NSW GOVERNMENT | Planning & Infrastructure

MAJOR PROJECT ASSESSMENT:

Concept Plan (MP 10_0112) and Project Application (MP 10_0113)

Mixed Use Development at 110-114 Herring Road, Macquarie Park

Proposal by Urbis Pty Ltd on behalf of Stamford Property Services Ltd

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

September 2012

ABBREVIATIONS

CIV	Capital Investment Value
Department	Department of Planning and Infrastructure
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning and Infrastructure
EA	Environmental Assessment
EP&A Act	*Environmental Planning and Assessment Act* 1979
EP&A Regulation	*Environmental Planning and Assessment Regulation* 2000
EPI	Environmental Planning Instrument
GFA	Gross Floor Area
MD SEPP	*State Environmental Planning Policy (Major Development)* 2005
Minister	Minister for Planning and Infrastructure
PAC	Planning Assessment Commission
Part 3A	Part 3A of the *Environmental Planning and Assessment Act* 1979
PEA	Preliminary Environmental Assessment
PFM	Planning Focus Meeting
PPR	Preferred Project Report
Proponent	Stamford Property Services Pty Ltd
RMS	Roads and Maritime Services
RtS	Response to Submissions

Cover Image: PPR February 2012

EXECUTIVE SUMMARY

Stamford Property Services Pty Ltd is seeking concept plan and stage 1 project approval for a mixed use development at 110 - 114 Herring Road, Macquarie Park within the Ryde LGA. The site is located at the southern entrance to Macquarie Park on the corner of Epping and Herring Roads. The site is zoned B4 mixed use under Ryde Local Environmental Plan (LEP) 2010. The proposed uses are permissible within consent.

The exhibited proposal sought concept plan approval for a total of 56,912m² GFA (2.54:1 FSR) including seven building envelopes ranging in height from 4 - 22 storeys, up to 626 apartments; 1,100m² of commercial/retail floor space; a total of 790 car parking spaces on street and within the basement levels; internal road network; and 10,506m² of open space. Stage 1 project approval was also sought for demolition and excavation, construction of buildings C, W, H and Y, the entire basement car parking, internal roads and the central park and swimming pool.

The EA was exhibited for 36 days between 10 August 2011 and 14 September 2011. The Department received 7 submissions from public authorities, including Ryde City Council and 21 public submissions (16 of which were objections).

A PPR incorporating amended plans was submitted on 2 March 2012. The amended proposal seeks approval for a total GFA of 52,059m² (2.33:1 FSR) including seven building envelopes ranging in height from 4 - 20 storeys, up to 576 apartments; 1,200m² of commercial/retail floor space; and 741 car parking spaces, and approximately 11,530m² of open space. The primary changes made in the PPR were a 4,853m² reduction to the GFA, a reduction in the height of Buildings L and W, an increase in the height of Building C, an increase in open space (1,024m²) and reduced car parking (-49 spaces).

The Department received a further 5 submissions from public authorities and 1 submission from the public in response to the PPR. Key issues for assessment included;

- Built form;
- Open space;
- Traffic and parking;
- Residential amenity;
- Stormwater; and
- Road and pedestrian network.

The Department is of the opinion that the site is suitable for higher density development because of its proximity to public transport, employment, and education and retail facilities. It is the recommendation of this report that a number of modifications are made to the concept and project applications to reduce bulk and scale and improve internal amenity. The recommended changes include reductions in the height of 4 buildings (buildings L, C, D and W) and the deletion of a portion of building M to create a larger internal open space area with greater access to sunlight. The modifications will reduce the gross floor area by approximately 8.5% (4,430m²) and reduce the total number of apartments by approximately 49. This will result in the project having a FSR of approximately 2.13:1 and delivering approximately 527 apartments. The proposed development will deliver public benefits, including new public roads and publicly accessible open space.

The Department has assessed the merits of the application, taking into account the issues raised by the public and relevant public authorities. It is considered that the identified impacts have been addressed in the PPR and by way of modifications to the Concept Plan and Project Application. The concept plan and project application are recommended for approval.

CONTENTS

1. BACKGROUND

1.1. Site Description

The site is located on the southern edge of Macquarie Park and is within the Ryde LGA. It is legally described as Lot 1 DP 780314 and is known as 110 – 114 Herring Road. It is 13km north-west of the Sydney CBD and 6km north-west of Chatswood (refer **Figures 1** and **2** below).

The site has an area of 22,433m^2 and is generally rectangular in shape, with a splayed southern corner. The northeastern and southwestern boundaries are 230.8m and 100.5m in length respectively. The site falls approximately 8 metres from its southern to its western corner and 2 metres from its southern to its eastern corner.

Figure 1: Context Plan
(Source: PPR February 2011)

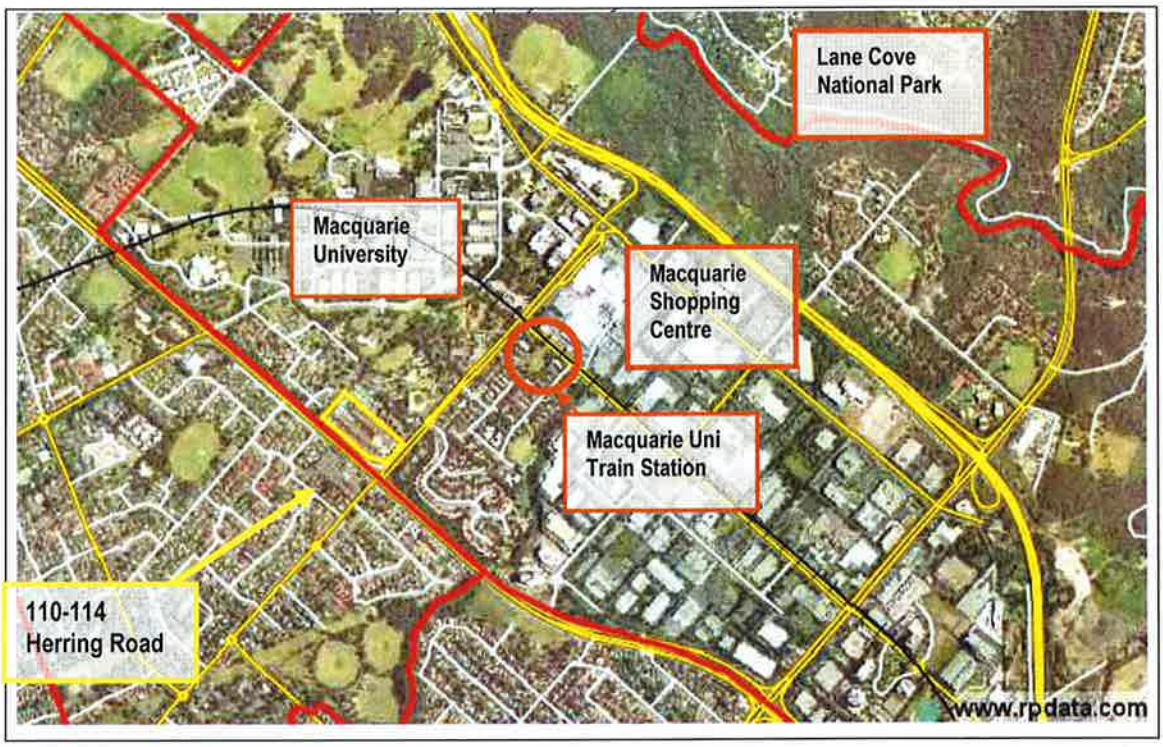

Figure 2: Site locality plan
(Source RP Data 2011)

1.2. Existing Site Features

The site is occupied by the Stamford Grand Hotel - North Ryde. The hotel covers the majority of the site and contains 256 guest rooms, function and conference facilities. There is a tennis court in the northern corner and a large internal courtyard with a pool, ornamental ponds and garden areas.

Figure 3: Subject site (yellow)
(Source: RP Data 2011)

There are significant mature trees along the northern, western and southern boundaries, which provide a buffer to adjoining developments and Epping Road. The vegetation is a combination of locally indigenous, non local native and exotic tree and palm species.

1.3. Surrounding Development

At its northern boundary the site adjoins 116 Herring Road. The southeastern end of that site contains four storey strata titled residential flat buildings and the northwestern end contains single storey villa homes.

At its southeastern boundary the site has frontage to Herring Road, which is a local collector road. Herring Road connects with the M2 Motorway in the north and carries 27,000 vpd. Further to the southeast on the opposite side of Herring Road is the Ivanhoe Estate, a public housing precinct. A working group has recently been established to determine the future of that site.

At its southwestern boundary the site has frontage to Epping Road, which is a state road. It runs in an east-west direction and carries 50,000vpd. RMS has declared a strip of land along Epping Road to be required for road purposes. This declaration creates the splay in the southern corner of the site.

At its northwestern boundary the site adjoins 157 Balaclava Road. That site contains a retirement village known as the Baptist Community Services (BCS) 'Willandra Village'. The section of the BCS site in proximity to the subject site, contain a series of single storey villas.

The broader precinct of Macquarie Park contains a mix of residential, commercial, retail, industrial, education and health uses. Macquarie University railway station and the Macquarie shopping centre are located approximately 500 metres to the north of the site

(refer **Figure 2** above). Macquarie University is located to the northeast of the site. The Macquarie Park office precinct is located to the east of the site and provides a range of employment opportunities.

A number of major project approvals have been granted in Macquarie Park. Macquarie University has concept approval for up to 400,000m^2 of GFA for commercial and educational purposes, together with additional student accommodation and building heights of up to 30 storeys. Concept plan and stage 1 approval has been granted to a mixed use development at 120-128 Herring Road (Morling College), permitting buildings 9 - 12 storeys in height and a FSR of 2.5:1. Concept Plan approval has also been granted to a commercial development at 396 Land Cove Road, containing 83,368m^2 of GFA within buildings 8 -17 storeys in height.

2. PROPOSED PROJECT

2.1 Project Description

The **Environmental Assessment (EA)** as submitted sought approval for the following:

Concept plan (MP10_0112) approval for:
- The layout of seven buildings, areas of open space and street network / layout;
- Building envelopes in RLs (maximum height of RL144.65);
- Maximum car parking numbers of 790 spaces;
- Maximum of 10,506m^2 of open space; and
- Minimum GFA of 1,110m^2 for non-residential uses and a total of GFA of 56,912m^2 and FSR of 2.54:1.

Project (MP10_0113) approval for:
- Demolition of all existing structures and improvements;
- Construction of the entire basement car parking structure;
- Construction of Buildings H, W, C and Y accommodating a total of 310 residential units with an apartment mix comprising: 51% 1 bedroom, 38% 2 bedroom and 10% 3 bedroom;
- Landscaping and public domain works; and
- Internal roads and services connections.

2.2 Preferred Project Report (PPR)

On 2 March 2012, the proponent submitted a PPR (**Appendix B**). The relevant statistics for the changes in the PPR are outlined in **Table 1**.

Key amendments include:
- Reducing the GFA from 56,912m^2 to 52,059m^2 (FSR 2.33:1) with a consequential reduction in the number of apartments from 626 to 576;
- Reducing the height of Building L from 22 to 20 storeys, and Building W from 18 to 9/13 storeys;
- Increasing the height of Building C from 11 to 15 storeys;
- Increasing the separation between Buildings L and D;
- Increasing the setback at the corner of Epping and Herring Road from 5m to 7m;
- Reducing the footprint of Building M;
- Increasing the internal landscaped area from 10,506m^2 to 11,530m^2;
- Reducing the width of the internal roadway;
- Reducing the number of parking spaces from 790 to 741 (reduction of 49 spaces);
- Increasing the size of the community facility from 90m^2 to 200m^2;
- A Statement of Commitment to dedicate 2 units for affordable housing; and

- A Statement of Commitment to prepare a travel plan that addresses public transport and cycle infrastructure in the area and upgrades to the existing bus shelter along Epping Road.

Table 1: Numerical changes to Concept Plan

	Environmental Assessment	Preferred Project Proposal
Site Area	22,433m²	22,433m²
Gross Floor Area	56,912m²	52,059m² *(-4,853m²)*
FSR	2.54:1	2.33:1
Buildings	7	7
Non Residential GFA (Building A)	1,110m²	1,210m² *(+100m²)*
Apartments	626	576 *(-50)*
Parking Spaces	790	741 *(-49)*
Deep Soil landscaping (%)	45%	43%
Building Height	4-22 storeys	4-20 storeys

The form of the concept plan, as proposed in the PPR, is detailed in **Figures 4 – 6** below. The project application building is also identified.

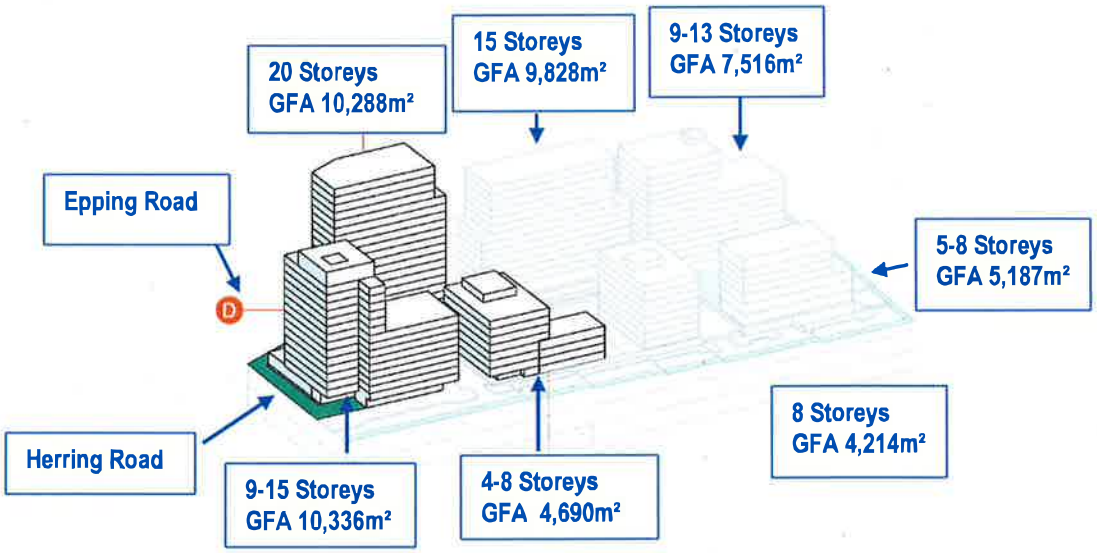

Figure 4: Concept approval sought for 7 Building Envelopes – Aerial view north east elevation
(Source PPR February 2012)

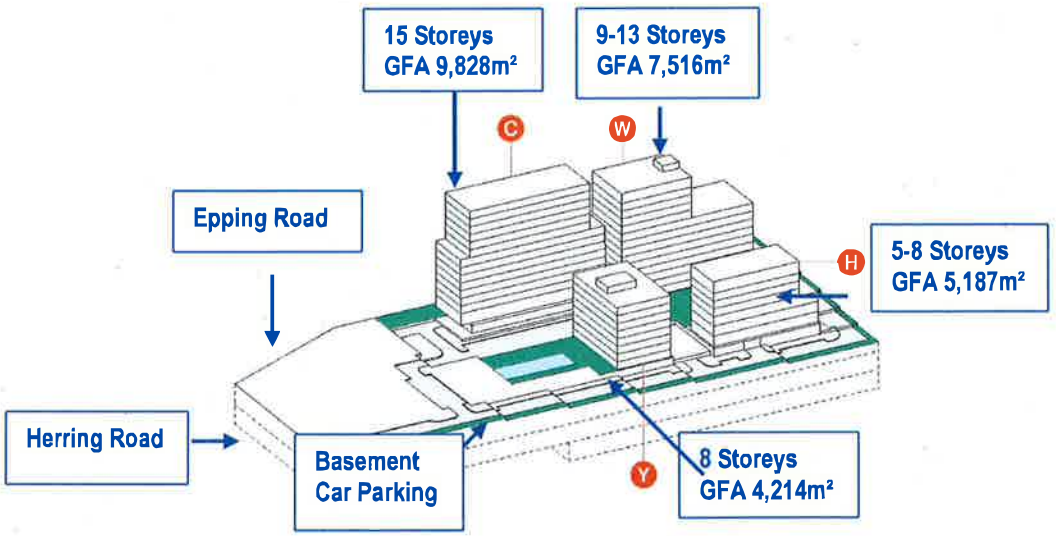

Figure 5: Stage 1 project approval sought– Aerial view north east elevation *(Source PPR February 2012)*

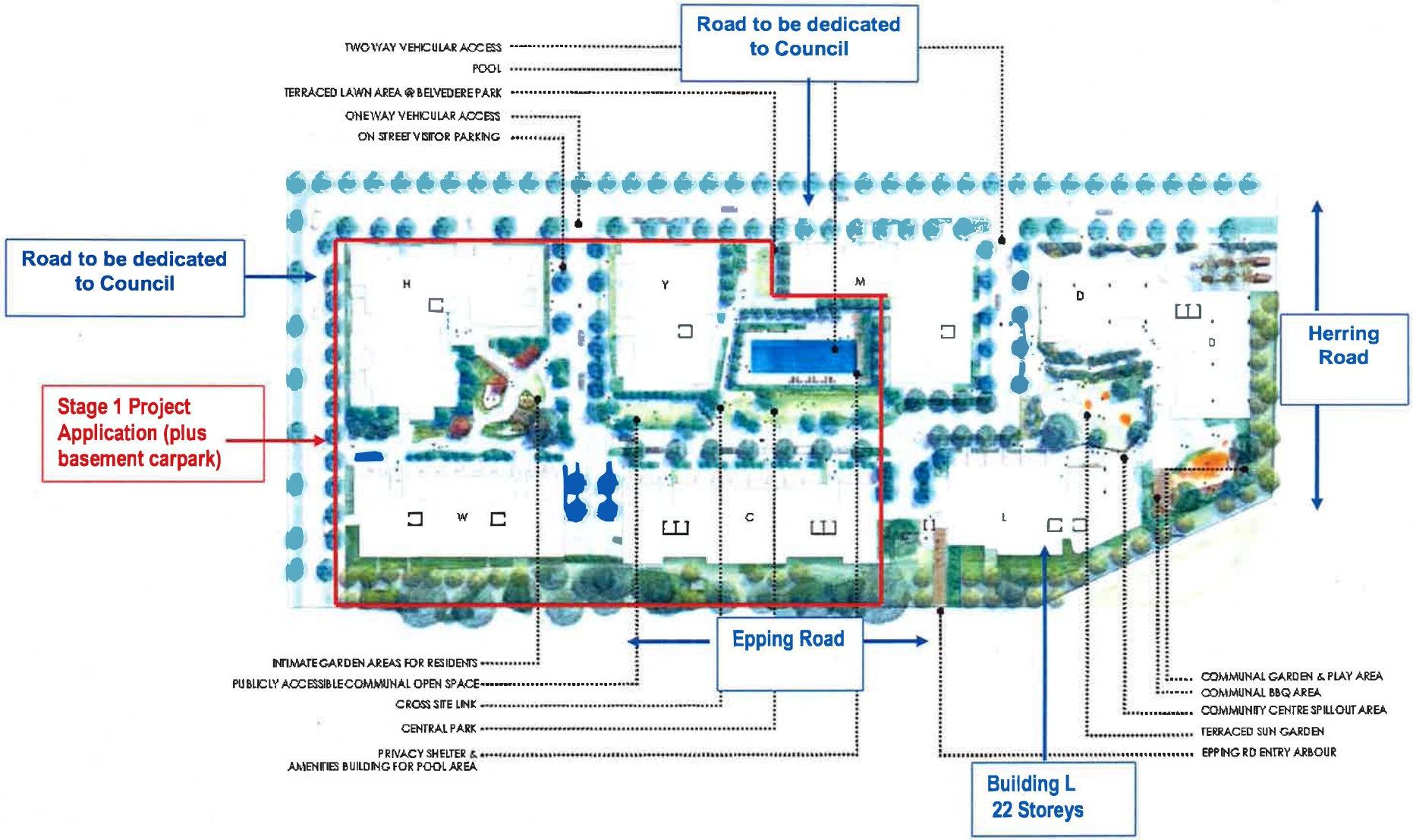

Figure 6: Proposed Layout *(Source PPR February 2012)*

2.3 Need and Justification

NSW 2021

NSW 2021 is a ten year plan to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen our local environment. The proposed development is consistent with goals 1 and 20 of the plan.

Goal 1 (Improve the Performance of the Economy) aims to grow the NSW economy, including growing employment. The project will create approximately 500 construction jobs and 20 operational jobs.

Goal 20 (Building Liveable Cities) aims to locate people closer to jobs. The project is consistent with this goal as it will provide housing in close proximity to a major employment centre.

Metropolitan Plan for Sydney 2036

The Metropolitan Plan for Sydney 2036 is a strategic document that guides the development of the Sydney Metropolitan area towards 2036. The Plan aims to support the continued economic growth and competitiveness of Sydney whilst enhancing its standing as a global city.

The Plan identifies Macquarie Park as a 'Strategic Centre' and as the northern anchor of the 'Global Economic Corridor' (also known as the Global Arc) of concentrated jobs and economic activities in centres, stretching between Macquarie Park and Port Botany (**Figure 7**). The Plan further seeks to extend the global arc to include Parramatta, Sydney Olympic Park and Rhodes.

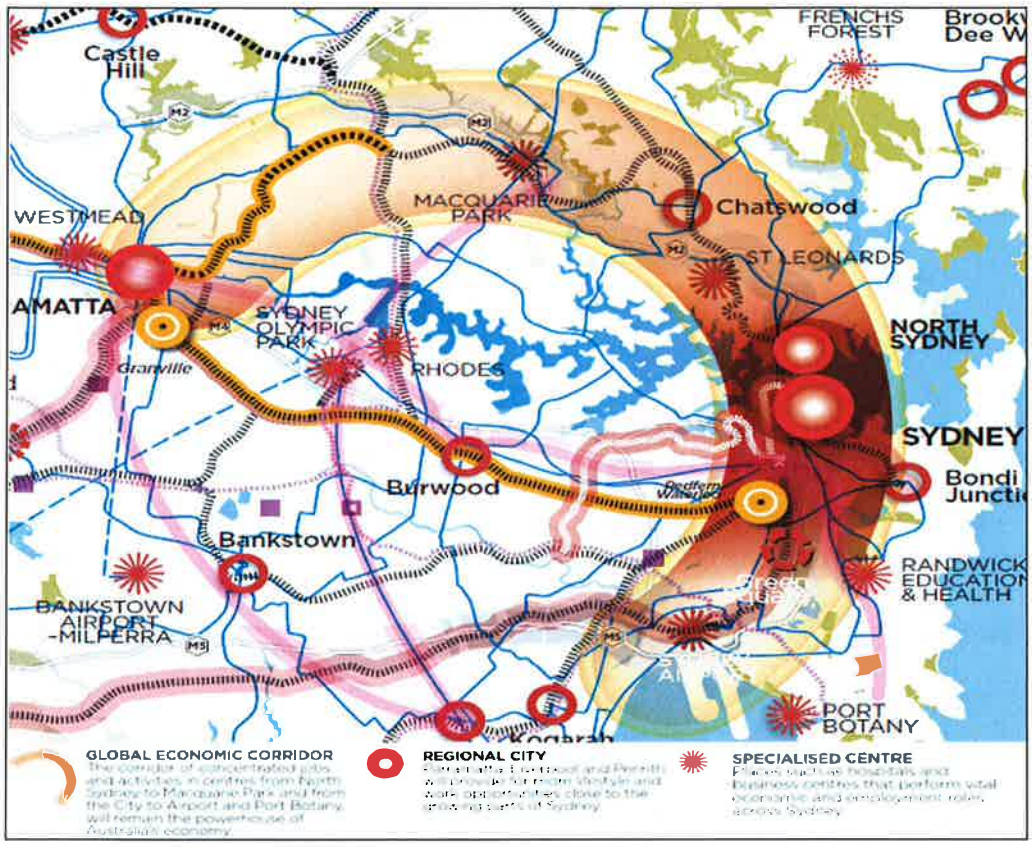

Figure 7: Global Economic Arc with Macquarie Park acting as the northern Anchor
(Source: Metropolitan Plan for Sydney 2036)

The Plan identifies the renewal of the Global Economic Corridor as playing a critical role in the metropolitan and national economy, and in achieving diverse and liveable communities.

Macquarie Park is more specifically classified as a 'Specialised Centre' under the Plan, which is targeted to provide stronger employment and economic functions than other centres due to its potential to experience high growth agglomeration in the specialised sectors of "professional, scientific and technical services", and "information and communication technology". The Epping to Chatswood railway line and the fast track completion of a number of bus priority works on key strategic bus corridors, which provide regional connections to other centres, were developed specifically to further unlock the economic potential of the area.

The Plan refines Sydney wide targets for sub-regions and identifies the Inner North Subregion for an additional 30,000 dwellings and an additional 60,000 jobs by 2036. The Strategy notes the importance of locating residential development within these employment centres and highlights that Ryde Council will need to provide sufficient zoned land to accommodate additional dwellings.

Draft Inner North Subregional Strategy

Ryde LGA is located within the Inner North subregion. The Draft Inner North Subregional Strategy identifies Macquarie Park as a Specialised Centre and the northern anchor of the Global Economic Corridor, providing a unique economic space, with clustering of high technology businesses and a campus type working environment and amenities.

The Inner North Subregional Strategy creates an employment target of 23,100 additional jobs for Macquarie Park. It seeks to ensure the inner north sub-region is a strong global economic corridor consolidating its role as part of global Sydney with good employment opportunities throughout its local centres.

The Strategy also identifies the need to locate residential development around centres and corridors with access to public transport and local services. The proposed development supports this aim by placing housing close to employment and education facilities and will encourage the use of public transport due to its proximity to the railway station and bus services.

The proposal is therefore consistent with the key directions and targets of the Draft Inner North Subregional Strategy.

City of Ryde Local Planning Study 2010

The City of Ryde Local Planning Study 2010 (the Study) was formally adopted by Council on 7 December 2010 and developed for the purposes of guiding growth over the next 20 years, to inform the comprehensive Ryde LEP, and to review and respond to the directions and actions of the NSW Government's Metropolitan Strategy and Inner North Subregion: Draft Subregional Strategy.

The Study identifies the Macquarie Park Corridor as a key economic corridor in Ryde. A key direction of the study is to develop Macquarie Park into a premium business location through the implementation of current and proposed planning frameworks for the Macquarie Park Corridor including Amendment No. 1 (discussed below).

The study identifies Macquarie University Station Precinct as being the interface between two of the main destinations within the Corridor – Macquarie University and the Macquarie Shopping Centre. The subject site is identified as an arrival point to the corridor, being located at a key access point.

The proposal is consistent with the Study's vision for the Macquarie University Station precinct, as it provides a focal point for the gateway to the precinct. The proposal is considered to be consistent with the City of Ryde Local Planning Study 2010.

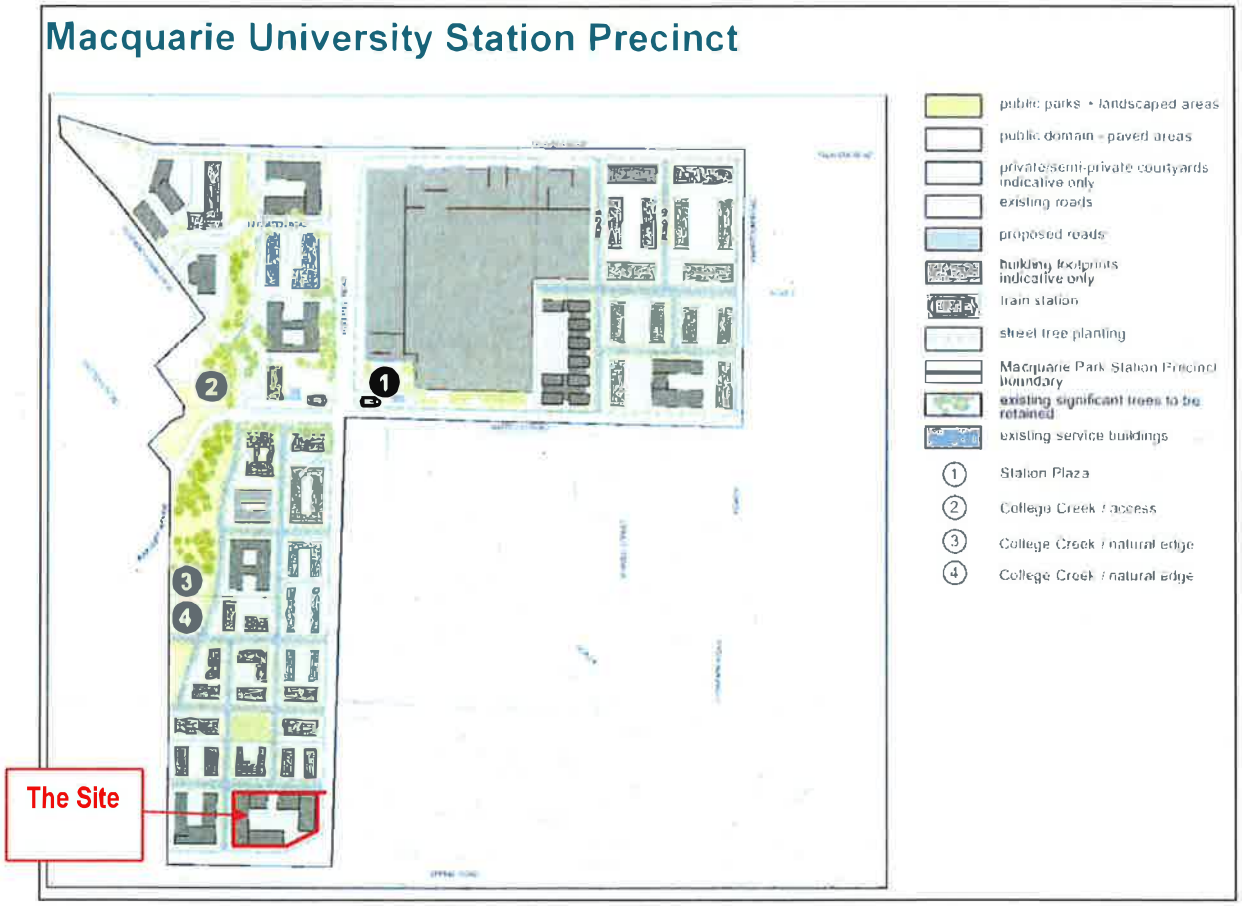

Figure 8: Macquarie University Station Precinct *(Source: City of Ryde Local Planning Study 2010)*

Ryde Local Environmental Plan 2010

The Ryde LEP 2010 was gazetted on 30 June 2010 and is a consolidating LEP which will apply until the gazettal of a comprehensive LEP. It is a direct translation of and replaces the Ryde Planning Scheme Ordinance. LEP 2010 zones the site "*B4 (Mixed Use)*". Multi-unit development and business premises (retail) are permissible with consent. The relevant zone objectives seek to *"provide for a compatible mix of uses"* and *"integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport usage and encourage walking and cycling"*. The current controls for the site include an FSR of 1:1 and a maximum height of 15.5 metres (5 storeys).

Ryde Local Environmental Plan 2009 (Amendment No. 1)

Council is in the process of reviewing the controls which apply to Macquarie Park and has prepared an amendment to its LEP (Amendment No. 1). The purpose of Amendment No. 1 is to provide uplift in floor space across Macquarie Park in recognition of the objectives identified in the Metropolitan Plan, the draft Inner North Subregional Strategy and City of Ryde Local Planning Study 2010.

Amendment No. 1 proposes bonus height and FSR incentives for sites within the Macquarie Park Corridor, including the subject site, that provide additional community benefit (as detailed in **Section 5.1**). Where a proposal achieves environmental excellence through a 5 Star Green Star certified rating, an additional 10% of floor space and height of 4 metres (1 storey) is permitted if sufficient public benefit is provided. Amendment No. 1 controls prescribe that the site is eligible for an FSR of 2:1 and a height of 30 metres (9 storeys plus

plant room) with a landmark building on Herring Road of 52 metres (15 storeys plus plantroom).

A gateway determination was issued for a version of Amendment No. 1, but the amendment was not exhibited. Council is currently undertaking a further review of its proposed controls.

The Department is of the view that Amendment No. 1 should be given weight in the assessment of the proposal as the amendment encourages development that is in keeping with the future role of the Macquarie Park Corridor as a Specialised Centre. In its submission on the Preferred Project Report Council states "the relevance of 'Amendment No. 1' is in identifying suitable parameters for the site beyond those that apply under RLEP 2010".

The proposal generally complies with the intent of Amendment No. 1 by providing a high density mixed use development at a key site within the Macquarie Park Corridor (discussed further in **Section 5.1**).

Draft Ryde Local Environmental Plan 2011 (Draft RLEP 2011)

Draft RLEP 2011 is the draft comprehensive LEP for the Ryde Local Government Area and is based on the outcomes of the City of Ryde Local Planning Study 2010. The purpose of the Draft RLEP 2011 is to guide development for the next 10 years in the Ryde Local Government Area. The Draft RLEP 2011 was publicly exhibited from 30 May 2012 to 13 July 2012.

Draft RLEP 2011 does not propose any changes to the current planning controls for the Macquarie Park Corridor. Council has indicated that should Amendment No. 1 be gazetted then the relevant standards for Macquarie Park would be transferred into the Draft RLEP 2011.

Ryde Development Control Plan (DCP) 2010 – Part 4.5

In its submission to the proposal Council noted that in 2008 it amended the City of Ryde Development Control Plan 2010 (the DCP) "to reflect a thinking the LEP does not". Section 5.3.7 of the DCP states that Council may consider permitting a FSR and height greater than that allowed by the Ryde LEP 2010 if a community benefit is provided. The DCP goes on further to say that the additional height and FSR which will be permitted cannot be greater than that permitted by Amendment No. 1.

3. STATUTORY CONTEXT

3.1 Major Project

Part 3A of the EP&A Act, as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A to the Act, continues to apply to transitional Part 3A projects. Director-General's environmental assessment requirements (DGRs) were issued for the proposal and the environmental assessment report was lodged prior to 8 April 2011. The proposal is therefore a transitional Part 3A project.

Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove of the carrying out of the project under section 75J of the Act.

The proposal was declared a Major Project under the former provisions of *State Environmental Planning Policy (Major Projects)* 2005 – namely Part 5 Clause 13 – "residential, commercial or retail projects" with a CIV of more than $100 million.

3.2 Permissibility

Ryde LEP 2010

The site is zoned "Mixed Use (B4)" under the Ryde LEP 2010 and the project is permissible with consent.

3.3 Environmental Planning Instruments

The Department's consideration of relevant SEPPs and EPIs is provided in **Appendix F**.

3.4 Objects of the EP&A Act 1979

The Minister's consideration and determination of an application under Part 3A must be informed by the relevant provisions of the Act, consistent with Objects of the Act which state as follows:

"(a) To encourage:
- *(i)the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
- *(ii) the promotion and co-ordination of the orderly and economic use and development of land,*
- *(iii) the protection, provision and co-ordination of communication and utility services,*
- *(iv) the provision of land for public purposes,*
- *(v) the provision and co-ordination of community services and facilities,*
- *(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats,*
- *(vii) ecologically sustainable development,*
- *(viii) the provision and maintenance of affordable housing,*

(b) To promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and

(c) To provide increased opportunity for public involvement and participation in environmental planning and assessment."

The proposed project is an orderly development, being permissible under current and draft controls. Its form and intensity is generally consistent with the desired future direction for the area as identified in the Metropolitan Plan and draft Amendment No. 1. The proposed road and pedestrian links are consistent with the detailed planning for the area and will allow the site to integrate with adjoining lands as they are developed. The development will make use of public and private infrastructure in the area supporting the investment in these assets. The site does not contain any sensitive environments and as such its development will not be to the detriment of any protected fauna or flora. The proponent has committed to dedicating two apartments for affordable housing.

It is considered that on balance, having regard to the public benefits to be provided, the limited environmental impacts and consistency with relevant planning controls, that the project is consistent with the objectives of the Act.

3.5 Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

(a) the precautionary principle,
(b) inter-generational equity,

(c) conservation of biological diversity and ecological integrity,
(d) improved valuation, pricing and incentive mechanisms.

The project is consistent with the key principles of the ESD. A further detailed assessment against ESD Principles is at **Appendix F**.

3.6 Statement of Compliance

In accordance with Section 75I of the EP&A Act, the Department is satisfied that the Director-General's environmental assessment requirements have been complied with.

4. CONSULTATION AND SUBMISSIONS

4.1 Exhibition

Under section 75H(3) of the EP&A Act, the Director-General is required to make the EA publicly available for at least 30 days. After accepting the EA, the Department exhibited it for 36 days from 10 August 2011 to 14 September 2011 on the Department's website, at the Department's Information Centre and at Council's Information Centre.

The application, DGR's and the EA were placed on the Department's website which satisfies the requirements in Section 75H (3) of the EP&A Act. The PPR was also placed on the Department's website, however, was not re-exhibited.

A total of 28 submissions were received during the exhibition period comprising 7 from government agencies (including Ryde Council) and 21 public submissions. A summary of the issues raised in submissions is provided below. The Department has considered all the issues that were raised in submissions in its assessment.

4.2 Submissions from Public Agencies

Agency and authority submissions were received from Ryde City Council (Council), Transport for NSW (TfNSW), Roads and Maritime Services (RMS), State Transit Authority (STA), Office of Environment and Heritage (OEH), NSW Office of Water (NOW), and Sydney Water.

Table 3: Agency Submissions to EA and PPR

Ryde City Council objects to the proposal.	
EA	• Non-compliance with Council's adopted planning controls particularly height and density. The proposal is in excess of Council's current height control (15.5m); • Not mixed use and not consistent with zoning; • A more strategic approach needs to be taken to redevelopment in Macquarie Park; • The proposal is additional to Council's housing strategy targets; • Traffic issues, particularly the cumulative impacts of traffic; • Impact on adjoining residential properties; • Review of Macquarie Park Planning Controls; • Council supports the fine-grain road network; and • Council commends the proponent for providing a social impact assessment.
PPR	• Non-compliance with Council's adopted planning controls particularly height and density. The heights of Buildings L, C, W and D should be reduced by a minimum of 8, 3, 1 and 3 storeys respectively; • In keeping with Council's expectations for the site (Amendment No. 1) an FSR of 2:1 for the site is acceptable; • The cumulative impacts of traffic in Macquarie Park should not be placed on Council to assess; • The stormwater drainage over adjoining land has not been resolved and

	approval should not be granted until it has; • Mixed use – the proposal is only 2.3% non-residential and is not mixed use; • Open space and internal shadows are not adequately discussed in the PPR; • Dwelling mix should be conditioned to ensure it is not changed after concept plan approval; and • Affordable housing should not be deducted from council's s94 contributions.
Roads and Maritime Services does not object to the proposal.	
EA	• RMS does not grant concurrence under section 138 of the Roads Act 1993 to the proposed access to Epping Road; • The RMS has declared a strip of land for a slip road along the corner of Epping and Herring Roads; and • The proposed development should be designed to mitigate traffic noise. Noise walls are not supported by the RTA.
PPR	• RMS supports the connection to Epping Road at the western end of the site and provides concurrence under S.138 of the Roads Act, 1993 for a left in only access to the site; and • The proponent is to provide a deceleration lane that shall be designed to meet RMS's requirements, in accordance with Austroads Guide to Road Design and endorsed by a suitably qualified practitioner.
Transport for NSW (TfNSW) does not object to the proposal.	
EA	• TfNSW supports the provisions made for bicycle storage and bicycle parking for visitors and the inclusion of the proposed travel plan. These should be included as conditions of consent; and • TfNSW re-iterated the comments raised by the RMS regarding vehicular access onto Epping Road.
State Transit Authority (STA) does not object to the proposal.	
EA	• STA raises no major objection to the proposal; • No consideration has been given to the cumulative impacts of traffic generated by the major developments occurring in the area and the resultant overall impacts on the road network. If all cars were to use the Herring Road intersection, this volume of vehicles would exceed the saturated flow of one travel lane along Epping Road; • STA appreciates the theory that limiting off street parking will attract buyers with low car dependency, however this is only appropriate where the surrounding road network has restrictions to limit on street parking; • Other concerns include o the need to upgrade Epping / Herring Road intersection; o how public transport and infrastructure will be upgraded at bus stops for future residents; o the provision of a bus lane along Epping Road; o impacts of construction and operation on bus services; o State Transit requests the opportunity to be included into the input of the traffic management plan.
NSW Office of Water (NOW) does not object to the proposal	
EA	• Requests that groundwater is controlled during construction and operation of the basement car parking.
PPR	• NOW seeks clarification on the proposed collection and disposal of seepage water on the site. NOW advises that if drainage is proposed via a local creek that an assessment needs to be undertaken to assess the potential impacts; and • NOW also seeks confirmation via the proponent's Statement of Commitments that any works that intercept the groundwater table will require the relevant licences from NOW.
Office of Environment and Heritage (OEH) does not object to the proposal.	
EA	• OEH notes the provision of 790 on site car parking spaces which exceeds the RTA's *Guide to Traffic Generating Development* by nearly 30%; • OEH notes the close proximity of the site to public transport facilities, a regional shopping centre, Macquarie Park Employment Zone and Macquarie University; and

	• To reduce car dependency and minimise environmental impacts, more consideration should be given to the strategic directions of the Sydney Metropolitan Plan.
Sydney Water does not object to the proposal.	
EA	• To service the proposed development, upgrades of the water and wastewater networks are required: • The water mains need to be upgraded to 200mm; • The wastewater mains need to be upgraded to a 225mm wastewater main; • Sydney Water will further assess any subsequent development when the development applies for a S73 Certificate. • The developer must fund any adjustments to Sydney Water infrastructure as a result of the development.
PPR	• Sydney Water made the same comments for the PPR.

4.3 Public Submissions

EA submissions

The Department received 21 public submissions, 16 of which objected to the development. The issues raised in the submissions are summarised in Table 4 below.

Table 4: Summary of Issues Raised in Public Submissions

Issue	Times mentioned	Proportion of submissions (%)
Traffic already an issue on the surrounding roads and the proposed development will increase congestion.	18	90%
Height is out of character and sets a precedent.	9	45%
Local infrastructure will not cope with the development.	6	30%
Increased on street parking in surrounding area.	3	15%
Overshadowing.	3	15%
Density is too high and out of character with the area.	3	15%
Inadequate setbacks.	3	15%
The proposal should provide monetary contributions in excess of S94 contributions.	2	10%
Other issues that were raised in single submissions included: there is inadequate parking, a lack of non-residential floor space, outside noise impacts should be minimised and public transport is not efficient enough to be used by the development.		

The issues raised in submissions may be summarised as being built form, traffic and parking, and public benefit. These matters are all key issues which are addressed in Section 5 of this report.

PPR Submissions

Baptist Community Services (BCS) the owner of the adjoining property to the northwest (157 Balaclava Road) made a submission on the PPR. The submission raised concerns about privacy and the relationship between the proposed 8 storey buildings and the single storey buildings on their site.

BCS also advised that it had received a request from the proponent to drain water across its land, which they were considering. Subsequent to its submission BCS reached agreement with the proponent and has granted an easement over its land for drainage.

4.4 Proponent's Response to Submissions

The proponent provided a response to the key issues raised in submissions in response to the exhibition of the EA and PPR (Refer to PPR at Appendix B).

5. ASSESSMENT

The concept plan contains a broad framework for the development of the site and the project application the specific details for stage 1. The Department considers the issues relating to the concept plan and the project application to be the same and their assessment has therefore been conducted in concurrence in this report. These are discussed further in detail below, however are generally considered to be:

- Built form;
- Open space;
- Traffic and parking;
- Residential amenity;
- Stormwater; and
- Road and pedestrian network.

5.1 Built Form

Built form is a key consideration in the assessment of the proposal. Built form is most appropriately tested through an assessment of:

- Strategic context;
- Height;
- Density;
- Layout; and
- Visual impact and overshadowing

Strategic Context

Macquarie Park is in a state of transition from a light industrial/warehouse/ business park precinct to a high technology urban/commercial and global economic centre. Current development, recent approvals and transport improvements support this transition. There is currently a high demand for apartments within this area that have a good proximity to transport, the university and employment. This has been evident with the interest in the Morling College development at 120-128 Herring Road. As was discussed in **Section 2.3**, proposed Amendment No. 1 reflects the desired strategic direction for the area and accordingly this should inform the assessment of the project.

The subject site has a base FSR of 1:1 and height of 15.5m under Amendment No. 1. Amendment No. 1 includes an incentives map, under which the site's development potential could increase to a FSR of 2:1, a general height of 30m and a height of 52m at the corner of Herring and Epping Roads for a landmark building. The incentive provisions become available if the development provides community benefits as detailed in Section 4.5 of Ryde DCP 2010 (the DCP).

The proposed project includes the following community benefits:

- The design and construction of two local roads and their dedication to Council. The design and construction of roads is identified as a community benefit in the DCP. The road along the northern boundary will be a full width road and the road along the western boundary half width. The roads include landscaping, parking bays, and footpaths and the proponent has committed to constructing them to Australian Standards. The proponent has provided a preliminary estimate that the cost of the roads is $1.2 million.
- Public access to communal open space areas, including a children's play ground. The provision of open space is identified as a community benefit in the DCP.

- The creation of publicly accessible through site links, including an elevator to overcome a change in level. The provision of pedestrian linkages is identified as a community benefit in the DCP.
- A commitment to upgrade the existing bus stop on Epping Road. Bus shelters are identified as a community benefit in the DCP.
- The dedication of two units of the potential 527 apartments for affordable housing. Affordable housing is not identified as a community benefit in the DCP, but its provision is considered to be a substantive benefit to the community.

The community benefits to be provided are sufficient to allow the proponent to benefit from the incentive provisions of Amendment No. 1. An assessment of the proposed height and density relative to the provisions of Amendment No. 1 follows. Council did not raise any objection to the above benefits being provided to the community.

Height

Table 5 (below) identifies the heights of the proposed buildings and their variation from Amendment No. 1. The height of Buildings H, Y and M is consistent with Amendment No. 1, whilst buildings L, C, W and D are inconsistent with the controls.

Table 5: Height Compliance

Building	PPR Height in metres (storeys)	Amd 1 Height in metres (storeys)	Variation from Amd 1 Height in metres (storeys)
Building L Landmark building – Cnr Herring & Epping Roads)	65m (18/20 storeys plus plant)	52m (15 storeys plus plant)	**13m (2/4 storeys)**
Building C (Midsection)	49m (15 storeys plus plant)	30m (8 storeys plus plant)	**19m (6 storeys)**
Building W (Western Edge)	45m (9/13 storeys plus plant)	30m (8 storeys plus plant)	**15m (0/5 storeys)**
Building H (Western edge)	32m (5/8 storeys plus plant)	30m (8 storeys plus plant)	2m (consistent)
Building Y	29m (8 storeys plus plant)	30m (8 storeys plus plant)	Complies (consistent)
Building M	29.7m (4/8 storeys plus plant)	30m (8 storeys plus plant)	Complies (consistent)
Building D (Herring Rd frontage)	55m (9/15 storeys)	30m (8 storeys plus plant)	**25m (0/7 storeys)**

Proponent's justification

The proponent argues that the proposed heights achieve the best amenity, and urban design outcome for the site. By locating the taller buildings on the southern boundary, solar access to open space and residential apartments within the site is maximised. By reducing and creating a transition in heights of buildings along Epping Road, the bulk and mass of buildings on this frontage is reduced.

Council's views

Council advised that a proposal that complies with the height limits prescribed by Amendment No. 1, and is consistent with the modulation and articulation evident in the PPR would be more acceptable. Council consider the proposal should be reduced to a maximum FSR of 2:1.

Department's Consideration

The Department supports increased heights and densities at this location and agrees with Council that modulation of the building envelopes is beneficial. However the Department recommends some modifications to envelope and building heights to improve contextual relationships and amenity. **Table 6** shows the Department's proposed modifications. A discussion on the modifications is provided below and illustrated in **Figure 9**.

Table 6: Recommended Height

Building	Proposed height	Department's recommendation
L	18-20 storeys	No change
C	15 storeys	13 storeys
W	9-13 storeys	9-11 storeys
H	5-8 storeys	No change
Y	8 storeys	No change
M	4-8 storeys	Delete 4 storey portion of the building to increase solar access to adjacent open space. This primarily relates to open space and is discussed in detail in Section 5.2.
D	15 storeys	12 storeys

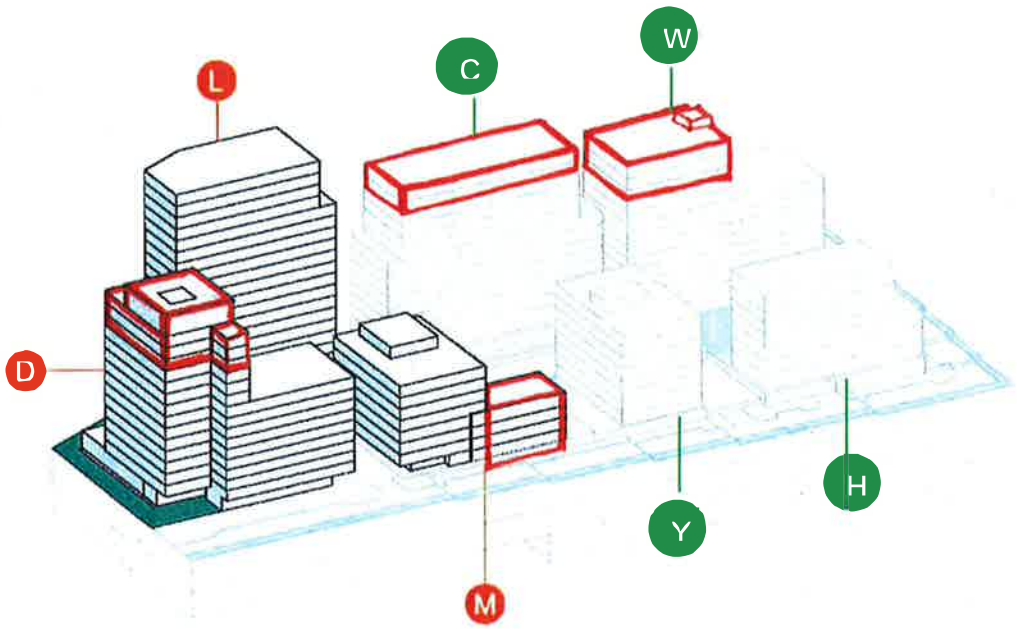

Figure 9: Recommended Modifications
(NB: Darker shaded buildings represent the concept application and the lighter the project application - Source PPR February 2012)

Generally, the Department considers that the heights of the proposal, as recommended, are suitable given the context of the site. The landmark building located on the corner of Herring and Epping roads is consistent with the aims of Amendment No. 1 to provide a taller building

to mark the entry to Macquarie Park. Subject to the Department's recommendations, the surrounding buildings of the proposal then step down to successfully convey the significance of the landmark building and respond to the height of buildings located just outside the Macquarie Park precinct, whilst simultaneously providing for a suitable density given the site's close proximity to the Macquarie University rail station. Further, the Department notes that although there are height inconsistencies in relation to Amendment No. 1, the proposal, as recommended, would be only slightly over the maximum FSR controls (2.13:1 compared to the control of 2:1). This indicates that the height controls of Amendment No. 1 are not necessarily reflective of the development potential of the site. Detailed consideration on the height of the proposal is provided below.

There have been two approvals granted previously on Herring Road by the Department. The Macquarie University Concept Plan which permits buildings up to 30 storeys in height and the Morling College (120-128 Herring Rd) concept plan which permits buildings up to 12 storeys. **Figure 10** illustrates the relationship between the approved developments along Herring Road. These approvals are consistent with Council's strategic approach for the area in that they focus higher density and heights in close proximity to the railway station. The future character of the area and in particular Herring Road will be influenced by these approvals and it is appropriate to have regard to them.

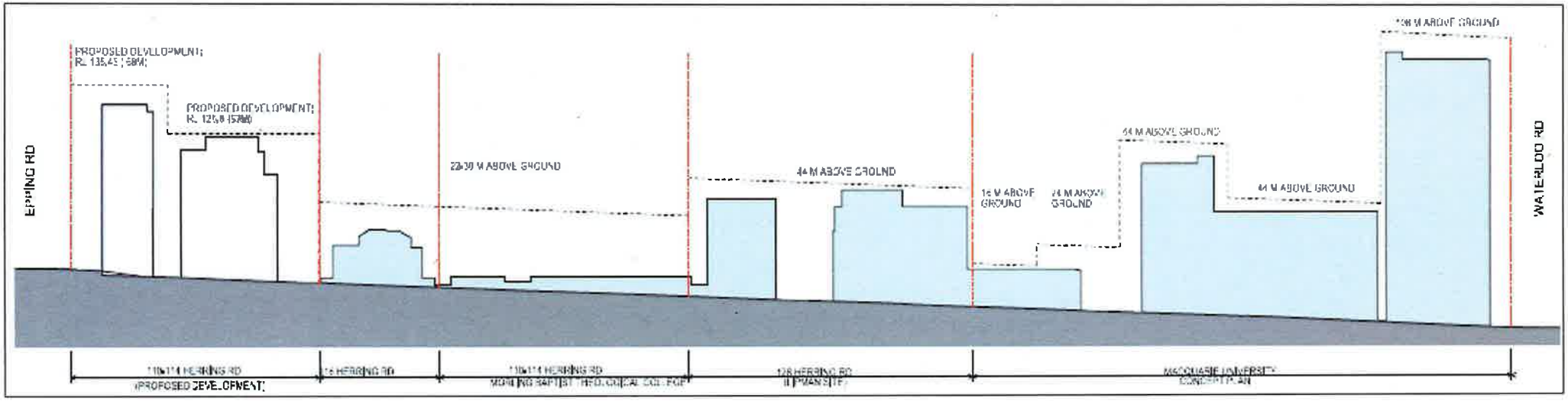

Figure 10: Relationship of Developments along Herring Road (Source PPR February 2012)

The approvals establish a general height of 12 storeys along the midblock of Herring Road, with heights increasing in proximity to the train station. Building D on the subject site marks the western end of the midblock of Herring Road and its height should be consistent with other development in the midblock. It is the recommendation of this report that Building D be reduced from 15 to 12 storeys. In addition to achieving greater consistency with the adjacent sections of Herring Road, this reduction will better differentiate Building D from Building L, strengthening the visual importance of that building as a landmark building.

The intersection of Herring and Epping Roads is an important gateway into Macquarie Park. Amendment No. 1 allows for a taller landmark building to be built on the site to mark the location. Building envelope L achieves the desired aim of having a landmark building, but exceeds the height proposed under Amendment No. 1 by 3 storeys.

Any future building within envelope L will be distinctly different in scale from surrounding development at either the height permitted under Amendment No. 1 or that proposed in this application. Building envelope L is consistent with Council's desired character for the intersection creating a landmark at the entry to Macquarie Park. The surrounding road network is broad and the additional height will not result in any unreasonable change in the proportional relationship with the street. The shadows cast by the building affect the adjacent Ranch Hotel until 11am in midwinter and predominantly fall within the road reserve until 3pm. The proposed height of Building L as a landmark building is therefore supported.

Building C is located midway along the southern boundary and is 15 storeys in height exceeding Amendment No. 1 by 7 storeys. Project approval is sought for this building. This section of the site is capable of accommodating a building greater than the 8 storeys permitted under Amendment No. 1 as it is located away from the two common boundaries with sites currently used for residential purposes, and the shadow generally falls within the road reserve after 11am. However, 15 storeys as proposed, is excessive for a building of secondary importance in this location and undermines building L as a landmark building. A height of 13 storeys is more appropriate and relatively consistent with the adjoining parts of Macquarie Park (Morling College site). Reducing the height of Building C will ensure an appropriate transition to the corner of the site and enhance the landmark's importance as a focal point as prescribed in Council's LEP.

Building W is located on the western corner of the site. This building is 9 storeys in height (plus plant) adjacent to the boundary, stepping up to 13 storeys. The building does not comply with Amendment No. 1 and it is the recommendation of this report that the 13 storey portion be reduced to 11 storeys. The reduction will ensure that the development transitions downward to be more consistent with likely future development on the adjoining site (being 8 storeys). In addition it will also transition up to emphasise the landmark building on the corner of Epping and Herring Road which is in accordance with Ryde LEP 2010's objectives to enable focal points at major intersections. For the reasons stated above it is considered that Epping Road is capable of accommodating some additional height.

The Department's recommended modifications will reduce the number of apartments by approximately 8.5% (49 apartments) and reduce the FSR from 2.33:1 to approximately 2.13:1.

Density

Approval is sought for a FSR of 2.33:1, which exceeds the FSR of 2:1 proposed under Amendment No. 1. The Department has recommended modifications that would result in the FSR being reduced to 2.13:1.

Proponent's justification

The proponent considers that the additional density can be accommodated across the site without adverse impacts on amenity given that:

- The proposed densities are in line with Council's aim to locate prominent buildings at major entrances to Macquarie Park;
- They will complement the Macquarie University Concept Plan with the creation of a stronger corner element, creating a book end to the taller buildings at the northern end of Herring Road;
- The site's location in terms of opportunity for housing and dwelling mix justifies an increased FSR;
- Improvements to the site in terms of public benefits (construction of new roads and footpaths, community centre and open space);
- The diversity in heights in conjunction with sufficient openness to the site reduces the perception and appearance of density;
- The development generally complies with SEPP 65 and Residential Flat Design Code (RFDC) separations; and
- It will not result in significant overshadowing.

Council's views

Council recommends height reductions that would reduce the density so that it is more in keeping with Amendment No. 1 (FSR 2:1). Council is of the view that a compliant density is important to ensure that cumulative traffic impacts on the road network are managed.

Department's consideration

The proposed modifications to the project recommended by the Department are a response to the Department's concerns with the bulk and scale of the development and its traffic impacts, which are a consequence of its density.

In general the bulk of the development has been appropriately distributed around the site. Buildings H, Y, M and the western portion of Building D are generally consistent with relevant height controls and the separation requirements of SEPP 65 and will have a relationship with the adjoining developments that is anticipated by the FSR controls. While greater density on Herring and Epping Roads is generally supported, the Department has recommended some modifications to Buildings C and D. Notwithstanding the modifications, Buildings C, L and D are still inconsistent with Amendment No. 1 controls, however, this portion of the site can accommodate additional density without causing unreasonable adverse impact. At the same time, they maintain consistency with the future desired character of the area.

Council is experiencing challenges in managing traffic impacts in and around Macquarie Park and has modeled future traffic scenarios having regard to potential and proposed densities and road capacity across the corridor. Council is of the opinion that the overall density should be restricted to 2:1, as the road network can accommodate this density of development (further discussed in **Section 5.3**). The Department acknowledges the challenges with the Macquarie Park road network. The recommended modifications will reduce the density to approximately 2.13:1, which is broadly consistent with the FSR sought by Council. The Department's modifications will reduce the number of apartments from 576 to approximately 527, compared with Council's recommended number of approximately 495. This equates to an additional 32 apartments above Council's desired controls for the site.

The project supports Council's LEP 2010 by providing a new street network and the Department's recommended modifications bring the proposal generally in line with Council's desired FSR controls for the site. Therefore, the Department considers that the proposal is eligible for the redevelopment incentives as prescribed in LEP 2010.

The Department is satisfied that this density of development as recommended will not generate unacceptable cumulative traffic impacts (**Section 5.4**) and that the residential amenity (**Section 5.5**) achieved on the site would be satisfactory.

Layout

Development layout

The seven buildings are located around the edges of the site which are defined by the existing and proposed road ways. The internal portions of the site are used for roads, open space and pedestrian through site links.

Proposed Building L (landmark building) is orientated to address Epping Road rather than Herring Road as sought under Amendment No. 1. The proposed building orientation is supported for the following reasons:

- The landmark building is to mark the entrance of the Macquarie Park Corridor which begins at the corner of Epping and Herring Roads;
- Having the taller buildings fronting Epping Road (which is wider than Herring Road) would be more appropriate;
- The visual impacts will be reduced when viewed from the existing residential developments at 116 Herring Road; and
- Overshadowing falls onto Epping Road and does not impact residential amenity.

The development proposes setbacks of varying distances (**Figure 11**). The DCP requires a 10m setback to Epping and Herring Roads, whilst setbacks of 7m and 5m respectively are proposed. The proponent states that the proposed 7m setback at the intersection of Epping and Herring Road acknowledges the corner location and improves the definition of the corner and the landmark building. It also reduces conflict between the retail activities at ground level with the future RMS slip road. The proponent's views are supported.

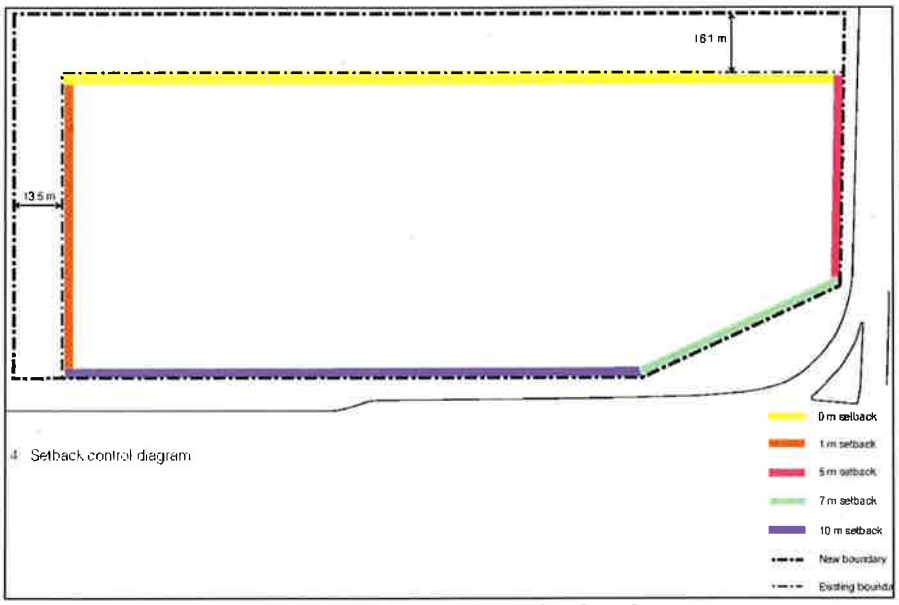

Figure 11: Proposed Setbacks
(*Source PPR February 2012*)

The internal buildings are setback 0 – 1 metre from the edge of the new proposed roads. These setbacks will create a more urban interface, than would be achieved if a 5m setback was provided as sought by the DCP. **Figure 12** below shows the relationship to the street. It is the Department's view that the spatial arrangement of the buildings, with gaps and green spaces created by roads and an internal park, will create an environment with visual relief and soft elements and is acceptable. The flat walls at street level are not desirable, but are a consequence of the site slope and the level of the car park. The Department has recommended a condition to improve the appearance of the ground level walls by reducing the blank rendered/painted wall effect and providing greater articulation and visual interest.

Figure 12: Artist's impression showing nil setbacks on new road
(*Source PPR February 2012*)

Visual Impact

The redevelopment of the site to achieve its potential will lead to a change in its visual relationship with the surrounding area. This change is anticipated by the strategic planning for the area and the development currently being undertaken in the locality.

The proposed building envelopes range from 9 – 18 storeys along Epping Road and 8 – 18 storeys along Herring Road. The proposed buildings are generally well modulated stepping up in height to the corner of Epping and Herring Roads, visually reinforcing this corner. It is recommended that the heights of some buildings be reduced to make them more consistent with those of the adjoining parts of Macquarie Park. The separation between the buildings and the use of interesting and varied façade treatments breaks down the bulk of the buildings. The Department is satisfied with the visual impacts upon Epping Road and Herring Roads subject to the amendments proposed.

Figure 13: Epping Road Frontage (*Source PPR February 2012*)

Figure 14: Corner of Epping Road and Herring Road Frontage *(source PPR February 2012)*

The proposed east-west running road extends along the common boundary with 116 Herring Road, with four of the proposed buildings fronting this road. The height and scale of Buildings, H, Y and M (refer **Figure 15**) is consistent with Amendment No. 1 controls and their separation from the buildings on the adjoining properties complies with the requirements of SEPP 65. The taller buildings on Epping Road will be visible, but their impact will be mitigated by their separation and location behind the directly interfacing buildings.

Figure 15: Photomontages of proposal as viewed from 116 Herring Road
(Source: PPR February 2012)

Building D is the fourth building which has a direct interface with 116 Herring Road (refer **Figure 16**) and has a height of 12 storeys (as recommended to be amended). This height is consistent with the characteristic future height for buildings on Herring Road. The separation from the adjoining properties complies with the requirements of SEPP 65. Accordingly the visual relationship with the adjoining property is acceptable.

Figure 16: Photomontages of proposal as viewed from the adjacent 116 Herring Road on the north eastern boundary *(Source: PPR February 2012)*

At its northwestern boundary the site adjoins 157 Balaclava Rd (the BCS site). Buildings W and H have a direct interface with this adjoining property (refer **Figure 17**). The Department supports the height of Building H as it is consistent with Council's strategic direction for the site. However, as discussed above, the Department considers that Building W should be reduced to 9-11 storeys to establish an appropriate future context. The Department notes that the adjacent BCS site does not have any immediate plans for redevelopment and there should be an appropriate transition to the south of the BCS site.

Figure 17: Photomontages of proposal as viewed from 157 Balaclava Rd on the north western boundary *(Source: PPR February 2012)*

The building separation between Building W and the BCS site is approximately 20 metres. The SEPP 65/RFDC rule of thumb requires 18 metres for habitable to non-habitable rooms and 24 metres between habitable rooms. The Department recommends via condition of approval that appropriate screening, louvers and landscaping be used to reduce privacy impacts where the separation does not comply with SEPP 65. It is further noted that Amendment No. 1 proposes an area of open space along the boundary of the sites. This will have the impact of increasing the separation to 64 metres when the BSC site develops.

As discussed below, there are no overshadowing impacts created by the proposed development on the BSC site.

Overshadowing

The Department has reviewed the proponent's shadow analysis and notes that the extent of overshadowing generated by the proposed development mainly impacts Epping Road and

the internal portions of the site. It is noted that during winter the open space areas receive more than 2 hours of sunlight during the day.

The Department recommends improving the internal solar access. This is discussed further in **Section 5.2**.

Department's consideration
In general, the Department notes any increase in building height at this location will alter the character of the area. However, the site has been identified as a good location for higher density residential development and increased heights are appropriate given its location in relation to public transport, employment, education and shopping facilities.

The Department supports Council's recommendation to reduce the height of Buildings C, W and D.

In assessing the height of Building L, the Department has considered Council's desired strategic direction reflected in Amendment No. 1. The Department is satisfied that the development is acceptable given that:

- A landmark building marking the entrance of the Macquarie Park precinct is warranted;
- The proposal should adopt building heights that transition from the landmark building;
- The proposed heights should be an appropriate scale to the adjacent sites in terms of existing and future height context; and
- The open space will receive good solar access during most of the year, subject to the amendments discussed in Section 5.2 relating primarily to the deletion of part of Building M.

5.2 Open Space

The PPR proposes approximately 11,530m^2 of open space, public domain and through site links across the site which represents 51% of the total site area. The PPR has slightly increased the amount of open space by 1024m² by reducing the width of the internal road and removing on street parking.

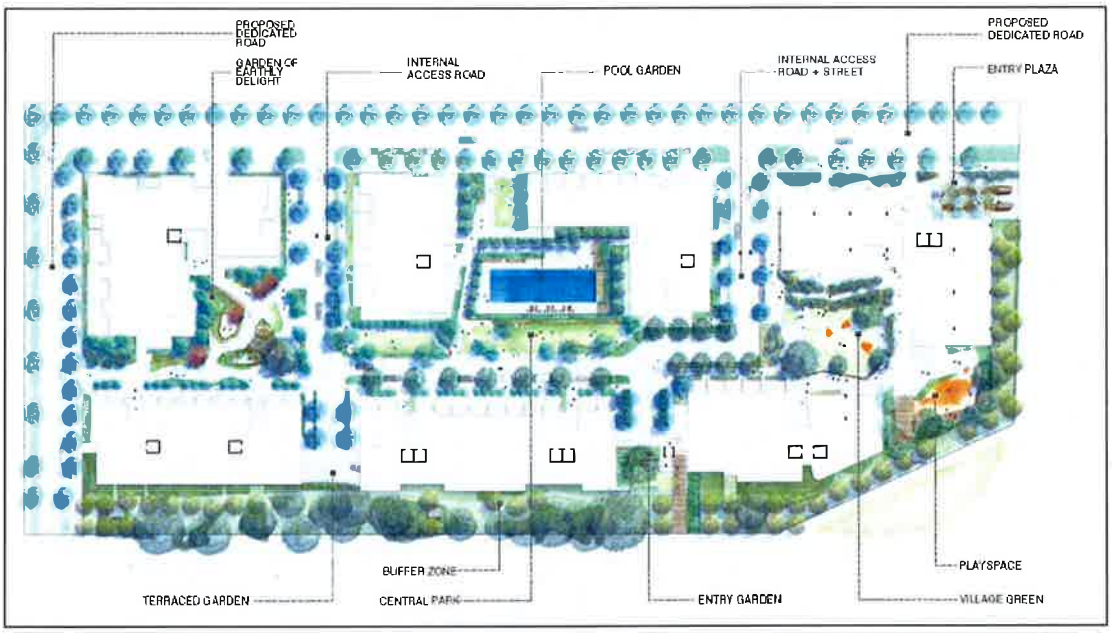

Figure 18: Proposed Landscaping *(Source PPR February 2012)*

The proposal offers several small pockets of open space and three primary areas of communal open space. The three primary communal spaces are the 'Village Green and

Play Space' located in the southern portion of the site between Buildings L and D on the corner of Epping and Herring Road; the 'Central Park and swimming pool area located in the central portion of the site between Buildings M and Y; and the 'Garden of Earthly Delight' located in the north western part of the site between Buildings H and W.

The village green and children's play space on the corner of Epping and Herring Road is considered to be the most functional and useable area of open space. The space provides open lawn that can be flexible and utilised for diverse activities. It also connects to the proposed community room and will be accessible to residents and the local community.

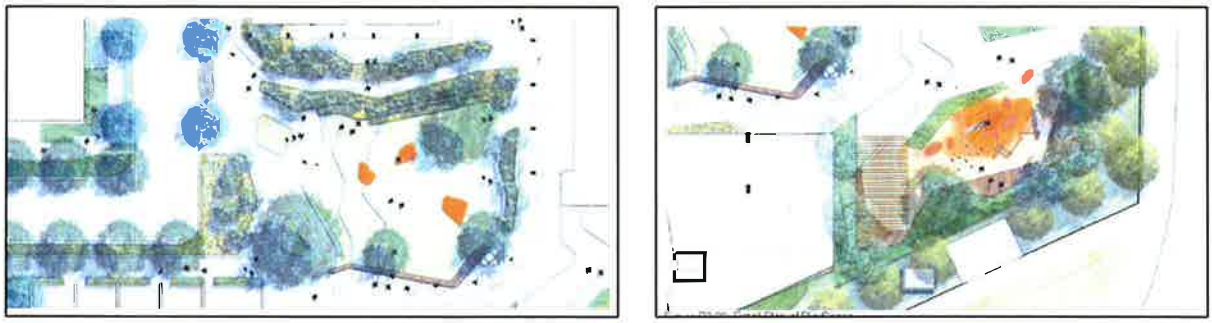

Figure 19: Village Green and Children's Play Space *(Source PPR February 2012)*

The Department has concerns regarding the children's play space being located in close proximity to busy roads. The garden is proposed to be surrounded by dense dwarf yellow gum trees to provide a natural edge to the space, however, the Department considers that a more restrictive boundary should be provided to ensure the safety of young children. Nonetheless, this space is considered beneficial to the development and the community.

The Garden of Earthly Delights incorporates a series of spaces divided by internal pathways that access lobbies (see **Figure 20**). The spaces include chairs and tables and are enclosed and sheltered. The spaces are interesting and are likely to have aesthetic qualities when viewed from residential apartments above, however, the functionality and useability of the space is questionable. The area is significantly overshadowed by the surrounding buildings and is divided by pathways to the buildings which creates a thoroughfare and is perhaps not desirable for use for recreational and relaxation purposes.

Figure 20: Garden of Earthly Delights *(Source PPR February 2012)*

The central park is highly accessible, however, is significantly constrained by overshadowing. The proponent's shadow diagrams indicate that only a small portion, less than 50% at any time, will receive sunlight between 9 am and 12 noon in winter. There is no solar access to this area after midday. The central park is approximately 7 metres in width

and the PPR describes it to be an east-west connection for residents. The size of this area and its use as a through site link may inhibit use for informal activities.

Included in the proponent's total open space are the small pockets of landscaping that the PPR considers to 'comprise a number of interconnected spaces'. These small spaces are primarily grassed or vegetated areas to fill in undevelopable portions of the site such as along the boundaries, site entrances, drainage and around the building footprints. These landscaped sections appear well designed; however, their functionality and useability are compromised by their size, overshadowing impacts and their use as through site links. The proponent also includes the new proposed road reserves in the total open space. These elements do serve a purpose; however, they also represent a significant portion of total open space that will not be suitable for recreation.

The development proposes 43% of the open space as deep soil zone. This is located within the vegetated strip along the boundary of Epping and Herring Road and contains the existing mature trees that are to be retained. This space will provide a landscape buffer to the roadways. It is noted that an electricity substation is to be located within this zone on Epping Road, which may require accessibility for the electricity provider for maintenance purposes.

Macquarie Park lacks useable and accessible open space. Macquarie University has large areas of open space; however, use by the public is not encouraged. The Lane Cove National Park is also close to the subject site, however, this involves a substantial deviation around the M2 Motorway to access it. Other smaller parks surrounding the site are inadequate in size and access is also restricted. Figure 19 illustrates the open space in Macquarie Park.

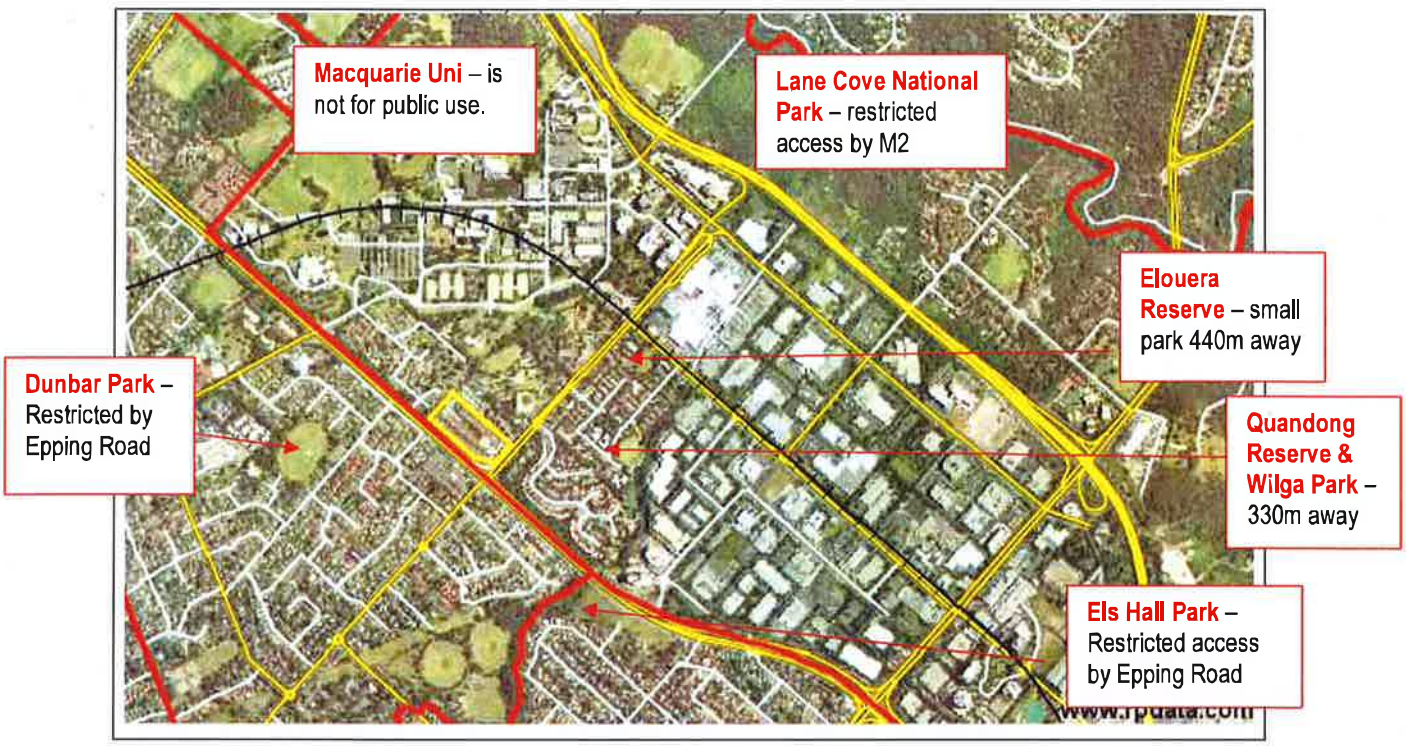

Figure 21 – Macquarie Park Existing Open Space *(Source RP Data 2012)*

It has been identified in Council's DCP and Amendment No. 1 that an area of open space is proposed along the riparian corridor on the adjacent BSC site. However, BSC has advised that they do not have any intention to develop their site for some 15 years. This is a significant time for the subject site to be without useable open space.

In light of poor functionality and useability of the proposed open space, and lack of sufficient open space in Macquarie Park and to increase the overall amount of open space, it is recommended that the 4 storey portion of Building M along the north eastern boundary of the site be deleted (**Figure 9**). This will increase the open space by approximately 350m² and increase the central park and pool area from approximately 1,313m² to 1,665m². This will result in the loss of approximately 10 apartments (1.7% of the total proposed development). Removal of the building will also ensure this open space area will receive more than 2 hours of sunlight on the pool and soft landscaped areas.

The Department is satisfied that with the proposed modifications the site can achieve a suitable amount of residential amenity and open space for future residents and the local community.

5.3 Traffic and Parking

Traffic

The local road network in the vicinity of the site is subject to high volumes of traffic during peak hours.

Epping Road is a state controlled road providing a connection between Beecroft Road in the north and the Gore Hill Freeway in the South. It carries approximately 50,000 vehicles per day and generally provides 3 lanes in each direction. However, in the vicinity of the site, it forms a four-way signalised intersection with Herring Road.

Herring Road is a local collector road and runs in a north/south direction providing connection between Bridge Road in the south and the M2 Motorway in the north. Herring Road is constructed with varying width carriageway and is subject to 50km/h speed limit on all approaches and carries approximately 27,000 vehicles per day. Herring Road is a connector road to the M2 Motorway. There is also a current proposal for another connector road to the M2 Motorway from Lane Cove Road. Existing and future access to the site is from Herring Road.

Traffic impacts and the cumulative impacts of traffic resulting from approved and pending developments in the area is a concern of Government agencies, Council and the public.

Proponent's justification

The traffic impacts have been assessed using Council's Macquarie Park Growth Model (a Paramics Microsimulation Model) which was developed for the purpose of assessing and monitoring the cumulative impacts of developments and consideration of traffic infrastructure improvements. This enables Council to undertake a network wide assessment and understand the implications of the development for the area.

The findings of this model show that the proposed development would result in a net increase of 109 vehicles per hour during peak periods or 1-2 vehicles per minute above the current conditions under Council's 'base case' model which takes into account all other committed development in the locality.

The operation of key intersections has been analysed using the turning movement data from the Base Case + Development models for peak AM and PM periods. Increased delays were recorded for PM peak periods, however, the increased volumes associated with the development are considered moderate compared with existing volumes along Epping and Herring Roads. The proposed development equates to approximately a 1.5% increase over and above existing volumes.

The proponent states that the calculations are a worse case scenario prediction and do not take into account use of other transport modes such as public transport or walking which is

anticipated from the development. The proponent therefore considers that the increase in fluctuations is moderate and can be accommodated within the existing road network and no road network improvements are necessary.

A residential travel plan has been proposed and identifies sustainable travel options that are available to residents and visitors. The travel plan will identify services available to residents and their locations.

Council's views

Council's 2031 Strategic Transport Model for Macquarie Park established that an uplift FSR of 2:1 can be achieved for the site given road network constraints. If a future development of this site is permitted to exceed this upper limit without the use of counter measures that mitigate the additional traffic generated (which is floor space type dependent), this may create a situation where other properties in the Macquarie Park area become "sterilised" due to the resultant traffic impacts. In other words, the FSRs have been established on a precinct wide basis to provide all properties with an opportunity for redevelopment without traffic movement in Macquarie Park ultimately grinding to a halt. Providing the opportunity for one property to exceed the identified FSR by a significant amount may remove the opportunity for another property to achieve an appropriate or equitable density of development because there is no spare capacity in the road network. Such an outcome would effectively undermine the orderly redevelopment of the Macquarie University / Macquarie Park precinct.

It should be noted that the 2031 Strategic Transport Model was predicated on a 40% Public Transport modal split.

RMS's views

RMS does not raise any concern regarding the predicted traffic generated by the proposal and any residual impacts on the regional road network.

Department's consideration

The Department has calculated trip generations (refer **Table 7**) based on the *RMS's Guide to Traffic Generating Developments* for high density residential flat buildings in metropolitan subregional centres. This is at a rate of 0.29 trips per unit and 4.6 trips per 100m² commercial floor space during peak AM and PM traffic. An 80:20 split in the direction of peak traffic has been applied and the information has been compared to that of the existing hotel movements.

Table 7: Trip Generation

	Residential trips per hour	Commercial/ non-residential trips per hour	Combined trips per hour
Existing Hotel			
AM Peak Periods			
Vehicles p/h in peak	NA	NA	***128***
Vehicle split	NA	NA	80 in: 48 out
PM Peak Periods			
Vehicles p/h in peak	NA	NA	***104***
Vehicle split	NA	NA	48 in : 56 out

	Residential trips per hour	Commercial/ non-residential trips per hour	Combined trips per hour
Amendment No. 1			
Vehicles p/h in peak	144	20	***164***
AM Peak Periods			
80:20 split in peak direction	115:28	16:4	132:32
PM Peak Periods			
20:80 split in peak direction PM	28:115	4:16	32:132
PPR			
Vehicles p/h in peak	167	20	***187***
AM Peak Periods			
80:20 split in peak direction	134:33	16:4	150:37
PM Peak Periods			
20:80 split in peak direction	33:134	4:16	37:150
Department Modified			
Vehicles p/h in peak	152	20	***172***
AM Peak Periods			
80:20 split in peak direction	121:31	16:4	138:34
PM Peak Periods			
20:80 split in peak direction	31:121	4:16	34:138

The Department's calculations indicate that the project as proposed in the PPR will generate an additional 23 trips per hour during the peak periods (18 trips with the peak and 5 against it) over what Council has planned for under Amendment No. 1. Although of itself this increase is low, its impact must be assessed having regard to the existing and future operation of the Macquarie Park road network.

Key intersections within the Macquarie Park road network currently operate at low levels of service in peak periods. Amendment No.1 allows for a general uplift of development, having regard to this constraint. Council advises that the cumulative impact of the approval of projects in excess of the FSR permitted by Amendment No. 1 will be that the road network will be unable to function. Council further advises that approval of excessive FSR on one site may affect the ability of others sites to be redeveloped.

The Department's proposed modifications would reduce the traffic volume generated above that anticipated in Amendment No. 1 to an additional 8 trips per hour during peak periods (7 with the peak and 1 against it). This small increase can be absorbed by the network with minimal impact. The Department is satisfied that no additional road infrastructure is required to facilitate the traffic increases associated with the project (as recommended).

The proponent has proposed measures to encourage other forms of sustainable transport including a car share scheme, the provision of bicycle vouchers and infrastructure, upgrades to the bus stop and a travel access guide. The site is also located within close proximity to public transport. While this will assist in reducing some of the traffic impact, it is considered

that there is further opportunity to reduce traffic by reducing the proposed number of car parking spaces provided on the site (discussed below).

Parking

The current proposal for car parking exceeds the RMS's Guide to Traffic Generating Development, however is within Council's car parking requirements identified in DCP 2010. The RMS's Guide to Traffic Generating Development provides the following car parking rates for high density residential flat buildings:

- 0.6 / one bedroom dwelling
- 0.9 / two bedroom dwelling
- 1.4 / three bedroom dwelling
- 1 visitor space / 5 dwellings

Council Car Parking DCP 9.3 provides the following car parking rates for high density residential flat buildings:

- 0.6 to 1 space / one bedroom dwelling
- 0.9 to 1.2 spaces / two bedroom dwelling
- 1.4 to 1.6 spaces / three bedroom dwelling
- 1 visitor space / 5 dwellings

The proponent has applied the maximum rate of parking to this proposal.

Proponent's justification

The proponent justifies the rate of car parking as being within the range of Council's prescribed controls for car parking.

The proponent's PPR has reduced the number of car parking spaces from 715 to 695 spaces in the basement parking levels to minimise car parking and traffic congestion. The width of the internal road between Buildings Y, M and C has been reduced, consequently removing the previously proposed 90 degree parking spaces and reducing the on street parking spaces from 75 to 46. This equates to an 11.5% reduction from the EA car parking rates.

Department's consideration

The Department has considered the proponent's justification, however notes that the number of apartments has been reduced from 626 to 576 which results in a proposed increased parking rate from 1:1.26 to 1:1.28.

The traffic assessment describes the site as having excellent exposure to public transport and is serviced by both bus and rail. The railway station is located within the 800m (approximately 500m north of the site) walking distance that is typically accepted as a reasonable limit for pedestrian access for journey to work.

The proponent's traffic assessment further states that in the case of residential development, sustainable travel can be maximised for all trip types through the promotion of public transport and the use of car share vehicles. This is also essential where parking is restricted, as proposed.

While the proposal complies with Council's car parking rate, the Department does not agree that the proposal restricts car parking to such an extent as to promote the use of the public transport and considers that car parking provision should be further reduced for the following reasons:

- The proposal should adopt a reduced car parking provision due to the site's excellent access to public transport. This is in line with wider state objectives of the Metropolitan

Plan for Sydney 2036 and draft Subregional Strategy relating to environmental targets by reducing car dependency, particularly in Macquarie Park where there is a significant over supply of car parking, and supporting greater use of public transport;

- Council's parking controls are expressed as a range. The minimum rate is consistent with the RMS's Guide to Traffic Generating Development, however, the maximum rate exceeds the RMS's Guide. The proponent has applied the maximum rate to this proposal. The Department considers that it does not properly reflect the site's location and the proposal should adopt the minimum rate as prescribed in the DCP, which is consistent with the RMS's Guide;
- A reduction in car parking provision will assist in alleviating the traffic impact of the development on the functionality of key intersections in the road network;
- Sustainable travel can be maximised for all trip types through the promotion of public transport and the use of car share vehicles. This is also essential where parking is restricted; and
- Council advises that a revised car parking strategy will be considered for Macquarie Park over the next 5 years. Current parking rates will be reviewed with a view to reducing traffic generated by developments in close proximity to transport.

The site is located in close proximity to transport, employment and education and it is considered that car ownership and dependency should be discouraged at this location. The Department therefore recommends car parking spaces be reduced in accordance with the RMS's Guide to Traffic Generating Developments and Council's minimum parking requirements prescribed in DCP 2010, which provides for the following rates:

- 0.6 spaces per 1 bedroom apartment;
- 0.9 spaces per 2 bedroom apartment;
- 1.4 spaces per 3 bedroom apartments;
- 1 space per 5 for visitors; and
- 1 space per 40m^2 of commercial GFA.

5.4 Residential Amenity

The PPR generally provides an appropriate response to meeting the development principles and providing reasonable future amenity to occupants with most requirements of *State Environmental Planning Policy 65 – Design Quality of Residential Flat Buildings* (SEPP 65) and the *Residential Flat Design Code* (RFDC) being met. However, solar access is an area of non-compliance which requires amendments to the proposal to ensure a satisfactory outcome.

The amenity impacts of the proposal on both adjoining properties and between proposed units in relation to separation and privacy have been assessed and are considered to be satisfactory as discussed below:

Building separation and privacy

The PPR has increased building separation between buildings on the site which has improved privacy and solar access to these buildings.

The proposal generally complies with the recommended RFDC building separation for habitable to non-habitable rooms. The apartments generally face north or south, however there are some instances where secondary windows cause an inconsistency with the RFDC rule of thumb. The proponent will be required to provide appropriate screening, louvers and landscaping to ensure that the privacy of residents is maintained.

The required separations between Buildings L, D and M are indicative only as they form part of the Concept Plan. However, sufficient detail has been provided to make an assessment and future assessments will require screening of affected habitable windows and balconies to address privacy.

Table 8: Building separation

Building #	PPR Separation	Compliance
L and C (indicative)	- min 12m	**Minor inconsistency**. RFDC building separation is 12 metres for non-habitable rooms and 18 metres for habitable to non-habitable rooms. Some minor inconsistency between some secondary windows of habitable rooms on the eastern side of Building L and western side of Building C cause slight non-compliance. A condition to ensure appropriate screening/louvers/landscaping to reduce privacy impacts where the minor inconsistency occurs.
C and W	- min 12m	**Minor inconsistency**. RFDC building separation is 12 metres for non-habitable rooms and 18 metres for habitable to non-habitable rooms. Some minor inconsistency between some secondary windows on the western side of Building C and eastern side of Building W cause slight non-compliance. A condition to ensure appropriate screening/louvers/landscaping to reduce privacy impacts where the minor inconsistency occurs.
W and H	- min 12m	**Minor inconsistency**. RFDC building separation is 9 metres for non-habitable rooms and 13 metres for habitable to non-habitable rooms. Some minor inconsistency between secondary buildings on the northern side of Building W and southern side of Building H cause slight non-compliance. A condition to ensure appropriate screening/louvers/landscaping to reduce privacy impacts where the minor inconsistency occurs.
H and Y	- min 16m	**Minor inconsistency**. RFDC building separation is 9 metres for non-habitable rooms and 13 metres for non-habitable to habitable rooms. Some minor inconsistency between secondary buildings on the eastern side of Building H and western side of Building Y cause slight non-compliance. A condition to ensure appropriate screening/louvers/landscaping to reduce privacy impacts where the minor inconsistency occurs.
Y and M	- min 16m - max 37m	**Complies**
M and D (indicative)	- min 14m	**Minor inconsistency**. RFDC building separation is 9 metres for non-habitable rooms and 13 metres for non-habitable to habitable rooms. Some minor inconsistency between secondary buildings on the eastern side of Building H and western side of Building Y cause slight non-compliance. A condition to ensure appropriate screening/louvers/landscaping to reduce privacy impacts where the minor inconsistency occurs.
D and L (Indicative)	-min 12m -max 30m	The separation between the north eastern side of building L and south western side of building D does not comply. A condition to ensure compliance at subsequent development applications has been included.

The PPR claims that the separation between the buildings (with the exception of the separation between Buildings L and D) is consistent with the SEPP 65/RFDC rule of thumb as habitable rooms do not overlook other habitable rooms. The Department has reviewed the plans and considers that there are some instances where inconsistencies occur. As the apartments are generally oriented to the north and south the primary windows comply with SEPP 65/RFDC, however, it is noted that some secondary windows on the eastern and western elevations interface with each other. This occurs in only a few instances and is considered to be a minor impact that can be dealt with by the inclusion of appropriate screening. A condition has been included to ensure adequate privacy between these secondary windows.

The separation between Buildings L and D is inconsistent with the RFDC recommended 24 metres for habitable to habitable rooms. The proponent states that the inconsistent sections will achieve daylight access and visual and acoustic privacy through the use of privacy screens, orientation and location of openings where the building separations vary from the recommended RFDC. This is considered by the proponent to enable a satisfactory level of amenity to be achieved. The Department considers that the implementation of privacy screening at these locations will not be sufficient to ensure privacy and residential amenity, as they likely to be primary windows with a direct interface. It is therefore recommended that a future assessment requirement be imposed which requires the separation between Buildings L and D to be increased to be consistent with the RFDC rule of thumb for building separation. This will require a re-alignment of the south western corner of Building D.

The PPR proposes 2 internal roads along the boundary of the subject site and the adjacent BCS and 116 Herring Road. This ensures adequate separation of 20m is achieved and satisfies the RFDC recommended 18m separation.

Solar access

The PPR has 67% of apartments receiving 3 hours of sunlight in mid-winter to private open spaces, and 2 hours of sunlight into living areas. This is inconsistent with the 70% requirement of SEPP 65/RFDC.

The Stage 1 Project Application achieves 78% of apartments receiving 3 hours of sunlight in mid-winter to private open spaces, and 2 hours of sunlight into living areas. This is consistent with the 70% requirement of SEPP 65/RFDC.

Building D performs below the recommendations of the RFDC with 61% of the apartments receiving 3 hours of sunlight to private areas and 2 hours to living spaces in winter. The Department considers that given the relatively unconstrained nature of the site, the minimum 70% control should be met and conditions of approval and future assessment requirements (Concept Plan) are recommended to ensure consistency. This could be achieved in a number of ways, including an amended unit mix, internal design/layout changes or re-orientation of units. The Department is confident that no fundamental design changes would be required.

Cross Ventilation

The RFDC recommends that 60% of units should be naturally cross ventilated and 25% of kitchens should have access to natural ventilation. Indicative floor layouts submitted with the PPR demonstrate that approximately 65% of apartments will be capable of being naturally cross ventilated and 34% of kitchens naturally ventilated. This satisfies the RFDC recommendation.

Ground floor apartments

The RFDC provides recommendations on the special treatment required for ground level apartments to contribute to streetscapes and increase residential amenity. In particular the RFDC recommends that where appropriate, ground floor apartments should be provided with individual entries and private courtyards.

The Concept Plan has some apartments at the lower ground level. All ground floor apartments have private landscaped courtyards that provide adequate screening between private and public space.

Open Space and Deep Soil Planting

The RFDC recommends that 25-30% of the site be communal open space, with 25% of this space being a deep soil zone.

The Concept Plan proposes 51% (11,530m^2) of the site area as communal private open space and some publicly accessible open space. While this satisfies the RFDC it is

considered that the amount of useable open space is inadequate. **Section 5.2** recommends increasing the open space within the central portion of the site to improve residential amenity.

The Department is satisfied that the open space and deep soil planting achieves the recommended RFDC requirements.

Noise

External noise impacts have been raised as an issue by the RMS and the Ranch Hotel located on the southern side of Epping Road.

The proponent advises that the proposed acoustic treatments include architectural and building fabric constructions to achieve acceptable internal noise levels and does not depend on any walls/screens, plantings between the development and the surrounding roads.

For the future RMS slip road it is anticipated that traffic volumes at the location would need to double (from 40,000 to 80,000 trips per day) to impact the development in terms of noise. Therefore the proposed treatments to the development will be acoustically acceptable to ensure existing and future noise levels will comply with SEPP (Infrastructure) 2007 and the relevant Australian Standards.

The Department is satisfied the impacts of external noise can be managed within the development through an appropriate condition of consent.

5.5 Stormwater and Flooding

The site slopes away from Epping Road in a north westerly direction towards Council's existing stormwater network which drains from a low point in Epping Road, through the BCS site at 143-157 Balaclava Road and then to Macquarie University. The development will require an 'easement to drain water' over the adjacent BCS site to facilitate stormwater connection to Council's system.

A Sydney Water Corporation (SWC) sewer line is located within the preferred alignment of the drainage easement and to provide space for the easement, the proponent will need to address the sewer's existing alignment. Council and Sydney Water have advised that a 3.2m wide easement to facilitate the sewer line and stormwater drainage to run side by side will be required.

Council's views

Council advises that they have no objection in principle to run the stormwater and sewer main pipes being located side by side provided the minimum easement width is 3.2m. The easement should be created in accordance with Council's DCP 2010 requirements.

Council considers that the agreement of the downstream owner for an easement needs to be confirmed prior to approval as there may be issues regarding drainage or the method of system that does not comply with Council's stormwater policy. Council as the beneficiary of the easement will need to approve the works.

Department's consideration

The Department is satisfied that the proponent has consulted Council's development engineers to establish that on site stormwater detention is to be provided on the basis of attenuating post-development 1 in 100 year ARI site discharge to that of green fields predevelopment conditions (Permissible Site Discharge PSD). The onsite detention is to be provided in the form of a concrete tank on the western edge of the underground car park between the ground floor slab and first basement level.

BCS has agreed to allow the easement to drain water on their site. The proponent is in advanced stages of negotiation with Macquarie University on this matter and the Department understand that this agreement will be reached imminently.

5.6 Road and Pedestrian network

The provisions of Council's DCP 2010 identify a fine - grained network of roads and pedestrian links across the Macquarie University Precinct. Details of the DCP proposed street networks and that of the proponent are shown in **Figure 22** below.

Figure 22: DCP 2010 Macquarie University Precinct – Preferred Street Network *(Source PPR February 2012)*

Proponent's justification

Following consultation with Council, the proposal departs from Council's DCP road network and seeks to provide two new local streets along the north eastern and north western boundaries of the site. These are to be dedicated as public roads to council. Only one half of the road will be constructed on the site's northwestern boundary and the other half will be completed when the adjacent site redevelops.

The proponent claims that the proposed street network will make a contribution to the future street network of the Macquarie Park Corridor. The DCP street layout aims to increase the permeability of the existing roads through the site. However, it assumes that the site to the north will be developed and will contribute to the street network. As this site is in strata ownership, future development of the site is not guaranteed. Therefore the proposed road network in the PPR provides a new local street on the north eastern and north western boundary to connect the site.

The PPR includes a reduction in the width of the originally proposed internal east-west roadway to the north of Building C to allow one way movements only.

Council's views

Council advises that they support the implementation of the fine grain road network on the site and the roads to be dedicated.

RMS's views

RMS provides concurrence to use Epping Road as a left in only entrance to the site. This will require the proponent to construct a deceleration lane to RMS requirements. RMS advises that there is sufficient road reserve to construct the deceleration lane.

The proponent advises that the site's access to Epping Road has been proposed in accordance with Council's DCP and Road Structure Plan. The roadway is proposed to facilitate exit movements only (from the site to Epping Road) until such time as the neighbouring property to the west is developed, at which time access from Epping Road may be provided. No deceleration lane is therefore proposed in association with the current project.

Council advises that a left in only lane would create additional traffic impacts on the site as motorists would use this lane as a short cut through Macquarie Park. They do not support a left in only at this stage and recommend that the proposed road be constructed but blocked off until such time as the adjacent site is developed and the other part of the road linking it to the Macquarie Park road network is required.

Department's consideration

The proposed road network provides increased permeability and contributes to Council's fine grained road network. The revised road network is appropriate and allows the potential for Council's road network to be achieved in the future.

It is considered that the north-south road along the north western boundary of the site should be constructed but access to Epping road blocked off until the adjacent site is developed and the other half of the road is constructed.

Pedestrian/ cycle

The proponent advises that in conjunction with the road network, the pedestrian strategy seeks to establish permeability across the site by providing key access nodes, well defined footpaths and walkways. This is to reduce potential conflicts between pedestrians and motor vehicles within the site.

The increased separation between Building L and D provides better activation of public space and a view corridor within the site. It is considered that the surveillance offered from the surrounding buildings and street will provide casual surveillance for pedestrians, particularly at the south eastern portion of the site. It is considered that the north western portion of the site may require sufficient lighting for pedestrians using the street connections at night and a condition of approval is recommended for the installation of appropriate lighting.

Provisions have been made for bicycle storage in the basements of the residential buildings within the Stage 1 Project Application. The Department is satisfied with the proponent's advice that bicycle storage will be considered in any application for Stage 2.

5.7 Other Matters

Section 94 Contributions

The proponent has committed to Section 94 Contributions in accordance with Council's Section 94 Plan December 2007. The proponent will be required to pay Council's contributions as provided by Council.

Affordable Housing

The PPR commits to providing 2 affordable housing units within the development as requested by Council in their letter to the proponent dated 24 November 2011. The Department supports the provision of affordable housing. Council requested that the affordable housing units be dedicated to them and that it should not result in a reduction of Council's Section 94 Contribution payments. The Department has recommended a condition to ensure that a minimum of 2 affordable housing units are dedicated to Council.

Mixed Use

The site is situated within a mixed use zone; however only approximately 2.3% of the total floor space is non-residential. This includes the proposed community room which is a facility targeted for use by future residents on the site.

There is a high demand for office and retail floor space in Macquarie Park, however the Economic Impact Statement provided does not support this at the subject site. It is considered that commercial office space is better located within the commercial core and that while some small convenience retail on the site would be satisfactory, anything additional would undermine the existing retail hierarchy.

Urbis Pty Ltd provided correspondence to Council to address Council's request to activate ground level uses to Herring Road. The proponent has agreed to this activation and provides nearly continuous retail activation of the Herring Road frontage of Building D.

The Department accepts the proponent's rationale that a higher proportion of office or retail floor space is not justified in this location. Substantial retail and office areas are located in close proximity to the subject site so that the required services of surrounding residents are met. The Department agrees that the proposed level of retail floor space is consistent with the existing retail hierarchy and is therefore acceptable.

Draft Conditions

The Department provided instruments of approval for the concept plan and project application to the proponent for comment. The proponent provided its response to these. In general the proponent's response was to seek reallocate some of the GFA that has been reduced from the proposal to other portions of the buildings to create new building footprints and increase the heights of some buildings. The proponent's still sought an FSR of 2.3:1.

The Department conducted a merit assessment of the proposal and its recommendations have been made accordingly. The Department considers that the amended building footprints provided by the proponent following consideration of the draft conditions create additional assessment issues that have not been previously considered and the assessment of the proposal is at such an advanced stage it would not be appropriate to recommence the assessment process. The Department will not be considering amending the building footprints as part of this assessment.

6. CONCLUSION AND RECOMMENDATION

The Department has assessed the merits of the concept plan and project application taking into consideration the issues raised in submissions and is satisfied that the impacts have been addressed in the PPR, the Revised Statement of Commitments and recommended modifications/conditions of approval.

The Department is satisfied that the changes to the proposed development both in the PPR and as required by modifications and recommended conditions address the key issues raised during the assessment process.

The Department notes the following key findings:

- The proposal offers an excellent opportunity to provide higher density residential development in close proximity to existing public transport, education, employment and retail facilities;
- The proposal generally adopts the strategic principles of Council's existing and proposed controls, and the Department's recommended height modifications support Council's desired outcome for Macquarie Park;
- The proposal is sympathetic to the existing character of Macquarie Park and recent approvals;
- The impacts of overshadowing will be largely contained on site and on Epping Road. Albeit, the Department has made recommendations to reduce the impact of overshadowing on site to ensure better residential amenity for future residents;
- Whilst Macquarie Park experiences traffic congestion, the Department's recommended modifications reduce the proposed FSR to be more consistent with Council's strategic direction. The traffic implications of the site are therefore considered to be acceptable; and
- The proposal will encourage the use of public transport with a reduced onsite parking rate, the implementation of a travel plan and the provision of bicycle to residents.

The proposal is also considered to be in the public interest for the following reasons:

- Provision of additional dwellings to the Inner North sub-region to meet dwelling targets;
- The creation of public domain areas, including publicly and privately accessible areas of open space, pedestrian footpaths and through site links;
- Construction and dedication of proposed roads to Council, pedestrian footpaths and through site links;
- Developer contributions, construction and dedication of proposed roads and community facilities;
- A landmark building to mark the entrance to Macquarie Park;
- The commitment to upgrading of the existing bus stop along Epping Road and the provision of bicycle vouchers to reduce car use;
- Utilisation of existing transport infrastructure; and
- Employment opportunities through the construction and operational phase of the development.

It is therefore recommended that the Planning Assessment Commission, as delegate for the Minister for Planning and Infrastructure approve the concept and project applications.

Endorsed by:

Mark Schofield
A/ Director
Metropolitan & Regional Projects South

4.9.12

Chris Wilson
Executive Director
Major Projects Assessment

7/9/12

Richard Pearson
Deputy Director-General
Development Assessment & Systems Performance

APPENDIX A. ENVIRONMENTAL ASSESSMENT (EA)

See the department's website at http://majorprojects.planning.nsw.gov.au

APPENDIX B. PREFERRED PROJECT REPORT (PPR)

APPENDIX C. SUBMISSIONS TO EA AND PPR

See the department's website at http://majorprojects.planning.nsw.gov.au

APPENDIX D. PROPONENT'S RESPONSE TO SUBMISSIONS (EA)

See the department's website at http://majorprojects.planning.nsw.gov.au

APPENDIX E. PROPONENT'S RESPONSE TO SUBMISSIONS (PPR)

See the department's website at http://majorprojects.planning.nsw.gov.au

APPENDIX F. CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

SECTION 75I(2) OF THE ACT & CLAUSE 8B OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000

Section 75I(2) Criteria	*Response*
Copy of the proponent's Environmental Assessment and any Preferred Project Report;	The proponent's EA and response to submissions (PPR) are located at **Appendices A and B** to this report.
Any advice provided by public authorities on the project;	All advice provided by public authorities on the project for the Minister's consideration is set out in **Section 4** of this report.
Copy of any report of a panel constituted under Section 75G in respect of the project;	No statutory panel was required or convened in respect of this project.
Copy of or reference to the provisions of any State Environmental Planning Policy that substantially govern the carrying out of the project;	Each relevant SEPP that substantially governs the carrying out of the project is identified below, including an assessment of proposal against the relevant provisions of each SEPP.
Except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division;	An assessment of the development against relevant Environmental Planning Instruments is provided below.
Any environmental assessment undertaken by the Director-General or other matter the Director-General considers appropriate;	The environmental assessment of the project application is this report in its entirety.
A statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.	In accordance with section 75I of the EP&A Act, the Department is satisfied that the Director-General's environmental assessment requirements have been complied with.

Clause 8B Criteria	*Response*
Any assessment of the environmental impact of the project	An assessment of the environmental impact of the proposal is discussed in **Section 5** of this report.
Any aspect of the public interest that the Director-General considers relevant to the project	The public interest is discussed in **Sections 5** of this report.
The suitability of the site for the project	The location of the site at the entrance to the Macquarie Park corridor is suitably positioned for larger density residential development given the close proximity to transport,

	education, employment and shopping.
Copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.	A summary of the issues raised in the submissions is provided in **Section 4** of this report and the proponent's response appears at in **Appendix D and E**.

ECOLOGICALLY SUSTAINABLE DEVELOPMENT

There are five accepted ESD principles:

(a) Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the integration principle);
(b) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle);
(c) The principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle);
(d) The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle); and
(e) Improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle).

The Department has considered the proposed development in relation to the ESD principles and has made the following conclusions:

- **Integration Principle** - The social, environmental and economic impacts of the proposal are positive and the development would provide a positive reuse of the site for residential use. The environmental impacts of the development are appropriately mitigated as discussed in this report. The Department's assessment has duly considered all issues raised by the community and public authorities. The development will also improve the public domain in and around the site.
- **Precautionary Principle** – The EA is supported by technical and environmental reports which conclude that the proposal's impacts can be successfully mitigated. No irreversible or serious environmental impacts have been identified. The site has a low level of environmental sensitivity and does not contain any threatened or vulnerable species, populations, communities or significant habitats. The proponent has demonstrated that the development design and appropriate mitigation measures will be implemented to prevent any detrimental environmental impacts. No significant climate change risks are identified as a result of this proposal.
- **Inter-Generational Principle** – The site's redevelopment for a residential use incorporates ecologically sustainable design principles and the implementation of environmental management practices to be employed during construction which will ensure that the environment is protected for future generations.
- **Biodiversity Principle** – There is no threat of serious or irreversible environmental damage as a result of this proposal. The proposal does not impact upon biological diversity or ecological diversity.
- **Valuation Principle** – The valuation principle is more appropriately applied to strategic planning decisions and not at the scale of this application. The principle is not considered to be relevant to this particular Concept Plan application.

Whilst the details of ESD initiatives to be incorporated into the development would be contained in subsequent detailed Project Applications, the following general ESD principles were incorporated into the concept application and have been reinforced through the Statement of Commitments:

- Deep soil areas for significant planting;
- WSUD measures;
- Water efficient fixtures to apartments;
- BASIX certification (and 4 star Green Star residential rating) and
- Provision of bicycle vouchers to reduce car use.

Developer contributions would also be paid as part of any future development application to assist Council in providing long term services to the community. Consequently, the Department is satisfied that the proposal is consistent with the principles of ESD.

ENVIRONMENTAL PLANNING INSTRUMENTS (EPI'S)

To satisfy the requirements of section 75I(2)(d) and (e) of the Act, this report includes references to the provisions of the environmental planning instruments that govern the carrying out of the project and have been taken into consideration in the environmental assessment of the project.

The primary controls guiding the assessment of the proposal are:

- State Environmental Planning Policy (Major Development) 2005;
- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy 55 – Contaminated Land (SEPP 55);
- State Environmental Planning Policy 65 – Design Quality of Residential Flat Buildings; and
- Ryde Local Environmental Plan 2010.

COMPLIANCE WITH PRIMARY CONTROLS

State Environmental Planning Policy (Major Development) 2005

Under Schedule 1, Clause 13, Group 5 of the Major Development SEPP, "*residential, commercial or retail projects*" with a capital investment value (CIV) of more than $100 million that the Minister determines are important in achieving State and regional planning objectives may be declared a Major Project under Part 3A of the EP&A Act 1979. The project proposes a residential development with a Concept Plan CIV of $175,549,891 and a Stage 1 CIV of $129,697,229.

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)

The proposal comprises more than 300 residential apartments and is therefore a traffic generating development. Clause 104 of the above mentioned ISEPP requires the Department refer the subject application to the RTA as part of the consultation process. The RTA's comments have been assessed and the Department will notify the RTA of its determination of the subject proposal.

State Environmental Planning Policy 55 – Contaminated Land

Clause 7(1)A of SEPP 55 states that a consent authority must ascertain whether the site is contaminated and requires remediation prior to issuing consent.

The proponent has undertaken a Preliminary Contamination Assessment, prepared by Douglas Partners Pty Ltd which identifies that the site is suitable for high density residential development.

The proponent has committed to and recommendations presented in the Preliminary Contamination Assessment should any unexpected contaminated soil or substance be exposed during construction which is confirmed in their Statement of Commitments.

State Environmental Planning Policy 65 – Design Quality of Residential Flat Buildings

SEPP 65 seeks to improve the design quality of residential flat development through the application of a series of 10 design principles. An assessment against these principles is provided below.

The PPR confirms the development has been designed having respect to the design principles of SEPP 65.

Key Principles of SEPP 65	Department Response
Principle 1: Context	The site is located in a mixed use area with predominant residential development and is located in close proximity to public transport, education, employment and shopping facilities. It is suitable for higher density development. With the exception of Building W which can be dealt with through the implementation of recommended modification, the proposal is suitable in the current context.
Principle 2: Scale	The proposed density is suitably located within the locality of the Macquarie Park Precinct. The heights transition from the surrounding low density residential area to the railway station. With the implementation of recommended modifications, the scale will be consistent with recently approved developments and University Concept Plan.
Principle 3: Built Form	It is considered that the proposed building envelopes, subject to modifications recommended within this report, will provide an appropriate built form outcome as outlined in Section 5.1 of this report. Internal amenity and solar access has also been adequately addressed in Section 5.5 of this report.
Principle 4: Density	The subject site is considered to be appropriate for increased density given its good location to transport, education, employment and shopping. With the implementation of modifications outlined in this report, the proposed density is appropriate for the site and its context in terms of the proposed building envelopes and potential unit numbers.
Principle 5: Resource, Energy and Water Efficiency	The Department has made recommendations for modification of the Concept Plan to maximise solar access and natural ventilation opportunities to reduce reliance on artificial heating and cooling. A future assessment requirement has also been recommended to require ESD measures into the future design, construction and operation of the development.
Principle 6: Landscape	The proposal includes deep soil zones within the setback areas which will include the existing trees on the site and allow for planting of tall trees. With the exception of the recommended modifications the detailed landscape plans provided are considered to be appropriate to this development.
Principle 7: Amenity	The proposal has been assessed with regards to residential amenity. It is considered that the amenity of residents both at the subject site and in the surrounding sites have been addressed and are acceptable.
Principle 8: Safety and Security	In general, the concept design allows for good passive surveillance of the road networks, and public and private open space areas on

	the site. The provision of a through site links, pedestrian friendly environments and landscaping improves the safety and security of the proposal. A condition approval has been prepared for suitable lighting to be prepared for the pedestrian access through the site.
Principle 9: Social Dimensions and Housing Affordability	The indicative floor layout shows a mix of apartment types which would encourage a diverse social mix within the area and to sustain a vibrant community.
Principle 10: Aesthetics	The building design and materials used are considered to be satisfactory to this design.

Residential Flat Design Code

The Code sets out a number of guidelines for residential flat development that would ensure the development to ensure apartments are provided with an appropriate level of residential amenity.

The Residential Flat Design Code (the Code) is closely linked to the principles of SEPP 65. The Code sets out a number of "rules of thumb" which detail prescriptive standards for residential flat development that would ensure the development complies with the intent of the Code.

The project has been assessed against the primary development controls contained within the RFDC. Discussion on key non-compliances with the Code is discussed in detail in **Section 5** of this report. The proposal has been assessed against these development controls and is generally consistent with the aims and provisions of the Code.

Ryde Local Environmental Plan 2010

The relevant provisions of the RLEP have been addressed within the report in **Section 5**. In particular non-compliances with height and FSR were considered in this assessment.

Ryde Local Environmental Plan 2010			
	Permissible	**Proposed**	**Compliance**
Development Control Table: "B4 Mixed Use" zone	Residential, Business, Retail, Community Facilities	Residential & Business Premises and Community Facilities.	Yes
Land Use Table: **B4 Zone Objectives:** • *To provide a mixture of compatible land uses.* • *To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.* • *To create vibrant, active and safe communities and economically sound employment centres.* • *To create safe and attractive environments for pedestrians.* • *To recognise topography, landscape setting and unique location in design and land-*		The proposed residential development will reinforce the residential character of the area and support the adjacent residential, education, employment and shopping uses. The development is located in close proximity to public transport and the railway station and the proposal aims to increase bicycle use by ensuring bike racks are provided and bicycle vouchers to each apartment. The proposed street and pedestrian network provides permeable access	Yes

use.		throughout the site and linkages to the surrounding network and is a safe and attractive environment for pedestrians. The proposal has been designed in recognition of the setting and topography of the site.	
Clause 4.3 - Height Objectives: Macquarie Park *(a) to provide effective control over the scale and bulk of future development,* (b) to concentrate building heights around railway stations, *(c) to provide focal nodes that clearly highlight the role of railway stations,* (d) to reinforce the important road frontages of Waterloo Road and Lane Cove Road.		The area is well serviced by public transport with the Macquarie University Railway Station located approximately 500 metres to the north-east of the site and a bus interchange is located 400 metres north-east of the site Macquarie Shopping Centre. The proposed heights are compatible with the future character of the locality having regard to the University Concept Plan approval and its close proximity to the Macquarie Park Railway Station. The proposal transitions in relation to the railway station node, however, the site has been recognised as being suitable for a secondary significant building as an entrance to the Macquarie Park Corridor. With the recommended modifications to Buildings C, W and Y, the proposal is in an appropriate bulk and scale for this locality. It is recommended that the Building C, W and Y be reduced to 12, 8 and 5 storeys respectively to improve residential amenity, solar access and the site height in terms of the surrounding residential context.	Yes (subject to reduced height)
Clause 4.3 - Height Control: Macquarie Park	15.5 metres (5 storeys)	4-20 storeys	No
Clause 4.4 - FSR Objectives: Macquarie Park *(a) to achieve a consolidation of development around*		The proposed FSR is considered to result in a slight excess of bulk and scale with regards to the	Yes (subject to reduced height and density)

railway stations, with the highest floor space ratios at the station nodes, *(b) to allow feasible development of the sites around railway stations and facilitate focal points at the station areas,* *(c) to ensure that the peripheral locations of the corridor reflect the landscape needs and building setting requirements of the corporate building,* *(d) to reinforce the importance and function of the central spine (Waterloo Road and Riverside Main Street) with suitable built form,* *(e) to encourage the provision of a new street network,* *(f) to provide incentives for redevelopment in return for the provision of the proposed access network as a public benefit.*		LEP controls and the context of the surrounding locality. The Department has made recommended modifications that reduce the FSR and improve residential amenity, solar access and open space. The separation and layout of buildings across the site is generally considered appropriate and compatible with the desired future character for this locality. The increased FSR is acceptable having regard to the close proximity of the site to good public transport, education and shopping facilities, and employment opportunities, and considering the high quality of the building design and good amenity of proposed apartments.	
Clause 4.4 - FSR Control: Macquarie Park	1:1	2.33: 1	No