View from Burbang Crescent

Proposed Residential Units

14-16 Burbang Crescent, Rydalmere.

architex
architects and planners

View from South Street

Proposed Residential Units

47-49 South Street, Rydalmere.

architex
architects and planners

SEPP 65 DESIGN VERIFICATION STATEMENT

SEPP65 DESIGN VERIFICATION STATEMENT

PROJECT	Residential Development 14 – 16 Burbang Crescent and 47 – 49 South Street Rydalmere NSW 2116
CLIENT	Strong Property Development P.O. Box 699 Mascot NSW 1460
DATE	28th March, 2016
ARCHITECTS	**architex** Level 3 7K Parkes Street Parramatta NSW 2150 Telephone : 9633 5888 Email : email@architex.com.au

CONTENTS

1.0 INTRODUCTION

On behalf of our client and developer of the project above, we hereby lodge a State Environmental Planning Policy No. 65 (SEPP65) Design Verification Statement for the proposed residential development comprising of :-

- The demolition of three (3) one and two-storey residential buildings, metal sheds, swimming pool, pergolas and concrete structures;
- Removal of several existing trees within the site;
- The construction of two (2) buildings with thirty-two (32) residential units;
- Basement car parking for visitors and residents car spaces, bicycles, motor cycles and storage areas;
- Associated landscaping and external works.

The design of the development has been influenced by the planning guidelines contained in the performance criteria of the **Parramatta Development Control Plan 2011 (DCP)** and the **Parramatta Local Environmental Plan 2011 (LEP)**, for a Residential Apartment Building in an **R4 – High Density Residential Zone**, under the LEP.

The development also integrates the design principles contained in the **State Environmental Planning Policy Number 65** (SEPP65) and the related design controls and recommendations of the **Apartment Design Guide** (ADG) recently issued by **Planning NSW**.

A Pre-DA Meeting had been held on the 16th December, 2015 with Parramatta City Council (PL/158/2015) based on a previous design by another architectural firm. The current development consent seeks to address the issues raised. A short copy of the Minutes are attached in Appendix "A" in this report.

2.0 SITE ANALYSIS

Understanding the site conditions and character of a site is the first step in the design process. Site analysis is the process of identifying and recording the dominant features and elements of the site and surrounding locality.

Through this process, combined with an understanding of the future character of the area, the range of design options and issues will emerge, to be addressed in the design process. Development, which is designed in context with the surrounding built-form enhances the streetscape and reinforces the character and quality of the environment.

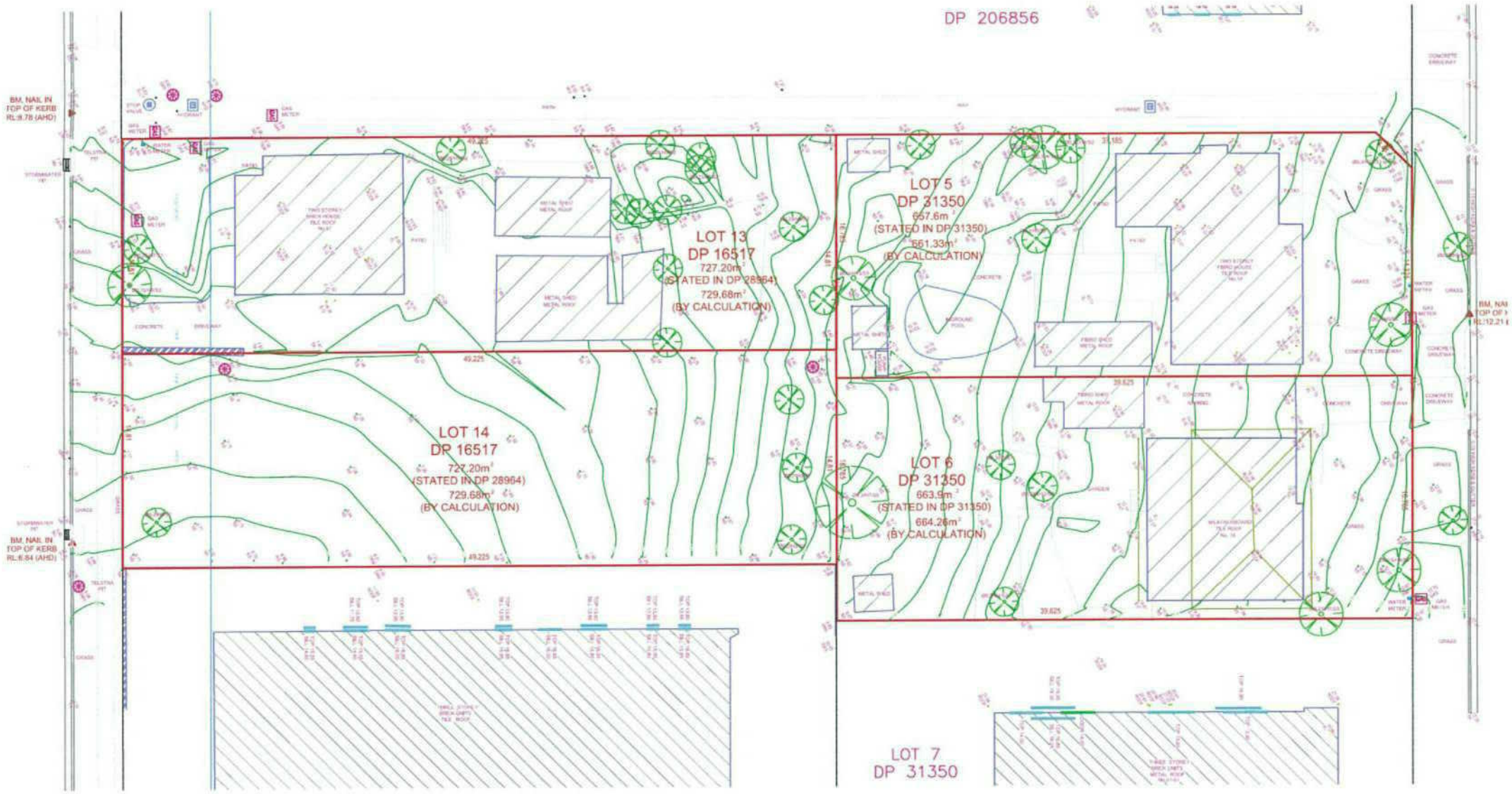
A site analysis drawing has been submitted with the original development application. Relevant considerations in any site analysis include the site's topography, orientation and microclimate, existing structures and vegetation, views, access, drainage and services, and any other special site features.

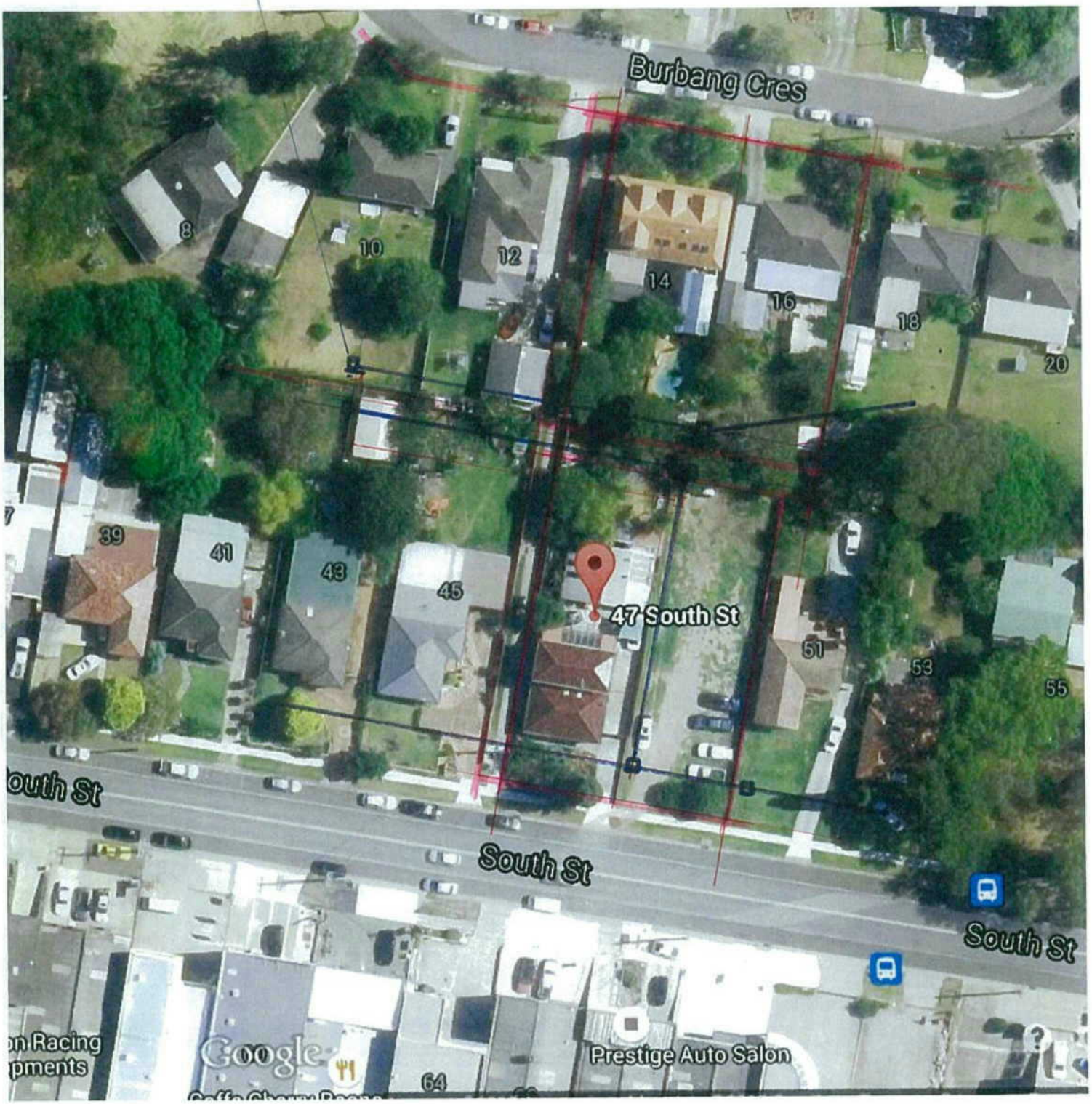
The site analysis established the opportunities and constraints for the site development and created the platform upon which the design is based and integrates with the immediate surroundings for the best possible solution and greatest contribution.

PART A : THE SITE

2.1 Site Dimensions

The proposed site is situated in a precinct that has been zoned for high density residential development. The majority of the existing buildings are single storey or two-storey residential buildings on large sites of 600 square metres or more.


DP 206856
BM, NAIL IN TOP OF KERB RL:9.78 (AHD)
LOT 13
DP 16517
727.20m²
(STATED IN DP 28964)
729.68m²
(BY CALCULATION)
LOT 5
DP 31350
657.6m²
(STATED IN DP 31350)
661.33m²
(BY CALCULATION)
LOT 14
DP 16517
727.20m²
(STATED IN DP 28964)
729.68m²
(BY CALCULATION)
LOT 6
DP 31350
663.9m²
(STATED IN DP 31350)
664.26m²
(BY CALCULATION)
BM, NAIL IN TOP OF KERB RL:6.84 (AHD)
LOT 7
DP 31350


Burbang Cres
8
10
12
14
16
18
20
39
41
43
45
47 South St
51
53
55
South St
South St
Prestige Auto Salon
64
NORTH
W
E
S

The amalgamated site has a southern street frontage to South Street of 29.62 metres and a northern street frontage to Burbang Crescent of 31.09 metres, with a splayed corner of 3.48 metres. The eastern side boundary comprises of two stepped segments of 39.625 and 49.225 metres, while the western side boundary is 86.41 metres.

The total site area is 2,784.95 square metres, by calculation and 2,775.90 square metres, according to the Deposited Plans (DP). The amalgamated property is described as :-

- 14 Burbang Crescent Lot 5 DP31350
- 16 Burbang Crescent Lot 6 DP31350
- 47 South Street Lot 13 DP16517
- 49 South Street Lot 14 DP16517

2.2 Current uses

The subject site has been a residential precinct since the original sub-division of land and has been occupied by the one and two-storey residential buildings for many years. Lot 14 South Street is a vacant allotment of land with no residential dwelling located thereon.

2.3 Adjoining Development

The properties to the west, Lot 7 in DP 31350, accommodate two (2) three-storey residential buildings.

The eastern side boundary comprises of a pedestrian access pathway, 3.66 metres in width, with single-storey residential buildings, further east (Lot 1 in DP 206856) – 18 Burbang Crescent and Lot 25 in DP 1205179, 45 South Street.

2.4 Existing Road Network

The site is located on the northern side of South Street, with Park Road to the west and Burbang Crescent to the north.

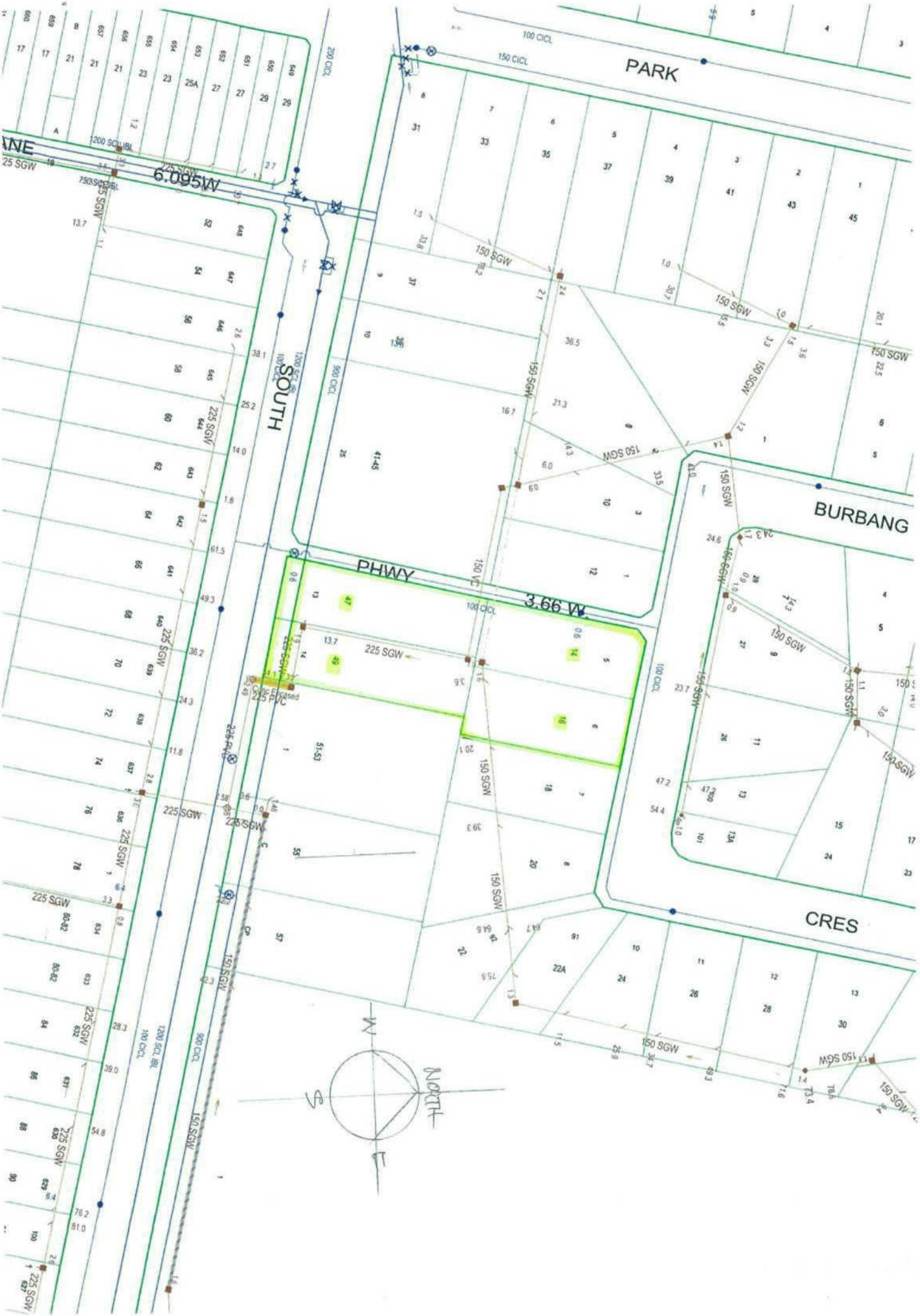
2.5 Topography

The topography of the site provides a significant fall from the north-western corner of the property, at an Existing Level (EL) of approximately EL 12.52, Australian Height Datum (AHD), falling towards the south-eastern corner to EL 6.77 and south-western corner of the site, EL 8.69. The total fall of six (6) metres over a distance of ninety (90) metres generates a slope of six (6) per cent diagonally across the site.

The site achieves a natural slope from one corner of the site to the opposite corner. The site accommodates a natural topography, which will provide a gravitational flow for the storm-water catchment and management system to the proposed discharge point along the rear boundary.

2.6 Services

Consultation with relevant utility supply authorities, Sydney Water, Energy Australia, Telstra, Australian Postal Services and AGL, has been made prior to the commencement of the development process. The electricity supply and telecommunications services are readily available to the site without restrictions.


PARK
BURBANG
PHWY
SOUTH
CRES
6.095W
3.66 W
225 SGW
150 SGW
100 CICL
150 CICL
200 CICL
900 CICL
1200 SCL IBL
225 PVC
NORTH

DIAL BEFORE YOU DIG www.1100.com.au

Asset Information

Sydney WATER

Legend

Sewer

- Sewer Main (with flow arrow & size type text) — 225 PVC
- Disused Main
- Rising Main
- Maintenance Hole (with upstream depth to invert) — 1.7
- Sub-surface chamber
- Maintenance Hole with Overflow chamber
- Ventshaft EDUCT
- Ventshaft INDUCT
- Property Connection Point (with chainage to downstream MH)
- Concrete Encased Section
- Terminal Maintenance Shaft
- Maintenance Shaft
- Rodding Point
- Lamphole
- Vertical
- Pumping Station — SP0682
- Sewer Rehabilitation

Pressure Sewer

- Pressure Sewer Main
- Pump Unit (Alarm, Electrical Cable, Pump Unit)
- Property Valve Boundary Assembly
- Stop Valve
- Reducer / Taper
- Flushing Point

Vacuum Sewer

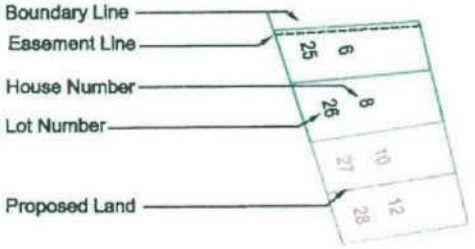
- Pressure Sewer Main
- Division Valve
- Vacuum Chamber
- Clean Out Point

Stormwater

- Stormwater Pipe
- Stormwater Channel
- Stormwater Gully
- Stormwater Maintenance Hole

Property Details

- Boundary Line
- Easement Line
- House Number
- Lot Number
- Proposed Land



- Sydney Water Heritage Site (please call **132 092** and ask for the **Heritage Unit**)

Water

- WaterMain - Potable (with size type text) — 200 PVC
- Disconnected Main - Potable
- Proposed Main - Potable
- Water Main - Recycled
- Special Supply Conditions - Potable
- Special Supply Conditions - Recycled
- Restrained Joints - Potable
- Restrained Joints - Recycled
- Hydrant
- Maintenance Hole
- Stop Valve
- Stop Vale with By-pass
- Stop Valve with Tapers
- Closed Stop Valve
- Air Valve
- Valve
- Scour
- Reducer / Taper
- Vertical Bends
- Reservoir
- Recycled Water is shown as per Potable above. Colour as indicated

Private Mains

- Potable Water Main
- Recycled Water Main
- Sewer Main
- Symbols for Private Mains shown grey

The supply of water and sewerage services has also been investigated. All services are available to the site and reticulation of water and sewerage will be provided in accordance with the requirements of Sydney Water.

The existing services have been surveyed and located in the street frontages and include "Telstra" pit locations and electricity pillar. A main sewer traverses the site and will require relocation around the proposed buildings.

2.7 Existing Vegetation

The accompanying survey plan, illustrates the existing site topography and the location of the existing vegetation. There are a number of small and large trees located within the site and along the street frontage, of which some are regarded as being necessary to remove, in order to accommodate the proposed residential development.

The locations of the trees, height of canopy and trunk diameter are noted on the accompanying survey drawing. An Arborist Report is submitted to assess the species and condition of each tree on the site.

2.8 Micro Climates

There is no impact on rural land, extractive resources or water supply catchment areas by the development of the site. The site is occupied by low-scale residential development with associated car parking areas. The allotment will eventually be surrounded by medium-rise residential development, with substantial open space areas, separating each project.

The subject site is not identified as containing any ecological communities that would cause the Threatened Species Conservation Act to be transgressed. There is no disturbance to any existing fauna or flora if the development is restricted to the current site area. The subject site is not affected by land-slip, subsidence, soil erosion or degradation, or any other related soil conservation factors.

2.9 Location of Existing Features

The accompanying site plan illustrates the location of existing vegetation and remaining site features.

PART B : THE SURROUNDS

2.13 Neighbouring Buildings

Eastern development

The eastern side boundary comprises of a pedestrian access pathway, 3.66 metres in width, with single-storey residential buildings, further east (Lot 1 in DP 206856) – 18 Burbang Crescent and Lot 25 in DP 1205179, 45 South Street.

Western development

The properties to the west, Lot 7 in DP 31350, accommodate two (2) three-storey residential buildings.

2.14 Privacy

The adjacent residential buildings are located along the eastern and western side boundary of the site. The issue of privacy for the existing residents must be considered and accounted for by good site planning and providing adequate separation distances and landscaped screening devices to protect the privacy of the existing and future neighbours.

The proposed development considered the impact on the existing residential units of the development to ensure that living areas and balconies are significantly protected from any adverse intrusion from proposed developments.

2.15 Walls on the boundary

There are no significant structures located on or near the common boundaries of the site, which would require special consideration in the design. The survey does not indicate any substantial differences in natural ground levels between buildings on or near common boundaries.

2.16 Difference in levels

The site inspection revealed that the eastern and western property boundaries are the only common boundaries shared with an adjoining residential development of any concern. There are no significant differences in natural ground levels located on or near the common boundaries of the site, which would require special consideration in the design.

3.0 DESIGN STATEMENT

The design of the proposed building is a direct response to the attempted compliance with the performance criteria and design controls contained in the **Parramatta Development Control Plan 2011 (DCP)** and **Parramatta Local Environmental Plan 2011 (LEP)**, for a Residential Apartment Building in an **R4 – High Density Residential Zone**, under the LEP.

The design of the development has also been determined by the performance criteria and design controls contained in **State Environmental Planning Policy Number 65 (SEPP65)** with particular reference to the original **Residential Flat Design Code (RFDC)**, which has been replaced by the new **Apartment Design Guide (ADG),** which came into force on the 17th July, 2015.

The Design Statement will address these issues and encompasses several areas. The first section of the design statement is a general statement on the urban design aspects, responding to the site analysis and constraints of the site parameters.

4.0 ENVIRONMENTAL ASSESSMENT

The Statement of Environmental Effects will address the issues of the compliance of the development with the appropriate SEPP, LEP and DCP policies and guidelines.

5.0 STATE ENVIRONMENTAL PLANNING POLICY NUMBER 65

The **State Environmental Planning Policy Number 65 – Design Quality of Residential Apartment Development (SEPP65)** has recently been amended and gazetted. SEPP65 sets a consistent policy direction for residential development in NSW and provides a uniform, state-wide framework for more detailed planning guidance.

SEPP65 has a statutory effect on development and as a consequence may modify or supplement the provisions of other state environmental planning policies, local environmental plans and development control plans.

The **Apartment Design Guide (ADG)** came into force on the 17th July, 2015, replacing the Residential Flat Design Code (RFDC). The ADG seeks to achieve better design and planning for residential apartment developments, by providing bench marks for designing and assessing these developments.

The following summary provides a basis for assessment of these planning and design elements in a numerical form. These are not intended to be compulsory compliance issues but a guide on what can be considered to be the appropriate options for design.

Where these are varied, there are established principles on why such variations are warranted. Objectives, design criteria and design guidance in Parts 3 and 4 of the ADG that are referred to in SEPP65 will prevail over any inconsistent DCP control.

PLANNING PRINCIPLES

SEPP65 establishes nine (9) design quality principles to be applied in the design and assessment of residential apartment development. The ADG provides greater detail on how residential development proposals can meet these principles through good design and planning practice.

SEPP65 and the ADG apply to residential flat buildings, shop top housing and the residential component of mixed use developments. They apply to buildings that are three or more storeys and that have four or more dwellings.

Urban design must recognise the creation of a sustainable urban environment where there is a balance between what the community needs are, what the community can afford and also sustain, in the long-term, preservation of our environment.

Urban design must address the concerns not only of sustaining the physical environment, but also the economic, financial and social environment.

The urban design of the project has been developed in response to the assessment of a number of site characteristics and design parameters, which have been determined by the site analysis and evaluation of the existing environment.

Urban planning issues may include:-

- The fulfilment of ecologically sustainable development (ESD) principles relies heavily on the optimum orientation of the proposed building on the site;
- The bulk and scale of the proposed development should complement the existing character of the neighbourhood and site;

- Street alignments of buildings and setbacks are important elements, which need to be reinforced if harmony is to prevail, and contrasted with, if a focal point or prominence is preferred;

- Building heights and building forms have additional significance in the urban design of the project;

- Building heights and building locations should minimise the degree of over-shadowing onto adjoining properties and attempt to reduce the potential impact and loss of sunlight of adjoining properties.

The urban design process commenced with an assessment of the site characteristics and an analysis of the inherent features of the site as well as the adjoining development.

The site analysis evaluated the topography of the site, orientation, aspect, prevailing winds, adjoining structures, existing landscape and vegetation, streetscape, location of the amenities and services to the site, heights of existing buildings and location of adjoining windows overlooking the site.

PRINCIPLE 1 : Context and Neighbourhood Character

Context is the assessment of the key, natural and built forms of an area surrounding the site. Good design, which responds to the context of the site, will integrate the desirable elements of a location's character and utilise them to contribute to the quality, identity and integrity of the existing built form. Context also includes social, economic, health and environmental conditions.

Context involves identifying the desirable elements of an area's existing and future character. The proposed development responds and enhances the qualities and identity of the site, set out in the Site Analysis.

The development must respond and sympathetically reflect the context into which it is placed. The key natural features of a site, together with the existing built forms determine the features of the site area. Therefore, good design responds and contributes to its context.

Context includes social, economic and environmental factors as well as the physical form of the area and surrounds. Responding to the local context involves identifying the desirable elements of the current character or the key aspects of character that are important to its future.

The design of the development is influenced by :-

- Regional context and urban centres
- Neighbourhood and precinct areas
- Open space
- Views
- Topography
- Street layout
- Streetscape
- Precinct blocks
- Allotment sizes and shapes
- Existing uses

PRINCIPLE 2 : Built Form and Scale

The general approach to design is linked to the assessment of built form and scale, which complements the existing streetscape and surrounding development. The appropriate scale, bulk and height of a development is determined by an assessment of the existing and future character of the area.

The scale of the development is defined by the extent of the overall building zone in plan and section within which a future building can be located.

Building envelopes set the appropriate scale of the future development in terms of bulk and height in relation to the street layout, allotment size and location in the precinct.

Building envelopes ensure that the built form and density of the new development respects the scale, density and desired future character of the area.

The scale of the development is defined by :

- Building height
- Building depth
- Building separation
- Street setbacks
- Side and rear setbacks
- Floor space ratio

Building height

The height of a development has a major impact on the physical and visual amenity of an area. The height controls are defined by the impact upon the solar access, residential amenity, setting, topography and heritage impacts of the site within its context.

The height proposed should ensure that the development responds to the desired scale and character of the street and local area. The proposed height should allow reasonable solar access to all developments and the public domain.

There is a height limit of eleven (11) metres applicable over the site. The proposed height of the development is generally within the Building Height Plane, with only minor encroachments generated by the sloping topography of the site, cascading from north to the south.

A variation to the strict application of the height limit is submitted under Clause 4.6 of the LEP.

Building depth

The depth of a building is the horizontal cross-section dimension of a building and is important in the potential impact on the residential amenity for the building occupants. In general, it is recommended that narrow cross-section buildings with a dual aspect provide better natural ventilation and optimum solar access to internal spaces.

The design should ensure sufficient daylight access to habitable rooms, without the need for artificial lighting.

The maximum depth for adequate daylight penetration is 10 to 18 metres (ADG). Council's DCP has adopted a maximum building depth of eighteen (18) metres.

The design adopts the objectives and guidelines of the DCP and proposes one (1) residential building (Building A – South Street), with six (6) units per floor level, each sharing one (1) staircase and one (1) lift per lobby. Each dwelling unit is provided with a single or a dual-aspect, orientated to the northern front, eastern or western side of the property. Balconies extend the residential units to provide the opportunity to extend living and bedroom areas to the outdoors.

The second residential building (Building B – Burbang Crescent), accommodates five (5) units per floor level, each sharing one (1) staircase and one (1) lift per lobby. Each dwelling unit is provided with a single or a dual-aspect, orientated to the northern front, eastern or western side of the property. Balconies extend the residential units to provide the opportunity to extend living and bedroom areas to the outdoors.

The maximum depth of Building A is 16.8 metres and Building B is 20.30 metres, both with indentations and variations in the facades to ensure natural lighting and ventilation into as many units as possible per floor level, with minimal depth of the single-aspect unit not exceeding the eight (8) metres.

The residential units are designed around the central staircase and lift core, with indentations provided along the facades to generate articulation of the building form. The lift lobby receives natural lighting and ventilation near the lift from the roof level, with an open staircase enabling natural lighting to filter through each floor level.

The variations in the facades provide articulation and movement of form with projections and recesses in the facades to provide the character and scale represented in the area by existing development.

Building separation

The spatial relationship of buildings is an important determinant of urban form. Building separation relates to urban form because it relates to the legible scale of an area.

Building separation controls are set in conjunction with the height controls and controls for open space and solar exposure.

The primary development controls for building separation, as set out in the RFDC, Figure 01.61, sets out the following distances :-

Up to four storeys in height	12 metres between habitable rooms/balconies
	9 metres between habitable and non-habitable
	6 metres between non-habitable and non-habitable

The proposed buildings are three (3) storeys in height and the proposed separation is 12.0 metres minimum to 13.5 metres maximum. The two buildings are also positioned on different levels due to the sloping topography. This increases the privacy and solar access for each building.

The proposed buildings achieve an appropriate separation distance for privacy and solar access.

Street setback

Street setbacks establish the front building alignment. The controls over these distances create the proportions of the street and contribute to the public domain by enhancing streetscape. The street setback also controls the street character and the continuity of street facades. Street setbacks enhance the setting for the building and provide for landscape areas, entrances and deep-soil zones.

The proposed setbacks to the streets form active street frontages, adequate open space areas for communal recreation spaces and to ensure the development addresses the parameters such as privacy, acoustic transmission control and open space.

The primary setback has been determined in accordance with Council's guideline in the DCP for the precinct and also in context with the adjacent development, which has been recently completed. The front setback distances vary as follows :-

Burbang Crescent

- 4.70 metres minimum (courtyard edge to boundary);
- 5.30 metres to the main façade;
- 6.00 metres to the balcony edges;
- 8.50 metres to the central indentation and facades.

South Street

- 4.60 metres minimum (courtyard edge to boundary);
- 6.00 metres to the balcony edges;
- 7.50 metres to the central façade;
- 8.50 metres to the indented facades.

The buildings are substantially set back from the street kerbs along the two street frontages to accommodate substantial areas of landscaping and deep soil.

Side and rear setbacks

Side and rear setbacks are important controls to ensure that the building height and distance of the building from its boundaries maintain the amenity of the neighbouring sites and within the new development.

Setbacks vary according to the building context and type of residential development being proposed. Side and rear setbacks can be used to create useable land, which contributes to the amenity of the side and rear buildings through landscape design and open space. The prescribed setback is 4.5 metres and 6.0 metres for the side boundaries and a minimum of six (6) metres to the rear boundary.

These setbacks are achieved on the site. The setbacks proposed are considered sufficient to achieve the required result in minimising the overall impact of the building and ensuring that the existing scale of the general area is acknowledged and sympathetically treated.

The side setback distances vary as follows :-

Burbang Crescent

- 4.50 metres minimum (balcony edge to boundaries);
- 6.00 metres average setback;
- 7.00 metres to the indentations.

South Street

- 4.50 metres minimum (balcony edge to boundaries);
- 6.00 metres average setback;
- 7.00 metres to the indentations.

The rear setback of this residential development is the building separation between Building A and Building B. The separation is a minimum of twelve (12) metres and accommodates communal open space area and outdoor recreation space.

Floor space

Floor space area and the ratio to the site area (Floor Space Ratio or FSR) controls ensure that the development is in keeping with the optimum capacity of the site and the local area.

The maximum FSR for this site is 0.80 : 1. The total site area is 2,784.95 square metres, by calculation and 2,775.90 square metres, according to the Deposited Plans (DP). The Gross Floor Area is 2,784.00 square metres. The proposed FSR is therefore, 0.99 : 1 by site calculation and exceeds the FSR by 0.19 : 1.

The provision of Affordable Housing, under the SEPP (Affordable Rental Housing) 2009, enables the surplus floor area to be dedicated as Affordable Housing, with this provision. Therefore, 529 square metres will be allocated as such.

Units A01 to A08 in Building A will be allocated as Affordable Housing units and will allocate 603.3 square metres, in accordance with the SEPP provisions.

The design achieves an appropriate built form for the site and accommodates the desired purpose in terms of building alignments, proportions, building type, articulation and the manipulation of the building elements.

The impact of the proposed scale of the development has been controlled and reduced by acknowledging the established built form and providing a degree of association or design to link elements of the building with established elements of the built forms in the precinct.

The assessment of the built form is an analysis of the building alignments, proportions, building character and building elements of the surrounding development. The appropriate built form defines the public domain and contributes to the streetscape.

The design is in accordance with the building envelope requirements of DCP and therefore, is considered to be appropriate by relating to the surrounding development, as envisaged by LEP and DCP provisions for other future developments.

PRINCIPLE 3 : Density

The proposed density of the development has been determined by a number of design factors contained in the DCP. The density allowable has been controlled by the height, landscaped area and setback controls.

The density of development has been established as complying when the planning controls have been complied with, in particular :-

- height
- floor space ratio
- landscaped area

The sustainable bulk and scale of the development responds to the density allowable and ensures compliance provides a viable development, which is in context with the future character of the area.

The approach to the design of the development is linked to the overall density of acceptable development and the appropriateness of that development in the context into which the development is being proposed.

The appropriate density of development must be sustainable, of a high level of amenity and be consistent with the existing character of the area or future density, in areas undergoing a transitional phase of development.

Appropriate densities are consistent with the area's existing or projected population. These densities are predicated on the planning controls and guidelines provided by the LEP and DCP guidelines.

The bulk of the development is also controlled by the appropriate setbacks required to achieve solar access for the development and by the provisions for deep-soil and landscaped areas. The stepped façade levels above the street frontage and the fragmentation of the building façades have been significantly increased to ensure that the bulk of the building diminishes in proportion with the height and scale of the building.

Compliance with the planning parameters would indicate that the objectives of the Council's planning policies and instruments are being observed and complied with. The planning controls have been met and the design is considered to be appropriate with a comfortable relationship to adjoining development in the vicinity of the site.

By complying with the landscaped area requirements, the overall bulk and scale of the development is considered to be within the building controls. These controls have been complied with.

PRINCIPLE 4 : Sustainability

The concept of ecologically sustainable development is defined as "...using, conserving and enhancing the community's resources so that ecological processes, on which life depends are maintained and the total quality of life, now and in the future, can be increased".

Therefore, the fulfilment of energy efficiency is based upon these ESD principles, which rely heavily on the optimum use of land, water and energy resources.

Good design should incorporate these ESD principles by incorporating energy and water saving devices, which will insure that residents and occupants of the development will positively contribute to the conservation of these valuable resources.

Resources

The concept of ecologically sustainable development is defined as *"...using, conserving and enhancing the community's resources so that ecological processes, on which life depends are maintained and the total quality of life, now and in the future, can be increased".* Therefore, the fulfilment of energy efficiency is based upon these ESD principles, which rely heavily on the optimum use of land, water and energy resources.

ESD principles are based upon a need to create a sustainable urban environment without jeopardising or compromising the long-term protection and enhancement of the environment in the future. ESD principles involve the economic demolition of the existing structures by recycling the available materials, products and re-use of site foundation materials.

The main emphasis in the design of any residential development is the utilisation of appropriate and sustainable materials in the construction of the project. The incorporation of recyclable building products and sustainable resources will ensure that the future quality of life and environment will be protected.

The building construction proposed will reflect these ideals by adopting renewable products and materials. Recycling of materials and the reduction of waste products will contribute to the achievement of these goals.

The design of the development is also influential in the achievement of ESD principles. The integration in the design to achieve natural ventilation and good heat insulation will minimise the dependency on energy resources in heating and cooling a space.

The achievement of these goals then contributes significantly to the reduction of energy consumption, resulting in a lower use of valuable resources and the reduction of costs.

Energy Efficiency

The energy rating of the residential units being proposed has been assessed and the accompanying ratings indicate a high percentage of units achieve a greater rating than the minimum required.

This target has been met by integrating the following inclusions :-

- Energy efficient gas hot water system
- Internal planning of dwelling
- Orientation
- Natural ventilation
- Solar access

Water Efficiency

The project will integrate a system of rainwater collection and storage from the roof drainage system and be utilised in the irrigation system proposed for the planter-boxes and deep-soil areas, within the development. The design will also incorporate the following water saving devices :-

- AAA-rated shower heads
- AAA-rated taps
- Dual-flush toilet systems
- Rainwater tank storage system

PRINCIPLE 5 : Landscape

Good design combines landscape and the built form to operate as an integrated and sustainable system, resulting in aesthetic developments with good amenity. The objectives of landscaping are to ensure that the proposed landscaping treatments integrate with and enhance the setting of the building, both indoors and outdoors, while contributing to the landscape character of the streetscape and neighbourhood.

Landscape design should also be integrated into the proposed design and contribute to the energy efficiency and performance of the building, thereby contributing and providing a sustainable living environment. The landscape component in the design clearly addresses these objectives and illustrated in the submitted Landscape Plans.

PRINCIPLE 6 : Amenity

The amenity of a residential development is a composition of the physical, spatial and environmental qualities, which combined provide a desirable standard of living conditions.

Appropriate room dimensions, configurations, spatial flow, access to sunlight, natural ventilation, cross-ventilation, visual and acoustic privacy, storage space, indoor and outdoor entertainment and recreation spaces, energy efficiency, views, accessibility and aesthetics are all relevant aspects of the amenity of the development.

The amenity issues are outlined in previous sections of the Design Statement and may be listed as follows :-

- Integration of accessibility for those with physical disabilities or visual impairments in accordance with AS1428;
- Adaptable housing accommodation in accordance with AS4299;
- Affordable housing under SEPP (Affordable Rental Housing) 2009;
- Access and amenities for all residents, visitors and tenants to comply with the Disability Discrimination Act 1992;
- Affordable housing provisions by maintaining a high percentage of smaller one-bedroom units to ensure that accommodation for the lower-income market is available within the development;
- Integration of "best practice" design standards to ensure appropriate floor areas, ceiling heights, spatial flow, solar access, natural ventilation and privacy is achieved.

In any such residential development, it is important that consideration is placed on the residential amenity of the development. The amenity of the development incorporates the physical, spatial and environmental quality of the development.

The amenity requires the appropriate room configurations with good access to northern sunlight and shading, together with appropriate consideration for access and mobility. Amenity also incorporates visual privacy.

Visual privacy measures are incorporated to provide for private functions within all rooms and private open spaces, without compromising views, outlook, ventilation and solar access. The consideration of visual privacy requires an understanding of the adjacent context, site configuration, topography, the scale of the development and the layout of the apartments.

The building design has been developed to provide for the amenity of the occupants as well as the public domain. The following summary identifies the key elements of the building design incorporating access and circulation, apartment layouts, floor area, ceiling height, private open space, common open space, energy efficiency rating, adaptability and diversity, safety, security and site facilities.

The design of the residential development also accommodates for the elderly and disabled members of the community. In response to the introduction of the Disability Discrimination Act 2010 (DDA), the intention in any design is not to discriminate against a potential resident or occupant on the grounds of disability. It is therefore now imperative to provide access and use of the premises for the general public, without discrimination against the disabled or elderly members.

PRINCIPLE 7 : Safety

The safety and security is vital to both internal and external aspects of the development. The design should integrate the surveillance of public and communal open spaces to ensure vigilant exposure of these areas, while maintaining privacy to residents and the public domain.

Design should avoid dark and non-visible areas, maximise internal privacy, activity along street frontages, provide clear and safe access points, separate pedestrian and vehicular traffic, provide quality public and open spaces that cater for the desired recreational uses.

Illumination at night should be an inherent aspect of any design to ensure safe access and security at night, providing a clear definition between public and private spaces.

The built environment has an impact on the perceptions of safety and security, as well as on the actual opportunities for crime. The objective in the design is to ensure that residential flat developments are safe and secure for residents and visitors, as well as contributing to the safety of the public domain.

These principles are based upon the guidelines provided by ***"Crime Prevention Through Environmental Design"*** (CPTED).

The four principles of CPTED are :-

- **Surveillance**
- **Access/Egress Control**
- **Territorial Reinforcement**
- **Space Management**

The project has been designed with these principles in mind and seeks to have an impact on the perceptions of safety and security, as well as on the actual opportunities for crime within the site.

PRINCIPLE 8 : Housing Diversity and Social Interaction

Social dimensions would include lifestyles, affordability, accessibility and living standards. Good design would provide housing to meet the social demands of the community. The proposed development will offer a range of residential accommodation in a centralised location in the centre of the business district. The affordability of such residential accommodation is based upon the construction of efficient developments, which maximise the returns for the expenditure invested.

PRINCIPLE 9 : Aesthetics

Quality in aesthetics is a composition of the appropriate building elements, textures, materials and colours to reflect the use, internal design and structure of the development. The aesthetics are addressed in the proposed design section of this Design Statement.

The proposed development will seek to appeal to the general public by achieving a high standard of architectural design, detailing and construction finishes in materials and textures.

In any development, it is important that consideration is placed on the visual appearance of the development. The appropriate composition of the elevations should integrate architectural "best practice" policy of incorporating architectural character and style appropriate for the development.

The quality of the aesthetic presentation of the development must address the elements of the building such as building form, fenestration, façade treatment and features, roof profiles, textures, materials and colours. The proposal integrates a number of recesses and projections into the facades of the structure to articulate the overall mass and form smaller segments.

The bulk of the overall buildings and height is reduced by the incorporation of smaller building segments with aesthetic architectural elements, in order to minimise the overall bulk and scale of the development.

The design of the building elements utilises a tiered style, with a strong base of textured wall to identify the basement floor level and to provide the pediment of the development upon which the upper floors are projected.

The Schedule of Finishes submitted in Appendix "C" provides an indication of the high quality materials and finishes being considered for the project design.

Apartment Design Guide (ADG) Comparison

The achievement of the SEPP65 guidelines may be assessed by examining the compliance with the planning guidelines contained in the Apartment Design Guide (ADG), recently issued by Planning NSW. The ADG provides a summary of "best practice" design parameters for residential apartments.

DESCRIPTION	DESIGN QUALITY	PROPOSAL	COMPLIANCE
Building height	Where there is an existing FSR, test height controls and number of storeys with ceiling heights to achieve a good fit 11 metre height control applies	Design complies with the objectives of terracing the development in context with the topography and generally meets the 11 metre height limits for the development	Clause 4.6 Variation for minor encroachments into the building height plane
Building depth	An apartment building depth of 10 to 18 metres is appropriate Developments that propose wider than 18 metres must demonstrate satisfactory day lighting and natural ventilation are to be achieved	Proposed width of 10.6 and 20.2 metres maximum for the building and therefore ensures adequate natural lighting and ventilation	Yes
Apartment width	A minimum width of an apartment to be 4 metres	10.0 metres minimum width is proposed	Yes
Building separation	Design and test building separation controls to ensure daylight access to buildings Building separation may be varied in response to site context constraints Developments that propose less must demonstrate daylight access, urban form, visual and acoustic privacy has been achieved	ADG prescribes 12 metres of separation from adjoining developments for 4 storeys in height Proposed separation distance is approximately 12 metres minimum to the adjacent building	Yes
Street Setbacks	Identify the desired streetscape character and establish the common setback of buildings in the street	The built form and streetscape character is varied with buildings constructed recently being 5.0 to 6.0 metres from the street Similar setbacks have been adopted	Yes
Side and Rear Setbacks	Relate side setbacks to existing streetscape patterns Test side and rear setbacks with building separation, open space and deep soil zones Test setbacks for over-shadowing of other parts of the development or adjacent properties	The recommended side setback is 4.5 and 6.0 metres The proposed side setbacks are complied with Rear setback is 12 metres between the two buildings	Yes

DESCRIPTION	DESIGN QUALITY	PROPOSAL	COMPLIANCE
Floor Space Ratio (FSR)	Test the desired built form outcome against the proposed FSR to ensure consistency with height, footprint, built form, open space before establishing a blanket FSR control	The FSR control for this area under the LEP is 0.8 : 1 Proposed FSR is 0.99 :1 maximum 0.19 : 1 is allocated as Affordable Housing units	Yes
Deep Soil Areas	A minimum of 7% of the open space area of a site should be a deep soil zone	Deep soil is 211.1 sqm or 7.6% of the open space area with 6 metres minimum dimension Landscaped area is 784.1 sqm or 28.2 %	Yes
Fences and Walls	Fences and walls should be designed to define the boundaries between the development, provide privacy and security and contribute to the public domain	1.2 metre high fencing is proposed to street frontage	Yes
Landscape design	A landscape design should improve the amenity of the open space and contribute to the streetscape character	A Landscape Plan has been submitted and achieved the objectives	Yes
Open Space	The area for communal space should be 25 to 30 per cent of the site area Where developments are unable to achieve this demonstrate that residential amenity is provided by an increase in private open space	Communal areas for the proposed development is 1,459.7 sqm 52.4 % of the total site area Ground - 505.4 sqm Building A – 510.9 sqm Building B – 443.4 sqm	Yes
Private open space	Private open space should be a minimum of 15 sqm of courtyard with 4 metres dimension or 10 square metres of balcony area with a 2 metres minimum depth	Courtyards exceed 15 sqm with 4 metres dimension Balconies exceed 10 sqm with 2.4 minimum depth	Yes
Orientation	Optimise solar access to living spaces	North – 12 units (38%) East – 08 units (24%) West – 12 units (38%) South – 00 units (00%)	Yes
Planting on Structures	There is no minimum standard for planting on structures	Refer to the Landscape Plan for details	Yes

DESCRIPTION	DESIGN QUALITY	PROPOSAL	COMPLIANCE
Safety	Carry out a formal crime risk assessment for residential developments of more than 20 units	CPTED principles have been adopted in the design	Yes
Visual Privacy	Refer to building minimum standards	Design complies with the ADG provisions for building separation	Yes
Pedestrian Access	Follow the accessibility standards set out in AS1428 as a minimum and provide barrier free access to at least 20% of the dwellings	All of the ground floor level units and upper floor units are Accessible units to AS1428	Yes
Vehicle Access	Limit the width of driveways to a maximum of 6 metres and locate entries away from the main pedestrian entries	Maximum width of the driveway is 6.0 metres to comply with the DCP provisions	Yes
Apartment Layout	Single-aspect units should be limited to 8 metres in depth from a window Kitchens should be no more than 8 metres from a window Dwellings not meeting the standard must demonstrate how day lighting and natural ventilation is achieved	Single-aspect units are a maximum of 8 metres in depth 24 units (75%) are cross-ventilated units	Yes
Affordable Housing	The Affordable Housing Service suggest the following minimum apartment sizes :- 50 sqm – one-bedroom 70 sqm – two-bedroom 95 sqm – three-bedroom	Apartments proposed have the following minimum net floor areas :- 58.5 sqm – one-bedroom 75.0 sqm – two-bedroom 96.7 sqm – three-bedroom	 Yes Yes Yes
Balconies	Provide primary balconies for all apartments with a minimum depth of 2 metres	All balconies have a minimum depth of 2.4 metres	Yes
Ceiling Heights	Provide the following minimum ceiling heights :- 3.3 m for ground and first floor commercial areas 2.7 metres for all residential areas Developments which seek to vary the recommended ceiling heights must demonstrate that the apartment will receive satisfactory day light	Ceiling heights are :- 3.3 metres to commercial 2.7 metres to residential areas	 Yes Yes

DESCRIPTION	DESIGN QUALITY	PROPOSAL	COMPLIANCE
Ground Floor Apartments	Optimise the number of ground floor apartments with separate entries and consider accessibility	Site topography does not permit direct street access to the units on the ground floor level	No
Internal Circulation	The number of units accessible from a single core/corridor is eight (8)	Five (5) and six (6) units per floor are proposed Lift lobby has natural lighting and ventilation	Yes
Storage	In addition to kitchen and bedroom storage provide the following storage facilities :- 6 cum for one-bedroom unit 8 cum for two-bedroom unit 10 cum for a three-bedroom unit	Each residential unit is provided with a minimum of 6, 8 and 10 cubic metres of storage space with half in the basement car parking level and half in the residential unit	Yes
Day Light Access	Living rooms and private open spaces for at least 70% of the units should receive 3 hours of sunlight in mid-winter In dense urban areas a minimum of 2 hours may be acceptable	North – 12 units (38%) East – 08 units (24%) West – 12 units (38%) South – 00 units (00%)	Yes
Day Light Access	Limit the number of single-aspect apartments with a southerly aspect to a maximum of 10%	No (0%) single-aspect units are facing south	Yes
Ground Floor Apartments	Optimise the number of ground floor apartments with separate entries Provide ground floor apartments with access to private open space, preferably as a terrace or garden	Site topography does not permit direct street access to the units on the ground floor level	No
Storage	In addition to kitchen and bedroom storage provide the following storage facilities :- 6 cum for one-bedroom unit 8 cum for two-bedroom unit 10 cum for a three-bedroom unit	Each residential unit is provided with a minimum of 6, 8 and 10 cubic metres of storage space with half in the basement car parking level and half in the residential unit	Yes

Design Verification Statement

In conclusion, I verify that as a Registered Architect, duly registered with the Architects Registration Board of NSW (Registration Number 3972) and an Associate of the Royal Australian Institute of Architects, I, Robert Del Pizzo, have participated in the design and development of this project.

6.0 CONCLUSION

In conclusion, we believe the proposed development satisfies the matters in the heads of consideration, listed under Section 79C of the Environmental Planning and Assessment Act, 1997 and is generally in accordance with the general guidelines and recommendations contained in Council's LEP and DCP codes and general planning policies.

Yours faithfully,

architex

Robert Del Pizzo
Associate of the Australian Institute of Architects
NSW Board of Architects Reg. No. 3972
QLD Board of Architects Reg. No. 3761

APPENDIX "A" - PRE-DA MINUTES OF MEETING

A brief number of pages are attached to illustrate the Pre-DA Meeting held on the 16th December, 2015 (PL/158/2015).

RECORD OF PRE-LODGEMENT APPLICATION MEETING
DEVELOPMENT SERVICES UNIT

PL. No:	PL/158/2015
Applicant Attendees:	Albert Augeung - Architect Andrew Minto - Planner Nan Zhuang - Client
Council Attendees/Contact Details:	Thomas Wheeler - Development Advisory Officer - 9806 5659 - twheeler@parracity.nsw.gov.au Maya Sarwary - Acting Team Leader Development Advisory - 9806 5578 - msarwary@parracity.nsw.gov.au Nathan Jegatheesan - Senior Development Engineer - 9806 5566 - njegatheesan@parracity.nsw.gov.au Rosemarie Barretto - Traffic and Transport Investigation Engineer - 9806 5683 - rbarretto@parracity.nsw.gov.au Michelle Flemming - Landscape Tree Management Officer - 9806 5594 - mflemming@parracity.nsw.gov.au Penelope Bowen - Project Officer Urban Design - 9806 5719 - pbowen@parracity.nsw.gov.au
Pre-Lodgement Meeting Date:	16 December 2015
Proposal:	Proposed construction of 3 storey residential buildings comprising of 37 residential units over basement carparking.

Site Address:	**Lot 13 DP 16517** 47 South Street RYDALMERE NSW 2116 **Lot 14 DP 16517** 49 South Street RYDALMERE NSW 2116 **Lot 5 DP 31350** 14 Burbang Crescent RYDALMERE NSW 2116 **Lot 6 DP 31350** 16 Burbang Crescent RYDALMERE NSW 2116
Site Area:	2,833.68sqm
Parramatta Local Environmental Plan 2011	
Zoning:	R4 High Density Residential PLEP2011
Permissible Use:	The proposed development is defined as Residential Flat Building under the provisions of Parramatta Local Environmental Plan 2011. The definition states: ***residential flat building*** means a building containing 3 or more dwellings, but does not include an attached dwelling or multi dwelling housing. The subject site is zoned R4 High Density under the provisions of LEP2011. A Residential Flat Building is a permissible land use with Council consent under the zoning provisions of LEP2011. Notwithstanding the above, the proposed use is considered as 'infill affordable housing' under the SEPP (Affordable Rental Housing) 2009. Division 1 of the SEPP outlines the provisions applicable to infill affordable housing. Clause 10 outlines land to which the Division applies. Clause

10 states:

10 Development to which Division applies

(1) his Division applies to development for the purposes of dual occupancies, multi dwelling housing or residential flat buildings if:

(a) the development concerned is permitted with consent under another environmental planning instrument, and

(b) the development is on land that does not contain a heritage item that is identified in an environmental planning instrument, or an interim heritage order or on the State Heritage Register under the Heritage Act 1977.

(2) Despite subclause (1), this Division does not apply to development on land in the Sydney region unless all or part of the development is within an accessible area. 'accessible area' *means* land that is within:

(a) 800 metres walking distance of a public entrance to a railway station or a wharf from which a Sydney Ferries ferry service operates, or

(b) 400 metres walking distance of a public entrance to a light rail station or, in the case of a light rail station with no entrance, 400 metres walking distance of a platform of the light rail station, or

	(c) 400 metres walking distance of a bus stop used by a regular bus service (within the meaning of the Passenger Transport Act 1990) that has at least one bus per hour servicing the bus stop between 06.00 and 21.00 each day from Monday to Friday (both days inclusive) and between 08.00 and 18.00 on each Saturday and Sunday.
Heritage Item:	No
Vicinity to a Heritage item:	No
Heritage Conservation Area:	No
Flood Prone:	No

RELEVANT POLICIES
STATE POLICIES

- SEPP 65 - Design Quality of Residential Flat Development
- SEPP (Affordable Rental Housing) 2009
- SEPP (Building Sustainability Index: BASIX) 2004
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

LOCAL POLICIES

- Parramatta Local Environmental Plan 2011

DEVELOPMENT CONTROL PLANS

- Parramatta Development Control Plan 2011

COUNCIL POLICIES

- PCC Design Excellence Competition Guidelines

DELEGATION
Council
ADVERTISED/NOTIFICATION
Advertise 21 Days

SPECIFIC COMMENT
1. Please disregard the mentioning of the PCC Design Excellence Guidelines within this report. This is an error with Councils reporting software and it does not apply to this site or this proposal.

ENVIRONMENTAL PLANNING INSTRUMENTS

STATE ENVIRONMENTAL PLANNING POLICY - BASIX

A BASIX certificate will be required to be submitted with the development application.

SYDNEY REGIONAL ENVIRONMENTAL PLAN (SYDNEY HARBOUR CATCHMENT) 2005 (DEEMED SEPP)

The site is located within the designated hydrological catchment of Sydney Harbour and is subject to the provisions of the above SREP.

The Sydney Harbour Catchment Planning Principles must be considered and where possible achieved in the carrying out of development within the catchment. The key relevant principles include:

- protect and improve hydrological, ecological and geomorphologic processes;
- consider cumulative impacts of development within the catchment;
- improve water quality of urban runoff and reduce quantity and frequency of urban run-off; and
- protect and rehabilitate riparian corridors and remnant vegetation.

The site is within the Sydney Harbour Catchment and eventually drains into the Harbour.

The site is not located on the foreshore or adjacent to a waterway and therefore, with the exception of the objective of improved water quality, the objectives of the SREP are not applicable to the proposed development.

SEPP (AFFORDABLE RENTAL HOUSING) 2009

Division 1 In-fill housing

Clause	SEPP Requirements	Compliance
Clause 10 – Land to which Division applies	Land must be zoned R1, R2, R3 or R4 (or equivalent zone)	R4
#	Land must be within an accessible area (ie. within 400m walking distance of a public transport service).	Within an accessible area

Clause 13 – Floor Space Ratios ..	This clause creates an FSR bonus for Affordable Rental Housing developments that provide more than 20% GFA as affordable rental housing. The bonus applies above the existing maximum FSR that applies to residential accommodation on the land.	As has been discussed previously, the proposal includes at least 20% affordable housing and is entitled to an increase in FSR of up to 0.5:1.
Clause 14 – Standards that cannot be used to refuse consent. ..	**1. Low rise development** **(b) Site Area:** Min 450m² **(c) Landscaped area:** min 30% landscaped. **(d) Deep soil zones:** min 15% site area, 3m min dimension and 66% located at rear of site if practicable. **(e) Solar Access:** 70% of dwellings receive min 3 hours direct sunlight in mid-winter. **2. General** **(a) Car Parking:** 0.5 spaces for 1 bedroom units, 1 space for 2-bedroom dwellings and 1.5 spaces for 3-bedroom dwellings. **(b) Dwelling Size:** 70m² for each 2-bedroom dwelling.	Site Area: 2,828sqm 848.4sqm required, 853.05sqm provided. 552.16sqm required, 853.05sqm provided To be clearly demonstrated at DA stage. 33 parking spaces required, 41 parking spaces provided. Proposal complies with minimum requirement.
The subject development will need to indicate compliance with the Seniors Living Guidelines for infill development, NSW Crime Prevention Through Environmental Design and other relevant guidelines and policies as indicated by the SEPP.		

SEPP 65 - DESIGN QUALITY OF RESIDENTIAL FLAT DEVELOPMENT

APPENDIX "B" - SCHEDULE OF FINISHES

The project will be developed in a modern style, which will provide a visually aesthetic development in an area undergoing transformation. The development will complement the desired future character of this precinct, established by the recently completed residential developments.

The built form will be segmented into sections, each articulated and fragmented by indentation and terraced levels, providing a varied façade and fenestration. The building elements will create a rhythm and harmony, reflected by the schedule of materials and finishes.

A Schedule of External Finishes accompanies the development application.

C1	ROOF FASCIA & GUTTER FINISH COLORBOND Citi	
P1	PAINT FINISH 1 Dulux Simone Weil PG1A4	
P2	PAINT FINISH 2 Dulux Oolong PG2G8	
P3	PAINT FINISH 3 Dulux Thomas Tallis PW1B9	
P4	PAINT FINISH 4 Dulux Ducal PO5E8	
P5	PAINT FINISH 5 Dulux Orangeade PO8F8	
PC1	Dulux Powdercoat Citi Pearl 88471	
PC2	Metalart Powdercoat Timeless Timber - Bush Cherry	
STS1	Decor Stacked Stone Russet	

Schedule of Finishes: Proposed Residential Units (Block A - South Street)

14-16 Burbang Crescent & 47-49 South Street, Rydalmere

architex
architects and planners

C1	ROOF FASCIA & GUTTER FINISH COLORBOND Citi	
P1	PAINT FINISH 1 Dulux Simone Weil PG1A4	
P2	PAINT FINISH 2 Dulux Oolong PG2G8	
P3	PAINT FINISH 3 Dulux Thomas Tallis PW1B9	
P4	PAINT FINISH 4 Dulux Ducal PO5E8	
P5	PAINT FINISH 5 Dulux Orangeade PO8F8	
PC1	Dulux Powdercoat Citi Pearl 88471	
PC2	Metalart Powdercoat Timeless Timber - Bush Cherry	
STS1	Decor Stacked Stone Russet	

Schedule of Finishes: Proposed Residential Units (Block B - Burbang Crescent)

14-16 Burbang Crescent & 47-49 South Street, Rydalmere

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APPENDIX "C" - SCHEDULE OF UNIT AREAS

BUILDING A - SOUTH STREET

UNIT NUMBER	BEDROOMS	NET FLOOR AREA (sqm)	COURT/ BALCONY (sqm)	ORIENTED North, South, East or West	CROSS-VENTED Yes/ No	STORAGE AREA Cubic Metres
1	1B Affordable	58.2	64.9	S + W – 2+	Y	6.0
2	2B Affordable	75.5	72.4	W – 2 +	N	8.0
3	2B Affordable	75.0	71.5	N – 4 +	Y	8.0
4	1B Affordable	64.0	49.2	N – 4 +	Y	6.0
5	3B Affordable	98.8	65.2	E – 2 +	Y	10.0
6	2B Affordable	77.6	18.4	S + W – 2+	Y	8.0
7	2B Affordable	75.5	10.0	W – 2 +	N	8.0
8	2B Affordable	78.7	17.3	N – 4 +	Y	8.0
9	2B	82.8	18.1	N – 4 +	Y	8.0
10	2B	75.4	10.1	E – 2 +	N	8.0
11	2B	78.6	17.1	S + E – 2+	Y	8.0
12	2B	77.6	18.4	S + W – 2+	Y	8.0
13	2B	75.5	10.1	W – 2 +	N	8.0
14	2B	78.7	17.3	N – 4 +	Y	8.0
15	2B	82.8	18.1	N – 4 +	Y	8.0
16	2B	75.4	10.3	E – 2 +	N	8.0
17	2B	78.6	17.1	S + E – 2+	Y	8.0
TOTALS	17			North – 06 South – 00 East – 05 West – 06	Cross – 12 70%	

BUILDING B - BURBANG CRESCENT

UNIT NUMBER	BEDROOMS	NET FLOOR AREA (sqm)	COURT/ BALCONY (sqm)	ORIENTED North, South, East or West	CROSS-VENTED Yes/ No	STORAGE AREA Cubic Metres
1	2B	80.0	35.2	S + W – 2+	Y	8.0
2	1B	64.8	15.8	W – 2 +	N	6.0
3	1B	63.6	63.2	N – 4 +	Y	6.0
4	3B	96.7	44.0	N – 4 +	Y	10.0
5	2B	76.6	37.0	S + E – 2+	Y	8.0
6	2B	76.5	11.1	S + W – 2+	Y	8.0
7	2B	77.7	10.2	W – 2 +	N	8.0
8	2B	75.4	19.3	N – 4 +	Y	8.0
9	3B	96.7	12.0	N – 4 +	Y	8.0
10	2B	76.6	12.0	S + E – 2+	Y	8.0
11	2B	76.5	11.1	S + W – 2+	Y	8.0
12	2B	77.7	10.2	W – 2 +	N	8.0
13	2B	75.4	19.3	N – 4 +	Y	8.0
14	3B	96.7	12.0	N – 4 +	Y	8.0
15	2B	76.6	12.0	S + E – 2+	Y	8.0
TOTALS	15			North – 06 South – 00 East – 03 West – 06	Cross – 12 80%	