



80-88 Regent Street, Redfern

Response to Submissions

November 2016

Table of Contents



1.0	Introduction	7
2.0	Amended Proposal	8
2.1	Description of Final Development Proposal	8
2.2	Description of the Key amendments	9
3.0	Summary of Submissions	12
3.1	City of Sydney Council	12
3.2	Submissions by Public Agencies	13
3.3	General Public Submissions	13
4.0	Proponent's Response to Key Issues and Further Environmental Assessment	15
4.1	Building Height and Scale	15
4.2	Building Street Setbacks and Building Separation	16
4.2.1	Street Setbacks	16
4.2.2	Building Separation	23
4.3	Floor Space Ratio (FSR)	28
4.4	Compliance with State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development and the Apartment Design Guide	29
4.4.1	Design Verification Statement	29
4.4.2	Apartment Design Guideline (ADG)	29
4.5	Design Excellence	31
4.5.1	Building Expression and Materials	31
4.5.2	Sustainable Design Principles	33
4.6	Public Domain Interface	33
4.7	Amenity Impacts	34
4.7.1	View Loss	34
4.7.2	Overshadowing	42
4.7.3	Privacy Impacts	42
4.7.4	Wind Impacts	43
4.7.5	Noise Impacts	45
4.8	Child Care Centre	45
4.9	Heritage Archaeology	48
4.10	Transport, Traffic, Parking and Servicing	48
4.10.1	Bicycle Parking	48
4.10.2	Loading and Servicing	49
4.10.3	Construction Traffic Management	49
4.10.4	Car parking and Drop –off spaces	49
4.11	Miscellaneous environmental considerations	50
4.11.1	Contamination	50
4.11.2	Stormwater run-off and flooding	50
4.12	Affordable Housing Contribution	50

Table of Contents

5.0	Final Mitigation Measures	52
5.1.1	Mitigation Measures	52
6.0	Conclusion	53

List of Figures

- Figure 1: Proposed as submitted of the left and current amended proposal on the right.
- Figure 2: 1.5m setback to Marian Street at ground and Level 1
- Figure 3: Amendment to setback to tower on Marian Street
- Figure 4: Tower setbacks to Regent Street – Level 2
- Figure 5: Tower setbacks to Regent Street – Level 3
- Figure 6: Tower setbacks to Regent Street – Levels 4-6
- Figure 7: Tower setbacks to Regent Street – Levels 7-15
- Figure 8: Tower setbacks to Regent Street – Levels 16-17
- Figure 9: Amended tower setback and 4 storey podium to Marian Street
- Figure 10: Original (exhibited) tower and podium setbacks and the amended proposed setbacks on the right
- Figure 11: Proposed separation distances Level 2
- Figure 12: Proposed separation distances Level 3
- Figure 13: Proposed separation distances Levels 4-5
- Figure 14: Proposed separation distances Levels 7-15
- Figure 15: Proposed separation distances Levels 16-17
- Figure 16: Expression and materiality of the ground level
- Figure 17: Properties considered in the view impact analysis
- Figure 18: View impacts from Level 18 – 157 Redfern Street
- Figure 19: Partial views to the south will be retained from living rooms of ‘Apartments C’ at 7-9 Gibbons Street (image from level 14)
- Figure 20: Partial view to the east will be retained from bedrooms of ‘Apartments C’ at 7-9 Gibbons Street (image from level 14)
- Figure 21: Views to the south from the balconies and living rooms of ‘Apartments D’ at 7-9 Gibbons Street will not be impacted by the proposal (image from level 8)
- Figure 22: Views to the east from the secondary balconies and living rooms of ‘Apartments D’ at 7-9 Gibbons Street will be completely obscured by the proposal. Note, the views to the south (refer to Figure 21) are also available from the living room and main balcony of these apartments (image from level 8)

List of Tables

- Table 1: Comparison of development statistics
- Table 2: Building heights – Comparison of exhibited and current proposed development
- Table 3: Building heights of surrounding development
- Table 4: Comparison of Marian St tower setbacks between original DA and proposed amended DA
- Table 5: Comparison of Regent Street tower setbacks between original DA and proposed amended DA
- Table 6: Comparison of separation distances between original DA and proposed amended DA
- Table 7: Summary of views and outlooks from adjacent properties
- Table 8: Location within dwelling from which views are available

Table 9: Assessment of car parking rates

Table 10: Mitigation Measures

List of Attachments

- Attachment 1: Architectural Drawing Package prepared by SJB Architects
- Attachment 2: Issues Letter from DP&E and Response to DP&E Issues Table prepared by SJB Planning
- Attachment 3: Summary of the City of Sydney Submission
- Attachment 4: Summary of Submissions from Public Agencies
- Attachment 5: Summary of Submissions from the Public
- Attachment 6: SEPP 65 Design Verification Statement and ADG Compliance Assessment prepared by SJB Architects
- Attachment 7: Pedestrian Wind Environment Study and Wind Impact Comments prepared by Windtech
- Attachment 8: Legal Advice regarding Calculation of GFA prepared by Mills Oakley
- Attachment 9: Ecologically Sustainable Development Report prepared by Efficient Living
- Attachment 10: Revised Noise and Vibration Impact Assessment and Response to Council Comments prepared by Acoustic Logic
- Attachment 11: Outdoor Area Report: Proposed Childcare Centre prepared by Gowrie NSW, and Plan of Management: Proposed Childcare Centre prepared by Edge Management
- Attachment 12: Electromagnetic Report prepared by EMC Technologies
- Attachment 13: Historical Archaeological Assessment prepared by Urbis
- Attachment 14: Swept Path Assessment prepared by GTA Consultants
- Attachment 15: Detailed Site Investigation Report prepared by EI Australia
- Attachment 16: Amended Stormwater Concept Plan prepared by Bekker

1.0 Introduction

The Environmental Impact Statement (EIS) for a State Significant Development (SSD) Application for a proposed mixed use development at 80-88 Regent Street, Redfern, was publicly exhibited from 11 February 2016 to 11 March 2016.

In response to the exhibition, a total of 22 public submissions were received, seven (7) submissions from government agencies, as well as a submission from the City of Sydney.

The following key issues were identified as requiring a response or clarification:

- Building height and scale, in particular compliance with height and setback controls contained in State Environmental Planning Policy (State Significant Precincts) 2005 (formerly State Environmental Planning Policy (Major Development) 2005);
- Floor space ratio, including compliance with in State Environmental Planning Policy (State Significant Precincts) 2005 (SEPP SSP);
- Compliance with the State Environmental Planning Policy No. 65 – Design Quality of Residential Apartments Development (SEPP 65) Apartment Design Guide including but not limited to setbacks and separation, ventilation, sunlight and daylight access;
- Public domain interface and including the activation of Regent and Marian Streets;
- Amenity impacts on the adjacent residential development and public domain, including overshadowing, privacy, view loss, wind and noise impacts in relation to adjoining residential development;
- Design excellence, including building expression and materials and how they relate to the character of the area. Consideration of inclusion of best practice sustainable design principles have been incorporated into the proposal;
- The spatial, functional and operational requirements and issues associated with the proposed child care centre;
- Adequacy of the heritage assessment in relation to the potential for European archaeology;
- Transport and traffic considerations including bicycle parking, loading bay, construction traffic management and impacts on the road and rail corridor; and
- Miscellaneous environmental considerations including contamination, stormwater runoff, noise and flooding, electromagnetic frequency.

The proponent, Sunny Thirdi Regent St Pty Ltd and their design and consultant team reviewed the submissions from the Department of Planning and Environment (DP&E), the City of Sydney Council, agencies, and the public. An initial Response To Submissions (RTS) was submitted to DP&E on 8 August 2016. Following further consultation with DP&E and the City of Sydney Council, a revised RTS has been prepared.

This RTS outlines the proponent's responses to the issues raised in the submissions, and includes an amended SSD proposal and a list of Mitigation Measures for which approval is now sought.

This report should be read in conjunction with the Environmental Impact Statement (EIS) dated January 2016 and forms part of the SSD Application.

2.0 Amended Proposal

A significant number of amendments have been made to the proposal in response to issues raised in the submissions, as well as further design development. The outcome is a superior, more considered development proposal. The amended proposal is detailed in the Architectural Drawings prepared by SJB Architects included at Attachment 1. The following supporting technical information is also provided:

- Solar analysis and Preliminary View Impact Analysis prepared by SJB Architects included in the architectural drawing package (Attachment 1);
- SEPP 65 Design Verification Statement and ADG Compliance Assessment prepared by SJB Architects (Attachment 6);
- Pedestrian Wind Environment Study and Wind Impact Comments prepared by Windtech (Attachment 7);
- Legal Advice- Calculation of Gross Floor Area prepared by Mills Oakley (Attachment 8);
- Ecologically Sustainable Development Report prepared by Efficient Living (Attachment 9);
- Revised Noise and Vibration Impact Assessment and Response to Council Comments prepared by Acoustic Logic (Attachment 10);
- Outdoor Area Report: Proposed Childcare Centre prepared by Gowrie NSW Plan of Management Proposed Child Care Centre prepared by Edge Management (Attachment 11);
- Electromagnetic Report prepared by EMC Technologies (Attachment 12);
- Historical Archaeological Assessment prepared by Urbis (Attachment 13);
- Swept Path Assessment prepared by GTA Consultants (Attachment 14);
- Detailed Site Investigation Report prepared by EI Australia (Attachment 15); and
- Amended Stormwater Concept Plan prepared by Bekker (Attachment 16).

A summary of the issues raised in the DP&E's request for an RTS is included at Attachment 2. The submissions received from the City of Sydney (the Council), public agencies and the general public to the exhibition of the DA are included in Attachments 3, 4 and 5 respectively.

2.1 Description of Final Development Proposal

This application seeks approval for the amended proposal which comprises the following:

- Demolition of the existing structures on site;
- Earthworks and associated site preparation works;
- Construction of an 18 storey mixed use building comprising:
 - Active retail uses at ground level fronting Regent and Marian Street and a child care centre at first floor;
 - 79 residential apartments, comprising a mix of one (1), two (2) and three (3) bedroom dwellings;
 - A gross floor area (GFA) of 5,754m², which equates to a floor space ratio (FSR) of 7:1;
 - Four (4) levels of basement car parking, with access from William Lane, accommodating 65 car parking spaces, bicycle parking, storage, plant and associated services;
 - Communal roof-top open space;

- Waste, loading and services at ground level along William Lane; and
- Construction of infrastructure works, including drainage to service, the development.

2.2 Description of the Key amendments

A comparison of the key statistics of the DA as submitted/exhibited and the DA as amended is provided in Table 1 below. This is followed by an overview of the key changes.

Development Particulars	DA as exhibited	DA as amended (current)
Site area	822m ²	No change
Gross Floor Area	5,752m ² – total 90m ² – retail/commercial 275m ² – child care 5,387m ² – residential	5,754m ² - total 168m ² – retail/commercial 256m ² – child care 5,308m ² – residential
FSR	7:1	No change
Building Height	18 storeys RL to plant 98.00 RL to roof 92.70	18 storeys RL to plant – 91.10 RL to parapet/roof – 87.50
Dwellings	80 apartments	79 apartments
Dwelling mix	6 x studio – (7%) 27 x 1 bedroom – 34% 38 x 2 bedroom – 48% 9 x 3 bedroom dwellings – 11%	0 30 x 1 bedroom – 38% 47 x 2 bedroom – 59% 2 x 3 bedroom dwellings – 3%
Adaptable apartment	12 (15%)	No change
Communal open space	401m ² (49% site area)	362m ² (44% site area)
Vehicle Parking Provision	65 spaces (including 2 drop off bays for child care) 1 loading bay	No change (including 2 drop off bays for child care) 1 retail/waste loading bay
Bicycle Parking Provision	89	79

Table 1: Comparison of development statistics

The key changes design changes are described below.

Height

- An overall reduction in the height of the building by 6.9m; and
- Removal of the two (2) mezzanine levels ensuring a compliant 18 storey building.

Setbacks:

- Tower:
 - Increased setbacks from the Iglu development to the north by 300mm-1500mm;
 - Increased setbacks to Marian Street of between 300mm-1500mm resulting in tower setback of 3.1m;
 - Redistribution of the setback to Regent Street to align the tower with the adjoining predominant 3.0m setback of the tower of the approved Iglu development;

- Extending 0m setback to the north to the Iglu student accommodation from level 02. This amendment allowed for the deletion of windows and unscreened balconies and mitigation of the associated privacy impacts on the Iglu development.
- Podium:
 - Provision of an 800mm setback to William Lane at ground and first level; and
 - Provision of 1.5m setback at ground level on Marian Street to provide a wider footpath.

Building Floor Plate

- The floor plate of the residential levels has been reduced from 541m² to 535m².

Gross floor area (GFA)

- The removal of the mezzanine has also resulted in the deletion of storage and garbage areas on this level and any GFA associated within these spaces.

Dwelling yield and mix

- The total number of apartments has been reduced by one (1) from 80 to 79; and
- The mix of apartments has been modified as outlined in Table 1. This includes the removal of the studios and reduction in the number of 3 bedroom apartments.

Residential layouts

- Provision of a simple, linear north-south breezeway with apartments on either side;
- Reconfiguration of the core to eliminate BCA and fire egress issues;
- Relocation of bike parking to the basement; and
- The Level 2 apartment in the northwest corner has been removed to mitigate any possible privacy issues with the communal dining room in the approved Iglu development.

Retail/Public domain interface:

Reconfiguration of ground floor retail frontage to enhance the relationship with the public domain by:

- Maximising the active retail frontage to Regent Street by locating the child care centre over a single level, with the exception of the lobby;
- Providing multiple shopfronts and entries to Regent Street which respond to the rhythm, scale and proportion of the traditional shopfronts on site and Regent Street;
- Increased activation to Marian Street by ensuring the retail space on Regent Street wraps the corner with a porous material such as hit & miss brickwork on Marian Street. The location of the child care centre entrance and residential lobby on Marian Street also provided activation;
- Increasing the ground level and partial first floor setback on Marian Street by 1.5m to align with the adjoining building at 7-9 Gibbons Street and provide a wider footpath; and
- Providing a full awning that wraps around Regent and Marian Streets to mitigate wind impacts and to provide weather protection; and

Child care

- Reconfiguration of the child care onto a single level and changes to the internal and external layout;
- The capacity of the child centre has been reduced from 65 children to 53 children; and

- The inclusion of an additional 3.0m height in the outdoor space, providing an overall height of 6.7m, to significantly enhance the amenity of this space by ensuring good levels of daylight throughout the year and allowing for mature tree species.

Elevations and Facade Treatment

The visualisations of the original exhibited proposal and amended proposal illustrate changes in the elevation and façade treatments. The most significant changes occur in the podium and the upper most levels with the deletion of the mezzanine.

In place of the five (5) arches, five (5) rectilinear shopfronts are provided, with shop windows, awnings and doorways. This provides a more literal reinterpretation of the existing two storey Victorian shopfronts. As a result, the podium has a more solid appearance.

The height of the parapet along Regent Street has been extended to align with the approved Iglu development at 60-78 Regent Street to create a continuous street front wall height. This extended podium height has allowed the provision of a landscape terrace to the edge of the balconies on Level 2.

The height and massing of the podium to Marian Street has modified to better respond to the podium of 7-9 Gibbons Street; by harmonising with the effected datum lines, overall massing and setbacks a plane for unobstructed sight lines down the length of Marian street has been realized.

Hit and miss brickwork has been incorporated into both Regent and Marian Street facades for greater articulation and permeability at the pedestrian junction.

Consideration has been given to the ground floor configuration to improve the retail frontage and opportunities for interactions with the public domain though extending the tenancy to wrap around the corner of Marian Street through an active external courtyard.

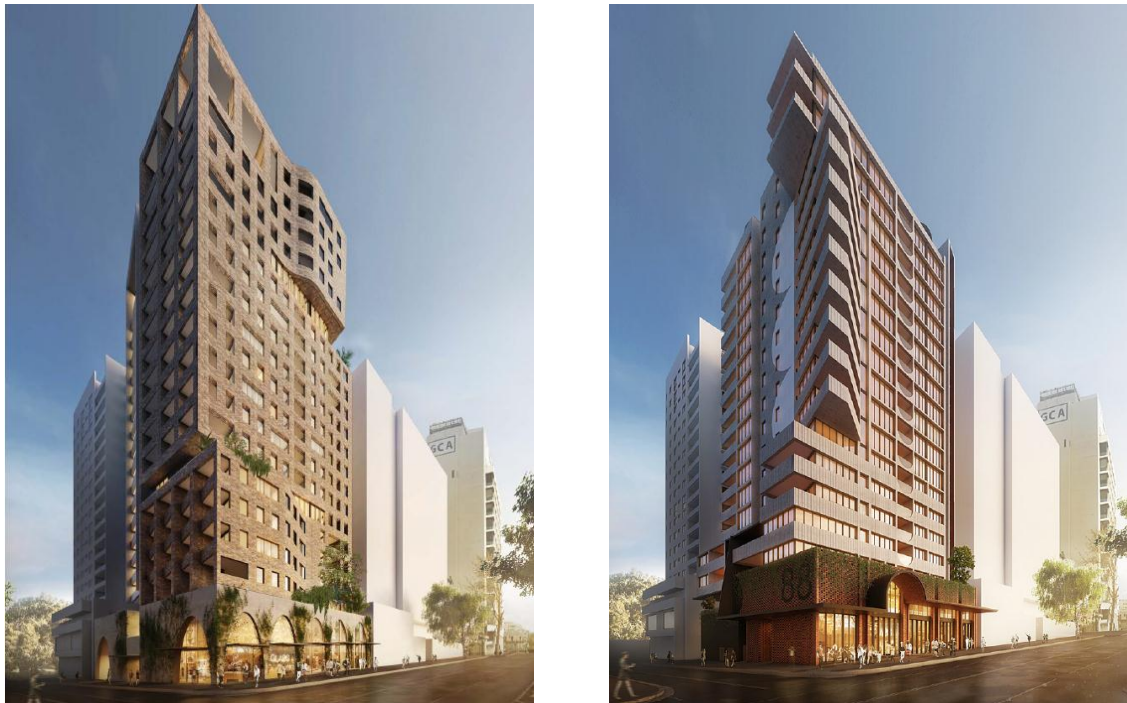


Figure 1: Proposed as submitted of the left and current amended proposal on the right.

3.0 Summary of Submissions

The following section outlines the submissions that were made to the exhibition of the EIS. These issues were broadly captured in the DP&E's request for formal Response to Submissions dated 21 March 2016, a copy of which is included at Attachment 2. A table outlining each of the issues raised by the DP&E has been addressed in this RTS, and is also included at Attachment 2.

3.1 City of Sydney Council

The City of Sydney Council ('the Council') provided a detailed submission to the exhibition of the EIS. The proponent and members of the design team met with the Council and DP&E on 14 April 2016 to discuss the matters raised in Council's submission and DP&E's correspondence, and identified opportunities and options to address the issues.

At the meeting, it was agreed that SJB Architects and SJB Planning would continue to liaise with the Council, and prepare preliminary drawings for their feedback, prior to finalising the amended proposal for the RTS.

On 14 June 2016, the Council provided comments on preliminary amended drawings that were circulated in late May 2016. A meeting was held with Council and DP&E on 22 June to discuss the key issues raised by the Council which include: building expression and materials, public domain interface, relationship to boundaries, amenity and coordination of services. The design of the building was amended and an initial RTS was submitted to DP&E on 8 August 2016. On 2 September Council provided comments on the RTS, raising the following key issues:

- 800mm setback to William Street should be provided to first level as well as ground floor;
- Calculation of gross floor area (GFA) excluding waste holding area;
- Solar access modelling does not comply with ADG as it was provided between 8am and 4pm midwinter instead of 9am and 3pm;
- Marian Street setbacks:
 - Podium and tower setbacks to Marian Street results in a lack of pedestrian scale. A three (3) to four (4) street wall podium element is preferred in keeping with existing and future desired character;
 - Greater overshadowing and wind impacts and reduced separation to development sites to the south;
 - Wind impacts associated with reduced tower setbacks to Marian Street and lack of awning over residential entry;
- Wind impacts to Marian Street and on the communal open space of the adjoining Iglu development to north; and
- Use of the child care centre should be subject to a separate development application.

In response to the letter of 2 September 2016, SJB Architects met with Council and DP&E on 20 September, which was followed by a subsequent meeting with Council on 13 October 2016.

The design of the building as proposed in this RTS has been amended further and refined to address the issues raised by Council. Attachment 3 identifies the following:

- The issues raised by Council to the initial DA submitted proposal and in their comments of 14 June 2016 to the preliminary amended drawings;

- The amendments and responses proposed by the applicant in the initial RTS submitted on 8 August 2016;
- Subsequent comments and issues raised by the Council in their letter of 2 September 2016; and
- Details of how the current amended proposal responds to these issues, including references to where these issues are addressed in the RTS.

3.2 Submissions by Public Agencies

Seven (7) submissions were received from government agencies during the public exhibition period, including:

- NSW Environment Protection Authority;
- Heritage Council of NSW;
- Roads & Maritime Services;
- Sydney Airport;
- Sydney Water;
- Transport for NSW (TfNSW); and
- UrbanGrowth NSW Development Corporation

Responses to the key issues raised by the agencies identified above are addressed at Section 4.0 and in the summary and responses to agency submissions included at Attachment 4.

In response to the initial RTS submitted to DP&E on 8 August 2016, subsequent submissions were provided by Heritage Council of NSW, TfNSW and UrbanGrowth NSW. The agencies provided conditions for inclusion in a determination on the basis that the information submitted in the initial RTS had addressed their issues.

3.3 General Public Submissions

A total of 22 submissions were received from the general public and adjacent property owners and occupants. The key issues that were raised broadly included:

- Loss of views;
- Loss of privacy impacts;
- Wind impacts;
- Overshadowing impacts and loss of sunlight to adjoining development;
- Increased traffic;
- Building height;
- Traffic impacts from proposed access and loading/servicing on William Lane;
- Parking impacts, shortage of parking and loss of on-street parking on Marian Street;
- Noise impacts from the roof-top terrace;
- Non-compliance with building setbacks and separation distances and proximity to nearby buildings;
- Setbacks to Marian Street and William Lane;
- Reduced housing affordability within the area, pushing members of the community out; and
- Heritage impacts arising from demolition of existing buildings.

A table of the key issues raised in the public submissions is included at Attachment 5, which also identifies where each of the issues raised is addressed in this RTS.

4.0 Proponent's Response to Key Issues and Further Environmental Assessment

The following section provides a detailed response to the key issues raised by DP&E, Council, government agencies and the general public.

4.1 Building Height and Scale

The following height controls apply to the site under SEPP (SSP) 2005:

- A maximum building height of 18 storeys;
- A two (2) storey height limit running along the Regent Street frontage; and
- A three (3) storey height limit running along the Marian Street frontage.

The following key issues were raised in relation to the height of the proposal:

- Potential non-compliance with the 18 storey height control applying under the SEPP (SSP) 2005 due to the inclusion of mezzanines above ground and Level 17, which results in a 20 storey building; and
- The overall height of the building exceeding the height of the adjacent existing and approved buildings.

Issues were raised in relation to the encroachment of the tower element into the two (2) storey height limit on Regent Street and the three (3) storey height limit on Marian Street. As this constitutes a reduced setback to the tower, it is addressed below in Section 4.2 Setbacks and Separation. This section addresses the overall height of the proposal.

In response to the issues raised in relation to the overall height of the proposal, the mezzanines have been removed, resulting in an effective 18 level building. The overall height of the building has been reduced by some 6.9m and various other locations of the building have been lowered as outlined in Table 2.

Building Height location	DA as exhibited	DA as amended (current)	Overall reduction in height
Overall height/Height to plant	RL98.00	RL91.10	6.9m
Height to screen/balustrade to roof terrace	RL94.30	RL88.10	6.2m
Height to roof	RL92.70	RL86.30	6.4m

Table 2: Building heights – Comparison of exhibited and current proposed development

As a result of the reduced building height, the proposal is consistent with the scale of the existing adjoining development at 7-9 Gibbons Street and 157 Redfern Street and the approved Iglu student housing development at 60-78 Regent Street. This is evidenced in the comparison of building heights in Table 3.

	7-9 Gibbons St	157 Redfern St	60-78 Regent St (Approved)	Current Proposal
Maximum overall height (roof structures, plant, lift)	RL93.37	RL96.90	RL88.10	RL91.10
Parapet/balustrade	RL92.10	RL94.62	RL85.70	RL88.10

Table 3: Building heights of surrounding development

As demonstrated in Table 3, the proposal is lower than the adjoining building to the west and 7-9 Gibbons Street and 157 Redfern Street to the north-east. It is noted that the proposal is around 3.0m higher than the approved adjoining Iglu student accommodation development to the north at 60-78 Regent Street. This is attributed to the Iglu development having a reduced floor to floor level of 2.9m. Reducing the height of the proposal in line with the Iglu development would require a reduction in the floor to floor heights, which would compromise the achievement of the minimum 2.7m floor to ceiling heights applying under the SEPP 65 Apartment Design Guide (ADG) (refer to Attachment 6) and the overall amenity of the dwellings and in this regard is not considered appropriate.

The current amended proposal provides for a substantial reduction in the building height and complies with the maximum 18 storey height limit applying under SEPP (SSP) 2005 and in this regard is considered to satisfy the issues raised in the submission relating to building height. It is noted that the Council did not raise any further issues with the building height in the most recent correspondence of 2 September 2016 and indicated that previous non-compliances had been addressed.

4.2 Building Street Setbacks and Building Separation

This section responds to the issues that were raised in the submissions in relation to street setbacks and building separation.

4.2.1 Street Setbacks

The following issues were raised in the submissions regarding the street setbacks of the proposal:

- The tower setback does not comply with the 8m setback applying to Regent Street under SEPP (SSP) 2005. As a result, the tower encroaches into the two (2) storey height limit applying to Regent Street.
- Regent Street street wall setback is similar to the approved Iglu student housing development to the north, the proposal provides a predominant 3.0m upper level setback above the two (2) storey street wall height along Regent Street. The 3.0m setback is measured to the inside face of the main wall of the building, not the glass line. Variable upper level setbacks to the Regent Street frontage over the different levels, up to 3m consistent with Iglu. While the 3m upper level setback to Regent Street may be appropriate in context of the adjacent Iglu development, concerns with the transition of the Regent Street podium to Marian Street.
- The tower setback does not comply with the 4m setback applying to Marian Street under the SEPP (SSP) 2005. As a result, the tower encroaches into the three (3) storey height limit applying to Marian Street creating the following issues:
 - Lack of pedestrian scale. A three (3) to four (4) street wall podium element is preferred in keeping with the existing and future desired character;
 - Greater overshadowing of the conservation area;
 - Wind impacts, including insufficient mitigation of downdrafts; and
 - Reduced separation between the proposal and any future development on the southern side of Marian Street.
- Potential overshadowing impacts associated with the reduced tower setbacks to Regent and Marian Streets.

- The proposal does not comply with the 1.5m ground level setback applying to the Marian Street under the Draft Urban Design Principles - Redfern Centre (Draft UDPRC).
- The proposal does not comply with the 0.8m ground level setback applying to the William Lane Draft UDPRC. The 0.8m setback should be applied to the first level as well as ground level.

The street setbacks of the proposal have been amended in response to the issues raised in the submissions as outlined below.

Setbacks at Ground Level and Level One

The ground and first level has been setback 0.8m from William Lane boundary consistent with the Draft Urban Design Guidelines (Redfern Centre).

The ground level has been setback 1.5m from the Marian Street boundary consistent with the Draft Urban Design Guidelines (Redfern Centre). This is in line with the setback of 7-9 Gibbons Street and will provide for a wider footpath on Marian Street as was envisaged under the Guidelines.

The 1.5m setback tapers towards the corner with Regent Street as shown in Figure 2 below. The 1.5m additional setback also been carried through to level 1 on the western wing of the building (refer to Figure 2 below).

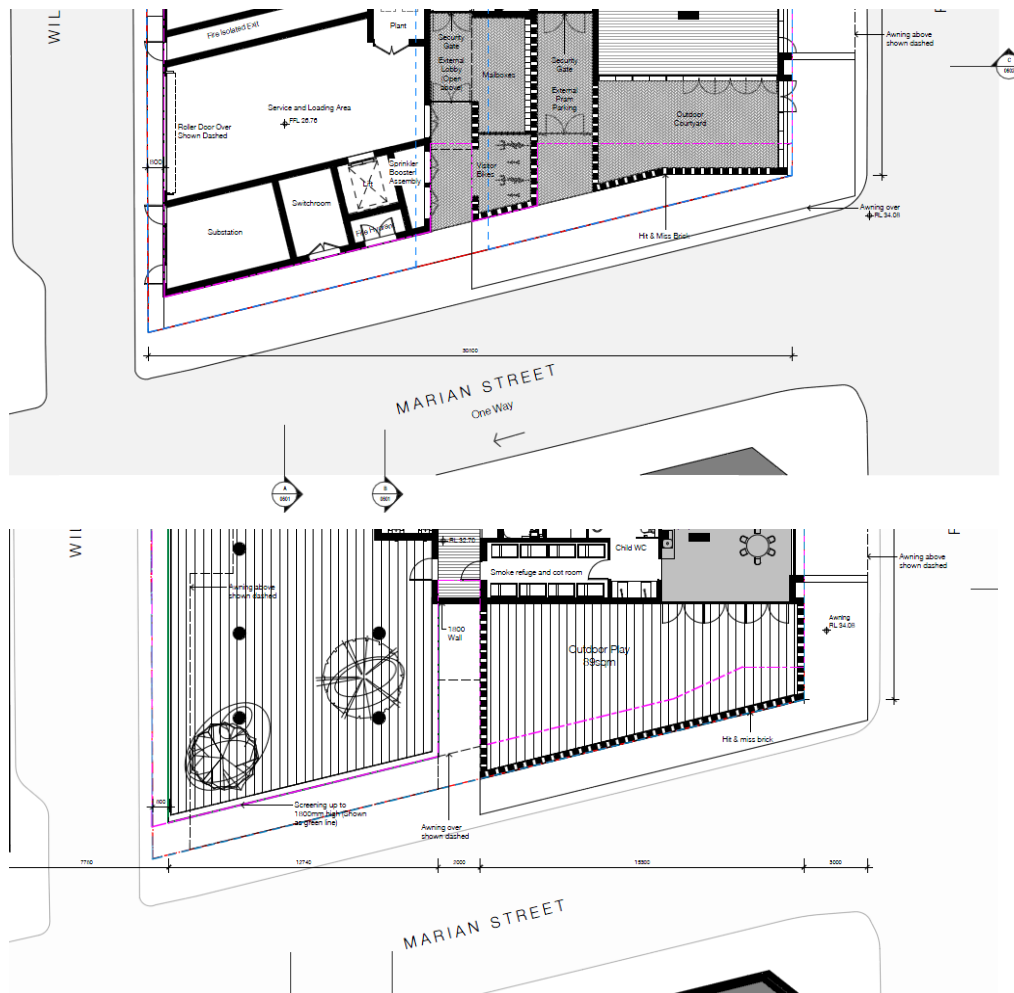


Figure 2: 1.5m setback to Marian Street at ground and Level 1

Tower setbacks

The height controls contained within SEPP (SSP) 2005 and the Draft Urban Design Principle for Redfern Centre contemplate the creation of a two (2) storey street frontage height along Regent Street with a depth of 8.0m and a three (3) storey street frontage height along Marian Street with a depth of 4.0m and an 18 storey tower above. This translated to an 8.0m tower setback on Regent Street and a 4.0m tower setback on Marian Street.

The proposal does not comply with the two (2) and three (3) storey height/tower setback control applying to Regent and Marian Streets frontages under the SEPP (SSP) 2005. A description of the amendments that have been made to the proposal in relation to the tower setbacks are provided below.

Tower setbacks to Marian Street

As illustrated in Figure 3 the amended proposal provides a predominant 3.15m setback to Marian Street. While this does not comply with the 4.0m Marian Street tower setback, the extent to which the tower encroaches into this setback has been reduced in comparison to the original DA and the initial RTS schemes. This is highlighted on the architectural drawings, with the blue line representing the tower footprint in the original DA submission and purple line representing the footprint of the tower in the RTS submitted August 2016).

As shown in Figure 3 and detailed in Table 4, the tower setback as been increased to a predominant 3.15m from Level 4 to 17. This excludes a minor splay and balcony towards the corner of Marian and Regent Street. As a result, the reduced non-compliance with the 4m tower setback has been reduced to a predominant variation of 0.85m, or 85cm. The increased and more consistent tower setback to Marian Street provides a four (4) storey podium form, more in keeping with the scale of the existing podium at 7-9 Gibbons Street.

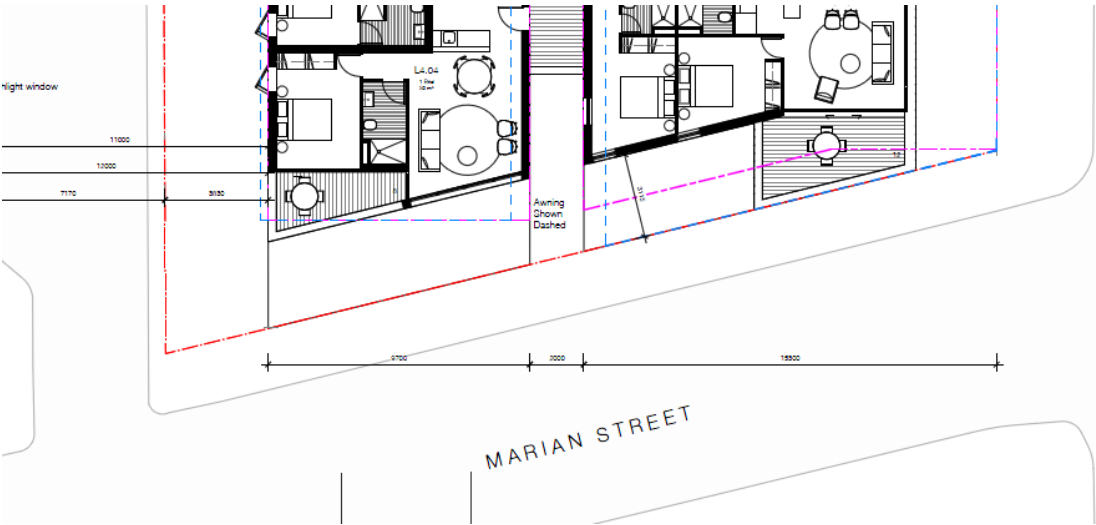


Figure 3: Amendment to setback to tower on Marian Street

Building Level	DA as submitted Marian St: tower setback	Compliance	Amended DA Marian St: tower setback	Compliance
Level 3-17	0m – eastern wing 2m – 4 western wing	No	3.15m (excluding splay and balcony near the corner with Regent St)	No

Table 4: Comparison of Marian St tower setbacks between original DA and proposed amended DA

Tower setbacks to Regent Street

Under SEPP (SSP) 2005, a two (2) storey height limit applies to Regent Street, which has a depth of 8.0m. This translates to an 8.0m setback to the 18 storey tower element.

The original DA did not comply with the 8.0m setback with a variable setback to Regent Street ranging from 0m to 2.85m. The 2.85m setback was in keeping with the 3.0m tower setback that was provided for the approved Iglu development at 60-78 Regent Street. In the subsequent amended scheme the location of the available setback was reversed.

As illustrated in Figures 4 to 8, the current amended proposal provides a consistent 3m setback to Regent Street, with the exception of a balcony encroachment on levels 7-15, near the corner of Marian Street. This aligns with the 3.0m setback of the Iglu development.

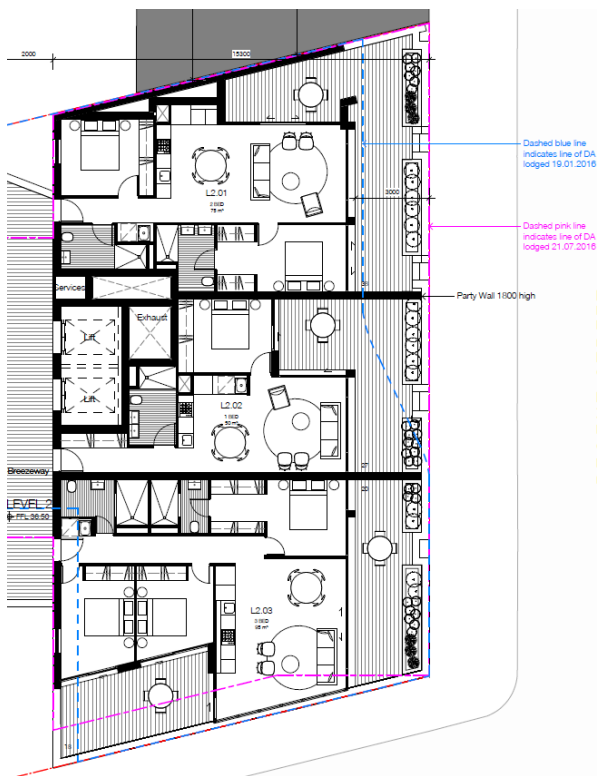


Figure 4: Tower setbacks to Regent Street – Level 2

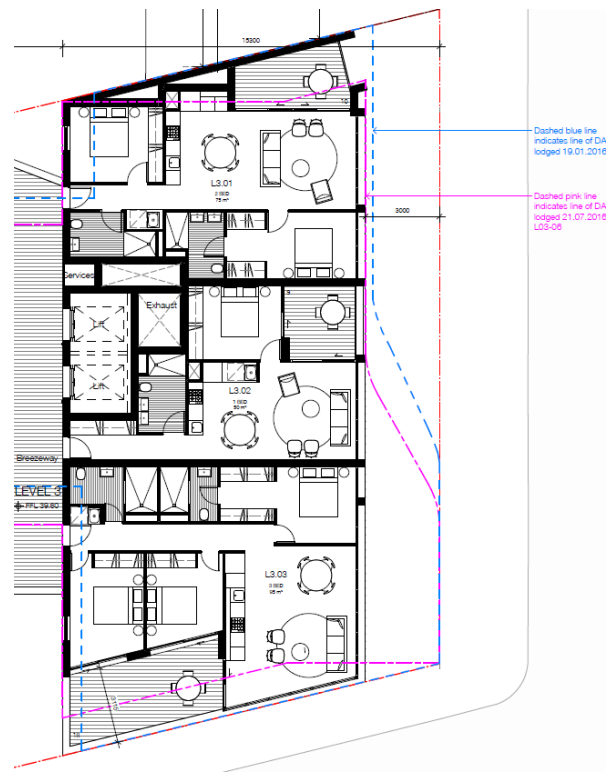


Figure 5: Tower setbacks to Regent Street – Level 3

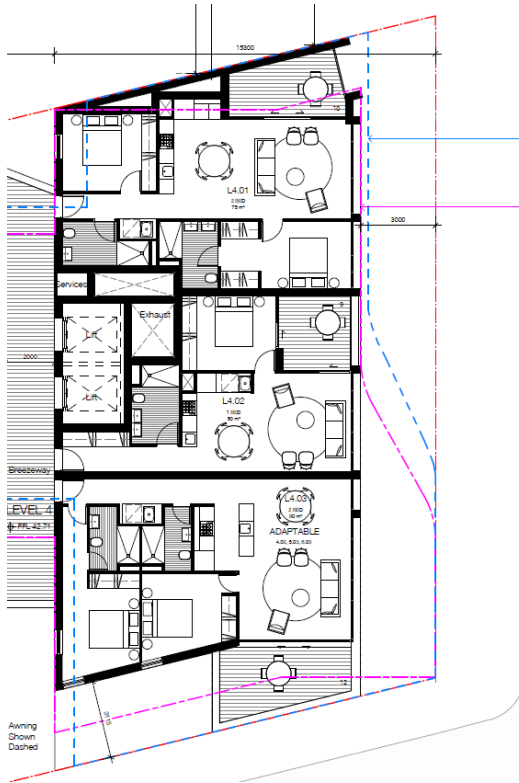


Figure 6: Tower setbacks to Regent Street – Levels 4-6

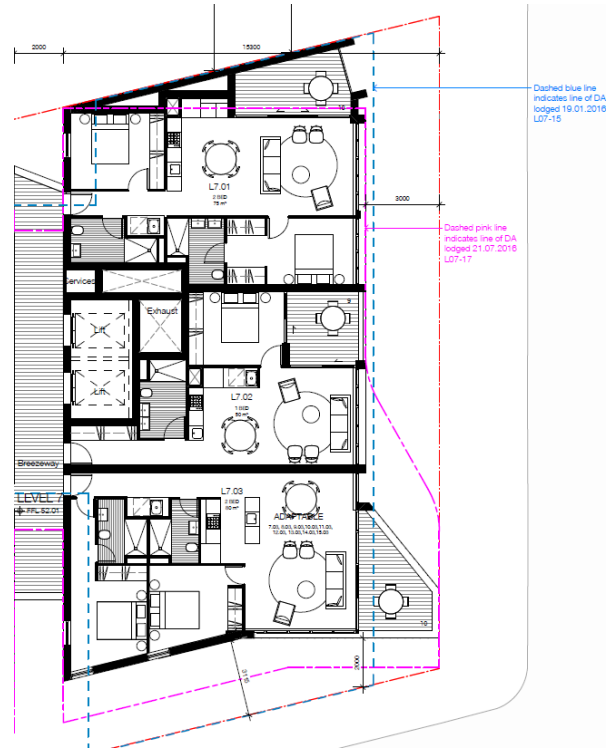


Figure 7: Tower setbacks to Regent Street – Levels 7-15

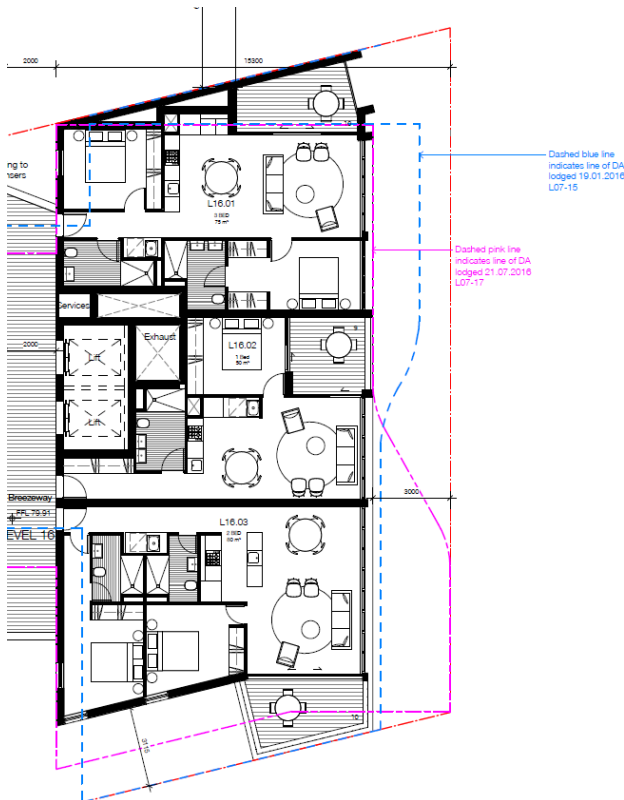


Figure 8: Tower setbacks to Regent Street – Levels 16-17

Building Level	DA as submitted Regent St: tower setback	Compliance	Amended DA Regent St: tower setback (excluding balcony)	Compliance
Level 2	0m to 2.85m	No	0m	No
Level 3	0m to 2.85m	No	0m	No
Level 4-5	0m to 2.85m	No	3.15m	No
Level 6	2.85m	No	3.15m	No
Level 7-10	2.85m	No	3.15m	No
Level 11-14	2.85m	No	3.15m	No
Level 15-17	1.35m to 2.85m	No	3.15m	No

Table 5: Comparison of Regent Street tower setbacks between original DA and proposed amended DA

While the setbacks have been altered, the amended proposal continues to vary setback/height standards contained in SEPP (SSP) 2005, as such a SEPP 1 objection was provided with the EIS lodged. The grounds of the original SEPP 1 Objection remain relevant as detailed below in the justification for the variation.

Discussion of variation to tower setbacks/street frontage height

The variation to the 4.0m and 8.0m tower setbacks on Marian and Regent Street is considered acceptable for the following reasons.

- The predominant 3.0m tower setback to Regent Street is consistent with the predominant 3.0m tower setback of the approved Iglu development on site at 60-78 Regent Street. This will ensure a consistent built form along this strip of Regent Street.
- The proposal achieves the intent of the Regent Street tower setback control with the provision of a predominant two (2) storey street frontage height which is consistent with the scale of the existing Victorian shopfront located on site and the adjoining Iglu development. This relationship has been reinforced in the amended proposal as the parapet of the podium has been raised to align more with the parapet of the Iglu development. This will establish a consistent street wall height along this section of Regent Street. The design of the podium has also been amended to create stronger vertical elements that are consistent with the proportions of the traditional shopfronts.
- The increased 3.15m tower setback and four (4) storey height and massing of the podium Marian Street responds to the podium of 7-9 Gibbons Street as illustrated in Figure 9.

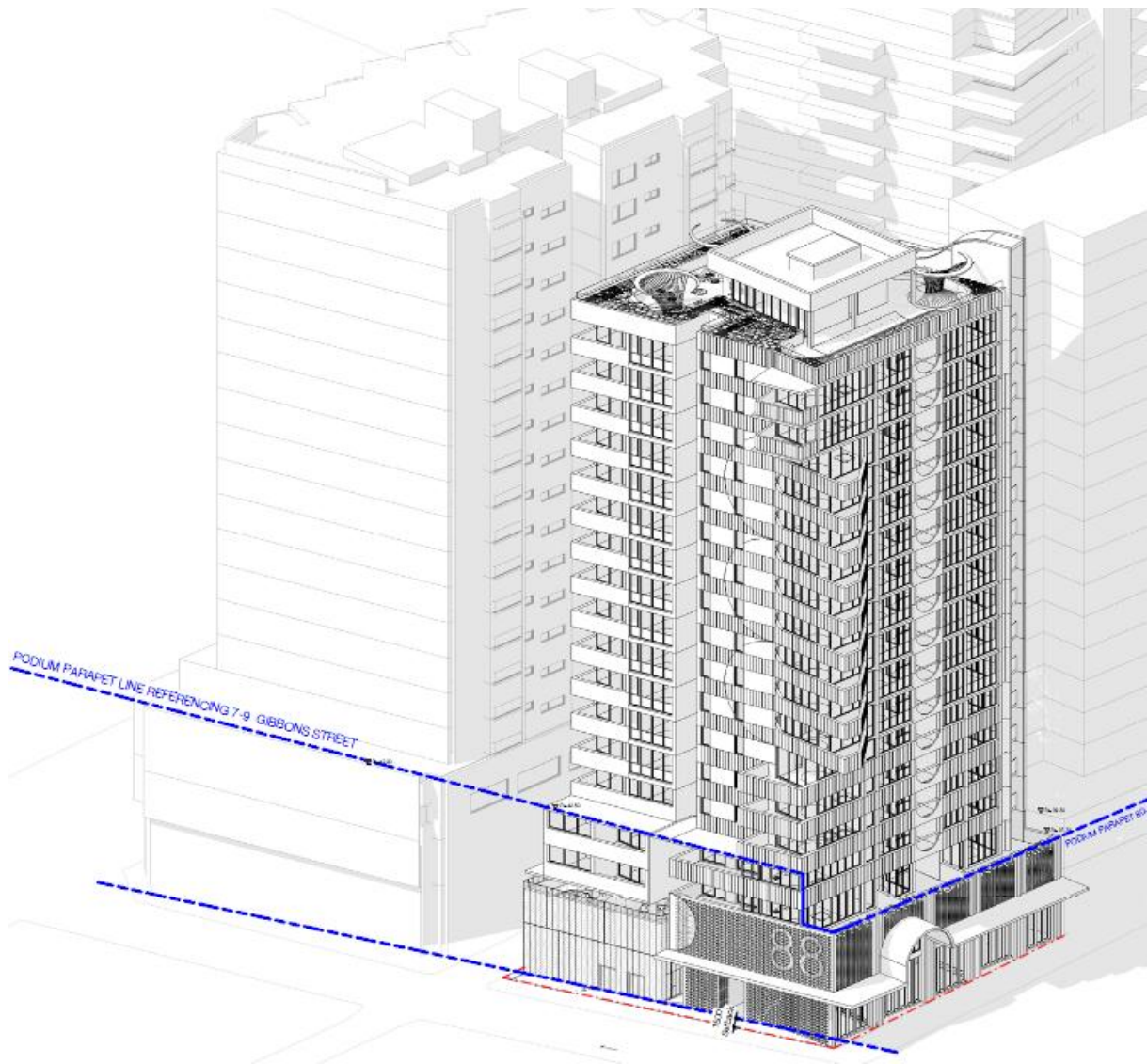


Figure 9: Amended tower setback and 4 storey podium to Marian Street

- The DA as submitted provided a 0m setback up to Level 5 on the southern end of Regent Street elevation, where it meets Marian Street. Levels 15-17 of the submitted DA scheme also encroached into the 3.0m Regent Street setback by up to 1.5m, where it adjoined the Iglu development. With the exception of the balcony encroachments on levels 7-15 at the corner of Marian Street, a tower 3.0m setback has been provided to Regent Street. The balcony encroachments creates a corner element without compromising the consistent 3.0m setback and built form established on Regent Street by the Iglu development.
- The street front setbacks of the towers are the outcome of considered urban design and site analysis undertaken by SJB Architects. This involved consideration of various alternative options for the siting of the tower in preparing the original DA. In formulating the RTS and amended proposal, there has been further consideration of potential alternative options for siting the tower. This is articulated in the Design Options Analysis prepared by SJB Architects, provided with the SEPP 65 Design Statement included at Attachment 6. In summary analysis has demonstrated the following in relation to the tower setbacks:
 - Compliance with the 8.0m and 4.0m setbacks significantly constrains the opportunity to accommodate a viable tower floor plate on the site, while at the same time maximising separation distances to the adjoining apartments at 7-9 Gibbons Street, which contain windows and balconies within 3.0m of their boundary and the approved Iglu development.

- Increasing the setbacks to Marian and Regent Streets does not reduce amenity impacts relating to privacy, overshadowing or view loss. Achieving compliance with the setback requirements will place great pressure on the separation distances, which has a far greater potential to impact on views and privacy.
- The non-compliance with the setback does not result in unacceptable overshadowing impacts of the adjoining development or public domain as outlined in Section 4.7.2 and shadow diagrams prepared by SJB Architects at Attachment 1. Importantly, there is a negligible difference between the overshadowing impacts from a compliant 4.0m tower setback to Marian Street and the proposed predominant 3.15m tower setback.
- The non-compliance with the setback does not result in unacceptable wind impacts as outlined in Section 4.7.4 and the Pedestrian Wind Environment Study and Wind Impacts Comments (Attachment 7). The study indicates that flow mechanism which impacts the wind conditions on Marian Street is governed by ground level effects due to the street alignment and not a downwash component off the tower. As a result the provision of an increased setback of the tower along Marian Street would not provide any notable benefit to the ground level wind conditions. Further to the above the proposal will have a beneficial effect on the communal outdoor area of the Iglu development as it will provide additional shielding from the southerly winds.
- As illustrated in the Preliminary View Impact Assessment prepared by SJB Architects (Attachment 1) and outlined in Section 4.7.1, compliance with the street setback controls will have a negligible effect on reducing the potential view impacts from adjacent properties. View impacts are influenced by the separation distances between the proposal and the adjacent development.
- It does not result in unacceptable privacy impacts on the existing or approved adjoining developments as outlined in Section 4.2.2 with the consideration of the setback and separation requirements of the ADG.
- The proposal complies with the 18 storey height limit and provides a building mass and configuration that is consistent with the adjoining buildings, both existing and approved. Compliance with the street setback controls will prevent the redevelopment of the site as envisaged under the SEPP (SSP) 2005 and Redfern Waterloo Built Environment Plan.
- The Redfern part of the Redfern Waterloo SSP is principally comprised of three (3) street blocks bounded by Lawson Square to the north, Regent Street to the east, Gibbons Street to the west and Margaret Street to the south. A 4.0m tower setback and five (5) storey street frontage height applies to those sites along Gibbons Street, which is different to the 8.0m tower setback applying the Regent Street sites, which includes the subject site and Iglu development. 18 storey towers have been approved at 7-9 Gibbons Street and 157 Redfern Street, which are subject to different street front height/setback controls than Regent Street. As noted previously, the approved Iglu development encroaches into the 2 storey street frontage/tower control. A 19 storey tower has been approved at 1 Lawson Square, which has frontage to Regent Street that also encroaches into the 2 storey height limit/setback applying to Regent Street. Given these are the only two approved 18 storey tower developments within the RWA SSP sites that have frontage to Regent Street and both of these developments substantially vary from the 8m tower setback/two (2) storey street frontage development standard, it is reasonable to argue that the standard has been abandoned.

Having regard to the above, the proposed variation to the controls is considered reasonable as it provides a building of an approximate height, scale and mass anticipated by the applicable planning controls.

4.2.2 Building Separation

The following issues were raised in the submissions regarding building separation:

- The proposal does not comply with the setback/separation distances applying under the ADG.
- An 8m separation is proposed between the northern elevation of the proposed building and the southern elevation of the Iglu development. Windows and balconies are proposed on Level 14 upwards on the northern elevation with a minimal boundary setback. These windows and balconies are

opposite the windows to the communal living rooms of Iglu and will impact on the visual privacy of the student residents. A 12m setback is required for buildings over eight (8) storeys under the ADG. Appropriate treatments are required to ensure a suitable level of privacy is achieved for future students residing at Iglu.

- The proposal does not achieve ADG compliant separation distances to 7-9 Gibbons Street, located to the west.
- The 4.0m setback of the tower to Marian Street will result in ADG non-compliant separation distances to future development to the south at 90-96 Regent Street. The reduced separation distances will compromise solar access and privacy to any future development at 90-96 Regent Street.
- DP&E made the following comments:
 - Further consideration is required of alternate viable design options for the site, with particular regard to the setbacks from the northern and western boundaries, to demonstrate that the preferred building envelope and built form is the best design solution for the site.
 - Additional justification is required to demonstrate how the proposed built form and setbacks have considered, addressed and minimised impacts on adjacent residential amenity, including privacy, views, outlook, ventilation and solar access, and specifically, how the proposed built form and setbacks do not increase amenity impacts beyond those envisaged by the planning controls for the site.

The above issues are addressed below.

Analysis of alternative design options

A number of built form options were explored in formulating the design included in the original DA submission.

These options were detailed in the Urban Design and Built Form Analysis Report prepared by SJB Architects and included at Attachment 2 to the EIS. In response to issues raised in the submissions regarding building separation, as well as DP&E's request to consider alternative built form options, we have reconsidered the various options. This work is summarised in the Design Options Analysis prepared by SJB Architects, provided with the SEPP 65 Design Statement at Attachment 6. The analysis details the broad built form options that were previously investigated and provides further discussion of the feasibility of these options.

There are a number of factors which impact on potential built form options for the site. These are:

- The building height and FSR standards contained in the SEPP (SSP) 2005 and their role in facilitating the ongoing renewal of the Redfern town centres;
- The street front heights/tower setbacks applying to Marian and Regent Streets under the SEPP (SSP) 2005 and Draft Urban Design Guidelines (Redfern Centre) as discussed in section 4.2.1 above;
- The design criteria and design guidance provisions relating to visual privacy contained in Section 3F-1 of the SEPP 65 ADG. These provisions require the following boundary setbacks for buildings above nine (9) storeys:
 - 6m non-habitable rooms
 - 12m habitable rooms
- The orientation and setbacks of the adjacent existing buildings at 7-9 Gibbons Street (to the west) and 157 Redfern Street to the north-west and the approved Iglu development at 60-78 Regent Street, directly north of the site. It is noted that these buildings do not comply with the setbacks for the boundaries adjacent to the subject site.
- The need to maintain amenity for the adjacent existing and approved developments particularly in terms of privacy and view impacts.

- The need to ensure a reasonable level of amenity for the proposal, in terms of solar access, privacy, ventilation and private open space.

Having regard to the above, there are three (3) broad built form options for the site, which are outlined in the Design Options Analysis prepared by SJB Architects, provided with the SEPP 65 Design Statement (Attachment 6). These options include:

- A built form which was fully compliant with SEPP (SSP) 2005 and SEPP 65 ADG but results in non-developable floor-plate;
- A built form which complied with SEPP (SSP) 2005 podium setbacks, but which has minimal separation distances under the ADG SEPP 65 setbacks/separation distances; and
- A built form which does not comply with either SEPP (SSP) 2005 or SEPP 65 ADG setbacks, but which responds appropriate to the site conditions and context. This requires maximising the achievable separation distances, while responding to the tower setbacks of the approved development to the north, and the established two (2) storey scale of the existing shopfronts on Regent Street and desired scale for Marian Streets.

As detailed in the EIS, Options 1 and 2 are not viable options as they result in tower footprints between 300m² and 440m² which are not viable and would preclude the redevelopment of the site. As such, Option 3 is the only reasonable broad built form option for the redevelopment of the site. For this reason, Option 3 was pursued in formulating the built form design of the original DA.

In response to the submissions, further analysis of the built form was undertaken with the following aims:

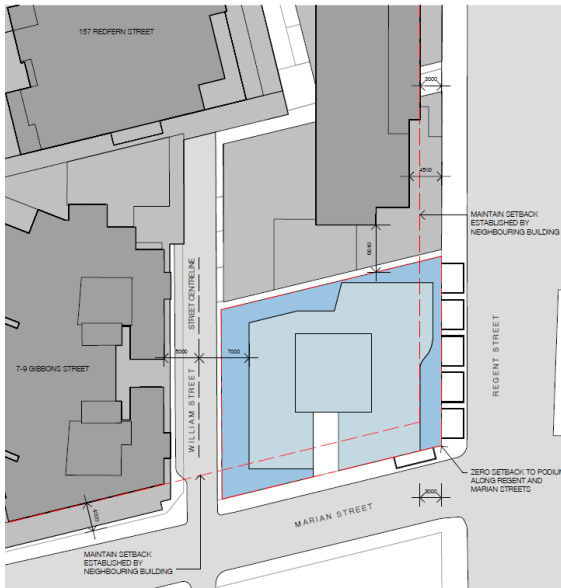
- Identifying opportunities for increasing setbacks/building separation, where possible, while retaining a viable building footprint;
- Facilitating view sharing with the provision of corridors between the proposal and buildings;
- Maintaining the privacy to the adjacent developments; and
- Ensuring that street (tower) setbacks respond to the intent of the controls in the SEPP (SSP) 2005 and the street setbacks of the adjoining development, in particularly the approved Iglu development to the north, which provides a predominant tower setback and 7-9 Gibbons Street to the west, which has a 4m tower setback to Marian Street.

This has informed the current, amended proposal which provides an increased tower setback to Marian Street, resulting in a predominant 3.15m setback, with the exception of balcony encroachments at the corner near Regent Street. This provides for increased separation distances to the future development to the south. With the exception of the corner balcony elements, this represents 0.85m variation to the 4.0m setback control for the majority of the Marian Street frontage.

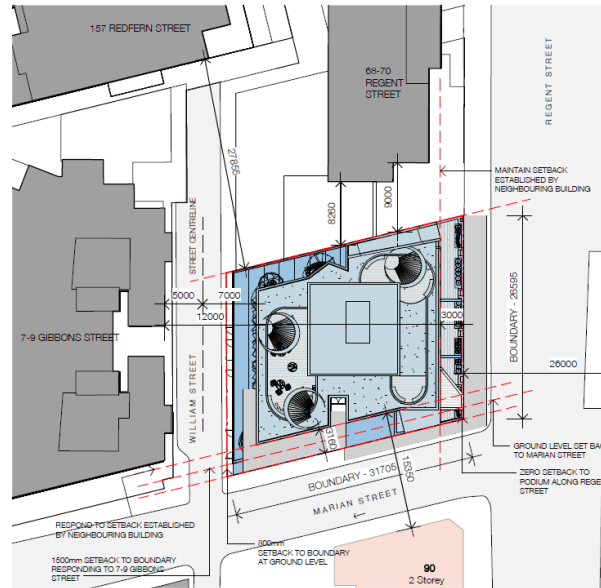
Setbacks to the northern boundary with the Iglu development vary from 0m to 3m, which results in a variable separation of 6.7m to 9.175m. To avoid privacy impacts on Iglu, there are no openings within the part of the northern elevation that has a 0m setback, which is consistent with the ADG design guidance provisions for privacy. Balconies are orientated to the east (Regent Street) and not towards the Iglu development.

There was very little scope to increase separation distances to 7-9 Gibbons Street to the west and provide a viable floor plate. As such the separation distances to the west remain unchanged. However screened (hooded) windows have been provided along this elevation to minimise privacy impacts on 7-9 Gibbons Street.

Table 6 provides a comparison of the separation distances and setbacks between the original DA and the proposed amended DA. This is illustrated in the extracts of the Design Options Analysis (Attachment 6) included at Figures 10 and 11-15.



03. Original (Exhibited) DA non-compliant tower and podium setbacks



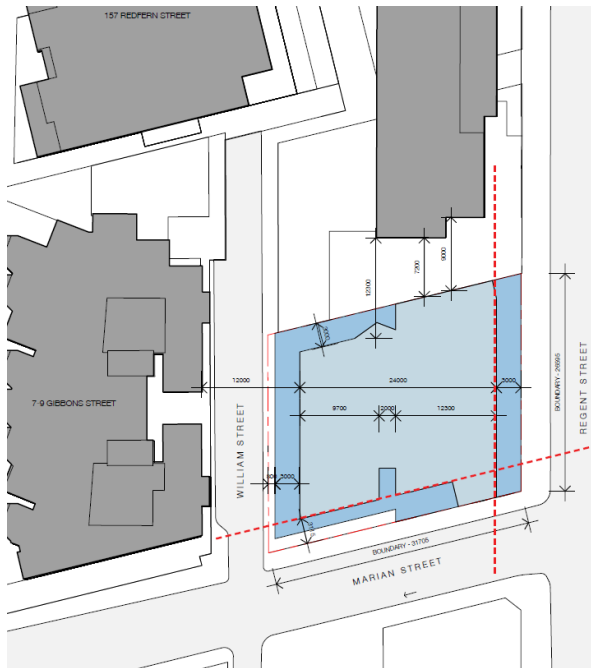
05. Proposed DA non-compliant tower and podium setbacks

Figure 10: Original (exhibited) tower and podium setbacks and the amended proposed setbacks on the right

Overall the analysis reinforced that due to the site constraints, in particular the proximity of the surrounding tower development, there is very little scope to increase the separation distances and setbacks. Notwithstanding the amended proposal has provided for some increase in the separation distances to the north and south. Overall the setbacks and separation are considered reasonable in the circumstances given:

- Visual privacy is maintained to the adjacent development through the orientation of the apartments and balconies to the east, south and north-west and inclusion of highlight and hooded (screened) windows. Further discussion of the privacy is provided in Section 4.7.3;
- The proposal responds to the built form of the adjoining development, in particular the approved Iglu development, with a 3m tower setback to Regent Street;
- The proposal facilitates view sharing as detailed in the assessment of view impacts provided at Section 4.7.1;
- The proposal will not have unreasonable overshadowing impacts on adjoining or surrounding development or the public domain as detailed in Section 4.7.2; and
- The proposal achieves a high level of amenity in terms of dwelling size, solar access, ventilation and private and communal open space as articulated in the ADG.

Direction of setbacks	DA as submitted separation distances	Amended DA separation distances
North: 60-78 Regent Street	Levels 2-14: 6.6m Levels 15-17: 8.1m-10.6m	Minimum 6.7m Blank wall – no openings
North-west 157 Redfern Street	30m separation	30.6m separation
East: Opposite side Regent Street	23m separation	No change 23m separation
West: 7-9 Gibbons Street	10.9m from the existing balconies 12m to glass line	No change:10.9m from the existing balconies No change: 12m to glass line



13. Proposed tower separation_L16-17

Figure 15: Proposed separation distances Levels 16-17

4.3 Floor Space Ratio (FSR)

The site is subject to a maximum FSR of 7:1 under the SEPP SSP. The Council identified a number of areas of the proposal that had not been included in gross floor area (GFA) calculation diagrams prepared by SJB Architects. The Council noted that the inclusion of these areas would result in an exceedance of the FSR and reiterated that the GFA be calculated in accordance with the standard definition, which is reproduced as follows.

gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

- (a) the area of a mezzanine, and
 - (b) habitable rooms in a basement or an attic, and
 - (c) any shop, auditorium, cinema, and the like, in a basement or attic,
- but excludes:*
- (d) any area for common vertical circulation, such as lifts and stairs, and
 - (e) any basement:
 - (i) storage, and
 - (ii) vehicular access, loading areas, garbage and services, and
 - (f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
 - (g) car parking to meet any requirements of the consent authority (including access to that car parking), and
 - (h) any space used for the loading or unloading of goods (including access to it), and
 - (i) terraces and balconies with outer walls less than 1.4 metres high, and
 - (j) voids above a floor at the level of a storey or storey above.

As a result of amendments and replanning to the floor plans, many of the areas in question that were excluded from GFA calculations have been deleted from the current proposal. Updated GFA calculations have been prepared by SJB Architects and are included in the drawings package at Attachment 1. The proposal has a GFA of 5754m², which equates to a compliant FSR of 7:1.

As detailed in the GFA drawings provided in the architectural drawing package the following elements have been excluded from the calculation of GFA.

- Lifts and stairs;
- Plant and mechanical services;
- External lobbies at ground level for residential apartments and the child care;
- The breezeway to the child care centre on Level 1; and
- The residential breezeway corridors on Levels 2 to 17.

The Council previously raised issue with the residential breezeways corridors not being included in the GFA calculation. Council have also questioned the exclusion of the waste holding bay from the GFA calculation. In relation to the waste holding bay, it is assumed that Council are referring to the service and loading bay at ground level that is accessed from William Lane, which was previously denoted as a waste loading area. The main function of this space is for the loading/servicing of the development, not just for waste collection. The swept path analysis prepared by GTA (Attachment 14) demonstrates that a vehicle can access the space. The bins will be stored within the waste room in the basement and will only be moved into the loading area immediately prior to collection. As the principal function of the space is unloading and loading area its exclusion from the calculation of the GFA is consistent with the above definition.

Legal advice provided by Mills Oakley included at Attachment 8 supports the approach that has been taken to the calculation of GFA with the exclusion of central corridors and the ground level service and loading bay from the calculation of GFA. The legal advice includes a discussion of the Land and Environment Court 's (LEC) decision in *GGD Danks Street P/L and CR Danks Street P/L v Council of the City of Sydney [10319 of 2015]* to exclude central corridors from the definition of GFA. Mills Oakley conclude that this decision is clear and is 'squarely applicable' to the proposed DA, and accords with the approach that has been taken to the calculation of GFA.

Having regard to the above, it is considered that the current amended proposal addresses issues raised relating to FSR and GFA.

4.4 Compliance with State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development and the Apartment Design Guide

4.4.1 Design Verification Statement

An updated Design Verification Statement has been prepared by SJB Architects and is included at Attachment 6. The Statement demonstrates that the amended proposal satisfies the design excellence principles of SEPP 65.

4.4.2 Apartment Design Guideline (ADG)

The following key issues were raised in relation to compliance with ADG:

- Solar access: The City Council indicated that the proposal does not appear to achieve two (2) hours of solar access to 70% of the apartments between 9am and 3pm in mid-winter. A more accurate solar access schedule was requested to determine the number of apartments that achieve solar access for 2 hours in mid-winter, in accordance with the ADG requirements.

The solar access and the updated analysis undertaken by SJB Architects are discussed below.

- Building setback/separation: DP&E required further justification and consideration of variations to setbacks/separation distances to the Iglu development to the north.

Building setback/separation distances have been addressed in Section 4.2 above.

As detailed in the revised ADG Compliance Assessment prepared by SJB Architects included at Attachment 6, the proposal continues to comply with Design Criteria relating to:

- **Communal open space** (roof-top terrace) – the proposal provides 362m² of communal open space on the roof-top, which equates to 44% of the site area, thereby exceeding the 25% requirement. The communal open space receives sunlight all day and thereby satisfies the requirement for 2 hours of solar access to 50% of the open space between 9am and 3pm in mid –winter.
- **Cross ventilation:** more than 60% of the apartments, 90% are cross ventilated.
- **Ceiling heights:** the habitable rooms of the apartments achieve a minimum ceiling height of 2.7m.
- **Apartment size and layout:** The apartments comply with the minimum area requirements.
- **Private open space and balconies:** The balconies and podium terraces of the apartments comply with the private open depth and area requirements.
- **Common circulation space:** A maximum of five (5) apartments are located off a single core, which is less than the maximum of eight (8) apartments. Three (3) lifts are provided for the 79 apartments.
- **Storage:** The apartments and basement accommodate the required storage based on the apartment mix.
- **Car parking:** The proposed car parking complies with the maximum parking requirements applying under the SLEP 2012.

Part 4K of the ADG sets out objectives and design guidance for dwelling mix to ensure developments provide a range of apartment types and sizes to cater for different household types now and into the future. The proposal satisfies this requirement of the ADG with a range of one, two and three bedroom apartments. However, it is noted that the amended proposal varies from the following dwelling mix provisions stipulated in SDCP 2012.

- Studio 5 - 10%;
- 1 bedroom: 30% (percentage of 1 bed. dwellings may be increased above 30% provided that the numbers of studios and 1 be. dwellings combined does not exceed 40%)
- 2 bedroom: 40% –75%
- 3+ bedroom: 10%-100%

The proposal varies from the minimum 10% requirement for 3 bedroom dwellings with 2 x 3 bedroom dwellings, equating to 3% of the proposed 79 dwellings. A total of 38% 1 bedroom dwellings and 59% two bedroom dwellings which complies with the SDCP 2012. The variation to the percentage of 3 bedroom apartments is considered reasonable as it still provides a mix of dwellings and given the physical constraints of the site.

Solar Access

The design criteria in Section 4A-1 of the ADG specifies that living rooms and private open spaces of at least 70% of apartments in a building receive 2 hours of sunlight in mid-winter. The objective of this criteria is: *“To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.”*

Following feedback on the original DA scheme as to whether 70% of the apartments did achieve 2 hours of sunlight between 9am and 3pm in midwinter, more detailed solar analysis was undertaken by SJB Architects. This includes ‘View from the Sun Diagrams’ provided at 15 minute intervals between 9am and 3pm in mid-winter and Shadow Analysis Plan for each residential level of the building. The analysis is contained in the architectural package at Attachment 1.

The more detailed analysis with the 15 minute interval view from sun diagrams, indicates that the 2 hours sunlight is not achieved to the balconies and living areas of 70% of the apartments, between 9am and 3pm. Only 17% of the apartments can achieve 2 hours solar access between 9am and 3pm in midwinter.

In order to achieve (2) hours of solar access to 70% of the residential units, it will be necessary to extend the time-frame by an additional one (1) hour from 8am to 3pm. The Solar Analysis Plan indicates that 70% of the apartments will receive two (2) hours of sunlight between 8am and 3pm.

The inability to achieve the two hours between 9am and 3pm arises from the site being orientated to the north-west instead of due north, and the scale of the existing and approved buildings to the north and west. As a result of the location of approved and existing development to the north and north-west, there are limited opportunities to provide apartments with a northern orientation. This is further compounded by the size of the site, which limits the number of apartments that can be accommodated on each level, while at the same time maximising setbacks, achieving minimum apartment and balcony sizes and providing a mix of apartments. These constraints, and the likelihood that the achievement of solar access to 70% of the apartments would rely on an extension of the hours to 8am, was identified in the Request for SEARs.

Despite the departure, the proposal is consistent with the ADG identified above, in that it seeks to optimise the number of apartments that receive solar access. Each floor level of the proposal contains only (5) apartments, with the exception of Level 2 which contains four (4) apartments. To maximise solar access to the largest number of dwellings, three (3) apartments on each level have been oriented towards Regent Street to the east and north-east. Four (4) apartments on each level are corner apartments, with a dual aspect. One (1) apartment has a south-western orientation to minimise privacy impacts to the adjoining development at 7-9 Gibbons Street.

In addition, the proposal is consistent with the design guidance provisions in 4A as the *design maximises north aspect and the number of single aspect south facing apartments is minimised*. 60% of the apartments are provided with a northerly aspect.

Having regard to the above and given that 2 hours of solar access will be achieved to 70% of the apartments if the time-frame is extended to 8am, the departure from the design criteria is considered reasonable in the circumstances.

4.5 Design Excellence

The formulation of numerous built form options both in the preparation of the original DA and subsequent amended proposal for this RTS, is evidence of the considered and rigorous design excellence process has been undertaken.

The amended proposal is considered to exhibit design excellence in relation to building expression and materials; sustainable design principles and the interface with the public domain. Each of these items is addressed in the following sections.

4.5.1 Building Expression and Materials

The building expression of the amended proposal responds to the existing buildings on site and the historical pattern and character of development on Regent Street and the surrounds as outlined below:

Podium

- The height of the parapet along Regent Street has been extended to align with the approved Iglu development at 60-78 Regent Street to create a continuous street front wall height. This extended podium height has allowed the provision of a landscape terrace to the edge of the balconies on Level 2.

- The existing Victorian shops located on site have been interpreted in the podium design with the inclusion of five (5) distinct shopfronts. The two storey height and proportions of the shopfronts responds to the scale and subdivision pattern of the existing shopfronts on site, and along this strip of Regent Street. The shopfronts incorporate strong vertical elements, including windows and recesses, to reflect the proportions and character of the existing shopfronts. The glazing at ground level is in keeping with the existing shopfronts and read as doorways and shop windows, within a solid façade.
- The height and massing of the podium to Marian Street has modified to better respond to the podium of 7-9 Gibbons Street. A four (4) podium on Marian Street provides a transition in the street wall height from Regent Street to Marian Street and responds to the podium height of 7-9 Gibbons Street.
- Consideration has been given to the ground floor configuration to improve the retail frontage and opportunities for interactions with the public domain though extending the tenancy to wrap around the corner of Marian Street through an active external courtyard.
- A continuous awning has been provided along Regent Street, which wraps around Marian Street. The awning steps to follow the topography of Regent Street.
- The material selection complements the existing building fabrics that characterise Regent Street and the area and consists of face brick, hit and miss brick and pre-cast concrete. Brickwork is the dominant material in the podium which recognises the primarily solid facades of the traditional shopfronts. Hit and miss brickwork has been incorporated into both Regent and Marian Street facades for greater articulate on and permeability at the pedestrian junction.

The expression and materiality of the ground level is illustrated in the following drawing detail from the Architectural Drawings.



Figure 16: Expression and materiality of the ground level

Towers

The scale of the tower is in keeping with the adjacent towers. As outlined in Section 4.2 the tower setback to Regent Street aligns with the Iglu development to the north and responds to the setback of 7-9 Gibbons Street on Marian Street.

While the tower incorporates materials that complement the existing building fabrics, the selection of materials and finishes as detailed in the SEPP 65 Statement (Attachment 6) will distinguish the proposed tower from the adjacent buildings. This will assist in breaking up the cumulative massing of the towers.

4.5.2 Sustainable Design Principles

An Ecologically Sustainable Development Report has been prepared by Efficient Living and is included at Attachment 9. The ESD Report identifies sustainability initiatives to be adopted within the development, which align favourably with the SLEP 2012, the overall planning objectives of the local area and Sustainable Sydney 2030.

The sustainability initiatives extend beyond the regulatory framework established by BASIX and Section J of the BCA and address the following into nine general categories:

- (1) Indoor Environment Quality
- (2) Water Efficiency
- (3) Energy Efficiency
- (4) Stormwater Management
- (5) Building Materials and Operation
- (6) Transport
- (7) Waste Management
- (8) Urban Ecology
- (9) Innovation

The implementation of the initiatives will ensure the integration of sustainable practices into the development, both during the construction and ongoing operational phases.

4.6 Public Domain Interface

The proposal has been amended to enhance the interface with, and activation of Regent Street and Marian Streets as outlined below:

- Maximise the active frontage to Regent Street by locating the child care centre over a single level, with the exception of the lobby;
- Providing multiple shopfronts and entries to Regent Street which respond to the rhythm, scale and proportion of the traditional shopfronts on site and Regent Street;
- Increased activation to Marian Street by ensuring the retail space on Regent Street wraps the corner with a porous material such as hit and miss brickwork on Marian Street. The location of the child care centre entrance and residential lobby on Marian Street also provide activation;
- Increasing the ground level setback on Marian Street by 1.5m to align with the adjoining building at 7-9 Gibbons Street and provide a wider footpath;
- Providing a full awning that wraps around Regent and Marian Streets to mitigate wind impacts and provide weather protection; and
- The entries into the shops will be fully accessible to ensure equitable access for all persons; and

4.7 Amenity Impacts

4.7.1 View Loss

Impacts on views were raised by residents of the adjacent buildings from 7-9 Gibbons Street and 157 Redfern Street. Impacts on views from the communal living areas of the approved Iglu student development were also raised.

An assessment of potential impacts on views arising from the proposed development has been undertaken for the following properties:

- 157 Redfern Street;
- 7-9 Gibbon Street; and
- 60-78 Regent Street (approved Iglu student housing development).

The properties are identified in Figure 17.

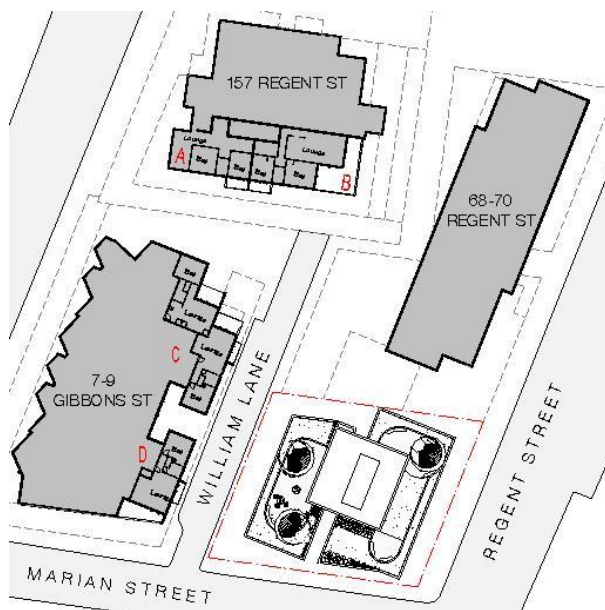


Figure 17: Properties considered in the view impact analysis

This assessment has been made against the planning principles for view sharing established by Senior Commissioner Roseth in the Land and Environment Court decision of *Tenacity Consulting v Warringah [2004] NSWLEC140*.

The assessment is based on a View Impact Analysis prepared by SJB Architects. In the absence of being able to inspect and photograph views from potentially impacted properties, photographs were sourced from various on-line real-estate advertisements for the sale or rental of properties within 157 Redfern Street and 7-9 Gibbons Street. The View Impact Analysis also relied on the following data:

- Survey data of 7-9 Gibbons Street and 157 Redfern Street, which identified the location of balconies and openings on the eastern and southern elevation of these buildings.
- The approved stamped drawings for 7-9 Gibbons Street, 157 Redfern Street and 60-78 Regent Street (Iglu Development), which showed the location and layout of potentially affected apartments within the buildings, as well as RLs and other relevant data. This was particularly important in the case of Iglu development, which is not yet constructed.

This information has provided a reasonable indication of the view impacts of the proposal on these three (3) buildings, the absence of inspecting the properties.

Assessment of views to be affected

While an inspection of the available views from apartments within these buildings has not been undertaken, based on the analysis of the site context and the photographs sourced from real-estate sites, local and district views to the east and south will be affected.

The views to the east consist of the surrounding predominantly residential areas of Redfern and Waterloo and distant views of the Sydney Cricket Ground, football stadium and eastern suburbs. Views to the south are also of Redfern and Waterloo with distant views of Botany Bay.

There are no water views or views of iconic elements, such as the Sydney Harbour Bridge and Sydney Opera House or significant landscape features. For the most part, the views are of nearby and distant buildings in Redfern and Waterloo and the surrounding suburbs, and are characteristic of the urban outlooks that would be available from many higher rise buildings throughout the Sydney region.

A description of the broad views available from the three (3) properties is provided in Table 7 below. This is followed by a more description of the apartments within each building that will be affected.

Property	View Description
157 Redfern St	Outlook to the south of Redfern and Waterloo and distant views towards Botany Bay
7-9 Gibbons St	Outlook to the east of Redfern and Waterloo and distant views towards the Sydney Cricket Ground and football stadium eastern suburbs
60-78 Regent St (Iglu Development)	Outlook to the south of Redfern and Waterloo and distant views towards Botany Bay

Table 7: Summary of views and outlooks from adjacent properties

157 Redfern Street

No.157 Redfern Street is located to the north-west of the subject site. There are two (2) apartments located on the southern side of levels 5 to 18, which are potentially impacted by the proposal. For ease of reference, these are identified as Apartments ‘A’ and ‘B’ in Figure 17. Within the building there are 14 type ‘A’ apartments 14 type ‘B’ apartments.

The living areas and balcony of the apartment located on the south-western side of each level (Apartment A) is orientated to west and these views are not impacted by the proposal. Distant views towards the south from the bedrooms of Apartments A may be impacted by the proposal.

Apartment B, which is located on the south eastern corner of Levels 5 to 18 has views towards the south of Redfern and Waterloo and distant views towards Botany Bay. These views will be impacted by the proposal.

7-9 Gibbons Street

No.7-9 Gibbons Street is located to the west of the subject site. There are two (2) apartments located on Levels 4 to 17 that are potentially impacted by the proposal. These apartments are identified as Apartments ‘C’ and ‘D’ in Figure 17 and are located on north-eastern and south eastern corners of the building. Within the 7-9 Gibbons Street building there are 14 type ‘C’ apartments 14 type ‘D’ apartments.

The 14 type 'C' apartments are located on the north-eastern corner and have views of Redfern and Waterloo, and distant views of the eastern suburbs towards the east and south east.

The 14 type 'D' apartments are located in the south-eastern corner of the building and have views of Redfern, Waterloo and the eastern suburbs to the east which will be impacted by the proposal. These apartments also have views of Redfern and Waterloo to the south, and distant views towards Botany Bay, which will not be impacted by the proposal.

60-78 Regent Street (Iglu)

The approved Iglu student housing development is located directly north of the site. The communal living areas located within the southern end of the building on Levels 2 to 17 have views to the south are impacted by the proposal. The communal areas serve six (6) rooms on each level.

Which part of site is the view available from?

As outlined in Table 8 below, the views are available from living room windows, living room balconies, bedrooms windows and communal student dining/lounge rooms. The apartments within 7-9 Gibbons Street each have two balconies, off their living areas.

The loss of views from living room windows and balconies is considered to be of greater impact, than the loss of views from bedrooms or bedroom balconies.

Property	Location of views
157 Redfern St	
Apartments A (levels 5 to 18)	Living area and balcony: Face west and are not impacted by the proposal. Bedrooms: Potential impact to southern views from bedroom towards the south.
Apartments B (levels 5 to 18)	Living area and balcony: Southern views of Redfern and Waterloo and distant view to the south towards Botany Bay.
7-9 Gibbons St	
Apartments C (levels 4 to 17)	Living area window and balcony: Eastern views of Redfern and Waterloo and distant views of eastern suburbs. Bedroom window (highlight): Eastern views of Redfern and Waterloo and distant views of eastern suburbs.
Apartments D (levels 4 to 17)	Living area window and balcony 1: Eastern views of Redfern and Waterloo and distant views of eastern suburbs. Living area window and balcony 2: Southern views of Redfern and Waterloo and distant view to the south and towards Botany Bay. Bedroom window: Eastern views of Redfern and Waterloo and distant views of eastern suburbs.
60-78 Regent St (Iglu) Levels 2 to 17	Student communal dining and living areas for six (6) rooms located on levels 2 to 17: Southern views of Redfern and Waterloo and distant view to the south and towards Botany Bay.

Table 8: Location within dwelling from which views are available

Extent of impact in relation to views available?

The view impacts from the apartments ranges from minor to severe. The impact on the views from the apartments has been assessed having regard to the nature of the views, extent of view available as and has been assessed according to the following criteria:

- Negligible;
- Minor;
- Moderate;
- Severe; and
- Devastating.

In general, impacts on partial views are not considered to be as significant as whole or uninterrupted views. A discussion of the view impacts for each of the properties is provided as follows.

157 Redfern Street

The view impacts from the 14 type 'A' apartments on Levels 5 to 18 will be negligible to minor and is limited to a reduction in views from their bedrooms. The living rooms and balconies of these apartments are oriented to the west and these views will not be impacted by the proposal.

The proposal will have a severe impact on the outlook and district views towards the south from the balcony and living room of the 14 type 'B' apartments on Levels 5 to 18. The view analysis shows the view impact from the uppermost apartment on Level 18 from the balcony (refer to Figure 18). It can be expected that the impacts will be greater from the lower levels of the building, as Level 18 will retain glimpses of views over the proposal and adjoining Iglu development. It is expected that part of the outlook to the south from the 14 type 'B' apartments will be retained down the view corridor created by William Lane. This is not illustrated in the view analysis as it has relied on photographs of views sourced from real estate agent sites.



Figure 18: View impacts from Level 18 – 157 Redfern Street

7-9 Gibbons Street

The 14 type 'C' apartments on Levels 4 to 17 will retain views to the east from their living room windows and balcony between the proposed building and the Iglu development. As illustrated in Figure 19, the separation between the buildings provides a view corridor that will ensure outlooks and districts views towards the eastern suburbs will be retained from their balcony and living room. Some views towards the south will also be retained from the living area (refer to Figure 19). The proposal will partially obscure views from the bedroom windows of the type 'C' apartments on Levels 4 to 17 (refer to Figure 17). Overall the impact on Apartments C on Levels 4-17 is considered to range from minor to moderate.

Views to the south from the living room and balcony of the 14 type 'D' apartments on Levels 4 to 17 will not be impacted by the proposal (refer to Figure 20). These apartments have a narrow, secondary balcony off the living room which has views to the east. The proposal will obscure views from this balcony and the balcony windows (refer to Figure 21). The views from the bedroom will also be obstructed. It is noted that these bedrooms have highlight windows, which limits the extent of the view. Overall the impacts on the 14 type 'D' apartments on Levels 4 to 17 of 7-9 Gibbons Street represents a minor to moderate impact given the nature of views to the east that will be obscured and that the views to the south will not be obstructed.



Figure 19: Partial views to the south will be retained from living rooms of 'Apartments C' at 7-9 Gibbons Street (image from level 14)



Figure 20: Partial view to the east will be retained from bedrooms of 'Apartments C' at 7-9 Gibbons Street (image from level 14)

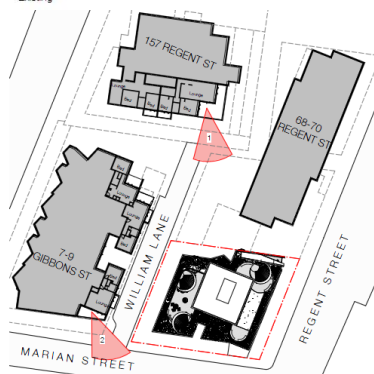
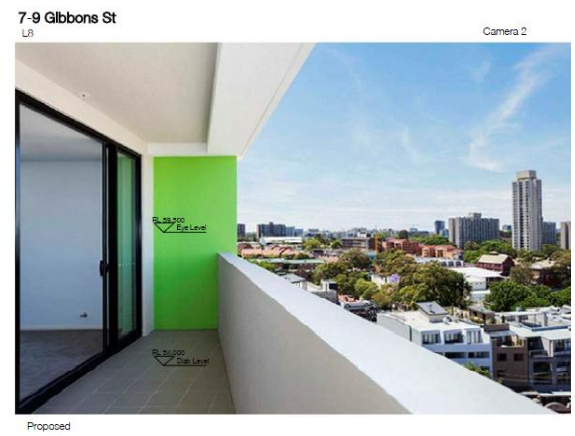
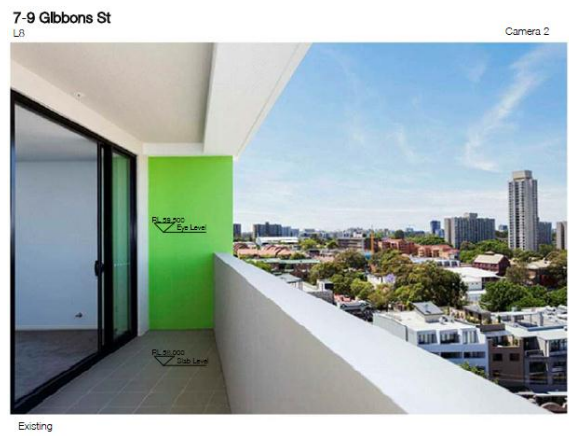


Figure 21: Views to the south from the balconies and living rooms of 'Apartments D' at 7-9 Gibbons Street will not be impacted by the proposal (image from level 8)



Figure 22: Views to the east from the secondary balconies and living rooms of 'Apartments D' at 7-9 Gibbons Street will be completely obscured by the proposal. Note, the views to the south (refer to Figure 21) are also available from the living room and main balcony of these apartments (image from level 8)

60-78 Regent Street (Iglu)

The proposal will have severe impact on the views from the student communal dining and living areas on each level of the building. Given the communal dining/living areas are located within the centre of the building and orientated south, these views cannot be retained with the development of an 18 storey development on the site as anticipated by the planning control. Furthermore, it is noted that the communal lounges, terrace and games rooms on level1 (podium) have an outlook onto Regent Street.

Reasonableness

The degree to which an impact is considered to be reasonable depends on the extent to which the development complies with the relevant planning controls, and whether impacts could be mitigated by a more skilful design. Each of these elements are discussed below.

Compliance with the Planning Controls

The proposed development complies with the planning controls which seek to regulate the massing, bulk scale and overall height of buildings on the site, and the associated impacts, including view loss impacts.

This includes the 18 storey building height control and FSR controls of 7:1.

The proposal varies from the 2 storey street height/8m tower setback control to Regent Street. As detailed in Section 4.2, the proposed tower setback and street wall height is consistent with the approved Iglu

development to the north. Compliance with this control will not reduce any view impacts from the apartments within 157 Redfern Street or 7-9 Gibbons Street or from the Iglu student housing development.

The proposal varies from the 4m tower setback control applying to Marian Street. Compliance with the 4m setback would result in a slight reduction in the impacts on easterly views of Redfern and Waterloo and beyond from 'D' apartment on levels 4 to 17 within 7-9 Gibbons Street. This would be a marginal improvement and is considered of lesser importance given these apartments retain views to the south. Compliance with the 4.0m tower setback to Marian Street, would not alter the impacts on views for the other apartments within 7-9 Gibbons Street or apartments within 157 Redfern Street.

As detailed in Section 4.2 the proposal varies from the setback/building separation criteria applying under the ADG. Achievement of the separation distances will not alter view loss impacts from the Iglu development or from the type 'D' apartments within 7-9 Gibbons Street.

Despite the zero setback to the northern boundary, the separation distance to Iglu provides a view corridor to ensure the type 'C' Apartments at 7-9 Gibbons Street will maintain their easterly views from their living room and balcony. As a result, the variation to the northern boundary setback distances applying under the ADG does not have an unacceptable impact on the easterly views from 7-9 Gibbons Street.

Increasing the setback to the western boundary (William Lane) to comply with the ADG would maintain a larger view corridor to the south for the 14 Apartment B's on Levels 5 to 18 of 157 Redfern Street. As outlined in Section 4.2, the site is constrained by the proximity of the existing and approved adjoining development, in particular the tower of 7-9 Gibbons Street to the west, which is within 1-2m of the boundary. Compliance with the setback requirements on the site would render the site undevelopable due to the resultant tower footprint.

The impact on views is inevitable in this context where 18 storey buildings are envisaged for this part of the Redfern town centre under the applicable planning controls. It is important to note that views are a result of borrowed amenity afforded to the 7-9 Gibbons Street, 157 Redfern Street and 60-78 Regent Street from the subjected site being undeveloped.

Overall the proposed development has sought to retain some outlooks to the east and south through the siting and built form of the proposal and in this regard facilitates views.

Preservation of views beyond what is currently proposed would impede a viable redevelopment of the site and urban renewal of the centre that is envisaged under the SEPP (SSP) 2005, BEP and Draft Urban Design Principles.

A More Skilful Design

In relation to the question as to whether view impacts could be mitigated with more skilful design, the current proposal was the outcome of a design rigorous process where by numerous alternative design options were considered for the site. These options are discussed in Section 4.2.2 and the Built Form Options Analysis prepared by SJB Architects included at Attachment 6.

Overall the site is constrained by the proximity of the existing and approved adjoining development, in particular the tower of 7-9 Gibbons Street to the west, which is within 1-2m of its eastern boundary. As a result, there are limited options for the built form and siting of development on the site, which realise the development density, scale and renewal that is envisaged for the site and centre under SEPP (SSP) 2005, BEP and Draft Urban Design Principles.

The design of the proposal has been driven by the detailed consideration of the site constraints and the need to minimise view loss, privacy and other amenity impacts on the adjacent development, while ensuring a high level of amenity is achieved for the development. The proposal provides a slender tower form that accommodates a maximum of five (5) apartments on each level. Impacting on existing views is inevitable with the redevelopment of the site given the 18 storey scale of development that is envisaged under the planning

controls. Notwithstanding the design outcome that has been formulated for the site has sought to retain views and facilitates view sharing.

Conclusion

On the basis of the view impact assessment presented above, the supporting information presented in the Attachments, the view impacts arising from the proposed development are considered reasonable in the circumstances of the case.

4.7.2 Overshadowing

Overshadowing impacts were raised in the submissions from residents of the adjacent buildings. In addition the Council and DP&E also required further consideration of overshadowing impacts arising from non-compliances with the street setback controls, in particular the 4m tower setback to Marian Street.

Revised shadow diagrams for the amended proposal have been prepared by SJB Architects at hourly intervals on 21 June (Winter solstice) and are included in the Architectural Drawing Package at Attachment 1. The shadow diagrams illustrate the comparative shadow impacts of the original DA scheme, the initial RTS scheme and the current RTS proposal. The shadow impacts of a building that complies with the tower setbacks is also provided.

As outlined below and illustrated in the shadow diagrams, the proposal not have unacceptable overshadowing impacts:

- It will not result in any additional overshadowing to the adjoining residential development at 7-9 Gibbons Street;
- A significant proportion of the shadows created by the proposal will fall within the shadows cast by the approved Iglu development to the north at 60-78 Regent Street;
- The majority of the additional shadows are cast on the existing commercial/retail premises located along Regent Street;
- It does not result in additional overshadowing to Jack Floyd Reserve, located to the east on the opposite side of Regent Street;
- There is a negligible difference between the shadow impacts from the proposal that provides a 4m tower setback to Marian Street.
- The shadow impacts have been reduced as a result of the reduction in the overall height of the building in the current amended proposal; and
- While the shadow diagrams show distant additional shadows are cast to the east and west over the conservation area it is anticipated that many parts of these areas are already in shadow as a result of the buildings and other structures, such as fences, that have not been modelled in the shadow analysis.

Having regard to the above the overshadowing impacts of the proposal is considered reasonable.

4.7.3 Privacy Impacts

Impacts on privacy was raised in many of the public submissions received from residents of the surrounding buildings. The concerns relating to privacy principally relates to the separation distances between the proposal and the existing and approved adjacent development. The building separation distances have been addressed at length in Section 4.2.2 and demonstrates that despite the proposal not complying with the building setback/separation distances it will not give rise to adverse privacy impacts on the adjacent properties as outlined in the following section:

7-9 Gibbons Street

The proposal will not adversely impact on the privacy of the apartments at 7-9 Gibbons Street, as:

- There are no balconies located on the western elevation. Balconies are facing Marian Street to the south and Regent Street to the east and the north-west;
- Screened (hooded) windows have been provided to the habitable rooms on the western elevation which ensure sightlines are directed away from 7-9 Gibbons Street; and
- Living rooms have been principally oriented to the north-west and south.

157 Redfern Street

A 30m building separation is provided between the apartments within the proposed building that are orientated to the north-west and the balcony of the nearest apartment at 157 Redfern Street. This exceeds ADG separation distances thereby ensuring adequate privacy.

60-78 Regent Street (approved Iglu development)

The submission prepared on behalf of Iglu raised concerns in relation to privacy impacts. To address these concerns a number of amendments were made to the proposal including:

- The Level 2 apartment in the northwest corner has been removed to mitigate any possible privacy impacts on the communal courtyard at level 1 podium;
- All openings have been deleted from the northern elevation facing Iglu. A solid wall has been provided in place. This mitigate direct views into and overlooking of the windows and communal space on the southern elevation of Iglu;
- All balconies have been orientated to Regent Street and no longer face Iglu; and
- The deletion of the mezzanine levels and lowering of the building has also reduced privacy impacts.

4.7.4 Wind Impacts

A number of the public submissions raised concerns with potential wind impacts of the proposal. DP&E requested the submission of a revised wind impact assessment which included wind tunnel testing to ensure the amenity of adjoining apartments at 7-9 Gibbons Street, 157 Redfern Street and the proposed Iglu student accommodation development will be acceptable. In the event that the assessment identified significant wind impacts, further consideration of mitigating these impacts through the proposed built form was required.

A revised Pedestrian Wind Environment Study has been prepared by Windtech and is included at Attachment 7. In response to further comments from Council and DP&E regarding wind impacts supplementary Wind Impact Comments have been provided by Windtech and are also included at Attachment 7.

The key issues that have been raised in relation to wind impact are summarised below:

1. The increased impact of the wind conditions around the site with the inclusion of the proposed development when compared to the existing conditions;
2. The criteria that has been used to assess the wind impacts;
3. The setback along Marion Street should be increased from 3 metres to 4 metres to assist with reducing downwash effects; and
4. Impacts on the adjacent developments, including the outdoor communal space of the adjoining Iglu development to the north.

The findings of Windtech's analysis included at Attachment 7, which is summarised below, demonstrates that the proposal will not have unacceptable wind impacts.

Increased in wind impacts arising from the proposed development

The wind conditions around the site is noted to be generally improved with the inclusion of the subject development, compared to the existing conditions. The majority of the ground level areas around the site, including along Marian Street and Regent Street, are governed by winds from the westerly and north-easterly sectors. As the proposed development is larger in massing when compared to the current built form of the site, which is predominately two storeys, these winds benefit from the additional shielding which the development will provide. The slight increase in the wind conditions along Marian Street with the inclusion of the subject development was found to be due to the additional built form associated with the subject development compared to the existing building.

This directs the westerly winds along Marian Street due to the west-north-west to east-south-east alignment of the street. The inclusion of the awning along Marian Street (which would simulate similar effects to an increase tower setback on the podium) only resulted in a minimal improvement to the westerly to south-westerly wind conditions. This is due to the conditions being caused by a ground level effect.

Wind Criteria

The Council has raised concern that the conditions along Marian Street should be referenced to the annual maximum gust criteria instead of the gust equivalent mean comfort criteria. The current conditions along Marian Street and Regent Street current exceed the 16m/s annual maximum gust criteria while the proposed development improves conditions and in a number of cases is within the comfort criteria. It should be noted that the annual maximum gust criteria does not provide an accurate representation of the wind comfort conditions associated with areas in a built up environment. This is due to the fact that the criteria is based on a low turbulence level, typically associated with open areas. Built up areas, like the location of subject site, typically experience turbulence of around 30-40% and as such the annual maximum gust criteria become inaccurate as noted by numerous international studies. Furthermore it is also noted that the Central Sydney Planning Strategy draft document is currently recommending for the wind comfort criteria to be changed to be based on the gust equivalent mean criteria.

Wind impacts arising from reduced tower setbacks to Marian Street

Tuff measurements were undertaken during the wind tunnel study to determine the flow mechanism which impacts the wind conditions along Marian Street. This was found to be governed by ground level effects due to the street alignment and not a downwash component off the tower. Increasing the setback of the tower to 4m along Marian Street from that proposed, would therefore not provide any notable benefit to the ground level wind conditions. Based on the noted flow mechanism impacting Marian Street, recommended porous screen treatment (hit and miss brickwork) at the corner of Marian Street and Regent Street will be effective in mitigating the side-stream effect around the corner of the building at ground level by reducing the large pressure differential around the corner. Furthermore the inclusion of an awning along this aspect in the areas noted in the wind report provided some localised improvement due to downwash off the podium section of the façade.

Impacts on adjacent properties – Iglu's outdoor communal open space

The proposed development is noted to have beneficial effects for the outdoor areas of the Iglu development. The communal area of the Iglu project is currently generally shielded from all directions by the other existing developments except for the southerly winds. The inclusion of the proposed development is noted to provide additional shielding from the southerly winds for this area.

Having regard to the above the wind impacts associated with the proposal are considered acceptable.

4.7.5 Noise Impacts

Various issues were raised by Council, DP&E and the public submissions in relation to noise and the Noise and Vibration Impact Assessment prepared by Acoustic Logic that was submitted with the application.

The Council raised the following issues and requested the submission of a further acoustic assessment:

- Potential noise sources from the proposal including the use of the communal rooftop terrace and the proposed child care centre on the surrounding residential receivers;
- Noise impacts on residents of the proposed development from the significant roof-top plant on the adjacent buildings; and
- Suitability of the location of the unattended noise monitors for establishing the background noise levels.

Additional issues raised in the public submissions included noise from plant and equipment, construction related noise and noise impacts generally.

DP&E requested the submission of an amended Noise and Vibration Impact Assessment which addressed the above issues raised by Council.

In response to the above, Acoustic Logic have prepared an amended Noise and Vibration Impact Assessment which is included at Attachment 10. Acoustic Logic have also prepared a separate response to the issues raised by the Council, which is also included at Attachment 10.

Having regard to the above, it is considered that the issues relating to noise have been addressed.

4.8 Child Care Centre

The following issues were raised in relation to the child care centre:

- Functionality of the design of the child care centre, being located over two levels;
- Requirement for a management plan, which addresses the SDCP 2012 and operational details of the centre;
- The size of the outdoor play area relative to the number of children proposed to be accommodated in the centre;
- Noise attenuation measures that will be required to achieve noise criteria within the centre;
- The proximity of the child care centre to potential sources of electromagnetic frequency;
- The proximity of the child care centre to cooling towers; and
- Adequacy of proposed set-down and drop-off spaces.

In response to the above issues, amendments have been made to the child care centre and additional information has been provided as outlined below. Despite these changes, the Council considers that the use of the of the child care centre should be the subject of a separate development application. It is considered that the information provided with this RTS, demonstrates that the child care centre is an appropriate use and should be approved as part of this application. This information includes:

- Amendments to the child care centre layout and capacity as detailed in the Architectural Drawings included at Attachment 1;
- Plan of Management (PoM) for the child care has been prepared by Edge Management included at Attachment 11; and
- An Outdoor Area Report: Proposed Child Care Centre prepared by Gowrie NSW

The detailed fitout and design (floor layout, landscape details, etc.) being subject to a separate application.

Design, layout and functionality of the Child Care Centre

The design of the child care centre has been amended so that it is completely located on level 1, with the exception of an entrance lobby located on the ground floor, off Marian Street. The entrance lobby will accommodate a pram drop/parking space.

The capacity of the child care centre has been reduced from a 65 place centre to a 53 place centre. In line with this and the design changes of the building, the external and internal areas of the centre have been reconfigured.

Due to the proximity of the adjacent buildings, the outdoor play areas will not receive sunlight contrary to the provisions of the SDCP 2012. To compensate for this, the height of the larger outdoor space located on the western side of the level has been increased by an additional 3m to provide an overall height of 6.7m. This will significantly enhance the amenity of this space by ensuring good levels of daylight throughout the year and allowing for mature tree species.

Management Plan

A Plan of Management (PoM) for the child care has been prepared by Edge Management and is included at Attachment 11. The PoM addresses key operational elements of child care centre including:

- Capacity and hours of operation;
- Staffing and general administration arrangements;
- Arrivals and departures – including staff and children;
- Car parking;
- Noise management;
- Fire safety and emergency;
- Security;
- Maintenance; and
- Licences, policies and procedures

Outdoor play areas

As outlined above, the proposed operating capacity of the centre has been reduced from 65 children to 53 children. The proposed outdoor areas have a combined area of 377m². As detailed in the PoM and Outdoor Area Report (Attachment 11) the provision of the outdoor area for 53 children is in line with National standards, which requires 7m² of unencumbered outdoor space per child.

Council has raised concern with the lack of solar access that will be provided to the outdoor area and on this basis have questioned the suitability of the proposal to accommodate a child care centre.

The Outdoor Area Report: Proposed Child Care Centre prepared by Gowrie NSW (Attachment 11) provides an assessment of the proposed outdoor area against the *Education and Care Services National Regulations 2011* and the National Quality Standard (NQS). The report concludes that the outdoor space for the child care centre is capable of meeting the sections of the *Education and Care National Regulations 2011* and the NQS subject to the resolution of the design and layout of the spaces, which will be the subject of a separate development application. This conclusion was based on the following assessment:

- While partially covered by the building above, the outdoor play area is provided using two (2) balcony spaces. These spaces allow children to be outside and exposed to natural light and fresh air.

- The outdoor area is shaded by the building above and surrounding buildings. These buildings potentially create adequate shaded areas to prevent children from having overexposure to the sun. It is recommended that the centre operator conduct a shade audit assessing the environment against the recommendations of the Cancer Council NSW. However, the proposed centre will be able to meet the requirements of Regulation 114.
- Subject to the design of the outdoor play space incorporating a variety of play areas including areas for active, quiet, gross motor and sensory experiences and natural elements, it will be able to meet NQS element 3.2.1 using the outdoor spaces provided for the proposed centre.
- While the space for outdoor play is located on the first floor of the building, provision can be made to ensure there are natural elements in the space. Subject to the inclusion of the following in the outdoor space it can meet NQS element 3.2.1:
 - An area for sand play.
 - A wet play area.
 - Space for movable climbing and balancing equipment and other equipment to promote gross and fine motor skills.
 - A soft fall area for placing climbing equipment.
 - Shade in accordance with shade guidelines provided by the NSW Cancer Council. Note that the centre will also have a Sun Safety Policy based on recommendations from the NSW Cancer Council.
 - Planting suitable for the space to assist in creating natural features.
 - Provision for children to experience a variety of natural and recycled materials.
 - A variety of ground cover materials for sensory purposes such as timber, paving etc.

Having regard to the above, despite the lack of solar access to the outdoor spaces, they are capable of meeting *Education and Care Services National Regulations 2011* and the National Quality Standard (NQS). On this basis, the site and proposal development are suitable for the child care use and should be approved as part of this application.

Noise attenuation measures that will be required to achieve noise criteria within the centre;

The revised Noise and Vibration Impact Assessment prepared by Acoustic Logic included at Attachment 10, provides an assessment of the noise impacts of the proposed child care centre. The report recommends treatments to the child care centre to ensure the achievement of the relevant internal noise levels from surrounding environmental noise sources, as well as noise from the child care centre to surrounding receivers. The recommended treatments are summarised below:

- Minimum 6.38mm laminated glazing with acoustic seals is required around the perimeter of the outdoor play area, with minimum Rw of 30;
- The underside of the building structure to the west, which over hangs the proposed external area is to have an acoustically absorptive treatment such as envirospray, absorptive insulation or the like. Treatments should be to a minimum of 40% of the soffit area;
- The outdoor play area to be operational between 8am and 6pm on any given day;
- Management is to ensure children are supervised at all times to minimise noise whenever practical and possible; and
- Install a contact phone number at the front of the centre so that any complaints regarding centre operation can be made.

Electromagnetic Frequency

An Electromagnetic Fields Assessment has been prepared by EMC Technologies and is included at Attachment 12. Based on an analysis of the electromagnetic sources around the site, the assessment concludes that the potential exposure impact is very low.

Formulas used in the assessment represented a theoretical worst case scenario and the results showed that for the existing radiofrequency (RF) sources, no fields at the location of the proposed child care were in excess of the ARPANSA general public exposure limits.

The physical separation of the substation from the proposed child care centre should be sufficient to ensure no field in excess of the ICNIRP general public limits are present in the child care centre if the maximum current load is less than 2000A.

The proximity of the child care centre to cooling towers

Information was requested from the City of Sydney Council, regarding the location of cooling towers within proximity to the site. This information has not been forthcoming at this stage and is expected to be made available by the Council during the assessment of the application.

4.9 Heritage Archaeology

The Council and Heritage Council of NSW identified that an assessment of European archaeology was not included in the Heritage Impact Statement prepared by Urbis and should be provided to assess the archaeological potential of the site. Depending on the conclusions and recommendation of the archaeological assessment, the potential requirement to obtain a s40 excavation permit was also identified by Council and the Heritage Council.

A Historical Archaeological Assessment has been prepared by Urbis and is included at Attachment 13. The assessment concludes that the potential archaeological remains at the subject site are not considered to have research potential and are not considered to meet any of the seven criteria for heritage significance outlined in the *Assessing Significance for Historical Archaeological Sites and 'Relics'* guidelines issued by Heritage Division of the Office of Environment and Heritage (OEH) in 2009.

On this basis, Urbis has assessed the potential archaeological impacts of the proposed development as negligible. There is no identified requirement for further archaeological investigation of the subject site.

In relation to requirements for an excavation permit, the report indicates that as the proposal is State Significant Development (SSD 7080), it is exempt from any requirements to obtain a permit for archaeological investigation or for the potential disturbance of archaeological remains under the *Heritage Act 1977*. As such, the proposed work can proceed with no requirement for a permit under the *Heritage Act 1977*, should the application be approved under Section 89J of the *EP&A Act 1979*.

In recent correspondence provided to DP&E, the Heritage Council had reviewed report prepared by Urbis and recommended conditions to be included in any future consent determination.

4.10 Transport, Traffic, Parking and Servicing

4.10.1 Bicycle Parking

In their submissions, Council and Transport for NSW noted that bicycle parking facilities should be located in visible accessible and convenient locations, close to entries, and expressed concern at the location of the bicycle parking near the corner of Marian Street and William Lane. In response to these comments, the bicycle parking has been relocated further along Marian Street alongside the entry to the residential apartments.

4.10.2 Loading and Servicing

As requested by Transport for NSW (TfNSW), a Swept Path Assessment of the loading and service area has been undertaken by GTA Consultants and is included at Attachment 14.

4.10.3 Construction Traffic Management

A preliminary Construction Management Plan (CMP) was submitted with the EIS. In accordance with the recommendations outlined in the submissions from RMS and TfNSW (refer to Attachment 4), a Construction Traffic Management Plan and Pedestrian Plan detailing the following is to be submitted to Council prior to the issue of a Construction Certificate:

- Construction vehicle routes, number of trucks, traffic control;
- Hours of operation;
- Access arrangements;
- Impacts on bus operation; and
- Management of pedestrian and cyclist safety.

The Construction Traffic Management Plan and Pedestrian Plan is to be prepared in consultation with TfNSW, RMS and the Council.

Further to the above, it is noted that RMS do not support a construction zone on Regent Street, as was proposed in the Preliminary CMP.

4.10.4 Car parking and Drop –off spaces

Some of the public submissions indicated that the car parking provision on site was inadequate. The proposed two (2) set down/pick-up spaces for the child care centre were also identified as being inadequate.

The proposal complies with the maximum car parking rates specified in Clauses 7.5, 7.7 and 7.9 of the Sydney LEP 2012 as demonstrated in Table 9. These are maximum restrained parking rates to minimise private vehicle traffic generated by development and encourage public transport patronage and active transport (walking and cycling) usage.

The car parking complies with the maximum rates.

Use	LEP Rate (Max)	Max. allowable spaces	Proposed spaces
1 bed dwelling	30 dwellings @ 0.4 spaces per dwelling	12	12
2 bed dwelling	47 dwellings @ 0.8 spaces per dwelling	37.6	38
3 bed dwelling	2 dwellings @ 1.1 spaces per dwelling	2.2	2
Maximum Residential Spaces		51.8 (52 spaces)	52 resident spaces
Visitor Parking (Residential)	30 dwellings @ 0.167spaces	5.01	
	40 dwellings @ 0.1 spaces	4	
	9 dwellings @ 0.05 spaces	0.45	
Permitted Visitors Spaces		9.46 (9 spaces)	7 visitor spaces
Retail (ground level)	168m ² @ 1 space per 60m ²	2.8	2

Use	LEP Rate (Max)	Max. allowable spaces	Proposed spaces
Permitted Retail Spaces		3 spaces	2 retail spaces
Child care centre	245m ² - 1 space, plus 1 space per 100m ²	3.45	2 spaces 2 drop off bays
Permitted Child Care Spaces		3 spaces (excl. Drops off)	4 spaces (incl. two drop off bays for child care)
Total Maximum Permitted		67	65 spaces

Table 9: Assessment of car parking rates

The site is well serviced by public transport and cycleways and is within walking distances to employment, services and facilities, this includes the CBD. In this regard the site is well suited to a restrained car parking provision and the proposed car parking is appropriate.

With regard to the set down spaces for the child care centre, as identified in the Traffic Assessment prepared by GTA Consultants submitted with the EIS, and the Plan of Management prepared by Edge Management included at Attachment 11, given the site is well serviced by public transport it is envisaged that parents would travel to the site via public transport with their child, drop off/ pick-up their child, then continue their journey to/from work on public transport. The site is also surrounded by a growing residential catchment that would result in a number of local pedestrian trips (with children) to the childcare centre.

On the basis of the above, the provision of two (2) set-down and pick-up spaces and two (2) long term spaces for the childcare centre is considered appropriate.

4.11 Miscellaneous environmental considerations

4.11.1 Contamination

In response to Council and DP&E's request for a detailed site assessment in accordance with the *NSW Government Office of Environment and Heritage, Guidelines for Consultants Reporting on Contaminated Sites, Contaminated land Management Act 1997* and *SEPP 55 Remediation of Land*, a Detailed Site Investigation has been prepared by El Australia and is included at Attachment 15.

El Australia concludes that the widespread contamination was not identified at the site and in view of the proposed development scope and the information available, the condition of the soils and groundwater reported at the site are suitable for the proposed development.

4.11.2 Stormwater run-off and flooding

In response to issues raised by the Council and DP&E in relation to on-site stormwater management, an amended Stormwater Concept Plan has been prepared by Bekker and is included at Attachment 16 which incorporates on-site detention (OSD).

To ensure compliance with the City's Interim Floodplain Management Policy the proposal has a minimum flood planning level of 300mm above the adjacent road gutter invert for ground level floors as well as entry to basement including any opening to basement, stair well and lift shaft.

4.12 Affordable Housing Contribution

The affordable housing contribution that will be payable for the proposal will be calculated in accordance with Clause 8 of the Redfern-Waterloo Authority Affordable Housing Contributions Plan 2006 (Contribution Plan).

As noted by Urban Growth in their submission, the amount of contribution payable will be calculated on the basis of the total gross floor area (GFA) of the proposed development, and not on the additional GFA only. That is, the contribution payable on the existing GFA will not be offset against the total contribution. This will be addressed in the conditions of consent.

5.0 Final Mitigation Measures

5.1.1 Mitigation Measures

The measures required to mitigate the impacts associated with the proposed works are detailed in Table 10 below.

Mitigation Measures Response

Construction Management and Construction Traffic Management

A Construction Environmental Management Plan and Construction Traffic Management and Pedestrian Plan is to be prepared prior to the issue of a construction certificate. This will generally be consistent with the Preliminary Construction Management Plan prepared by Milligan Group included at Attachment 10 to the EIS, as amended by the conditions of consent.

The Noise and Vibration Report prepared by Acoustic Logic included at Attachment 10 outlined various mitigation measures in relation to the management of construction noise and vibration.

Wind Impacts

As detailed in the Pedestrian Wind Environment Study and Wind Impact Comments included at Attachment 7 potential wind impacts arising from the proposal will be mitigated with the implementation of design treatments.

Reflectivity

As detailed in the Reflectivity Statement prepared by SJB Architects and included in Attachment 3 of the EIS glazing and other cladding materials will have a maximum visible light reflectivity of 20% in accordance with the SDCP 2012.

Acoustic

The Noise Impact and Vibration Report included at Attachment 10 outlines various mitigation measures in relation to the following:

- Minimising impacts from external noise sources, namely traffic, on the proposed development;
- Minimising noise operational impacts from the proposed development on surrounding development; and
- Minimising noise and vibration impacts associated with the demolition, excavation and construction phases of the development on adjoining properties and the public domain.

Waste Management

The provision of waste and recycling facilities and management and disposal of waste generated from the operation of the proposal will be undertaken in accordance with the Waste Management Plan included at Attachment 9 of the EIS.

Traffic and Access

A preliminary Green Travel Plan has been prepared and is included in the Transport Assessment at Attachment 5 to the EIS to manage potential impacts associated with pedestrian, vehicle and cyclist movements to and from the site. This will be supplemented by the preparation of a Travel Access Guide prior to the issue of an Occupation Certificate.

Table 10: Mitigation Measures

6.0 Conclusion

Following on from the feedback received from the relevant government agencies and the general public, Sunny Thirdi Regent St Pty Ltd have responded to the issues raised and have made significant amendments to the proposed development.

This report supplements the Environmental Impact Statement prepared by SJB Planning dated January 2016. Given the justification for the proposal, its fulfilment of strategic and design excellence objectives consistent with the planning framework and satisfactory resolution of potential environmental impacts and response to issues, the proposal as amended warrants approval.



Attachments

Attachment 1: Architectural Drawing Package prepared by SJB Architects

Attachment 2: Issues Letter from DP&E and Response to DP&E Issues
Table prepared by SJB Planning

Attachment 3: Summary of the City of Sydney Submission

Attachment 4: Summary of Submissions from Public Agencies

Attachment 5: Summary of Submissions from the Public

Attachment 6: SEPP 65 Design Verification Statement and ADG
Compliance Assessment prepared by SJB Architects

Attachment 7: Pedestrian Wind Environment Study and Wind Impact Comments prepared by Windtech

Attachment 8: Legal Advice regarding Calculation of GFA prepared by Mills Oakley

Attachment 9: Ecologically Sustainable Development Report prepared by Efficient Living

Attachment 10: Revised Noise and Vibration Impact Assessment and Response to Council Comments prepared by Acoustic Logic

Attachment 11: Outdoor Area Report: Proposed Childcare Centre
prepared by Gowrie NSW, and Plan of Management:
Proposed Childcare Centre prepared by Edge
Management

Attachment 12: Electromagnetic Report prepared by EMC Technologies

Attachment 13: Historical Archaeological Assessment prepared by Urbis

Attachment 14: Swept Path Assessment prepared by GTA Consultants

Attachment 15: Detailed Site Investigation Report prepared by El Australia

Attachment 16: Amended Stormwater Concept Plan prepared by Bekker