



Planning &
Environment

SYDNEY OLYMPIC PARK

Finalisation Report

Review of Master Plan 2030 and *State Environmental Planning Policy (State Significant Precincts)*



November 2017

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Sydney Olympic Park Authority

SOPA’s Response to Submission Report (see separate document in Attachment J of package)

Appendix 1	A3 Table Response to Submissions Master Plan 2030 (2016 Review)
Appendix 2	Sydney Olympic Park Infrastructure Contributions Framework
Appendix 3	Retail Demand and Impact Assessment – Further Assessment

Glossary

EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ADG	Apartment Design Guide
AHD	Australian Height Datum
CBD	Central Business District
DCP	Development Control Plan
department	Department of Planning and Environment
FSR	floor space ratio
GFA	gross floor area
ha	hectare
ICF	Infrastructure Contribution Framework
LEP	Local Environmental Plan
LGA	Local Government Area
Minister	Minister for Planning
RMS	Roads and Maritime Services
SEPP	State Environmental Planning Policy
SIC	State Infrastructure Contribution
SOPA	Sydney Olympic Park Authority
SSP	State Significant Precinct
TfNSW	Transport for New South Wales
TMAP	Traffic Management and Accessibility Plan

Executive Summary

Background

This Report has been prepared to assess the proposed amendments to Sydney Olympic Park Master Plan 2030 and Part 23 of the *State Environmental Planning Policy (State Significant Precincts) 2005* (State Significant Precincts SEPP).

The *Sydney Olympic Park Authority Act 2001* (SOPA Act) requires the preparation of a Master Plan and its approval by the Minister for Planning to give it effect. Clause 28 of State Significant Precincts SEPP requires SOPA to undertake a review of the Master Plan five years from the date the Master Plan has effect and report the outcome of the review to the Minister.

The 2017 review undertaken by Sydney Olympic Park Authority (SOPA) was informed by:

- *A Plan for Growing Sydney* which identifies Sydney Olympic Park as having a key role in providing new office space to support growth in the 'knowledge economy' and precinct which can provide jobs close to homes;
- a desire to broaden the types of activity within Sydney Olympic Park, and respond to market interest for residential development in the precinct;
- the need to create a Town Centre that is vibrant and active 18-24/7, to support growing communities in and around Sydney Olympic Park (outside of events) and to enhance the event experience for visitors;
- rezoning of precincts at Wentworth Point and Carter Street;
- improved access from enabling infrastructure including Westconnex and the Hill Road off ramp; and
- consultation with local councils, State agencies, key stakeholders and the local community.

The five-year review provides the opportunity to revisit the targets and strategies set out in the Sydney Olympic Park Master Plan 2030 in light of the above and in conjunction with development occurring on the wider Olympic Peninsula and in Greater Western Sydney.

The 2017 Review

The 2017 review of the Sydney Olympic Park Master Plan 2030 proposes a number of changes to land use and development controls, namely:

- encourages mixed use development along Australia Avenue, Olympic Boulevard, Dawn Fraser Avenue, Murray Rose Avenue, Sarah Durack Avenue and Edwin Flack Avenue;
- consolidates sites to create opportunities for a mix of retail and commercial uses and introduces additional residential dwellings in appropriate locations;
- integrates educational uses with existing sporting facilities and integrates civic and community uses with other uses;
- supports the expansion of event sites and venues to provide complementary uses for visitors, while continuing to protect the Olympic legacy;
- improves walking and cycling connections and increases overall access through new streets, laneways, service streets and footpaths, intersection upgrades, separated crossings, and additional walking/cycling bridges; and
- creates a new central urban park and improves and expands other local parks.

These proposals are managed through changes to planning controls relating to building heights, setbacks and floor space ratios.

The Sydney Olympic Park Master Plan 2030 (2017 Review) provides for development of an additional 460,000 sqm gross floor area (GFA) above that contemplated as part of the existing Master Plan 2030. The revised development targets and projected worker and residential population figures are identified in Tables 1 and 2 below.

Table 1 Revised development targets (Gross Floor Area) by land use category

Land Use	Master Plan 2030 (m ²)	
	Master Plan 2030 (m ²)	2017 Review (m ²)
Residential	575,000	855,000
Commercial Office	479,000	412,000
Venues (additions to exist)	130,000	110,000
Education	105,000	186,000
Temporary Accommodation	81,000	192,000
Transport Infrastructure	51,000	51,000
Retail	33,000	100,000
Community Facilities	31,000	37,000
Entertainment	15,000	17,000
TOTAL	1,500,000	1,960,000

Table 2 Revised projected figures for Master Plan 2030

Master Plan 2030	Master Plan 2017 Review (review)
14,000 residents in 6,000 homes	23,500 residents in 10,700 homes
31,500 jobs	34,000 jobs
5,000 students	5,000 students

Amendments to the controls in the State Significant Precincts SEPP are proposed to implement the proposed amendments to the Sydney Olympic Park Master Plan 2030 (2017 Review) including changes to maximum building heights and floor space ratios.

Consultation

The Draft Sydney Olympic Park Master Plan 2030 (2017 Review) was publicly exhibited between 10 October and 15 November 2016. The Department received sixty (60) submissions. Of the submissions received:

- 6 were made by government agencies and councils,
- 17 were made by lease holders,
- 22 were made by organisations, and
- 15 were made by individuals from the local community.

The key issues raised in submissions are summarised below:

- access, traffic and transport,
- urban design, building height and density,
- affordable housing,
- education facilities,
- sustainability,
- open space,
- community facilities,
- future of Sydney Olympic Park as an events precinct,
- economic impacts, and
- local and State developer contributions.

Response to submissions and amendments to Sydney Olympic Park Master Plan 2030

SOPA prepared a Report responding to submissions and modified the proposal to address key issues raised. This documentation was submitted to the Department in July 2017 and has been updated to reference Sydney Olympic Park Master Plan (2017 Review). For the purposes of the following Finalisation Report and assessment of the review process, the exhibited Master Plan is referenced throughout this Report as the Draft Master Plan 2030 (2017 Review) (draft Master Plan 2030).

Key amendments proposed by SOPA in response to the submissions received include:

- sustainability planning principles,
- access, parking and transport general controls,
- built form controls,
- design excellence criteria, and
- increased flexibility to land use plans across the Central, Stadia, Showground, Boundary Creek and Tennis precincts.

Department's assessment and recommended changes

The Department has carefully considered the issues raised in submissions and SOPA's response to submissions. The Department supports the amendments proposed by SOPA subject to the following:

- include a requirement that for each Development Application, an Applicant is to prepare and submit a development economic feasibility study to determine whether the development can exceed the minimum 5% requirement for affordable housing,
- changes to sustainability principles specifically higher BASIX targets,
- amend to built height controls related to Sites 61 and 62,
- amend the requirements for new public spaces to clarify what is being delivered at Sydney Olympic Park,
- amend the new facilities and local infrastructure requirements, and
- continue to work with the Department of Education to identify future school site/s to respond to the future growth in residential population.

In addition to the above, several amendments are required to the proposed planning and development controls for a number of sites within the Central and Parkview Precincts. Table 7 in Section 3.2 of the Report provides further detailed assessment of each amendment and why it has been recommended.

Conclusion

Following a detailed assessment, the Department recommends the Minister for Planning approves the Master Plan 2030 (2017 Review), subject to amendments.

1 Introduction

Sydney Olympic Park covers 640 hectares (ha) of land extending from the Parramatta River in the north to the M4 Motorway and Parramatta Road in the south. It includes 430 ha of parkland and a 210 ha Town Centre adjacent to Olympic Park Train Station (Refer to Figure 1).

Sydney Olympic Park was declared a State Significant Site (now Precinct) by the Minister for Planning in 2010. Part 23 of the State Significant Precincts SEPP sets out the land use zoning, floor space ratios and height of buildings development standards to guide future development.

The SOPA Act requires the preparation of a Master Plan and its approval by the Minister for Planning to give it effect. Clause 28 of State Significant Precincts SEPP requires SOPA to undertake a review of the Master Plan every five years from the date the Master Plan has effect and report on the outcome of the review to the Minister.

This Finalisation Report considers the issues raised in public submissions following exhibition of the Draft Sydney Olympic Park Master Plan 2030 (2017 Review) and how these have been addressed in the Response to Submissions Report (July 2017) prepared by SOPA and updated Sydney Olympic Park Master Plan 2030 (2017 Review). It also provides a recommendation to the Minister for Planning on the proposed amendments to Sydney Olympic Park Master Plan 2030 and Part 23 – Sydney Olympic Park in Schedule 3 of the State Significant Precincts SEPP.

This finalisation report should be read in conjunction with the following documents:

- Sydney Olympic Park Master Plan 2030 (2017 Review), prepared by SOPA.
- Response to Submissions Report prepared by SOPA (July 2017) that includes:
 - Appendix 1 – Summary of Submissions (A3 Table Summary)
 - Appendix 2 – Sydney Olympic Park Local Infrastructure Contribution Framework (July 2017)
 - Appendix 3 – Retail Demand and Impact Assessment
- Sydney Olympic Park – Testing of Draft 2030 Master Plan Review, prepared by Cox Architects (September 2017) (**Appendix B**).

Figure 1 Map of Sydney Olympic Park



Key
[Red outline] Sydney Olympic Park [Yellow dashed outline] Sydney Olympic Park Town Centre

2 Consultation Summary

In accordance with clause 27 of the State Significant Precincts SEPP the proposed amendment to the Master Plan 2030 was prepared by SOPA and placed on public exhibition for a minimum of 30 days. The public exhibition ran for a period of 36 days from 10 October 2016 to 15 November 2016. A Draft Sydney Olympic Park Master Plan 2030 (*2017 Review*) and supporting documentation including an Explanation of Intended Effect for proposed amendments to Part 23 of State Significant Precincts SEPP was placed on public exhibition by the Department and SOPA. The exhibition material was available to view on the Department's and SOPA's website and were also made available to view in person at several locations.

The public exhibition and consultation also included:

- advertisements in local and Sydney metropolitan newspapers,
- exhibition letters to stakeholders, landowners and long-term leaseholders,
- website updates,
- community drop in and walking tours around Sydney Olympic Park,
- community drop in sessions,
- community information flyer, and
- social media posts, including short video and 3D fly-through images.

The Department and SOPA also met with several lease holders and other third-party submitters during the review process. A summary of the consultation undertaken by SOPA during and immediately following the public exhibition is provided in Section 2 of SOPA's Response to Submissions Report.

A total of sixty (60) submissions were received during the exhibition period. Issues raised in these submissions are discussed in Section 3 of this report. Copies of the submissions are available on the Department's website.

Of the 60 submissions received:

- 6 were made by government agencies and councils,
- 17 were made by lease holders,
- 22 were made by organisations, and
- 15 were made by individuals from the local community.

Government agency and council submissions were received from:

- City of Parramatta Council
- City of Canada Bay Council
- City of Sydney Council
- NSW Department of Education
- Transport for NSW including Roads and Maritime Services (RMS)
- Environment Protection Authority (EPA)

SOPA prepared a report responding to the submissions and made some amendments to the exhibited Master Plan to address the key issues raised. This documentation was submitted to the Department in July 2017, the Master plan document has been updated to reference Sydney Olympic Park Master Plan (*2017 Review*).

Section 34A of the Environmental Planning and Assessment Act 1979 require the Secretary to consult with the Office of Environment and Heritage (OEH) before a SEPP is made, if in the opinion of the Secretary, critical habitat or threatened species, populations or ecological communities, or their habitats, or critical

habitat of fish or marine vegetation, or threatened species, populations or ecological communities of fish or marine vegetation, or their habitats will or may be adversely affected by the proposed SEPP.

On the 18 August 2016, the Secretary formed the opinion that under section 34A of the Environmental Planning and Assessment Act 1979 that the proposed SEPP would not adversely affect critical habitat or threatened species, populations or ecological communities, or their habitats (including fish and marine vegetation) as the proposed amendments to the SEPP is limited to amending FSRs and building heights for sites that are already developed to some extent. Accordingly, the Secretary determined that consultation under this section is not required with the Chief Executive of OEH.

3 Key Issues

The issues raised most frequently in submissions were:

- access, traffic and transport
- urban design, building height and density
- affordable Housing
- education Facilities
- sustainability
- open space
- community facilities
- future of Sydney Olympic Park as an events precinct
- economic impacts
- local and State contributions

The Department's consideration of these issues is provided below.

3.1 Access, Traffic and Transport

Issue raised

The capacity of the transport network to cater for additional development is a key challenge within the Olympic Peninsula and Sydney Olympic Park. Whilst the draft Master Plan was released for public exhibition, the then Minister for Planning made it clear that the Master Plan and proposed amendments to the State Significant Precincts SEPP would not be finalised until certain traffic, transport and infrastructure matters were satisfactorily resolved.

A large proportion of the total number of submissions received raised traffic and transport as being critical to the realisation of the development objectives of the master plan. More than 40% of submissions that raised traffic issues were from members of the local community and some 30% from a range of non-government organisations.

Government agency and Council submissions that raised traffic and transport issues were received from Transport for NSW (TfNSW) and Roads and Maritime Services (RMS), City of Parramatta and City of Canada Bay Councils. The key issues raised related to:

- lack of a strategic transport plan for the Olympic Peninsula,
- local and regional transport infrastructure – its planning, funding and timing,
- cumulative impact,
- planning for the Hill Road off ramp,
- car parking and sharing,
- basement car parking, and
- bicycle parking.

These issues are addressed below.

3.1.1 Strategic Transport Plan for Olympic Peninsula

Issue raised

Transport for NSW is concerned about the level of additional development within the Olympic Peninsula including that proposed within Sydney Olympic Park and the likely impacts of this on the regional road network. It is their view, that the proposed changes to the Sydney Olympic Park Master Plan and the increase

in regional transport demands need to be investigated as part of a broader regional plan. Transport for NSW suggest that any amendments to the Master Plan be held over until these broader regional investigations are sufficiently advanced to provide more certainty to understand the transport implications.

Department response

It is acknowledged that Transport for NSW remains concerned about the level of additional development proposed by the Master Plan review and the likely impacts of this on the regional road network. Until investigations in relation to the Stage 2 of the Parramatta Light Rail and Sydney Metro West are finalised, it is predominantly the road network that must cater for the additional trips generated by future development.

As part of the review, a high-level traffic and transport assessment was undertaken by WSP Parsons Brinckerhoff on behalf of SOPA. The assessment considered the impact of an additional 460,000 sqm of GFA above that contemplated in the existing Master Plan in terms of traffic generation, performance of roads and intersections, parking, public transport usage and travel demand management within and outside of the Town Centre. A copy of this assessment formed part of the exhibition material. The traffic and transport analysis identified several upgrades to local and regional roads and intersections within the short and longer term to manage the impact of development anticipated under the existing Master Plan and additional traffic generation because of the review. Transport for NSW has not stated that they disagree with the upgrades identified in the high-level analysis.

The existing approved Master Plan allows the development of up to 6,000 homes and 31,500 jobs which is supported by road upgrades as identified in the existing Sydney Olympic Park Infrastructure Contributions Framework. The revised Master Plan seeks approval of an additional 4,700 homes and 2,500 jobs. Since the approval of the existing Master Plan a number of improvements have been made or proposed to the surrounding regional road network such as Westconnex and the westbound Hill Road off ramp. The preferred option for Stage 2 of Parramatta Light Rail was announced in October 2017 which will connect to Stage 1 and run north of the Parramatta River through the rapidly developing suburbs of Ermington, Melrose Park and Wentworth Point to Sydney Olympic Park, providing a new public transport option. With these additional transport initiatives, the Department considers that the transport network can accommodate the additional development proposed by the revised Master Plan. It is noted that this development will roll out over time and will allow incremental upgrade to the transport network to support it.

Transport for NSW has commenced a Greater Parramatta Olympic Park Transport Program Plan which will develop a staged transport infrastructure and services program that can support growth scenarios proposed by Government agencies and guide Transport for NSW cluster investment over the next 10-40 years. This work will be completed in 2018 and go some way to identifying the transport investment requirements in the Sydney Olympic Park over the coming a 40 year timeframe.

In the absence of an area wide traffic model for the Olympic Peninsula that considers the cumulative effects of all future developments within the area, the Department generally accepts the conclusions of the high-level analysis undertaken and conclusions that additional traffic impacts of the land use changes proposed by Master Plan 2030 (2017 Review) are generally manageable, subject to the implementation of several initiatives and recommendations, which are discussed in detail below.

3.1.2 Local and regional transport infrastructure

Issue raised

The identified upgrades to local and regional roads and intersections within the short and longer term, required to manage the impact of development anticipated under the existing Master Plan, are currently not funded and there is insufficient detail on when the infrastructure is to be delivered and by whom.

Department response

The funding of required road and intersection upgrades will be managed through one of three mechanisms:

- Sydney Olympic Park Authority Local Infrastructure Contributions Framework (ICF),

- Special Infrastructure Contribution (SIC) for State and regional roads, and
- Development agreements negotiated directly with proponents by SOPA.

Short-term local infrastructure

The required upgrades for local roads and intersections are identified within the Master Plan (refer to section 3.10 and Figure 3.14) and will be funded through the Sydney Olympic Park Local Infrastructure Contributions Framework (ICF). The ICF provides an estimate of their cost and indicative staging (refer to Table 3).

Table 3 Local intersection upgrades

No.	Intersection	Proposed upgrade	Status	Indicative Staging as per ICF
Sydney Olympic Park Local Road Network				
8	Australia Avenue/ Kevin Coombs Avenue/ Marjorie Jackson Parkway	New intersection upgrade	Funded through ICF	Short term (2015-2020)
9	Australia Avenue/ Murray Rose Avenue	New intersection upgrade	Funded through ICF	Long term (2025-2030)
11	Australia Avenue/ Figtree Drive	Intersection upgrade	No longer required because of amendments to street layout in Central Precinct.	
12	Australia Avenue/ Sarah Durack Avenue/ Bennelong Road	New intersection upgrade	Funded through ICF	Short term (2015-2020)
13	Edwin Flack Avenue/ Uhrig Road/ Dawn Fraser Avenue	New intersection upgrade	Funded through ICF	Short to Medium term (2015-2024)
14	Edwin Flack Avenue/ Birnie Avenue/ Shane Gould Avenue	New intersection upgrade	Funded through ICF	Short term (2015-2020)
15	New Central precinct local road network	New east-west access road between Herb Elliott Avenue and Figtree Drive New north-south streets	Funded through ICF	Short term (2015-2020)
16	Bennelong Parkway / Murray Rose Avenue	New intersection	Funded through ICF	Short to Medium term (2015-2024)

New streets within the town centre will also be funded through the ICF or delivered by leaseholders as part of separate development agreements with SOPA. These streets are also identified in section 3.5.2 of the Master Plan and Attachment E of the ICF.

Short-term State / regional infrastructure

The traffic and transport analysis also identified several upgrades to regional roads and intersections in the short (within 5 years) and longer term (beyond 5 years). As shown in Tables 4 and 5 below, since exhibition, several of these items are now proposed to be delivered as part of other transport projects. The remaining items have been identified as potential Special Infrastructure Contributions (SIC) items or are no longer required.

Table 4 Short-term surrounding State / regional intersection upgrades

No.	Intersection	Description	Funding Source
1	Silverwater Road/ Holker Street	Intersection upgrade	Proposed SIC item
2	Parramatta Road/ Hill Road/ Bombay Street	Intersection upgrade	Proposed SIC item
3	Parramatta Road/ Birnie Avenue	Intersection upgrade	Proposed SIC item
4	Carter Street/ Hill Road	Intersection upgrade	To be delivered as part of Hill Road off ramp project.
5	Carter Street/ Birnie Avenue	Intersection upgrade	To be delivered as part of Hill Road off ramp project.
6	Australia Avenue/ Homebush Bay Drive	Intersection upgrade	Proposed SIC item
7	Hill Road/ Holker Street	Intersection upgrade	Proposed SIC item
1	M4 Motorway widening	Widening of M4 Motorway to three lanes east of Homebush Bay Drive	To be delivered as part of WestConnex

Table 5 Long-term surrounding road network upgrades

No.	Intersection	Description	Status
2	M4 Motorway/ Hill Road east facing ramps (eastbound on ramp and westbound off ramp)	<ul style="list-style-type: none"> New ramps to Hill Road (eastbound on-ramp and westbound off-ramp) between M4 Motorway and Hill Road. Estimated capacity increase of 400 vehicles per hour created by new point of access to and from M4 Motorway. 	<p>Eastbound off ramp to be delivered as part of WestConnex.</p> <p>Westbound off ramp announced November 2015 – to be delivered by RMS and funded by Housing Acceleration Fund.</p>
5	Homebush Bay Drive to Parramatta Road direct link	<ul style="list-style-type: none"> Direct, two-way road connection between Homebush Bay Drive and Parramatta Road (east of Homebush Bay Drive). 	<p>RMS advice is not feasible due to design / land constraints. WSP has confirmed that this link is not critical, given amendments to WestConnex Stage 1a improvements, new access ramps at Hill Road from the M4 and Parramatta Light Rail Stage 2 route and potential Sydney Metro West station.</p>

These upgrades will improve the regional network capacity and access to / from the Olympic Peninsula.

3.1.3 Cumulative impact

Issue raised

The primary concern in relation to cumulative impact is the ability of transport infrastructure to accommodate the impact of additional traffic volumes anticipated under the revised Master Plan during major events. Transport for NSW and the City of Parramatta raised the issue that no assessment or modelling of simultaneous peak hour travel demand and events has been undertaken.

SOPA notes that the cumulative impact of simultaneous peak hour and event impacts were not able to be modelled because the wider road network, its capacity, proposed regional upgrades and performance was to be modelled by RMS as part of a precinct wide (mesoscopic) model. At the time of undertaking the Master Plan and preparing the response to submission report the mesoscopic model was not available (NB. The mesoscopic model is still not available).

SOPA further states that estimating event travel demand is challenging. The variety of event types and size, their operational timing (time of day; day of week) and their associated travel management plans make wider road network event modelling problematic in accurately replicating the event management measures and the subsequent expected reduction of cumulative impacts. Modelling of simultaneous peak hour and event traffic would require not only a mesoscopic model incorporating regional infrastructure upgrades, but extensive data collection across numerous events over time to validate the model. Even if this modelling was undertaken the results would likely only replicate the existing transport usage behaviours and not necessarily reflect the changes associated with the new regional road and public transport infrastructure measures. The use of public transport by event patrons and changes in commuting behaviour by residents/workers varies widely between events as do the size and time at which events are staged. It was considered that any attempt to identify specific commuter demands for the purposes of quantitative 'modelling' would have provided unreliable results.

In the absence of undertaking additional modelling, SOPA has provided the following comments:

- Simultaneous peak hour travel demand and events are managed through:
 - High capacity public transport services (rail and event bus) which operate for major events and currently achieve a non-car mode share of approximately 65%. SOPA is working to further improve this non-car mode share by using integrated ticketing for major events.
 - Priority buses to service events. The use of priority buses provides the flexibility for additional services to be provided in direct response to the number and size of events.
 - Establishing high capacity local road connections from/to the regional road network (creating an event ring road) which are free of on-street parking and driveways preserving traffic movement during events.
 - Implementing event road management plans to facilitate access to the major car parks and the use of Travel Demand Management messaging around events to encourage non-car mode share.
- Most major events occur in the evening, and predominantly on the weekends. For those midweek major events, the additional PM trips generated by the additional development anticipated in Sydney Olympic Park will generally be travelling outbound from the precinct, in the reverse direction to the inbound event traffic. The frequency of this scenario is less than six (6) occasions per year.
- The use by event patrons of the M4 Motorway and Hill Road ramps to access event car parks will serve to better separate event traffic from residential and business activity in the Central Precinct (improved wayfinding and road guidance signage is also proposed by SOPA).
- The proposed relocation of the Aquatic Bus Terminal into the major northern bus terminal located within the Stadia Precinct will open up road access via Olympic Boulevard to Herb Elliott Avenue and the Central Precinct and provide a significant increase in local access to Sydney Olympic Park.
- The proposed reduction in the extent and duration of road closures during events will facilitate greater levels of 'business-as-usual activity', maintaining access for high volume pedestrian movements, event

bus priority and event off-street car parking as well as allowing public transport services to operate to regular routes.

- The location of additional retail space will not interfere with event operations including traffic and public transport operations within Sydney Olympic Park.
- The proposed increase in retail uses within the Town Centre, particularly food and beverage, is expected to assist in dissipating crowd movements, resulting in a more efficient spread of travel patterns as patrons arrive earlier or stay longer before or following an event.
- The establishment of a strong commercial core will be beneficial to Sydney Olympic Park in terms of the traffic it generates as a land use. The alternative land uses of residential, retail, education will add vibrancy and activity in the town centre throughout the day and night and will likely flatten commuter peak movements (i.e. not solely reliant on commuter movements).
- Future public transport services such as Sydney Metro West and Parramatta Light Rail (Stage 2) are likely to increase the non-car mode share as these services provide more efficient and reliable ways to travel to and from Sydney Olympic Park.
- SOPA understands that the heavy rail timetable is to be reviewed in 2018. SOPA will work closely with relevant agency to identify opportunities to improve heavy rail connections to provide further improvements to simultaneous peak travel demand and event traffic.

Department's response

In the absence of an area wide traffic model for the Olympic Peninsula that considers the cumulative effects of all future developments within the area, the Department generally accepts the conclusions of the high-level analysis undertaken and conclusions that additional traffic impacts of the land use changes proposed by Master Plan 2030 (2017 Review) are generally manageable, subject to the implementation of several initiatives and recommendations as set out in **Table 6** below.

Table 6 Recommendations

Item	Description	Department comment
1.	Upgrades to a number of key local and state regional roads and intersections	<p>All local transport infrastructure has been identified and included in the SOPA's Infrastructure Contributions Framework (ICF) and will be delivered by SOPA through this mechanism.</p> <p>Identified State and regional infrastructure including bus priority measures will be delivered as part of existing transport projects such as WestConnex or are being investigated as a potential SIC item.</p> <p>Until the SIC is established, the amendments to the State Significant Precincts SEPP being proposed as part of the Master Plan review include a clause to require satisfactory arrangements to be negotiated prior to development consent.</p>
2.	Consolidation of all event bus operations into an extended Plaza Bus Terminal to free up the road network surrounding precincts targeted for uplift (amendment will open up road access via Olympic Boulevard to Herb Elliott Avenue and the Central Precinct and provide a significant increase in local access to the Park)	To be implemented by SOPA. Details to be incorporated into an Events Management Plan and endorsed by Transport for NSW and RMS.

3.	Manage road closures to maximise business as usual while not impacting on SOPA's ability to deliver safe and secure event operations	Details to be incorporated into an Events Management Plan and endorsed by RMS as appropriate
4.	Preservation of a future rapid transit station (Sydney Metro West) within Sydney Olympic Park and Parramatta Light Rail.	SOPA and the Department are currently working with Transport for NSW on planning for Stage 2 of the PLR and the new Sydney Metro West. The review of the Master Plan does not preclude a future rapid train station PLR route.
5.	Increased train capacities and services including direct services to Sydney Olympic Park and use of existing event bus priority infrastructure by timetabled services	<p>Transport for NSW has advised that general rail capacity improvements across the network are coming into effect as a part of timetable changes commencing in November 2017, but that there is no specific commitment to implement new infrastructure that would directly enable a higher level of direct new stops at Sydney Olympic Park. The Department considers that Transport for NSW should consider direct train services as an interim measure to provide additional public transport capacity to Sydney Olympic Park whilst light rail or a metro servicing Sydney Olympic Park is confirmed and / or become operational.</p> <p>Existing event bus priority infrastructure by timetabled services to be further investigated by SOPA and RMS and details to be provided to the Department.</p>
6.	Adoption of a non-car mode share target of 40% and higher stretch target of 60%	Target has been incorporated into Master Plan. Non-residential development in the Town Centre is required to prepare and implement a Work Place Travel Plan outlining how the development will comply with Master Plan 2030 (2017 Review) transport strategies and the relevant mode share target for utilisation of public transport and minimisation of car travel during peak commuter periods (refer to section 4.8.1 of the Master Plan).
7.	<p>Continued employment of a range of mechanisms for management of simultaneous peak hour travel demand and events traffic including:</p> <ul style="list-style-type: none"> • high capacity public transport services (rail and event bus) which achieve a non-car mode share of approximately 65%; • priority buses to service events; • establishing high capacity local road connections from/to the regional road network (creating an event ring road) which is free of on-street parking and driveways preserving traffic movement during events; • Implementing event road management plans to facilitate access to the major car parks and the use of Travel Demand 	Details to be incorporated into an Events Management Plan and endorsed by RMS.

	<p>Management messaging around events to encourage non-car mode share; and</p> <ul style="list-style-type: none"> • Implementation of specific Traffic Management Plans for each event to ensure minimal disruption for businesses within the Park, whilst maintaining access for high volume pedestrian movements, event bus priority and event off-street car parking. 	
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3.1.4 Hill Road Off Ramp (westbound) and widening

Issue raised

The primary concerns raised in several submissions including Transport for NSW and the City of Parramatta in relation to the proposed westbound off ramp at Hill Road and widening related to the land-take and associated impacts on the development potential of sites in the Haslams Precinct, and whether the off-ramp had been factored into the traffic analysis undertaken to support the review of the Master Plan.

The new on and off ramps at Hill Road to / from the M4 were referenced heavily in the Transport Strategy (exhibited as part of the Review) and are acknowledged as an important measure to increase regional road capacity and provide better access to Sydney Olympic Park, the Carter Street Precinct and Wentworth Point. The east bound Hill Road on and off ramps have already been delivered and the Government has committed funding for construction of the Hill Road westbound off ramp. The westbound off ramp from the M4 to Hill Road is considered critical to improving access to Wentworth Point, Carter Street and Sydney Olympic Park, as well as alleviating pressure at the Australia Avenue roundabout. These ramps will provide an alternative access to the Homebush Bay Drive / Australia Avenue gateway and will help separate event traffic from the day-to-day residential and business movements in and around the Town Centre.

Land within the Haslams Precinct that may be subject to future road works / widening has been identified in the Master Plan and are subject to the finalisation of plans for the westbound off ramp by RMS (refer to section 5.9). Once the detailed design is completed and exact areas of widening are known, SOPA has stated that they will be in a position to consider any necessary amendments to the Master Plan to allow for development of any residual land that remains in its ownership.

Department's response

In March 2017, the Department in conjunction with RMS, SOPA and City of Parramatta started a process to review the planning framework for Carter Street Precinct. The impacts of Hill Road off Ramp include possible land acquisition within Sydney Olympic Park and Carter Street and necessitate amendments to Carter Street Precinct Plan and Sydney Olympic Park Master Plan 2030. RMS is undertaking detailed concept design for the westbound off ramp and are working with the Department, City of Parramatta, landowners and SOPA to implement this project.

3.1.5 Car Parking and Sharing

Issues raised

A number of submissions suggested that residential parking should be limited to a maximum of 1 space per dwelling (as opposed to the proposed maximum of 1 space per 1 bedroom dwelling, 1.2 spaces per 2 bedroom dwelling, 1.5 spaces per 3 bedroom dwelling, 2 spaces per 4 bedroom dwelling and 0.25 visitor spaces per dwelling) and that consideration be given to allowing the development of apartments without parking.

As part of the Response to Submissions Report, SOPA undertook a review of residential parking ratios compared to standards applied by the City of Parramatta and Canada Bay (and also included the former

Auburn Council) – the review demonstrated that council parking ratios were generally higher than those contained within the Master Plan and / or expressed as a ‘minimum’ rather than a maximum requirement.

Consistent with the recommendations from the City of Parramatta, SOPA notes that a future review of parking ratios may be required, which could also include consideration for the provision of car share spaces both on-street and within developments. However, until public transport servicing the park improves, SOPA is not proposing to further reduce residential parking rates as part of the current review. The Master Plan has been amended to encourage car sharing, as encouraged by the City of Parramatta and City of Canada Bay Councils, and will work with proponents and Councils to identify opportunities to provide car sharing spaces for new developments where practicable.

Department response

The Department agrees with this approach. Future reductions in parking provisions should be linked to and supported by major public transport improvements to provide practical, alternative non-car travel modes. Parking provisions for residential development should be monitored and reviewed as development within the Town Centre progresses. It is noted that car parking rates within the Master Plan are maximums. Further consideration of the separation of parking spaces and dwellings during the sale of residential units should be considered in the future, in line with current market trends for lower car ownership. Together these measures could achieve a significant drop in the provision of parking whilst also supporting more sustainable travel.

3.1.6 Basement car parking

Issue raised

Three submissions requested that the requirement for basement parking on all sites should be reviewed on the basis that it may not be suitable or viable because of a site constraint. The City of Parramatta has requested that building controls should be included to limit above ground car parking to no more than four levels above ground.

SOPA has considered this issue and in response has amended the Master Plan to remove the requirement to provide basement parking on sites where above ground parking cannot be avoided. Additional controls have been included in the amended Master Plan requiring any above ground car parking to be “sleeved” with active or habitable uses at ground and first floor, wrapping around street corners for a minimum of 15 metres, limiting it to podium level only and requiring it to be fully enclosed up to at least level 4.

Department response

The Department agrees with this approach. Above ground car parking should only be considered where it can be demonstrated that a site is unsuitable or it is unviable. The proposed amendments to the Master Plan will ensure the visual and environmental impacts of above ground car parking are minimised and that active frontages can be achieved.

3.2 Urban Design, Building Height and Density

Issue Raised

A number of submissions raised urban design, building height and density issues. The main issues raised included:

- requests for additional floor space and height (over and above the increases proposed as part of the review),
- questioning changes to podium and tower form controls,
- questioning the requirement to provide colonnades and awnings along certain streets;
- floor plate sizes;
- metropolitan skyline; and
- flexibility.

Each of these issues are addressed in turn below.

3.2.1 Floor Space and Height

A precinct wide approach was adopted by SOPA to determine the quantum and mix of additional floor space required to realise the Town Centre's new vision. Among other matters it considered the capacity of existing infrastructure to support additional growth, the unique character of Sydney Olympic Park as a high quality public space, the role of the town centre in relation to other centres and individual precinct's capacity to accommodate growth. Once this was established, extensive testing was undertaken by SOPA's urban designers to determine how additional floor space could be accommodated within precincts and on individual sites. Careful consideration was taken into account to ensure high levels of amenity could be achieved for future occupants of new buildings. The setting of site FSRs and building heights have been carefully considered to promote liveability and to avoid adverse impacts to existing parks and open spaces including sensitive environments. The review process of the built form controls results in better planning and design of the existing precinct while maintaining a comprehensive approach to the long-term development potential of the SOP site.

SOPA is of the view that given the uplift that is proposed in the 2017 review (approximately 460,000 sqm of additional floor space) and extensive testing that has been undertaken to ensure the allocated development controls are reasonable and achievable, generally no further increase in floor space or overall height could be supported. SOPA notes that the Master Plan is to be reviewed every five years to ensure that it reflects contemporary standards, changes to infrastructure capacity and market expectations. Any potential for additional height and/or FSR that may be able to be realised as a result of regional infrastructure improvements or changes in market expectations may be considered as part of future reviews of the Master Plan.

A more detailed response to submissions that requested additional floor space or height is included at Appendix 1 of the Response to Submissions Report, prepared by SOPA.

Department's response

The Department was involved in the detailed site testing that occurred as part of the review and generally concurs with SOPA that, at this time, no additional floor space or increase in overall building height over and above what is currently proposed is justified.

The Department commissioned a separate urban design report to review submissions received from 12 leaseholders, generally all proposing alternate planning and development controls to allow for a change in land use or seek additional uplift. A copy of the urban design testing report, prepared by Cox Architecture is included at **Appendix B**. The report includes the results of testing one possible design scenario and outcome for the identified site based on using the draft Master Plan controls.

Following a review of each of these submissions and the findings of the site, a recommendation has been made to either adopt the Master Plan controls or make amendments to the controls relevant to the individual site. The recommendations have been made to ensure the desired built form controls (FSR and building height) in the Master Plan and State Significant Precincts SEPP can be achieved. The Department has carefully considered the recommendations and worked collaboratively with SOPA to ensure the controls allow for innovative and good urban design outcomes while maintaining the vision and objectives of SOPA's Master Plan. An assessment of these recommendations in relation to each site (Refer to Figures 2 and 3) is set out in Table 7.

Figure 2 Site Identification Map – Parkview Precinct



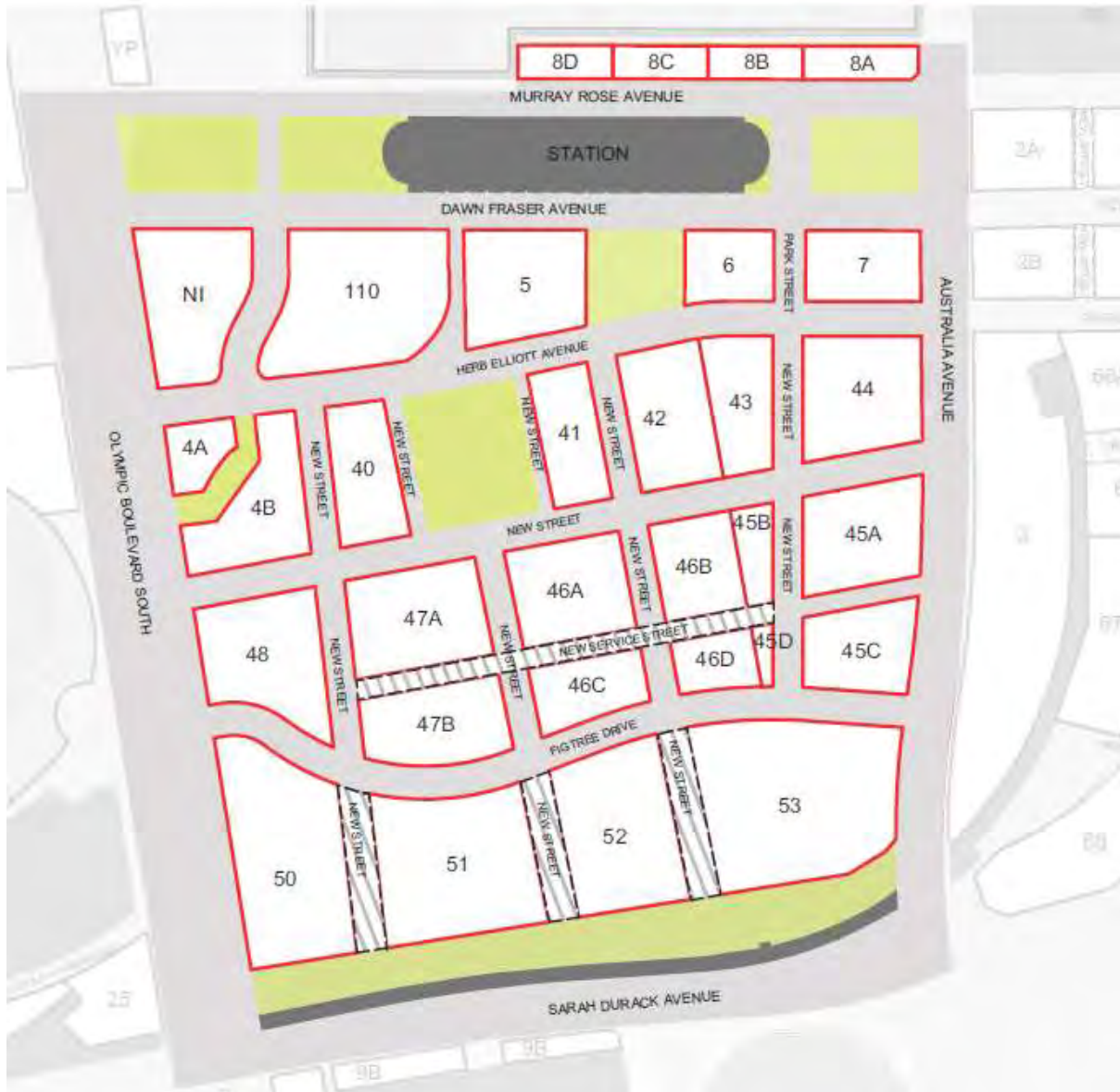
Table 7 Assessment of urban design testing report

Site and submission No.	Cox Recommendation	DPE Assessment
Parkview Precinct		
Site 2A, 2B and P6 (car park) located at Murry Rose Avenue Submission No. 49 Website no. 172368	No change to Master Plan controls recommended.	The Department notes this submission was made by a third party and not the lessee of this site. No changes to controls.
Site 61 A and 61B 3 Parkview Drive	To achieve the required floor space for the site, the maximum building height in the Master Plan is required to increase	The increase in building height is required to achieve the commercial floor space on the site. The

<p>Submission No. 45 Website no. 172024</p>	<p>across both sites A and B with a 6 metre setback from 6 storeys.</p> <p>The northern site A is proposed to increase from 8 to 20 storeys (33m to 84 m on the State Significant Precincts SEPP height of buildings map).</p> <p>The southern site, B is proposed to increase from 8 to 10 storeys (33m to 44m). The increase in height is required in order to:</p> <ul style="list-style-type: none"> • accommodate the maximum GFA allocated for the site; • remain consistent with the potential built form of the neighbouring site; and • reduce further solar access and overshadowing impacts to the public realm and open space opposite Parkview Drive. 	<p>Department considers maintaining the amount of commercial floor space within the Master Plan is critical to its vision and objectives and to ensure that jobs are provided within the Town Centre, close to homes.</p> <p>In line with Cox's recommendations, an increase in height on these sites requires a 6 storey block edge and street wall to ensure a consistent built form across the Town Centre. This control will need to be amended in the Master Plan.</p> <p>The Department considers the maximum 20 storey height limit will provide a consistent built form across the precinct, specifically as the neighbouring site to the east transitions from 30 storeys (site 2A on Australia Avenue). The increase in height will allow for a taller and slender tower that could mitigate any adverse solar impacts on the adjacent public domain and open space.</p> <p>The future design excellence and development application process for these sites will further consider any potential impacts of the buildings on the public domain.</p>
<p>Site 62 A and B 5 Parkview Drive</p> <p>Submission No.44 Website No. 171313</p>	<p>To achieve the required floor space for the site, the maximum building height in the Master Plan is required to increase across both sites A and B with a 6 metre setback from 6 storeys.</p> <p>The northern site A is proposed to increase from 8 to 20 storeys (33m to 84 m on the State Significant Precinct SEPP height of buildings map).</p> <p>The southern site, B is proposed to increase from 8 to 10 storeys (33m to 44m). The Increase in height is required in order to:</p> <ul style="list-style-type: none"> • accommodate the maximum GFA allocated for the site; • remain consistent with the potential built form of the neighbouring site; and • reduce further solar access and overshadowing impacts to the public 	<p>The increase in building height is required to achieve the commercial floor space on the site. The Department considers maintaining the amount of commercial floor space within the Master Plan is critical to its vision and objectives and to ensure that jobs are provided within the Town Centre, close to homes.</p> <p>In line with Cox's recommendations, an increase in height on these sites requires a 6 storey block edge and street wall to ensure a consistent built form across the Town Centre. This control will need to be amended in the Master Plan.</p> <p>The Department is confident that the increase in height will not result in significant adverse impacts on public</p>

	<p>realm and open space opposite Parkview Drive.</p>	<p>domain and open space. The future design excellence and development application process for these sites will further consider any potential impacts of the buildings on the public domain.</p>
<p>Site 60 A & 60 B Located at Murray Rose Avenue Submission No. 37 Website no. 172231</p>	<p>Amend the Master Plan to provide 2.5 m ground floor setback from the road reserve and footpath to ensure visual privacy for ground floor dwellings of residential only buildings.</p> <p>Remove the requirement for a minimum 3 hr direct sunlight for 75% of apartments within a development to receive solar access and natural cross ventilation.</p> <p>Consideration should be given for the provision of integrated basements and basements to be located under the public realm.</p>	<p>The Department agrees that the ground floor setback should be included in the Master Plan to ensure privacy for future residents.</p> <p>Solar access to apartments is assessed under the ADG which requires a minimum 3 hr direct sunlight for 70% of apartments. Should SOPA wish to work toward a higher requirement in the Master Plan, this is supported by the Department. There is no proposed change.</p> <p>The flexibility built into the Master Plan will allow for the inclusion of integrated basements, should it not be able to be met by future developments.</p>

Figure 3: Site Identification Map – Central Precinct



Site and submission No.	Cox Recommendation	DPE Assessment
Central Precinct		
Site 4B at Olympic Boulevard Submission No.40 Website no. 172360	Remove the requirement for a minimum 3 hr direct sunlight for 75% of apartments within a development to receive solar access and natural cross ventilation.	Solar access to apartments is assessed under the ADG which requires a minimum 3 hr direct sunlight for 70% of apartments. Should SOPA wish to work toward a higher requirement in the Master Plan, this is supported by the Department. There is no proposed change.
Site 43 and 44 Located on Australia Avenue	Amend the Master Plan land use category from commercial to 'mixed use' across the entire site instead of just along Australia Avenue to enable the better	Land use changes are not considered appropriate for these sites. The Department considers maintaining the amount of commercial floor space

Submission No53 Website no. 175704	built form outcome of a 6 storey podium with two residential towers above	within the Master Plan is critical to its vision and objectives and to ensure that jobs are provided within the Town Centre, close to homes.
Site 45A Located on Australia Avenue Submission No.50 Website no. 174226	Based on assumptions for the site no amendments to the built form controls are recommended. Consideration should be given for the provision of integrated basements and basements to be located under the public realm.	The Department supports the recommendation to encourage the provision of consolidated basements to improve the efficiency and use of buildings below the public domain. The finer grain street and smaller street blocks across the sites allows for an increase in permeability but can result in small individual building sites and therefore small and inefficient basement car parks. The Department considers the Master Plan allows flexibility for the opportunity of more efficient and consolidated basements below the public domain to occur.
Site 50 Located on the corner of Olympic Boulevard and Figtree Drive Submission No46. Website no. 172205	Remove the requirement for a minimum 3 hr direct sunlight for 75% of apartments within a development receive solar access and natural cross ventilation.	Solar access to apartments is assessed under the ADG which requires a minimum 3 hr direct sunlight for 70% of apartments. Should SOPA wish to work toward a higher requirement in the Master Plan, this is supported by the Department. The flexibility built into the Master Plan will allow this control to be varied should it not be able to be met by future developments. There is no proposed change.
Site 51 Located on Figtree Drive Submission No.41 Website no. 172380 Site 52 Located on Figtree Drive Submission No.52 Website no. 175331	Reduce the ground floor setback of residential only buildings from 5 to 2.5 metres to achieve the required ADG building separation and provide more efficient building envelopes to better satisfy solar access requirements. Move the location of the 20 storey height control line approximately 9 metres further south and east to allow for the design of tower with a maximum gross building area of 800 sqm. Remove the requirement for a minimum 3 hr direct sunlight for 75% of apartments within a development receive solar access and natural cross ventilation.	The Department supports the recommendations to setback and height control lines and requires this control to be amended in the Master Plan. Solar access to apartments is assessed under the ADG which requires a minimum 3 hr direct sunlight for 70% of apartments. Should SOPA wish to work toward a higher requirement in the Master Plan, this is supported by the Department. The flexibility built into the Master Plan will allow this control to be varied should it not be able to be met by future developments. There is no proposed change.
Site 53 Located on the corner of Figtree Drive and Australia Avenue	Amend the Master Plan to provide 2.5 m ground floor setback from the road reserve and footpath to ensure visual privacy for ground floor dwellings of residential only buildings.	The Department agrees that the ground floor setback should be included in the Master Plan to ensure privacy for future residents.

<p>(currently under assessment)</p> <p>Submission No.54 Website no. 218104</p>	<p>Remove the requirement for a minimum 3 hr direct sunlight for 75% of apartments within a development receive solar access and natural cross ventilation.</p>	<p>Solar access to apartments is assessed under the ADG which requires a minimum 3 hr direct sunlight for 70% of apartments. Should SOPA wish to work toward a higher requirement in the Master Plan, this is supported by the Department. The flexibility built into the Master Plan will allow this control to be varied should it not be able to be met by future developments. No change proposed.</p>
<p>GPT Site Sites 40,41,47 and 46 located in the centre of the Central Precinct between Henry Elliott Avenue and Figtree Drive</p> <p>Submission No.47 Website no. 172395 and 172403</p>	<p>Extend the mixed use zone in the Master Plan in both directions (north and south) to allow for residential uses along the new street that the Master Plan allows the option to deliver as a shared or pedestrian only street.</p> <p>Remove the requirement for a minimum 3 hr direct sunlight for 75% of apartments within a development receive solar access and natural cross ventilation.</p> <p>Amend the Master Plan to provide 2.5 m ground floor setback from the road reserve and footpath to ensure visual privacy for ground floor dwellings of residential only buildings.</p> <p>Consideration should be given for the provision of integrated basements and basements to be located under the public realm.</p>	<p>The Department considers maintaining the amount of commercial floor space within the Master Plan is critical to its vision and objectives and to ensure that jobs are provided within the Town Centre, close to homes. No change is proposed to the land use map in the Master Plan.</p> <p>Solar access to apartments is assessed under the ADG which requires a minimum 3 hr direct sunlight for 70% of apartments. Should SOPA wish to work toward a higher requirement in the Master Plan, this is supported by the Department. The flexibility built into the Master Plan will allow this control to be varied should it not be able to be met by future developments. No change proposed.</p> <p>The Department agrees that the ground floor setback should be included in the Master Plan to ensure privacy for future residents.</p> <p>The Department supports the recommendation to encourage the provision of consolidated basements to improve the efficiency and use of buildings below the public domain. The flexibility built into the Master Plan will allow for the inclusion of integrated basements, specifically across this site as SOPA have amended the Master Plan to require the new service street to be delivered underground (see Figure 5.7 of the Master Plan).</p>

The Department recommends the following amendments are required to the proposed planning controls within the Central and Parkview Precincts:

- increase the maximum building heights for Sites 61 and 62 to align with the Draft Master Plan proposed floor space ratio controls and desired built form for the precinct,
- amend the SEPP Height of Buildings map to increase from 33 to 84 metres for the above sites, and
- amend the setback and height control lines in the Master Plan for the sites outlined in Table 7 above.

3.2.2 Podiums

Issue raised

The interface of buildings with the public domain and street frontages has been a key consideration in determining proposed built form changes in the draft Master Plan. A number of submissions questioned the requirement for podiums and requested changes to podium heights.

SOPA’s view is that podiums have a positive impact on defining streets and facilitating changes to the scale of buildings within the Town Centre. In response to the issues raised in submissions SOPA tested a range of podium heights for different sites. SOPA amended the podium controls in Section 4.6.8 of Master Plan 2030 (2017 Review) to provide flexibility that allows for:

Exhibited draft Master Plan 2030 (Section 4.6.8)	Post exhibition Master Plan 2030 controls (Section 4.6.8)
Providing podiums of 8 storeys, with a setback above 6 storeys	5 and 8 storey podiums with a setback above 6 storeys in commercial streets
	4 to 8 storey podiums in residential streets except along Olympic Boulevard
	8 storey podiums along Olympic Boulevard.

Department Response

The proposed changes to podium heights to allow for greater flexibility are supported.

3.2.3 Colonnades and Awnings

Sydney Olympic Park’s unique make up as a world class event and sporting facility with residential and commercial development requires built form to be able to adapt to different situations. Several submissions raised the issue that the Master Plan should remove the requirement to provide colonnades or the extent of colonnades should be reduced specifically in the southern portion of the Town Centre.

The inclusion of colonnades to buildings and wide footpaths provides capacity for crowds along streets during events and active street frontages with outdoor dining and seating. SOPA concluded that where practical, the inclusion of colonnades would provide consistency within the Town Centre along individual streets, continuous shelter and provision for mature street trees without compromising building setbacks. It was noted in SOPA’s Response to Submissions report that the height of colonnades was an important urban design outcome along key streets, for example Olympic Boulevard, but a double height colonnade could be reduced to single storey height on secondary streets within the Town Centre. As a result, SOPA amended the Master Plan to:

- retain the need for double height colonnades along key streets;
- reduce the height of colonnades on a number of secondary street; and
- remove the need for colonnades on Australia Avenue but retaining the requirement for awnings.

Department's response

A rationalised approach to the extent of colonnades has been undertaken in the review of the Master Plan. In support of SOPA's vision to provide sustainable urban design outcomes, the inclusion of colonnades has provided generous space for street tree canopies. The Department considers the building controls in the Master Plan will appropriately manage the use of colonnade and awning treatments along full street or legible block streets. Colonnades are supported on the basis they can provide weather protection and give a pedestrian scale to both retail and commercial areas to positively contribute to the use of streets for outdoor activities.

3.2.4 Floor Plates

The size of tower floor plates in the Master Plan was raised in submissions and consultation discussions. The change to development controls to encourage the use of tall, slender towers has been a key principle of the Master Plan review as it maximises potential for view sharing and solar access.

In responding to issues raised in submissions, SOPA changed the control for residential tower floor plates of 15 storeys or more from 800 sqm to a maximum of 900 sqm gross building area (GBA), which includes the area between the outside face of all external walls, balconies and windows. SOPA's Response to Submissions report confirmed this control can be achieved without compromising the architectural design and quality of buildings and planning principles of the Master Plan.

Department's response

The Department agrees that the change to residential tower floor plates responds to issues raised in submissions and allows for increased flexibility for residential buildings across the site. Other local government authorities in metropolitan Sydney including the City of Parramatta, City of Sydney and Willoughby Councils stipulate residential tower floor plates ranging from 700 to 1000 sqm GBA floor. On this basis, the Department considers the change to the Master Plan acceptable.

3.3 Affordable Housing

Issue raised

Affordable housing has been a key issue throughout the review process of the Master Plan and was raised in submissions from:

- City of Parramatta,
- City of Canada Bay,
- NSW Federation of Housing Associations,
- NSW Nurses and Midwives Association,
- Shelter Housing NSW and the Sydney Alliance in partnership with other affiliated organisations, and
- individual public submissions.

The key issues raised in submissions were that the proposed 3% affordable housing target was insufficient particularly considering the location of Sydney Olympic Park. It was also considered that potential opportunities to provide affordable housing should be maximised on this government owned land.

In response, SOPA has increased the affordable housing target in the Master Plan from 3% to a minimum of 5% of the total number of dwellings proposed in a development. These dwellings are to be dedicated as affordable rental housing in a development agreement with SOPA, where SOPA retains the title for the nominated strata lots in perpetuity. The affordable rental housing stock will be managed by an accredited affordable and/or community housing provider where dwellings are to be made available for rent at a below market rate for low to moderate income households.

The City of Parramatta recommends that SOPA should consider promoting social diversity through a mix of dwelling types, apartment sizes / number of bedrooms and the provision of housing suitable for older people including high and low care options and independent / assisted living units. SOPA acknowledges that diversity

is key to the creation of a socially sustainable community and will seek opportunities to provide a mix of dwelling types suitable for families and older people where possible.

Department's response

The Department agrees with this approach to affordable housing as it is consistent with the Draft Central City District Plan affordable housing target of 5 to 10 % (subject to viability). It is proposed to further amend the Master Plan (section 4.6.17 and Appendix A) to include a requirement that each development application is to be accompanied by a development economic feasibility study to determine whether any more than the 5% of affordable housing can be accommodated within the development.

In relation to promoting social diversity through a mix of dwelling types, the Department notes that future development will be required to demonstrate consistency with the legislation, SEPP 65 and the Apartment Design Guide. The ADG contains requirements for 'universal design features' to be incorporated into apartment design, adaptable housing and apartment mix. Whilst the Department supports and encourages housing choice and equitable housing access, it is not considered necessary to amend the Master Plan to duplicate existing provisions contained within the ADG regarding social diversity or dwelling mix. It is noted that land within the Sydney Olympic Park town centre is zoned B4 Mixed Use which allows for a diverse range of housing options including seniors housing.

The Master Plan (section 4.6.17) also includes development controls and guidelines to ensure affordable housing is constructed to a standard consistent with other dwellings within that development and is distributed across the precincts within Sydney Olympic Park. The proposed amendments to the Master Plan will contribute to the delivery of housing opportunities for low income households that are well-designed and provide quality living environments close to transport, jobs and services including education, recreational, community and retail facilities.

3.4 Education Facilities

Issue raised

Concerns were raised by the City of Parramatta, City of Canada Bay, several submitters and a petition comprising 110 signatures that additional primary and secondary schools were required within the area to cater for both the current and likely future student population.

The City of Parramatta suggested that the forecast population of Sydney Olympic Park under the proposed Master Plan, particularly for school aged children, may be under-represented and that consultation with the Department of Education should occur to confirm both the estimated number of school aged children and education needs of the potential future population.

The Department of Education prepared a submission confirming that a secondary school within the Olympic Peninsula was currently being investigated and suggested that a vertical model was being considered.

SOPA has consulted with the Department of Education to better understand the site characteristics that would facilitate the delivery of a school at Sydney Olympic Park. Based on these discussions, SOPA has amended the Master Plan to identify Site 109 in the Boundary Creek and Tennis Precinct as a possible site for a new secondary school, specifying the use of this site for education purposes. The building height control for Site 109 has also been increased from four (4) to eight (8) storeys to accommodate a vertical school if required. The Department of Education is in the process of investigative due diligence for this site and investigating other site options in the Sydney Olympic Park for a high school.

Department's response

The Community Facilities Strategy prepared by Elton Consulting and which accompanied the Master Plan review, recommended provision be made for a 2,000-student high school at Sydney Olympic Park. The Department of Education has confirmed that it has been working towards increasing the provision of additional secondary school infrastructure in the area.

The building height provisions in the Master Plan have been amended to provide flexibility and opportunity for the delivery of a vertical school at Site 109. The Department considers that planning for a new high school within Sydney Olympic Park be prioritised.

It is noted that whilst Site 109 has been identified by SOPA as the preferred school site, land within the Sydney Olympic Park town centre is zoned B4 Mixed Use, a zoning which allows educational establishments.

In relation to primary schools, Department of Education has confirmed that there are no additional sites being investigated in Sydney Olympic Park at this time. There are two primary schools planned in the Wentworth Point (currently under construction) and Carter Street Precincts. The Wentworth Point primary school is expected to open early 2018. It is understood that there are also opportunities for its expansion in the future once further demand occurs.

3.5 Sustainability

Issue raised

The Green Building Council of Australia (GBCA), the City of Parramatta and the City of Sydney made submissions in relation to sustainability. The GBCA recommended that the Green Star – Communities rating tool be referenced within the Master Plan and used within Sydney Olympic Park to influence design and delivery for development projects at a precinct scale in the park. SOPA agrees with this recommendation and has amended the Master Plan (refer to section 4.2 and Appendix A) to include a commitment to work towards the certification of Green Star – Communities within the park.

The City of Sydney recommended specific consideration of climate change impacts should be included, beyond the consideration of sea level change included in the general controls of the Master Plan (Section 4). SOPA has confirmed that they have commenced work on a Climate Change Adaptation Plan that is in line with the requirements for certification of Green Star-Communities.

GBCA is supportive of SOPA's continued provision of the Green Star rating system to measure the environmental performance for buildings within the Town Centre. SOPA has amended the design excellence criteria (for which development is eligible for bonus floor space) to include a requirement that the design will achieve six-star Green Star rating. The majority of sites within the Town Centre are identified as sites which require a design competition and as part of this process will now need to achieve a six-star Green Star rating.

The City of Parramatta recommended that the Master Plan be amended to require:

- a minimum Building Sustainability Index (BASIX) 40 for energy and BASIX 60 for water for residential development;
- a National Australian Built Environment Rating System (NABERS) Energy rating of five (5) stars for shopping centres and hotels; and
- a 5.5 star NABERS rating for commercial offices.

The City of Sydney made recommendations primarily on the environmental performance of new buildings and recommended the Master Plan be amended to:

- require a NABERS Energy rating of 5.5 stars for offices that have a Net Lettable Area (NLA) over 1,000 sqm; and
- the Master Plan's BASIX targets should align with those adopted by Urban Growth in the Parramatta Road Corridor Urban Transformation Strategy.

SOPA considers it unnecessary to include specific star ratings for NABERS as the design competition process requires a six-star Green Star rating and outlines that SOPA will work with applicants to deliver the highest

practical NABERS ratings and BASIX targets for all developments in the park. As compliance with BASIX is a legislative requirement, SOPA does not consider it necessary to duplicate this requirement or make reference to multiple rating systems within the Master Plan.

Department's response

The Department considers that achieving sustainable, water and energy efficient development in Sydney Olympic Park is of critical importance. This view is supported by a number of State government plans and policies such as:

- Draft Greater Sydney regional plan (Towards Our Greater Sydney 2056) prepared by the Greater Sydney Commission incorporates key sustainability actions,
- State Government's Climate Change Policy Framework sets a long term objective of net zero emissions by 2050,
- SOPA's Environmental Guidelines Sydney Olympic Park 2008 set out specific objectives for water and energy conservation, and
- The revised Master Plan itself sets out sustainability principles that requires all development to embody a best practice approach.

In considering the issues raised in submissions and SOPA's response to these, the Department has considered:

- Green Star – Communities,
- Green Star Design & As built,
- NABERS rating for commercial development, and
- BASIX energy and water targets for residential development.

These are discussed in turn below.

3.5.1 Green Star

The Department supports SOPA's amendment to the Master Plan to include a requirement to work towards achieving certification under the Green Star-Communities rating tool. This is a holistic rating tool applied on a precinct basis that will assist in setting benchmarks for affordable housing, sustainable transport, investment in education and local jobs. It will positively influence the design and delivery of development in the Town Centre and contribute to continually improve the sustainability of Sydney Olympic Park.

The Green Star Design & As Built tool, is a site or building specific certification that evaluates the environmental design and construction of new and refurbished residential and commercial buildings. Through the response to submissions process SOPA has amended the Master Plan to require all design excellence sites to achieve a six-star Green Star certification. The Department supports this change as it will provide a high standard of environmental performance for development across the Town Centre however notes that implementing this will require appropriate feasibility studies and cost-benefit analysis to facilitate the certification process.

Six stars is the highest rating offered by the Green Star Design & As Built tool. However, there are multiple pathways applicants can use to comply with the water and energy requirements that achieve a 6 star rating. The Green Star rating system does not stipulate a specific pathway to achieve this. The Department considers that the Master Plan should identify specific rating systems that are considered to be industry best practice to achieve the 6 star rating. As such, it is recommended that the Master Plan be amended to require:

- Commercial development to use the NABERS rating; and
- Residential development to use BASIX targets.

Further discussion of each of these rating systems and the necessary minimum targets are discussed below.

3.5.2 NABERS

NABERS is an energy performance rating system that applies to office/commercial buildings only. It is a national rating system that is generally accepted as achieving industry best practice. A NABERS rating is only assessed following construction and operation of a building. To ensure that new buildings are designed to achieve acceptable NABERS ratings, a commitment agreement process has been implemented by the Office of Environment and Heritage. The commitment agreement is negotiated during the design of a proposed building and commits to the specific design features that will achieve a particular NABERS rating.

The Department has considered SOPA’s response to submissions that states requiring the use of the NABERS rating system is not necessary however, the Department does not agree. To ensure that best practice energy efficiency is achieved for development in the town centre, it is recommended that the Master Plan be amended to require:

- A NABERS Energy 5.5 star commitment agreement for offices; and
- A NABERS Energy 5 star commitment agreement for shopping centres and hotels.

3.5.3 BASIX

BASIX is a legislative requirement for residential development. In order to achieve a BASIX certificate for a development, certain water and energy targets need to be met. The minimum water and energy targets are set out in Table 8 below.

In 2016, the Minister for Planning approved the Parramatta Road Corridor Urban Transformation Strategy that set out BASIX water and energy targets that exceed the BASIX minimums (Table 8). The approval of this Strategy creates a precedent for the water and energy targets for residential development in Sydney. The Department considers that, where possible, the water and energy targets for development within Sydney Olympic Park should align with the higher targets already approved in the Parramatta Road Corridor Urban Transformation Strategy.

Table 8 BASIX energy and water targets residential development

BASIX Energy targets	Minimum BASIX requirement	Urban Growth Parramatta Road Corridor project	Sydney Olympic Park proposed amendments (minimum targets)
Single dwelling – (Detached & semi-detached)	50	60	60
Low density (Apartment 2-3 storeys)	45	55	55
Medium density (Apartment 4-5 storeys)	35	50	50
High density (Apartment 6 + storeys)	25	40	40
BASIX Water targets			
New dwellings	40	60 where recycled water is available and BASIX 50 where recycled water is not available	60 – where all residential development is required to connect to the existing recycled water system.

While City of Parramatta has recommended amending the BASIX energy target, the target recommended is general in nature and not specific to low, medium or high density development. Development’s ability to meet a target can differ depending on the building height. Therefore, the Department recommends the

Master Plan adopt the targets differentiated by density of development as adopted in the Parramatta Road Corridor Urban Transformation Strategy.

In relation to water, the Master Plan requires all new development to connect to Sydney Olympic Park's recycled water system. Connection to a recycled water system facilitates compliance with a BASIX water target that is higher than the minimum. As such, the Department supports the amendment of the Master Plan to require development to achieve a water target of 60.

Amendments to Master Plan

To comply with the Environmental Guidelines for Sydney Olympic Park, set a high standard of environmental performance and improve sustainability of the Town Centre, the Department recommends the following amendments to the Master Plan:

- Include a requirement that buildings achieving the Green Star Design & As Built 6 star rating use the NABERS and BASIX tools for commercial and residential development respectively;
- Include a requirement that proposed office buildings be accompanied by a NABERS commitment agreement committing to a 5.5 star rating;
- Include a requirement that proposed shopping centres or hotels be accompanied by a NABERS commitment agreement committing to a 5 star rating; and
- Amend the BASIX energy and water targets for residential development in accordance with Table 8.

The Master Plan will be required to be updated to reflect these changes, specifically Section 4 and Table 4.1 Environmental Ratings.

3.6 Open Space

Issue raised

A number of public submissions raised concern that the Master Plan does not provide a sufficient amount of open space to serve the increasing number of residents in the town centre. SOPA notes that the Master Plan makes provision for additional open space in accordance with the recommendations of the Community Facilities Strategy prepared by Elton Consulting to support the review. This includes a large urban park (5,780 sqm) located in the Central Precinct, a major upgrade of the Central Linear Park to include new landscaped areas and new activity spaces; and a new local park in Parkview Precinct of approximately 2,400 sqm. Provision has also been made for active recreation areas including upgrades to the Tom Wills Oval to provide new community facilities, and a new sporting field at the Archery Centre which is located within Sydney Olympic Park but outside the Town Centre.

SOPA also notes that it manages an extensive network of open spaces including wetlands and the Newington Nature Reserve. While these areas are located outside the town centre, they are valuable assets that provide open space and access to walking, cycling, picnicking and other recreational activities to meet the needs of residents, workers and visitors to Sydney Olympic Park.

Funding for upgrades to existing open space and delivery of new parks, recreation and public domain spaces is provided for in the ICF.

Whilst the number of local parks throughout the town centre was supported, the City of Canada Bay noted that many of these parks will be subject to overshadowing by existing and future development at key times throughout the day, potentially reducing their capacity for regular use. SOPA has stated that the proposed form and height of buildings have been carefully modelled to ensure local parks receive direct sunlight.

Department's response

The Department considers that a sufficient quantum of open space is provided within Sydney Olympic Park for the use and benefit of future residents and workers. Future residents and workers will also have access to the 430 ha of surrounding parklands.

Future mixed use and residential developments will be required to provide both private open space, in the form of balconies and terraces, and communal areas of open space for future residents within individual sites. The provision of a larger urban park within the Central Precinct, in a more central location is strongly supported. Whilst it is not SOPAs preference, the Master Plan has been amended to enable this park to be delivered in two parts. The Department’s preference is for a consolidated area of open space. However, if this park is to be delivered as two parks, it is recommended that the Master Plan be amended to include provisions to ensure both areas receive adequate direct sunlight and natural ventilation and are of a sufficient size and shape to be readily accessed by the public.

The Department agrees with the City of Canada Bay that in higher density urban environments a higher level of amenity is required for local parks including, among other things, access to winter sun if local open spaces are to meet the various needs of residents. The Department recommends that the Master Plan be amended to include minimum solar access requirements for local parks within the Town Centre in addition to the other design specifications for these areas already provided at Appendix B to the Master Plan.

3.7 Other Community Facilities

Issue raised

A number of submissions including City of Canada Bay and the City of Parramatta councils raised concern that the proposed community facilities and services within Sydney Olympic Park would be inadequate to support the increased population, and that additional facilities to support the incoming local population are required. It was noted by both Councils that existing facilities, particularly sporting facilities, are targeted for national and performance level sporting pursuits and are only available at certain times throughout the year. The City of Canada Bay considered the parking and entry fees for many sporting facilities may be cost preventative, which could potentially limit access to and use by the local community.

An assessment of the needs and demands for community infrastructure based on revised population forecasts and the likely demographic characteristics of the future residential and workforce populations was undertaken by Elton Consulting on behalf of SOPA. Existing community infrastructure within the Town Centre and that in surrounding areas was examined in order to identify potential gaps in community infrastructure. Identified community infrastructure required for the local incoming population, is summarised in **Table 9** below.

The submission by the City of Parramatta has suggested that the demand for child care facilities is higher than projected by Elton Consulting, with 770 long day care places (full time) and 55 family day care places (full time) in addition to out of school care required to service the incoming population. SOPA has reviewed this information and notes that while the Master Plan nominates potential sites for child care facilities within the town centre, the existing B4 Mixed Use zoning of the town centre does not preclude the provision of childcare facilities elsewhere within the Town Centre.

Table 9 Identified community infrastructure

Item	Proposed provision within Master Plan 2030 (2016 Review)	Enhancement / embellishment of existing	DPE Comment
Local parks	<p>Central Precinct</p> <ul style="list-style-type: none"> Urban Park – Central 5,780 sqm located on site 40/41. Combination of hard and soft landscaped areas including planting, 	<ul style="list-style-type: none"> Fig Grove – amenity improvements, consideration of seating, shelter Brickpit Park – contemporary high quality outdoor fitness equipment (e.g. 	New parks identified in Master Plan 2030 (2016 review). Local Infrastructure Contributions Framework (ICF) updated to provide works including upgrade of existing facilities.

Item	Proposed provision within Master Plan 2030 (2016 Review)	Enhancement / embellishment of existing	DPE Comment
	<p>paving, furniture and lighting, etc.</p> <ul style="list-style-type: none"> Central Linear Park – 10,510 sqm. Major upgrade of existing landscaped park area including new activities, play court and new paving to Olympic Boulevard. <p>Parkview</p> <ul style="list-style-type: none"> Local Park – Parkview approximately 2,400sqm located on site 66A. Soft landscaped park including planting, paving, furniture and lighting, etc. 	<p>incorporation of cross fit type equipment – pull up, dip bars etc. as well as fitness trail linkages)</p> <ul style="list-style-type: none"> Cathy Freeman Park – activation of edges, upgrade. Woo-la-ra Park – upgrade, enhancement of surrounds to enable greater community use. Significant demand for Woo-la-ra Park is likely to emanate from both Wentworth Point and demand from the wider district. 	<p>Upgrade of Woo-la-ra Park is a potential SIC item.</p>
Playing fields	<ul style="list-style-type: none"> Archery Centre – creation of a new sporting field on currently under-utilised land at Archery Centre. Involves surface upgrade, irrigation, lighting, parking arrangements and amenities. 	<ul style="list-style-type: none"> Tom Wills Community Field – access, lighting, amenities, irrigation. Newington Armory – access, amenities, lighting, irrigation, multipurpose sportsfield space. Wilson Park (3 fields) – upgrade of park, community access to premier field. Some demand on Wilson Park will come from Sydney Olympic Park but demand also generated from Wentworth Point and wider district. Athletics Warm Up Arena - potential use of area in middle of Athletics Warm Up Arena as publicly accessible sports field. 	<p>SOPA has stated that upgrades to Tom Wills Community Field are currently underway.</p> <p>Other fields are managed by SOPA and can be upgraded for use by Sydney Olympic Park's future community as it develops.</p>
Indoor Sports Court	<p>No new provision</p>	<p>Enhancement of existing Sports Halls to increase community access/utilisation. Creation of multipurpose indoor sports courts.</p>	<p>DPE recommend that SOPA fund the upgrade of a minimum of one (1) sports hall facility and provide arrangements for it to be accessible to the community (not only schools within the</p>

Item	Proposed provision within Master Plan 2030 (2016 Review)	Enhancement / embellishment of existing	DPE Comment
			area and/or local and regional sporting clubs). Consideration should also be given to collocating this facility with schools.
Library	<ul style="list-style-type: none"> 2030 residential population (25,000) and approximately 28,000 workers – 2,200 sqm library space. 		Branch library to be incorporated into new 'cultural hub' multi-purpose building. ICF updated to incorporate 2,500-3,000 sqm facility.
Multipurpose community centre	<ul style="list-style-type: none"> 2030 residential population (25,000) and 10% usage by workers – 1,400 sqm community centre space. 	<ul style="list-style-type: none"> Use of existing SOPA facilities for function/space for hire functions. 	Potential locations for cultural hub / multi-purpose building have been identified in Master Plan 2030 (2016 review) ICF amended to incorporate 2,500-3,000 sqm facility.
Child Care	<ul style="list-style-type: none"> 11 new centres (based on 80 places per centre). 		Child care facilities to be negotiated by SOPA as part of development agreements for individual sites.
Public schools	<ul style="list-style-type: none"> Discussions are ongoing with Department of Education and Communities regarding school provision in Town Centre. 		The Master Plan has been amended to identify site 109 as the preferred location for a school as outlined in Section 3.3.

Department's response

The need for community infrastructure, to service the incoming population, is acknowledged. In relation to active open space, the Department is satisfied that there is a sufficient quantum of active open space available within Sydney Olympic Park to service the incoming residential and worker population. However, to ensure these facilities are available to the incoming local population, the Department recommends the Master Plan (section 3.10) be amended to commit to and prioritise community access to at least one playing field and one indoor sports court in accordance within the findings of the Community Facilities Strategy prepared to support the Master Plan. It is also recommended that more detail in relation to the multi-purpose community centre including size and other specifications (no. of meeting rooms, library space) also be included in section 3.10.

In relation to child care, it is agreed that facilities are likely to be provided by the private sector and/or non-government organisations. It is noted that 'child care' is a permitted use and can be provided throughout the Town Centre, and not limited to sites identified in the Master Plan. As such no change to the Master Plan is considered necessary.

3.8 Importance of Sydney Olympic Park as an Events Precinct

Issue Raised

Submissions from Tourism Accommodation Australia and Sydney Business Chamber raised concern that increased residential development will over time dilute and restrict Sydney Olympic Park's ability to cater to the major event market. SOPA has provided the following comment:

Section 1.3 of the 2016 Review includes a clear requirement to protect the role of the Park as a premier destination for cultural, entertainment, recreation and sporting events. This purpose is also specified in the functions of the Authority under the Sydney Olympic Park Authority Act 2001 and Regulation and special provisions, including provisions for the emission of noise from major events at the Park, are embodied in the legislation to preserve the Park's capacity to continue to deliver events into the future regardless of any increase in development.

It is also important to recognise that activation of the Precinct is intended to allow event patrons to further enhance their experience by including activities before and after events. Key public spaces that facilitate major events and the movement of people, such as Olympic Boulevard, have been protected not only to preserve the settings for the iconic Stadium and Arena structures, but to also allow its continued use as a key transport node for major events and event management space.

Other initiatives incorporated in the Master Plan which support and maintain the event function of the Park include:

- *An increase in the number of sites available for a wide range of accommodation products that will support the increasing number of events;*
- *Building heights and uses have been strategically chosen to mitigate noise from venues with commercial land uses being located closer to venues and residential sites further away. Additional information in relation to noise assessment and management is provided in Section 5.6.4 below; and*
- *Extensive modelling and stakeholder consultation undertaken as part of the 2016 Review has determined the appropriate mix of land uses to sustain and generate a 24/7 economy that supports significant densification and protects the Park as a premier event destination.*

Department's response

Sydney Olympic Park is an important events precinct. The proposed amendments to the Master Plan are consistent with the objectives of the *Draft Greater Sydney Regional Plan* (October 2017) and the *Draft Central City District Plan* (October 2017) which identifies Sydney Olympic Park's key role in:

- facilitating the regeneration of sites for commercial office space to support growth in the 'knowledge economy' and provide jobs close to homes;
- providing opportunities for increased residential and educational land uses;
- maintaining and expanding event venues;
- providing a mixed-use Town Centre with both significant housing and employment opportunities;
- ensuring that events continue to be a fundamental feature of regular Sydney Olympic Park operations;
- ensuring that best practice environmental sustainability principles are incorporated into all future development and operations at Sydney Olympic Park; and
- providing high quality passive and active recreation opportunities within the Town Centre and adjacent Parklands.

The Department is satisfied that the proposed mix of land uses including increases in residential, education, temporary accommodation, community facilities and retail uses will compliment and support the precinct's role as a premier event destination.

3.9 Metropolitan Skyline

Issue raised

The City of Parramatta has questioned the appropriateness of buildings up to 45 storeys at Sydney Olympic Park and how it will affect the skyline and urban form of Metropolitan Sydney. SOPA believes that the Town Centre should be readily visible and identifiable within the urban environment and has undertaken significant testing to determine suitable heights (and FSRs) for the growth of Sydney Olympic Park. The location of Sydney Olympic Park, its proximity to Parramatta CBD and the relatively flat terrain between Parramatta's CBD and the site will make it unlikely that view lines to the metropolitan skyline will be adversely impacted.

The development footprint at Sydney Olympic Park is deliberately compact with a high level of activity concentrated at the Town Centre and contained on all sides by major public sport / recreational buildings or parkland. As such, SOPA considers that the proposed building heights allow a vibrant Town Centre to be achieved within a public recreation and parkland setting. No change to maximum building heights is proposed.

Department response

The Sydney Olympic Park skyline is unique and marked by key Olympic icons such as the roof line of ANZ Stadium and the surrounding light towers. The Department is of the view that taller building forms of up to 45 storey towers along key streets within the Town Centre will have a positive impact on the skyline and urban form of Metropolitan Sydney. The Department has worked collaboratively with SOPA to ensure the Master Plan provides the opportunity for a dynamic built form that encourages diversity for the future skyline of Sydney Olympic Park. The increase in building height controls for Sydney Olympic Park will complement its geographic location as a Strategic Centre within Metropolitan Sydney and support its role as an important eastern economic anchor for the Greater Parramatta to Olympic Peninsula area.

In considering the increases in building heights, it is accepted that SOPA has sought to identify and protect remaining views of iconic buildings and other structures, including planning controls which require the positioning and separation of tower buildings so that existing vistas along streets and views to the adjacent parklands and other significant land marks are not significantly impacted upon. The provision of buildings up to 45 storeys along identified streets is considered acceptable.

3.10 Flexibility

Issue raised

A number of submissions have raised concern that the Master Plan is not flexible enough to allow reasonable alternative solutions that achieve the overall vision, planning principles and key elements of precincts as well as the specific objectives of the controls. In response SOPA has amended controls within the Master Plan to provide greater flexibility including varying podium heights, use of awning and colonnades, floor plate size and flexible land use zone boundaries.

SOPA has also updated Section 1.3 of the Master Plan to include additional guidance on how a proposal can consider the consistency of a proposal that contains a variation to the provisions in the Master Plan. This includes demonstrating that the proposal achieves design excellence and delivers a superior outcome of high quality urban amenity and achieves the overall vision, planning principles and key elements of the relevant precinct.

Department response

The Department acknowledges the significant level of urban design analysis undertaken by SOPA to inform the review and proposed amendments to the Master Plan. It is recognised that there may be other options for a site which may be as effective in achieving a desired outcome. The Department is satisfied that there is sufficient flexibility in the Master Plan to put forward alternative options and notes both the Master Plan and State Significant Precincts SEPP includes provisions to allow this to be considered.

3.11 Economic Impacts

Issue raised

A submission from Mirvac Property raised concern over the proposed increase in the quantum of retail floor space (i.e. 100,000 sqm) to be accommodated within the Town Centre and impacts on existing retail centres including the centre at Rhodes. The City of Parramatta noted that care should be taken to ensure that changes in floor space for retail, commercial and residential uses complimented existing centres including the Parramatta CBD.

Hill PDA Consulting were commissioned to undertake development feasibility testing and land use demand forecasting of Master Plan 2030 (2017 Review), a copy of which was exhibited with the Master Plan. In response to the submissions received, SOPA commissioned a further report from Hill PDA Consulting (**Appendix A**). The conclusions of this report are:

- Retail centres such as Rhodes currently trade at well above the national average in terms of dollars per square metre. Similarly, DFO Homebush is trading at a much higher level than homemaker and brand outlet centres located in and out of centre locations.
- Some predicted loss of trade could be expected for the Rhodes centre (based on the first year of trading in 2026) as a result of the proposed retail offering at Sydney Olympic Park. However, the report concluded that overall, the predicted immediate impacts on Rhodes, DFO and several other centres was moderate and that given the current level of over trading for these centres, it was considered that the immediate reduction in trade could be sustained and would likely lessen over time as a result of population and expenditure growth in the locality. Based on the high trading levels and expected growth in resident and worker populations in the wider trade area over the next 10 years, these centres are expected to continue trading above industry benchmark levels.
- Demand modelling indicated that by 2031, between 125,000 sqm and 150,000 sqm of retail floor space could be supported in the Town Centre. This is more than the 100,000 sqm retail floor space proposed as part of the 2016 Review.

SOPA further notes:

- More than 5,000 events are held at Sydney Olympic Park each year and attract over 10 million visitors. These figures are expected to continue to grow providing a substantial additional population for retail trade within the Town Centre. Event patrons will be encouraged to arrive early and stay beyond the event, providing retail trade that does not compete with surrounding retail centres.
- The retail offering around ANZ Stadium and Quodos Arena is identified as entertainment type uses which could include a wide range of uses such as sporting clubs, amusement centres, pubs, and retail uses. These areas are not expected to include the type of department and speciality stores that would be found in a subregional shopping centres such as Rhodes Waterside Shopping Centre.

Having regard to the above, SOPA maintains that the quantum of retail floor space proposed in the Master Plan as proposed to be amended is sustainable and will not result in a significant adverse impact on the viability of any existing or planned centres in the region including the Rhodes Shopping Centre.

Department's response

The Department has reviewed both reports prepared by Hill PDA and concurs with SOPA that the proposed amendments to the Master Plan and increase in retail floor space will not result in a significant adverse impact on the viability of any existing or planned centres. The Parramatta CBD is approximately 10 km from the Sydney Olympic Park Town Centre, and outside of its primary and secondary trade areas (i.e. the eastern boundary of the Town Centre's trade area is Duck River). The quantum and mix of land uses is unlikely to have a significant adverse impact on Parramatta CBD's role as the key CBD for Western Sydney.

3.12 Local and State Contributions

Issue raised

The City of Parramatta has reviewed the draft ICF document and considers a more detailed works list be provided to increase transparency and further justify costings and to engage with SOPA in respect of several assumptions and methodologies used to inform the local ICF including the basis for defining infrastructure need, definition of appropriate levels of provision, understanding how benchmarking informed the works schedule and prioritisation methodology. Following a review of Council's submission and comments from the Department, SOPA has updated the ICF to provide further detail in relation to the type of works and their timing.

The City of Parramatta further considers that the use of a 'satisfactory arrangements' clause in the State Significant Precinct listing (that requires a consent authority to be satisfied that satisfactory arrangements have been made for State and regional infrastructure prior to giving development consent) until a Special Infrastructure Contributions (SIC) levy is in place is not supported because it places undue pressure on State agencies to identify infrastructure on a DA by DA basis and imposes unreasonable pressure on consent authorities as they cannot issue a development consent until satisfactory arrangements are in place. Transport for NSW also does not support the use of the 'satisfactory arrangements' clause, rather it would prefer that the SIC was finalised before the Master Plan review is finalised.

Department response

The Department has recommended that section 3.10 of the revised Master Plan which relates to new facilities and local infrastructure be amended to:

- provide more detail on the local infrastructure required to support the incoming residential and worker population including a description of each item within a particular category, specifications and indicative staging;
- include a reference to the guidelines and specifications for new public spaces as set out in Appendix B and street plans and sections as set out in Appendix C of the Master Plan to make it clear what is being delivered at Sydney Olympic Park; and
- include information on how the incoming worker and residential population will have local access to at least one playing field and one indoor sports court.

The Department agrees that a Special Infrastructure Contribution (SIC) is the best mechanism to ensure development contributes to State and regional infrastructure. However, as the SIC is not yet in place, a satisfactory arrangements clause that will apply to intense urban development will ensure that contributions to State and regional infrastructure are not lost while the SIC is being finalised.

4 The Amended Proposal

This section of the Report provides a summary of the proposed changes to the Sydney Olympic Park Master Plan 2030 (2016 Review) and amendments to the State Significant Precincts SEPP following exhibition. The proposed amendments have been made in response to issues raised in submissions. A comparison of the key changes that have been made to the Master Plan document since the exhibition is provided in **Table 10**.

4.2 Amendments to the Draft Master Plan 2030

The consultation and exhibition process of the Draft Master Plan 2030 has provided important value to the review process. The key issues raised in submissions have been carefully considered by SOPA and the Department to ensure a collaborative approach has been achieved and where necessary some key changes have occurred from the exhibited Draft Master Plan (2016 Review) and the updated Master Plan 2030 (2017 Review) that is being recommended for approval. The changes made to the Master Plan document since the exhibition and the final Response to Submissions report from SOPA includes:

- general controls and guidelines to sustainability, access and car parking, design excellence;
- built form controls;
- changes to the land use plans within the Central, Parkview, Stadia, Showground, Boundary Creek and Tennis precincts;
- sustainability controls to reference the inclusion of the Green Star Communities rating tool across the precinct. All development applications for design excellence sites are required to submit registration for a six star Green Star certification. A review of the BASIX and NABERS energy targets has also resulted in changes to increase these ratings that will underpin the Master Plans sustainability principle and provide consistency with the objectives of the Environmental Guidelines for Sydney Olympic Park;
- landscape and site storm water and sensitive urban design policy; and
- specific requirements and provisions in the plan of management and infrastructure contribution framework.

Appendix B - Table 11 provides a detailed summary of all the changes that occurred to each relevant section of the exhibited Draft Master Plan (2016 Review) to the final Master Plan 2030 (2017 Review) that is being recommended for approval.

A summary of the key changes to the planning and development controls relative to each precinct is outlined in **Table 10** below.

Table 10 Key changes to Master Plan 2030 (2017 Review) since exhibition

Built form and height (as exhibited)	Built form and height (post exhibition)
<p>Central Precinct</p> <ul style="list-style-type: none"> • Introduction of three new tower zones and increase in building heights across individual sites within the central precinct. 	<p>No change to the storey heights for towers in the Central Precinct</p> <p>Amendments to provide greater flexibility for podium heights across the precinct.</p>
<p>Stadia Precinct</p> <ul style="list-style-type: none"> • Maximum building heights of RL 42 (8-10 storeys) and RL 23 – RL 42 (4-10 storeys) around ANZ Stadium 	<p>Development parcels with a maximum building height of RL 42 (8-10 storeys) have also been identified for the area around Qudos Bank Arena.</p>

<ul style="list-style-type: none"> 45 storey height limit on the western side of Edwin Flack Avenue (an increase in height from 9 m (2 storeys) to 149 m (45 storeys) comprising an 8 storey block edge buildings with towers above). 	The building height for the site on the western side of Edwin Flack Avenue has been reduced to 30 storeys comprising 5-8 storey block edge buildings with towers above.
<p>Parkview Precinct</p> <ul style="list-style-type: none"> Introduction of two new tower zones through an increase in building heights across individual sites within the Parkview precinct. Increase in the height of buildings on the western side of Bennelong Parkway from 15 m to 26 m. 	An increase in building heights across individual sites based on assessment of the issues raised in individual submissions and supporting independent technical advice.
<p>Boundary Creek and Southern Sports Precinct</p> <ul style="list-style-type: none"> A new development site with a 9m height limit. A new site for Venue Expansion in the Southern Sports Precinct, with a maximum building height at RL 27 (3 storeys) to integrate with existing height of the Sports Centre. 	Amended to increase the height of the site at the corner of Rod Laver Drive and Shirley Strickland Avenue from 4 storeys to 8 storeys to enable greater flexibility for the potential construction of a vertical school.
Floor Space Ratio (as exhibited)	Floor Space Ratio (post exhibition)
<p>Central Precinct</p> <ul style="list-style-type: none"> Increase in the proposed FSRs within the central portions of the precinct (generally from 2.5:1 and 3.5:1 to 3.6:1) Increase in FSR to 4.5:1 on sites located on the western side of Australia Avenue (currently 2.5:1 and 3.5:1) An FSR of 8:1 and 6.5:1 for sites on the eastern side of Olympic Boulevard (currently 6.5:1 and 5:1 respectively)) Increase in FSR from 2.5:1 to 3.2:1 for sites along the southern edge of the precinct. 	No change to FSRs
<p>Central Sports Precinct</p> <ul style="list-style-type: none"> Increase in FSR to 4:1 from 2:1 for new consolidated site to east of Athletic Centre, at the western edge of Fig Grove 	No change to FSRs
<p>Stadia Precinct</p> <ul style="list-style-type: none"> Increase in FSR to 4:1 from 2:1 for the Coach Parking site, on western side of Edwin Flack Avenue Increase provision for additional Gross Floor Area above existing ANZ Stadium floor space from 12,000 sqm to up to 69,500 sqm Expand boundary for additional Gross Floor Area to include new development surrounding ANZ Stadium 	Amended to allow additional Gross floor area (GFA) of 13,000 sqm around Qudos Bank Arena. This amount of GFA has been transferred from the reduction in height on the coach parking site. The total amount of GFA is not changing across the Town Centre.
<p>Parkview Precinct</p> <ul style="list-style-type: none"> Increase in FSR ranging up to 3:1, 4:1, 4.5:1 and 5.5:1 (currently 2.5:1) for sites and fronting onto Murray Rose Avenue Increases in FSR ranging up to 2.2:1, 2.5:1 and 3:1 (currently 2:1) for sites south of Parkview Drive 	No change to FSRs
<p>Boundary Creek and Tennis Precincts</p> <ul style="list-style-type: none"> Increase in FSR from 4.5:1 to 5.5:1 for new consolidated site at corner of Olympic Boulevard and Sarah Durack Avenue 	No change to FSRs

<ul style="list-style-type: none"> New FSR control of 2:1 for new development site to the north of P3 Public Car Park, fronting Sarah Durack Avenue. 	
<p>Southern Sports Precinct</p> <ul style="list-style-type: none"> Removal of FSR for Netball Centre- project completed Provision of up to 7,400 sqm of Gross Floor Area to accommodate venue expansions (if required) 	No change to FSRs
Building zone and setbacks (as exhibited)	Building zone and setbacks (post exhibition)
<p>Central Precinct</p> <ul style="list-style-type: none"> 3m setback to Australia Avenue frontages for future street widening for Light Rail corridor 	<p>Changes to ground floor setbacks of residential only buildings to provide for a 2.5m ground floor setback from road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.</p> <p>No other physical changes to building zones and setbacks</p>
<ul style="list-style-type: none"> New 5m landscaped setback to future residential streets connecting Figtree Drive with the new east west park and south facing frontages overlooking the new east west park. 	
<ul style="list-style-type: none"> 90% build-to line extended to most new street frontages. 	
<ul style="list-style-type: none"> New 2m setback above 6 storeys for all frontages except Olympic Boulevard. 	
<ul style="list-style-type: none"> 20m view corridor from Figtree Drive through to Olympic Park Boulevard South and from Figtree Drive south to Sarah Durack Avenue. 	Amended to include a 20m wide through site link between Figtree Drive and Olympic Park Boulevard South. 20m view corridor retained for Figtree Drive south to Sarah Durack Avenue
<p>Central Sports Precinct</p> <ul style="list-style-type: none"> Railway corridor setback increased from 5 metres to 6 metres. 	No change to building zones and setbacks
<p>Stadia Precinct</p> <p>Provision of new through-site links within proximity to ANZ Stadium, namely:</p> <ul style="list-style-type: none"> 20 m wide corridor around the perimeter of ANZ Stadium 20 m wide east-west through-site link, to the south of P1 Car Park and connecting Edwin Flack Avenue and Olympic Boulevard Provision of a 5 m setback for buildings to south western frontage of Olympic Boulevard Introduction of a 90% build to line for new development fronting Dawn Fraser Avenue, Edwin Flack Avenue (both sides) and buildings fronting the new through-site link north west of ANZ Stadium Provision of a 2 m setback above 8 storey podium control for new development on the Coach Parking site on the north western side of Edwin Flack Avenue New 10m setback for future street easement to south western frontage of the Coach Parking site – opposite future Residential and Local Centre sites in the Carter Street Precinct 	<p>Amended to include a further 20m wide through site link to reflect mixed commercial and entertainment uses around Qudos Bank Arena and connect through to Edwin Flack Avenue</p> <p>No other changes to building zones and setbacks.</p>
<p>Central Sports Precinct</p> <ul style="list-style-type: none"> Railway corridor setback increased from 5 m to 6m. 	No change to building zones and setbacks

<p>Parkview Precinct</p> <ul style="list-style-type: none"> • Provision of a new 3 m landscaped setback control for majority of development fronting onto Bennelong Parkway • Provision of 5 m landscaped setback to Sites 62A and 62B on the western side of the main north-south street • New 2m setback above 6 storeys for all frontages • Identification of two landscaped urban forecourt setbacks (publicly accessible) 	<p>Changes to ground floor setbacks of residential only buildings to provide for a 2.5m ground floor setback from road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.</p> <p>No further change to building zones and setbacks for Parkview Precinct.</p>
<p>Boundary Creek and Tennis Precincts</p> <ul style="list-style-type: none"> • Introduction of 90% build to line along part of the northern and eastern boundaries of site fronting Shirley Strickland Avenue and Rod Laver Drive (Site 109) 	<p>No change to building zones and setbacks</p>
<ul style="list-style-type: none"> • Provision of 10 m wide setback along both sides of Boundary Creek (vegetated riparian corridor) 	<p>No change to building zones and setbacks</p>
<ul style="list-style-type: none"> • Provision of two new commercial buildings zones to the north of P3 Car Park 	<p>No change to building zones and setbacks</p>
<p>Street Hierarchy (as exhibited)</p>	<p>Street Hierarchy (post exhibition)</p>
<p>Central Precinct</p> <ul style="list-style-type: none"> • Provision of a new service street that runs east to west between sites 47 and 46 located to the north of Figtree Drive. 	<p>The new service street is to be delivered underground and is identified as a development funded street.</p> <p>Option for the North South Street adjacent to the central park to be delivered as a shared way or pedestrian only street.</p>
<p>Central Sports Precinct</p> <ul style="list-style-type: none"> • Provision of two new through-site links, comprising: • 8.5 m wide through-site link from Dawn Fraser Avenue and Fig Grove in the north connecting to Lorraine Crapp Walk and the centre of the Precinct • Proposed 9 m wide through-site link from Sarah Durack Avenue in the south, connecting to Shane Gould Avenue has been relocated towards the centre of the site 	<p>Through site links now must be made publicly accessible 24/7. Reference to negotiating their location has been removed.</p> <p>No physical changes to through site links and street hierarchy.</p>
<ul style="list-style-type: none"> • Provision of two 20 m wide through-site links through Coach Parking site on the western side of Edwin Flack Avenue 	
<p>Stadia Precinct</p> <p>Provision of new through-site links within proximity to ANZ Stadium, namely:</p> <ul style="list-style-type: none"> • 20 m wide corridor around the perimeter of ANZ Stadium • 20 m wide east-west through-site link, to the south of P1 Car Park and connecting Edwin Flack Avenue and Olympic Boulevard 	<p>In addition to the through site links exhibited, the inclusion of an additional 20m wide corridor around the perimeter of the Qudos Bank Arena providing a connection through to Edwin Flack Avenue (see Stadia Precinct Land Use Plan, Section 5.4 of Master Plan).</p>
<p>Provision of two 20 m wide through-site links through Coach Parking site on the western side of Edwin Flack Avenue</p>	<p>Through site links now must be made publicly accessible 24/7. Reference to negotiating their location has been removed.</p>

<p>Parkview Precinct</p> <ul style="list-style-type: none"> • New 6 m wide through-site link within southern portion of precinct, extending southwards and connecting to pedestrian and cyclist bridge to Parklands • Proposed link between sites 61 and 62, connecting Murray Rose Ave and Parkview Drive, replaced by new service street. 	<p>Through site links now must be made publicly accessible 24/7. Reference to negotiating their location has been removed.</p>
Planned Public Open Space (as exhibited)	Proposed Planned Public Open Space (post exhibition)
<p>Central Precinct New Park in Central Precinct A park proposed in Central precinct under the existing Master Plan is proposed to be relocated to a more central location within the commercial core which has better sun access and views to iconic structures. The total size of the park is proposed to be increased to 5,780 sqm.</p>	<p>Requirements for the urban park in the Central Precinct have been amended to allow for more flexibility in relation to the size and location of the park, provided certain criteria are satisfied. Open space is to total 5,780 sqm in area, but may be provided in two parts.</p>
<p>New linear Park in Central Precinct The existing Master Plan identifies a landscape corridor to the south of the Central precinct, adjacent to Sarah Durack Drive. The current review proposes an increase in size to 10,510 sqm and a major upgrade including new activities, play court and new paving to the Olympic Boulevard end. A pedestrian overpass will also provide access across the railway corridor and Sarah Durack Avenue, to the southern precincts of the Town Centre.</p>	<p>No change to public open space</p>
<p>New urban forecourt</p> <ul style="list-style-type: none"> • site at corner Australia Avenue and Figtree Drive • site at corner Australia Avenue and new East-West Street 	<p>No change to public open space</p>
<p>Parkview Precinct A small local park that was identified in the existing Master Plan will be enlarged to 2,400 sqm and reconfigured to better service the residents and workers within the Parkview precinct. This park will be soft landscaped including planting, paving, furniture and lighting.</p>	<p>No change to public open space</p>
<p>New urban forecourt - site at corner Australia Avenue, Murray Rose Avenue and Dawn Fraser Avenue</p>	<p>No change to public open space</p>
<p>Fig Grove Amenity improvements including possible new seating and shelter.</p>	<p>No change to public open space</p>
<p>Brickpit Park Provision of contemporary high quality outdoor fitness equipment and future connection to extended pedestrian network.</p>	<p>No change to public open space</p>
<p>Cathy Freeman Park Activation of edges, upgrades including pavements, lighting, irrigation and landscaping.</p>	<p>No change to public open space</p>
<p>Boundary Creek Precinct New facilities proposed for the Tom Wills Community Oval in the Boundary Creek Precinct</p>	<p>No change to public open space</p>

<p>Woo-la-ra Park Upgrades to this park, including new activities and enhancement of surrounds, will enable greater use by all Olympic Peninsula communities.</p>	<p>No change to public open space</p>
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4.1 Amendments to State Significant Precincts SEPP

The following amendments to the State Significant Precincts SEPP are being proposed post exhibition.

- Maximum building height map
 - Reduction of building height limit from 149m to 102m for the development site to the west of Edwin Flack Avenue, near ANZ stadium.
 - Increase in building height limits for sites 61 and 62 within the Parkview Precinct to allow the nominated floor space ratios to be achieved.
 - Increase in height limit for the site at the corner of Rod Laver Drive and Shirley Strickland Avenue in the Boundary Creek Precinct from 18m to 30m to provide flexibility for the potential delivery of a vertical school on the site.
- Reduced level map
 - Introduction of RL 42 AHD height limits for new development sites around Qudos Bank Arena.
- Intensive urban development clause relating to the provision of designated State public infrastructure
 - The proposed amendments to the SEPP applies an intensive urban development clause which requires satisfactory arrangements to be made for the provision of designated State public infrastructure until a Special Infrastructure Contributions framework is in place. The wording of this clause has changed from the satisfactory arrangements clause as exhibited, but the intent of the clause is unchanged.
- The exhibited explanation of intended effect proposed to change the name of the 'Newington Armory' to replace with 'Newington Armament Depot and Nature Reserve' in Part 23 of the SEPP. It was never intended to rename the Newington Armory and therefore will appear in the amended SEPP in the following clauses as:
 - Clause 2 (1) – definition of 'major event venue' refers to (p) as Newington Armament Depot.
 - Clause 33 Additional permitted uses – Newington Armory site.

5 Statutory Considerations under *Sydney Olympic Park Authority Act 2001*

5.1 Environmental Guidelines Sydney Olympic Park 2008

Before the Minister for Planning approves any amendment to the Master Plan, the Minister is to consider whether the Master Plan or the amendments are consistent with the Environmental Guidelines. This requirement is set out in section 18 of the *Sydney Olympic Park Authority Act 2001*. The Department undertook an assessment of the Sydney Olympic Park Master Plan 2030 (2017 Review) in relation to the general commitments of the Environmental Guidelines at the time of exhibition, which is included at Appendix G, Table 13 of the Department's Planning Report.

The Environmental Guidelines are not prescriptive to specify actions that must be taken to address all environmental issues. The guidelines are to ensure that key environmental issues for Sydney Olympic Park are highlighted and define the key challenges of these issues. The Environmental Guidelines provide important reference points in order to manage and potentially enhance the environmentally sustainable outcomes for Sydney Olympic Park. The Department has reviewed its original assessment and considered any proposed amendments to the exhibited Draft Master Plan. On this basis, the Department concludes its assessment has not changed since exhibition and the proposed Master Plan 2030 (2017 Review) is in accordance with the general commitments and objectives of the Environmental Guidelines.

5.2 Parklands Plan of Management 2010

Clause 18(6) of the *Sydney Olympic Park Authority Act 2001* requires the Sydney Olympic Park Master Plan 2030 to be consistent with the Parklands Plan of Management. The Department undertook an assessment of the Sydney Olympic Park Master Plan 2030 (2017 Review) at the time of exhibition, which is outlined in Appendix H of the Department's Planning Report. The proposed amendments post exhibition have not impacted this assessment. The *Parklands Plan of Management 2010* is available on SOPA's website and a copy is also available at SOPA's head office.

6 Conclusion

This Finalisation Report assesses the Master Plan (2017 Review) as submitted by SOPA following a review of all issues raised in submissions. The Department has worked closely with SOPA and other key stakeholders in its assessment of the revised Master Plan 2030 and proposed amendments to the State Significant Precincts SEPP.

The Department's assessment concludes a number of changes are required to be made to the Master Plan including:

- a requirement for an economic feasibility study to accompany all development applications to determine the percentage of affordable housing that can be accommodated within the development,
- changes to the way in which sustainability is addressed,
- built form changes,
- change reference from satisfactory arrangements to intensive urban development, and
- changes to access requirements for communities facilities.

The Department is satisfied the revised Master Plan will provide a comprehensive approach to the long-term development of Sydney Olympic Park. The Master Plan contains a number of planning principles and controls to encourage development within Sydney Olympic Park that responds to rapid population growth and housing demand in Sydney while also contributing to the quality built environment, future character and cultural significance of Sydney Olympic Park.

The Master Plan provides the opportunity to deliver best practice built environment performance for new development across a high profile urban renewal precinct.

The uplift in development intensity proposed in the review is considered appropriate given the precinct's existing and proposed public transport services, high quality public domain that includes extensive parklands, and mature utilities infrastructure such as the established recycled water scheme.

The Department recommends that the Minister for Planning approve the revised Master Plan 2030 (2017 Review), subject to amendments and proposed changes to the State Significant Precincts SEPP.

Appendix A Summary of amendments

Table A1 Summary of post exhibition amendments to Sydney Olympic Park Master Plan 2030

Section	Current	Exhibited (2016 Review)	Post-exhibition amendment
Section 3 Planning Principles			
Section 3.3 Sustainability	Does not include reference to social sustainability.	Does not include reference to social sustainability.	Amended to refer to social sustainability and liveable communities.
Section 3.7 Access and Transport	Does not include reference to driverless shuttle bus services.	Does not include reference to driverless shuttle bus services.	Amended to include reference to driverless shuttle bus services.
Section 3.10 New Facilities and Infrastructure	Does not include reference to Community Facilities Strategy.	Does not include reference to Community Facilities Strategy.	Amended to reference Community Facilities Strategy.
Section 4 General Controls and Guidelines			
Section 4.2 Sustainability	Does not include reference to Green Star Communities.	Does not include reference to Green Star Communities.	Amended to refer to Green Star Communities. This has also been included in Appendix A to include mandatory provision of Green Star registration as part of all Development Applications.
Section 4.4	The area around Qudos Bank Arena identified as Public Domain.	The area around Qudos Bank Arena identified as Public Domain.	Figure 4.4 Land Uses Plan has been amended to 'reflect Mixed Commercial and Entertainment Uses around Qudos Bank Arena consistent with the area around ANZ stadium.
Section 4.3 Public Domain	Figure 4.2 identifies frontages where either 2 storey street colonnades, 1 storey street colonnades or awnings are to be provided.	The application of 2 storey street colonnades expanded to include additional frontages along Edwin Flack Avenue, Olympic Boulevard and areas in the Central Precinct.	Figure 4.2 Awnings and Colonnades Plan has been amended to remove the requirement for colonnades but requires awnings along Australia Avenue. Double height colonnades have been generally maintained along Olympic Boulevard except on the western

Section	Current	Exhibited (2016 Review)	Post-exhibition amendment
			side where the requirement for a colonnade has been deleted. Sites 9 and 12 have been amended to single storey colonnades as per the current Master Plan.
Section 4.6.8 Tower Building Controls	The control does not set a maximum GBA for tower floor plates.	Establishes a control that floor plates levels above 15 storeys should not exceed 800m ² GBA.	Amended to allow floor plates of 900 sqm GBA for towers above 15 storeys.
Section 4.6.9 Accessibility Controls	Does not explicitly state that accessible parking spaces are to be provided consistent with the Authority's Access Guidelines.	Does not explicitly state that accessible parking spaces are to be provided consistent with the Authority's Access Guidelines.	Amended to require provision of accessible parking consistent with the Authority's Access Guidelines.
Section 4.6.10 Design Excellence Controls	Figure 4.6 identifies some sites as Design Excellence sites.	Figure 4.6 was amended for the 2016 review to identify a number of additional sites as Design Excellence sites, but does not include the area around Qudos Bank Arena and Site 109.	Amended to include the area around Qudos Bank Arena and Site 109 as Design Excellence sites.
Section 4.6.17 Residential Building Controls	Provide 3% of affordable housing or in accordance with the relevant State planning policy or instrument in force at the time of development, whichever is greater.	Provide 3% of affordable housing or in accordance with the relevant State planning policy or instrument in force at the time of development, whichever is greater.	Affordable Housing has been amended to increase the proportion of residential units required to be allocated to affordable rental housing to a minimum of 5% of development yield.
Section 4.7.1 Access and Parking Controls	All parking to be underground with the exception of some sites where interim surface parking is permitted as part of a staging strategy for future residential development.	Requires that all parking is to be underground. Where this cannot be achieved due to site conditions (i.e. sloping sites), above ground parking is to be sleeved with active habitable uses.	Remove the requirement for basement parking on contaminated sites including Sites 9 and 12. All above ground parking on these sites is to be sleeved with active habitable uses along all streets.

Section	Current	Exhibited (2016 Review)	Post-exhibition amendment
Section 4.7.1 Access and Parking Controls	Does not include reference to the Authority's Access Guidelines to set the rate for accessible parking provision.	Does not include reference to the Authority's Access Guidelines to set the rate for accessible parking provision.	Require provision of accessible parking at the rate consistent with the Authority's Access Guidelines.
Section 4.7.1 Access and Parking Controls	Consideration of car sharing services not included.	Consideration of car sharing services not included.	Include consideration for car sharing, which is to be strongly encouraged.
Section 4.9 Landscape and Site	Does not include reference to the Authority's Stormwater and Water Sensitive Urban Design Policy.	Does not include reference to the Authority's Stormwater and Water Sensitive Urban Design Policy.	Amended to refer to the Authority's Stormwater and Water Sensitive Urban Design Policy.
Section 5			
Section 5.2 Central Precinct	No service street shown in Figure 5.7.	New service street at ground level shown in Figure 5.7.	Figure 5.7 Central Precinct Land Uses Plan - amended to require the Service Street to be delivered underground and provide the option for the North South Street on the axis with Central Park to be delivered as a shared way or pedestrian only street.
Section 5.2 Central Precinct	Podia requirements not shown in Figure 5.8.	Figure 5.8 identifies 6-8 storey podia in the 20 storey and 30 storey tower zones and 8 storey podia in the 45 storey tower zone.	Figure 5.8 Central Precinct Building Heights Plan - amended to reflect increased flexibility with regard to podia. Podia of between 5 and 8 storeys with a setback above 6 storeys are permitted in commercial streets and 4-8 storey podia in residential streets except along Olympic Boulevard which maintains a requirement for an 8 storey podium.
Section 5.2 Central Precinct	Figure 5.9 does not show the new service street.	Figure 5.9 shows a new service street to	Figure 5.9 Central Precinct Land Uses Plan amended to

Section	Current	Exhibited (2016 Review)	Post-exhibition amendment
		be delivered at ground level.	require the Service Road to be delivered underground and provide the option for the North South Street on the axis with Central Park to be delivered as a shared way or pedestrian only street.
Section 5.4 Stadia Precinct	Figures 5.21 to 5.26 show the area around Qudos Bank Arena as being public domain. Figure 5.25 shows the area Edwin Flack Avenue as being coach parking.	Figures 5.21 to 5.26 show the area around Qudos Bank Arena as being public domain. Figure 5.25 shows the area Edwin Flack Avenue as a 45 storey tower zone.	(including Figures 5.21 to 5.26) has been amended to provide mixed commercial and entertainment land use around Qudos Bank Arena, consistent with the land use around ANZ Stadium. Figure 5.25 has been amended to reduce the bulk and scale of the building from 45 storeys to 30 storey mixed use commercial, hostel and serviced apartments.
Section 5.5 Sydney Showground Precinct	No reference included to the Royal Agricultural Society's (RAS) strategic vision for the Sydney Showground Precinct.	No reference included to the Royal Agricultural Society's (RAS) strategic vision for the Sydney Showground Precinct.	Reference included to the Royal Agricultural Society's (RAS) strategic vision for the Sydney Showground Precinct.
Section 5.7 Boundary Creek and Tennis Precincts	Figure 5.49 shows the site at the corner of Shirley Strickland Avenue and Rod Laver Drive with a maximum height of 4 storeys.	Figure 5.49 shows the site at the corner of Shirley Strickland Avenue and Rod Laver Drive with a maximum height of 4 storeys.	Figure 5.49 has been amended to increase the maximum building height to 8 storeys for the site at the corner of Shirley Strickland Avenue and Rod Laver Drive to allow for more flexibility for a vertical school / education facility.
Section 5.9 Haslams Precinct	No land along Hill Road identified for possible future road works/ widening.	No land along Hill Road identified for possible future road works/ widening.	Figures 5.62 - 5.66 have been amended to acknowledge that certain sites on Hill Road are subject to possible future road

Section	Current	Exhibited (2016 Review)	Post-exhibition amendment
			works/widening which will be determined by the detailed concept design for the off ramp being prepared by RMS.
Appendices and Additional Information			
Appendix A - Development Applications	Reference to the Authority's Parkland Plan of Management not included.	Reference to the Authority's Parkland Plan of Management not included.	Reference requirement to comply with the Authority's Parkland Plan of Management for any proposal within the Parklands;
Appendix A - Development Applications	Does not include reference to Green Star registration or the requirement that for proposed development to exhibit design excellence a six star Green Star rating is to be achieved.	Does not include reference to Green Star registration or the requirement that for proposed development to exhibit design excellence a six star Green Star rating is to be achieved.	Include provision of Green Star registration as part of any Development Application being considered. A minimum six star Green Star rating being required for Design Excellence.
Appendix B - New Public Spaces	An urban park is to be provided in the Central Precinct with a total area of 3,950 sqm.	An urban park is to be provided in the Central Precinct with a total area of 5,780 sqm.	Requirements for the urban park in the Central Precinct have been amended to allow for more flexibility in relation to the size and location of the park; provided certain criteria are satisfied. The park is to total 5,780 sqm in area, but may be provided in two parts.
Section	Post exhibition Amendments		
Appendix C – Street Plans and Sections	Street 3 Dawn Fraser Avenue East <i>(Amended to refer to a built edge of 5-8 storeys instead of 8 storeys)</i> Street 6 Murray Rose Avenue East <i>(Amended to refer to a 5-8 storey base instead of 8 storeys)</i> Street 8 Australia Avenue <i>(Amended to refer to 5-8 storey block edge development instead of 8 storeys)</i> Street 14 Herb Elliott Avenue <i>(Amended to refer to 5-8 storey commercial development on the southern side of Olympic Boulevard instead of 8 storeys)</i> Street 19 Central Shopping Street		

Section	Current	Exhibited (2016 Review)	Post-exhibition amendment
	<p><i>(Amended to refer to 5-8 storey commercial buildings instead of 8 storeys)</i></p> <p>Street 23 North South Street</p> <p><i>(Amended to refer to a 5-8 storey base instead of 8 storeys)</i></p> <p>Street 24 Verge Street (the section of Street 24 from Central Park through to Linear Park)</p> <p><i>(Amended to refer to 4-8 storeys with point towers above instead of 8 storeys with point towers above)</i></p> <p>Street 27 - Service Street</p> <p><i>(Amended to refer to 4-8 storeys with towers above instead of 8 storeys with towers above)</i></p> <p>Street 34 Rod Laver Drive</p> <p><i>(Amended to refer to 6-8 storey development to part of the northern edge instead of 3-4 storey development)</i></p> <p>Street 35 - Central Park Edge Streets</p> <p><i>(Amended to include reference to the street having the option to be either a traffic, a shared way or pedestrian only street.</i></p>		

Appendix B
Sydney Olympic Park – Testing of the Draft
2030 Master Plan Review Controls (September
2017)

Sydney Olympic Park

TESTING OF THE DRAFT 2030 MASTER PLAN 2016 REVIEW CONTROLS

SEPTEMBER 2017



COX

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PURPOSE OF THE REPORT
COX has been engaged by the Department of Planning and Environment to test the proposed amendments to the built form controls within the Draft Sydney Olympic Park Master plan 2030 - 2016 Review (the Draft) prepared by the Sydney Olympic Park Authority.
To achieve this COX has comprehensively assessed the built form and use controls within the Draft documentation to ensure firstly, consistency and congruency between the proposed controls. Secondly, that the controls achieve the desired built form and public domain outcome for the precinct within the Draft. Lastly, consideration of other controls such as the Apartment Design Guide. The concept plans prepared to enable the testing of the controls for each site represent just one of many possible outcomes that could be delivered on each site to satisfy the objectives and controls of the Draft.
In addition, we have been asked to provide a selective assessment of leaseholder submissions received during the exhibition period which relate to the built form controls contained within the Draft.
The findings of the site testing and leaseholder submissions assessment have been documented for either adoption or recommended amendments to the controls proposed within the Draft by Site and overall recommendations for amendments and clarifications.

Methodology

METHODOLOGY

To achieve the objectives of the site testing exercise, the methodology employed was as follows;

Controls

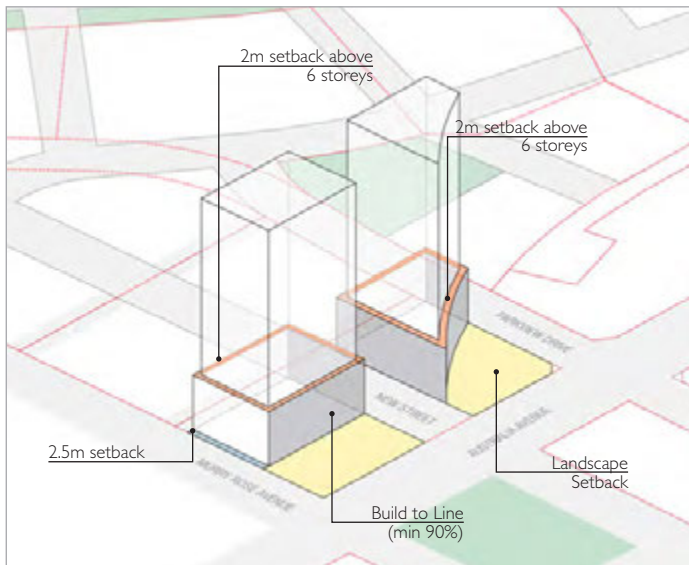
Documentation of the appropriate controls which inform the development potential on each site draw from the following plans and diagrams within the Draft;

- Awnings and Colonnades Plan
- Active Frontages Plan
- Land Uses Plan
- Floor Space Ratios Plan
- Building Heights Plan
- Building Zones and Setback Plan

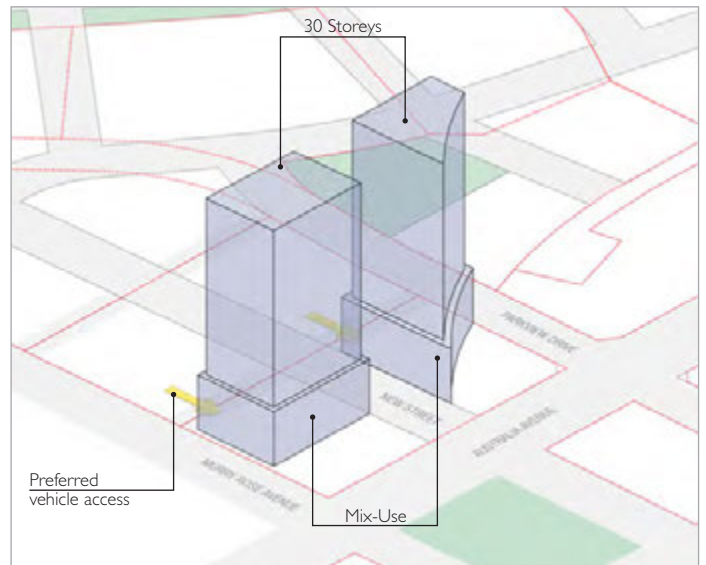
Envelope

Translation of the above controls in to a 3D building envelope for each site as shown below, illustrating;

- Primary setbacks (at grade)
- Secondary setbacks (above ground)
- Minimum/maximum build to lines
- Access points
- Land uses
- Heights
- Building separation



Building Zones, Envelopes and Setbacks



Land Use and Building Height



Tested Site Plan

Mix of Uses

Testing of each site included documenting the assumed mix of uses within each site as proposed by SOPA including;

- Commercial
- Community
- Education
- Entertainment
- Transport
- Residential
- Temporary Accommodation
- Venues
- Retail

Site Testing

A concept for each site has been prepared to test the controls, envelopes and desired mix of uses within the Draft. The testing involved preparing typical floor plans for each building within each site and detailed plans for each floor where a change in envelope occurs (i.e. a secondary setback) or a change in use (i.e. from retail on the lower floors to residential above) has occurred.

In addition, for sites with residential components, each building has been tested against the Apartment Design Guide requirements with regards to building separation (including to adjoining Sites), solar access, natural ventilation, apartment size and layout, balconies, common circulation and spaces, maximum apartments served by a single circulation core.

The results of the site testing are documented as a total GFA achieved, by use, by floor, by building and satisfaction of solar access and natural ventilation requirements by Site. Where the sites do not satisfy one or more of the controls or desired built form outcomes for the site, they are identified in **RED** within the Report

The concept plans represent just one of many possible outcomes that could be delivered on each site to satisfy the objectives and controls of the Draft. It is noted that the Draft does provide some flexibility in the application of controls, where it can be demonstrated that a superior outcome is delivered and design excellence is achieved.

Submissions Assessment

The leaseholder and third party submissions will be assessed for

- Alignment with the proposed controls within the Draft
- Validity of any arguments to amend controls

Recommendations

Following an assessment of the submissions and the findings of the site testing have been documented, the report makes a recommendation to either;

- Adopt the controls as proposed in the Draft
- Amend the controls as proposed in the Draft based on site testing and/or leaseholder submissions and explicit identification of which controls need to be amended

ASSUMPTIONS

To enable the testing of the sites and translation of the concept plans to GFA by use, by building, by Site a number of assumptions have been made.

Concept Plans have been drawn that enable use to measure GBA for each of the sites.

GBA is the measurement of the area between the outside face of all external walls, balconies and windows.

GFA is the measurement of the area between the internal face of all external walls, excluding balconies, lifts, stairs, risers and mechanical services ducts, and including common circulation areas and internal corridors. This is measured as per the Standard Instrument Local Environment Plan.

This correlation varies building by building and floor by floor dependent upon mix of apartments, balcony sizes, number of cores, lifts and stairs, circulation areas and orientation of the building.

Based on previous projects and understanding of the geometry and efficiencies likely on each site we have assumed efficiencies for typical floors;

- Commercial GBA>GFA 85%
- Retail GBA>GFA 85%
- Community GBA>GFA 85%
- Education GBA>GFA 85%
- Temp accommodation GBA>GFA 80%
- Residential GBA>GFA 85%

Floor to Ceiling Heights:

- Residential/Temp Accommodation: 3.3m ground, 3.1m above
- Commercial/Retail/Community/Education: 4.0m

Solar access has been tested on a site to site basis only and each leaseholder proposal would be required to demonstrate no adverse or cumulative impacts on the ability of adjoining sites to meet ADG requirements, particularly solar access and overshadowing of open space. Solar access has been based on 70% of apartments receiving 2 hours between 9am to 3pm.

Natural cross ventilation has been tested against the requirements of the ADG that a minimum 60% of apartments within a building achieve natural cross ventilation on all floors below 10-storeys.

The GFA for the sites have been determined by the designated FSR and the FSR Boundary Area as per attachment B of the Local Infrastructure Contributions Framework (ICF) included in Appendix I of the exhibited Draft documents, the Department of Planning and Environment Planning Report.

Methodology

SPLIT OF USES

The testing of each of the sites will include an assumed split of commercial, community, education, retail, temp accommodation, residential uses as a desired maximum floor space.

The desired mix of uses for each site is drawn from the Sydney Olympic Park Authority Local Infrastructure Contributions Framework (ICF). The exhibited Draft material included the Department of Planning and Environment Planning Report, where Appendix I includes SOPA's ICF as Attachment B. Attachment B below, which was referenced in the Department of Planning and Environment Planning Report, sets out the desired maximum floor space per site, per use, which is then used to determine potential developer contributions as part of the ICF.

ATTACHMENT B - updated 30 06 2016

DEVELOPMENT POTENTIAL OF SITES AFFECTED BY THE INFRASTRUCTURE CONTRIBUTIONS FRAMEWORK

2015-2030

Site	Precinct	FSR Boundary Area	Total GFA	Commercial GFA	Community GFA	Education GFA	Entertainment GFA	Transport GFA	Residential GFA	Temp Accommodation GFA	Venues Exp GFA	Retail GFA
100	Sydney Showground	39,040	39,040								39,040	
YP	Sydney Showground	1,046	1,726				1,726					
112A	Sydney Showground	3,509	11,580				11,580					
112B	Sydney Showground	11,157	12,273								12,273	
113	Sydney Showground	5,924	5,924								5,924	
BH	Central Sports	1,168	5,840							5,540		300
15/17	Central Sports	5,342	21,368			21,368						
18/26	Central Sports	14,068	61,899	25,000		25,000					10,000	1,899
19	Central Sports	1,613	8,065							8,065		
20	Central Sports	2,321	10,445							10,445		
21	Central Sports	1,051	5,253							5,253		
22	Central Sports	1,723	8,615							8,215		400
25	Central Sports	2,672	5,878		2,500	3,378						
27	Central Sports	7,460	16,412			14,000						2,412
31/32	Central Sports	13,129	19,694			19,694						
103	Central Sports	42,467	15,000			10,000					5,000	
NI	Central	5,337	26,685							26,685		
4A	Central	1,427	17,124							17,024		100
4B	Central stage 1	4,914	9,774	8,800					400			574
4B	Central stage 2	4,914	33,469	5,000					26,000			2,469
5,6,7	Central	9,802	59,302	55,302								4,000
8A	Central	1,388	6,940	6,521								419
8B	Central	1,146	5,730	5,387								343
8C	Central	1,148	5,860	5,520								340
8D	Central	1,146	5,843	5,500								343
GPT 40	Central	9,070	35,917	12,000	8,600	1,000						14,317
GPT 41	Central	8,403	33,276	10,445		12,100						10,731
42	Central	6,676	26,437	21,000								5,437
43/44	Central	11,981	59,306	34,306					23,000			2,000
45A/45B	Central	12,442	61,588						59,588			2,000
GPT 46	Central	12,930	51,203	20,203		6,000			11,000	3,000		11,000
GPT 47	Central	12,897	51,072	14,000					27,000			10,072
GPT 48	Central	10,749	76,855	12,355		18,000			34,000			12,500
Included in totals		85,148	395,654	124,309	8,600	37,100			154,588	3,000		68,057
50	Central	11,147	79,701		2,000	7,000			68,701			2,000
51	Central	11,744	41,339						41,339			
52	Central	9,512	33,482						33,482			
53	Central	12,697	62,850						59,850			3,000
110	Central	8,299	200		200							
2A/2B	Parkview	7,709	46,639		7,000					37,000		2,639
3	Parkview	14,913	78,293						77,793			500
60A/60B	Parkview	17,115	42,788	42,288								500
60A/60B	Parkview	7,400	24,420						24,420			

2015-2030

Site	Precinct	FSR Boundary Area	Total GFA	Commercial GFA	Community GFA	Education GFA	Entertainment GFA	Transport GFA	Residential GFA	Temp Accommodation GFA	Venues Exp GFA	Retail GFA
61A/61B	Parkview	8,162	40,402	40,102								300
62A/62B	Parkview	9,838	43,287	43,000								287
63	Parkview	7,065	21,195						21195			
64	Parkview	9,452	28,356						28356			
65	Parkview	6,634	16,585						16585			
66A/66B	Parkview	7,920	19,166						18,866			300
67A/67B	Parkview	15,042	30,084						30,084			
68	Parkview	13,998	35,651						35,651			
70	Haslams	20955	47,149	1,000				29,149		17,000		
71	Haslams	6648	14,958						14,958			
72	Haslams	11120	25,020						25,020			
73	Haslams	7586	17,069						17,069			
74	Haslams	7964	17,919						17,919			
75	Haslams	8026	18,059						18,059			
76	Haslams	8627	19,411		1,000				18,411			
77	Haslams	4070	9,158						9,158			
78	Haslams	9168	20,628						20,628			
79	Haslams	8337	18,757						18,757			
108	Tennis	1927	3,854	1,000							2,854	
109	Tennis	11639	23,278			23,278						
102	Stadia	1829	2,200		200		2,000					
114	Stadia	46,000	76,450	22,500	1,500	12,000				28,000	9,000	3,450
Coach Parking	Stadia	13244	58,274	8,000			2000	22000		25000		1274
9	Boundary Creek	4071	25,130	3040					21426			664
12	Boundary Creek	7662	50,569			13000			36569	1000		
13	Southern Sports	4769	18,361	10000	6000							2361
107	Southern Sports	9713	19,426								19,026	400
107A	Southern Sports	9984	7,400		7,400							
115	Southern Sports	9,806	4,903								4,903	
P1	Stadia											
P2	Central Sports											
P3	Boundary Creek											
P4	Southern Sports											
P6	Parkview											
P7	Southern Sports											
TOTAL		747,000	1,960,000	412,000	37,000	186,000	17,000	51,000	855,000	192,000	110,000	100,000

Land excluded from this Plan

Key	Description
Yellow	Land the subject of a development consent (or a development proposal that has been received and is likely to be determined prior to the
Light Orange	Land that has been identified in Master Plan 2030 for a level of commercial, education, entertainment, residential or temporary accommodation GFA that is less than the credit GFA that app
Light Green	Land that has been identified in Master Plan 2030 exclusively for either community, transport or venues GFA.
Dark Orange	Land that has not been ascribed any additional potential GFA under Master Plan 2030.

Overall Site Plan

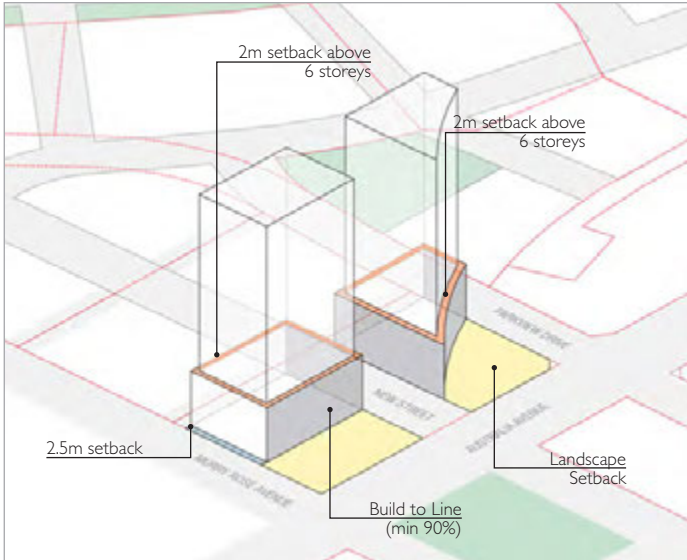


SITE CONTEXT

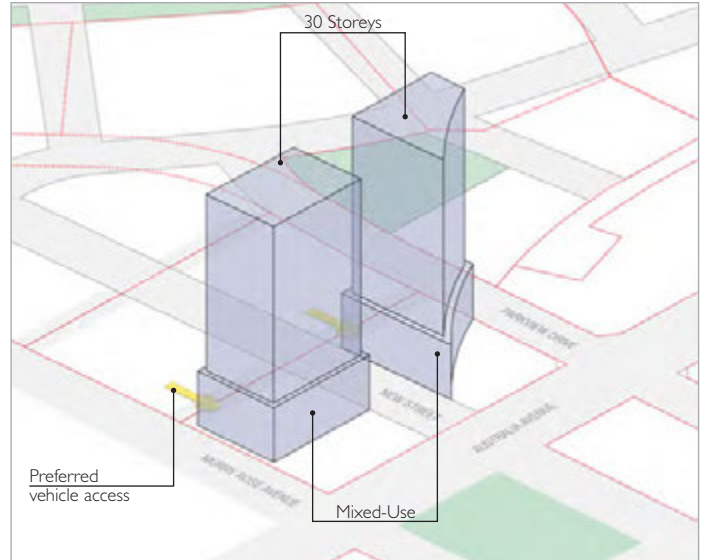
- | | |
|----------------------|--|
| 1. Sydney Showground | 7. Hockey Centre |
| 2. Qudos Bank Arena | 8. Sports Centre |
| 3. ANZ Stadium | 9. Netball Centre |
| 4. Athletic Centre | 10. Tennis Centre |
| 5. Aquatic Centre | 11. Tom Sills Oval and Community Field |
| 6. Warm Up Arena | |



Parkview Precinct - Site 2A & 2B



Building Zones and Setback



Land Use and Building Height



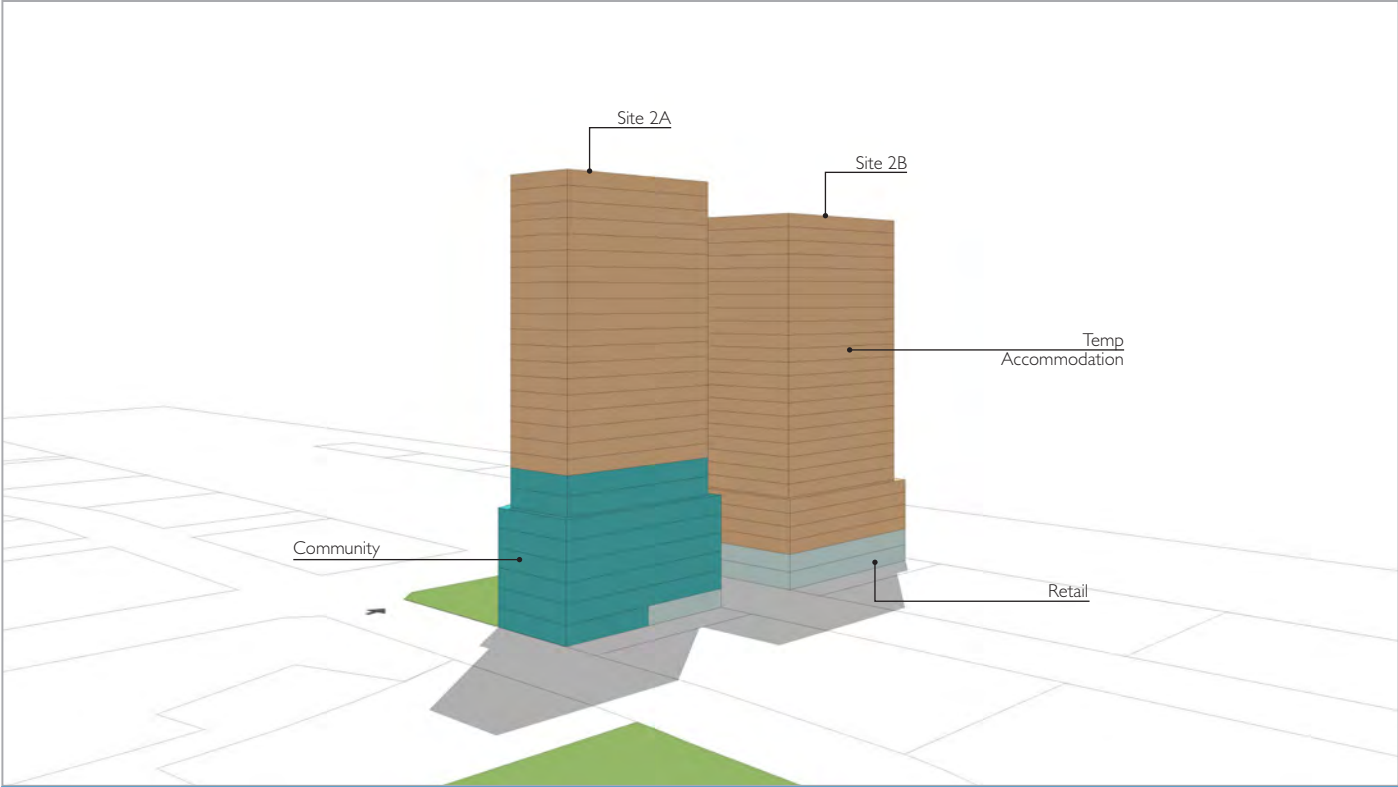
Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

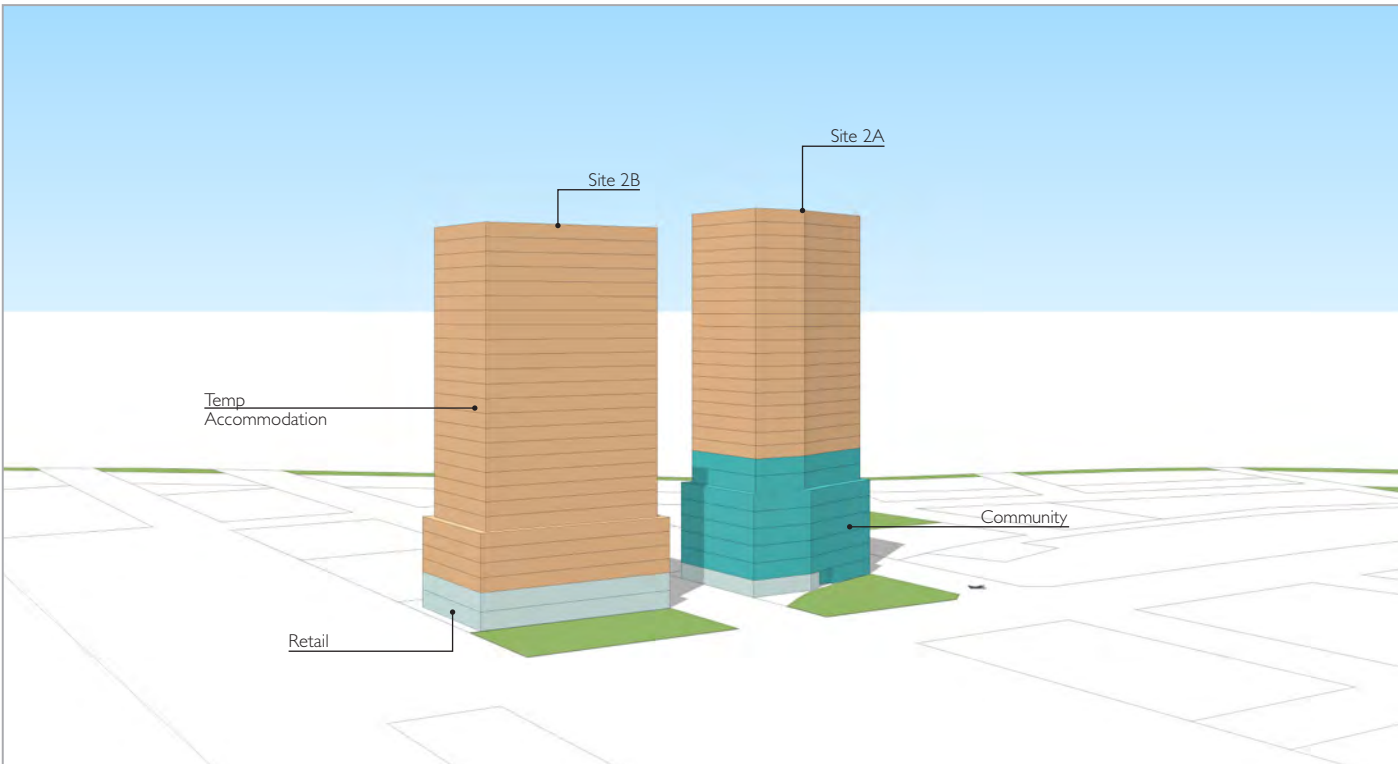
- FSR Boundary Area: 7,709m²
- FSR: 5.5:1 (excluding bonus)
- Target Retail GFA: 2,639m²
- Target Community GFA: 7,000m²
- Target Temp Accommodation: GFA 37,000m²
- Maximum Total GFA: 46,639m² (including bonus)
- Maximum Building Height: 30 storeys (6 storey block edge)
- ICF Uses: Community, Temporary Accommodation and Retail

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 7,709m²
- FSR: 5.5:1 (excluding bonus)
- Achieved Retail GFA: 2,967m²
- Achieved Community GFA: 7,131m²
- Achieved Temp Accommodation: GFA 37,604m²
- Achieved Total GFA: 47,702m² (including bonus)
- Achieved Building Height: 30 storeys (6 storey block edge)
- Achieved Uses: Community, Temporary Accommodation and Retail



Tested Built Form



Tested Built Form

Parkview Precinct - Site 2A & 2B

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1	Retail	1,743m ²
1	Community	457m ²



Storey	Use	GFA
2	Retail	1,224m ²
2	Community	1,024m ²



Storey	Use	GFA
3-6	Community	4,097m ²
3-6	Temp Accommodation	4,608m ²



Storey	Use	GFA
7-8	Community	1,552m ²
7-8	Temp Accommodation	1,821m ²



Storey	Use	GFA
9-27	Temp Accommodation	31,175m ²

Proposed Land Use – Integrated with new rail infrastructure

Billbergia propose that land use be considered in the context of proposed new rail infrastructure as follows:

Site A - Mixed Commercial and Residential, integrated with Rail Corridor and carparking

Site B - Mixed Commercial, Hotels and Serviced Apartments, integrated with Rail Corridor and carparking

Site FSR and Building Heights – Integrated with new rail infrastructure

Billbergia propose that land development be considered in the context of proposed new rail infrastructure as follows:

Site A - Up to 95 storeys, FSR 10:1

Site B - Up to 45 storeys, FSR 8:1

161115_SOP MPlan 2030_Submission (1).pdf (page 6)

THIRD PARTY SUBMISSION

Request: Site A (Parking P6) be considered as a development opportunity and considered in conjunction with Site 2A and Site 2B

Response: The Draft does not consider Site A as a potential development site. The submission identifies this site as 'Site A', rather it is identified as P6, a current at-grade car-park with an entrance from Murray Rose Avenue.

The P6 Site is identified in the Draft as a car parking, coach parking and rail use site and has not been assigned any development controls.

Request: An increase FSR from nil to 10:1 and 8:1 and an increase in height from nil to 95 storeys and 45 storeys on sites A (Parking P6) and Site 2A/2B respectively in the context of potential new rail infrastructure (Sydney Metro West).

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the planned provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of planned future infrastructure.

Within that context, Site A (Parking P6) is not considered a development opportunity and Site 2A and 2B has a maximum permissible floor space ratio of 5.5:1 which is consistent with the intention of the Draft and associated infrastructure plan.

The Sydney Metro West has not been planned and amendments to controls that anticipate its delivery within a particular precinct or site would be premature.

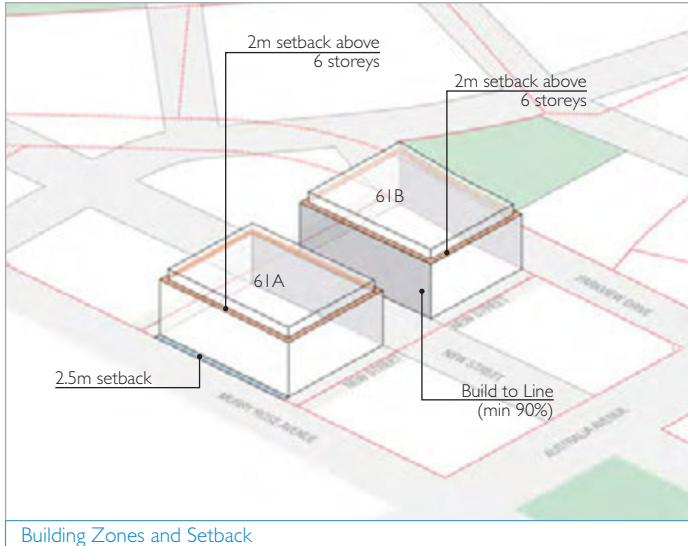
The proposed building heights within the Draft considers a transitional height plane to ensure that a certain proportion of solar access is maintained to the public open spaces and active transport corridors within the precinct and that the resultant built form of the precinct is cohesive and coherent.

CONCLUSION/RECOMMENDATION

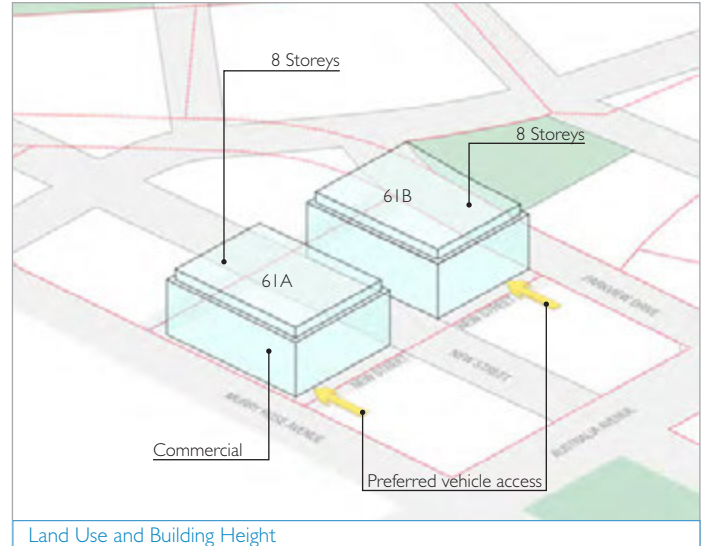
The detailed testing of the site has revealed that Site 2A and 2B achieves the total GFA, desired mix of uses and is in alignment with all built form controls as proposed within the Draft.

No amendments are required.

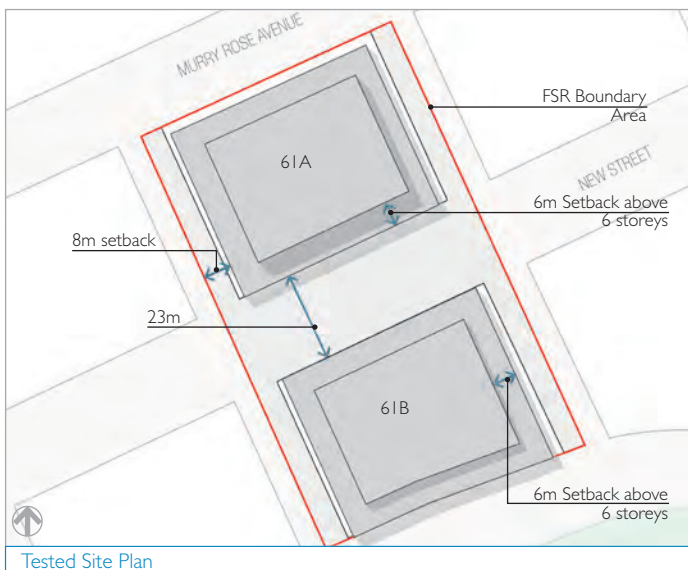
Parkview Precinct - Site 61A & 61B



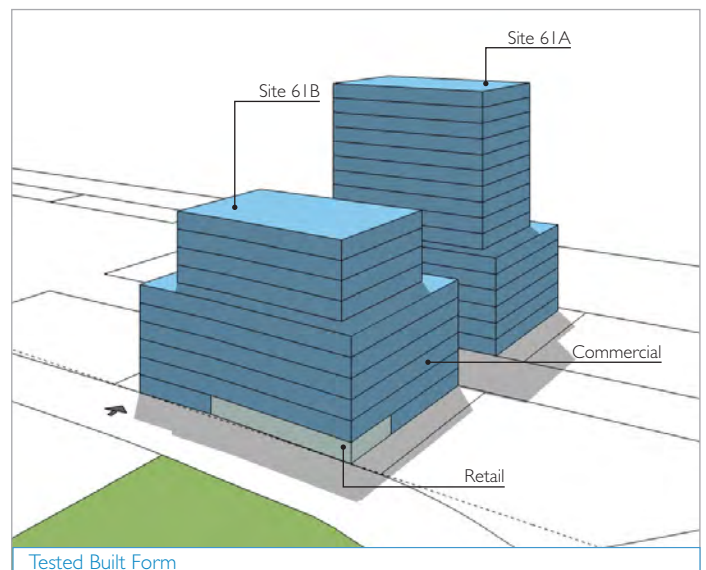
Building Zones and Setback



Land Use and Building Height



Tested Site Plan



Tested Built Form

DRAFT SOP MP 2030 CONTROLS

- FSR Boundary Area: 8,162m²
- FSR: 4.5:1 (excluding bonus)
- Target Retail GFA: 300m²
- Target Commercial GFA: 40,102m²
- Maximum Total GFA: 40,402m² (including bonus)
- Maximum Building Height: 8 storeys (6 storey block edge)
- ICF Uses: Commercial & Retail

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 8,162m²
- FSR: 4.5:1 (excluding bonus)
- Achieved Retail GFA: 300m²
- Achieved Commercial GFA: 41,064m²
- Achieved Total GFA: 41,364m² (including bonus)
- **To achieve the desired GFA for the site the height of the building on Site 61A needs to be increased to 16-storeys and Site 61B to 10-storeys**
- Achieved Uses: Commercial & Retail

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1	Retail	300m ²
1	Commercial	3,879m ²



Storey	Use	GFA
2-6	Commercial	20,902m ²



Storey	Use	GFA
7-10	Commercial	9,554m ²



Storey	Use	GFA
11-16	Commercial	6,730m ²

Parkview Precinct - Site 6IA & 6IB

Sydney Olympic Park Master Plan 2030 (2016 Review) and State Significant Precincts SEPP Amendments, 3 Parkview Drive, Sydney Olympic Park.

BBF Town Planners have been engaged by Soka Gakkai International Australia to make a submission on their behalf in relation to the subject matter. They are the lessees of the land at 3 Parkview Drive, Sydney Olympic Park (Lot 78 in DP 85562) from which they operate a place of worship, community centre and administration offices.

As the long-term lessees of an established land use operating from the property, my clients are interested in what future opportunities the Masterplan may offer them and how their operations and property may evolve with the changes it proposes. In considering the Masterplan and the draft amendments, three key concerns arise:

1. Insufficient building height allocated to the property.
2. The Master plan's restriction on the permitted land use mix for the property which is inconsistent with the land's B4 Mixed Use zoning under the SEPP (State Significant Precincts).
3. Insufficient incentive for redevelopment of what is an important strategically located site within a priority precinct.

Soka_Gakkai_International_Australia_submission_14Nov2016.pdf (page 1)

5 Draft Master plan 2016

Following our review of the draft Master plan, and discussions with staff at Sydney Olympic Park Authority on 25 October 2016, we make the following submissions in response to the proposed plan:

- Mixed-use development - Soka Gakkai International Australia considers that a mixed-use development for residential and commercial use is exceedingly more suitable for the land given the relatively flat land and close walking distance to the railway station. The land is not

Soka_Gakkai_International_Australia_submission_14Nov2016.pdf (page 2)

environmental constrained and offers a highly beneficial amenity location for a mix of residential and commercial uses.

- Building height - the site will be surrounded by development that exceeds eight storeys (ranging from 15 to 32 storeys, as noted within Figures 5 & 6 below).
- Soka Gakkai International Australia objects to the height limit of 8 storeys being imposed on the land. The building height limits of land surrounding the site have been significantly increased. The land will be surrounded by much higher and more densely constructed buildings.
- The proposed building height of 8 storeys is insufficient and incompatible with the proposed building heights surrounding the property. The Land and its location is meritorious for higher tower building elements: the lower building section or 'podium' being appropriate for the commercial uses / larger floor plates; the slimmer tower elements being appropriate for residential apartments.
- 2 additional new roads - concern that the two additional new roads along the eastern and western boundaries of the land (3 new roads proposed in total) may impact negatively upon the present land use operating on the site, restrict future development footprints, and increase development cost.
- Floor Space Ratio - the proposed increase in Floor Space Ratio from 2.5 to 1 to 4.5 to 1 is acknowledged and supported, however it alone provides insufficient incentive to proceed with redevelopment of the land.

In summary, the draft Master plan changes fall short in promoting the best development outcome for the land. It is our considered opinion that the opportunities presented by the land are not fully realised by the draft Master plan's provisions for the site.

Incentivising redevelopment of the site presents an opportunity to build on the social capital already established by the existing land use on the site. The site should be considered for additional height and a broader mix of uses, commensurate with nearby properties, if the Master plan outcomes, particularly as they relate to improved access, are to have any short to medium term prospects of being achieved.

6 Conclusion

We appreciate the opportunity to review the draft Master plan and outline the above issues. Representatives from the Soka Gakkai International Australia would welcome the opportunity to further expand on these issues if required.

Soka_Gakkai_International_Australia_submission_14Nov2016.pdf (page 3)

LEASEHOLDER SUBMISSION

Request: Change of use from commercial to a mixture of uses including residential due to levels of amenity, site suitability and proximity to the station.

Response: The Draft contains targets for the delivery of a vibrant, mixed use precinct across all sites within Sydney Olympic Park including the provision of additional jobs.

To achieve this, the Draft identifies sites which can accommodate a variety of uses including;

- Commercial
- Community
- Education
- Entertainment
- Transport
- Residential
- Temporary Accommodation
- Venues
- Retail

Site 6IA and 6IB have been deemed appropriate to deliver a proportion of the job growth anticipated for the precinct due to their proximity to the station and interface with congruous uses. If the Draft is to achieve the job targets for the precinct, it is recommended that location and quantum of sites zoned for commercial uses remain the same.

Request: To remove the provision for additional streets through Site 6IA and 6IB

Response: The Draft proposes a significant increase in density and activity within the Precinct. To achieve this, the Draft identifies a number of new streets throughout the Precinct to provide enhanced accessibility and permeability for pedestrians and vehicles, commensurate with the increased levels of activity and movement throughout the precinct.

The provision of the new streets within Site 6IA and 6IB is considered consistent with the objectives of the Draft.

CONCLUSION/RECOMMENDATION

The detailed testing has revealed that, due to a combination of the orientation of the site, the geometry of the site boundaries and the strict adherence to the controls, the site is not achieving the desired targets of GFA and desired mix of uses as proposed within the Draft.

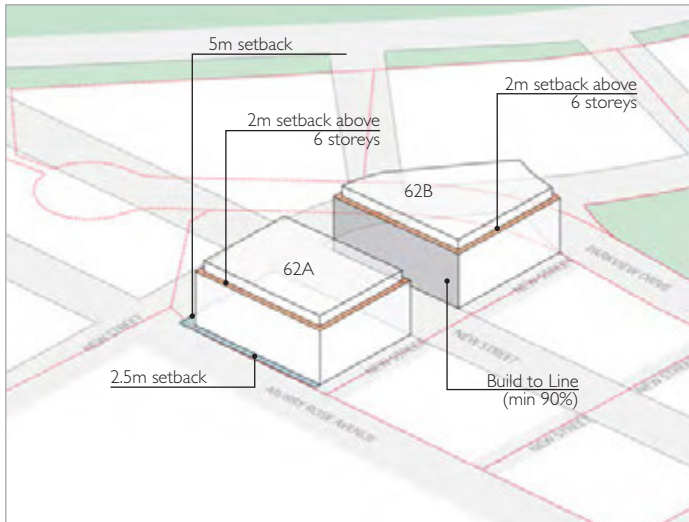
To achieve the targets and mix of uses, in particular commercial, employment-generating floorspace, whilst maintaining the vision and objectives of the Draft the following amendments to Site 61A and 61B are recommended;

- Consideration by the Authority and future owners of the public realm should be given to the provision of integrated basements and basements located underneath the public realm, particularly where new streets and open spaces are provided within a single leaseholding
- Amendment to the height of buildings plan is required to increase the permissible heights from 8 storeys to 20 storeys on Site 61A and from 8 storeys to 10 storeys on Site 61B (to remain consistent with the potential built form of Sites 62A and 62B)
- The Draft State Environmental Planning Policy (State Significant Precincts) Height of Buildings map should be amended from 33m to 84m for site 61A and 33m to 44m for Site 61B to allow for a maximum of 4m floor-to-floor heights for future A-Grade office space (allowing 4m for plant and lift overruns).

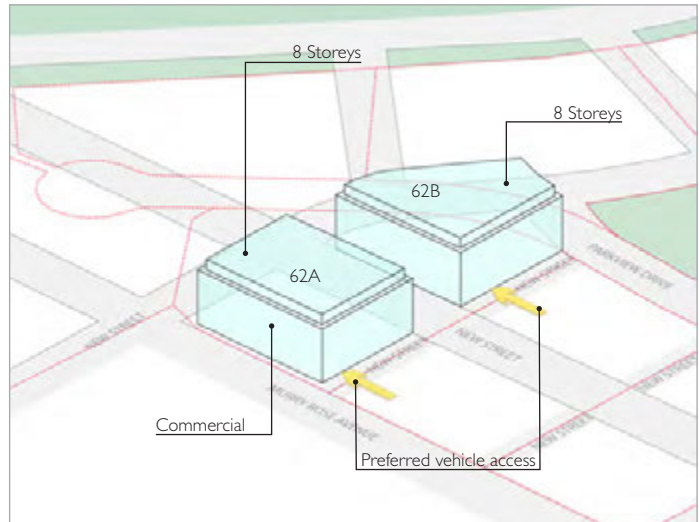
The conclusion is that amending the controls to increase building heights to achieve the GFA is congruous with the Draft's desired transition of scale from high rise buildings on Australia Ave to lower buildings on Bennelong Parkway. This transition would be in the form of 30 storeys on site 2A adjoining Australia Ave, 20 storeys on sites 61A and 62A, 15 storeys down to 6 storeys on site 60A adjoining Bennelong Parkway. In addition, the 6-storey street-wall remains as a consistent built form control across the broader precinct.

However, through the design excellence and development application process, significant consideration will need to be given to minimising any potential impact and overshadowing on the new public open space within the Parkview Precinct.

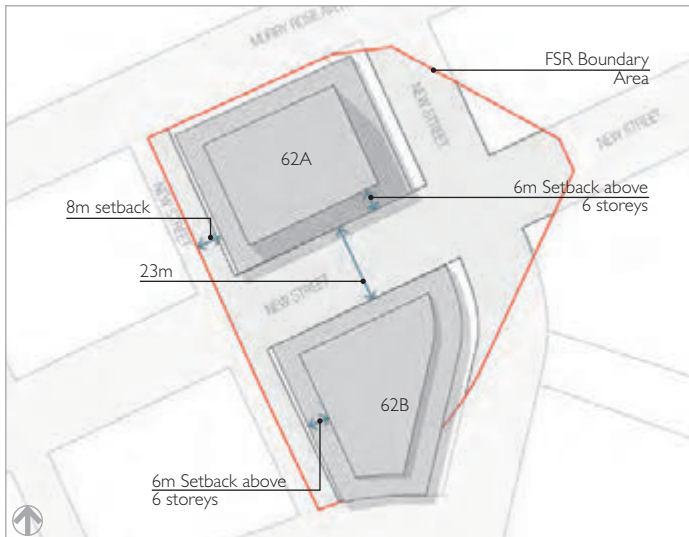
Parkview Precinct - Site 62A & 62B



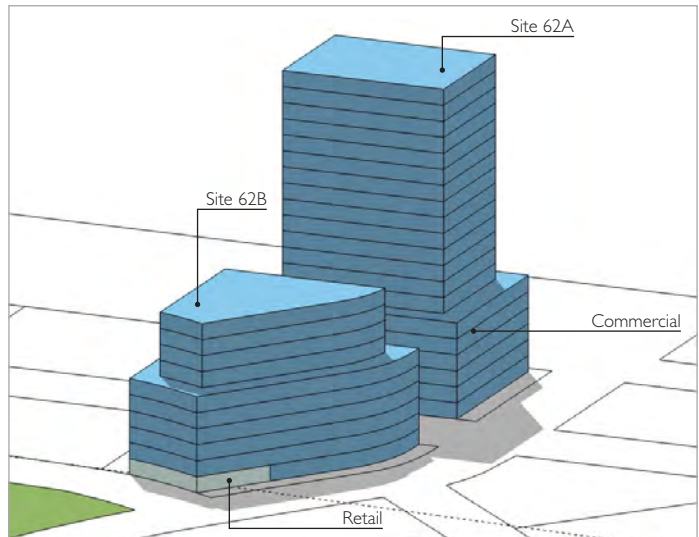
Building Zones and Setback



Land Use and Building Height



Tested Site Plan



Tested Built Form

DRAFT SOP MP 2030 CONTROLS

- FSR Boundary Area: 9,838m²
- FSR: 4.0:1 (excluding bonus)
- Target Retail GFA: 287m²
- Target Commercial GFA: 43,000m²
- Maximum Total GFA: 43,287m² (including bonus)
- Maximum Building Height: 8 storeys (6 storey block edge)
- ICF Uses: Commercial & Retail

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 9,838m²
- FSR: 4.0:1 (excluding bonus)
- Achieved Retail GFA: 287m²
- Achieved Commercial GFA: 43,367m²
- Achieved Total GFA: 43,925m² (including bonus)
- **To achieve the desired GFA for the site the height of the buildings on Site 62A needs to be increased to 20-storeys and 62B to 10-storeys**
- Achieved Uses: Commercial & Retail

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1	Retail	287m ²
1	Commercial	3,674m ²



Storey	Use	GFA
2-6	Commercial	19,805m ²



Storey	Use	GFA
7-10	Commercial	8,854m ²



Storey	Use	GFA
11-20	Commercial	11,305m ²

Parkview Precinct - Site 62A & 62B

In comparison to Sydney Olympic Park Masterplan 2010, the revised masterplan has significant detrimental impacts upon the long-term leasehold property interests at 5 Parkview Drive, Sydney Olympic Park and the grounds for objection to the draft are itemised below:

1. SOPA states that the purpose of Masterplan 2030 includes to *“provide a comprehensive approach to the long-term development of Sydney Olympic Park, ensure Sydney Olympic Park continues to evolve into an active, vibrant town within metropolitan Sydney and to encourage development of Sydney Olympic Park that responds to its context, and which contributes to the quality of the built environment, future character and cultural significance of the Park”*.
2. However, to the contrary the revised 2016 Masterplan in comparison to the 2010 Masterplan, further isolates the subject industrial site and discourages development of the site by removing the possibility of residential development from the subject site, which is presently expressly permitted under the 2010 Masterplan.
3. The site is currently lawfully used for industrial purposes including banded hazardous chemical storage facilities, which are also clearly inconsistent with the Masterplan. Planning controls for the subject site should be configured to encourage (rather than discourage) the renewal of such sites particularly given that residential tower developments are planned adjacent.
4. The Masterplan envisages significant development surrounding the subject sites, permitting densities as high as 5.5:1 and tower forms as high as 30 storeys to the east the subject site (on SOPA controlled sites).
5. The subject site, having a relatively unique unobstructed northern orientation, should capitalize upon this aspect, and be identified for residential development of comparable scale and intensity to nearby sites (30 storeys and 5.5:1)
6. Residential development is currently permitted on the subject site in the area referred to as site 62B. Despite the permissibility of residential development at present, this revised Masterplan will prohibit all residential development on site 62B if it proceeds.
7. The proposed designation of the site for expressly commercial purposes is in our view, contrary to State Government Planning policies, the *Metropolitan Strategy 2015*, which has identified the valuable contribution made by mixed use development on urban renewal sites and far more appropriate than a land use control which precludes residential development and isolates existing industrial sites.
8. The proposed Masterplan is contrary to Ministerial Directions under Section 117 of the EPA Act, 1979. Specifically Direction 3.1 prescribes that a planning authority shall not prepare a planning instrument which will reduce the permissible residential density of land.
9. In this case, the *Masterplan 2010 currently permits residential development* for at least half of the site's developable floor space ratio, and the intended Masterplan will prohibit residential development entirely, in breach of the Ministerial Direction.
10. The proposed exclusion of future residential development on the subject site is unreasonable given the current Masterplan allows for residential development, and future residential development is permitted on all adjacent sites to the south and east of the site.
11. The Planning Proposal is not required by the State Government in order to comply with State Directions or its' policy framework. To the contrary, the proposal is inconsistent with s117 Directions and broader strategies;
12. It is not necessary, reasonable nor appropriate to prohibit residential development on the site. Rather, the compatibility of residential use on the land can be addressed by building design and well considered site planning.
13. Residential development of the site would be well connected to planned residential areas immediately to the east and south of the subject site, world class public amenities and residential services.
14. Adequate and large areas of industrial and business zoned land currently exist in the Sydney Olympic Park precinct and in the West Central District subregion and will be protected in the future.
15. The land has been master planned for mixed uses since 2010 and the landowners have acted in good faith and invested in the precinct in good faith in the expectation that their investments could be developed in accordance with the existing and long established zoning.

Recommendation: It is recommended that as a 'symmetrical book-end' to the neighbouring sites (being sites 2a and 2b bounded by Parkview Drive, Murray Rose Avenue and Australia Avenue to the west), the subject site should also be shown on the Masterplan as being suitable for 30 storey tower forms, with residential development being reinstated as a permitted land use on the subject site.

LEASEHOLDER SUBMISSION

Request: That the FSR of Site 62A and 62B be increased from 4:1 to 5.5:1 to provide a density similar to nearby sites.

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, the Draft proposes an FSR of 4:1 on the site area of 9,838m² resulting in a maximum permissible GFA 43,287m² which is consistent with the intention of the Draft and associated infrastructure plan.

Request: That the height of buildings within Sites 62A and 62B be increased from 8 storeys to 30 storeys to deliver a built form similar to nearby sites.

Response: The proposed building heights within the Draft considers a transitional height plane and to ensure that a certain proportion of solar access is maintained to the communal open spaces and public open spaces within the precinct.

Therefore the height controls within the Draft for Site 62A and 62B are deemed broadly appropriate to achieve the required solar access to the new open space to be provided in the centre of the Parkview Precinct.

CONCLUSION/RECOMMENDATION

The detailed testing has revealed that, due to a combination of the orientation of the site, the geometry of the site boundaries and the strict adherence to the controls, the site is not achieving the desired targets of GFA and desired mix of uses as proposed within the Draft.

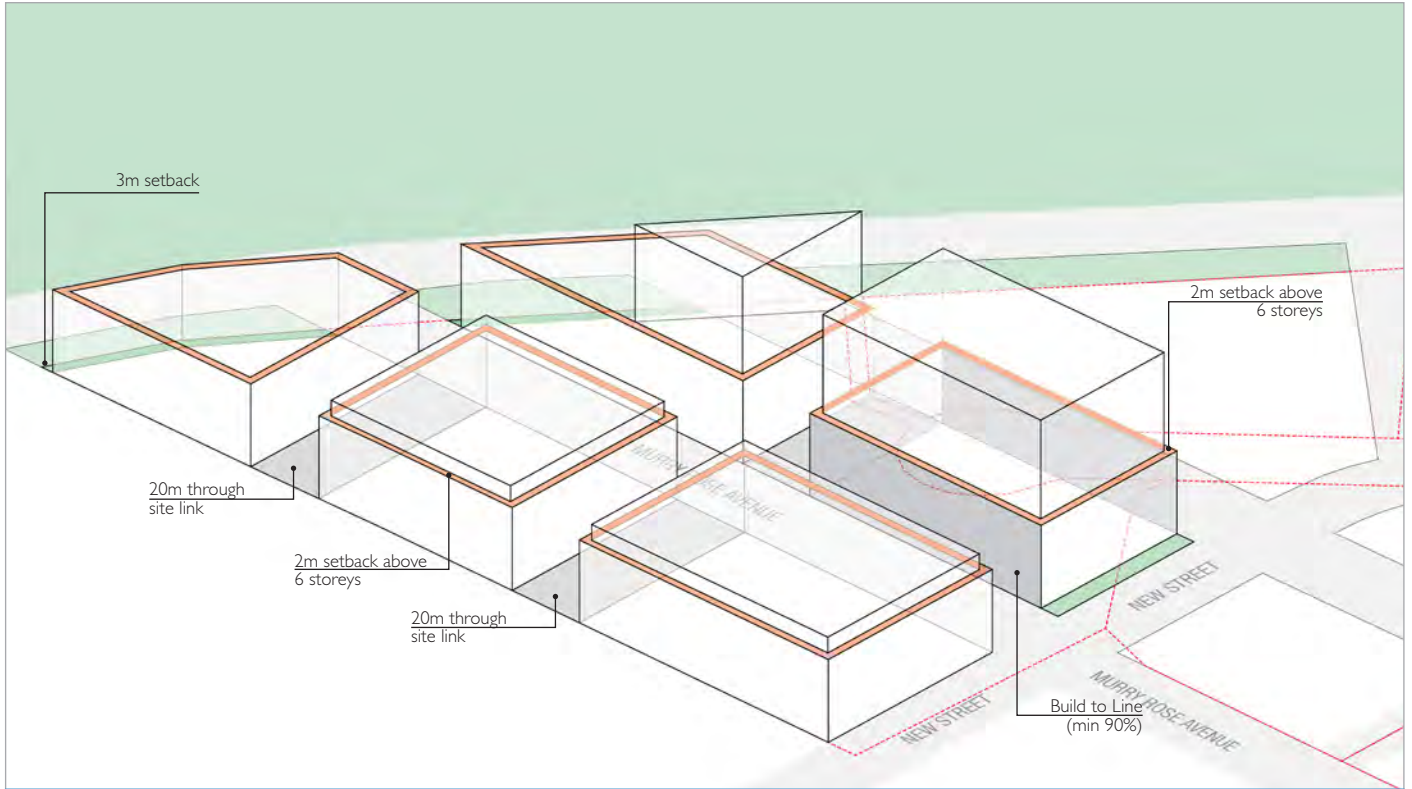
To achieve the targets and mix of uses, in particular commercial, employment-generating floorspace, whilst maintaining the vision and objectives of the Draft the following amendments to Site 62A and 62B are recommended;

- Consideration by the Authority and future owners of the public realm should be given to the provision of integrated basements and basements located underneath the public realm, particularly where new streets and open spaces are provided within a single leaseholding
- Amendment to the height of buildings plan is required to increase the permissible heights from 8 storeys to 20 storeys on Site 62A and from 8 storeys to 10 storeys on Site 62B (to remain consistent with the potential built form of Sites 61A and 61B).
- The Draft State Environmental Planning Policy (State Significant Precincts) Height of Buildings map should be amended from 33m to 84m for site 62A and 33m to 44m for site 62B to allow for a maximum of 4m floor-to-floor heights for future A-Grade office space (allowing 4m for plant and lift overruns).

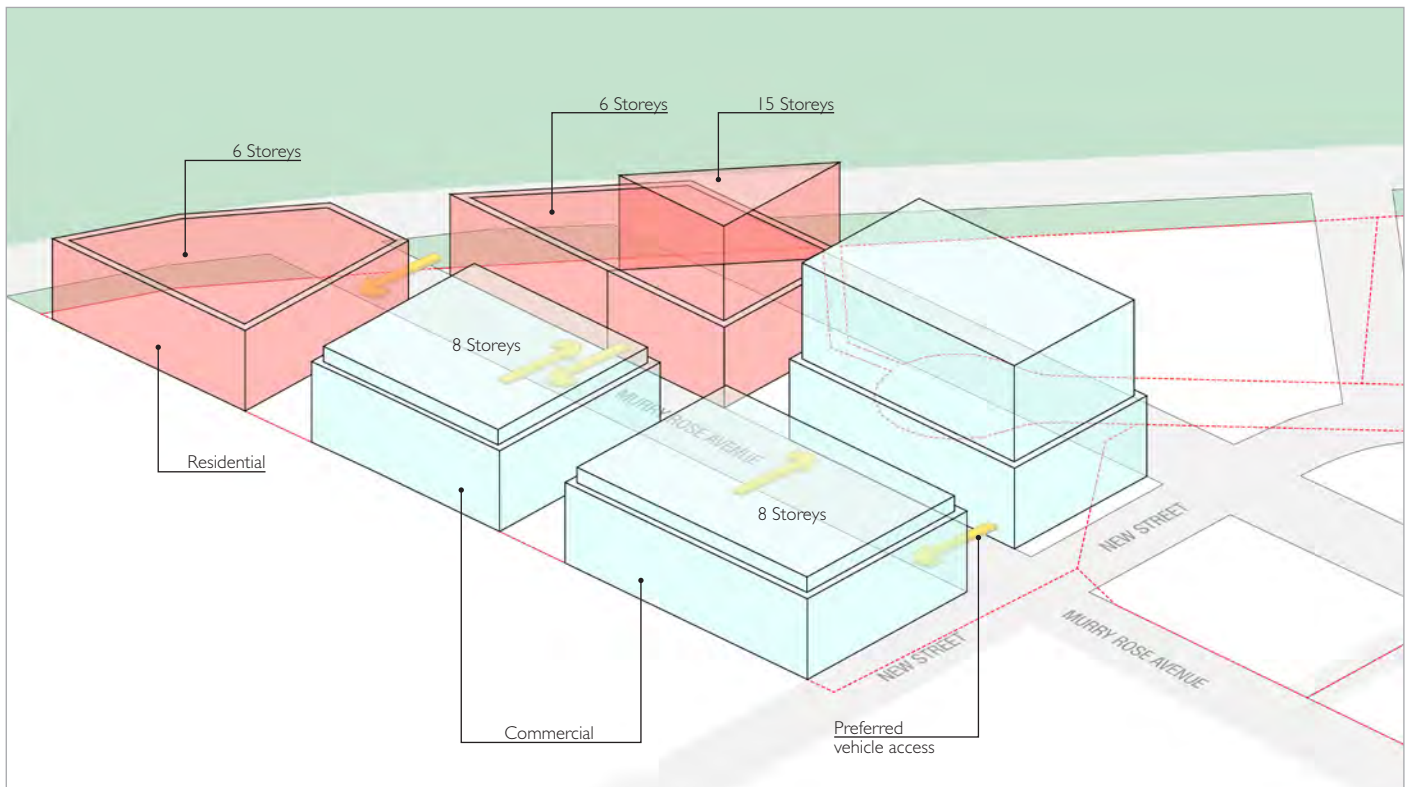
The conclusion is that amending the controls to increase building heights to achieve the GFA is congruous with the Draft's desired transition of scale from high rise buildings on Australia Ave to lower buildings on Bennelong Parkway. This transition would be in the form of 30 storeys on site 2A adjoining Australia Ave, 20 storeys on sites 61A and 62A, 15 storeys down to 6 storeys on site 60A adjoining Bennelong Parkway. In addition, the 6-storey street-wall remains as a consistent built form control across the broader precinct.

However, through the design excellence and development application process, significant consideration will need to be given to minimising any potential impact and overshadowing on the new public open space within the Parkview Precinct.

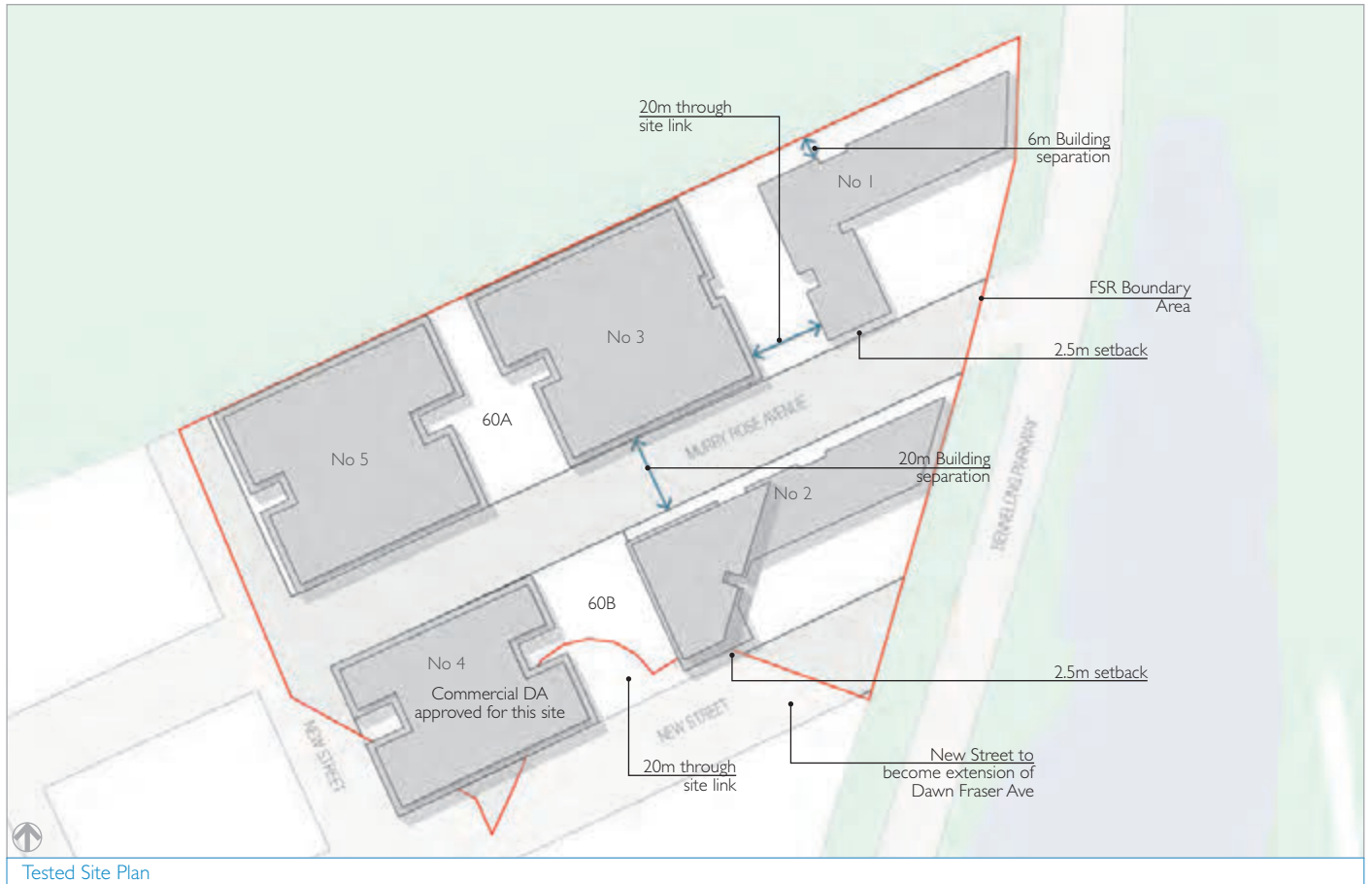
Parkview Precinct - Site 60A & 60B



Building Zones and Setback



Land Use and Building Height



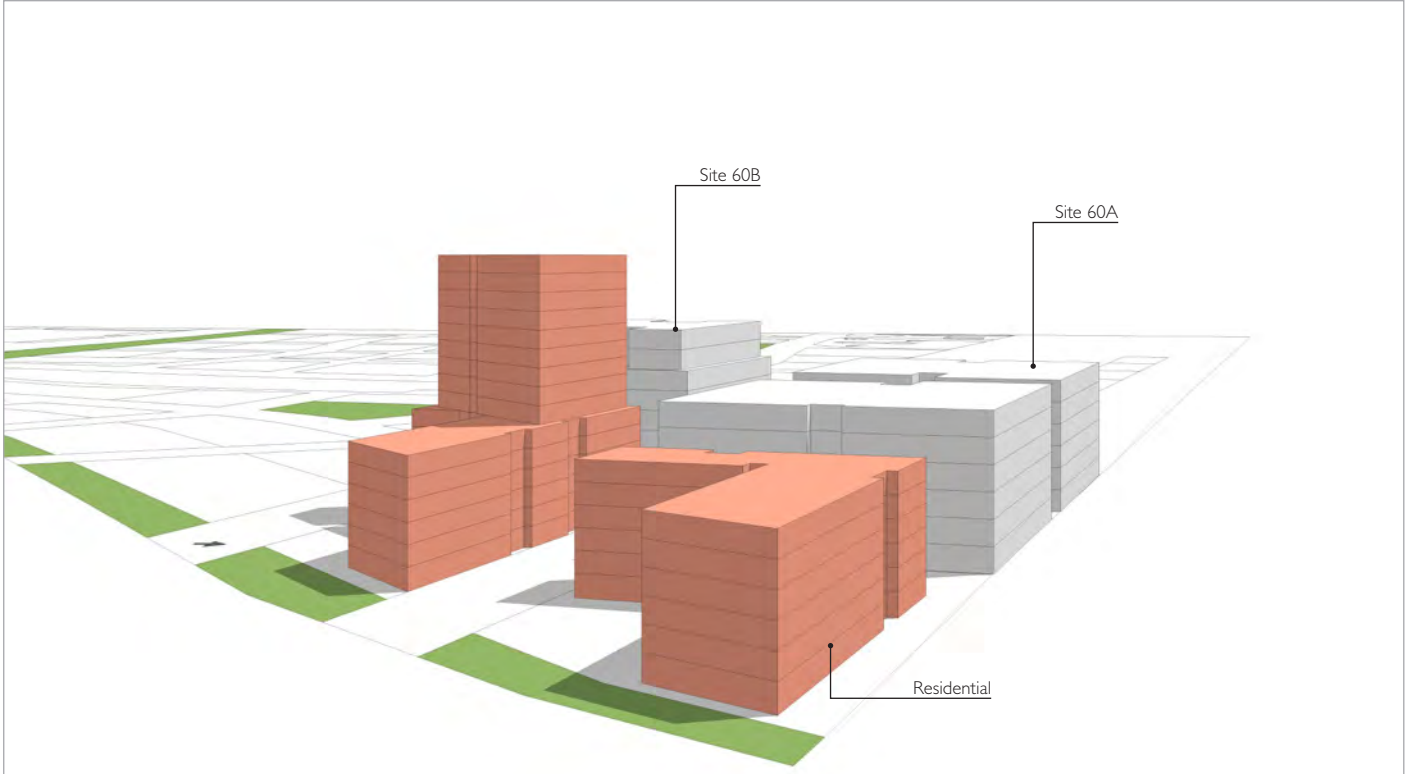
DRAFT SOP MP 2030 CONTROLS

- FSR Boundary Area: 7,400m² (+17,115m² completed or under construction to equal 24,515m²)
- FSR: 3:1 (excluding bonus)
- Target Residential: GFA 24,420m²
- Maximum Total GFA: 24,420m² (including bonus)
- Maximum Building Height: 6 storeys, 8 storeys (6 storey block edge) & 15 storey tower
- ICF Uses: Commercial & Residential

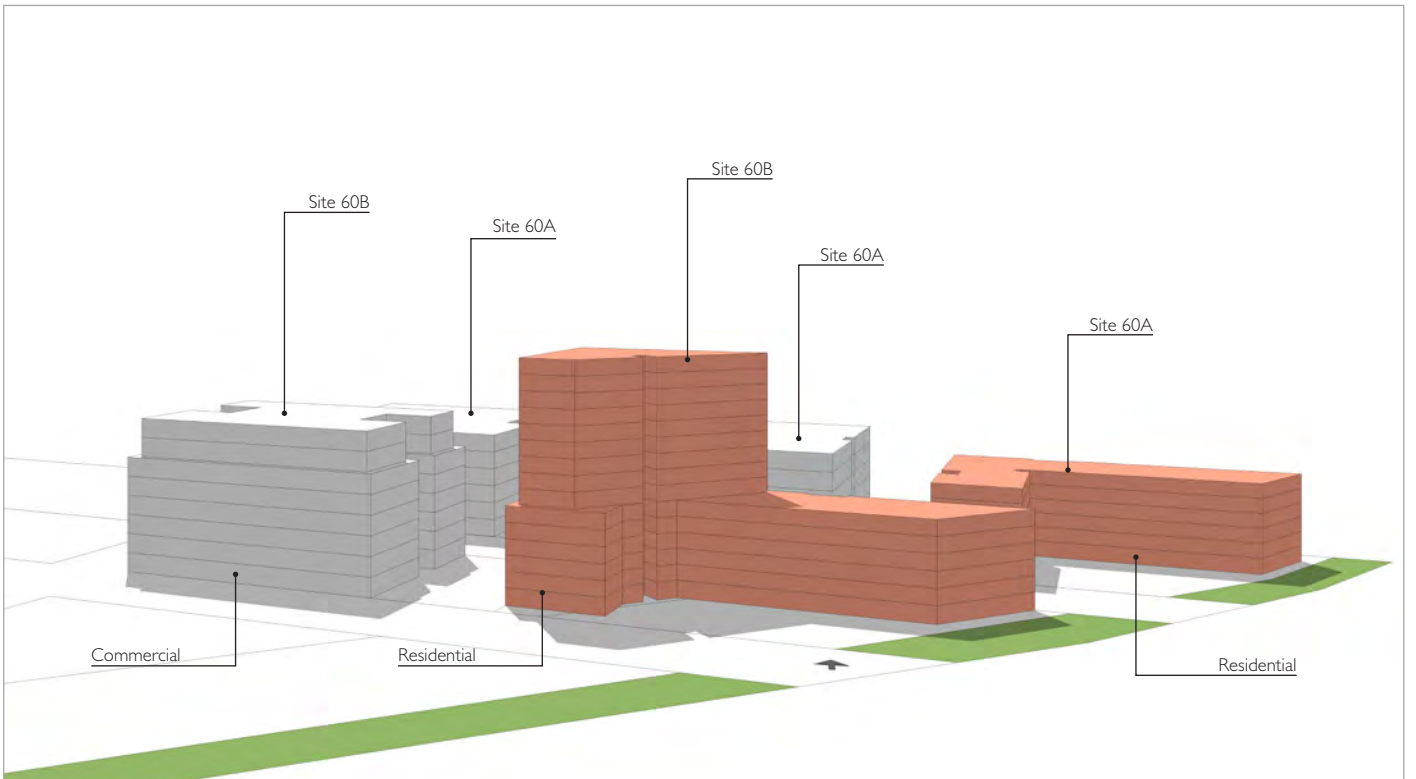
TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Site Area: 22,914m²
- Commercial: Completed/under construction
- Achieved Residential GFA: 24,434m²
- Achieved Total GFA: 24,434m² (including bonus)
- Achieved Building Height: 6 storeys, 8 storeys (6 storey block edge) & 15 storey tower
- Achieved Uses: Commercial and Residential
- Achieved Solar Access as per ADG: 73% (min. required 70%)
- Achieved Cross Ventilation as per ADG: 60% (min. required 60% below 10-storeys)

Parkview Precinct - Site 60A & 60B



Tested Built Form



Tested Built Form

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1-6	Residential	18,115m ²



Storey	Use	GFA
7-15	Residential	6,319m ²



Solar and Ventilation: Storey 1-6



Solar and Ventilation: Storey 7-8



Solar: Storey 10-15

Parkview Precinct - Site 60A & 60B

LOT BOUNDARY FOR FSR PURPOSES

The extent of the boundary area for FSR purposes for the site was raised as an issue in the previous submission, as the revised draft Masterplan had removed a strip of land which extends northwards along Bennelong Parkway, which would have reduced some 1,570sqm from the overall site area.

It was agreed at the meeting on 11th January 2017 that this strip of land would either be maintained as part of the boundary area within Figure 5.39 Parkview Site Floor Space Plan Ratios Plan or a commensurate level of FSR increase would be applied, thereby increasing FSR at the site to 3.2:1. Austino wish to ensure that this matter is addressed in the next stage of the update to the Masterplan.

SITE LEVELS

There are significant changes in land levels at this part of the Olympic Park, as the land level drops from No.5 Murray Rose Avenue eastwards towards Bennelong Parkway.

This is illustrated further in Figure 3 overleaf, which indicates that the base level for any future development at No.1 Murray Rose Avenue would be lower than either No.3 or No.5, thereby facilitating a greater number of storeys of development within a similar maximum height (RL) measurement.

Due to this factor, Austino have revised the modelling that they have undertaken for the No.1 Murray Rose Avenue. This Revised Development Option facilitates up to 11 storeys on the northern boundary and 13 storeys on the southern boundary of residential development within a building envelope that is similar in height to the neighbouring commercial properties at No.3 and No.5 Murray Rose Drive. This is explained in more detail in the next section.

THE REVISED DEVELOPMENT OPTION

At the meeting on 11th January 2017, it was mentioned to Austino that there was concern around developing the site at No.1 Murray Rose Avenue to a level of 15 storeys as had been suggested in earlier the submission. These concerns related to urban design, view impacts and overshadowing. As a result, Austino have refined their approach to this site taking into account the surrounding land levels, nearby views and feedback on urban design matters.

Figure 3 below illustrates that within a maximum height of RL 48 (the red dotted line) which represents an 8-storey commercial block height. This is the level promoted in Figure 5.41 Building Heights Plan for No.3 and No.5 Murray Rose Avenue within the draft Masterplan. The Revised Development Option at No.1 Murray Rose Avenue could be achieved which would maintain a consistent building height along the Murray Rose Avenue. This approach would accord with the urban design principles of the Olympic Park, as was stated at the meeting with SOPA and DPE.

Addendum Letter_ No.1&2 Murray Rose_25 January 2017_Final (page 3)

Figure 3 – Section Plan of Murray Rose Avenue



The orange dotted line at the lower level on Figure 3 represents the Brickpit Park level. The height differential from Murray Rose Avenue to the Brickpit Park varies between 5.5m at No.5 Murray Rose Avenue to 11.5m at No.1 Murray Rose Avenue.

The Revised Development Option for No.1 Murray Rose Avenue accommodates 6 and 11/13 storey blocks on Murray Rose Avenue, along with a 6-storey block on Bennelong Parkway and an 11-storey block adjacent to Brickpit Park.

It also incorporates a dotted line annotation across the site, which indicates 50% of the site area. Austino have sought to maintain the future development form as 6-storeys within one of the 50% sections and a greater storey height in the other 50% section. This has been prepared to respond to the draft Masterplan controls which seemingly had sought to facilitate some 50% of site No.2 Murray Rose Avenue as 15 storeys, however given the site boundary with No.4 Murray Rose Avenue, only allows a small section of the site to be developed to this level. In terms of demise, No.2 Murray Rose Avenue only occupies one third of the block which comprises No.2 and No.4.

This 50% line has also been continued to No.1 Murray Rose Avenue, thereby retaining some 50% of the site having a maximum height of 6 storeys. This is illustrated on Figure 4 below.

This form of development assists in achieving the FSR for the site, whilst not creating a form of development that extends significantly beyond the building heights of the neighbouring blocks at Nos. 3 and 5 Murray Rose Avenue. This is due to the drop in the land levels, and because the neighbouring blocks are commercial development which accommodate a larger floor to ceiling height that residential units.

Addendum Letter_ No.1&2 Murray Rose_25 January 2017_Final (page 4)

LEASEHOLDER SUBMISSION

Request: That the reduction of site area for Sites 60A and 60B within the Draft is offset by increasing the permissible FSR from 3:1 to 3.2:1.

Response: The Draft amends the site boundary for Site 60A and 60B from 24,515m² to 22,945m². Whilst the site area upon which the FSR is calculated has been reduced, the development potential 'lost' has been reallocated to the remaining portion of the site with a commensurate increase in the FSR from 2.8:1 to 3:1. No amendments to the Draft are required.

The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, the Draft proposes an FSR of 3:1 on the reduced 60A and 60B site area of 22,945m² resulting in a maximum permissible GFA 68,835m² which is consistent with the intention of the Draft and associated infrastructure plan.

Request: That the height of buildings within Sites 60A and 60B be increased from 6 storeys to 11 storeys and 13 storeys on the northern and southern boundaries respectively.

Response: The proposed building heights within the Draft consider a transitional height plane and to ensure that a certain proportion of solar access is maintained to the communal open spaces and public open spaces within the precinct.

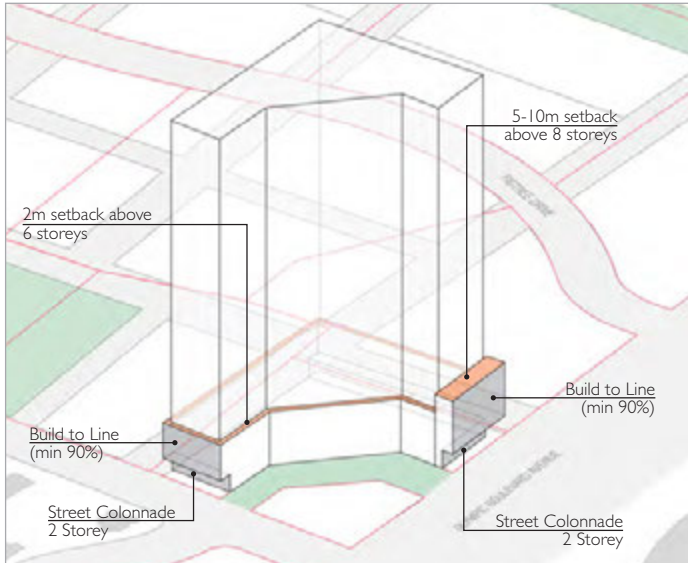
Therefore the height controls within the Draft for Site 60A and 60B are deemed appropriate to achieve the required solar access to the linear open space and active transport corridor on Bennelong Avenue.

CONCLUSION/RECOMMENDATION

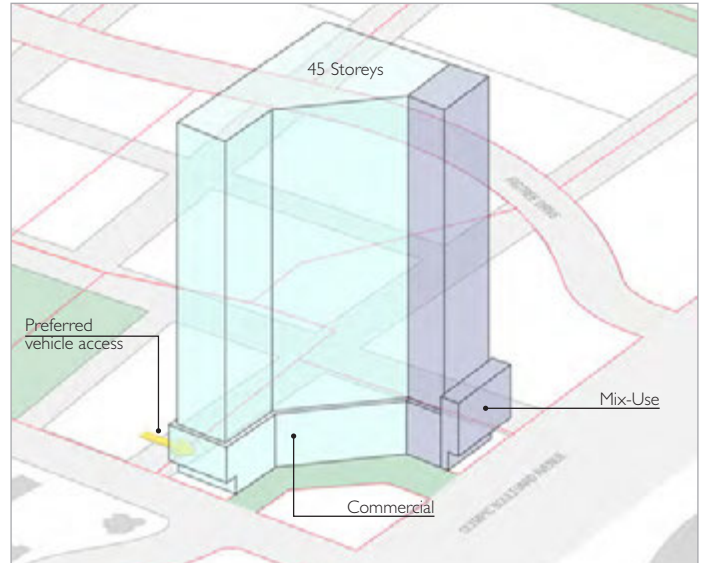
To achieve the vision and objectives of the Draft we recommend the following amendments to Site 60A and 60B;

- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.
- To amend the ground floor setbacks of wholly residential buildings to provide for a 2.5m ground floor setback from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.
- Consideration by the Authority and future owners of the public realm should be given to the provision of integrated basements and basements located underneath the public realm, particularly where new streets and open spaces are provided within a single leaseholding

Central Precinct - Site 4B



Building Zones and Setback



Land Use and Building Height



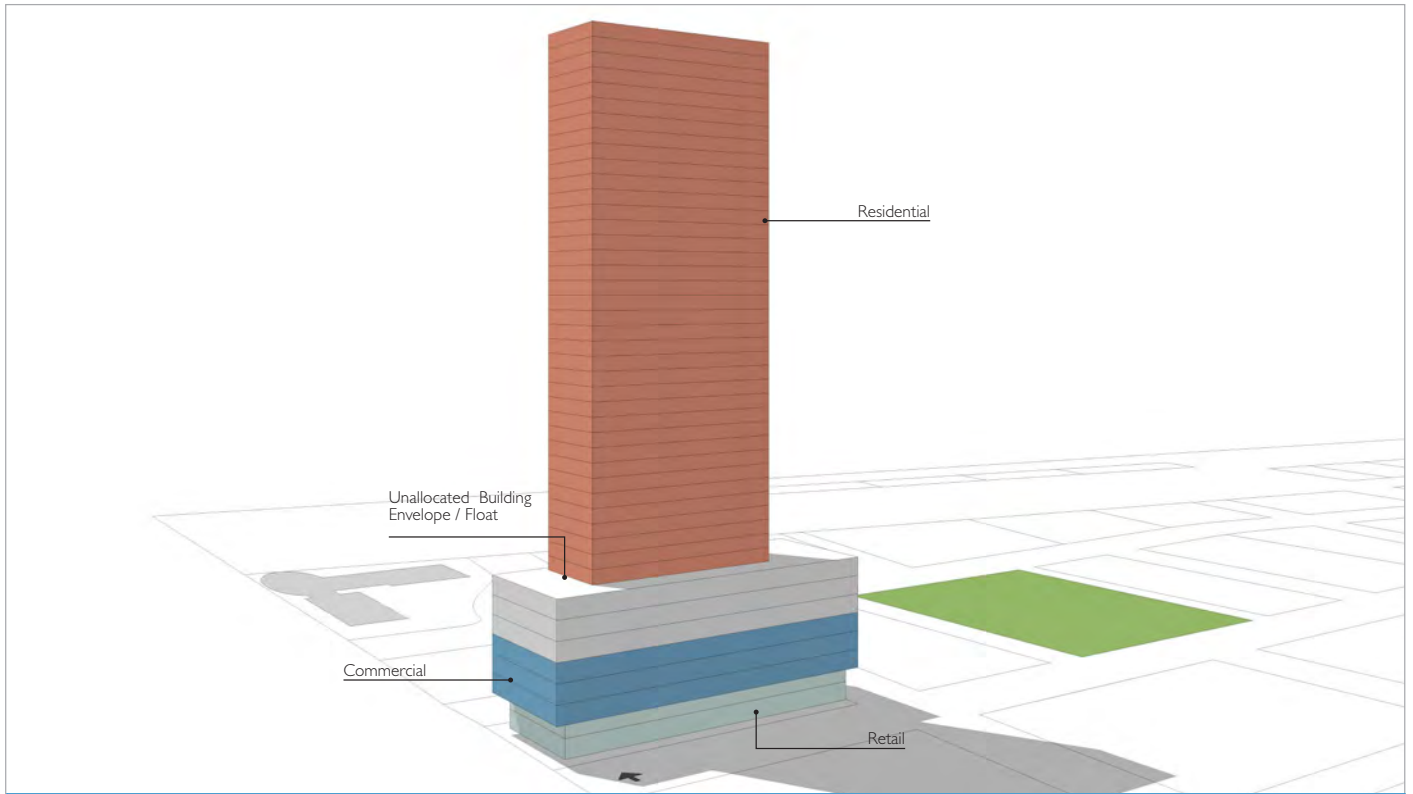
Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

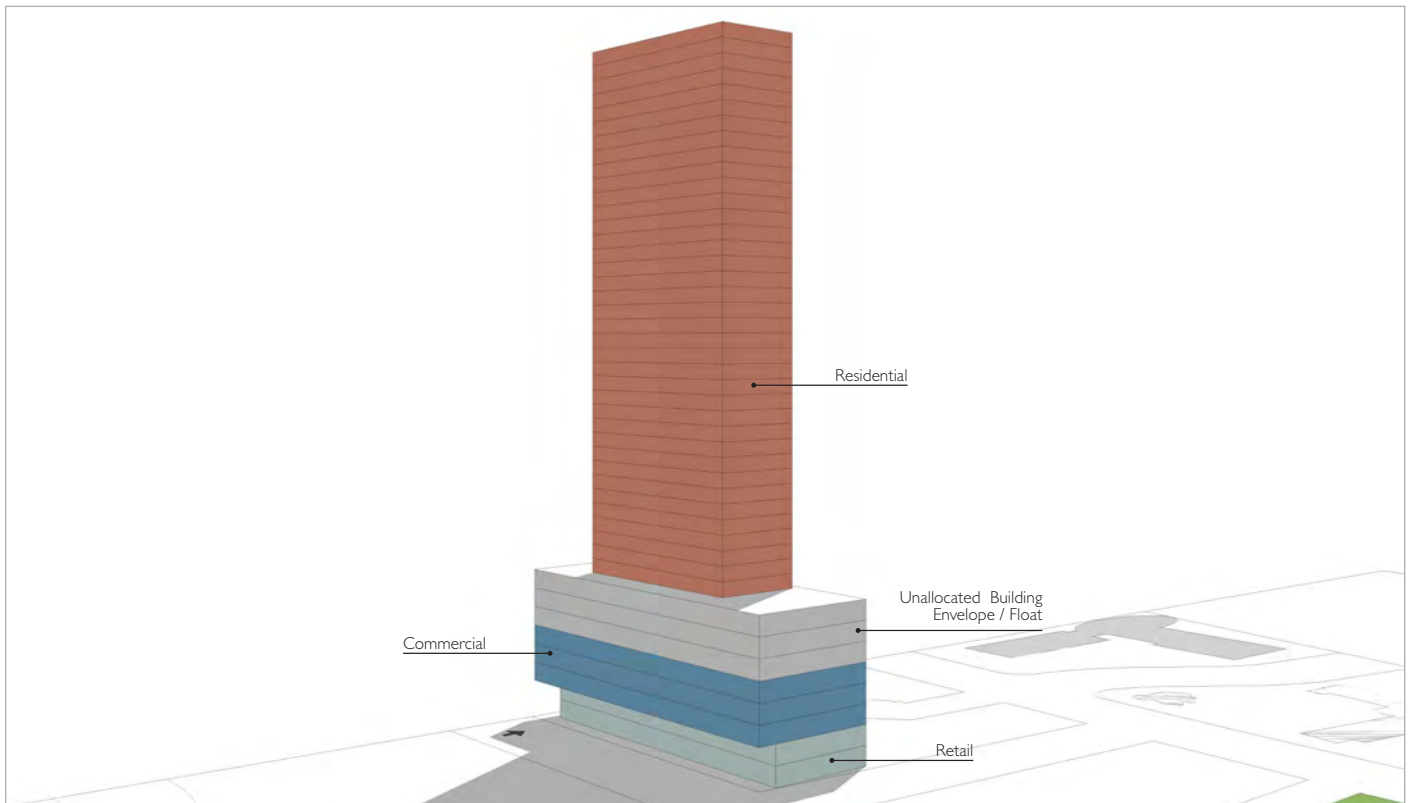
- FSR Boundary Area: 4,914m²
- FSR: 8:1 (excluding bonus)
- Target Retail GFA: 2,469m²
- Target Commercial GFA: 5,000m²
- Target Residential GFA: 26,000m²
- Maximum Total GFA: 33,469m² (including bonus)
- Maximum Building Height: 45 Storeys (8 storey block edge)
- ICF Uses: Commercial, Residential and Retail

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 4,914m²
- FSR: 8:1 (excluding bonus)
- Achieved Retail GFA: 2,763m²
- Achieved Commercial GFA: 5,141m²
- Achieved Residential GFA: 25,160m²
- Achieved Total GFA: 33,063m² (including bonus)
- Unallocated building envelope that could provide for reallocation of uses from elsewhere within the building envelopes or as a float to enable lower efficiencies from GBA>GFA to be achieved
- Achieved Building Height: 45 Storeys (8 storey block edge)
- Achieved Uses: Commercial, Residential and Retail
- Achieved solar access as per ADG: 71% (min. required 70%)
- Achieved cross ventilation as per ADG: 67% (min. required 60% below 10-storeys)



Tested Built Form



Tested Built Form

Central Precinct - Site 4B

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storeys 1-2

Storey	Use	GFA
1-2	Retail	2,763m ²



Storeys 3-5

Storey	Use	GFA
3-5	Commercial	5,141m ²



Storeys 6-8

Storey	Use	GFA
6-8	Non-Residential	5,141m ²



Storeys 9-45

Storey	Use	GFA
9-45	Residential	25,160m ²



Solar and Ventilation: Storey 9-45



Solar: Storey 10-45

SUGGESTED AMENDMENTS TO THE 2016 REVIEW

The 2016 Review notes the following in respect to Site 4B:

Issues include:

- Mixed use commercial and residential zone size and dimensions are too small to develop a mixed use tower development
- FSR of 8:1 (with assumed 10% floor space bonus) does not match the 45 storey building height limit
- The mandatory 28m podium height to provide for possible variation in response to built form transition along Olympic Boulevard

Actions/Approach:

- Consider widening the mixed commercial and residential land use zoning to reflect Figure 7 below
- Consider FSR up to 9:1*
- Consider providing a variation exception to the 28m mandatory podium height along Olympic Boulevard to allow for a transition from the Pullman Hotel to the north and the sites to the south of Site 4B.

SOP Master plan 2030 2016 Review Submission with Attachments.pdf (page 10)

RECOMMENDATIONS

In order to enable the proposed tower development outcome for the site we seek the following amendments to the 2016 Review (and therefore State Environmental Planning Policy (State Significant Precincts) 2005):

- Amendment to Figure 5.6 – Central Precinct Site Floor Space Ratios Plan to allow a FSR of 9:1 on Site 4B.
- Amendment to Figure 5.7 – Central Precinct Land Uses Plan to allow Mixed Commercial and Residential on a wider portion of the site as shown in Figure 7 equating to dimensions approximately 50m (L) and 24m (W).
- Amendment to 4.6.8 Podium Design and Setbacks, providing a variation exception for Site 4B to the mandatory 28m podium height along Olympic Boulevard in order to achieve a podium transition from north to south along Olympic Boulevard.

CONCLUSION

In conclusion, we fully support the intention in the 2016 Review to allow for 45 storey tower development fronting Olympic Boulevard to create an appropriate urban context within Sydney Olympic Park, however when modelling the floor space required to achieve a 45 storey mixed use tower development on Site 4B, a 9:1 FSR would be required rather than the 8:1 FSR proposed. Furthermore, the mixed commercial and residential zone designated on Site 4B is too small in area to provide for a mixed use tower development fronting Olympic Boulevard as intended by the 2016 Review.

SOP Master plan 2030 2016 Review Submission with Attachments.pdf (page 12)

LEASEHOLDER SUBMISSION

Request: In order to achieve the 45-storey height limit within the Draft that the FSR be increased from 8:1 to 9:1 and to consider widening the mixed commercial and residential land use zoning.

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, Site 4B has a maximum permissible floor space ratio of 8:1 which is consistent with the intention of the Draft and associated infrastructure plan. Additional FSR is not required to achieve the height control, nor is the height control a minimum requirement, rather it is a maximum.

In addition, the Draft contains targets for the delivery of a vibrant, mixed use precinct across all sites within Sydney Olympic Park including the provision of additional jobs.

To achieve this, the Draft identifies sites which can accommodate a variety of uses including:

- Commercial
- Community
- Education
- Entertainment
- Transport
- Residential
- Temporary Accommodation
- Venues
- Retail

Site 4B has been deemed appropriate to deliver a proportion of the job growth anticipated for the precinct due to their proximity to the station and interface with congruous uses. If the Draft is to achieve the job targets for the precinct, it is recommended that location and quantum of sites zoned for commercial uses remain the same.

Request: Providing a site-specific exception to the 28m mandatory podium height along Olympic Boulevard to allow for transition north to south.

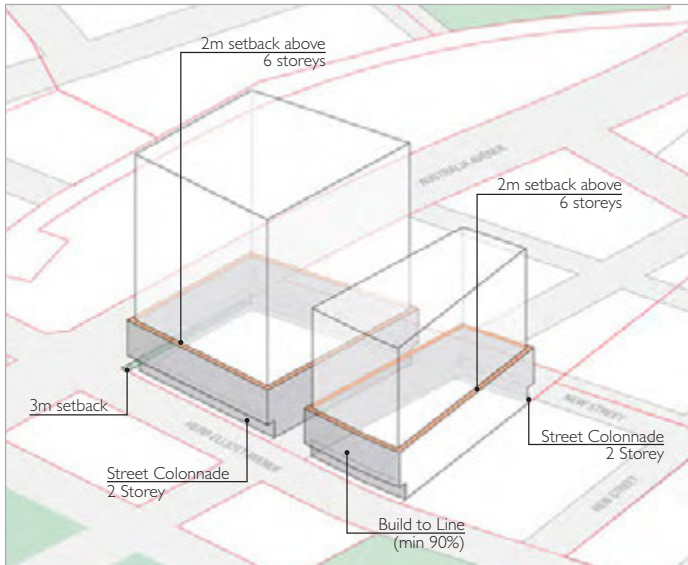
Response: The Draft considers sites in the context of the objective of delivering a resultant built form of the precinct is cohesive and coherent. The 28m podium height is a control for Site 4B is consistent with that objective.

CONCLUSION/RECOMMENDATION

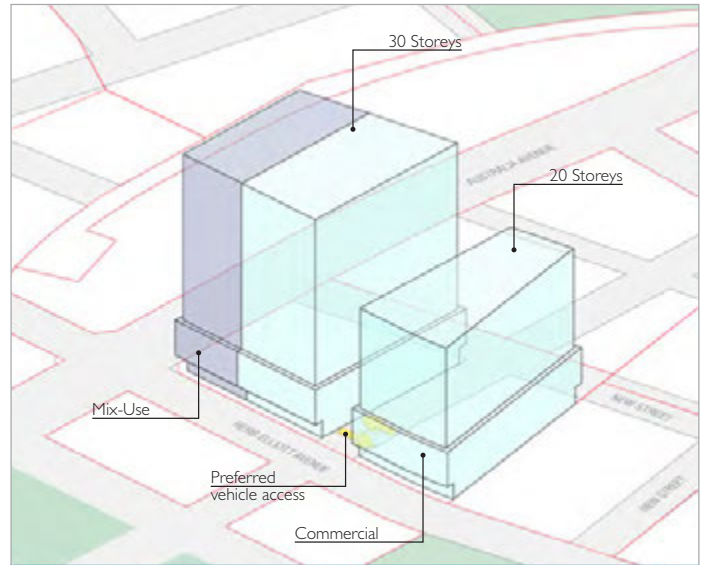
To achieve the vision and objectives of the Draft we recommend the following amendments to Site 4B;

- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.

Central Precinct - Site 43 & 44



Building Zones and Setback



Land Use and Building Height



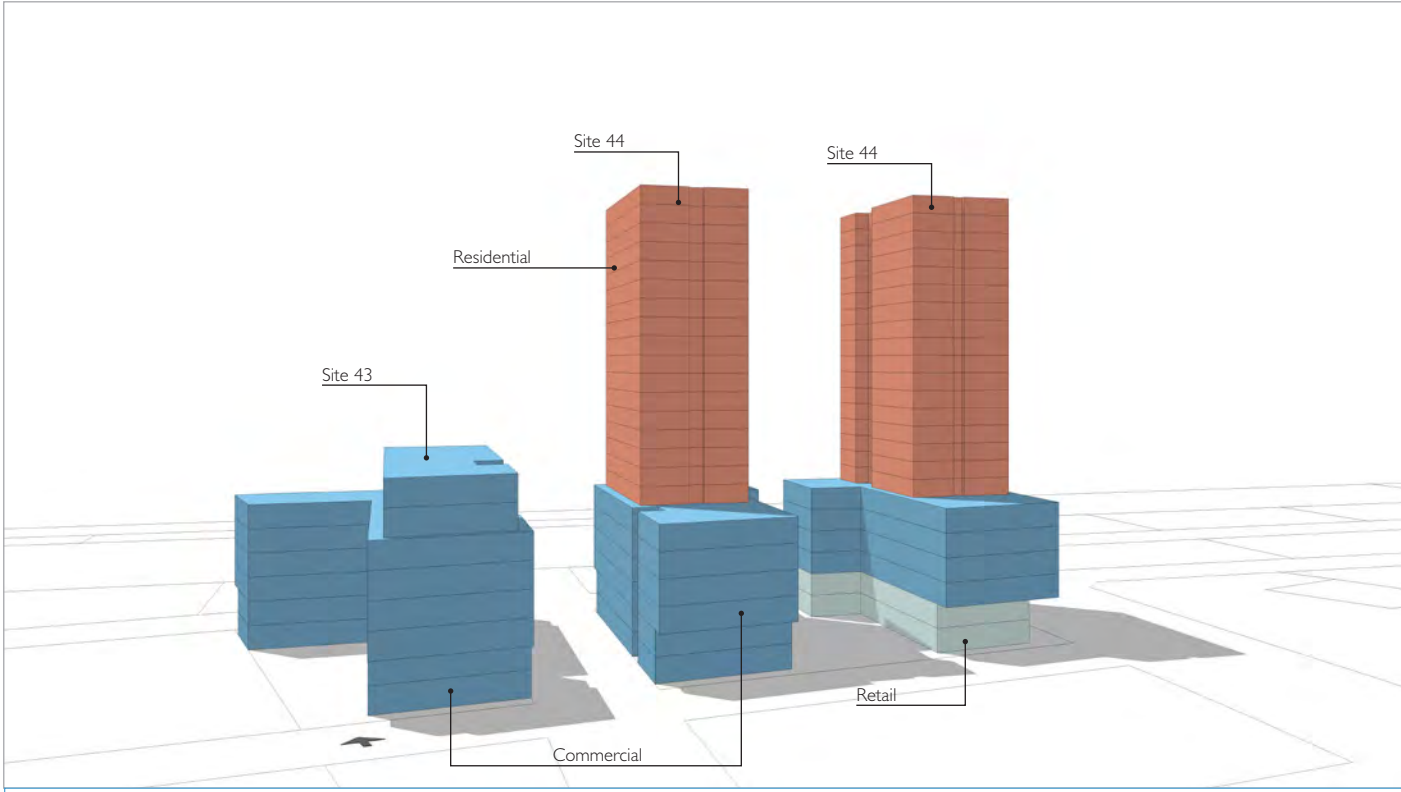
Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

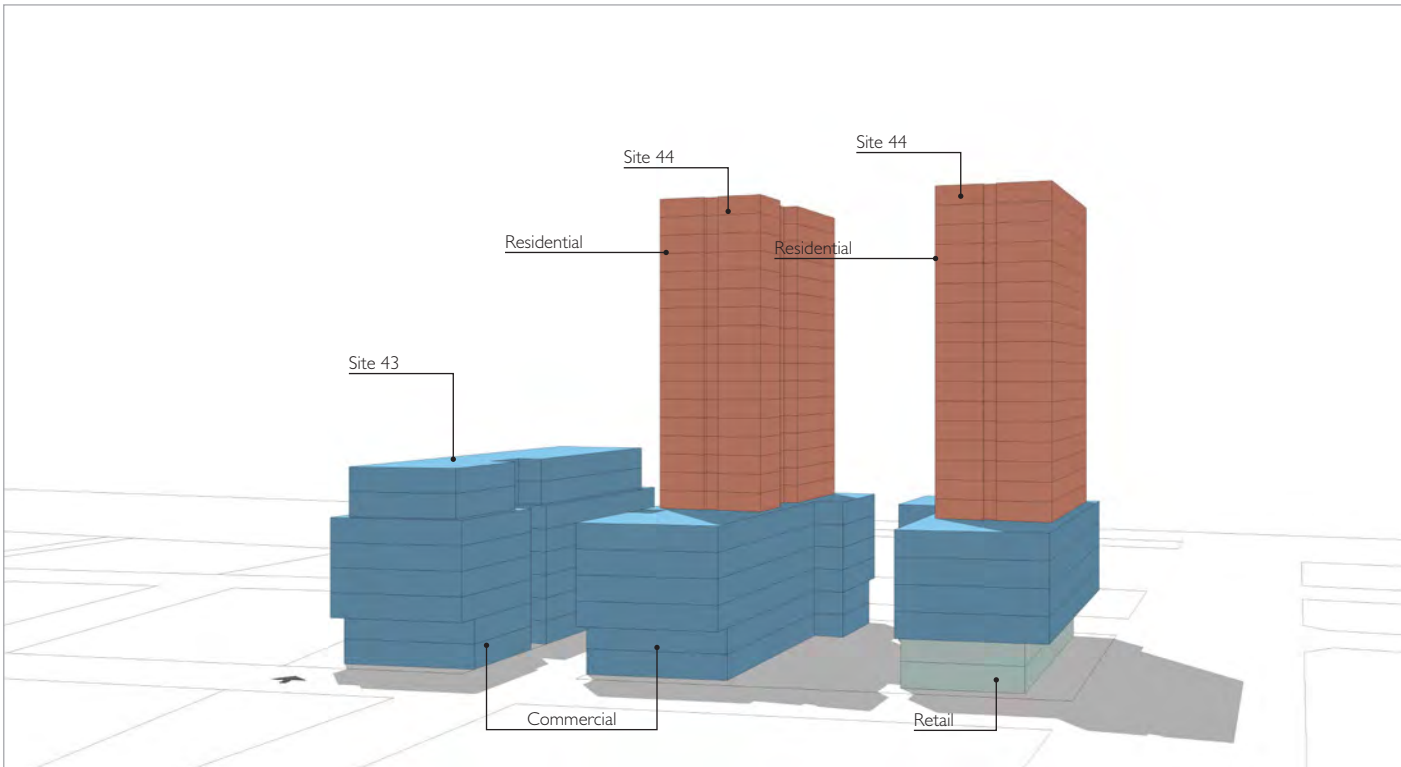
- FSR Boundary Area: 11,981m²
- FSR: 4.5:1 (excluding bonus)
- Target Retail GFA: 2,000m²
- Target Commercial GFA: 34,306m²
- Target Residential GFA: 23,000m²
- Maximum Total GFA: 59,306m² (including bonus)
- Maximum Building Height: 30 storeys tower (6-8 storey block edge)
20 storeys tower (6-8 storey block edge)
- ICF Uses: Commercial, Residential and Retail

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 11,981m²
- FSR: 4.5:1 (excluding bonus)
- Achieved Retail: 2,043m² GFA
- Achieved Commercial: 34,306m² GFA
- Achieved Residential: 23,501m² GFA
- Achieved Total GFA: 59,877m² (including bonus)
- Achieved Building Height: 30 storeys tower (6-8 storey block edge)
20 storeys tower (6-8 storey block edge)
- Achieved Uses: Commercial, residential and retail
- Achieved solar access as per ADG: 75% (min. required 70%)
- Achieved cross ventilation as per ADG: 63% (min. required 60% below 10-storeys)



Tested Built Form



Tested Built Form

Central Precinct - Site 43 & 44

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1-2	Retail	2,043m ²
1-2	Commercial	5,919m ²



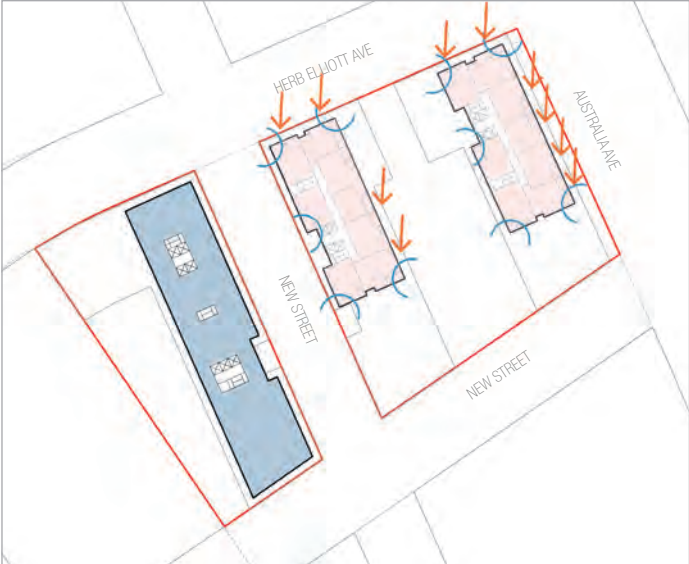
Storey	Use	GFA
3-6	Commercial	19,050m ²



Storey	Use	GFA
7-14	Commercial	9,364m ²
7-14	Residential	10,445m ²



Storey	Use	GFA
15-24	Residential	13,056m ²

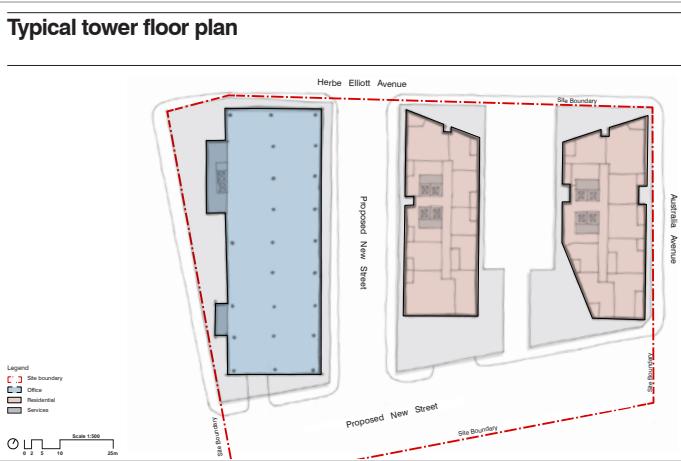


Solar and Ventilation: Storey 7-8

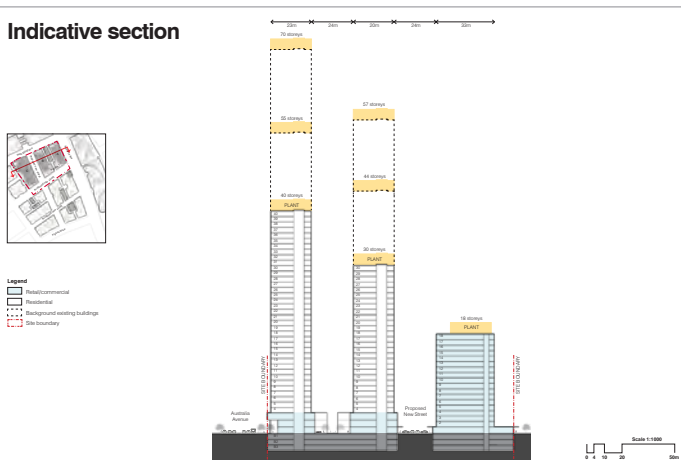


Solar: Storey 9-24

Central Precinct - Site 43 & 44



161129_2 Australia Avenue, Olympic Park_Submission _email_.pdf (page 18)



161129_2 Australia Avenue, Olympic Park_Submission _email_.pdf (page 19)

LEASEHOLDER SUBMISSION

Request: That the development potential is maximised within close proximity of the train station, that there is increased capacity for mixed use development in areas not subject to noise impacts and the proposed land use structure aligns with land ownership.

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, Sites 43 and 44 have a maximum permissible floor space ratio of 4.5:1 which is consistent with the intention of the Draft and associated infrastructure plan.

CONCLUSION/RECOMMENDATION

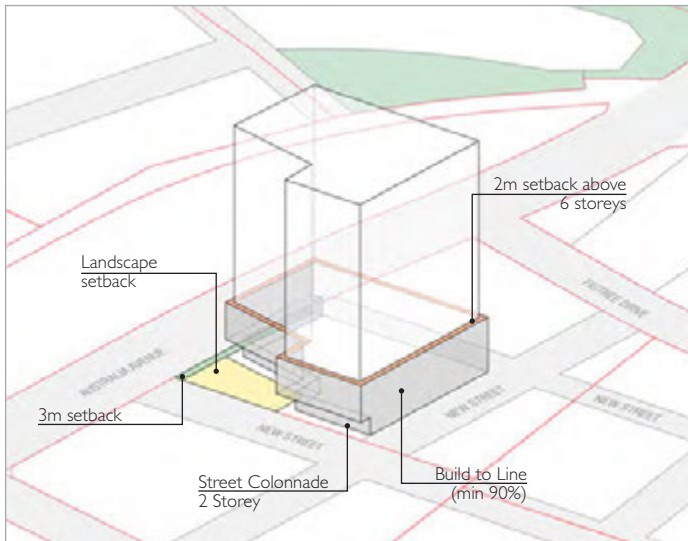
The detailed testing of the site has revealed that Site 43 and 44 achieves the total GFA, desired mix of uses and is in broad alignment with all built form controls as proposed within the Draft.

However, to deliver a better built form outcome we recommend amending Figure 5.7 so that "Mixed" uses applies to the full extent of site 44 which will enable a configuration of a 6-storey podium, achieving the 90% build to line and comprised of a mixture of commercial with two residential towers above.

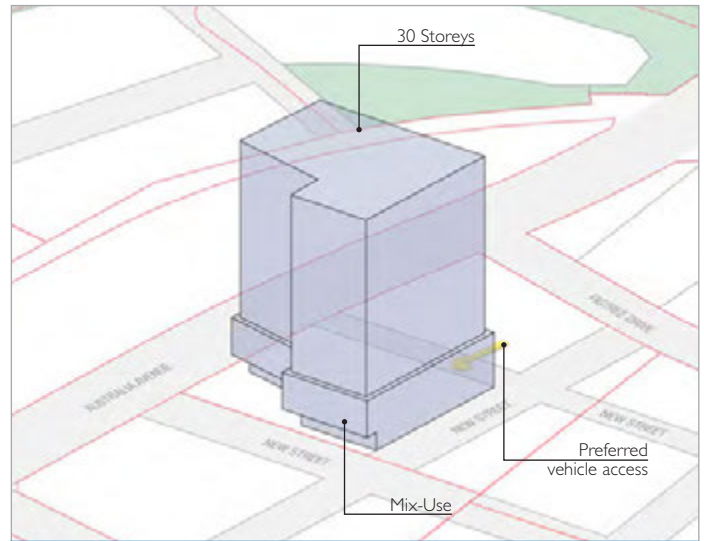
In addition, we recommend;

- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.
- To amend the ground floor setbacks of wholly residential buildings to provide for a 2.5m ground floor setback from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.
- Consideration by the Authority and future owners of the public realm should be given to the provision of integrated basements and basements located underneath the public realm, particularly where new streets and open spaces are provided within a single leaseholding

Central Precinct - Site 45A



Building Zones and Setback



Land Use and Building Height



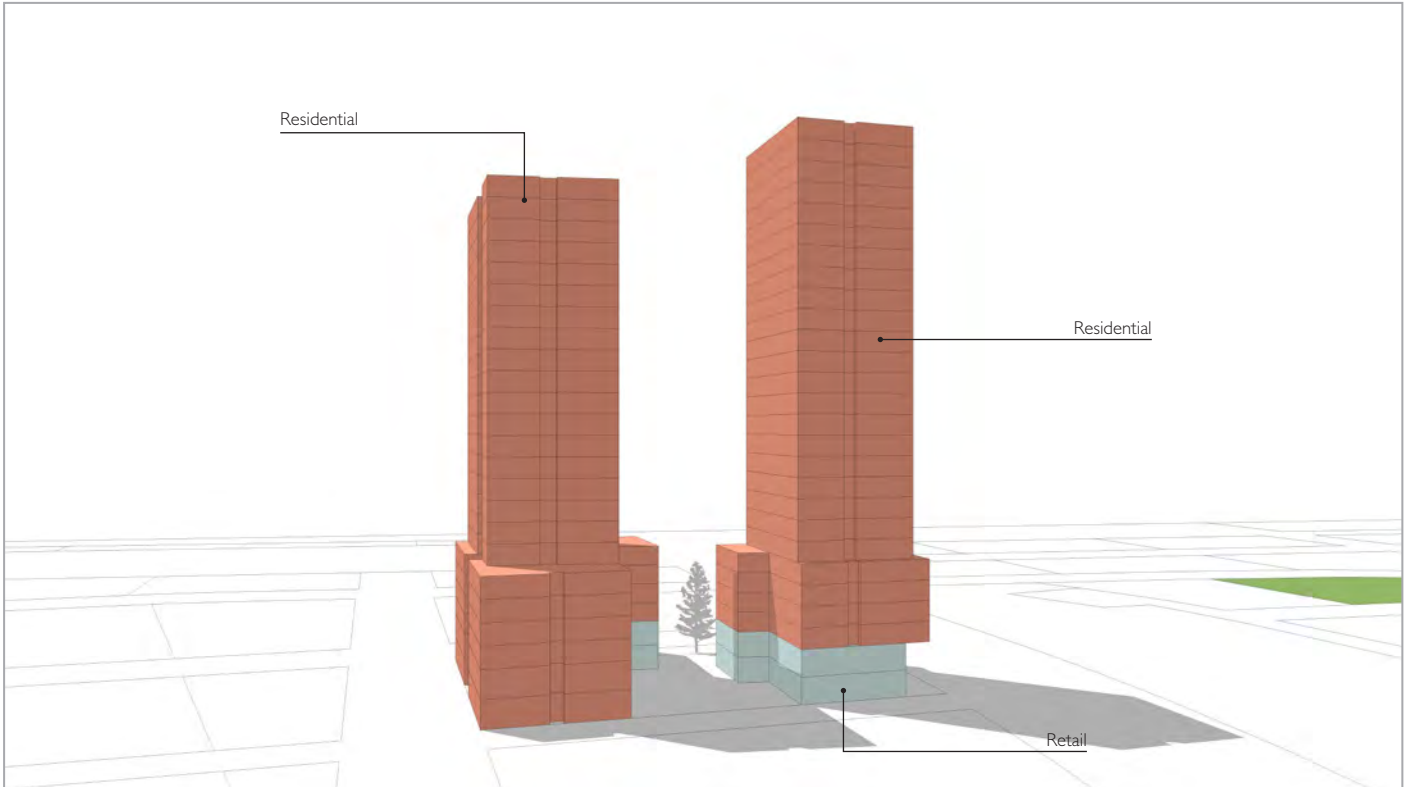
Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

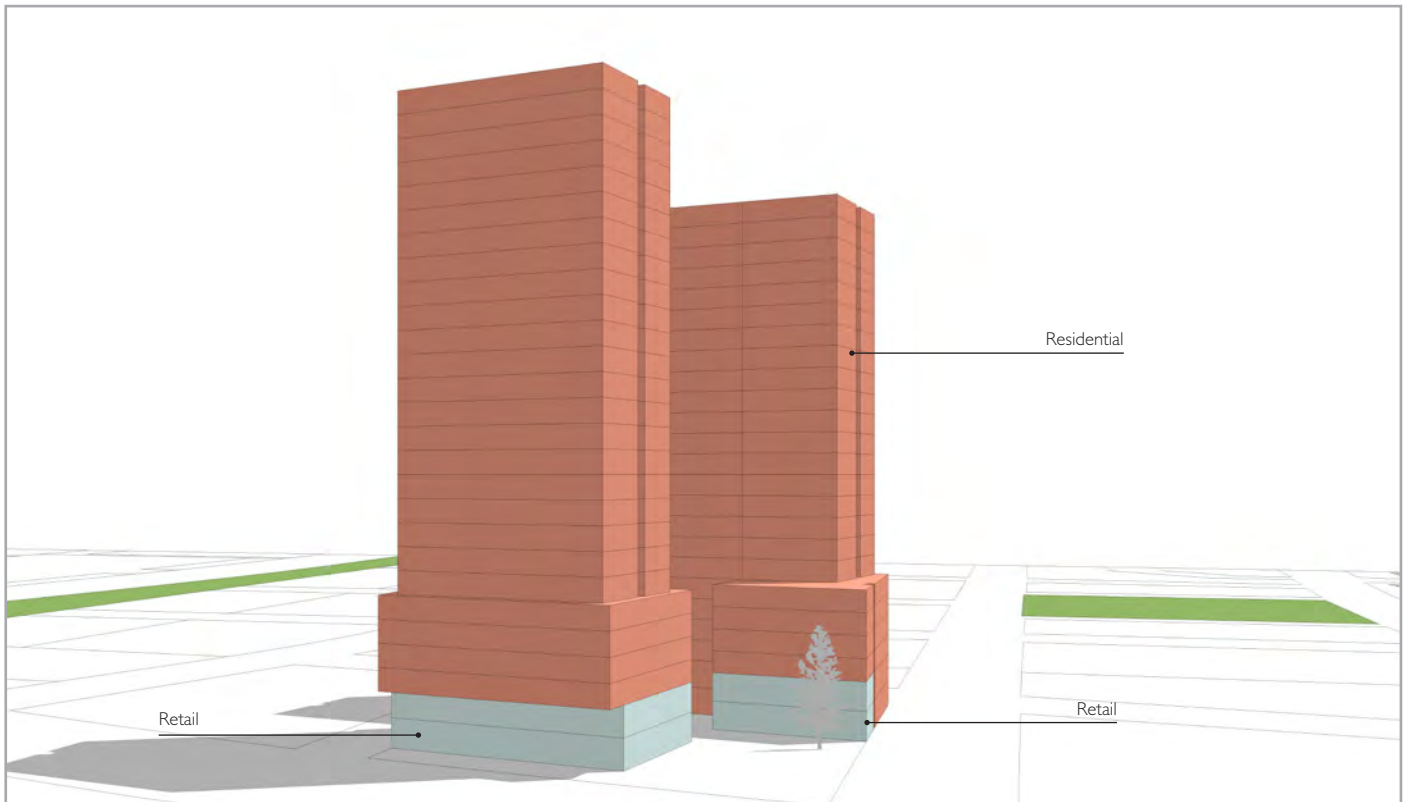
- FSR Boundary Area: 12,442m²
- FSR: 4.5:1 (excluding bonus)
- Target Retail GFA: 1,100m²
- Target Residential GFA: 32,773m²
- Maximum Total GFA: 33,873m² (including bonus)
(assumed 55% of Total GFA of 61,588m² over 45A and 45B)
- ICF Uses: Residential and Retail
- Maximum Building Height: 30 storeys tower (6-8 storey block edge)

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 12,442m²
- FSR: 4.5:1 (excluding bonus)
- Achieved Retail GFA: 1,500m²
- Achieved Residential GFA: 33,000m²
- Achieved Total GFA: 34,500m² (including bonus)
- Achieved Uses: Residential and Retail
- Achieved Building Height: 30 storeys tower (6-8 storey block edge)
- Achieved solar access as per ADG: 76% (min. required 70%)
- Achieved cross ventilation as per ADG: 60% (min. required 60% below 10-storeys)



Tested Built Form



Tested Built Form

Central Precinct - Site 45A

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1-2	Retail	1,504m ²



Storey	Use	GFA
1-2	Residential	52,142m ²



Storey	Use	GFA
3-6	Residential	7,756m ²



Storey	Use	GFA
7-24	Residential	21,619m ²

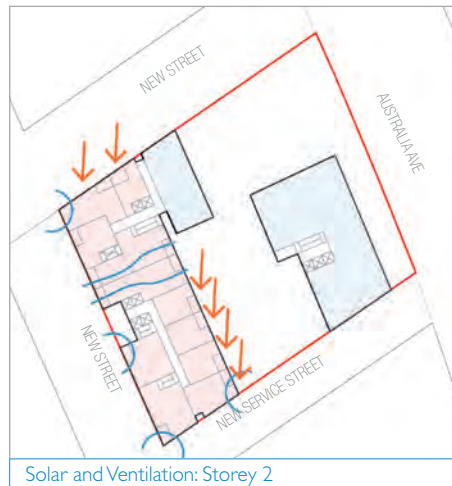


↑ Storeys 25-27

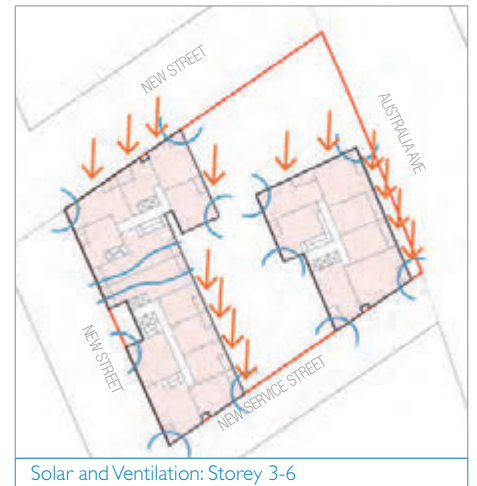
Storey	Use	GFA
25-27	Residential	1,530m ²



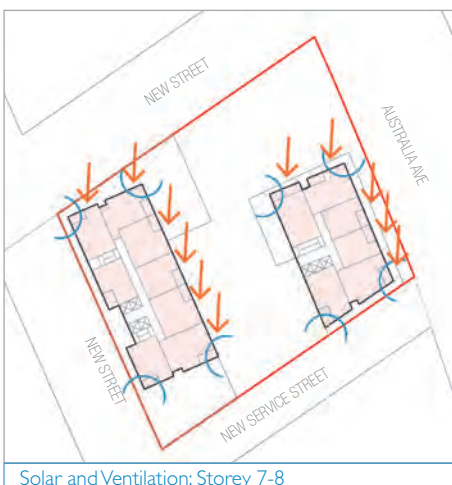
Solar and Ventilation: Storey 1



Solar and Ventilation: Storey 2



Solar and Ventilation: Storey 3-6



Solar and Ventilation: Storey 7-8



Solar: Storey 9-24



Solar: Storey 25-27

Central Precinct - Site 45A

- Advised the current Master Plan 2030 provisions affect viability of the 1 Figtree Drive site, in particular:
 - Future road alignment divides the site into unequal parts – two parts to the west of the future road are too small to be useable, too difficult to value at current size and shape.
 - Mix of uses – 36m deep residential component is too small to develop, and remaining commercial component is too small to develop.
 - The current Master Plan controls make the site not viable for long term commercial use.
 - Strong residential demand with commercial stagnant.
- Advised the best outcome is to specify 100% residential use;
- Sought a reconsideration of the new north-south Street, as it is not essential for vehicle access. If it is to be retained reconsider the alignment to maximise development parcels; and
- Requested further briefings once MP is on public exhibition.

Submission to Draft Master plan_ | Figtree Drive Sydney Olympic Park_FINAL.pdf (page 2)

4.1.1. New East-West Service Road

The draft Master Plan 2030 alters the road layout and site boundaries of the existing Site 45; a "New Service Road" now transects site 45A and 45B to form 4 separate development parcels Site 45A, 45B, 45C and 45D. We understand that the new street is to improve connectivity, produce a finer grain network, promote pedestrian activity, active street frontages and provide a separate service access.

We have three concerns with the new service road:

- The ICF has been updated to account for the local infrastructure required for the proposed draft Master Plan changes. SOPA will now seek both land and monetary contributions from developers for land to which the ICF applies. Kador Group will be required to dedicate the land for the service road free for a public purpose.
- The service road will result in a reduction of net developable area of the site and fragment the site into 4 separate development parcels. As a result of this, Site 45B and 45D may not be of a size or dimension to develop a standalone residential building or commercial building with floor plates that are economically and commercially viable.
- It is noted in the SOPA Local Infrastructure Contributions Framework that:

"SOPA does not accept the dedication of land in part or in full satisfaction of a requirement for a monetary contribution under the ICF, as any requirement to dedicate land (whether under free-hold or lease-hold) includes the transfer of applicable development potential to the balance of the development site".

If the additional FSR and height permitted on the subject site under the SSP SEPP is intended to provide a form of compensation for the requirement to hand over the new service road, we question whether the maximum FSR allocated to the site is sufficient for that purpose. We question this on the basis of the inequitable distribution of land to be dedicated for new roads and the same FSRs shown on land surrounding the site. For instance Site 53 to the south of the subject site has only part of a new street along its western boundary, however has the same maximum FSR as the subject site.

Recommendation:

Removal of the east-west service road and consider alternative options for improved access including shared site basements and basements under public domain including roads.

If the new service road is to remain a requirement of the Master Plan 2030, additional GFA for the subject site that is at least equivalent to the area of the north/south street and new service road is recommended, in recognition that the site has a disproportionate amount of land that is to be transferred to SOPA for new roads.

Submission to Draft Master plan_ | Figtree Drive Sydney Olympic Park_FINAL.pdf (page 6)

FIGURE 3 – PROPOSED BASEMENT AND ACCESS ARRANGEMENTS (SOURCE: SYDNEY OLYMPIC PARK MASTER PLAN 2030)



5. CONCLUSION

This submission has identified significant impacts on 1 Figtree Street as a result of the draft Master Plan 2030. Kador Group is concerned that the Draft Sydney Olympic Master Plan 2030 (2016 Review) and Draft Amendments to SEPP (State Significant Precincts) 2005 have not adequately response to concerns raised during previous landowner consultation.

We recognise the overall vision as the amendments have the potential to activate and energise the town centre. However, as a minimum, we request the following:

- Removal of the east-west service road to avoid site fragmentation and sterilisation;
- Reclassification of land uses to permit Mixed Commercial/Residential/Hotel and Serviced Apartments over Site 45 in its entirety;
- Provide greater clarification and design guidance for the "Landscaped Urban Forecourt" located on the north-east proportion of Site 45A.
- Rectification of the inconsistency between the ICF and the planning controls.
- Implementation of a development provision to permit integrated basements and basements under road.

Submission to Draft Master plan_ | Figtree Drive Sydney Olympic Park_FINAL.pdf (page 10)

LEASEHOLDER SUBMISSION

Request: Removal of the east-west service street as proposed within the Draft to avoid site fragmentation and sterilisation.

And, if the new service road is to remain a requirement of the Draft, the provision of additional GFA for the subject site that is at least equivalent to the area of the north/south street and new service street is recommended.

Response: The Draft proposes a significant increase in density and activity within the Precinct. To achieve this, the Draft identifies a number of new streets throughout the Precinct to provide enhanced accessibility and permeability for pedestrians and vehicles, commensurate with the increased levels of activity and movement throughout the precinct.

The provision of the new streets within Site 45A is considered consistent with the objectives of the Draft.

The permissible GFA for the site under the Draft is determined by the FSR Boundary Area which includes the areas identified as new streets. Therefore there is no lost GFA as a result of delivering the new streets within the Site.

Request: That Site 45 in its entirety be classified as mixed use that would permit shop top housing above ground level retail use and that the best outcome is to specify 100% residential.

Response: Contradictory requests for mixed use and 100% residential.

The Draft contains targets for the delivery of a vibrant, mixed use precinct across all sites within Sydney Olympic Park including the provision of additional jobs.

To achieve this, the Draft identifies sites which can accommodate a variety of uses including:

- Commercial
- Community
- Education
- Entertainment
- Transport
- Residential
- Temporary Accommodation
- Venues
- Retail

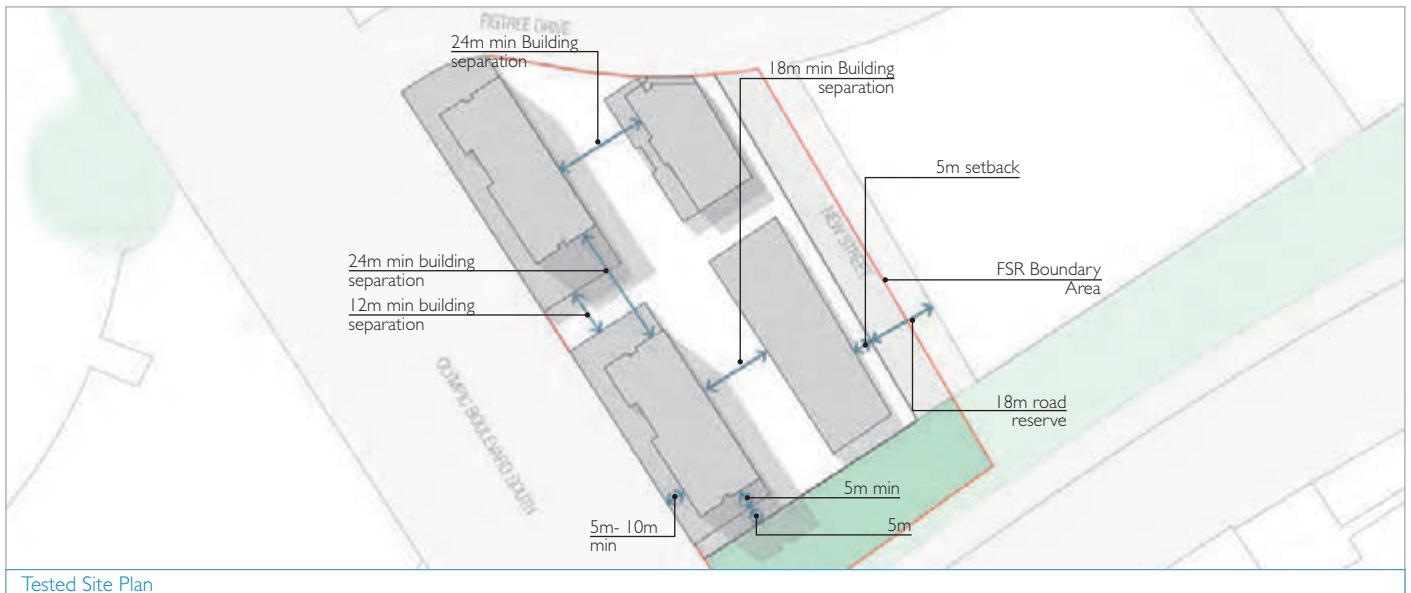
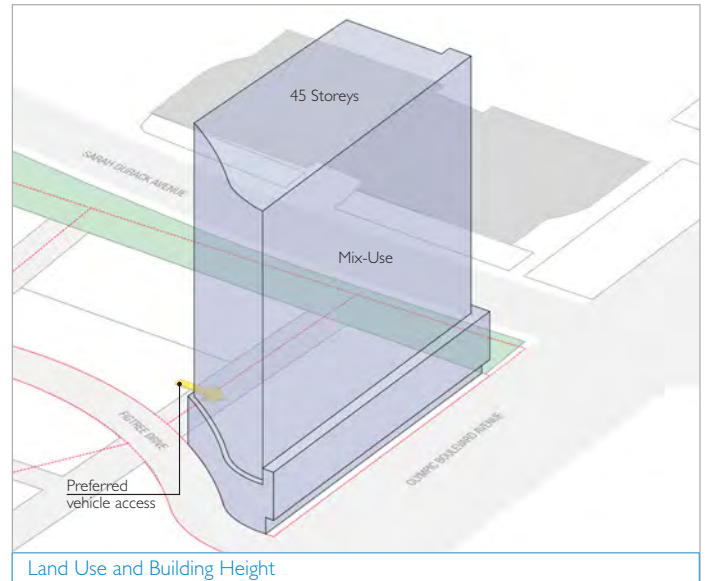
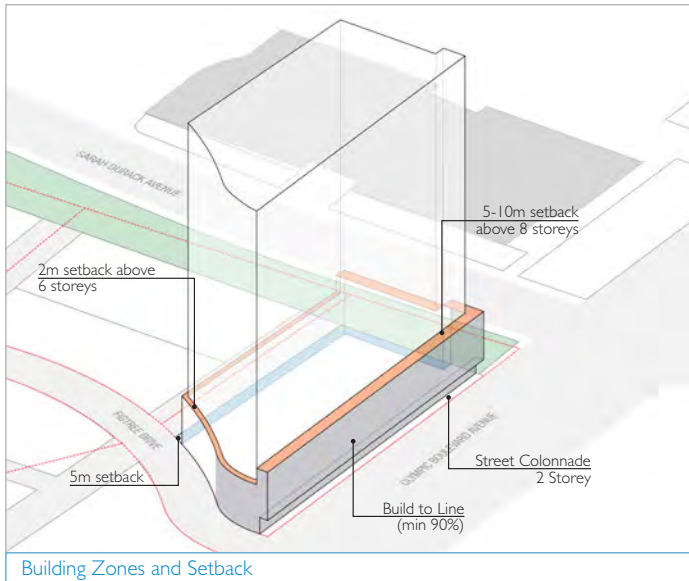
Site 45A has been deemed appropriate to deliver some of the job growth anticipated for the precinct due to their proximity to the station and interface with congruous uses. If the Draft is to achieve the job targets for the precinct, it is recommended that location and quantum of sites zoned for non-residential uses remain the same.

CONCLUSION/RECOMMENDATION

To achieve the vision and objectives of the Draft we recommend the following amendments to Site 45A;

- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.
- To amend the ground floor setbacks of wholly residential buildings to provide for a 2.5m ground floor setback from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.
- Consideration by the Authority and future owners of the public realm should be given to the provision of integrated basements and basements located underneath the public realm, particularly where new streets and open spaces are provided within a single leaseholding

Central Precinct - Site 50

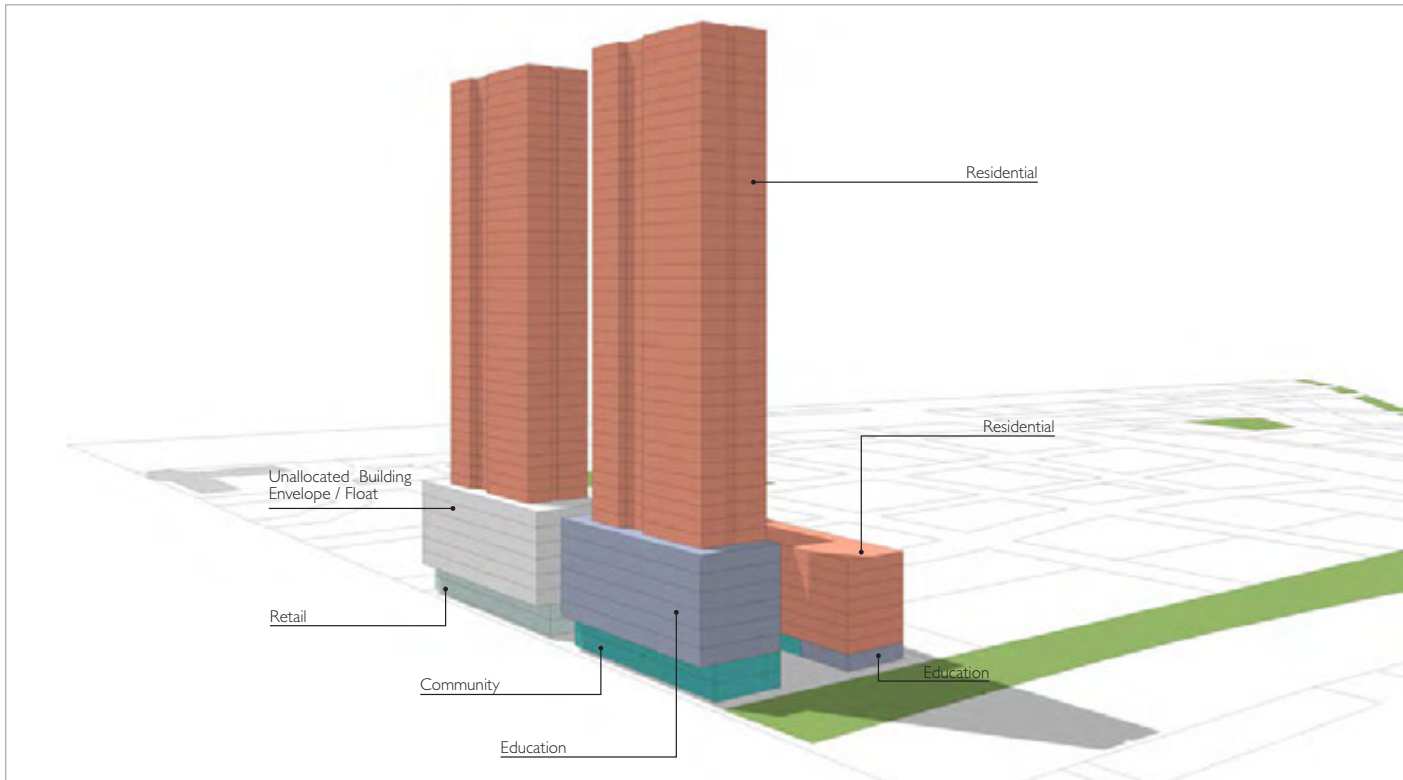


DRAFT SOP MP 2030 CONTROLS

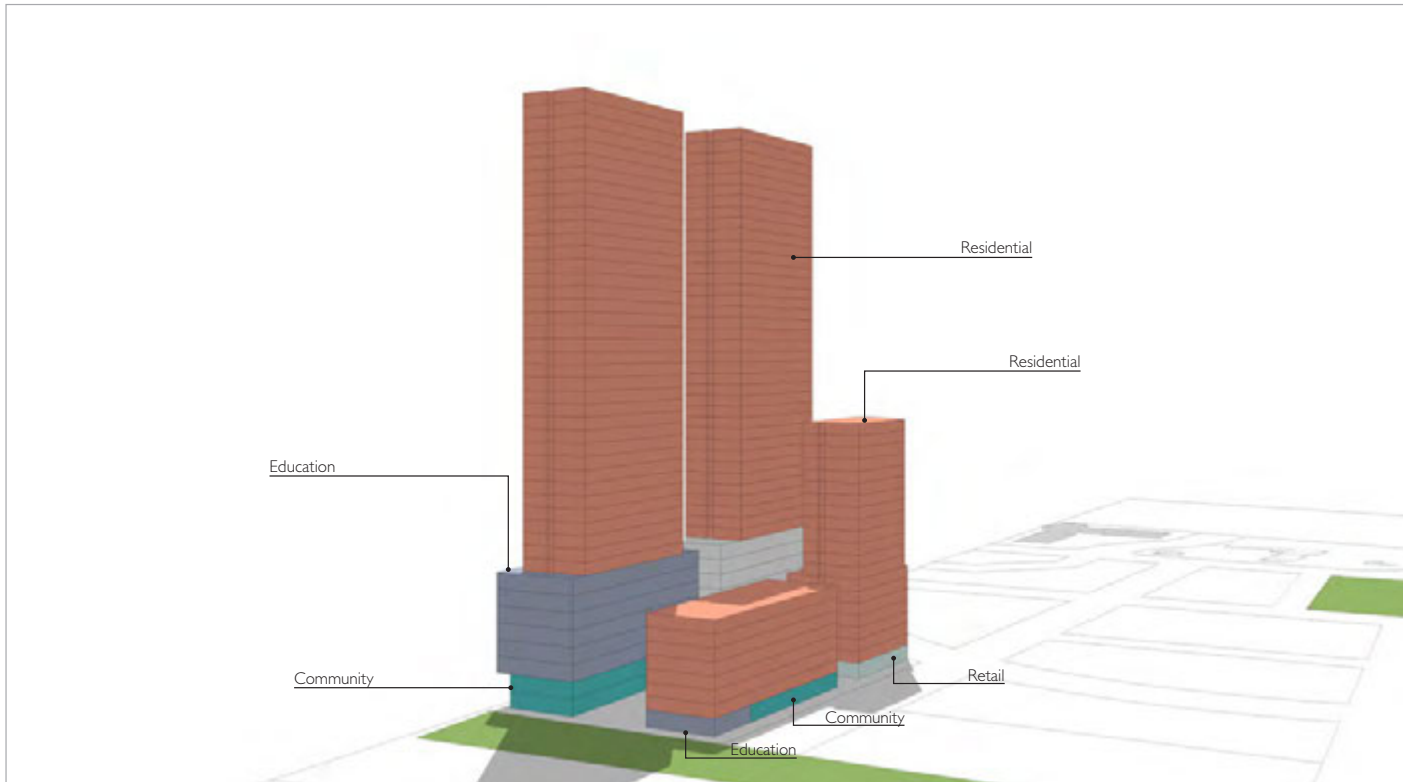
- FSR Boundary Area: 11,147m²
- FSR: 6.5:1 (excluding bonus)
- Target Retail GFA: 2,000m²
- Target Community GFA: 2,000m²
- Target Education GFA: 7,000m²
- Target Residential GFA: 68,701 m²
- Maximum Total GFA: 79,701 m² (including bonus)
- ICF Uses: Community, education, residential and retail
- Maximum Building Height: 45 storeys tower (8 storey block edge)

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 11,147m²
- FSR: 6.5:1 (excluding bonus)
- Achieved Retail GFA: 2,632m²
- Achieved Community GFA: 2,212m²
- Achieved Education GFA: 7,101m²
- Achieved Residential GFA: 68,723m²
- Achieved Total GFA: 88,256 (including bonus)
- Unallocated building envelope that could provide for reallocation of uses from elsewhere within the building envelopes or as a float to enable lower efficiencies from GBA>GFA to be achieved
- Achieved Uses: Community, education, residential and retail
- Building Height: 45 storeys tower (8 storey block edge)
- Achieved solar access as per ADG: 72% (min. required 70%)
- Achieved cross ventilation as per ADG: 63% (min. required 60% below 10-storeys)



Tested Built Form



Tested Built Form

Central Precinct - Site 50

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1	Retail	1,631m ²
1	Community	1,276m ²
1	Education	598m ²



Storey	Use	GFA
2	Retail	1,000m ²
2	Community	887m ²
2	Residential	1,578m ²



Storey	Use	GFA
3-8	Education	6,503m ²
3-8	Non-Residential	7,686m ²
3-8	Residential	9,466m ²



Storey	Use	GFA
9-21	Residential	23,680m ²



Storey	Use	GFA
22-45	Residential	34,000m ²



Central Precinct - Site 50

COMMENTS & REQUESTED AMENDMENTS

The comments and considerations are raised for consideration to inform minor updates to the draft Master Plan, and the accompanying documents are finalised.

1. Land Use Flexibility

The Contributions Plan identifies the site to accommodate a mix of uses such as; residential, community, retail and educational. While our client has not undertaken detailed market research, they equally identify the need and potential for a mix of uses on the site.

It is not clear if the current land use and area designations from the Contributions Plan are purely a guide or in effect form a quasi-land use control layer for the site read in conjunction with the SEPP. Either way, our client believe that the notation of mixed commercial, residential, hotels, serviced apartments use is appropriate as identified in Figure 5.7 of the draft Master Plan. For the reasons outlined earlier, the clients desire to maintain space for education purposes no longer exists and thus regardless of the quantum of non-residential floorspace, we request flexibility to plan for the most appropriate use mix and not have prescriptive controls.

We seek clarification that this in fact is a guide and that the final proportion of non-residential floorspace would be born from a combination of the design excellence process together with market testing. It must be recognised that the draft plan expands the geographic extent of non-residential space and that imposing requirements in the absence of market demand creates poor design and street amenity outcomes.

For example, there is no clarity about the nature and timing of retail planning. It is understood that retail floorspace take up is likely to occur in a major block of 50,000-50,000sqm if a regional shopping centre is accommodated within the central precinct. That being the case, for a Site 50 which sits at the south-west edge, it casts some doubt about the viability given there would be no 'anchor' use to draw people down and beyond.

The current designations would equate to a non-residential floorspace component of about 1:1. If the land use proportion mix is desired to be applied as a control, we request the requirement have a minimum of 0.5:1 FSR of non-residential uses and allow the developer and the market to determine the ultimate proportion above the base minimum.

2. Podium Height

The draft scheme envisages an 8 storey podium form along the boulevard. Architects for our client have examined this and support our position that this amendment not be pursued. Instead, a greater degree of flexibility should be employed in the controls to allow for lower and more diverse scale of podium heights in the range of 5-8 storeys.

Our reasons are as follows:

- The current controls already allow flexibility enabling site planning to respond depending on individual factors.
- An 8 storey podium when incorporating the higher floor to ceiling heights (compared to residential) would stand as a very large building wall lining the boulevard. While the boulevard is a wide

Submission Letter_Dunnet Properties SOP_final (page 3)

space, the taller podium form weakens the 'human scale' feeling of the street which is important given the desired activation the Master Plan seeks. The highly uniform pattern of podium heights evenly spaced along the Olympic Boulevard street edge would create a streetscape character lacking the richness and diversity of forms that would make it a more interesting and engaging environment.

- Higher podium forms would cast a wider slowing moving shadow over public streets and spaces which has the potential to undermine solar access in non-summer months.
- An 8 storey podium form on a site of this size would include residential uses. Owing to the differing floorplate requirements of commercial/non-retail uses compared with residential, in practice it usually results in poorer quality apartments in the podium form.
- There is a prevailing podium height datum in the park of either 5-6 storeys for commercial buildings or 6-8 storeys for hotel buildings. There is urban design merit in maintaining a relatively consistent height datum.
- Finally, the site will have to go through a design competition process and that flexibility should be afforded during this process to establish the desired podium height having regard to commercial, urban context and amenity factors.

SUMMARY & CONCLUSION

Our client wishes to express its support to the proposed changes arising from the Master Plan review.

Overall it appears to represent a well-balanced plan for growth and facilitate development which is vital to continue on the positive steps made over the last 5 years.

We request that SOPA and DPE carefully consider our requests with respect to land use flexibility and podium height. We trust that these amendments can be accommodated within the next stage of the SOPA Masterplan and SEPP Amendments.

The project architect is preparing some high level design work that once complete, we will issue for review as it will supplement and support the matters raised in this letter.

I would of course be pleased to discuss this issue further and meet as necessary in order to clarify any questions. Please contact me on 87233 9955 or swhite@urbis.com.au.

Submission Letter_Dunnet Properties SOP_final (page 4)

LEASEHOLDER SUBMISSION

Request: That the desire to maintain a significant proportion of GFA on the site for educational uses no longer exists and that the provision of non-residential uses is reduced to an equivalent of a minimum of 0.5:1 FSR.

Response: The Draft contains targets for the delivery of a vibrant, mixed use precinct across all sites within Sydney Olympic Park including the provision of additional jobs.

To achieve this, the Draft identifies sites which can accommodate a variety of uses including;

- Commercial
- Community
- Education
- Entertainment
- Transport
- Residential
- Temporary Accommodation
- Venues
- Retail

Site 50A has been deemed appropriate to deliver some of the job growth and complementary uses anticipated for the precinct due to their proximity and interface with congruous uses. If the Draft is to achieve the job targets for the precinct, it is recommended that location and quantum of sites zoned for non-residential uses remain the same.

Request: To amend the podium height controls as an 8 storey podium form on a site of this size would include residential uses. Owing to the differing floorplate requirements of commercial/non-retail uses compared with residential, in practice it usually results in poorer quality apartments in podium form

Response: The current prescribed uses within the ICF can more than be accommodated within the built form controls for the Site. The result is that either residential is delivered within a podium, which will, as the leaseholder identifies, deliver a diminished level of amenity and quality of apartment within the podium.

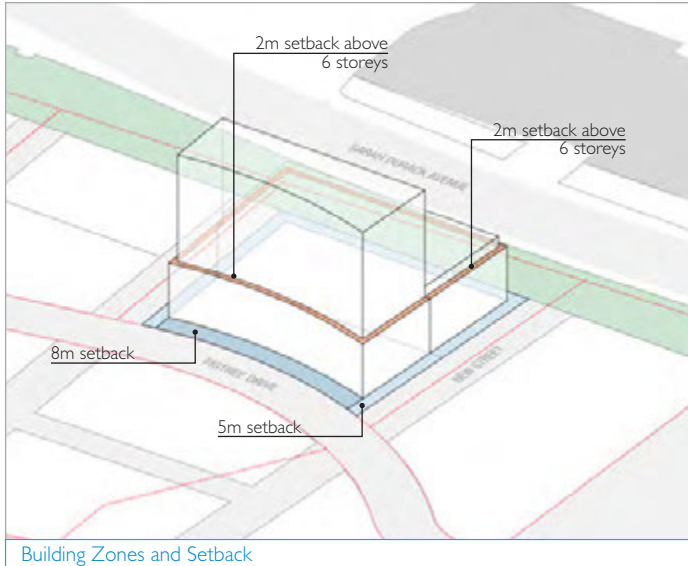
CONCLUSION/RECOMMENDATION

The detailed testing of the site has revealed that Site 50 achieves the total GFA, desired mix of uses and is in alignment with all built form controls as proposed within the Draft.

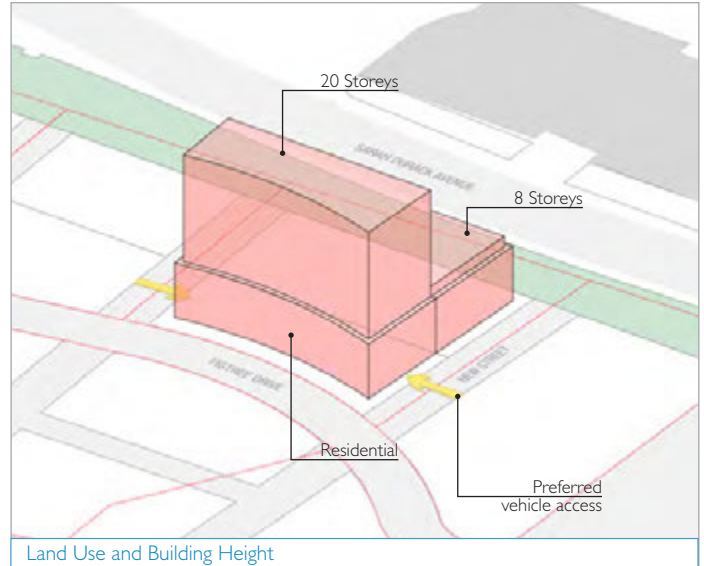
However, we recommended the following amendment to the controls for Site 50;

- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.

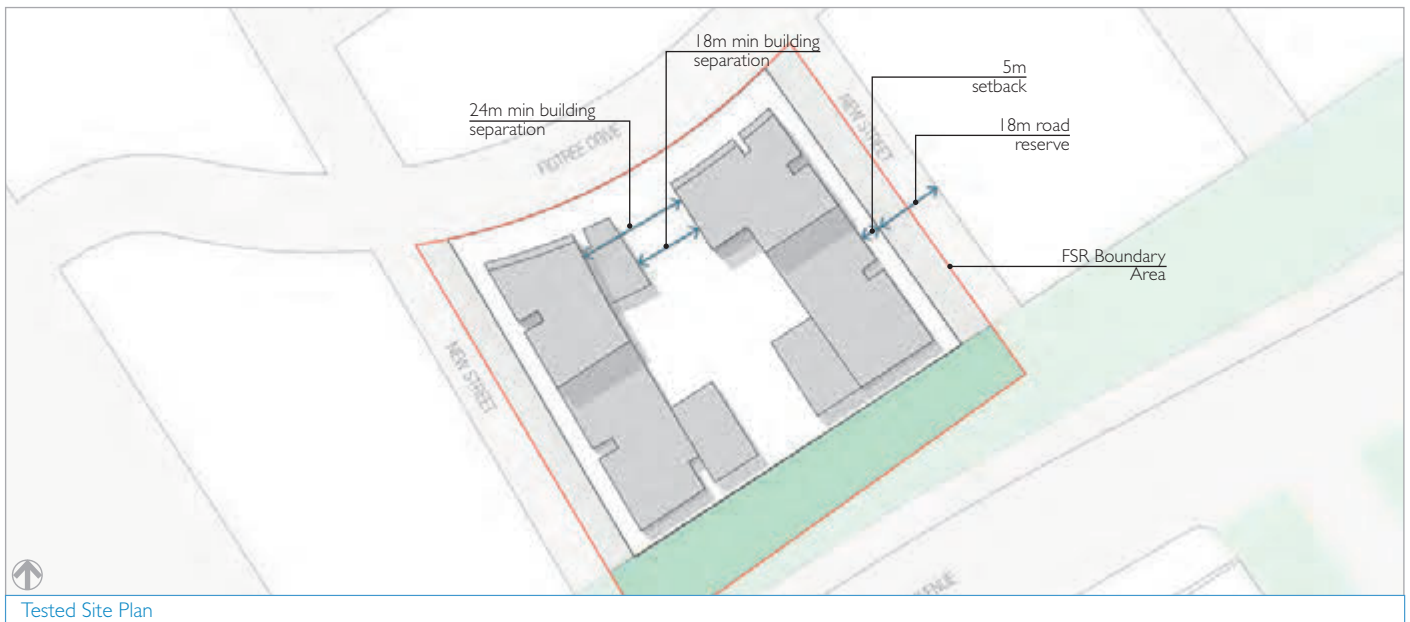
Central Precinct - Site 51



Building Zones and Setback



Land Use and Building Height



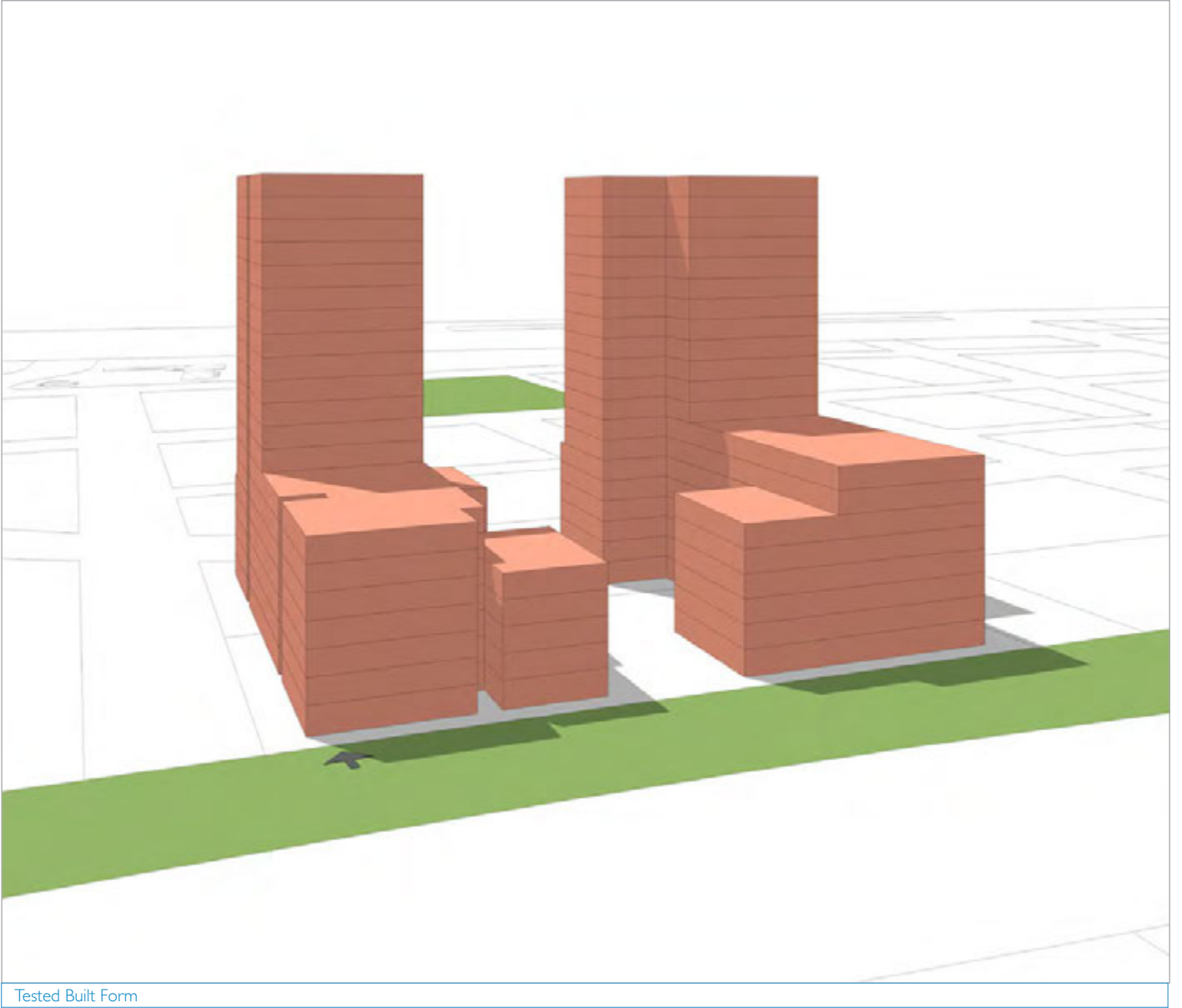
Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

- FSR Boundary Area: 11,744m²
- FSR: 3.2:1 (excluding bonus)
- Target Residential GFA: 41,339m²
- Maximum Total GFA: 41,339m² (including bonus)
- ICF Uses: Residential
- Maximum Building Height: 20 storeys tower (6-8 storey block edge) & 8 storeys

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 11,744m²
- FSR: 3.2:1 (excluding bonus)
- Achieved Residential GFA: 41,166m²
- Achieved Total GFA: 41,166m² (including bonus)
- Achieved Uses: Residential
- Achieved Building Height: 20 storeys tower (6-8 storey block edge) & 8 storeys
- **Failed solar access as per ADG: 65% (min. required 70%)**
- Achieved cross ventilation as per ADG: 60% (min. required 60% below 10-storeys)



Tested Built Form

Central Precinct - Site 5 I

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1-6	Residential	20,966m ²



Storey	Use	GFA
9-20	Residential	15,310m ²



Storey	Use	GFA
7-8	Residential	5,834m ²



Solar and Ventilation: Storey 1-6



Solar and Ventilation: Storey 7-8



Solar: Storey 9-20

Central Precinct - Site 51

4.1 FSR CONTROL OF 3.6:1

An FSR control of 3.6:1 should be implemented at Site 51. This would continue the density controls from the central section of the precinct, facilitating better and earlier outcomes whilst not undermining the massing or development principles of the precinct. This approach would also accord with the overall strategy within the Master Plan.



SOPA_Figtree Submission_ I4051_A12_I601 I14_DesignReport_LR.pdf (page 39)

4.2 HEIGHT LIMIT OF 74m ACROSS THE SITE

An overall limit of 74 m (as currently already suggested) should be extended across the whole Site. This would allow a greater flexibility with the design of buildings on site, to take advantage of the opportunities arising from the location of the new pedestrian bridge and the high amenity levels which are available. It would also facilitate a more appropriate design and provide a better outcome for massing, shadowing and better architectural outcomes overall.



SOPA_Figtree Submission_ I4051_A12_I601 I14_DesignReport_LR.pdf (page 40)

LEASEHOLDER SUBMISSION

Request: An increase FSR from 3.2:1 to 3.6:1 in recognition that the outcome would not have a detrimental impact upon adjoining properties.

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, Site 51 has a maximum permissible floor space ratio of 3.2:1 which is consistent with the intention of the Draft and associated infrastructure plan.

Request: An overall limit of 74m (as currently already suggested) should be extended across the whole Site. This would allow a greater flexibility with the design of buildings on site, to take advantage of the opportunities arising from the location of the new pedestrian bridge and the high amenity levels which are available.

Response: The proposed building heights within the Draft consider a transitional height plane on some sites to ensure that a certain proportion of solar access is maintained to the public open spaces and active transport corridors within the precinct.

Therefore the height controls within the Draft for Site 51 are deemed appropriate to achieve the required solar access to the linear open space and active transport corridor adjoining the rail reservation and Sarah Durack Avenue.

CONCLUSION/RECOMMENDATION

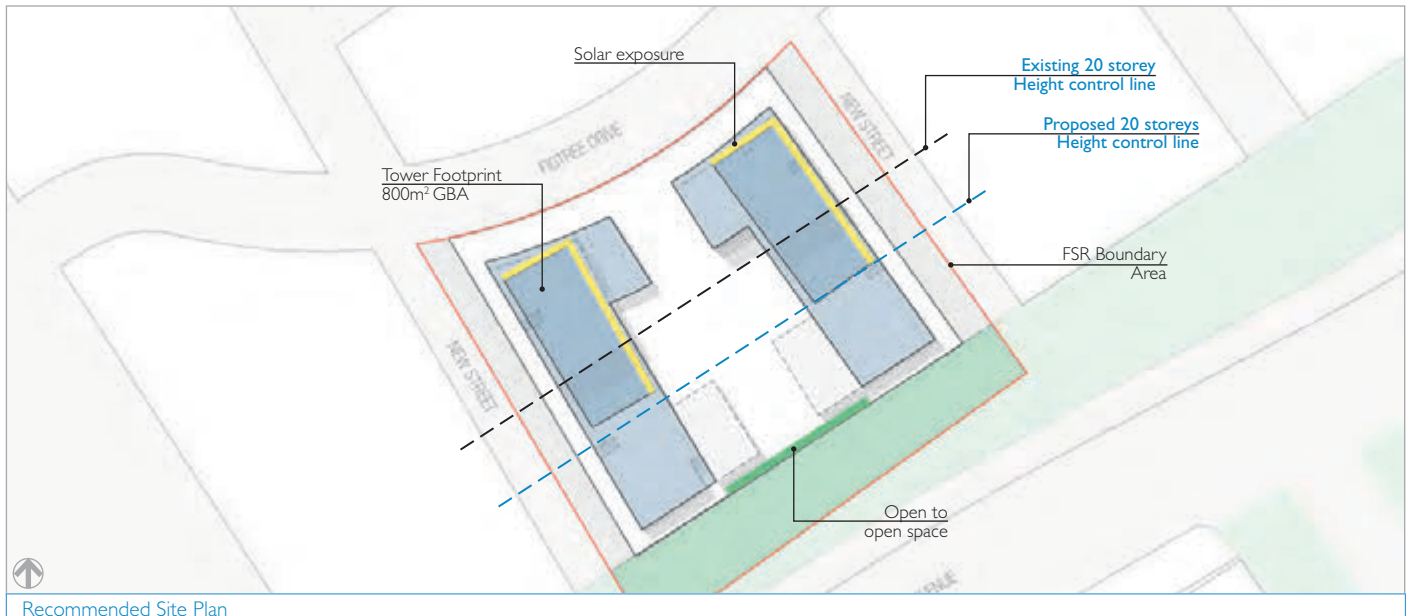
The detailed testing of the site has revealed that due to a combination of the orientation of the site, the geometry of the site boundaries and the strict adherence to the controls is not achieving a desired built form or public domain outcome. In addition, the concept design is not achieving the required 70% solar access to dwellings as required under the Apartment Design Guide (ADG).

However, with a configuration of apartment sizes and mix per floor that differs from what the concept scenario has assumed (i.e. locating a lower number of larger apartments on the lower floors and south-west facing façades and a higher number of smaller apartments on the upper floors and north-east facing façades) it may be possible to satisfy the solar access requirements of the ADG.

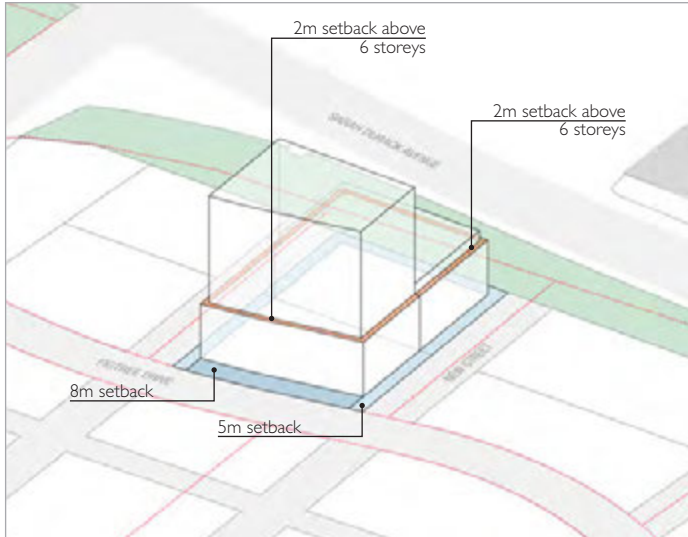
Although it is not explicitly a built form control, consideration should be given to whether it is a desirable outcome, that a significant proportion of, if not all, larger apartments within each building do not achieve the required solar access under the ADG.

To achieve a better built form outcome, whilst maintaining the vision and objectives of the Draft, we recommend the following amendments to Site 51;

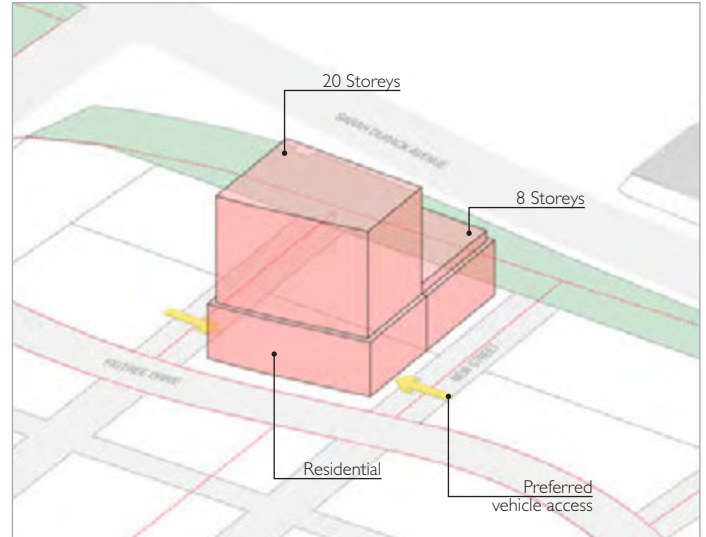
- To amend the ground floor setbacks of wholly residential buildings from 5m to 2.5m from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street. This achieves;
 - Required building separation under the ADG between buildings on Site 51 and to the adjoining sites 50 and 52; and
 - Provides, with the greater internal building separation and more efficient envelopes, the opportunity to better satisfy the ADG solar access requirements
- Adjusting the location of the 20 storey height control line to be at least 9m further south and east of its current location. This;
 - Achieves a building envelope and configuration to design for a tower with a maximum GBA of 800m².
- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.



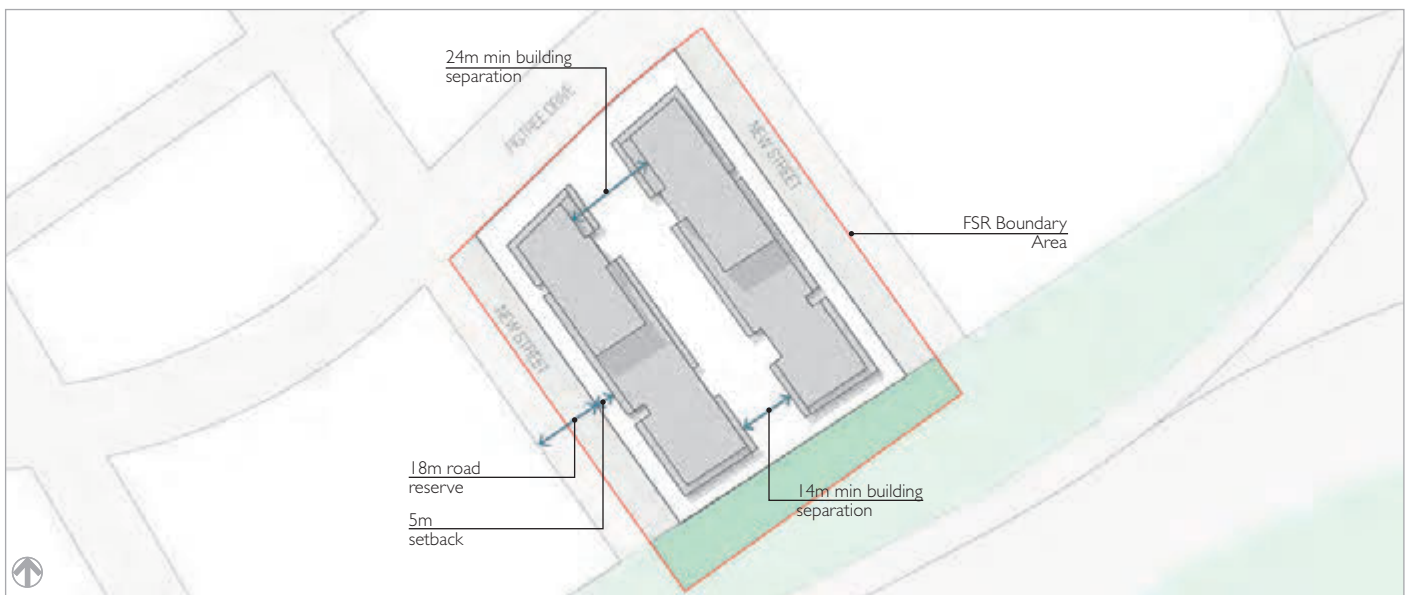
Central Precinct - Site 52



Building Zones and Setback



Land Use and Building Height



Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

- FSR Boundary Area: 9,512m²
- FSR: 3.2:1 (excluding bonus)
- Target Residential GFA: 33,482m²
- Maximum Total GFA: 33,482m² (including bonus)
- ICF Use: Residential
- Maximum Building Height: 20 storeys tower (6-8 storey block edge) & 8 storeys

TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 9,512m²
- FSR: 3.2:1 (excluding bonus)
- Achieved Residential GFA: 34,850m² (including bonus)
- Achieved Total GFA: 34,850m² (including bonus)
- Achieved Use: Residential
- Achieved Building Height: 20 storeys tower (6-8 storey block edge) & 8 storeys
- **Failed solar access as per ADG: 50% (min. required 70%)**
- Achieved cross ventilation as per ADG: 67% (min. required 60% below 10-storeys)



Tested Built Form

Central Precinct - Site 52

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



1-4	Residential	11,920m ²
5-6	Residential	5,566m ²



Storey	Use	GFA
7-8	Residential	4,97m ²



Storey	Use	GFA
9-20	Residential	12,566m ²





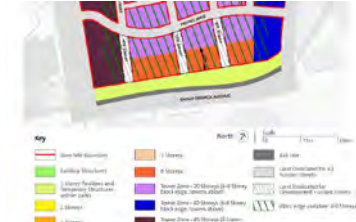
FIGURE 1 – HEIGHT OF BUILDING MAP (SOURCE: SSP SEPP)



Height of Buildings: AA: 74 metres, U2: 33 metres

The split height of building controls are also carried into the draft Master Plan 2030 in controlling the maximum number of storeys. In addition to the split height controls an additional control requiring a block edge variation of 4-8 storeys is also shown on the Building Setbacks Map in the draft Master Plan 2030. Refer to Figure 2.

FIGURE 2 – HEIGHT OF BUILDING MAP



Submission to Draft SOP Master plan 2030_25112016_002_.pdf (page 6)

railway line, and Sarah Durack Drive, which do not have the same amenity considerations as residential apartments.

We note that the subject site will be required to be subject to a design competition under the 2016 Review. We support the inclusion of the subject site in the list of sites, which will be subject of a design competition, and we consider a design competition process is the best place to determine the most appropriate distribution of built form across the site, having regard to number design alternatives.

FIGURE 3 – TOWN CENTRE PRECINCT ILLUSTRATIVE PLAN



Recommendation:

It is requested that SOPA reconsider the split height controls as this approach will not provide good urban design and residential amenity outcomes for the site and future residents. A single height of building standard of 74 metres should be adopted for the site, with the location of tower buildings and lower scaled built form on the site determined through the consideration of design alternatives in a competitive design process.

Submission to Draft SOP Master plan 2030_25112016_002_.pdf (page 7)

4.3. SETBACKS

The 2016 Review of the Master Plan 2030 proposes an 8 metre setback along the southern side of Figtree Drive, and 5m building setbacks along the eastern and western boundaries with the new streets either side of Site 52.

The proposed setback controls are a constraint on alternative designs, which demonstrate an appropriate design response to the site being achieved through a competitive design process. It is noted that the 2016 Review includes the subject site, in the list of sites which will be subject to competitive design processes. Competitive design processes are supported, to promote urban design and planning innovation at SOP. In the event that a design seeks to vary the building setback controls, a performance based approach to archiving high quality urban design and architectural design is supported.

Recommendation:

To prevent innovative built form solutions for sites that are subject to design competitions form being overlooked due to a strict application of numerical controls, the following statement in the Master Plan 2030 in relation to building setbacks is recommended:

"Building setbacks may be varied subject to meeting acceptable performance based solutions".

Submission to Draft SOP Master plan 2030_25112016_002_.pdf (page 9)

5. CONCLUSION

This submission has identified a number of concerns with the proposed amendment to SSP SEPP and the draft Master Plan 2030. We recognise the overall vision as the amendments have the potential to activate and revitalise SOP. However, we recommend the following:

- Increase FSR in recognition that development of the site would not have significant adverse overshadowing impacts on neighbouring properties and to create a sustainable community that support a vibrant street life, retail areas and sufficient local amenities, providing a larger gap in leasehold to freehold conversion.
- Delete the requirement for a split height of building standards and replace with a single height of building standard of 74 metres across the site, with the location of tower buildings and lower built form, the subject of competitive design processes required for the site;
- Allow the flexible application of building setback controls, subject to the competitive design processes required for the site;

Submission to Draft SOP Master plan 2030_25112016_002_.pdf (page 11)

LEASEHOLDER SUBMISSION

Request: An increase FSR from 3.2:1 to 3.6:1 in recognition that the outcome would not have a detrimental impact upon adjoining properties.

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, Site 52 has a maximum permissible floor space ratio of 3.2:1 which is consistent with the intention of the Draft and associated infrastructure plan.

Request: Remove the requirement for a modulation in the height of building standards and replace with a single height of building standard of 74 metres across the site.

Response: The proposed building heights within the Draft considers a transitional height plane on some sites to ensure that a certain proportion of solar access is maintained to the public open spaces and active transport corridors within the precinct.

Therefore the height controls within the Draft for Site 52 are deemed appropriate to achieve the required solar access to the linear open space and active transport corridor adjoining the rail reservation and Sarah Durack Avenue.

Request: Allow the flexible application of building setback controls, subject to the design processes required for the Site.

Response: The built form controls, including primary and secondary setbacks, street edge definition and podium controls have been considered to ensure the outcomes of the Draft deliver a cohesive and legible streetscape and public domain for the precinct.

As the leaseholder submission identifies, these controls are indicative and subject to review through the design process, although the intention of the controls across the precinct will be considered as part of that process.

CONCLUSION/RECOMMENDATION

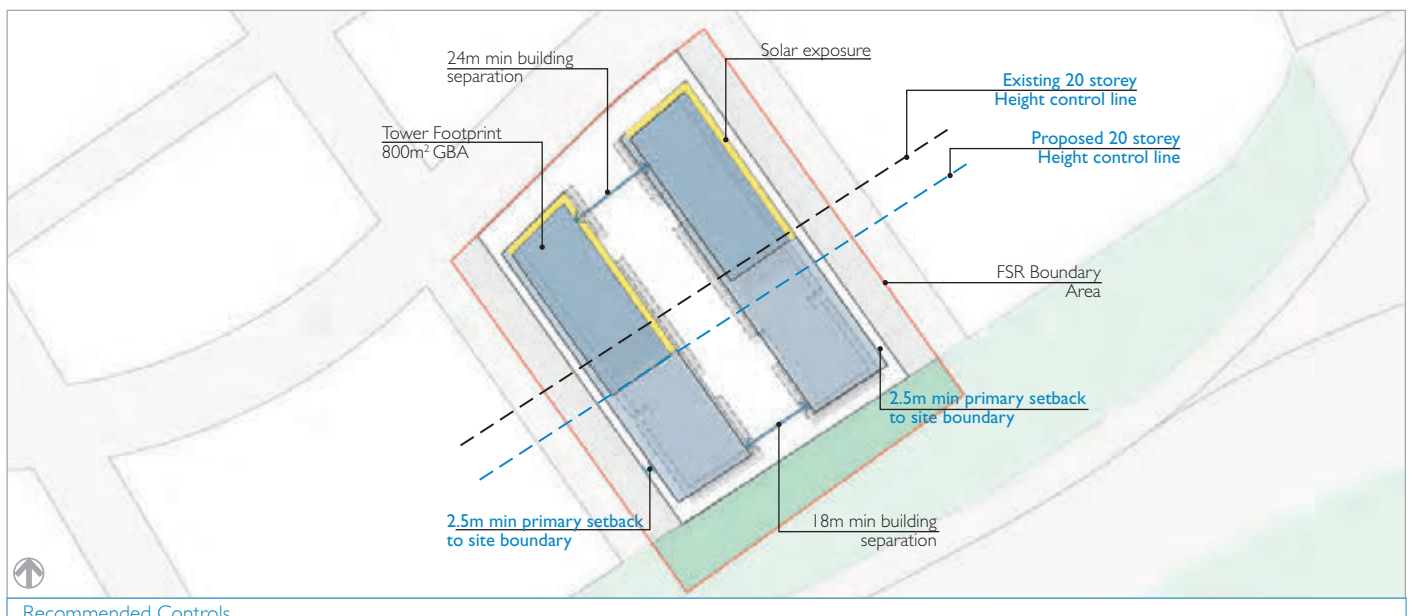
The detailed testing of the site has revealed that due to a combination of the orientation of the site, the geometry of the site boundaries and the strict adherence to the controls is not achieving a desired built form or public domain outcome. In addition, the concept design is not achieving the required 70% solar access to dwellings as required under the Apartment Design Guide (ADG).

However, with a configuration of apartment sizes and mix per floor that differs from what the concept scenario has assumed (i.e. locating a lower number of larger apartments on the lower floors and south-west facing façades and a higher number of smaller apartments on the upper floors and north-east facing façades) it may be possible to satisfy the solar access requirements of the ADG.

Although it is not explicitly a built form control, consideration should be given to whether it is a desirable outcome, that a significant proportion of, if not all, larger apartments within each building do not achieve the required solar access under the ADG.

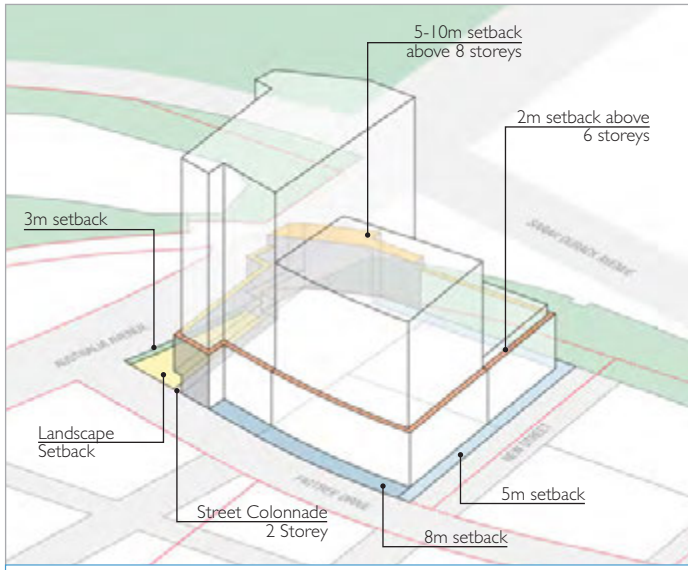
To achieve a better built form outcome, whilst maintaining the vision and objectives of the Draft, we recommend the following amendments to Site 52;

- To amend the ground floor setbacks of wholly residential buildings from 5m to 2.5m from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street. This achieves;
 - Required building separation under the ADG between buildings on Site 52 and to the adjoining sites 51 and 53; and
 - Provides, with the greater internal building separation and more efficient envelopes, the opportunity to better satisfy the ADG solar access requirements
- Adjusting the location of the 20 storey height control line to be at least 9m further south and east of its current location. This;
 - Achieves a building envelope and configuration to design for a tower with a maximum GBA of 800m².
- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.

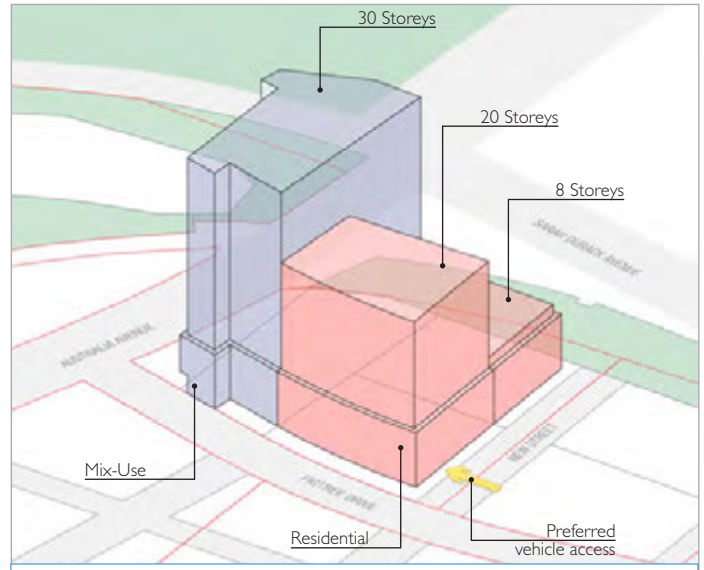


Recommended Controls

Central Precinct - Site 53



Building Zones and Setback



Land Use and Building Height



Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

- FSR Boundary Area: 12,697m²
- FSR: 4.5:1 (excluding bonus)
- Target Retail GFA: 3,000m²
- Target Residential GFA: 59,850m²
- Maximum Total GFA: 62,850m² (including bonus)
- ICF Uses: Residential and retail
- Maximum Building Height: 30 storeys tower (6-8 storey block edge), 20 storeys tower (6-8 storey block edge) & 8 storeys

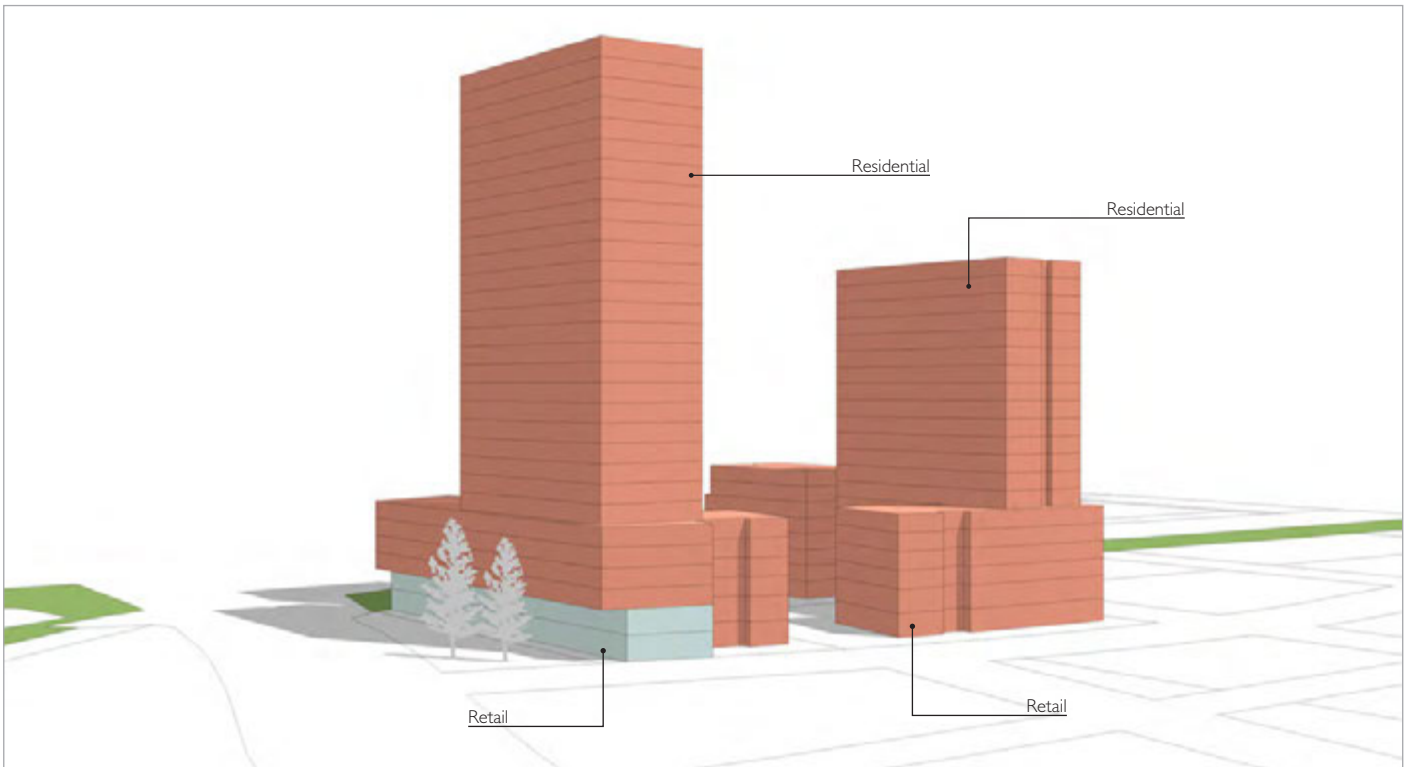
TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 12,697m²
- FSR: 4.5:1 (excluding bonus)
- Achieved Retail GFA: 2,685m²*
- Achieved Residential GFA: 59,417m²*
- Achieved Total GFA: 62,102m²* (including bonus)
- Achieved Use: Residential and retail
- Achieved Building Height: 30 storeys tower (6-8 storey block edge), 20 storeys tower (6-8 storey block edge) & 8 storeys
- Achieved solar access as per ADG: 73% (min. required 70%)
- Achieved cross ventilation as per ADG: 63% (min. required 60% below 10-storeys)

*Achieved to within 1.2% of targets



Tested Built Form



Tested Built Form

Central Precinct - Site 53

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storey	Use	GFA
1-2	Retail	2,865m ²
1-2	Residential	5,872m ²



Storey	Use	GFA
3-6	Residential	15,310m ²



Storey	Use	GFA
7-8	Residential	4,746m ²



Storey	Use	GFA
9-20	Residential	22,511m ²



↑ Storeys 21-30

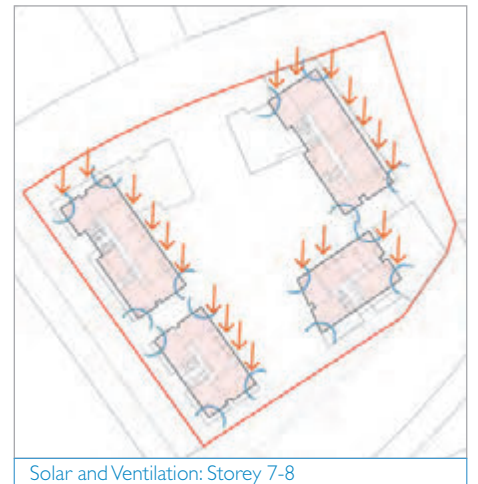
Storey	Use	GFA
21-30	Residential	11,858m ²



Solar and Ventilation: Storey 1-2



Solar and Ventilation: Storey 3-6



Solar and Ventilation: Storey 7-8



Solar: Storey 9-20



Solar: Storey 21-30

Central Precinct - Site 53

3.1. DESIGN EXCELLENCE COMPETITION

Recommendation 1: It is recommended that Site 53 is removed from Figure 4.6 – Design Competition Sites Plan in Section 4.6.10 of the 2016 Review to acknowledge the competition of the Site 53 Design Excellence Competition and the appointment of the winning Architect, BVN.

218104_Site 53 SOP_Submission to 2016 Review.pdf (page 5)

3.2. FLOOR SPACE RATIO

Recommendation 2: It is recommended that the draft Floor Space Ratio Map contained within the proposed amendment to SEPP State Significant Precincts 2005 and Figure 5.6 Central Precinct Site Floor Space Ratios Plan of the 2016 Review are amended to provide a floor space ratio of 5:1 for Site 53.

218104_Site 53 SOP_Submission to 2016 Review.pdf (page 5)

3.3. HEIGHT OF BUILDINGS

Furthermore, the requirement for 6-8 storey block edge with towers above on Site 53 and across the entirety of the Central Precinct will create a monotonous built form and urban design outcome and will impact on the ability for future development to achieve compliance with the residential amenity requirements of the Apartment Design Guide and the 2016 Review. This form is likely to cause overshadowing of the public domain and adjacent properties, as well as visual and acoustic privacy concerns.

218104_Site 53 SOP_Submission to 2016 Review.pdf (page 6)

Recommendation 3: It is recommended that the draft amendment to SEPP State Significant Precincts 2015 be revised to allow for a maximum building height of 120m on Site 53, in order to deliver an 'entry gateway' to Sydney Olympic Park. Further, it is recommended that various maximum building heights specified across Site 53 be reconsidered to allow for a greater flexibility in building design and height transition across the site and precinct.

218104_Site 53 SOP_Submission to 2016 Review.pdf (page 7)

3.4. RETAIL

Recommendation 4: It is recommended that the 2016 Review be amended to remove the requirement for no Residential on ground level across the eastern portion of the site, and double height active frontage and two-storey colonnade on Australia Avenue to allow for the future development of a single level supermarket, in accordance with the Project Delivery Agreement.

218104_Site 53 SOP_Submission to 2016 Review.pdf (page 9)

3.5. SOLAR ACCESS

It is our opinion that the 2016 Review requirement for 3 hours of direct sunlight in at least 75% of dwellings is excessive and unachievable within the future dense urban environment of Sydney Olympic Park. Furthermore, the inconsistency between the Apartment Design Guide and the 2016 Review requirements for solar and daylight access contradict State Government's intention to simplify and standardise certain residential apartment development design controls.

Recommendation 5: It is recommended that Control 16 of Section 4.6.17 is amended to reflect the requirements for solar and daylight access stated in the Apartment Design Guide.

218104_Site 53 SOP_Submission to 2016 Review.pdf (page 9)

3.6. FLOOR PLATE

As shown in Figure 5, the recently completed Australia Tower 2 at Site 3 is estimated to have a footprint of 1,100m², the recently approved Opal Tower at Site 68 is estimated to have a footprint of 1,315m², and the Site 9 proposal currently under assessment by DPE is estimated to have a footprint of 990m². The proposed design for the Site 53 redevelopment is consistent with this established precedent.

218104_Site 53 SOP_Submission to 2016 Review.pdf (page 10)

LEASEHOLDER SUBMISSION

Request: An increase FSR from 4.5:1 to 5:1 in recognition that the Design Excellence Competition has already been conducted in accorded with the provisions of the Draft.

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, Site 52 has a maximum permissible floor space ratio of 3.2:1 which is consistent with the intention of the Draft and associated infrastructure plan.

Request: Allow for a maximum building height of 120m on Site 53, in order to deliver an 'entry gateway' to Sydney Olympic Park. And allow for a greater flexibility in building design and height transition across the site and precinct.

Response: The proposed building heights within the Draft consider a transitional height plane on some sites to ensure that a certain proportion of solar access is maintained to the public open spaces and active transport corridors within the precinct.

Therefore the height controls within the Draft for Site 53 are deemed appropriate to achieve the required GFA, solar access to the linear open space and active transport corridor adjoining the rail reservation and Sarah Durack Avenue.

Request: Amend the controls to remove the requirement for no Residential on ground level across the eastern portion of the site, and double height active frontage and two-storey colonnade on Australia Avenue to allow for the future development of a single level supermarket, in accordance with the Project Delivery Agreement

Response: The Draft identifies the intended vision for Australia Avenue is an urban street comprised of active, retail, commercial, food and beverage and other uses on the lower floors. To achieve this, and to ensure consistency with the desired built form and uses on the western interface of Australia Avenue, the requirement for a double-height colonnade and non-residential uses to the ground floor interface with Australia Avenue is deemed appropriate.

Request: Requirement for 3 hours of direct sunlight in at least 75% of dwellings is excessive and unachievable within the future dense urban environment of Sydney Olympic Park.

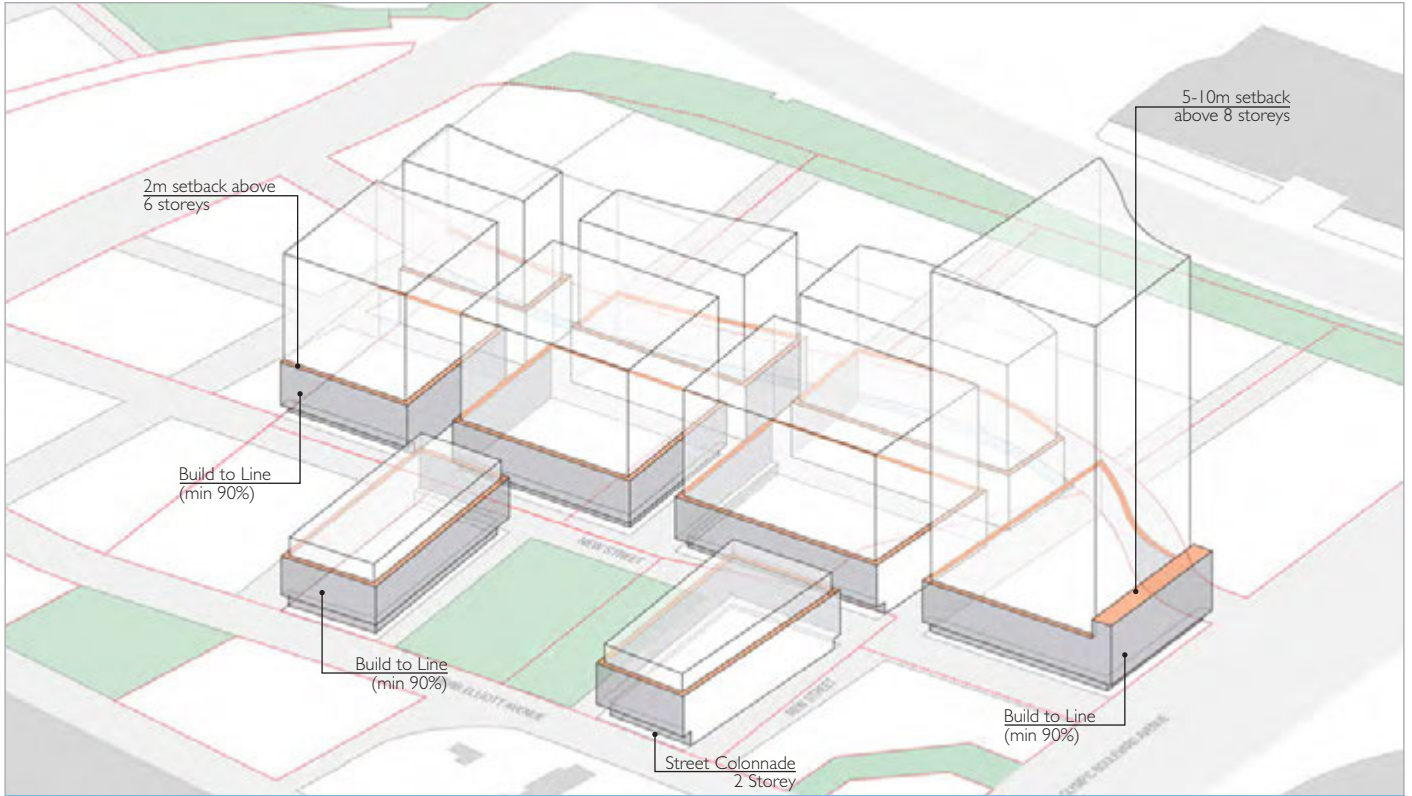
Response: The Apartment Design Guide should be used as the overarching control to ensure residential amenity is achieved within Sydney Olympic Park.

CONCLUSION/RECOMMENDATION

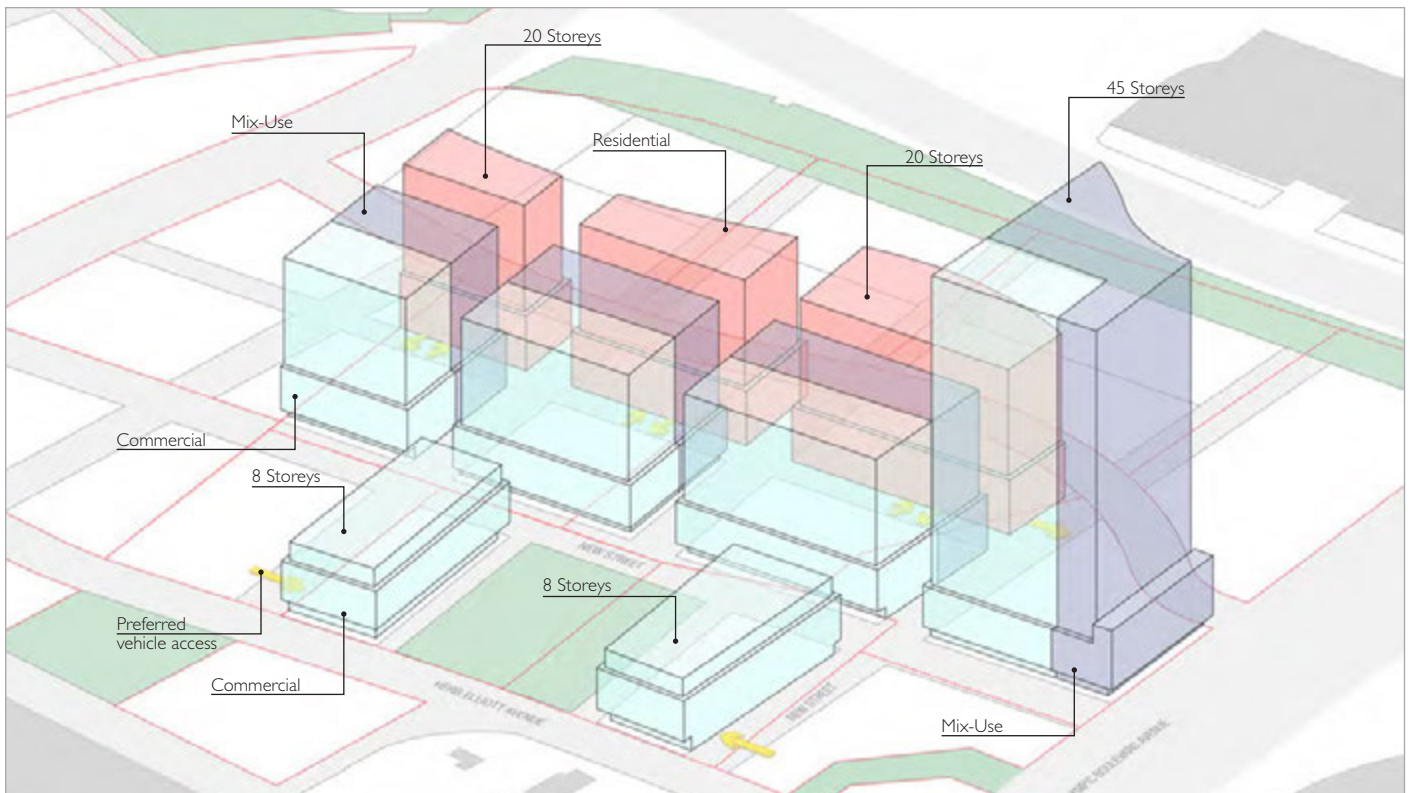
To achieve the vision and objectives of the Draft we recommend the following amendments to Site 53;

- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.
- To amend the ground floor setbacks of wholly residential buildings to provide for a 2.5m ground floor setback from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.

Central Precinct - Site GPT



Building Zones and Setback



Land Use and Building Height



Tested Site Plan

DRAFT SOP MP 2030 CONTROLS

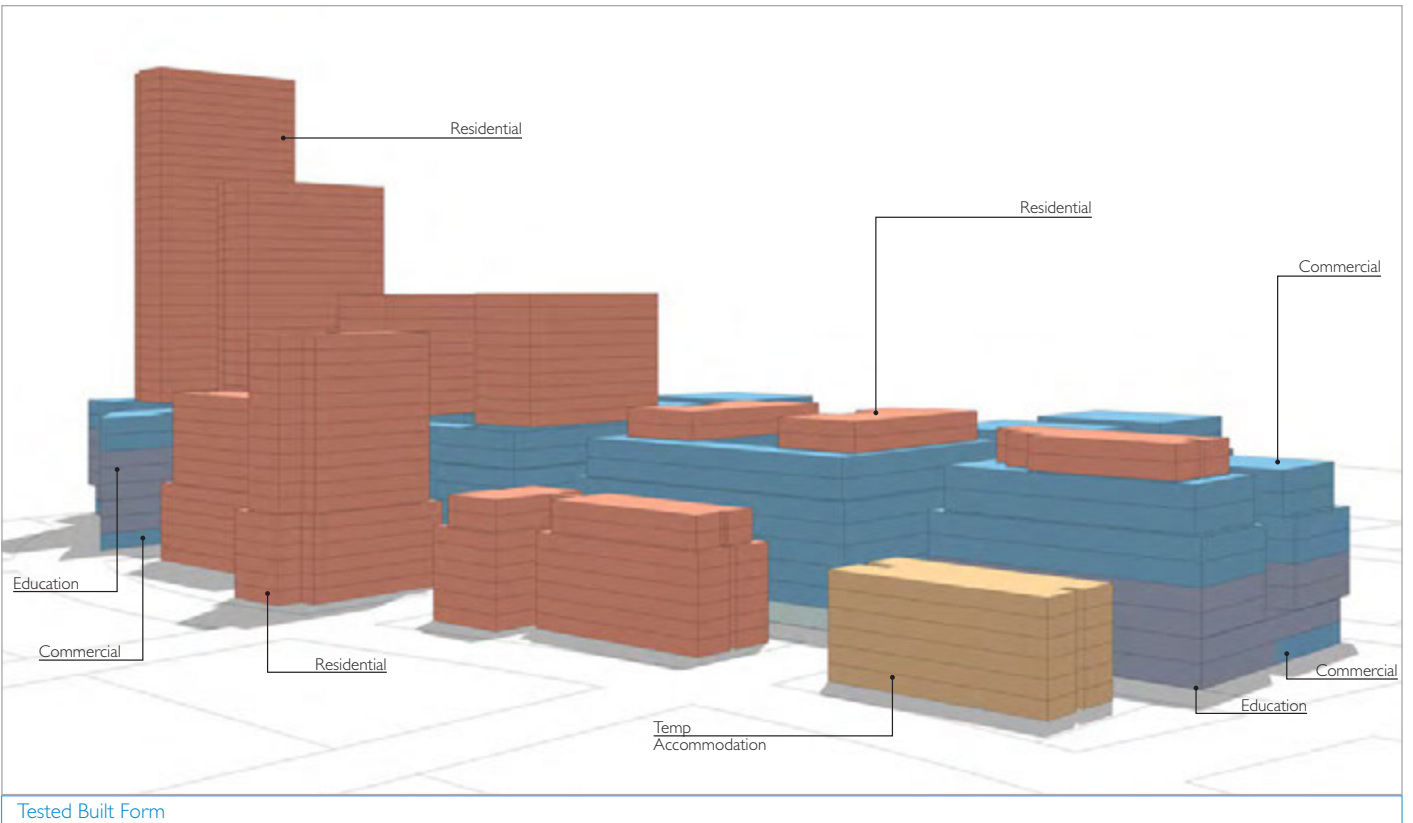
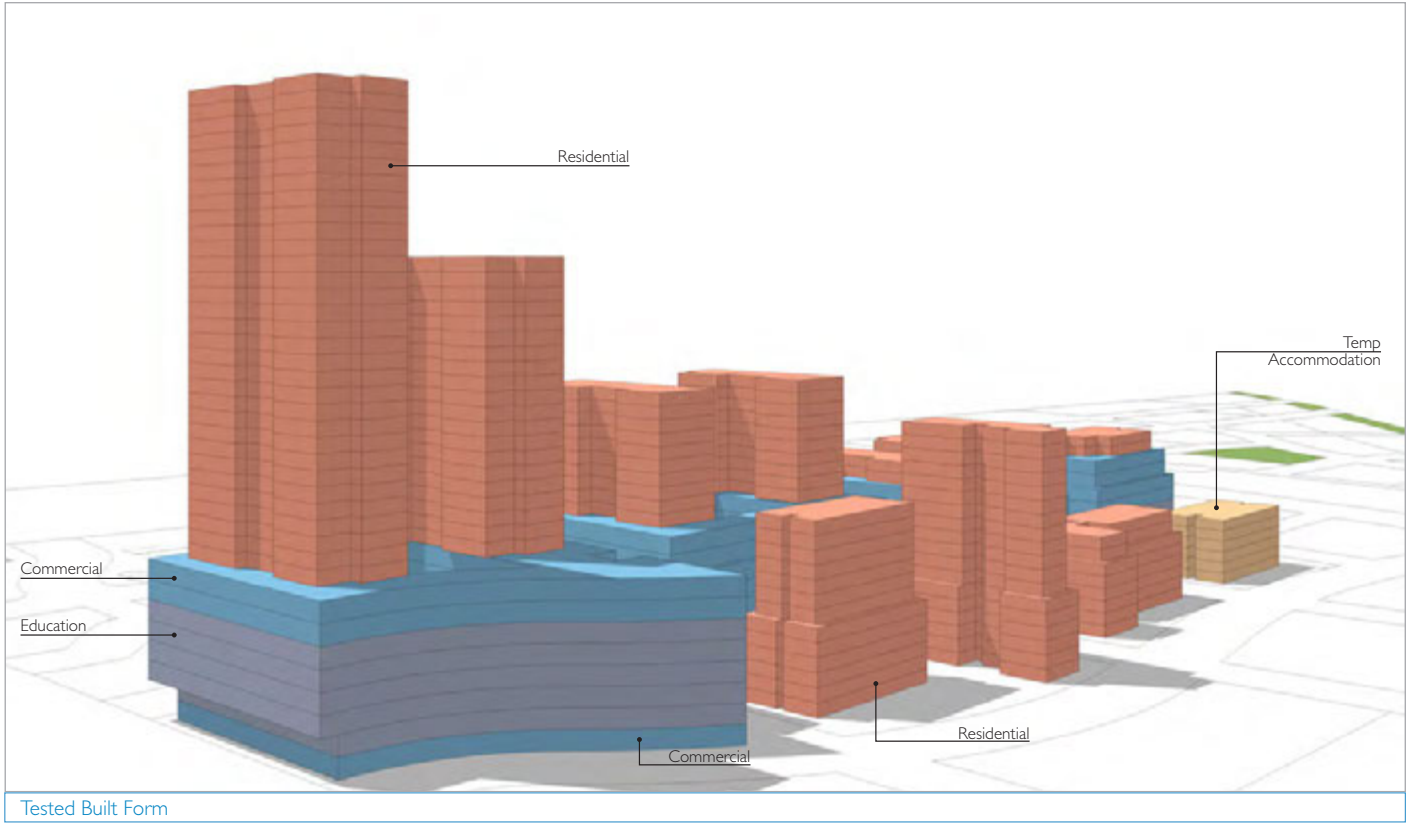
- FSR Boundary Area: 54,049m²
- FSR (excluding bonus)
 - Site 40, 41, 46 & 47 - 3.6:1
 - Site 48 - 6.5:1
- Target Retail GFA: 58,620m²
- Target Commercial GFA: 69,003m²
- Target Community GFA: 8,600m²
- Target Education: GFA 37,100m²
- Target Temp Accommodation GFA: 3,000m²
- Target Residential GFA: 72,000m²
- Maximum Total GFA: 248,323m² (including bonus)
- ICF Uses:
 - Site 40 & 41 - Commercial
 - Site 46A&B - Commercial & Mix Use
 - Site 46C&D - Residential
 - Site 47A - Commercial & Mix Use
 - Site 47B - Residential
 - Site 48 - Commercial & Mix Use
- Maximum Building Heights:
 - Site 40 & 41 - 8 Storeys
 - Site 46 & 47 - 20 Storeys (6-8 Storey block edge)
 - Site 48 - 45 Storeys (8 Storey block edge)

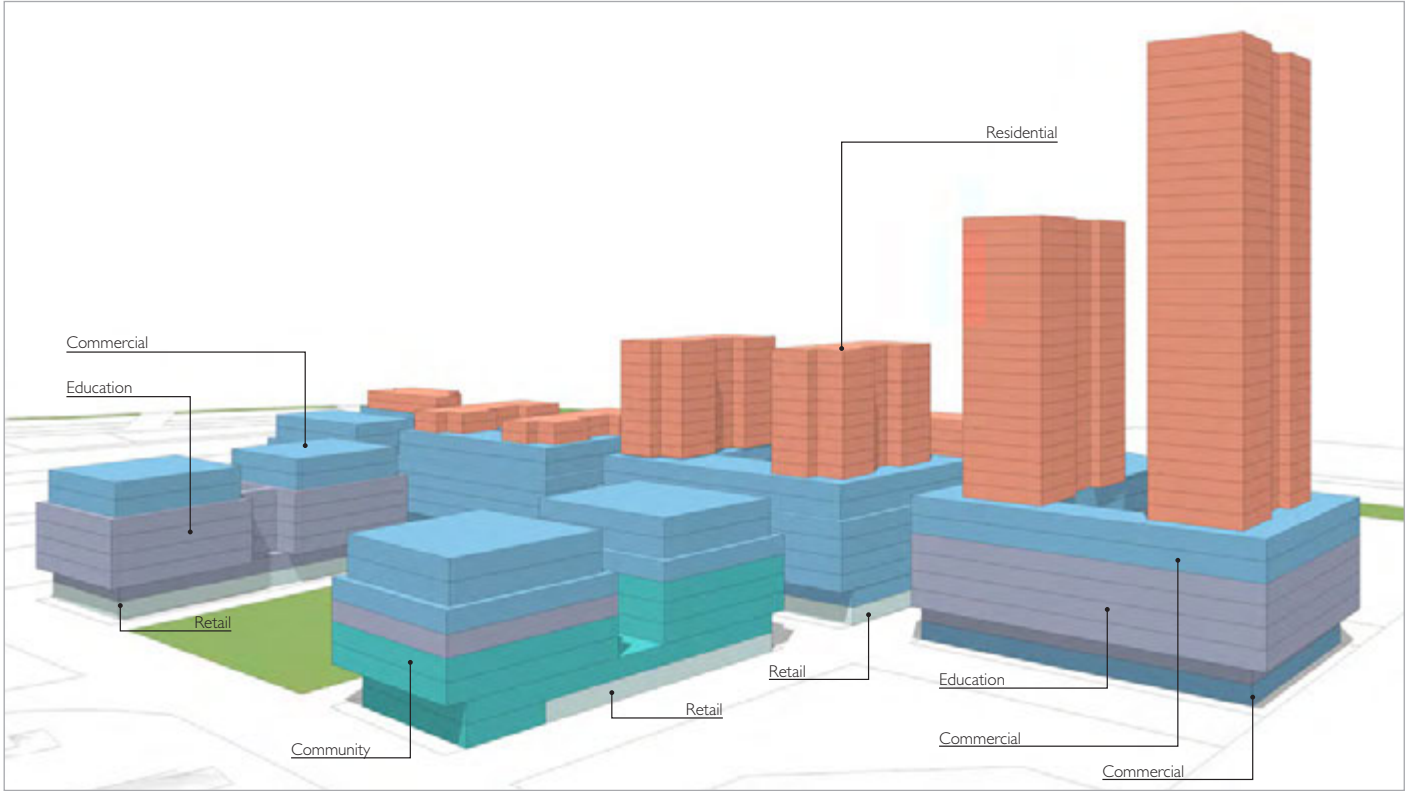
TESTED OUTCOMES OF ONE POSSIBLE CONCEPT SCENARIO

- FSR Boundary Area: 54,049m²
- FSR (excluding bonus)
 - Site 40, 41, 46 & 47 - 3.6:1
 - Site 48 - 6.5:1
- Achieved Retail GFA: 58,955m² GFA*
- Achieved Commercial GFA: 69,731m² GFA
- Achieved Community GFA: 8,817m² GFA
- Achieved Education GFA: 37,100m² GFA
- Achieved Temp Accommodation GFA: 3,581m² GFA
- Achieved Residential GFA: 73,213m² GFA
- Achieved Total GFA: 251,253m² GFA
- **Failed solar access as per ADG: 55% (min. required 70%)**
- Achieved cross ventilation as per ADG: 65% (min. required 60% below 10-storeys)

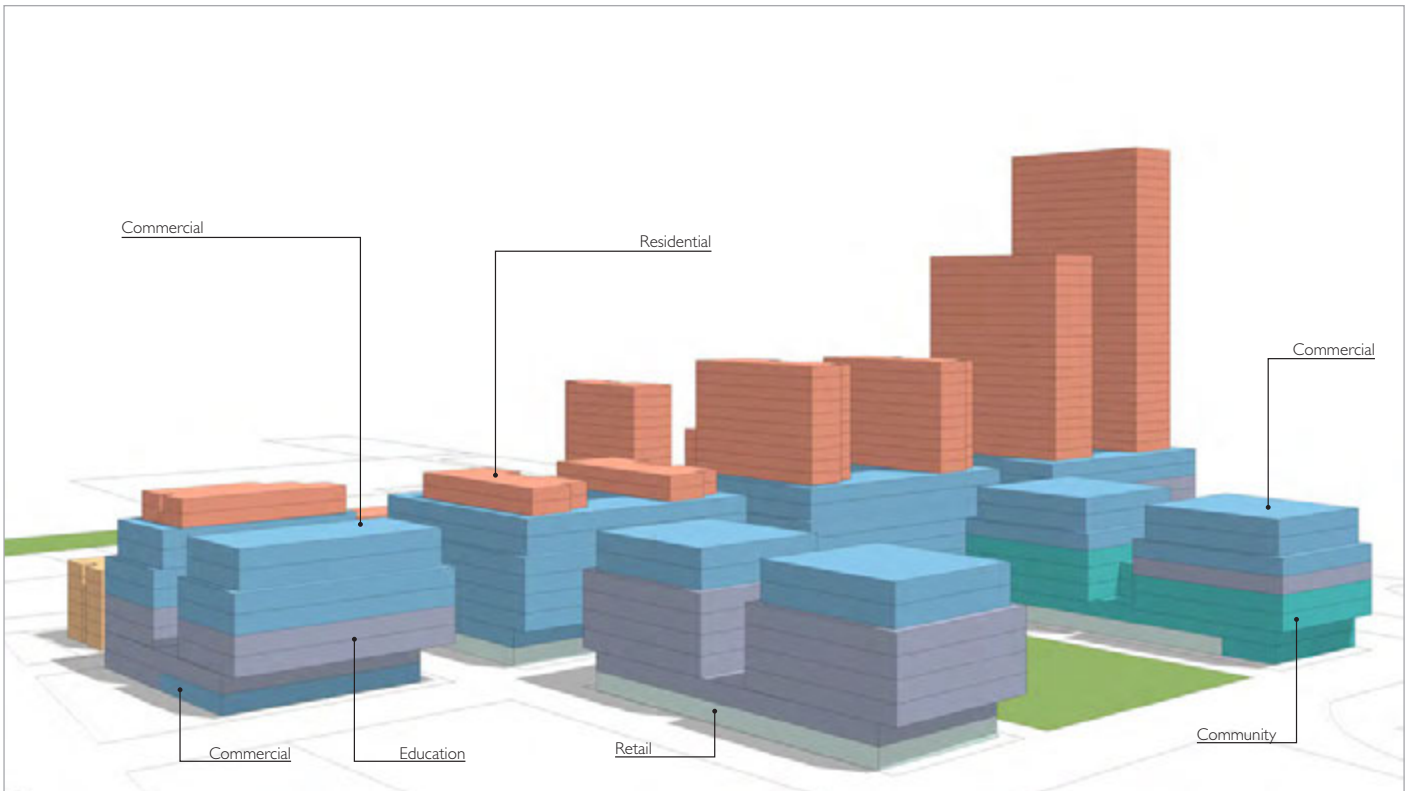
*As proposed by SOPA, this configuration utilises the topography of the site to deliver large contiguous lower ground levels of retail, with finer grain retail at the address to the street.

Central Precinct - Site GPT





Tested Built Form



Tested Built Form

Central Precinct - Site GPT

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Site	Storey	Use	GFA
	LGI-LG2	Retail	49,900m ²



Site	Storey	Use	GFA
40	1	Retail	1,851m ²
40	1	Community	436m ²
41	1	Retail	2,064m ²
46	1	Retail	3,108m ²
46	1	Commercial	1,284m ²
46	1	Education	808m ²
46	1	Temp Accommodation	597m ²
46	1	Residential	1,047m ²
47	1	Retail	3,720m ²
47	1	Residential	1,205m ²
48	1	Commercial	4,004m ²

Central Precinct - Site GPT

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



↑ Storeys 2

Site	Storey	Use	GFA
40	2	Community	2,289m ²
41	2	Education	2,064m ²
46	2	Commercial	3,030m ²
46	2	Education	2,103m ²
46	2	Residential	1,047m ²
46	2	Temp Accommodation	597m ²
47	2	Commercial	3,720m ²
47	2	Residential	1,205m ²
48	2	Education	4,004m ²



Site	Storey	Use	GFA
40	3-4	Community	4,845m ²
41	3-4	Education	4,374m ²
46	3-4	Commercial	6,045m ²
46	3-4	Education	4,117m ²
46	3-4	Residential	2,094m ²
46	3-4	Temp Accommodation	1,194m ²
47	3-4	Commercial	6,982m ²
47	3-4	Residential	2,411m ²
48	3-4	Education	7,040m ²

Central Precinct - Site GPT

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Site	Storey	Use	GFA
40	5	Community	1,247m ²
40	5	Education	1,176m ²
41	5	Education	2,187m ²
46	5	Commercial	3,023m ²
46	5	Residential	1,047m ²
46	5	Temp Accommodation	597m ²
47	5	Commercial	3,491m ²
47	5	Residential	1,205m ²
48	5	Education	3,520m ²



Site	Storey	Use	GFA
40	6	Commercial	2,423m ²
41	6	Education	2,187m ²
46	6	Commercial	3,023m ²
46	6	Residential	1,047m ²
46	6	Temp Accommodation	597m ²
47	6	Commercial	3,491m ²
47	6	Residential	1,205m ²
48	5	Education	3,520m ²

Central Precinct - Site GPT

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Site	Storey	Use	GFA
40	7-8	Commercial	3,869m ²
41	7-8	Commercial	3,454m ²
46	7-8	Commercial	8,667m ²
46	7-8	Residential	1,603m ²
47	7-8	Commercial	6,042m ²
47	7-8	Residential	1,714m ²
48	7-8	Commercial	7,040m ²



Site	Storey	Use	GFA
46	9-10	Residential	3,558m ²
47	9-13	Residential	10,328m ²
48	9-13	Residential	6,758m ²

Central Precinct - Site GPT

TESTED TYPICAL FLOOR PLANS (POSSIBLE CONCEPT SCENARIO)



Storeys 14-18/28

Site	Storey	Use	GFA
47	14-18	Residential	8,033m ²
48	14-28	Residential	20,273m ²



Site	Storey	Use	GFA
48	29-39	Residential	7,433m ²

Central Precinct - Site GPT



Solar and Ventilation: Storey 1-6



Solar and Ventilation: Storey 7-9



Solar: Storey 9-13



Solar: Storey 14-18



Solar: Storey 19-40

Central Precinct - Site GPT

LEASEHOLDER SUBMISSION

Request: To adopt a flexible urban structure for additional north-south and east-west connections through GPT's site and that connections should be identified as 'indicative', comprising a range of pedestrian linkages and shared streets.

Response: The Draft proposes a significant increase in density and activity within the Precinct. To achieve this, the Draft identifies a number of new streets throughout the Precinct to provide enhanced accessibility and permeability for pedestrians and vehicles, commensurate with the increased levels of activity and movement throughout the precinct.

The provision of the new streets within the GPT site is considered consistent with the objectives of the Draft.

Request: Expand the mixed use area to Figtree Drive and to the north and to allow residential uses within the expanded mixed use zone on Figtree Drive and the new north-south street.

Response: The Draft proposes a transition between commercial uses and mixed uses between two streets. This results in a narrow envelope within which to deliver residential buildings, directly interfacing and on the southern side of the future retail and commercial buildings.

The result is that the residential buildings cannot satisfy the solar access requirements of the ADG. The expansion of the mixed-use precinct to extend to Figtree Drive will provide more flexibility in the configuration of the commercial and residential buildings to ensure alignment with the requirements of the ADG.

Request: Amend the building heights for the Central Precinct to permit 25 and 35 storey buildings within the Draft and amend the SEPP Height of Building Map to increase the maximum heights from 74m to 90m and 102m to allow for variation in height in the Central Precinct.

Response: The proposed building heights within the Draft considers a transitional height plane to ensure that a certain proportion of solar access is maintained to the public realm and communal open space within the precinct.

Therefore the height controls within the Draft for the GPT Site are deemed appropriate to achieve the required GFA, solar access to the public realm of the new streets and Figtree Drive and to the communal open spaces of the adjoining residential sites.

Request: Extend the 4-8 storey variable street wall height to the main east-west street.

Response: The Draft describes that the streetscapes within the Central Precinct are "characterised by 8 storey built edges (2m setback above 6 storeys) with defined corner buildings". Figure 5.8 is consistent with this description. Variation and application of the 4-8 and 6-8 storey street wall controls is not explained.

Request: That there may need to be limited increases in FSRs within the central sites to provide for architectural diversity and variation in building heights in the order of an increase from 3.6:1 to a 4:1 FSR or alternatively to remove the FSR allocation map from the Draft.

Response: The Draft has been prepared in careful consideration of the capacity of existing infrastructure and the provision of any new infrastructure required by the anticipated intensification of uses and users within the Draft.

The Floor Space Ratios applied across the precinct have been calibrated to adhere to identified thresholds for transport infrastructure and the required levies to help contribute to the provision of future infrastructure.

Within that context, the central sites within GPT have a maximum permissible floor space ratio of 3.6:1 which is consistent with the intention of the Draft and associated infrastructure plan.

Request: Increase the floor plan control for residential floor plates above 15 storeys from 800m² GBA to 900m² GFA and to remove the requirement for a 40m separation between towers and require separation distances which are consistent with the Apartment Design Guide.

Response: The Draft proposes that for residential buildings, floor plates for levels above 15 storeys should not exceed 800m² GBA. In addition, the requirement to maintain a minimum 40m separation between tower buildings on neighbouring sites.

This control is intended to achieve slender, articulated and well spaced tower forms and as the testing has demonstrated it does not prohibit achieving the desired uses, mix and the satisfaction of the built form controls of the Draft.

CONCLUSION/RECOMMENDATION

The detailed testing of the site has revealed that due to a combination of the orientation of the site, the geometry of the site boundaries and the strict adherence to the controls is not achieving a desired built form or public domain outcome. In addition, the concept design is not achieving the required 70% solar access to dwellings as required under the Apartment Design Guide (ADG).

However, with a configuration of apartment sizes and mix per floor that differs from what the concept scenario has assumed (i.e. locating a lower number of larger apartments on the lower floors and south-west facing façades and a higher number of smaller apartments on the upper floors and north-east facing façades) it may be possible to satisfy the solar access requirements of the ADG.

Although it is not explicitly a built form control, consideration should be given to whether it is a desirable outcome, that a significant proportion of, if not all, larger apartments within each building do not achieve the required solar access under the ADG.

To achieve better conformance with the ADG, whilst maintaining the vision and objectives of the Draft, we recommend the following amendments to the GPT Site;

- Expand the mixed use area in Figure 5.7 to Figtree Drive and to the north and to allow residential uses within the expanded mixed use zone on Figtree Drive and the new north-south street.
- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.
- To amend the ground floor setbacks of wholly residential buildings to provide for a 2.5m ground floor setback from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.
- Consideration by the Authority and future owners of the public realm should be given to the provision of integrated basements and basements located underneath the public realm, particularly where new streets and open spaces are provided within a single leaseholding

GENERAL CONCLUSIONS/RECOMMENDATIONS

- That the requirement for 3 hours of direct sunlight in at least 75% of apartments should be removed and requirements for solar access and natural cross ventilation deferred to the controls within the Apartment Design Guide.
- To amend the ground floor setbacks of wholly residential buildings to provide for a 2.5m ground floor setback from the road reserve and footpath to ensure visual privacy of ground floor dwellings and an appropriate interface to the street.
- Consideration by the Authority and future owners of the public realm should be given to the provision of integrated basements and basements located underneath the public realm, particularly where new streets and open spaces are provided within single leaseholdings

