

### **Macquarie Park Commerce Centre** Macquarie Park Station

Waterloo Road

Architectural Design Statement S10758 September 2010

### **Typical Level Plan**

Study 3 - LEP 137 - Full utilisation of FSR control to test resultant height

Scale 1:1000

2

This study tests what FSR would result from an envelope that fully utilises the permitted height of LEP 137 whilst complying with setback controls, desired through-site links and public space. The scheme produces a GFA of 76,390sqm, resulting in an FSR of 4.7:1

Whilst the scheme complies with height, setback and other built controls, it exceeds the allowable FSR.





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Study 4- LEP 2010 - Full utilisation of height control to test resultant FSR

Scale 1:1000

This study tests what FSR would result from an envelope that fully utilises the permitted height of LEP 2010 whilst complying with setback and other built controls.

The scheme produces a GFA of 73,430sqm, resulting in an FSR of 4.5:1

Whilst the scheme complies with height, setback and other built controls, it exceeds the allowable FSR of 2.32:1, demonstrating the disconnect between the primary controls.





height definition (Ryde LEP 2010)

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**Typical Level Plan** 

Study 5 - LEP 2010 - Full utilisation of FSR control to test resultant height

Scale 1:1000



This study tests what heights would result from an envelope that fully utilises the permitted FSR of LEP 2010 whilst complying with setback and other built controls.

The permissible FSR of 2.32:1 produces a GFA of 37,740sqm and building heights of only 4 & 5 storeys, failing to realise the height potential of the site. Importantly, this resultant FSR is less than that achievable from the previous LEP 137 as LEP 2010 has no provision for bonus FSR. Whilst the scheme complies with FSR, setback and other built controls, it only releases about half of LEP 2010 permissible height.





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#### **Typical Level Plan**

Study 6 - Macquarie Park Corridor Amendment 1 -Full utilisation of height control to test resultant FSR Scale 1:1000



This study tests what FSR would result from an envelope that fully utilises the permitted height of Amendment 1 whilst complying with setback and other built controls.

The scheme produces a GFA of 81,147sqm, resulting in an FSR of 4.98:1 Whilst the scheme complies with height, setback and other built controls, it exceeds the allowable averaged FSR of 3.88:1, demonstrating that the disconnection between the height and FSR controls prevails in Amendment 1, contrary to the LEP & DCP objectives.





height definition (Ryde Planning Scheme Ordinance) "height" of a building means the distance measured vertically

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#### **Typical Level Plan**

Study 7 - Macquarie Park Corridor Amendment 1 -Full utilisation of FSR control to test resultant height

Scale 1:1000

0

This study tests what heights would result from an envelope that fully utilises the permitted FSR of Amendment 1 whilst complying with setback and other built controls.

The permissible averaged FSR of 3.88:1 produces a GFA of 63,288sqm and building heights of only 6 to 8 storeys. Importantly, the site specific application of the Incentive FSR in Amendment 1 results in the greatest height being achieved at the corner of Coolinga Street and Giffnock Avenue and the least height around the station.





height definition (Ryde LEP 2010) building height (or height of building) means the vertical distance between ground level (existing) at any point to the but excluding communication devices, antennae, satellite

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### **Typical Level Plan**

### Study 8. Proposed Envelope

Scale 1:1000

### 0

The proposed development envelope adopts the height controls of Amendment 1 along with setbacks and the majority of controls identified in Macquarie Park Corridor DCP 2010. The scheme creates the desired through site links and Civic Plaza to Waterloo Road. Building separation has been reduced from that of the previous studies to 15 metres along the Civic Plaza frontage which, due to the north facing orientation, will ensure sufficient daylight penetration to these landscaped courts, provide adequate visual separation from within the buildings and also create legible through site access from the Civic Plaza.

The envelope produces a GFA of 83,368sqm resulting in an FSR of 5.11:1 which, whilst exceeding the proposed FSR of Amendment 1, achieves the Objectives of the LEP by increasing height and density around the Macquarie Park Station, respects built form controls and creates permeable public space.

#### Area Schedule





### **Macquarie Park Commerce Centre**

Waterloo Road Macquarie Park

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Design Description Basement

### >Basement Carpark

The carpark L-shape design is suitably located to allow for close access to each individual building lift core. Hence, the parking is generally located below the buildings over.

The carpark is entered off Giffnock Avenue and is ramped at the entry to allow for clearances with service vehicles going to the loading dock off to the right hand side, regular vehicles proceeding straight to the lower parking levels. The loading dock will service each building via a service corridor with a number of additional parking spaces allocated to couriers located at first basement level for smaller delivery vehicles. There is also provision for bicylce parking and change rooms on the first basement level.

The typical carpark level is arranged with double loaded aisles where possible to provide the most efficient layout of cars within the basement. A centrally located ramp allows for access to the lower levels and efficient aisle design will provide legible and effective vehicle circulation.

Shuttle lifts per building core, will provide the lift service between the basement levels and the ground floor.





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Design Description Ground Plane

### Ground Plane Concept

The proposal's ground plane concept provide for an expansive, linear urban Plaza along Waterloo Road that terminates in the large Station Plaza. The Station Plazas acts as an entry forecourt to the signature Building A at the corner of Lane Cove and Waterloo Roads while the linear landscaped civic plaza along Waterloo Road becomes the entry forecourts to Buildings B & C. The combination of building lobbies and smaller retail tenancies provide active ground floor uses which are setback within a colonnade along the Waterloo Road frontage.

A taxi drop-off lane will be introduced along Waterloo Road to provide a formal site entry and safe visitor arrival area to serve the buildings.

Coolinga street with a reduced setback to meet Macquarie Park Corridor DCP 2010 requirements provides an active streetscape arrangement for smaller retail and building lobbies. Coolinga Street frontage is located one-storey lower to manage the site falls and ensure active uses are maintained.

The building facades at ground level will be glazed to promote observation, interaction and security. The ground floor levels of the buildings will be raised marginally from the existing to cope with required flood levels but equitable access for people with disabilities will be assured.

The vehicle entry and service vehicle access is off Giffnock Avenue in accordance with Macquarie Park DCP 2010.

Landscape links between buildings provide through-site connections for public and private thoroughfare. These links arrive at a significant urban park for recreation and amenity for occupants of the buildings. To manage the site falls a series of terraces and steps allow for connection between the upper and lower ground levels within the development.









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Precedent Images Through-site Link

The following precedent images outline our design intent for the proposed courtyards between the buildings in the development. They describe a publicly accessible space with abundant natural light with casual seating, planting to provide an attractive destination for public and building occupant recreation and amenity.











### Macquarie Park Commerce Centre

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Design Description Tower

#### >Masterplan

The buildings have been located on the site with respect to the following criteria:

- solar orientation to ensure adequate daylight to the floorplates;

- rectilinear geometry to reinforce the existing and future urban street networks of the Macquarie Park precinct;

- minimum of 1850sqm floorplates to suit future tenant requirements;

- optimum street frontage to maximise exposure and building address;

- 15m building separation to maximise natural light to the floorplate and ensure adequate daylight to the courtyard spaces between buildings;

to the courtyard spaces between buildings;

- large, open, landscaped park area for recreation and amenity;

- 10m building setback along Waterloo Road for Civic Setback in accordance with Macquarie Park Corridor DCP 2010:

- 22m setback for Station Plaza;

- 5m rear and side setbacks;
- zero setback along Coolinga Street:

The buildings have been designed with large, rectilinear, contiguous, open floorplates to maximise future tenant fitout flexibility and meet the needs of the current workplace environments. Large structural spans in both directions minimise internal columns and the centrally located core consoildates the building servicing requirements and allows for equitable travel distance to bathroom facilities and lifts to promote interraction between building users.

There are opportunites in Buildings B, C & D for central atria to provide additional natural light and enhance vertical connection between floors.

The signature building (Building A) at the corner of Waterloo Road and Lane Cove Roads will have an increased height to create a 'gateway' building that defines the centre of the Macquarie Park precinct to reinforce the significance of the Station Plaza.

#### >Façade

The facade strategy for the commercial development at Waterloo Road evolves from the response to the site's orientation & address, context & view potential, contemporary design, technology & innovation to provide an expressive architectural language of the proposed buildings.

Each building facade will have a shading strategy that specifically responds to their orientation and solar impact. This may include adjustable horizontal of vertical louvres or screening to optimise the shading performance of the facade whilst delivering depth and articulation to the elevations. This strategy creates a highly specific design response to the location, orientation of the building, and the clients desire for a dynamic world class building for the Macquarie Park.

The base of the building will be setback at ground level to provide colonades that provide a degree of human scale to the buildings and provide shelter in adverse weather for the entries and retail areas of the development. Awnings will be provided along Coolings Street where minimal setback is required.

The ground floor facades will have full height glazing to ensure visual interraction is achieved along the though site connections to encourage activation and public use.







#### >Environmentally Sustainable Design

The proposed envelope is capable of achieving a high environmental rating at the detailed design phase. The developer is targeting a Five Green Star Rating for the buildings. Specific environmental benefits that will be explored will include natural light and ventilation to reduce energy consumption, orientation specific sun shading to minimise heat gain, low temperature VAV or chilled beams, rainwater harvesting, filtration and recycling, solar water heating, and low embodied energy in materials.





### Macquarie Park Commerce Centre

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Precedent Images Tower

The following precedent images outline our design intent for the proposed development. They describe the building form as a series of glazed articulated volumes.











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View Analysis from Key points

1. View of proposal looking West



2. View of proposal looking South









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Strategic Views Photomontage looking south from Lane Cove Road

View from Lane Cove Road









Waterloo Road Macquarie Park

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Strategic Views Photomontage looking north from the Epping Road overpass

View from Epping Road









Waterloo Road Macquarie Park

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Strategic Views Photomontage looking west from Waterloo Road

View from Waterloo Road





Approved Mirvac Development envelope





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Masterplan Staging Diagrams Stage 1



The first stage of the development will include the construction of Buildings C & D and will include a partial construction of the basement. The loading dock and vehicle ramping will be included in this initial stage to allow for suitable servicing of the buildings and lower level basement access.

Future Building Outline
Buildings to be demolished

Building to be retained





Stage 1 Typical Level Plan



Stage 1 Typical Basement Level Plan





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Masterplan Staging Diagrams Stage 2



The second stage of the development will create an additional commercial building in the centre of the site to complete the Civic Plaza frontage along Waterloo Road. The basement will be extended to provide additional parking under Building B.



Buildings to be demolished





Stage 2 Typical Level Plan



Stage 2 Typical Basement Level Plan





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Masterplan Staging Diagrams Stage 3



The final stage will involve the construction of the signature Building A and it's respective basement. This will complete the Station Plaza area and hence the development as a whole.

Future Building Outline

Buildings to be demolished



Stage 3 Typical Level Plan



Stage 3 Typical Basement Level Plan





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### appendices

- 1.0 Architectural Drawings
- 2.0 Schedule of Areas
- 3.0 Landscape Plan
- 4.0 Shadow Diagrams

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PA02-001 Basement Level 001 Plan

Scale 1:1000



