

ATTACHMENT 8

Brighton Avenue Croydon Park

Urban Design Strategy & Preferred Design Option

For Dylidam Pty Ltd, 19th February 2016



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BRIGHTON AVENUE

I.0 Introduction

I.1 Executive Summary

This Urban Design Report has been prepared by AE Design Partnership on behalf of Dyladam Pty Ltd. The subject site is located at 27-33 Brighton Avenue Croydon Park (the Site).

The Site is located within Canterbury Local Government Area. The Site is located in a predominantly residential area near corner two arterial roads Brighton Avenue and Georges River Road.

This Report includes a brief analysis of the Site and its context. AE Design Partnership's task is to demonstrate the best built form outcome for the Site taking into account the existing and the proposed controls and to determine any further changes to the controls that are warranted. AE Design Partnership has developed an urban design strategy for the Site in regards to its built form, open space, amenity, public domain, access and streetscape character.

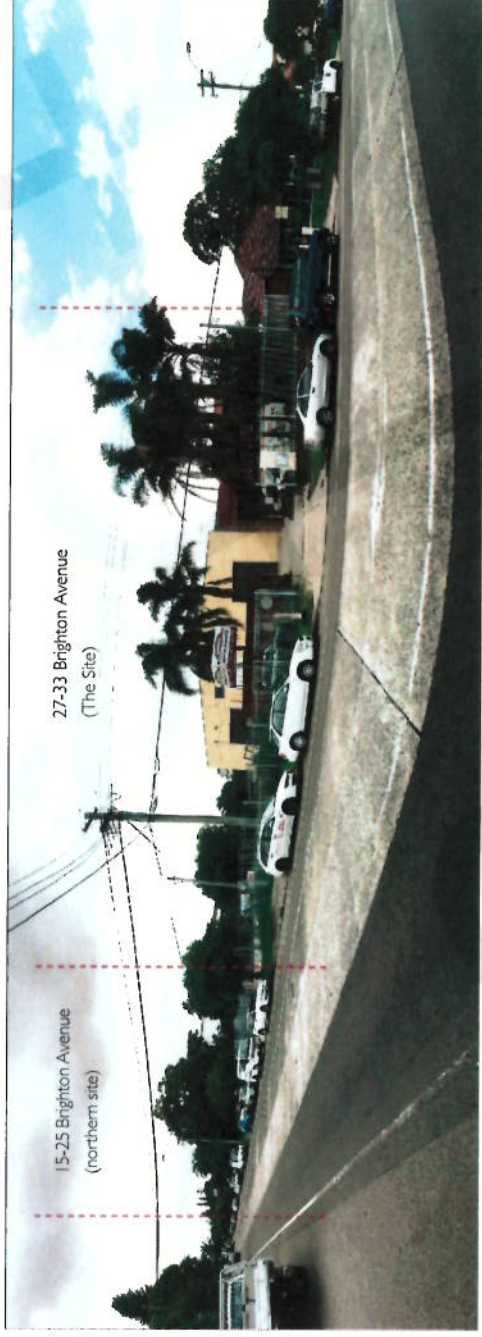
The proposed design option is documented with a set of 2D and 3D envelopes for the subject Site. Additionally, lots located immediately north of the Site 15, 17, 19, 21 and 23-25 Brighton Avenue Croydon Park are included for the purpose of building envelope testing.

The Report also includes indicative floor plans to demonstrate functioning of the proposed building envelopes and the internal residential arrangement with regards to primary controls from the State Environmental Planning Policy 65 Apartment Design Guide.

I.2 Objectives

The objectives for this project are to:

- Analyse the Site, its immediate and local context to understand the built form, open space and public domain aspects of the area;
- Formulate urban design strategy for the Site;
- Provide development options derived using the previously formulated design strategy;
- Compare all development options in terms of height of buildings, floor space ratio, gross floor area, solar access performance and indicative number of apartments;
- Present the Urban Design Strategy and the Preferred Design Option to Council (5 storey building envelopes);
- Collate Council feedback and
- Summarise all of the above including building envelopes and indicative floor plans, as the basis for a Planning Proposal to be submitted to Council.



Street view of the Site No. 27-33 Brighton Avenue and the adjacent site No. 15-25 Brighton Avenue (northern site).



Cooks River and surrounding parklands located 500m from the Site.



Brighton Avenue is a 30m wide street with a single travel + a parking lane in each direction. A bicycle lane is has been provided within the parking lane. The 30m width also accommodates a large median and wide footpaths on both sides of the street.



A mix of 1-2 storey detached houses and 3 storey residential flat buildings located across the Site on Brighton Avenue.



Footpaths on both sides of Brighton Avenue are approximately 7m wide, adjacent to a 3.3m wide parking lane and a 3.5m travel lane. The central median is within the variable residual street width.



View of Cooks River and Picken Oval from Cooks River Bridge, located 500m south of Site.



Croydon Public School and Croydon Park shops located at the corner of Brighton Avenue and Georges River Road, approximately 70m from the Site.

2.0 Analysis

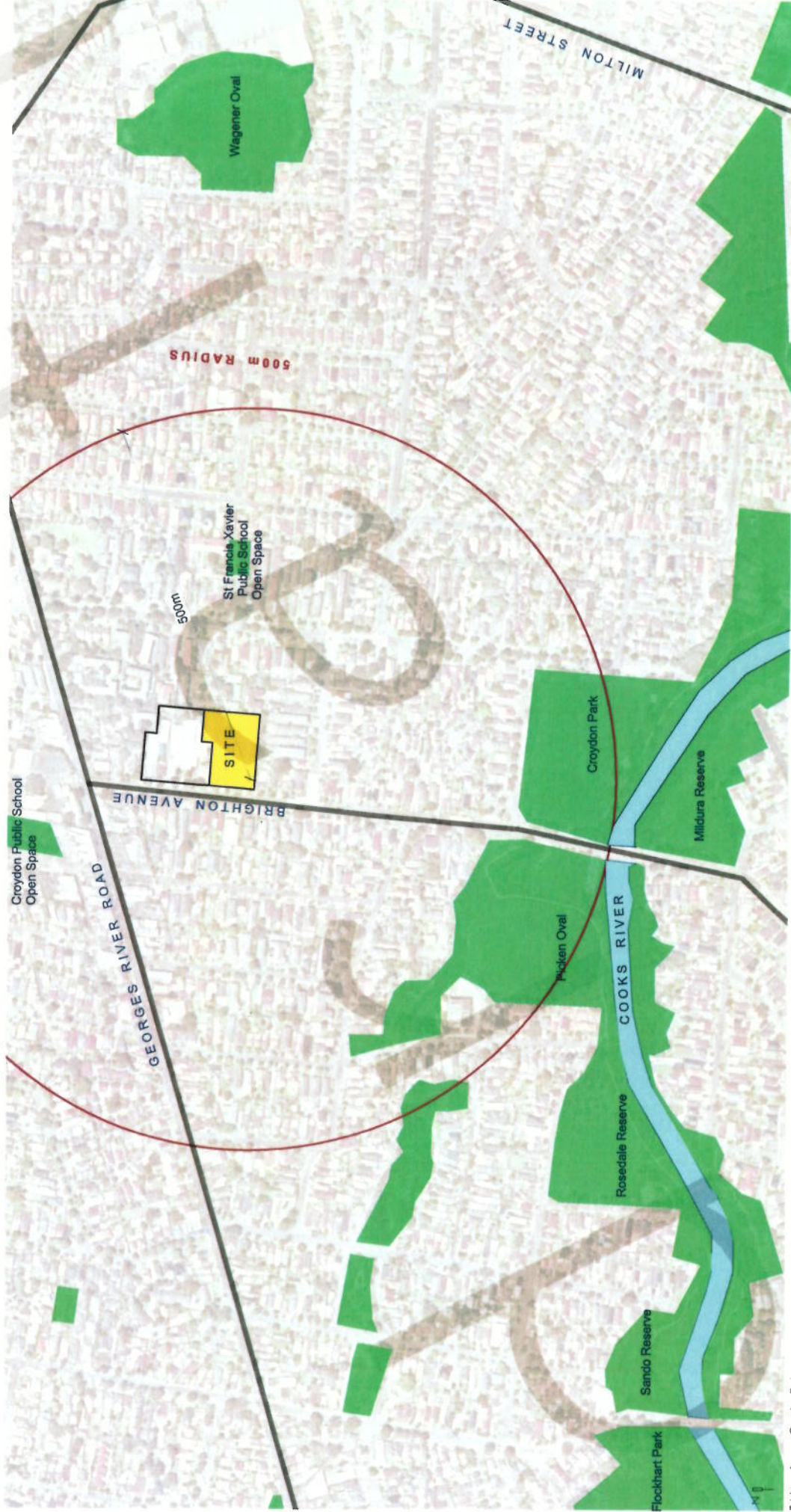
2.1 Local Context

The Site is located near corner of two arterial roads Brighton Avenue and Georges River Road. Brighton Avenue connects the Site to Cooks River and the surrounding parklands (Croydon Park, Picken Oval and Mildura Reserve) located within a 500m walking radius from the Site. These parklands serve as recreational spaces for the local residents. Croydon Park currently has a good provision of open space as per Canterbury Council's Open Space Needs Review (dated July 2015). Therefore, a publicly accessible open space

as recommended by the Department of Planning's Gateway Determination (September 2015) is not required to be provided on the Site.

Brighton Avenue is an arterial road which connects the Site with Campsie, Clemton Park, Bexley, and further with M5 South Western Motorway and Princes Highway towards south.

Georges River Road is also an arterial road which connects Croydon Park with Burwood, Enfield, Strathfield, Lakemba, Punchbowl, and further with M5 South Western Motorway towards west. Georges River Road connects with City West Link via Ashfield Haberfield towards east.

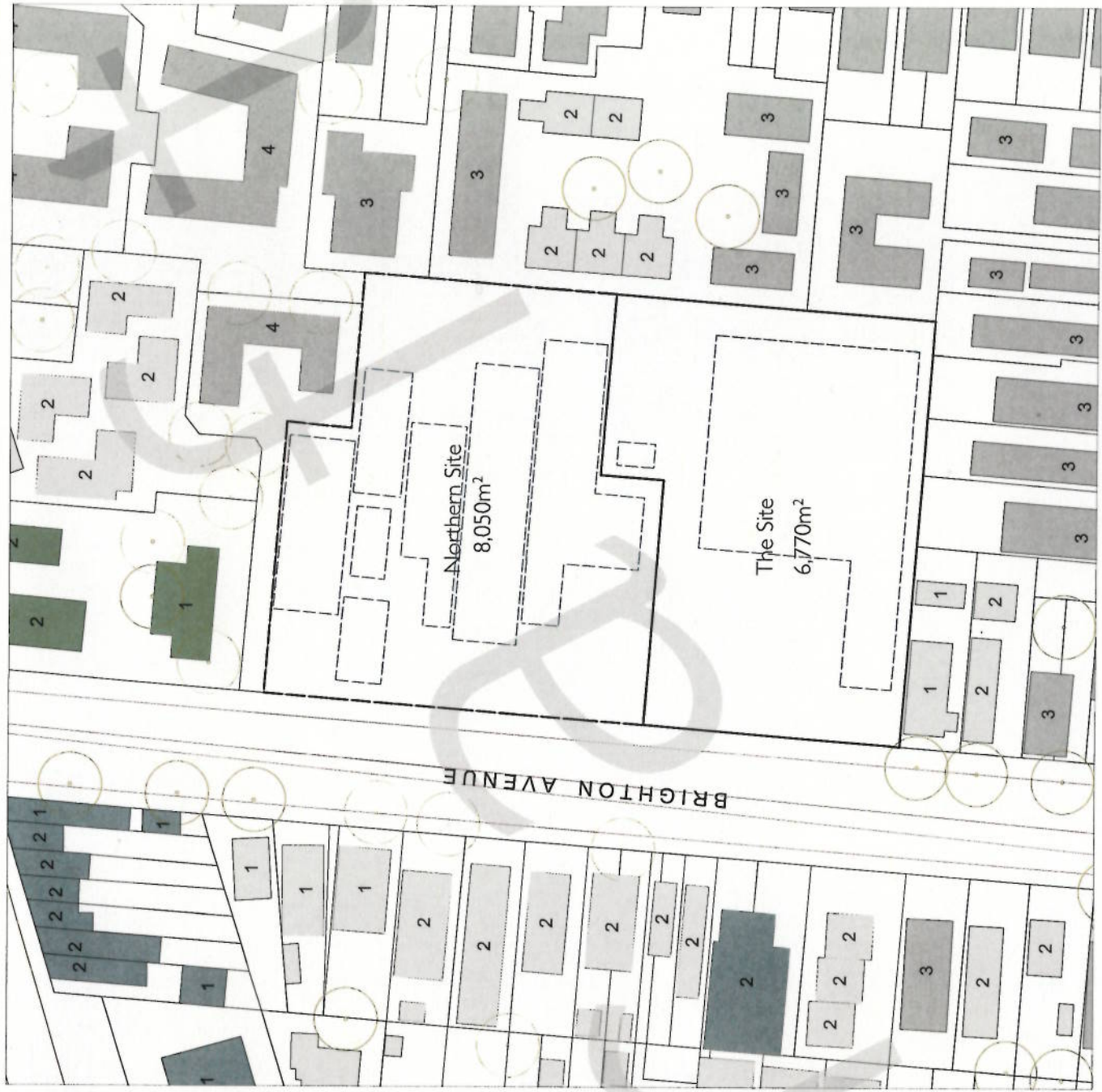


2.2 Site Context

- The Site is located in a predominantly residential area. The subject site and lots located to its north are isolated industrial lots surrounded by R4 High Density Residential zoning.
- There are 3 to 4 storey residential flat buildings located east and south of the Site.
- The area west of Site across Brighton Avenue predominantly includes 1-2 storey detached houses.
- Croydon Park retail strip, Croydon Park Public School and Uniting Church buildings are located at the corner of Brighton Avenue and Georges River Road, 70m north of Site.
- The Site has a 61.5m frontage to Brighton Avenue and 102m depth. The site area is approximately 6,770m²



1:1000@A3

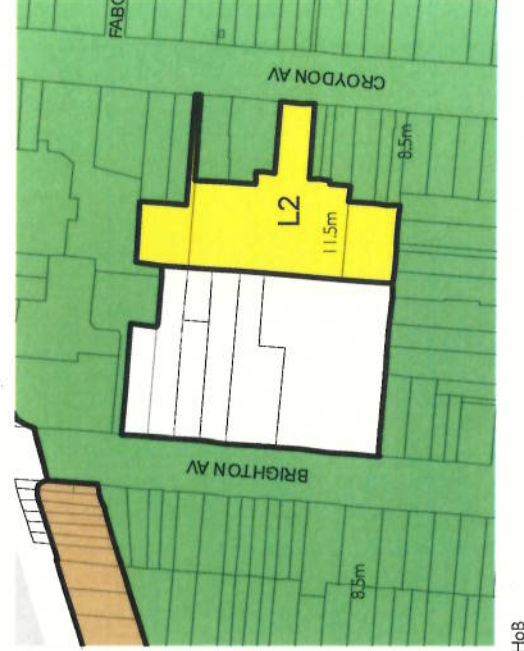
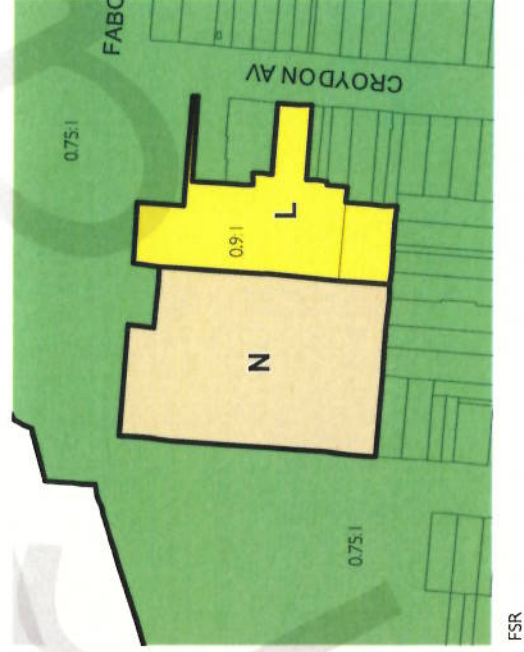
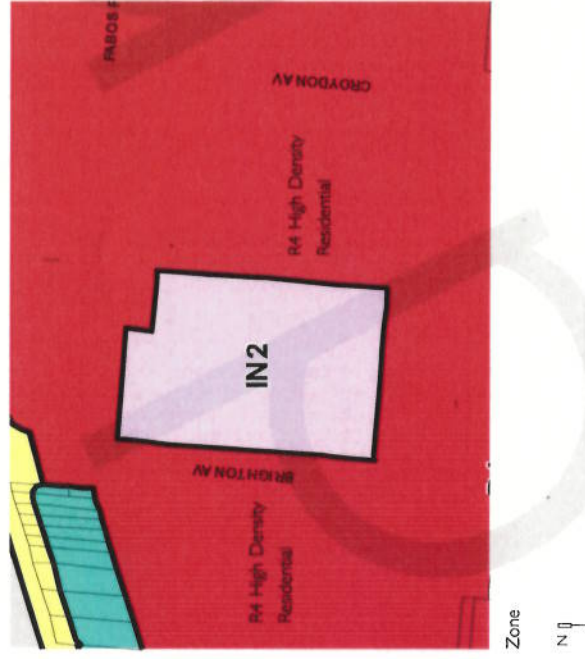


2.3 Planning Context

- The Site (including the northern site) is currently zoned in isolation as IN2 Light Industrial, whilst surrounded by R4 High Density Residential zone.
- A floor space ratio of 0.9:1 with a building height limit of 11.5 applies to the lots located along east and 0.75:1 with a building height limit of 8.5m applies to the remaining area.
- The site does not contain any heritage listed items and is not located within a Heritage Conservation Area.



An excerpt from a previously lodged Planning Proposal for the Site to change the zone to R4 High Density, increase building height limit to 26m and increase FSR to 2.5:1, August 2013.

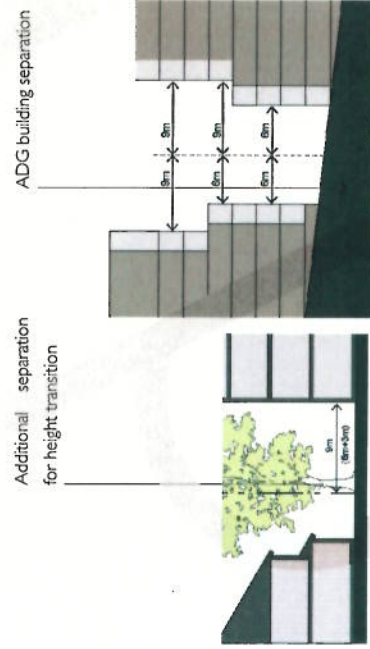


URBAN DESIGN STRATEGY

3.0 Urban Design Strategy

Building Envelopes

- The proposed building envelopes to have a maximum depth of 17m between glass line, consistent with the Apartment Design Guidelines.
- Maximum length of 45m is to apply to building envelopes addressing Brighton Avenue.
- Building envelopes should be aligned to have a north-south orientation increasing direct solar access to the street and courtyard. A north-south building orientation will generate faster moving shadows and hence reduce the extent of overshadowing hours.
- A desirable building separation, as per SEPP 65 Apartment Design Guide - Building Separation is to be provided to allow adequate sunlight and natural ventilation between buildings.
- The in-between courtyard spaces are to be provided with an acceptable level of residential amenity including visual and acoustic privacy, daylight access and a desirable outlook for buildings with internal address.
- Building separation to be increased by an additional 3m along the eastern and southern boundaries to create building height transition. (The buildings adjacent to east and south of the Site are 2 to 3 storeys. These sites are currently zoned as R4 High Density Residential).



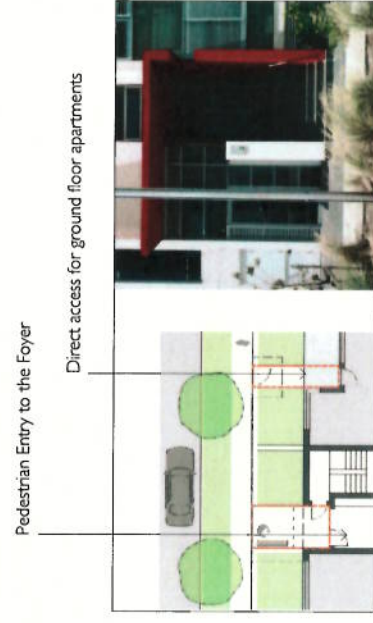
Building Separation

Street Connectivity

- A 3m street setback is to be provided from Brighton Avenue. This setback will be consistent with the existing residential flat buildings along Brighton Avenue.
- The pedestrian entry to the foyer should be clearly defined.
- Most apartments should address Brighton Avenue and improve casual street surveillance, whilst having a north-south orientation and allowing direct solar access in to the street and courtyard.
- Ground floor apartments to have direct street access.

Building Height

A building height of 5 storeys is considered for the purpose of building envelope testing.



Street Connectivity

Site Layout Configurations

The following options were explored in terms of site layout. The urban design strategies formed during previous stage are applied to these options. Option 4 is further used for the purpose of building envelope testing since it has the best outcome in terms of building massing, building separation (internal and with the adjacent sites), solar access and open space location.



PROPOSED BUILDING ENVELOPES

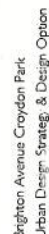
4.0 Proposed Building Envelopes

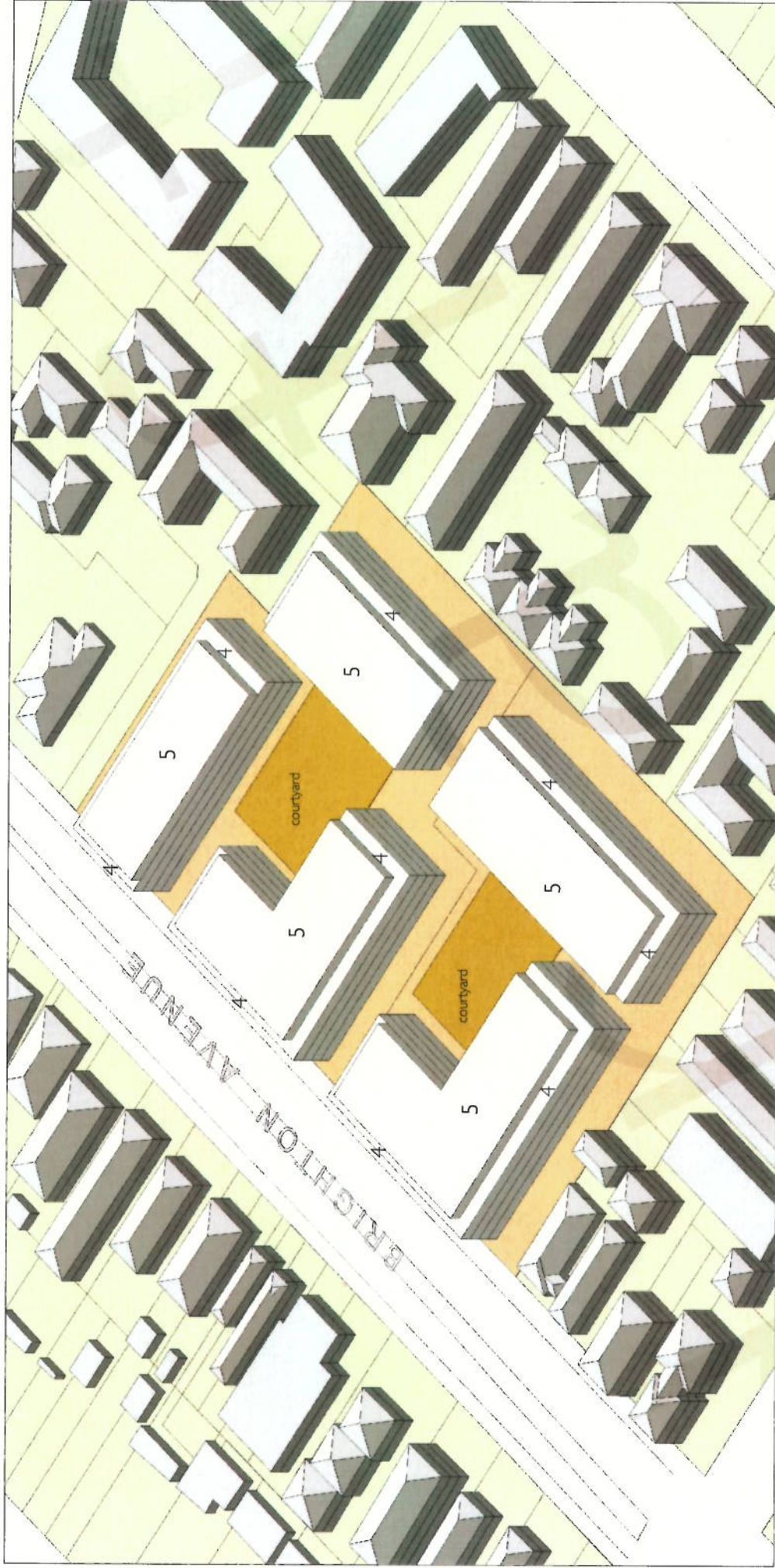
The 2D building envelope plan shows the proposed envelopes with the existing 3 storey residential flat buildings to east and south of the Site. Additionally, neighbouring lots located immediately north of the Site 15-25 Brighton Avenue Croydon Park are included in this scheme.

Our building envelope testing suggests a height range of 5 storeys (shown in dark grey) reaches a floor space ratio of 1.86 : 1 for the subject Site and the northern site.

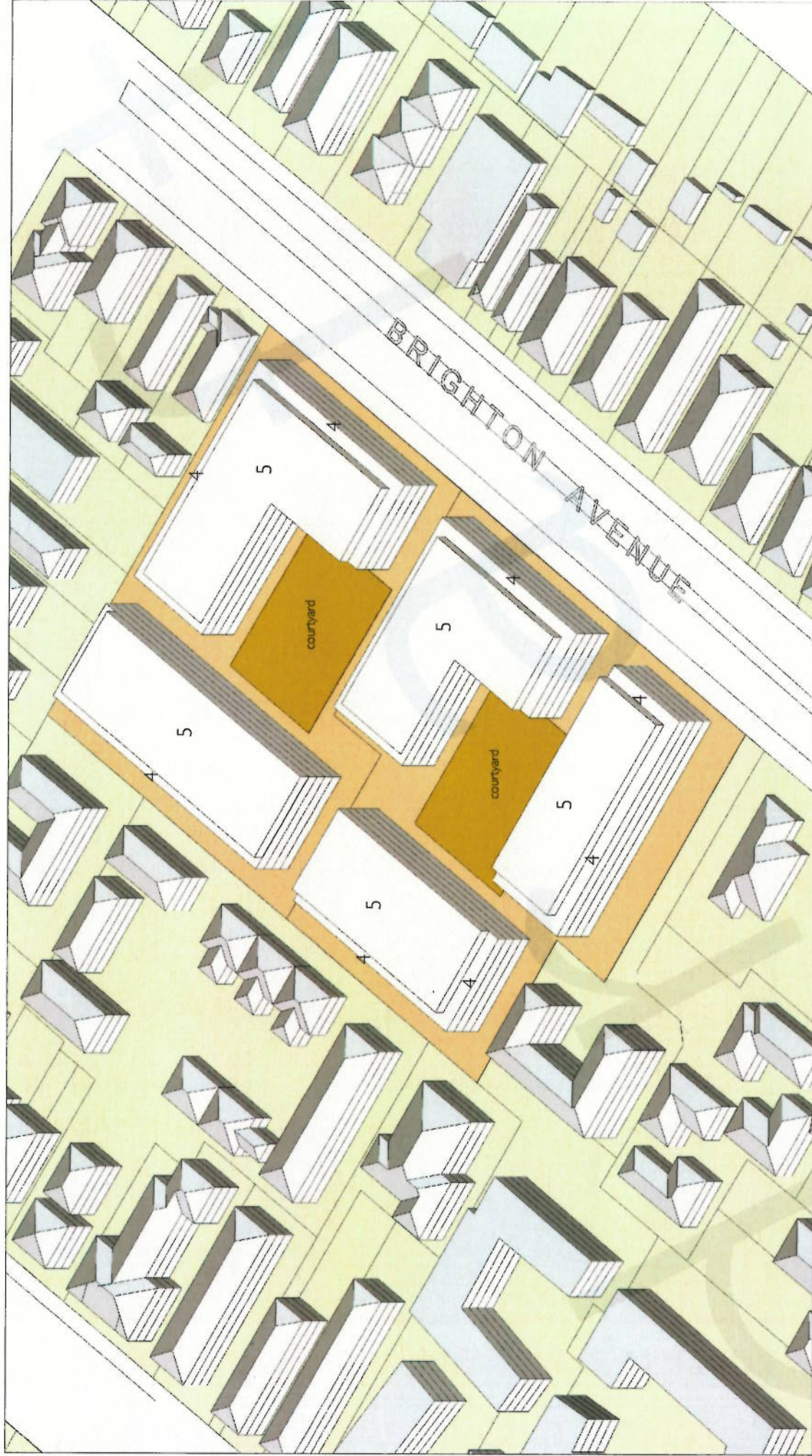
A central courtyard (43 X 31 m) is proposed to achieve an acceptable level of residential amenity including daylight, ventilation, visual and acoustic privacy. The courtyard will create a desirable outlook for the courtyard building which will have apartments with internal address.

The building envelope areas are reduced to 80% to calculate the residential GFA (gross floor area) for FSR calculations. 80% reduction allows for deducting building articulation, balconies, lift shafts, fire egress, stairwells, ducts and external walls (See 4.1 Area Calculations for details).





Isometric View 1



Isometric View 2

Northern Site

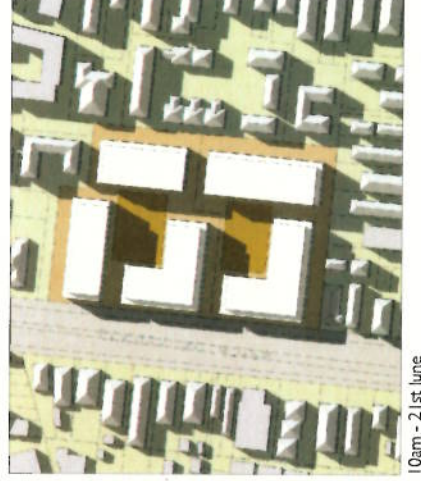
Site Area	8,050		14,992			
Total Gross Floor Area	1,88		208			
Floor Space Ratio	approx.					
total apartments						
BUILDING A						
Level	Retail Building Envelope Area (m ²)	Residential Building Envelope Area (m ²)	Retail Gross Floor Area (m ²)	Residential Gross Floor Area (m ²)	Total GFA	Average No. of Dwellings
1		1565	0	1252		
2		1565	0	1252		
3		1565	0	1252		
4		1565	0	1252		
5		1200	0	960		
6			0	0		
7			0	0		
8			0	0		
Total			0	6968	6968	83
BUILDING B						
Level	Retail Building Envelope Area (m ²)	Residential Building Envelope Area (m ²)	Retail Gross Floor Area (m ²)	Residential Gross Floor Area (m ²)	Total GFA	Average No. of Dwellings
1		1189	0	944		
2		1189	0	944		
3		1189	0	944		
4		1189	0	944		
5		895	0	716		
6			0	0		
7			0	0		
8			0	0		
Total			0	4482	4482	62
BUILDING C						
Level	Retail Building Envelope Area (m ²)	Residential Building Envelope Area (m ²)	Retail Gross Floor Area (m ²)	Residential Gross Floor Area (m ²)	Total GFA	Average No. of Dwellings
1		1175	0	940		
2		1175	0	940		
3		1175	0	940		
4		1175	0	940		
5		895	0	772		
6			0	0		
7			0	0		
8			0	0		
Total			0	4512	4512	63
TOTAL						
Building	Retail GFA	Residential GFA	Total GFA	FSR	Res. NLA	No. of Units
A	0	6968	6968		5771	83
B	0	4482	4482		4543	62
C	0	4512	4512		4079	63
TOTAL			14,992	1.88	13,893	208



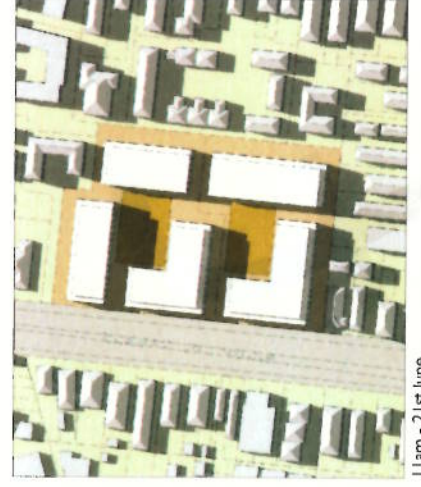
Subject Site



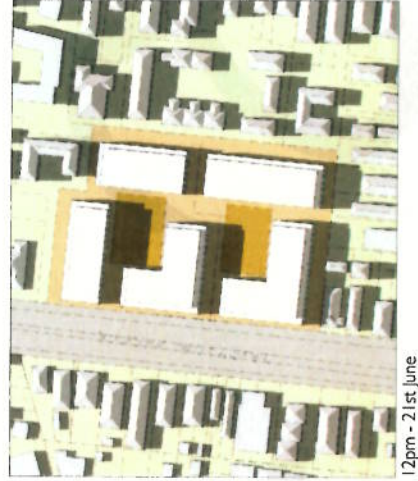
9am - 21st June



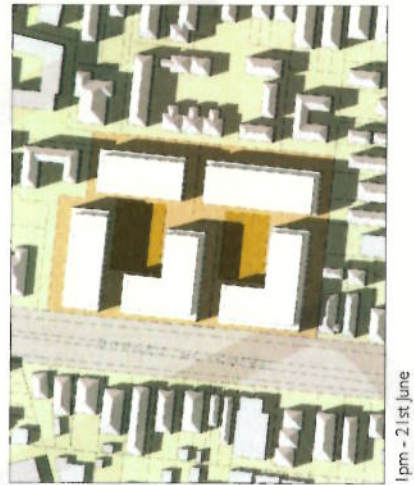
10am - 21st June



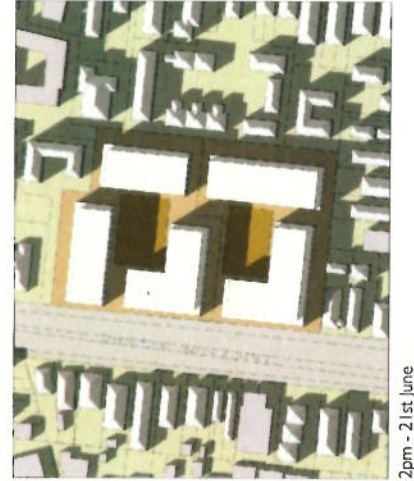
11am - 21st June



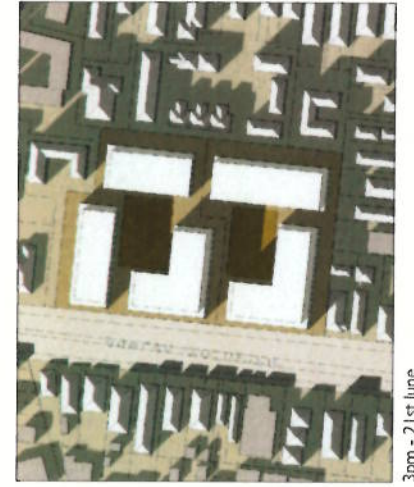
12pm - 21st June



1pm - 21st June

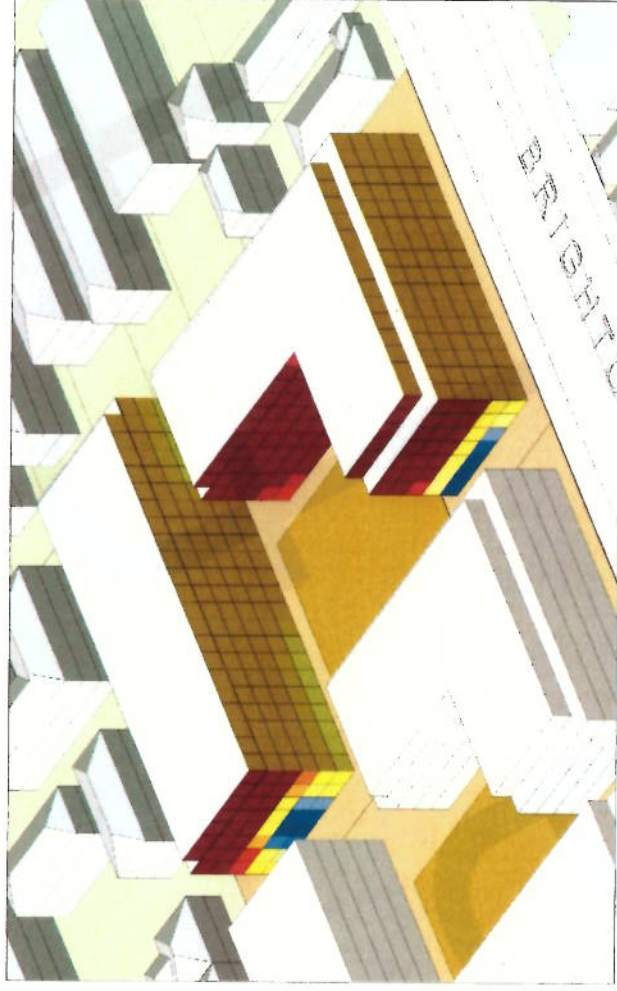
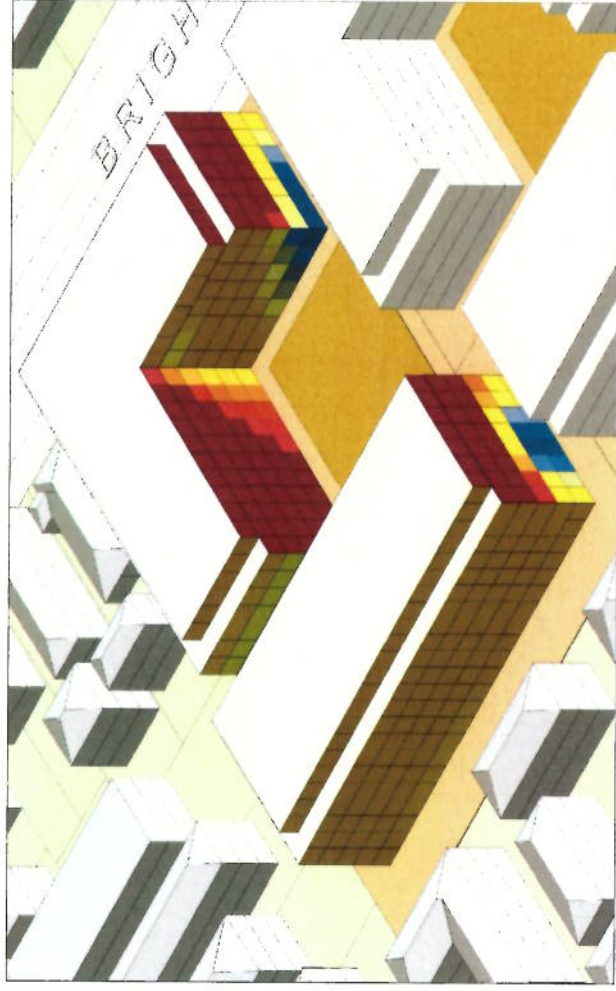


2pm - 21st June

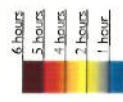


3pm - 21st June

Sun Hours Diagram - Midwinter



Solar access gradient
9am-3pm mid-winter





Dyldam Developments

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Dyldam Developments Pty Ltd
ABN 53003408008
License No 40885

4 October 2016

*Manager Land Use & Environmental Planning
City of Canterbury Bankstown
66 – 72 Rickard Road,
Bankstown
NSW 2200*

Email: Mitchelln@canterbury.nsw.gov.au

Attention: Mr Mitchell Noble

REFERENCE: Urban Design Comments for Brighton Avenue, Croydon Park

Planning Proposal PP_2015_CANTE_004_00

Dear Mr Noble,

We consider the site to be suitable for a 5 storey high density residential development in excess of a floor space ratio of 1.5:1, as demonstrated earlier in the Urban Design Study prepared by AE Design partnership dated 20 of April 2016.

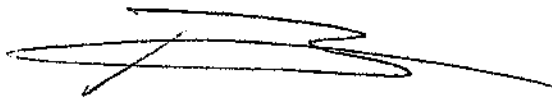
AE Design partnership have reviewed the Urban Design Study prepared by Olsson & Associates Architects and offered their comments which are attached to this letter.

The Olsson & Associates Architects scheme recommends a floor space ratio of 1.36:1 and a building height of 4 storeys at Brighton Avenue and 5 storeys along the rear. Based on the Olsson & Associates Architects envelopes it appears compliance with the SEPP 65 Apartment

Design Guide, particularly with Solar Access and Cross Ventilation would be difficult. ADG compliance based on the proposed envelopes would result in further loss of the potential yield.

Please call if you wish to discuss or would like any further information.

Regards
Dyldam Developments Pty Ltd

A handwritten signature in black ink, appearing to read 'Remon Fayad', with a long horizontal stroke extending to the right.

Remon Fayad
Developments Director

We offer the following comments to the Urban Design Study for 27-33 Brighton Avenue Croydon Park prepared by Olsson & Associates Architects (on behalf of Canterbury Council) - dated 21st September 2016 - see Option 1 preferred.



Land Ownership Pattern

Strata-titled sites shown with a grey cross-hatch

Future Character of the Area

- The majority of sites in the area include detached dwelling houses and have been zoned R4 High Density Residential, offering opportunities for amalgamation and high density residential developments.
- The sites shown with a grey cross-hatch are strata-titled and currently accommodate 2-3 storey townhouses or villas, and are less likely to change.
- Brighton Avenue is an arterial road connecting the Site with centres like Campsie, Clemton Park and Bexley, and further with M5 South Western Motorway and Princes Highway toward south.
- Brighton Avenue is 30m wide and has irregularly planted trees on its median. There is an opportunity for Brighton Avenue to be transformed in to a proper boulevard containing a landscaped median with well-defined higher density built form on either sides, 5 storeys is recommended.
- The site is close to Georges River Road which is also an arterial road connecting with Burwood, Enfield, Strathfield, Lakemba, Punchbowl, and further with M5 South Western Motorway towards west. Georges River Road also connects in to City West Link via Ashfield and Haberfield towards east.
- The site is close to the Cooks River and the adjacent parklands with access to outdoor recreation.

The Site is considered suitable for high density residential in excess of 1.5:1 as demonstrated in Applicant's submission.



mid winter 9am



mid winter 12pm



mid winter 3pm

Mid winter shadow diagrams for OAA scheme

Extent of overshadowing of envelopes shown in 'red'

Apartment Design Guide Compliance

While the proposal satisfies part 2F and 3F of the apartment design guide the notion of three parallel buildings 40 metres in length lead to creation of long narrow spaces reducing the amenity issues with the neighbouring sites to the east, but would create residential amenity issues within the site.

Solar Access

The design scheme prepared by OAA illustrates 4 parallel rows of buildings placed along the eastern boundary. This layout would lead to each northern building overshadowing the building located to its south, and restricting solar access to 3 southern most buildings (labelled - 'c, d and e') and the ground floor private open spaces.

It appears from the mid winter solar analysis of the scheme that only 50% of apartments would achieve solar access for buildings 'c, d and e'.



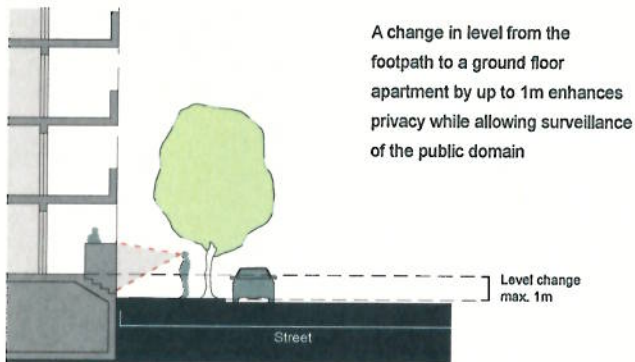
Recommended orientation of building 'd'
Excerpt from the OAA Scheme - Option 1

Cross Ventilation

The proposed envelopes would result in long double sided apartments of which 50% of the apartments would achieve cross ventilation. The provision of multiple cores would be required to achieve an ADG compliant natural ventilation.

It is recommended building 'd' be positioned parallel to the eastern boundary and address the internal courtyard, with an increased landscape setback of 12m from neighbours to the east. This would improve amenity within the development between buildings 'c, d and e'. This arrangement will improve solar access and create a bigger courtyard space between the eastern and western buildings.

The recommended orientation of building 'd' would improve wayfinding within the development and avoid a convoluted pedestrian route to building 'd' because of its internal address as shown in the OAA scheme.



Excerpt from the SEPP 65 Apartment Design Guide regarding relationship of ground floor apartments with the adjacent public domain

Building Height

Building height should be recommended in both - number of storeys and metres. The following aspects from the Apartment Design Guide should be considered in determining building height:

- Level 1 / Ground floor apartments to have a change in level up to 1m to enhance privacy while allowing surveillance of the public domain.
- A minimum ceiling height for habitable rooms measured from finished floor level to finished ceiling level is 2.7m - required by the Apartment Design Guide. A finished floor level to finished ceiling level height of 2.7m achieves a floor to floor level height of 3.1m, which is the minimum to achieve sound insulation and to allow for floor finishes and construction tolerance.
- Room for accommodating a lift overrun located beyond the roof RL.

This would result in height for the proposed rezoning of 18.6m and 5 storeys.

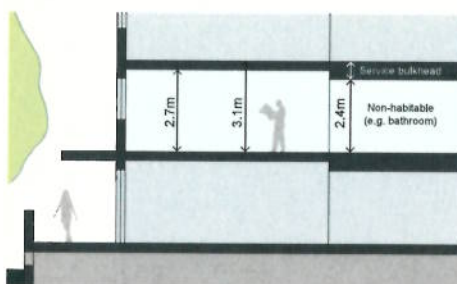
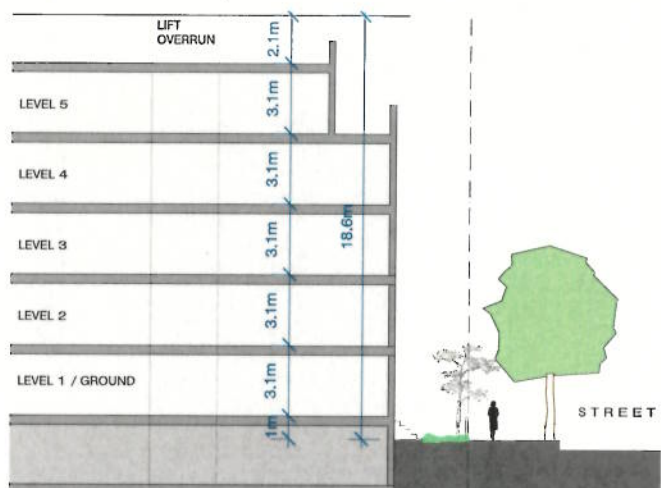


Figure 4C.5 Service bulkheads are wholly contained within non-habitable rooms and do not intrude into habitable spaces

Excerpt from the SEPP 65 Apartment Design Guide showing ceiling heights of habitable and non-habitable floor areas



Building height of a 5 storey residential flat building shown in Number of Storeys and Metres



Excerpt from the OAA Scheme - Option 1

Building Address

Internal address of the 3 eastern buildings would create a convoluted pedestrian route to building 'd'. This would make wayfinding difficult within the development. This could be improved by locating building 'd' parallel to the eastern boundary.

Area Calculations

A schedule of areas confirming a floor space ratio of 1.36:1 for the subject site and 1.26:1 for the northern site would be useful in comparing the OAA scheme with the Applicant's concept in terms of yield calculations and envelope to gross floor area efficiency.

Based on the OAA envelopes it appears compliance with the Apartment Design Guide, particularly with Solar Access and Cross Ventilation would be difficult. ADG compliance based on the proposed envelopes would result in further loss of the potential yield.