SJB Architects SJB Urban

Urban Design Report Talavera Road, Macquarie Park

112 Talavera Road, Macquarie Park, 2113

We create spaces people love. SJB is passionate about the possibilities of architecture, interiors, urban design and planning. Let's collaborate.

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Prepared for Meriton Group

Issued 15 November 2017



We create amazing places

At SJB we believe that the future of the city is in generating a rich urban experience through the delivery of density and activity, facilitated by land uses, at various scales, designed for everyone.

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Overview of the regional, urban and local context to provide an initial undestanding of the site. 1

1.1 Purpose of this Report

SJB have been appointed by Meriton Group to prepare an Urban Design Report for 112 Talavera Road, Macquarie Park. The purpose of this report is to test the development capacity of the site against the strategic context, existing planning controls, opportunities and constraints in a detailed and comprehensive manner, taking into account the future vision for Macquarie Park.

The report also considers the ability of future development on the site to achieve design requirements of SEPP 65 and the Apartment Design Guide (ADG), and the consolidated impact of development on surrounding land uses.

The outcome of the report provides a concept master plan for the site, which will form the basis of a Planning Proposal.

The analysis and options have been assessed against the context of current planning controls for the site and a suite of strategic planning documents, which include:

- A Plan for Growing Sydney 2014
- Draft North District Plan 2016
- Herring Road Priority Precinct Plan 2012
- Ryde Local Environmental Plan 2014
- Ryde Development Control Plan 2014

The concept master plan supports the planning proposal to amend the sites current FSR of 4.5:1 to a proposed FSR of 6.5:1 and maximum building height up to 200 metres.

The urban design report reinforces the planning proposal on the following grounds:

- The site is situated at the gateway of Macquarie Park, requiring a prominent/landmark built form
- The site is located within excellent proximity to public transport including bus, rail and the future metro
- The proposal will supply additional dwellings addressing the pressure on land zoned for housing purposes, offsetting the pressure to rezone vital commercial and employment lands
- The proposal will contribute to increased public benefit including site linkages, open space and pedestrian scale frontages
- The proposed controls facilitate unique built form outcomes, enhancing design excellence for the precinct



Figure 01: Aerial View of Site from the North-west - Distant City Views Visible in to the South-east

1.2 Strategic Context

A Plan for Growing Sydney

A Plan for Growing Sydney is the NSW Government's plan for the future of the Sydney Metropolitan Area over the next 20 years.

The site is located within Sydney's Global Economic Corridor. The corridor extends from Port Botany and Sydney Airport, Mascot through Sydney CBD, Macquarie Park, Parramatta and Sydney Olympic Park. These centres are playing a key role in providing increased density and development to keep pace with Sydney's growing population.

The site is located within the Herring Road Macquarie Park Priority Precinct. The Plan identifies the need to accelerate new housing in designated infill areas, investigate potential for urban renewal in and around corridors between Macquarie Park and Parramatta and match population growth with investment in infrastructure.

Draft North District Plan

The Draft North District Plan was released in late 2016. It defines a 20-year vision, priorities and actions for the North District.

The Plan outlines the need to create a sense of place, grow jobs and diversify activity in Macquarie Park. This includes improving urban amenity as the centre transitions from business park functions to a vibrant commercial centre providing an effective mix of commercial, residential, retail, health and education activities with a fine urban grain.

The Plan also identifies Macquarie Park as a Collaboration Area, which will provide a strong mix of liveability, productivity and sustainability drivers across different levels of government and private landowners.

Sydney Metro

The NSW Government has committed to delivering 31 metro stations and new rail extending from Cudgegong Road in Sydney's north west to Bankstown in Sydney's south west. The metro is being supported by the announcement of priority precincts and renewal corridors, which will facilitate additional housing, jobs and infrastructure.

The subject site is situated within the Macquarie Park and Epping Corridor, where opportunities to revitalise local areas are being planned for Herring Road and Macquarie Park.



1.3 Urban Context

The subject site is located in the suburb of Macquarie Park, located 15 kilometres north-west of Sydney CBD. The suburb is bound by Lane Cove National Park in the north and Epping Road in the south.

The suburb is transected by a series of key roads. Lane Cove Road provides linkages to Pymble in the north and Rhodes in the south, while the M2 provides connectivity to Sydney CBD.

Land north of the M2 comprises Lane Cove National Park, while land south of the M2 provides a number of key education, health and business related uses including Macquarie University, Macquarie Shopping Centre and Macquarie University Hospital.

Macquarie Park is defined by large scale business park and commercial developments south of Herring Road, while land north of Herring Road provides university campus facilities and student accommodation. The suburb transitions into traditional low density suburban dwellings south of Epping Road.

The suburb provides two train stations including Macquarie University and Macquarie Park located south of the site along Waterloo Road. The site is within a 400 metre walking catchment of Macquarie University Station and a 1.6km walking catchment of Macquarie Park Station, which will be served by train services 4 minutes in peak hour under its upgrade as part of the Metro.

Both stations are supported by a number of bus services connecting Macquarie Park to areas including Epping, Chatswood, North Sydney, Chatswood and Parramatta.

The suburbs broader urban context features a range a number of public parks and recreation facilities including North Ryde Golf Club, Gordon Golf Club, Lane Cove National Park, Blenheim Park and Waterloo Park.





1.4 Local Context

The Site

The subject site is an irregular shaped allotment, located at the corner of Talavera Road and the M2 Motorway. The site legally described as Lot 42 DP 1153360 and comprises a site area of approximately 1.953ha.

The site benefits from three frontages. It adjoins the M2 to the north, Herring Road to the east and Talavera Road to the south.

The site is currently developed with a multi-storey office complex and car parking. Perimeter trees and planting are located along the Herring Road and M2 boundaries, acting as a natural noise barrier.

A small water course runs under the site, which converges with Shrimptons Creek and Lane Cove River on the opposite side of the M2.

Site Interfaces

Land to the north on the opposite side of the M2 comprises Lane Cove National Park, while land to the south on the opposite side of Talavera Road is developed with Macquarie University Hospital and campus facilities.

Land to the east on the opposite side of Herring Road is developed with Meriton Serviced Apartments, while land to the west is developed with Fujitsu Australia Building.

The site is accessed via Herring Road and Talavera Road, which is shared with tenants in the existing office complex.

Surrounding Context

The site is located within excellent proximity to a number of key transport, education, business and retail facilities. The site is within a 400 metre walking catchment of Macquarie Shopping Centre, Macquarie University Station and Macquarie University Hospital.

Christie Road provides pedestrian and vehicular links to the opposite side of the M2 towards Lane Cove National Park.





Figure 04: Local Context and View Locations

1.5 Site Photos



View to M2 access road and down south-east Talavera Road with existing Meriton Serviced Apartments on the corner.



2 View from Herring Road looking north towards Talavera Road and west access road to Macquarie Centre carpark.



3 View from Talavera Road at intersection with Christie Road, looking south-east. Macquarie University Hospital is seen on the right and Fujitsu commercial building on the left, adjacent to the site.



5 View towards the south-east corner of the site, running along Talavera Road and the M2 access road.



6 View at signalised intersection towards existing commercial buildings at the south-east end of the site along Talavera Road.



(7) View of site from the south-west end, looking east down Talavera Road.



(9) View towards site from the south-east boundary, adjacent to the M2 access roads and Motorway.



10 View from Christie Road towards site and adjacent commercial building at the north-west boundary along the M2 Motorway.



(1) View to existing carpark and commercial buildings on site at the southwest boundary, adjacent to the Fujitsi commercial building.







View from Innovation Road to nature reserve and adjacent commercial building, located south of the site.



8 View of site across Talavera Road through the nature reserve, located to the south.



12 View through site from Talavera Road.

1.6 Precinct Context, Recent and Future Development

Macquarie University Station (Herring Road)

The Herring Road Priority Precinct was nominated by City of Ryde in 2012 as part of the NSW Government's Priority Precinct Program. The precinct was identified on the following basis:

- · Well serviced by public transport
- Strategically located close to the geographic centre of Sydney metropolitan region
- Key part of Sydney's Global Economic Corridor
- · Contains large number of landholdings for redevelopment
- \cdot An area with strong market demand for additional housing

The precinct was designed to deliver up to 5,800 dwellings by 2031, transforming the precinct into a mix of jobs, retail and educational opportunities supported by the future North West Rail Link and key road upgrades.

The subject site is located at the gateway of the precinct towards the M2. The Finalisation Report, prepared by Planning and Environment identifies this area should predominantly comprise taller buildings, concentrated at the corner of Talavera Road and Herring Road.

Macquarie Park Investigation Area

In March 2017, the Department of Planning and Environment announced new investigations for Macquarie Park. The investigations will seek to dentify opportunities for more homes, shops, restaurants and high quality public spaces within walking distance of the train stations.

The investigation was underpinned by a Strategic Employment Review of Macquarie Park, which identified that residential development could occur around key strategic locations to complement logical high rise commercial development. The proposal is consistent with this investigation, which relieves pressure to rezone key commercial lands to provide additional dwellings.

Recent and Future Development

A number of key sites are located within the Precinct, which have either recently been constructed, are DA approved, been recently approved at Gateway or being considered for future development. These sites are facilitating the transformation of Macquarie Park into a vibrant employment hub with strategically placed residential development.



Figure 05: Precinct Context and Key Local Development Sites



1.7 Demographics and Forecasts

Population and Housing Projections

By 2036 it is anticipated that NSW will experience a population growth of 2.71 million, placing pressure to provide housing in key locations that provide employment, education, recreation and leisure.

City of Ryde is expected to play a significant role in accomodating Sydney's growth. By 2036 Ryde is anticipated to cater for an additional 62,950 persons, which will require approximately 29,650 dwellings.

By 2036 Ryde LGA is anticipated to comprise largely persons aged 0-34, which will account for 34% of the total population, followed by persons aged 55-85+, comprising 28% of the population.

Between 2011 and 2036, Macquarie Park is forecast for the greatest increase in development of new dwellings in the City of Ryde, with an estimated 9,458 dwellings.

Macquarie Park Summary

A snapshot of Macquarie Park's 2016 demographic profile is provided below:

 Population Change in population (5 years) Annual average change Households Average household size Dwellings Dwelling occupancy rate 	8,172 1,629 4.55% 3,265 2.05 3,450 94.64
Dwelling occupancy rate	94.64

Travel

Based on the 2011 ABS Census, only 12.6% of residents living in Ryde used the train to travel to work, compared with 13.8% of Greater Sydney.

Train patronage is anticipated to increase alongside the rapid transformation of Macquarie Park. The new metro will provide services every 4 minutes in peak hour, which will likely see Macquarie Park transform into a more pedestrian friendly and transit oriented precinct.





Source: Planning & Environment 2016 NSW and Local Government Area Population and Household Projects, and Implied Dwelling requirements





Source: Planning & Environment 2016 NSW and Local Government Area Population and Household Projects, and Implied Dwelling requirements

Forecast dwellings and development Change between 2011 and 2036 Number Ryde (Top Ryde) +2,334 Ryde (South) +3,597 Meadowbank - Melrose Park +1,859 Macquarie Park

Gladesville - Tennyson Point

0 +1,000 +2,000 +3,000 +4,000 +5,000 +6,000 +7,000 +8,000 +9,000+10,000 Source: Profile ID 2017 Population and Household Forecasts, 2011 to 2036

+1.576



Forecast Dwelling and Development Change Between 2011 and 2036 (Top 5 Ryde Suburbs)



1.8 Existing Controls - Ryde Local Environmental Plan 2014



The subject site has height controls of 45m, and 90m, as

T1

T2

U1

U2

U3

U4

V

W

X

Ζ

AA1

AA2

AB1

AC

26

27.5

30

30.5

33

33.5

37

44.5

45

57

65

75

90

92

99

120

01 Height of Buildings Map

outlined in the Ryde LEP 2014.

Key

J

K

L

M1

M2

N1

N2

01

02

O3

Р

Q

R1

R2

S1

S2

9.5

10

11.5

12

12.5

13

14

15

15.5

16

18.5

19

21.5

22

23

24



Floor Space Ratio Map 02

Key

There is an FSR control of 4.5:1 placed on the subject site.





03 Land Zoning Map

The subject site is zoned as B4 Mixed Use.

Macquarie Park Corridor Precinct Map 04

The subject site is identified as being part of the Macquarie Park Corridor Precinct.



Source: Ryde Local Environmental Plan 2014 (Amendment No. 12, March 2017) - Height of Buildings Map - Sheet HOB - 004

Source: Ryde Local Environmental Plan 2014 (Amendment No. 12, March 2017)- Floor Space Ratio Map - Sheet FSR - 004

Source: Ryde Local Environmental Plan 2014 (Amendment No. 12, March 2017) - Land Zoning Map - Sheet LZN - 004

Key

(

01



Macquarie Park Corridor

Macquarie Park

Source: Ryde Local Environmental Plan 2014 (Amendment No. 1, September 2015) - Macquarie Park Corridor Precinct Map - Sheet MPC - 004

Site Analysis

Exploring the existing urban conditions and context, to assist in developing an appropriate urban response



Site Analysis

2.1 Open Space Network

Greater Context

The site is located within an extensive network of open space, consisting of sports and recreational facilities, bushland and reserves, as well as dedicated areas for public and private use.

Lane Cove National Park is located to the north of the site, wrapping around the motorway and major roads network to the east. The national park can be accessed via several walking and cycling trails that mostly run alongside the existing watercourse, primarily the Lane Cove River.

Other open spaces within the vicinity include a nature reserve that lies within the Macquarie University Precinct directly south of the site, and Christie Park across the motorway to the north-west.

H	Key Open Spaces:		
1.	Lucknow Park	13.	Christie Park
2.	Granny Smith	14.	Nature Reserve off
	Memorial Park		Talavera Road
3.	Kotara Park	15.	Elouera Reserve
4.	Marsfield Park	16.	Cottonwood Park
5.	Pioneer Park	17.	Lane Cove National
6.	Dunbar Park		Park
7.	Waterloo Park	18.	Lofberg Oval
8.	ELS Hall Park	19.	Bicentennial Park
9.	Macquarie University	20.	Tuckwell Park
	Community Garden	21.	Tunks Hill Piicnic Area
10.	Jim Campbell	22.	Macquarie Park
	Sportsfield		Cemetery
11.	Gwilliam Field	23.	Saint Crispens Green
12.	Vince Barclay Tennis		
	Courts		

	Site Boundary
	Underground Railway Line
	Train Station
	Public Open Space
	Sports and Recreational Space
	Bushland and National Parks
	Private Open Space



Figure 06: Greater Context : Existing Network of Open Space



Figure 07: Immediate Context : Existing and Potential Future Open Space Network

Immediate Context

- 1. Potential extending of open space across onto site with the inclusion of a through-site link.
- 2. The Macquarie Park Finalisation Report (May 2015) nominates Transurban to deliver a pedestrian link over the M2. However, there is opportunity within the site to link existing pedestrian paths south of Talavera Road with Christie Road, creating a cohesive and safe link across the M2.





Figure 09: Christie Park (No.14 Open Space Network Greater Context Plan Source: City of Ryde Council Website - Parks and Sportsgrounds - Christie Park Accessed from: http://www.ryde.nsw.gov.au/Recreation/Parks-and-Sportsgrounds/Find-a-Park-or-Sportsground/Christie-Park

Key Local Open Spaces

The images above are two key open spaces located within the immediate vicinity of the site. Future development on the site has the potential to respond to it's significant location within the local network of open spaces.

Redevelopment of the site offers the possibility for a better integrated open space network and improved amenity within the local context, particularly in regard to pedestrian and cycle connections, recreational opportunities, views and streetscape quality.

Site Analysis

2.2 Environment



Figure 10: Greater Context : Topography

Topography

The topography within the site's context is quite undulating, especially across the Lane Cove National Park located to the north and east of the site. The site is located on an incline along Talavera Road, which rises to the north-west and slopes down towards the south-east.

The terrain drops off to the north of the site at the edge of the M2 Hills Motorway and offers extensive landscape views to the National Park beyond. The site's relatively elevated location also offers an opportunity for distant city views to the south-east to be captured at high levels.



Source: Macquarie Park Floodplain Risk Management Study & Plan - Prepared by Bewsher for City of Ryde Council (Final Report published February 2011) - Figure 4.1- Flood Risk Precincts and Overland Flow Precinct, page 4

Flooding

The Macquarie Park Floodplain Risk Management Plan, prepared by Bewsher for the City of Ryde Council (2011) indicates a significant flood impact risk to the site and surrounding Macquarie Park-North Ryde area. The varied terrain and natural watercourses running through the area result in sections of considerably flood prone land.

The potential flood risks can be minimised by employing effective design and engineering mechanisms that align with the findings and recommendations presented in the Bewsher Risk Managment Plan and other relevant documents. Please refer to the Flood Impact Assessment prepared by Calibre Consulting for further details and recommendations.



Figure 12: Immediate Context : Views and Solar Access

Views and Solar

- 1. Good solar access, north facing
- 2. Views of city and harbour to south east
- 3. Landscape views to the north east



Figure 13: Immediate Context : Topography and Flooding Source: Macquarie Park Floodplain Risk Management Study & Plan - Prepared by Bewsher for City of Ryde Council (Final Report published February 2011) - Figure 4.1- Flood Risk Precincts and Overland Flow Precinct, page 4

Flooding and Topography on Site

- 1. Flood Risk Areas
- 2. Existing Watercourse beneath Site Culvert under M2 Motorway
- 3. Inclining Topography across Site

Please refer to the Flood Impact Assessment prepared by Calibre Consulting for further details and recommendations.

2.3 Movement and Access



Figure 14: Greater Context : Public Transport Connections

Public Transport Connections

The site is well-connected to public transport services, both existing and planned. The existing bus network runs along multiple routes that offer connections to key destinations within Macquarie Park and beyond to other areas of Sydney. The site is within the vicinity of several bus stops including one adjacent to the south-western boundary along Talavera Road, which provides services towards the city, Chatswood and other areas of Macquarie Park.

The site is situated within walking distance to Macquarie University Train Station and is near Macquarie Park Station, which are both included in the planned upgrade to the future Sydney Metro Sydneham to Bankstown line, anticipated for completion by 2024. The new metro will provide increased train services that will run every 4 minutes in peak hour. Direct services to the Sydney CBD and North Sydney will also be available once the later stages of the project are completed.

Figure 15: Greater Context : Vehicular Connections

Vehicular Connections

Within the greater context, the subject site is accessible by vehicles via a network of major and secondary roads.

The major perimeter roads surrounding the site include Talavera Road along the southern boundary and the M2 Motorway to the directly north. These routes are linked by the M2 access roads to the east and Christie Road to the west.

Other significant roads within the area include Herring Road, which runs perpendicular to Talavera Road, as well as Waterloo Road above the train line and the major route along Epping Road and Lane Cove Road, which continues north onto Ryde Road.

Please refer to the Transport Assessment completed by Arup for further details and recommendations.



Local Movement and Access

Traffic flow within the local area is managed with traffic lights or roundabouts located at key intersections. At the south-east corner of the site, Talavera Road forms a major signalised intersection with Herring Road. The traffic lights located at the junction of Talavera and Christie Road provide a second local crossing for pedestrians.

The existing vehicular access points to and from the site are currently located from all perimeter roads excluding the motorway, at the south-west, north-west and north-east corners. There are several dedicated pedestrian and cycle links across the Macquarie Park Centre, including a path leading from Talavera Road through the existing nature reserve within the Macquarie University Precinct, to the south of the site. Figure 17: Immediate Context : Movement & Acces

- Access and Movement on Site
- 1. Access for Service Vehicles
- 2. Vehicular Access to/from Site
- 3. On-site Access
- 4. Dedicated Cycle Path
- 5. Major Signalised Intersections

Site Analysis

2.4 Land Use & Amenity

The subject site is located within a B4 Mixed Use Zone that primarily comprises institutional, commercial, and retail uses, as well as some medium-high density residential buildings. The area also contains the Macquarie University Precinct, located to the south-west of the site across Talavera Road.

The site also falls within the Herring Road Activation Precinct, which is designated as an area for growth and redevelopment. The nearby commercial area identified to the south-east is also under investigation for additional growth and activation.

The site's location has access to considerable amenity and services within the local context. The Macquarie Shopping Centre is conveniently located within walking distance, providing a range of retail, dining and entertainment services. Several health, educational and other community facilities are found within the local area, including three childcare centres and the Macquarie University Hospital. The subject site lies within a well-integrated network of open spaces that provide a range of sport and recreational facilities.

Amenity and Services:





Site Analysis

2.5 Built Form



Figure 19: Local Context : Built Form Typology

Built Form Typology

The existing local built form consists primarily of educational and mixed use buildings within the Macquarie University Precinct and large retail and commercial footprints within the south-east quarter.

The clusters of residential buildings extend out from the centre and range from low to medium density housing, in addition to a few high density developments that have been recently built or are currently under construction.

A large commercial building is currently located on the subject site beside the Fujitsu commercial building, recently constructed on the adjacent north-eastern lot.

Figure 20: Immediate Context : Site Conditions Site Conditions

1. M2 motorway noise

2. Interface with neighbouring Fujitsu building + 20m offset





Figure 21: Existing Building Heights along Talavera Road and Herring Road within the vicinity of the Site

Existing Building Heights (m) - Ryde Local Environmental Plan 2014

The current LEP Height controls suggest the intention for a concentration of height along Herring Road, as a major street through the city centre.

There is a concentration of height at the Herring Road intersections with Epping Road and Talavera Road, adjacent to the subject site. The built form situated at these junctions have the potential for further uplift, acting as gateways for the Macquarie Centre Precinct.

There is also cluster of greater heights focused around the station and Macquarie Shopping Centre, marking the location of these key destinations.

The heights of existing buillings along Talavera and Herring Road are considerably lower than the maximum LEP height controls, highlighting the centre's potential for future redevelopment focused around key gateway and urban marker sites.

Existing Maximum LEP Heights:





Site Analysis

2.6 Combined Constraints

There are some restrictions to the site that should be considered and managed in the process of design and development. These include the following:

1. Proximity to Motorway

The potential visual and noise impact of the nearby M2 Motorway should be taken into account when considering future development.

2. Flooding and Topography

The topography and existing watercourse running across the site result in an area that is flood prone. A flood risk management strategy will need to be employed to address these issues. Please refer to the Flood Impact Assessment prepared by Calibre Consulting for further details and recommendations.

3. Movement and Access

Access to the site is somewhat restricted by existing traffic and road conditions. A traffic report has been prepared to address these issues and outlines appropriate recommendations to manage traffic. Please refer to the Transport Assessment completed by Arup for further details and recommendations.

4. Impact on Local Built Form

Potential impact on amenity to and by existing local built form, primarily in relation to views and solar access. This can be managed with a carefully considered design and testing as part of future stages.

5. Easement and Setbacks

The setback requirements, as outlined in the DCP and ADG, and existing easement across the site limit the development footprint.





Figure 24: Local Context : Combined Constraints

Site Analysis

2.7 Combined Opportunities

The unique conditions of the site present a number of opportunities that support a move towards uplift and redevelopment at this location. These include the following:

1. Views

The topography enables views to be captured from high levels across the site, including the rolling green landscape to the north and distant city views to the south-east.

2. Open Space Connection

The site's location between existing open spaces may be enhanced with the addition of a through site-link. This would provide additional connectivity to high amenity areas for both the site and the surrounding context.

3. Activation Precincts

The site's significance is evident in its location within the Herring Road Priority Precinct and in close proximity to the Macquarie Park Investigation Area.

4. Public Transport

There is good accessibility, with bus routes and stops positioned alongside the site and Macquarie University existing train/future Metro Station located within walking distance.

5. Local Built Form

The local built form primarily features large footprint commercial and mixed use buildings. The Meriton Serviced Apartments are located across from the site along Talavera Road, followed by the site of a potential future high density development, currently undergoing assessment as a planning proposal.

6. Local Amenity and Services

There is excellent access to amenity and services, including the Macquarie Shopping Centre and Macquarie University Hospital as well as an extensive network of open spaces.





Analysis of the opportunities and constraints on the site, and the design principles that respond to the site's unique characteristics.



3.1 Strategy in Context

Macquarie Park has significant strategic importance to Sydney's growth.

Located within Sydney's Global Economic Corridor, the centre is Sydney's second largest office market, surpassing North Sydney in 2013. Under a Plan for Growing Sydney, it recognises the need to promote efficient land use outcomes and urban renewal around the centre.

Given its prominence and contribution to Sydney's economy, the centre will also become increasingly competitive. This requires Macquarie Park to provide a balance of housing and public amenity without compromising on its employment and land use assets.

Like many priority precincts and strategic centres, the prominence of gateway buildings is critical to a legible and cognitive environment. Macquarie Park shares common urban characteristics with other centres, including Chatswood, St. Leonards and Parramatta, where the skyline is being defined by taller buildings punctuating previous height controls, and marking the location of transport nodes and key facilities.

The diagram opposite identifies the heights of key buildings, both future and existing, from major strategic centres across Sydney. The height proposed for the site will sit appropriately within the context of these major centres and establish Macquarie Park as one of Sydney's key precincts for both employment, recreation and living.







- Built/Under Construction
- Approved
- Proposed
- --- Maxmimum Height Proposed on Subject Site, Macquarie Park

3.2 Proposed Future Macquarie Park Skyline

The planning proposal seeks to increase the FSR and building height on the subject site. There is design merit to this proposal for a number of reasons, these include:

- · Provide additional housing in a strategically located area, without infringing on any existing commercial/business development land
- · Absorb future housing demand into a concentrated part of the precinct that is already zoned for housing purposes
- · Facilitate more efficient building footprint and separation across the site
- · Redistribution of building mass away from Talavera Road and towards the M2 Motorway
- · Tall and oval shaped towers enhance public and resident amenity, including solar access, building separation and views to key landmarks
- · Podium elements can reduce perceived bulk of any increased height through sensitive street frontages
- Facilitate design excellence through diverse building typologies, forms and architecture
- · Create a built form that functions as a gateway to the precinct, assisting with precinct legibility
- Taller towers enable less intensive use of the ground plane, creating better opportunities for open space and accessibility
- Increased public benefit, including affordable housing (consistent with Draft District Plan), open space amenity and connectivity over the M2.

The sections opposite indicate the proposed future skyline for the Macquarie Park Centre, along both Talavera Road and Herring Road. The existing maximum LEP height controls are shown in conjunction with key areas that are strategically located for potential future uplift, including the subject site at the junction of Herring Road and Talavera Road.

The heights of key buildings in other major centres are also referenced to relate back to the significant role of Macquarie Park, as a key strategic centre within the greater Sydney Context.

Key Building Heights in Major Sydney Centres







Figure 02: Section A - Herring Road, Macquarie Park : Existing Permissable Heights and Proposed Future Uplift

- (4) Aspire Tower, Parramatta, 336m
- (1) Centrepoint Tower, Sydney CBD, 309m
- (2) Crown Casino, Barangaroo, 271m



Figure 01: Section B - Talavera Road, Macquarie Park : Existing Permissable Heights and Proposed Future Uplift

3.3 Sydney Centres with FSR 7:1+

The diagram opposite identifies key centres throughout Sydney with signifcant maximum Floor Space Ratio controls that are comparable to that proposed on the subject site in Macquarie Park.

The range of existing and future Maximum FSR controls for key centres would indicate that the proposed uplift for Macquarie Park is appropriate within the greater Strategic context of a growing Sydney.

Major Centre	Maximum FSR
Macquarie Park	6.5:1
Blacktown	8.5:1
Merrylands	9:1
Parramatta	12:1
SOPA	8:1 - 12:1
Rhodes	9.3:1
Chatswood	7:1 - 8:1
St Leonard's	17:1
Sydney CBD	7:1 - 11:1
Kings Cross	5-7:1
Bondi Junction	8:1
Hurstville	9:1

Maximum FSR Controls for Key Centres across Sydney:

Key	
\bigcirc	Site Location
	Renewal Precincts
****	Railway Line
Ο	Major Centres
	Centres with FSR 6:1 and over



Figure 1.1.1 Sydney Metro-Wide Plan

3.4 Strategy for Uplift



1. Height Transition along Talavera Road

Under the current planning controls, the massing on the site is distributed towards Talavera Road, which would establish a solid wall of development. As a consequence, development at this location would result in an insensitive transition to university and campus facilities on the opposite side of Talavera Road, which are pedestrian scaled.

2. Overshadowing Impact

5. Proportions and Scale

The massing along Talavera Road would result in an imposing and undesirable 'wall of shadow', which would impact the public domain and university areas located to the south.

3. Response to M2 Motorway

The proposed height would be placed towards the M2 Motorway. Under current planning controls, the site permits a maximum building height of 45 metres on the northern boundary, which does not adequately respond the proportion of the M2 Motorway. Taller buildings at this location would be able to minimise dwellings impacted by noise, light reflection and establish definable building forms.





The proposed height would permit a range of building typologies, forms and features. Tall and oval shaped towards can be appropriately oriented and sited to ensure generous building separation, solar access and views to prominent features. Under the current controls, height would unlikely result in adequate separation of dwellings, resulting in reduced amenity.



The proposed height would be offset by tall towers,

frontages along Talavera Road and Herring Road.

supported by a podium element. This would reduce the

perceived scale of development and provide human-scale



6. Strategic Gateway Site

The site benefits from three frontages - M2 Motorway, Talavera Road and Herring Road. This lends itself towards having a more prominent presence within the streetscape, specifically at the gateway of Macquarie Park. The site is strategically placed to accommodate higher built form.





7. Macquarie Park Skyline

Permitting additional height would allow the site to contribute towards the Macquarie Park skyline. The site is generally located on a higher plane within the Macquarie Park precinct. High points should be utilised with unique building forms allowed to enhance the skyline.

3.5 Urban Design Principles

Based on our understanding of the site and its broader urban context, we have distilled several key urban design principles that should be applied to any future development on the site.



Movement + Access

Movement within and around the subject site should be easy to navigate with pleasant and attractive streetscapes.

Pedestrian access is a key priority, particularly to open space areas that are readily accessible from residential buildings. It is essential that buildings are sited to ensure efficient connections through and around the site, reducing travel distance to transport and services.

Vehicle and pedestrian access points should be clearly separated to improve pedestrian experience. Vehicular access points should be minimised near major intersections at Talavera and Herring Road to ensure pedestrian comfort and safety.





The redevelopment of the site will embody sustainability, not only in financial terms, but also through connections to public transport, open spaces, services, and provision of varying building forms.

It is important that the site is integrated into the transformation of Macquarie Park as a vibrant mixed use precinct, where attractive public open spaces and streetscapes along Talavera and Herring Road encourage pedestrian movement and complement workplace amenity.

In addition, the use of public and active transport should be facilitated through the provision of bicycle parking, cycle lanes, and safe and comfortable routes to the station.



Density

The density of development within the site is an important contributor to activating the public domain and spaces, maximising access to the station and services, and buffering undesirable noise and activity along the M2 Motorway.

The housing choice offered by this scale of development, within such close proximity to transport and employment, should complement the location of the site as a gateway into the precinct. The location of the site lends itself to pursue taller built form as a definable element in the precinct skyline.

While a higher density brings positive outcomes, it is also important that the proposal responds to its context in terms of traffic, access and overshadowing. Density should be consistent with the role of centres for example Chatswood, St Leonards and Sydney Olympic Park.

A key component of any successful mixed use development is active, guality and accessible public open spaces, where residents can build relationships with neighbours and facilitate interaction within the public domain. This is even more important in higher-density communities, where private spaces are limited.

Key locations on Talavera and Herring Road frontage should establish a sense of place and arrival through creation of a plaza or square. This should be complemented by public domain elements including lighting, seating and shade.

The orientation of buildings should carefully consider passive surveillance, views, overshadowing of spaces, solar access and natural ventilation to individual dwellings.



Amenity



Podium

It is important to consider the scale and bulk of the built form in relation to pedestrians. Podium elements are an effective way of ensuring high density areas respond to fine grain and human scale interactions with the street.

Podiums should consider the relationship to primary frontages to create a permeable street wall at human scale (approximately 3-5 storeys). Podium levels offset the perceived bulk of taller buildings and provide comfortable scale for pedestrians. Additionally, any above ground parking should be sleeved with uses; this avoids presenting blank facades.

Separation of buildings can be used to break up the bulk of the built form and create opportunities for gathering spaces. Tall and slim buildings have the ability to provide greater separation and enhance urban amenity by creating efficient footprints.



Diversity

Varying urban conditions throughout the locality should be embraced, as they will ensure a variation in built form, scale and housing typologies. Common urban design principles should not manifest into common architecture. A range of materials, design approaches and styles should be encouraged to create interest in the streetscape and character.

Design responses to particular urban conditions, including the M2 Motorway, adjoining commercial uses, the existing watercourse running through the site and proximity to transport should be encouraged, and allowed to manifest in unique design outcomes.

Diversity through podium elements can provide elevated communal open space with increased solar access, security and separation from noise pollution.



Character

Development should make a positive contribution to the future character of Macquarie Park, building on and enhancing local sense of identity. It is essential that new development improve amenity within the existing precinct to satisfy future residents and employment satisfaction. All proposed buildings will assist with defining a new character for a modern Macquarie Park, responding to the need for density and making it a competitive place to both live and work.

Existing ecosystem and river systems around the site and towards Lane Cove River should be celebrated and complemented by passive and active recreation opportunities where appropriate.

Safety

Set



'Safer-by-Design' principles will be implemented into the design of the built form, and within both the public and private realms of the development.

Setback of built form, adequate lighting, elimination of blind spots, ground level entries and passive surveillance are strategies that will be taken into consideration throughout the design process.

3.6 Concept

From the principles, the key ideas of the scheme are described in the concept diagram as follows:

1. Height

A diverse range of building heights can be accomodated throughout the site, in consideration of it's position as a gatway to the precinct.

2. Edges and Interface

The Talavera Road frontage should enhance pedestrian scale interactions, while the M2 Motorway frontage should be used as a buffer to shield the site from noise and traffic conditions.

3. Open Space

A variety of open space typologies should be provided with optimised exposure to sunlight. Access to these spaces by local residents should be maximised, allowing for passive surveillance and activation.

4. Built Form

Built form should contextually respond to surrounding buildings as well as the precint as a whole.

5. Amenity

Views and solar access within the site should be enhanced and not negatively impacted around the site

6. Connectivity

Linkages should be established with exisiting networks, particularly with University Creek, and towards Macquarie University station and bus stops.

- -> Primary pedestrian routes
- ••• Secondary pedestrian routes
- ••• Future link over M2, location TBC by others
- Landscape buffer to M2
- Activation at podium edge
- Podium massing
- Private communal open space
- Public open space



3.7 Design Response

This review has tested the site's capacity to be developed, as a compliant scheme and a proposed alternative (non-compliant) scheme. The merits of each outcome, based on site specific design concepts, are analysed in the following pages.



Compliant Scheme

The compliant scheme consists of six tower blocks arranged around a central communal open space. Towers range from 12 to 28 storeys, with taller towers fronting Talavera Road, as per LEP height controls.

Proposed Alternative Scheme

The proposed scheme consists of two podiums separated by a central open space, and four slender towers ranging from 27 to 60 storeys.

Height

Site as a gateway into the precinct



Compliant:

Existing height controls (90m along the southern boundary, 45m along the north) limits the site's potential to become a definable gateway for the precinct.

Proposed: An increased height limit will create a definable gateway with diverse and visually prominent building forms.

Edges + Interface

Frontages should relate to their specific conditions.



Compliant:

The current controls will result in long massive built forms oriented towards Talavera Road, creating an undesirable streetscape dominated by 25-30 storey blocks.



Proposed:

Redistribution of massing towards the M2 will reduce bulk along Talavera Road and allows for human scale street edge interaction at ground level, while forming a buffer against M2 Motorway conditions.

Open Space

Establish variety of open space typologies to optimise exposure to sunlight and maximise access by local residents.



Compliant:

A compliant scheme will result in a lack of dynamic and varied open space arrangements, due to generic building forms. Solar access is restricted due to massing surrounding the central communal open space. (Winter solstice solar access shown in diagram)

Proposed:

The proposed scheme has the ability to provide functional and dynamic open spaces across different building elements, including a public open space as recommended by the Macquarie Park Finalisation Report (May 2015). Amenity is also enhanced by raising communal open spaces, improving solar access. (Winter solstice solar access shown in diagram)


Design Strategy

Built Form

Built form should respond to its boundaries and positively contribute to the precinct skyline



Compliant:

Existing controls will result in a scheme that lacks building diversity and height variation. This results in an inability to adequately address the M2 Motorway with appropriate height.

Proposed:

Diverse building typologies, including podium and tall slim oval towers, will reduce the 'wall of shadow' and perceived bulk. Efficient use of building footprint and building height creates a distinctive skyline for Macquarie Park.



Vera Road

Design Strategy

Amenity

Enhance views and solar access within and around the site



Compliant:

The compact built form reduces building separation, creating a 'wall of shadow' and negatively impacting public amenity. Outlook into and out from the site is also limited.

Refer to Section 5.2 and 5.3 (pages 47-48) for Compliant Scheme shadow study, which details the extent of shadows cast during Winter and Summer Solstices.

Proposed:

Height in combination with a podium facilitates the development of slender building forms, which provides optimum tower separation and better residential amenity. Shadows are thinner and move quicker throughout the day.

Refer to Section 5.4 and 5.5 (pages 49-50) for Proposed Scheme shadow study, which details the extent of shadows cast during Winter and Summer Solstices. .



Design Strategy

Connectivity

Provide logical links to open space, transport and amenity



Compliant:

Massing along Talavera Road limits opportunities for pleasant site linkages, addresses and entries.

Proposed: The proposed scheme will enhance opportunities to establish through site linkages and preserve areas for future connections across the M2 Motorway. Opportunities are also maximised for street addresses.



4.1 Illustrative Master Plan



4.2 Section A



4.3 Section B and C



4.4 Section D and E





5.1 DCP Compliance



Towers to have max. 1,100m² floorplates

- Building Separation
- ←→ Compliant DCP Setback
- \longleftrightarrow Non-compliant DCP Setback

















12:00 pm

Shadow cast





5.3 Shadow Analysis: Summer Solstice (21 December) - Compliant

1:00 pm

2:00 pm

3:00 pm



12:00 pm

Shadow cast



















Shadow cast

[___] Extent of shadow cast by compliant scheme



9:00 am 10:00 am 11:00 am En l

5.5 Shadow Analysis: Summer Solstice (21 December) - Proposed

1:00 pm

2:00 pm

3:00 pm



Shadow cast

[___] Extent of shadow cast by compliant scheme



Appendix: Drawings













Illustrative Master Plan

0 5 10 15 20 25

Scale 1:1000@A3



Project number 5633 Project name Talavera Road PP

Project address 112Talavera Road Client Meriton Group

Key
Building Envelope Indicative Tower Locations

----- Site Boundary







Project name Talavera Road PP

Meriton Group







Study Section - M2 Frontage



10

Project number 5633 Project name Talavera Road PP

Project address 112Talavera Road Client Meriton Group







Study Section - New Park

0



Project number 5633 Project name Talavera Road PP Project address 112Talavera Road Client Meriton Group



- Residential
- Retail/Commercial
- Parking





Photomontage - View Southeast along the M2

Scale Not to scale



Project number 5633 Project name Talavera Road PP

Project address 112Talavera Road Client Meriton Group

Key Proposed massing Max. LEP Building Heights





Photomontage - View Southwest along Herring Road

Scale Not to scale Project number 5633 Project name Talavera Road PP

Project address 112Talavera Road Client Meriton Group

Key Proposed massing

Max. LEP Building Heights





Photomontage - View North along Herring Road

Scale Not to scale Project number 5633 Project name Talavera Road PP

Project address 112Talavera Road Client Meriton Group

Key Proposed massing Max. LEP Building Heights



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We create spaces people love SJB is passionate about the possibilities of architecture, nteriors, urban design and planning. Let's collaborate.

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