either their health, structure or the fact that the species is too large for the development and replacement with suitable landscape alternatives is recommended;
- Tree 8s (Port Jackson Figs) will require remedial action; and
- The hedge and exotics may be removed to suit the new landscape design.

Given that the tree removal will be required for the future development to proceed in line with MP 2030, the removal of the trees and hedges can be supported.

## 5.9 Flora and Fauna

A detailed Flora and Flora Impact Assessment relating to the 4 Murray Rose Avenue site has been prepared by Cumberland Ecology and is provided at **Appendix P**. The assessment found that no significant impacts were likely to occur to any NSW or Commonwealth listed species or community. Furthermore, a referral to the Commonwealth Minister of the Environment under the provisions of the *Environment Protection and Biodiversity Conservation Act 1999* was not required.

Since the original desktop assessment undertaken in 2009 for the overall Murray Rose Avenue site, an additional endangered flora species has been identified; namely the *Zannichellia Palustris*. This species was not found to be located the subject site, and further to this it is extrapolated that no threatened flora are likely to be present on the subject site based on the lack of suitable habitat and the degree or existing disturbance.

The proposed development is not considered to have any direct impact on flora and fauna located within the area of the site; however, there is the potential for indirect impacts on threatened species or communities within the Coastal Saltmarsh and Swamp Oak Floodplain Forest and the mangrove habitat due to increased flow and reduced stormwater quality. It is considered that the impacts will be managed sufficiently to result in no net increase in nutrient loads or stormwater volume.

Further, the site is also identified as being part of a movement corridor for Green and Golden Bell Frogs. Whilst there is the potential for the proposed development to impact upon this movement corridor, the new parklands proposed for the SOPA lands to the north of the site will in fact increase the area of vegetated corridors and it is therefore not anticipated that the proposed development will reduce the movement of the frogs between areas of adjoining habitat.

Shadowing and light spill is not likely to be significantly increased from levels already experienced from surrounding development.

#### Management

A site specific Green and Golden Bell Frog sub-plan will be prepared prior to the start of works. This plan will be prepared in conjunction with SOPA and with regard to relevant guidelines and protocols.

# 5.10 Integrated Water Management

The proposed development is to be connected to the Water Reclamation and Management Scheme (WRAMS) which is a large scale integrated urban water management system operated by SOPA across SOP. Its key features include:

- collection and treatment of sewage;
- collection, treatment and storage of stormwater;
- supply of recycled water for non-drinking uses to all residents, commercial premises and sporting venues; and
- a capacity to service a population up to 20,000 people.

Connection to the WRAMS system will also ensure that the site will be serviced by non-potable water for use in the cooling towers and for toilet flushing, irrigation and external hose taps.

# 5.11 Flooding

Previous investigations relating to 3 and 5 Murray Rose Avenue have indicated that flooding is not an issue for these sites due to the topography of the site and their distance from and elevation above existing water courses. The 4 Murray Rose Avenue site is also vertically and horizontally separated from potential sources of flood water, and therefore it is anticipated that flooding will not be experienced on the site.

To confirm these prior investigations, a Flood Impact Assessment will be undertaken prior to the commencement of works on site to confirm the peak mean flood level and to ensure that the car park and lobby entrances have appropriate freeboard. It is noted that this assessment cannot be undertaken until the road levels of the future Dawn Fraser Avenue extension are determined by SOPA.

# 5.12 Geotechnical Implications

A Geotechnical Investigation Report, prepared by Douglas Partners (**Appendix H**), provides information on the subsurface conditions of the site. The field work for the geotechnical investigation comprised the drilling of five (5) boreholes to a depth of approximately 15m to 15.2m. The locations of the boreholes are illustrated in **Figure 18**.

The subsurface conditions encountered in the boreholes are presented in Table 11.

Table 11 - Sub-surface profile of the site

Level	Profile	Depth
Fill	Concrete, sandy/silty clay topsoil, shaly clay, shale and roadbase filling.	Between 0.2m and 0.8m
Residual Soil	Stiff to very stiff silty clay and clay with traces of ironstone gravel.	Between 0.6m and 3.0m
Bedrock	Initially extremely low strength shale (class V), becoming low to medium strength (class III) below depths of 1.5m to 4.4m, and medium, medium to high or high strength (class II/I) below 3.5m to 6.9m deep.	Between 1.5m and 6.9m

Groundwater is likely to be well below the bedrock surface as the geotechnical investigations did not encounter free groundwater during augering. Having regard to the site's characteristics, recommendations have been formulated by Douglas Partners in regard to excavation, excavation support and foundations.

In order to ensure that the proposed development will not adversely impact upon the site's sub-surface profile, groundwater, the existing buildings and infrastructure in the locality, the recommendations within the Douglas Partners report will be implemented.



Figure 17 - Borehole locations

## 5.13 Contamination

A detailed Contamination Assessment Report has been prepared by Douglas Partners (Refer to **Appendix J**) to:

- assess the general levels of soil contamination resulting from past and present activities on the site;
- assess the potential for contaminant migration by examining the groundwater quality on the site;
- assess the suitability of the site for the proposed development;
- provide recommendations for remediation works, if required; and
- provide information on waste classification for the materials that are to be removed from the site during the excavation works.

The scope of work comprises a review of available historical information, the installation of groundwater monitoring wells, excavation of test pits, soil and groundwater sampling, laboratory analysis and interpretation of the results.

The results of the investigations are summarised as follows.

## 5.13.1 Historical Use Assessment

A review of the site history including title deeds, aerial photographs, the Public Register of Notices (issued under the *Contaminated land Management Act 1997*), WorkCover Dangerous Licences database, and groundwater bore licences have identified the following:

- the land was owned from 1905 until 1993 by the Metropolitan Meat Industry Board, which was responsible for operating an abattoir and meat works in the Homebush Bay area (although there are no records to show that the abattoir was actually located on the development site);
- the site was owned by the Olympic Co-Ordination Authority from 1993 until 2002, and by Sydney Olympic Park Authority from 2002 to the present day.
   GPT RE Limited currently has the leasehold on the site, under a 99 year lease arrangement;
- historical aerial photographs indicate that between1949 and at least 1982, the site was partially occupied by large commercial-type buildings, however the buildings had been demolished by 1991 and the site was vacant and grassed;
- the newer commercial buildings constructed in the mid-1990s appear in the 1998 photograph;
- the development site is not on the Public Register of Notices under the Contaminated Land Management Act 1997;
- no evidence of licences under the Workcover Dangerous Goods Licences database exist; and
- no licensed groundwater wells are located within the site.

## 5.13.2Soil and Groundwater Assessment

The results from the twenty-two soil samples which were selectively analysed found that all soil samples were within the adopted health-based investigation/screening levels for commercial sites as well as the adopted ecological-based investigation/screening levels. Asbestos was not observed in the auger returns from the boreholes and was not detected in the samples analysed in the laboratory.

Groundwater sampling found that all samples contained concentrations of several volatile compounds well below the newly adopted NEPM guidelines. All heavy metal concentrations were also below the adopted hardness-adjusted levels.

Due to the low levels of contamination in comparison to the adjacent 3 and 5 Murray Rose Avenue sites, the proposed commercial land use will not be affected. The quality of groundwater requiring discharge from the site, either during construction or in the longer term, may need assessing to determine appropriate disposal options.

Overall, Douglas Partners consider that the soils that will remain on the site following the bulk excavation works are suitable for the proposed commercial land-use. Further, the quality of the groundwater should also not hinder the proposed development provided that disposal of seepage water is undertaken in accordance with regulatory requirements.

On this basis, the site is considered suitable for the proposed development.

# 5.14 Ecologically Sustainable Development

Consistent with the 5 and 3 Murray Rose Avenue developments, 4 Murray Rose Avenue has also been designed to achieve outstanding sustainability performance. **Section 3.6** sets out the measures which will be incorporated within the design of the development to achieve a minimum 5 star Green Star Office design rating and a 5 Star NABERS rating for both water and energy performance. Further, Lend Lease has provided a summary statement of the proposed ESD measures and a Green Star Matrix outlining how the 5 Star ratings will be achieved (refer to **Appendix G**).

As a result of the proposed initiatives the following savings are expected:

- At least a 70% saving in the consumption of potable water compared to a typical (2.5 star) building. This equates to a potable water saving of more than 6,500,000 litres per year.
- At least a 50% saving in greenhouse emissions associated with energy use compared to a typical (2.5 star) building. This equates to a saving of more than 680,000 kg CO<sub>2</sub> per year.

The proposed development is also consistent with the five accepted principles of ESD described below. The proponent is committed to ESD principles (as evidenced by the commitments in **Appendix G**) and has reinforced this through this Environmental Assessment.

#### Integration Principle

The integration principle holds that decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.

The design of 4 Murray Rose Avenue has been developed in accordance with the overall strategy for the precinct as set out in MP 2030. It will complement the existing commercial developments in the local vicinity, 3 and 5 Murray Rose Avenue.

#### **Precautionary Principle**

If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The proposed development is accompanied by multiple environmental studies and technical reports which conclude that there are no environmental constraints that preclude the development of the site in accordance with the proposal, subject to appropriate management in future planning, design, construction and operational strategies.

#### Inter-generational Principle

The principle of inter-generational equity holds that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

The proposed development will directly benefit current and future generations in that it will contribute to the long term development of Sydney Olympic Park.

## **Biodiversity Principle**

Under the biodiversity principle, the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.

There is no significant natural vegetation on the site and it does not contain any threatened or vulnerable species, populations, communities or significant habitats. Construction and ongoing operations of the building will be managed in accordance with the draft Statement of Commitments, ensuring no significant indirect impacts on the nearby Brickpit or Badu mangroves.

#### Valuation Principle

Under this principle, improved valuation, pricing and incentive mechanisms should be promoted. The costs of infrastructure and measures to ensure an appropriate level of environmental performance on the site have been incorporated into the cost of the development.

## 5.15 Building Code of Australia

Vic Lilli & Partners has undertaken a preliminary assessment of the Architectural Drawings against the provisions of the Building Code of Australia 2012 (BCA 2012) (Appendix  $\mathbf{Q}$ ).

The assessment confirms that the proposed development is capable of achieving compliance with the requirements of the BCA 2012 and relevant Australia Standards without undue modification to the design or appearance of the building.

In order to ensure compliance, Vic Lilli & Partners has provided a number of recommendations for amendments or alternate solutions within the report. The necessary amendments will be incorporated into the detailed design of the development and submitted with the construction certificate documentation.

# 5.16 Construction Management

A preliminary Construction and Environmental Management Plan (CEMP) has been prepared by Lend Lease (refer **Appendix S**). A detailed CEMP will be prepared by the appointed contractor prior to commencement of works. The CEMP will be prepared in accordance with the relevant applicable Australian Standards and Occupational Health and Safety requirements and will address the following matters:

- site access controls, public safety, amenity and security;
- operating hours;
- noise and vibration control;
- material management, waste and material re-use;
- construction traffic management;
- dust suppressions;
- tree protection; and
- notification of surrounding properties.

Mitigation measures and management plans where necessary, will also be included in the CEMP to ensure that the construction works do not cause any adverse environmental impacts upon the surrounding area and measures follow best practice principles.

#### Site Waste Minimisation

As part of the CEMP waste management provisions, best practice will be adopted wherever possible to achieve wast minimisation and reduction. Key areas that will be targeted will be:

- avoidance, wherever possible, of the generation of waste;
- management of demolition materials, including hazardous materials;
- management of construction materials;
- management of excavated fill materials;
- management of waste water; and

management of litter generation due to construction activities.

In addition, the waste management provisions will include details at demolition and construction phase which relate to the following:

- practical measures associated with the contractor works to prevent waste entering the site;
- waste streams resulting from the materials which can be recycled and will be actively managed as part of the on-site waste reduction activities; and
- alternative products containing recycled material that could be utilised in the development, in place of traditional materials, which conform and meet the design specification.

In addition, all suppliers of building materials will also be encouraged to nominate packaging minimisation and reuse initiatives as part of the product supply to the project.

#### Construction Traffic

In order to effectively manage construction traffic, a Construction Traffic Management Plan will be prepared and included in the CEMP. This plan will require:

- Construction vehicles to access the site via Murray Rose Avenue and Parkview Drive.
- The RMS to be consulted regarding proposed truck routes.
- Construction of the proposed road extensions to be concurrent with the construction of 4 Murray Rose Avenue and the responsibility of SOPA.

# 5.17 Operational Waste Management

The proposed development includes separate garbage and recycling rooms. The end users of the building are unknown at present; therefore an operational waste management plan will be prepared by the building manager/future tenant(s) of the building prior to the issue of the occupation certificate.

# 5.18 Aboriginal Heritage

An Aboriginal Heritage Information Management System (AHIMS) Database search has been undertaken in relation to the site (refer **Appendix R**). The results of this search indicate that the site contains no recorded Aboriginal objects or declared Aboriginal places.

## 5.19 Contributions

No section 94 Contribution Plan applies to Sydney Olympic Park. Contributions under the Infrastructure Contributions Framework 2030 will be a commercial discussion between GPT RE Limited and SOPA and will address all commercial matters relevant to the project.

## 5.20 Environmental Risk Assessment

An Environmental Risk Assessment (ERA) establishes residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for the 4 Murray Rose Avenue project has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools with the methodology described below.

The Risk Assessment Matrix at **Figure 18** illustrates how the residual environmental impacts of a proposal are assigned. The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented as follows:

- the significance of impact is assigned a value between 1 and 5 based on:
  - the receiving environment
  - the level of understanding of the type and extent of impacts
  - the likely community response to the environmental consequence of the project; and
- the manageability of environmental impact is assigned a value between 1 and 5 based on:
  - the complexity of mitigation measures
  - the known level of performance of the safeguards proposed
  - the opportunity for adaptive management.

Significance of	Manageability of impact				
Significance of impact	5	4	3	2	1
	Complex	Substantial	Elementary	Standard	Simple
1 – Low	6	5	4	3	2
	(Medium)	(Low/Medium)	(Low/Medium)	(Low)	(Low)
2 – Minor	7	6	5	4	3
	(High/Medium)	(Medium)	(Low/Medium)	(Low/Medium)	(Low)
3 – Moderate	8	7	6	5	4
	(High/Medium)	(High/Medium)	(Medium)	(Low/Medium)	(Low/Medium)
4 – High	9	8	7	6	5
	(High)	(High/Medium)	(High/Medium)	(Medium)	(Low/Medium)
5 – Extreme	10	9	8	7	6
	(High)	(High)	(High/Medium)	(High/Medium)	(Medium)

Figure 18 - Risk assessment matrix

In accordance with the DGRs, the ERA addresses, as appropriate:

- the adequacy of baseline data;
- the potential cumulative impacts arising from other developments in the vicinity of the site; and
- measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Table 12 presents the environmental risk assessment for this project.

Table 12 - Environmental Risk Assessment

		Potential Environmental	Proposed Mitigation	Significance	Manageability	Residual
Item	Phase	Impact	Measures and/or Comment	of Impact	of Impact	Impact
Key: C - Construction O - Operation						
Biodiversity	С	<ul> <li>Loss of vegetation within the development site</li> <li>Potential to impact on biodiversity of the site</li> </ul>	<ul> <li>Vegetation to be removed during construction will be replaced with new planting in landscape areas. Particularly significant trees are to be retained.</li> <li>A site specific Green and Golden Bell Frog plan will be commissioned conjunction with SOPA.</li> </ul>	2	1	3 Low
Aboriginal Heritage	С	<ul> <li>Potential to encounter unanticipated Aboriginal cultural material during construction</li> </ul>	<ul> <li>The potential to encounter Aboriginal cultural material on the site has been assessed as low.</li> <li>Should unanticipated Aboriginal cultural material be encountered then it is proposed that all works cease, the OEH be contacted immediately, a management strategy be developed, and the find be recorded to mitigate any potential impacts.</li> </ul>	2	3	5 Low / medium
Hazards	С	<ul> <li>Potential to encounter asbestos</li> <li>Potential to encounter contaminated materials</li> </ul>	<ul> <li>Should asbestos be encountered then it should be removed by a licenced contractor.</li> <li>Should any contaminated material be found then an 'Unexpected Finds Protocol' should be implemented.</li> </ul>	3	2	5 Low / medium
Noise and Vibration	C+O	Increase in noise and vibration levels during construction activities	<ul> <li>The Acoustic Assessment details that adequate control of construction noise can be achieved through the development of a Construction/ Demolition Noise Management Plan.</li> <li>Subject to finalisation of equipment specifications, appropriate sound minimisation measures are to be incorporated within the proposed development.</li> </ul>	C-2 O-2	C-2 O-1	4 Low / medium 3 Low

# 6.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 12** below. These measures have been derived from the previous assessment in **Section 5.0** and those detailed in appended consultants' reports.

Table 13 - Mitigation Measures

#### **Mitigation Measures**

#### **Operational Noise**

Detailed design will incorporate the glazing as specified on all facades of the building in accordance with the recommendations included in the Acoustic Report, prepared by Acoustic Logic dated 26 November 2013. In relation to mechanical plant, the detailed design will:

- enclose all chillers within plant rooms;
- locate cooling towers on the western side of the plant room, as far as practicable from future residential properties;
- install all plant items using vibration isolation mounts to prevent structure borne noise transferring to offices below

#### **Promotion of Sustainable Means of Transport**

GPT RE Limited will incorporate the requirement for the preparation of Workplace Travel Plans into lease documentation for future tenants.

#### Accessibility

The detailed design will incorporate the recommendations in the Accessibility Review report, prepared by Morris Goding Accessibility Consultants dated 1 November 2013.

#### Flora and Fauna

A site specific Green and Golden Bell Frog plan will be commissioned conjunction with SOPA and in accordance with relevant guidelines and protocols prior to the commencement of works.

#### Flooding

A flood impact assessment will be undertaken to ensure the proposed development is suitable in terms of flood risk, prior to the commencement of works.

#### Geotechnical

The detailed design will implement the recommendations set out within the Douglas Partners Geotechnical Investigation Report dated 26 November 2013 prior to and during construction works.

## **Construction Management**

A detailed Construction and Environmental Management Plan will be prepared by the appointed contractor prior to the commencement of works. The Plan will be prepared in accordance with the relevant applicable Australian Standards and Occupational Health and Safety requirements and will address the following matters:

- site access controls, public safety, amenity and security;
- operating hours;
- noise and vibration control;
- material management, waste and material re-use;
- construction traffic management;
- dust suppressions;
- tree protection; and
- notification of surrounding properties.

#### **Operational Waste Management**

An operation waste management plan will be prepared by the building manager/future tenant(s) of the building prior to the issue of the occupation certificate.

## 7.0 Conclusion

This proposal presents the third of five buildings that will be constructed within the 1-5 Murray Rose Avenue site and is the product of extensive consultation with SOPA to achieve design excellence on the site. The assessment of the proposal demonstrates that it will result in positive economic, social and environmental benefits and is consistent with the vision for the site as set out in MP 2030.

ESD principles have guided the design of the development and there are no environmental impacts, that cannot be effectively managed resulting from the proposal. Furthermore, the proposed development will not impact on, or be impacted by, major events at SOP.

The built form of the building is appropriate for its commercial context and the proposed materials and finishes complement those of 3 and 5 Murray Rose Avenue and respond to the surrounding environment. The proposed landscaping provides high quality public domain areas and the overall amenity of the area will be enhanced.

The project is considered to have planning merit in the following respects:

- it is consistent with the relevant planning legislation, and environmental planning instruments;
- it achieves design excellence and forms a key part in the on-going development of the Parkview Precinct at SOP;
- it will enable the provision of high quality commercial floor space and thereby support the growth of SOP; and
- it will provide an ecologically sustainable development with a minimum 5 star Green Star Office design (v3) rating and a 5 star NABERS rating for both water and energy performance.

Given the planning merits of the proposed development and its public benefits, it is requested that the project be approved.