



Development Control Plan
For the **Defence Site Kingsford**

Bounded by Bundock and Avoca
Streets Kingsford

February 2003

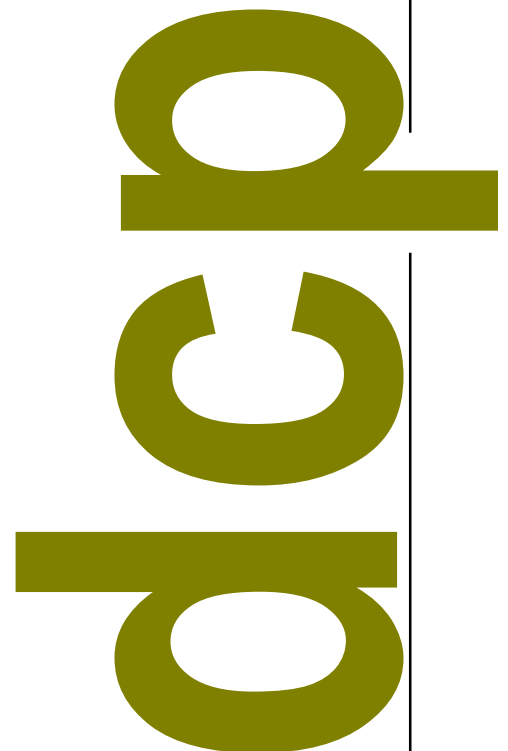


TABLE OF CONTENTS

DEFINITIONS	II
GENERAL INFORMATION.....	4
1.1 Purpose.....	4
1.2 Introduction	4
1.3 Relationship to Other Environmental Planning Instruments, Development Control Plans, Codes and Policies.....	4
1.4 How to Use this DCP	5
1.5 Submitting a Development Application	6
2. LAND SUBDIVISION - LOT SIZE AND ORIENTATION	10
3. RESIDENTIAL BUILDING LOCATION AND DESIGN	11
3.1 Density.....	11
3.2 Height	12
3.3 Building Footprints and Landscape Area	13
3.4 Neighbourhood Character and Architectural Quality.....	14
3.5 Activity Strip	17
4. ENVIRONMENTAL DESIGN.....	18
4.1 Landscaped Area and Water Management.....	18
4.2 Private Open Space.....	20
4.3 Privacy	21
4.4 Solar Access.....	23
4.5 Energy Efficiency.....	24
4.7 Water Efficiency	26
4.8 Safety and Security.....	27
4.9 Environmental Education	28
5. FACILITIES AND ACCESS	30
5.1 Parking.....	30
5.2 Driveways and Manoeuvring Area.....	30
5.3 Storage	31
5.4 Barrier Free Access	31
5.5 Utilities/Site Facilities	32
5.6 Waste and Management	33
5.7 Off-Site Traffic Management Works	34
 FIGURES	
1. The Land to which this Plan Applies	10.1 Block Study 4
1a. Master Plan Overview	10.2 Sections M - M+ N - N
2. Density Zones	10.3 Section O - O, Bundock Street Elevation
3. Built Form Controls	11. Sections G + H
4. Architectural Consistency	12. Sections I + J
5. Setbacks and Landscaping	13. Sections K + L
6. Key for Block Studies and Sections Controls (Figures 7 – 15)	14. Block Study 5
7. Block Study 1	15. Block Study 6
8. Block Study 2	16. Staged Traffic Management Improvements
9. Block Study 3	17. Staging Plan

Definitions

Attic	The area contained wholly within the roof envelope where the roof envelope has a maximum pitch of 36 degrees except on the side of a building where the wall of an attic abuts an existing or a simultaneously constructed party wall.
Articulation zone	The zones indicated on Figures 3 and 7 to 15 provide an area for architectural expression and modulation within which, balconies, terraces, porches, bay windows, planters and the like are permitted.
Building envelope	For a site, is the three dimensional space within which residential development may take place. It is defined by combining building setback, landscaped area and height controls for the site. It includes the primary building zone, the articulation zone, any single storey element at ground floor level to the rear of the primary building zone and building elements to the front of the primary building zone as indicated on Figures 7 to 15.
Building height	The vertical distance from the highest point on the building to the ground level and includes ancillary services, installations and works (including works to conceal and integrate services) unless the Council is satisfied that they will not adversely affect the amenity of adjoining or nearby land.
Council	The Council of the City of Randwick
Dwelling house	A building containing one (but not more than one) dwelling.
Floor space ratio	The ratio of the total gross floor area of all buildings (existing and any proposed) to the site area.
Gross floor area	<p>The sum of the areas of each level of a building where the area of each level is taken to be the area within the inner face of the external enclosing walls and the area of any attic measures at 2.1 metres above floor level of the attic, excluding:</p> <ul style="list-style-type: none">(a) columns, fin walls, shading devices, awnings, balconies and any other elements, projections or works outside the general lines of the outer face of the external wall, and(b) lift towers, cooling towers, machinery and plant rooms, and air-conditioning ducts, and(c) associated car parking and any internal vehicular or pedestrian access to that parking (to ground level), and(d) space for the loading and unloading of goods.
Ground level	The ground level that exists after completion of earthworks and re-contouring of the site as determined by the applicable Commonwealth works approval or by any development consent issued for the land. Any variation will require the approval of Council.
Landscaped area	The part of a site area which is used, or capable of being used, for outdoor recreation or garden areas (such as lawns, gardens, unroofed swimming pools, clothes drying areas, barbecue areas, footpaths and the like) and includes landscaped podium areas and water tanks located at ground level. It does not include areas used for parking, driveways, balconies, rooftop gardens or areas used for garbage or recycling material storage or sorting.
Maximum building	The maximum depth of any part of a residential building above ground

depth	floor level containing gross floor area.
Multi-unit housing	Two or more dwellings, whether or not attached.
Neighbourhood	The land to which the DCP applies and is outlined in heavy black on Figure 1.
Primary building zone	The depth of a residential building above ground floor level excluding any articulation zones.
Roof Zone	The zones indicated on Figures 3 and 7 to 15 within which pitched, curved or flat roofs, gables, dormers, skylights, roof terraces, decks, balconies, planters and the like are permitted.
Site area	In relation to development means the area of land to which an application for consent to carry out development relates.
Soft landscaping	An area of unimpeded deep soil landscaping including gardens, lawns and mature tree planting and excluding areas over podiums and basement car parking, swimming pools, paving, garbage storage or sorting areas, sheds and the like.
Storey	Any floor or part of a floor regardless of use, but does not include an attic or a basement that does not protrude more than 1.2 metres above ground level.
The LEP	Randwick Local Environmental Plan 1998.
Wall Height	The vertical distance from the highest point as an external wall to the ground level of that wall. Each external wall height measurement must include gable ends and attic walls with an area over 6 m ² and dormer windows that protrude horizontally from the roof more than 2.5m.

General Information

1.1 Purpose

This Development Control Plan (DCP) guides and prescribes the built form and the environmental and amenity standards and requirements for the Defence site at Bundock and Avoca Streets, Kingsford.

1.2 Introduction

This Development Control Plan has been prepared in accordance with Section 72 of the Environmental Planning and Assessment Act, 1979 and the Environmental Planning and Assessment Regulation, 2000. The DCP contains more detailed provisions than in Randwick Local Environmental Plan 1998 (the LEP) in relation to development on the former Department of Defence site at Bundock Street and Avoca Streets, Kingsford.

The DCP applies to the land indicated on Figure 1.

The DCP is based on a master plan for the Defence Site land adopted by Council on 13 November, 2001 with variations.

Under Section 79C of the Environmental Planning and Assessment Act 1979, Council is required to take into account the provisions of this DCP when it determines development applications on land within the DCP area.

1.3 Relationship to Other Environmental Planning Instruments, Development Control Plans, Codes and Policies

This plan must be read in conjunction with the LEP which is the principal environmental planning instrument applying to the site.

This plan must be read in conjunction with any master plan adopted by Council that may apply.

Council's other DCPs and codes may be relevant to particular developments and applicants should check with Council to determine whether other plans and policies apply. To the extent of any inconsistency between this DCP and any other DCP, this DCP will prevail.

1.4 How to Use this DCP

Section 1 is the purpose and introduction to the DCP.

Section 2 is about subdividing land (other than strata subdivision).

Section 3 is about locating and designing residential buildings. The key elements are:

1. Density (floor space ratio)
2. Height
3. Landscaped area
4. Building envelope controls and
5. Activity strips.

The elements are also illustrated in Figures 2 to 15.

Section 4 is about environmental standards and requirements. The key elements are:

1. Landscaped area and water management;
2. Private open space;
3. Privacy;
4. Solar access;
5. Energy efficiency;
6. Water efficiency; and
7. Safety and security.

Section 5 is about access and facilities. Key elements are:

1. Parking;
2. Driveways and manoeuvring areas;
3. Barrier free access;
4. Storage;
5. Utilities and site facilities; and
6. Waste management.
7. Off-site traffic management works

Each element has its own sub-section that includes:

1. An Introduction
2. Objectives - the aims and outcomes to be achieved.
3. Controls - clear statements of minimum mandatory requirements and standards.

1.5 Submitting a Development Application

General Requirements

Prior to lodging a development application (DA), applicants are encouraged to discuss their proposal with Council's planning officers. Council considers that pre DA lodgement meetings are a very important part of the development assessment process as they can identify potential problems at an early stage. They also provide a valuable opportunity for Council to convey to potential applicants the requirements and intent of this development control plan.

Before lodging an application, applicants must also seek advice about Council's requirements for development applications.

A development application must include:

- a development application form, including the development application checklist, correctly completed and accompanied by all documents and information required;
- six* sets of drawings to scale (site analysis, site and landscape plan, floor plans, shadow diagrams, elevations and sections); at least three sets of drawings are to be coloured for presentation and exhibition purposes;
- one set of drawings on A4 paper for exhibition purposes;
- six* copies of a Statement of Environmental Effects (see below for details);
- the application fee;
- the written authority of the landowner where the applicant is not the owner; and
- advice from servicing authorities.

Note* refer to Council as additional plans may be required for certain DAs

The following information is to be provided:

i) Site Analysis

A drawing of the existing features of the site, at the same scale as the site plan, indicating, but not necessarily limited to:

- site dimensions, site area and north point;
- location and uses of any existing buildings on the land;
- building envelopes applicable to the land;
- location of any adjoining building and adjoining building envelopes and landscaped areas;
- location, uses and height of adjacent buildings and open space, showing window openings in the wall of adjacent buildings which face the site boundary;
- location of the site in relation to shops, community facilities and transport;

- major trees on the site, on adjacent properties and street trees, identified by size and botanical or common names;
- pedestrian and vehicular access;
- the fall of the land, showing spot levels and contours at 0.5 metre intervals and related to a benchmark on the road;
- location of utility services (including electricity poles), stormwater drainage lines, natural drainage, kerb crossings, and easements;
- existing view lines to, from and through the site;
- the form and character of adjacent buildings of the streetscape (within the same block, on both sides of the road);
- heritage features, including archaeology within and in the vicinity of the site;
- significant noise source;
- prevailing winds; and
- overshadowing of the site and adjoining properties by neighbouring structures and trees.

ii) Site and Landscape Plan

A drawing of the proposed development, at a scale of 1:100 or 1:200, indicating:

- location of proposed buildings (including extensions or additions to existing buildings) in relation to the site boundaries;
- existing and finished ground levels and their relationship to the building and site boundaries;
- measurements in relation to building and landscaped area controls;
- proposed parking arrangements, vehicular entrance, exit and movements on the land, (including dimensions where appropriate);
- proposed landscaping and treatment of the site showing the extent of soft and hard landscaping, soil depth, plant types and their height at full growth, details of paving and hard standing areas, drainage and irrigation systems and the like;
- shadow diagrams indicating over-shadowing caused by the proposed development on the site and neighbouring properties at 9.00am, 12 noon and 3.00pm on 21 June, adequate to indicate whether the requirements of Section 4.4 of this DCP - Solar Access are satisfied, and showing comparisons with existing overshadowing;
- proposed method of stormwater disposal and watering/irrigation and rainwater tank systems.

iii) Floor Plans, Elevations and Sections

Drawings of the proposed development, at a scale of 1:100 or 1:200 indicating:

- internal layout, partitioning and intended uses of each part of each building;
- location of window and door openings;

- floor levels of all proposed buildings and relationship to existing buildings;
- section(s) showing wall and ridge heights of neighbouring buildings;
- proposed finished levels of the land in relation to buildings and boundaries;
- outline of the maximum allowed building height;
- locations of satellite dishes, lift overrun areas and other services and facilities (if any);
- at least one section along each axis of every building showing walls, floors, decks, ceiling and roof levels in relation to boundaries;
- proposed materials, finishes and colours.

iv) Perspective Drawings and/or a Model

Models should be at the scale of at least 1:200, and may be required as part of the application, where Council identifies the need. A model is desirable for any proposed multi-unit housing development which includes more than 15 dwellings. Any perspective drawings and/or models must show the relationship of the proposed development to all adjoining properties and their existing or potential built form and landscape area.

v) Statement of Environmental Effects

This statement must:

- describe the proposed development including any preliminary site work and proposed uses;
- identify and assess the environmental impact of the development;
- set out measures taken to mitigate any likely adverse environmental impact;
- address the requirements of the LEP and this Development Control Plan;
- demonstrate compliance with environmental controls and identify any additional measures that further enhance ecologically sustainable development;
- demonstrate testing of some typical dwellings for NatHERS rating requirements of the DCP; and
- provide comprehensive justification for any non-compliance with any control in the DCP having regard to the objectives of the control.

Subdivision Applications

An application for development consent for the creation of an allotment of land for housing having an area less than 450 m² shall be accompanied by plans indicating for each allotment:

- (a) building siting and design;
- (b) a building envelope plan for each lot consistent with the building envelopes in this DCP;
- (c) vehicle access and parking arrangements;

- (d) provision of private open space and landscaping;
- (e) provision for services (such as garbage, storage and clothes drying);
- (f) stormwater management principles;
- (g) compliance with height, setback, landscape, private open space, solar access and other similar Controls and requirements in Section 3.

Applications to Erect Buildings

A development application to erect of multi unit housing or a dwelling house must be accompanied by a design verification from a person registered as an architect in accordance with the Architects Act 1921. The design verification statement must include verification that the designer has designed or directed the design of the building(s).

In addition, a Statement of Environmental Effects must include, if the development application relates to a multi-unit housing or a dwelling house, the following:

- (a) drawings of the proposed development in the context of surrounding development (if any), building envelopes, including the streetscape;
- (b) development compliance with building heights, setbacks and building envelope controls (as applicable) marked on plans, sections and elevations;
- (c) a sample board of the proposed materials and colours of the façade;
- (d) elevations of the proposed development in the context of the surrounding development; and
- (e) detailed sections of proposed facades (minimum scale of 1:100).
- (f) Demonstrate consistency with the principles of ecologically sustainable development.

Applicants are reminded to refer to State Environmental Planning Policy 65 – Design Quality of Residential Flat Development.

Dilapidation Reports

Where necessary Council will require the submission of dilapidation reports, prepared by a structural or geotechnical engineer or suitably qualified professional, covering existing development in the near vicinity to the proposed development, which in the opinion of the engineer and/or Council may be affected by vibration or an adverse impact which may arise from on site construction activity, such as, excavations, earthworks, demolitions or similar. The report is to detail the current condition and status of all buildings and ancillary structures and is to be supported by photographic evidence.

A copy of the report is to be provided to Council and each of the property owners subject of the dilapidation report, prior to the commencement of any works.

Other Reports

- Environmental education kit to satisfy item 4.9 of this DCP
- Waste management plan to satisfy item 5.6 of this DCP

2. Land Subdivision - Lot Size and Orientation

Objectives

- O1 To provide a range and mix of lot sizes with areas and dimensions suitable for the permitted land uses and a variety of building types.
- O2 To enable lot sizes that facilitate housing diversity and choice.
- O3 To promote and facilitate ecologically sustainable development and micro climate management by providing lots that are appropriately oriented.
- O4 To ensure that all lots have a primary street frontage.
- O5 To arrange lots in a manner that facilitates personal and property safety and security.
- O6 To ensure lots have total areas and dimensions that allow dwellings, ancillary buildings, private outdoor open space; landscaped areas and vehicle access and parking to be located and constructed appropriately.

Controls

- C1. Lots with direct vehicle access to car parking areas from a public road are to have a minimum width of 9 metres (this control does not apply if parking access is not on the primary street frontage).
- C2. Lots with rear boundaries adjoining Holmes Street properties are to respect the subdivision pattern of lots on Holmes Street within the same block.
- C3. Corner lots are to have a size and shape that can accommodate development that results in a positive response to the prominent position of the corner and its frontage to two streets.
- C4. All lots are to provide frontages oriented to streets and public open spaces to provide a clear address and so that personal and property security, deterrence of crime and vandalism, and surveillance of footpaths and public open space is facilitated.
- C5. Lots are to be oriented so that dwellings can take advantage of microclimatic benefits and can have dimensions that allow adequate on-site solar access and access to breezes.
- C6. Lots are to be designed to maximise efficiency in house plans and useable external areas by having a regular shape.
- C7. Battleaxe block are not permitted.

3. Residential Building Location and Design

The key elements of residential building location and design are the floor space ratio, height, landscaped area and building envelope controls. The building envelope represents the potential maximum limit of the built form. The limit may not be achieved in certain circumstances due to the combination of floor space, height, landscaped area and solar access controls.

The building envelope is the three dimensional space within which a residential building can be constructed. The footprint of the building envelope is subject to a combination of setback, garden zone and landscaped area controls. Wall, building, podium and attic heights further define the size of the building envelope. The building envelope includes the primary building zone, the articulation zone and any single storey element at ground floor level to the rear of the primary building zone.

The controls in this DCP will result in streetscape consistency and a coordinated built environment characterised by front garden zones, regular street alignments, defined building zones and rear garden zones. The rear garden zones together provide a contiguous area of green capable of accommodating private outdoor recreation space and mature tree landscaping of shared amenity value.

Built form controls are expressed in the text of the DCP, in **Figures 2 to 15** and in illustrative diagrams throughout the text. **Figure 2** illustrates building density zones where gross floor area is expressed as a potential maximum floor space ratio. **Figure 3** tabulates floor space ratio, height and landscaped area and illustrates some building envelopes. **Figure 4** indicates architectural consistency. **Figure 5** indicates setback and garden zone controls.

Figures **6 to 15** are block studies that illustrate the building envelope, setback and garden zone controls for various blocks within the DCP area. In some cases there are inconsistencies between the site wide studies **Figures 3 and 5** and the block studies **Figures 6 to 15**. This is because of the topographic or other features of a block which have been addressed in the more detailed block studies.

Note: Where controls *other than height, landscaped area or floor space ratio* differ, **Figures 6 to 15** prevail to the extent of any inconsistency.

In all instances, the relevant provisions of the Randwick LEP prevail over the provisions of this DCP.

3.1 Density

Objectives

O1 To control the bulk and scale of development.

- O2 To ensure building bulk is compatible with the surrounding built form and minimizes the impact of building bulk on existing buildings in the locality, open spaces and streetscape.
- O3 To set appropriate density controls that reflect the desired future character of the area.
- O4 To encourage a mix of dwelling sizes and types.

Controls

- C1. The maximum floor space ratio for a residential building in any density zone must not exceed the floor space ratio indicated for that density zone in **Figure 2**.

3.2 Height

Objectives

- O1. To ensure building height relates to the context of the building including the street type, park frontage (where applicable) and density zone.
- O2. To ensure that higher buildings are located appropriately and in accordance with the Master Plan adopted with variations by Council in November 2001 for the Bundock Street Defence Land.
- O3. To ensure that buildings fronting existing streets are compatible with the character and form of dwellings in these streets. Building height at the street frontage must maintain a compatible scale with adjacent and opposite development.
- O4. To minimise the impact of development on adjoining and nearby land and areas of natural heritage conservation significance
- O5. To control the bulk and scale of development through appropriate height limits.
- O6. To ensure that there is sympathetic transition to the prevailing scale and character of buildings in the neighbourhood.
- O7. To ensure appropriate ceiling heights for all habitable rooms.
- O8. To allow for some variation in massing and height to create visual interest.

Controls

- C1. The external wall height of a residential building in any density zone indicated on **Figure 2** must not exceed the wall height indicated for that density zone in the table in **Figure 3** unless varied because of site specific features in **Figures 7 to 15**.

- C2. The building height in any density zone on **Figure 2** must not exceed the height indicated for that density zone in the table on **Figure 3** unless varied because of site specific features by Figures **7 to 15**.
- C3. The number of storeys in a residential building in any density zone indicated on **Figure 2** must not exceed the number of storeys indicated for that density zone on the table in **Figure 3**.
- C4. A minimum ceiling height of 2.7m is required for all habitable rooms (except those within an attic).

3.3 Building Footprints and Landscape Area

Street frontage setbacks relate to the character of the streetscape and are discussed in Section 3.4 of this DCP.

Objectives

- O1. To locate buildings so that the provision and use of outdoor areas is maximised.
- O2. To provide a degree of consistency in building alignments, heights and garden areas so that a neighbourhood character can be established, while allowing sufficient diversity and variety in housing types and design.
- O3. To ensure building setbacks from the public street are generally consistent with those of adjoining development and relate to streetscape components such as buildings, street trees, the width of the road reserve, park frontages and street character.
- O4. To provide a built form that optimises solar access and cross ventilation.
- O5. To minimise the impact of development on adjoining land.
- O6. To provide adequate space for landscaping, visual and acoustic privacy, sunlight penetration and private open space.
- O7. To provide equity and certainty with building locations
- O8. To provide side and rear setbacks that are related to the nature of dwellings proposed and ensure adequate separation between buildings.
- O9. To encourage rear landscaped areas that contribute to contiguous garden zones at the rear of lots.
- O10. To limit the length of side boundary walls consistent with neighbours.

Controls

- C1. The percentage of a site area that is to be landscaped must not be less than the percentage indicated in the table at **Figure 3** for the site's density zone.

- C2. Front building setbacks and rear garden zones must be no less than the dimensions shown on **Figures 3, 5 and 7 to 15**. Building setback is measured from the property boundary to any part of a building including parts of a building within the articulation zone.
- C3. At least 50% of the front building setback is to be soft landscaping.
- C4. Building articulation is to be provided within the articulation zones indicated on **Figures 3 and Figures 7 to 15** or within the primary building zone. It may include gross floor area where that gross floor area does not exceed 30% of the area of the articulation zone of any floor on any façade. Bay windows are not permitted in an articulation zone if the setback is less than 3 metres from a side or rear boundary. The ground floor area of an articulation zone can be occupied by building where indicated on Figures 3 and 7 to 15.
- C5. The primary building zone is to have a depth of typically 12 metres as indicated in **Figures 3 and 7 to 15**.
- C6. Walls are permitted on side boundaries behind the primary building zone where they:
- contain no windows overlooking other properties;
 - have an average height of no more than 3 m, a maximum height of 3.5 m, and a length no greater than 55% of the distance between the primary building zone and the rear boundary, unless they:
 - are a higher existing or simultaneously constructed wall;
 - are in accordance with an approved building envelope plan submitted as part of a subdivision application.

3.4 Neighbourhood character and Architectural Quality

Objectives

- O1. To ensure buildings are of high visual quality, enhance the streetscape and complement good quality development in the neighbourhood.
- O2. To promote high quality contemporary architectural designs that avoid inappropriate historical copies and inappropriately remote styles.
- O3. To integrate appropriate environmental design and building orientation with architectural character.
- O4. To arrange buildings in a manner that addresses the street and enhances personal and property safety and security.
- O5. To ensure that garages, parking structures and parking areas are located and designed so they do not to dominate the street frontage.

- O6. To ensure fences on street frontages are designed addresses the amenity of the street, surveillance and safety, security of private property, and the use of front garden space.

Controls

Building Appearance and Neighbourhood Character

- C1. Building fronts and entries are to be readily apparent from the street and convey a sense of address. Buildings fronting the public street must have their main entrance and windows from some habitable rooms facing the street. Building detailing and articulation must enable individual dwellings to be identified from the street.
- C2. Buildings are to be aligned predominantly parallel to the street boundary and predominantly to the street setback line.
- C3. Building facades are to provide environmental amenity through sun shading devices, privacy screens and noise barriers combined with useable outdoor areas.
- C4. Where the ground floor units of multi unit housing address the street, at least 50% of those ground floor units are to have a separate direct entrance from the street.
- C5. The maximum unarticulated building length is 9 metres along the primary street frontage (**Figure 5**) and 15.6 metres for secondary street frontages (**Figure 5**). Punctuation by bay windows, verandahs, balconies or wall offsets is considered to be adequate articulation.
- C6. At least one third of the face area of podium walls more than 1.2 metres above ground are faced with mechanically fixed sandstone (anticipates 100mm to 75mm minimum thickness). Adhesive fixing is not permitted.
- C7. Building facades to streets are to incorporate the following design characteristics:
- Well proportioned and spaced windows appropriate to their orientation;
 - Architectural features at ground level that reinforce dwelling address such as entrance porches;
 - Well balanced projected and recessed sections of balconies;
 - Use of appropriate environmental controls such as verandahs, sliding screens, window hoods and the like;
 - Coordinated and compatible materials and finishes where neutral colours predominate with strong colours limited to accent elements up to a maximum of 10% of the façade area;
- C8. Building design is to achieve the architectural consistency principles indicated on **Figure 4**. “Integrated manner”, where referred to on **Figure 4**, means that development shall be designed to be compatible with the existing development

on adjoining sites within the relevant block or with future development in accordance with this DCP on those adjoining sites.

- C9. Buildings should avoid the use of applied historical façade elements and their combination.
- C10. Buildings should generally accord with existing or future neighbouring developments in terms of:
- Wall and building heights;
 - Setbacks;
 - Scale of elements

Overly discordant building forms are discouraged.

Roof Design

- C1. Solar collectors, mechanical plant (including lift plant), communications devices, water storage tanks and other similar elements located on roofs must be either flush with the roof or integrated into the built form so they are screened from view from the public street.

Garages

- C1. Carports and garages fronting public streets are to:
- have a maximum opening width of 6 m or 1/3 of the width of the lot, whichever is less;
 - be set at least 1 metre behind the street edge of the primary building zone.
- C2. Carports and garages are to be located off private rear lanes or in basements where lots have frontage width less than 9 metres.
- C3. Carports and garages fronting public streets are to be integrated with building design;

Fences

- C1. Solid fences facing the street or between the street and the primary building zone are to be no higher than 1.2 metres. This may be increased to 1.8 metres where the fence has openings that make it at least 50% transparent.
- C2. Solid front fences up to a maximum of 1.8 metres are only permissible where the site fronts Avoca Street. Design of such fences should be modeled and integrated with landscape treatment and appropriately signify building entry.
- C3. Solid fences to walkways, easements and lanes (that are not also primary frontages) are permitted to a height of 1.8m.

3.5 Activity Strip

Objectives

- O1. To enable certain non-residential uses permitted by the LEP, such as neighbourhood business premises, local shops, medical centres or restaurants on land marked as an activity strip within **Figure 2**.
- O2. To encourage neighbourhood convenience type retail use with active frontages
- O3. To ensure non residential use of land does not have an adverse effect on residential amenity.
- O4. To provide for small scale businesses and services which primarily serve the local community.

Controls

- C1. The non-residential use is limited to the ground floor area of a building on a site marked with an activity strip on **Figure 2**.
- C2. The build to line is to be observed consistently along the street frontage.
- C3. All ground floor units along an activity strip are to have fronts addressing the street and predominantly glass shop fronts
- C4. Designs are to provide easy conversion between residential uses and non-residential uses
- C5. Awnings over a public footway are to be:
 - a minimum clear height of 3 metres above the footpath
 - a depth of 2 metres where non-residential uses adjoin
 - not less than 600mm from the edge of the road/kerb
- C6. Adequate provision is to be made for natural lighting, ventilation, internal storage needs, waste storage, collection and servicing.
- C7. Advertising signs are to be in accordance with the Randwick Council Development Control Plan for Outdoor Advertising
- C8. Outdoor restaurant seating and the like is to be in accordance with the Randwick Council Development Control Plan for Restaurants on Public Road Footways, Airspace above Roads and Public Land

4. Environmental Design

4.1 Landscaped Area and Water Management

Introduction

Landscaped areas provide the context and setting for locating buildings, works and services. A landscaped area includes both private and communal open space and is an important component of overall design. It contributes to the relationship of a building to adjoining and nearby development and contributes significantly to the level of amenity and quality of life.

Landscaping can be used to reduce the impact of a building on adjoining development and is a useful mechanism in implementing microclimate objectives. Landscaping should help to provide 'outdoor rooms' suitable for a range of uses and activities.

The design of the landscape and the species that are selected can also have a significant effect on the quality and quantity of the stormwater leaving the site and on the amount of water needed for irrigation and watering.

Section 3.4 details the amount of landscaped area to be provided on lots and where the landscaped areas should be located.

Objectives

- O1. To ensure that adequate landscaped areas are provided for new development.
- O2. To ensure that landscaped areas enhance and contribute to the desired future character of the locality.
- O3. To ensure that landscaped areas soften the visual impact of development, both to the street and to adjoining properties.
- O4. To provide landscaped areas that are capable of supporting substantial vegetation and large tree planting.
- O5. To use landscape elements to blend new development into the streetscape and local neighbourhood.
- O6. To promote the use of local native plant species grown from local provenance seed and therefore to protect against the loss of unique gene pools.
- O7. To encourage landscape design that minimises water, fertilizer and herbicide use and demand.
- O8. To encourage landscape design that contributes positively to stormwater management and reduces areas of hard paving.

- O9. To encourage rainwater harvesting for non-potable (non-drinkable) use such as garden irrigation and watering, carwashing and toilet flushing.

Controls

- C1. Landscape designs are to respond to the microclimatic characteristics affecting the site to ensure that species survive in such conditions.
- C2. Landscape designs are to suit the scale of the space and surrounding buildings and are to reflect and facilitate the likely predominant functions of the landscaped area.
- C3. At least 1 tree capable of growing to a minimum mature height of 12 metres for each 80 m² of soft landscaped area is to be provided.
- C4. At least two thirds of the area occupied by external carparks, driveways, courtyards, pathways and the like are to be laid with porous paving. Areas above underground parking and driveway ramps steeper than 1 in 10 are excluded from the calculation for this requirement.
- C5. Garden irrigation and watering systems are to be connected to rainwater storage facilities.
- C6. Trees and shrubs are to be selected and positioned to maximise solar penetration in winter and minimise it in summer (e.g deciduous plants on the north side of private open space)
- C7. Landscaping must include a predominance of:
- Native landscape plant species grown from local provenance seed.
 - Species that are drought resistant, and require minimal watering once established, or species with water needs that match rainfall and drainage conditions;
 - Water conserving landscape practices / designs;
 - Native ground covers and grasses in garden beds and path surrounds. Turf is to be confined to useable outdoor areas; and
 - Alternative water sources for irrigation and watering, such as rainwater, tanks or cisterns.
- C8. Landscape species are to be selected and located to promote safety and surveillance of the street and pedestrian access ways.
- C9. Landscaped areas must include an area dedicated to on-site composting of a size relevant to the number of dwellings and the landscaped area it serves.
- C10. Shrubs, groundcovers, trees and ornamental grasses are not to be placed within Council's nature strip without its prior written approval.
- C11. Landscape areas are to be contoured to encourage stormwater runoff to infiltrate to ground.

- C12. Ground or seepage water is to be disposed of on site to either an irrigation or infiltration system.

4.2 Private Open Space

Objectives

- O1. To ensure that the private open space provided is adequate to serve the needs of the residents of the development and meet user requirements for privacy, access, outdoor activities and landscaping.
- O2. To set appropriate standards for the size, shape and location of private open space.
- O3. To ensure a variety of private open spaces are provided for each dwelling such as primary open spaces off living rooms, secondary balconies off bedrooms and screened service balconies off kitchens and laundries.

Controls

- C1. Each dwelling house or ground floor unit in multi unit housing must have an area of useable private open space, or private courtyard area at ground or podium level that has direct private access from a living area of the dwelling. Other forms of housing (such as units above ground floor) are to have private open space in the form of a balcony, deck or roof garden, directly accessible from the dwelling.
- C2. A ground level or podium level courtyard is to have a minimum area of 25 m² and a minimum dimension of 3.6 metres.
- C3. The location of the private open space must take into account factors such as access to sunlight, outlook, privacy and the location of adjoining dwellings and their windows.
- C4. Private open space should be provided between the front of the building and the street only where building setback, landscaping and fence design achieve a sympathetic relationship with the street.
- C5. Private open space for units above ground level in the form of balconies, verandahs, terraces, roof gardens and the like is to be provided at, or greater than the rate of 15% of the gross floor area of the unit. A single space with minimum dimensions of 2 x 4metres directly access from the primary living areas of the dwelling is to comprise part of this required private open space. Common open space areas are to be in addition to this minimum requirement.
- C6. Primary above ground private open spaces are not to have a south orientation.
- C7. Screening to private open space up to 1.8 metres in height can be provided where necessary and where there are no other design alternatives to ensure privacy. The design and materials for screens must be compatible with the streetscape, the primary built form and its articulation.

4.3 Privacy

Objectives

- O1. To recognise the importance of both visual and acoustic privacy in the design of residential development.
- O2. To ensure that new development respects the existing level of privacy of adjoining and nearby properties and minimizes adverse privacy impacts.
- O3. To ensure that new development is designed so that its occupants will enjoy a reasonable degree of privacy within the development.
- O4. To locate noise-sensitive rooms and secluded private open spaces away from noise sources, and to protect them through appropriate noise-shielding techniques.
- O5. To encourage building design that assists in minimising sound transmissions through the buildings, and particularly protects sleeping and living areas from possible noise intrusion.

Controls

Visual Privacy

- C1. Direct overlooking of main internal living areas and private open spaces of other dwellings is to be minimised by building layout, location and design of windows and balconies, screening devices, landscape elements or remoteness. Effectively locating windows and balconies to avoid overlooking is preferred to screening devices, high sills or obscured glass. Where these are used, they should be integrated with the building design and have minimal negative effect on residents' or neighbours' amenity.
- C2. Habitable room windows with a direct outlook to the habitable room windows of any floor above ground floor in an adjacent dwelling within 12 m:
 - Are to be offset from the edge of one window to the edge of the other by a distance sufficient to limit views into the adjacent windows;
 - Have appropriate permanent privacy screening;
 - Have sill heights of 1.6 m above floor level; or
 - Have fixed obscure glazing in any part of the window below 1.6 m above floor level.
- C3. The outlook from windows, balconies, stairs, landings, terraces and decks or other private, communal or public areas within a development is to be obscured or screened where a direct view is available into the private open space of an existing or other proposed dwelling.

If screening is used, site lines are to be provided in development application plans and sections to demonstrate its effectiveness.

No screening is required where:

- Windows are in bathrooms, toilets, laundries, storage rooms or other non-habitable rooms and they have translucent glazing or sill heights of are least 1.6 m;
 - Windows are in habitable rooms and they have sill heights of 1.6 m or more above floor level or translucent glazing to any part of a window less than 1.6 m above floor level.
- C4. Windows and balconies of an upper-level dwelling are to be designed to prevent overlooking of more than 50% of the private open space of a lower-level dwelling directly below and within the same development.
- C5. Direct views may be obscured by solid translucent screens, perforated panels, trellises or the like which have a maximum of 25% openings, and which are:
- Permanent and fixed;
 - Of durable materials;
 - Designed and painted or coloured to blend in with the development.

Acoustic Privacy

- C1. Dwellings affected by noise sources (eg Avoca Street and flight paths, refer to master plan and Air Services Australia) shall be designed in accordance with relevant Australian Standards, such as:
- Australian Standard 3671-1989 "Acoustics - Road traffic noise intrusion"
 - Australian Standard 2021-2000 "Acoustics - Aircraft noise intrusion".
- C2. Where bedroom windows are within 3m from shared streets, driveways or parking areas, additional acoustic and privacy measures are to be incorporated.
- C3. Shared walls and floors between dwellings are to be constructed in accordance with the noise transmissions and insulation requirements of the Building Code of Australia.
- C4. All mechanical plant and equipment is to be acoustically screened to minimise noise to neighbours.
- C5. Noise level from mechanical plant is not to exceed 5dBA above ambient background noise level measured at the property boundary.

4.4 Solar Access

Objectives

- O1. To provide living areas, private open space areas and public open space with adequate sunlight.
- O2. To allow reasonable solar access for the purpose of water heating and electricity generation for new development and adjoining properties.
- O3. To minimise undue overshadowing of neighboring sites.

Controls

- C1. The landscaping, orientation, siting and dwelling layout are to ensure solar access to living areas and private open space and maximise use of cooling breezes.
- C2. The design of a development is to minimise overshadowing of neighbours' dwellings, their private open space or any solar collectors.
- C3. Windows are to be located, sized and shaded to maximise sunshine access and penetration in winter and exclude it in summer, with large windows facing a northerly direction. Western and south western orientation of large expanses of glass is to be generally avoided or minimised and protected with effective shading devices.
- C4. Window shading devices are to be provided and designed for the window's orientation and exposure to hot summer sun. Shading devices can include external screens, hoods, overhanging balconies, eaves, verandahs or pergolas.
- C5. Trees and plants are to be selected and planted to provide shade in summer yet also allow winter sun entry.
- C6. For 1 and 2 storey developments:
 - The principle living room is to have at least 2 hours sunlight reaching 2 m² of glazing to that room between 9.00am and 3.00pm on June 21;
 - sunlight is to be available to the principal area of ground level private open space for at least 2 hours between 9.00am and 3.00pm on June 21.
- C7. For 3 or more storey developments at least 75% of residential units are to have one living room which has at least 2 hours of sunlight reaching 2 m² of glazing to that room between 9.00am and 3.00pm on June 21.

4.5 Energy Efficiency

Objectives

- O1. To minimise demand for energy and promote renewable and energy efficient energy use in residential development, while achieving year round comfort and utility. (Electricity produces about 5 times as much CO² than gas, per unit of energy at the point of use)
- O2. To use the natural climatic advantages of the coastal location such as cooling summer breezes, and exposure to unobstructed winter sunlight to assist minimize energy need.

Controls

- C1. Materials and insulation are to be selected to help keep dwellings warm in winter and cool in summer. Materials of high thermal mass, such as brick, concrete or stone are used within living areas and located to receive maximum sunshine in winter months, and be well shaded in summer.
- C2. Building materials, appliances and fuel sources are to be selected to minimise greenhouse gas emissions.
- C3. Buildings are to have an area of roof with appropriate orientation and pitch, suitable for installing solar collectors.
- C4. All developments shall have adequate insulation to the recommended level Australian Standard 2627 – 1993 “Thermal insulation of dwellings”.
- C5. Buildings are to be made of materials that have a higher thermal mass value such as bricks, concrete and stone. Where timber is used it is to be plantation, recycled or regrowth timber. No rainforest or old growth timber is to be used.
- C6. 1 and 2 storey developments are to demonstrate energy efficient design achieving a NatHERS rating of not less than 4 stars.
- C7. 3 or more storey developments are to demonstrate energy efficient design achieving a NatHERS rating of not less than 4.5 stars.
- C8. In relation to controls C6 and C7, any non-compliance with the ratings nominated is to be justified in a report prepared by an expert in this area that comprehensively assesses the energy performance of the building and demonstrates compliance with the objectives of these controls.
- C9. Solar water heaters are to be provided, as follows:
 - The development shall maximise the use of renewable energy, whilst minimising the visual impact of solar hot water heaters by integrating them into building design. Solar water heaters are to be positioned in a suitable position back from the street frontage, ensuring that mature trees will not shade the heater and that the colour is complementary to that of the roof.

- Dwelling houses shall install adequately sized solar hot water heaters (5-star gas boosted, if necessary), in accordance with manufacturers recommendations and any Council guidelines. It is preferred that the unit has the capacity to heat and cool.
- Multi unit housing shall install adequately sized (5-star gas boosted) solar hot water heaters in accordance with manufacturers recommendations and Council guidelines. Where possible it is encouraged that the unit installed is a centralised five star gas-boosted solar water heater system, with separate meters for each unit.

- C10. Electric hot water heating is not to be installed.
- C11. 5-star gas or solar heating is provided for pools and spas.
- C12. Energy efficient lighting and control systems are to be provided in all common and outdoor areas including basement car parks in multi unit developments.
- C13. Gas is to be plumbed into the kitchen and living rooms and any other rooms as desired.
- C14. Open fire places are not to be installed.
- C15. External drying areas are to be available and readily accessible to all dwellings and sited to receive good winter sun and breezes.
- C16. Water flow reducing fittings or flow reduction valves are to be installed to all service outlets.
- C17. Windows and building layout should facilitate summer cooling by cross ventilation. No dwelling is to rely solely on air-conditioning for thermal comfort.
- C18. Internal rooms reliant on artificial lighting and mechanical ventilation should be minimised.
- C19. Except along activity strips, all carparking areas should be naturally ventilated.
- C20. Doors and windows and their openings are to have adequate means of draught control.
- C21. Where practical and appropriate, skylights and/or wind powered ventilators are installed to enhance natural light and ventilation.
- C22. Roof spaces are to be ventilated.
- C23. In all dwellings a maximum of 50% of lighting should be incandescent or low voltage.
- C24. Materials selection takes into account the life cycle effect of their manufacture, use and disposal.
- C25. The use of PVC is to be minimised.

NB: The following measures are encouraged:

- The use of alternative energy sources such as rooftop photovoltaic cells to meet some of the dwellings' electricity demand and sell back to the grid.
- The use of light fittings with high efficiency reflectors suitable for compact florescent lamps or tubes (these consume four times less electricity than standard incandescent light bulbs, last eight times longer and provide the same level of light).
- Dimmers for all lighting.
- Automatic turn-off switches for outdoor lighting.
- Motion-detectors for lighting external entrances and outdoor security.
- Time switches for lighting in common areas.
- Solar powered lighting in common areas.
- The use of energy efficient appliances.

4.7 Water Efficiency

Objectives

- O1. To encourage water sensitive practices in building and landscape design.
- O2. To encourage principles and practices such as greywater utilisation from bathroom or laundry fixtures for toilet flushing, or irrigation and watering purposes.

Controls

- C1. Water smart and water sensitive urban design practices are to be implemented.

As a minimum the following are required:

- Rainwater storage is to be provided and integrated into the building design. Suitably sized tanks are to be designed to meet demands of the building. The storage capacity per dwelling house should be 5,000 L unless demonstrated otherwise, multi-unit dwellings will require site specific analysis of tank size to meet the internal and external demand needs.
- Roof water shall be directed to a rainwater storage facility for outdoor use as garden watering, irrigation systems, car washing etc and indoor use for toilet flushing and washing machine use.

- Areas that do not drain to the wetland are to be incorporated into the overall stormwater strategy.
 - Overflow from the rainwater storage must be directed wherever possible to an on-site infiltration system/trench. When site conditions do not permit on-site infiltration the overflow must be connected to the public stormwater drainage system.
 - Stormwater is to be drained to a silt arrestor pit prior to discharging to either an infiltration area or the public stormwater drainage system.
 - Rainwater storage must be fitted with a first flush rainwater diverter, be suitably enclosed to prevent any animals or sediment entering and must also be childproofed.
 - A dual water supply scheme to trickle top up the tank when rainwater level falls below a minimum level shall be utilised.
 - Rainwater storage must be fitted with appropriate backflow devices, standard air gap separation and flotation devices, in accordance with Sydney Water and manufacturer requirements.
 - Rainwater storage and supporting structure must be visually screened and integrated into the building design.
 - Rainwater storage must be mosquito proofed.
 - Rainwater storage water supply taps and any other fixtures must be marked "Rainwater - Not for human consumption".
 - Rainwater storage must be installed in accordance with manufactures recommendations and relevant Australian Standards, with plumbing work being carried out by a licensed plumber.
- C2. Water efficient plumbing fixtures are to be integrated into the building design including, but not limited to dual flush toilets and low flow shower heads and tap roses (triple A rated).
- C3. In-sink food and waste disposal systems are not to be installed.

4.8 Safety and Security

Objectives

- O1. To promote community safety through appropriate design.

- O2. To enable children, the elderly and frail persons to enjoy residential living that minimises threats from assault or burglary.
- O3. To discourage crime in residential areas.

Controls

- C1 Footpaths, landscaped areas, and driveways must provide opportunities for surveillance and allow safe movement of residents around the site.
- C2 Dwellings which face the street must allow for casual surveillance of footpaths and driveways which is important for the safety of residents and passing pedestrians, and for the security of the neighbourhood.
- C3 High walls around residential buildings and parking structures which obstruct views into the development are to be avoided.
- C4 Dwelling and building entries are to be visible from the street.
- C5 The demarcation between public, communal and private areas in a development is to be clearly recognisable.
- C6 Multi-unit developments must have adequate lighting in common and access areas.
- C7 Signage is to be clear and easy to understand.
- C8 Shared entries should serve a limited number of dwellings and be able to be locked.
- C9 Dwelling houses are to be designed to allow residents to see who approaches their dwelling without the need to open the front door.
- C10 Secure car parking is provided in multi-unit housing developments.
- C11 Splay corners are to be provided to the street corners of lots along the proposed bus route in accordance with Council guidelines.

4.9 Environmental Education

Introduction

Environmental education has a fundamental role in taking steps towards sustainability. The ability to make informed choices and ways of dealing with environmental problems will help us towards sustainable living.

Objectives

- O1 To educate residents on the sustainability features of the development.

- 02 To encourage the use and maintenance of water efficient and energy efficient design features of the development over time.

Controls

- C1 An environmental education toolkit and resource package is to be provided for all residents detailing the design features and maintenance requirements for the sustainability features of the development, such as (but not limited to):
- rainwater tanks;
 - water conservation devices;
 - solar powered devices;
 - energy conservation devices;
 - composting; etc
- C2 Where practical maintenance instructions are also to be attached to the particular feature, such as a rainwater tank.
- C3 The environmental education package is to be complemented with the information brochure for the Randwick Environmental Park, which highlights the natural heritage significance and passive recreation features of the Park. Copies available from Randwick City Council's Bushland Management Unit.

5. Facilities and Access

5.1 Parking

Objectives

- O1. To provide adequate and convenient parking for both residents and visitors.
- O2. To provide bicycle access and facilities.
- O3. To ensure car parking areas provide parking spaces for people with a disability.
- O4. To limit the amount of the site devoted to driveways and parking.
- O5. To integrate parking and driveways with landscape and building design.

Controls

- C1 Accessible, safe and secure storage facilities for bicycles are to be provided:
- within the storage areas of each dwelling; or
 - within the designated parking space of each dwelling; or
 - in a separately secured purpose built facility provided in the basement (if any) or on the ground floor of multi unit dwellings capable of storing a bicycle for each dwelling.
- C2 Parking provision is to be in accordance with Randwick Parking DCP with the exception of visitor parking which is to be provided on street.

5.2 Driveways and Manoeuvring Areas

Objectives

- O1. To provide adequate space for efficiently moving vehicles within a site.
- O2. To minimise potential conflict between vehicles and pedestrians.
- O3. To integrate driveway and manoeuvring areas with landscape features.
- O4. To minimise the detrimental visual impacts of parking and driveway areas.
- O5. To design driveway gradients for vehicle and pedestrian safety.
- O6. To ensure site planning and building layout minimises the area designated for driveways and manoeuvring areas.

- O7. To limit the width of kerb crossings to maintain on street parking and minimize impacts on pedestrian amenity.

Controls

- C1 Vehicles are to be able to enter and leave the site of multi-unit development in a forward direction at all times.
- C2 Surface materials and external finishes are to be consistent and compatible with those used throughout the development.
- C3 Parking layouts and driveway design is to conform with the requirements of AS 2890.1 – Off Street Car Parking and Randwick Parking D.C.P.
- NB: Shared driveways between attached dwellings are encouraged to minimise kerb cuts and avoid impacts on street trees .

5.3 Storage

Objectives

- 01 To ensure new development is provided with adequate storage space.
- 02 To ensure new development includes readily accessible and separately contained storage areas for each dwelling.

Controls

- C1 8% of the floor space of each dwelling is to be provided for storage. Half of the storage area can be in garages, semi-basement enclosures or located externally. Internal storage areas may include linen cupboards, laundry cupboards, under stair areas and built in wardrobes, but kitchen and bathroom storage is excluded from the 8% calculation.

5.4 Barrier Free Access

Objectives

- 01 To provide housing that can easily be adapted to meet the specific needs requirements of residents with special needs or disabilities.
- 02 To encourage the provision of accessible and adaptable housing to meet “whole of life” needs of the community.

Controls

- C1. The design of all new development other than the design of single dwelling houses is to provide special needs access. This includes access to and from public foyer areas, parking areas, and landscaped areas (including private open space for dwellings that have been nominated as adaptable dwellings).

- C2. Access for people with a disability is to be provided to and within dwellings of multi unit developments at the following minimum rates:

0 – 14 dwellings	0
15 – 29 dwellings	1
30 – 44 dwellings	2
45 – 60 dwellings	3 and so on.

The requirements of AS 1428.1 and AS 4299 are to be incorporated in special needs and adaptable dwelling designs.

- C3. Each dwelling that is designed to be accessible for people with a disability is to have a corresponding suitably located parking space designed for people with a disability.
- C4. All development that provides a passenger lift is to provide access for people with a disability to all common foyer and parking areas.
- C5. Publicly accessible areas within private developments are to be provided with facilities for access and mobility in accordance with the Building Code of Australia.

5.5 Utilities/Site Facilities

Objectives

- 01 To ensure ancillary site facilities are convenient and visually attractive.
- 02 To ensure utilities and ancillary site facilities blend in with the development and streetscape character and require minimal maintenance.

Controls

- C1. Mailboxes are to be provided in accordance with the delivery requirements of Australia Post. Mail boxes are to be integrated into the entrance way or entrance pathway to multi unit dwellings rather than along the fence facing the primary street frontage.
- C2. A suitably screened single common television/radio antenna (or other types of communication reception device) is to be provided to service all dwellings in a development.
- C3. Electricity:
- Services are to be provided in accordance with the requirements of Energy Australia.
 - All electrical reticulation is to be underground.

- Meter boxes are to be placed in positions acceptable to the applicable energy service provider and screened from the street.
- C4. A reticulated gas supply to a meter for each dwelling and to optimum service points for cooking and space heating is to be provided.
- C5. Water and sewerage connections are to be provided in accordance with the requirements of Sydney Water.
- C6. Telephone lines are to be installed in accordance with the requirements of the service provider.
- C7. Laundry and Drying Facilities:
- A dedicated laundry is to be provided for each dwelling.
 - Outdoor clothes drying facilities are to be accessible to all residents and screened from the street and public places.
 - Alternatively, a retractable or demountable clothes line is to be provided in the courtyard or on a screened service balcony of each dwelling.
- C8. Communal secure bulk item storage facilities are to be provided in multi unit dwellings to store unwanted items that are awaiting clean up collection.

5.6 Waste and Management

Objectives

- 01 To encourage waste avoidance and resource recovery.
- 02 To provide for the management of waste and recycling (source separation, reuse and recycling).
- 03 To provide facilities for storing and collecting waste and recycling materials in accordance with the “Better Practice Guide for Waste Management in Multi-Unit Dwellings”, Resource NSW, February 2002.
- 04 To provide for the maximum preservation of streetscape values while providing for waste removal and recycling.

Controls

- C1. Waste storage facilities for garbage and recycling containers in multi unit developments are to be provided either in a centralised garbage/recycling room accessible to garbage compactors or in a facility where bins can be easily wheeled to the street for collection. The facilities are of a sufficient size to meet the needs of the dwellings and the garbage/recycling collection service.

- C2. The location and design of waste collection facilities are to complement the design of the development and not be visually obtrusive in the streetscape or visible from any public places.
- C3. Each dwelling in a multi-unit development is to have a waste storage cupboard in the kitchen that facilities the separation of recyclable materials.
- The cupboard is to be capable of holding at least a single day's average waste and allow for source separation of garbage, recyclable and compostable material.
- C4. The design of landscaped areas is to provide for on-site composting.
- C5. Waste facilities should not be located between the front alignment of a building and the road.

5.7 Off-Site Traffic Management Works

Introduction

As a consequence of development on the land to which this DCP relates, or to overcome existing problems in the surrounding road network, there maybe a need for off-site traffic management works. These works are required to be addressed in the preparation of a master plan in accordance with Clause 40A(5) of Randwick Local Environmental Plan 1998.

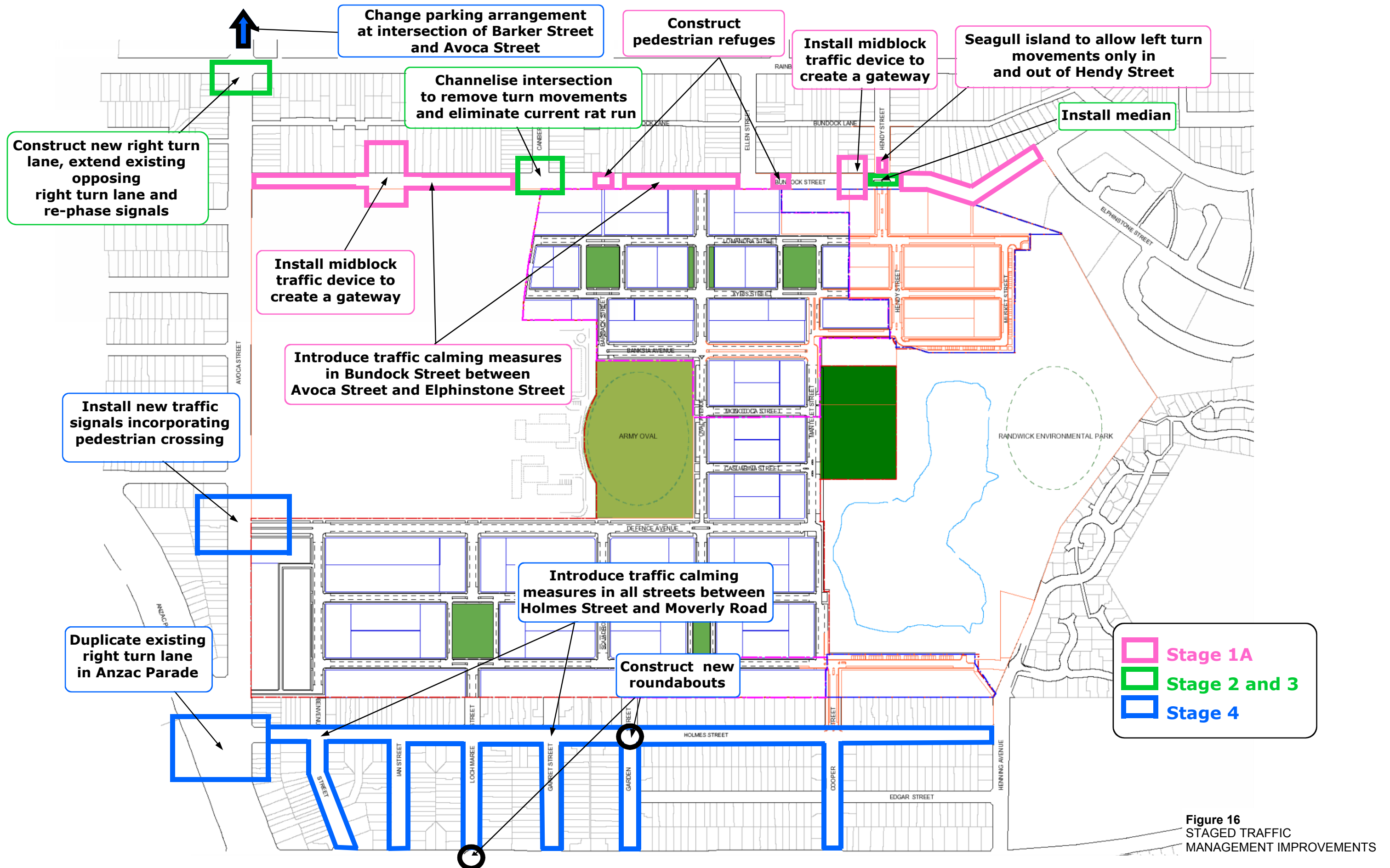
The master plan for the Defence Site adopted by Council on 13 November 2001 (the Master Plan) contains a plan indicating on-site and off-site management devices and controls for development in accordance with the Master Plan. **Figure 16** shows the staging for the off-site traffic management improvement devices and controls for development in accordance with the Staging Plan for development within the site **Figure 17**.

Objective

- O1. To ensure that any required off-site traffic management devices and controls are in place prior to development taking place.

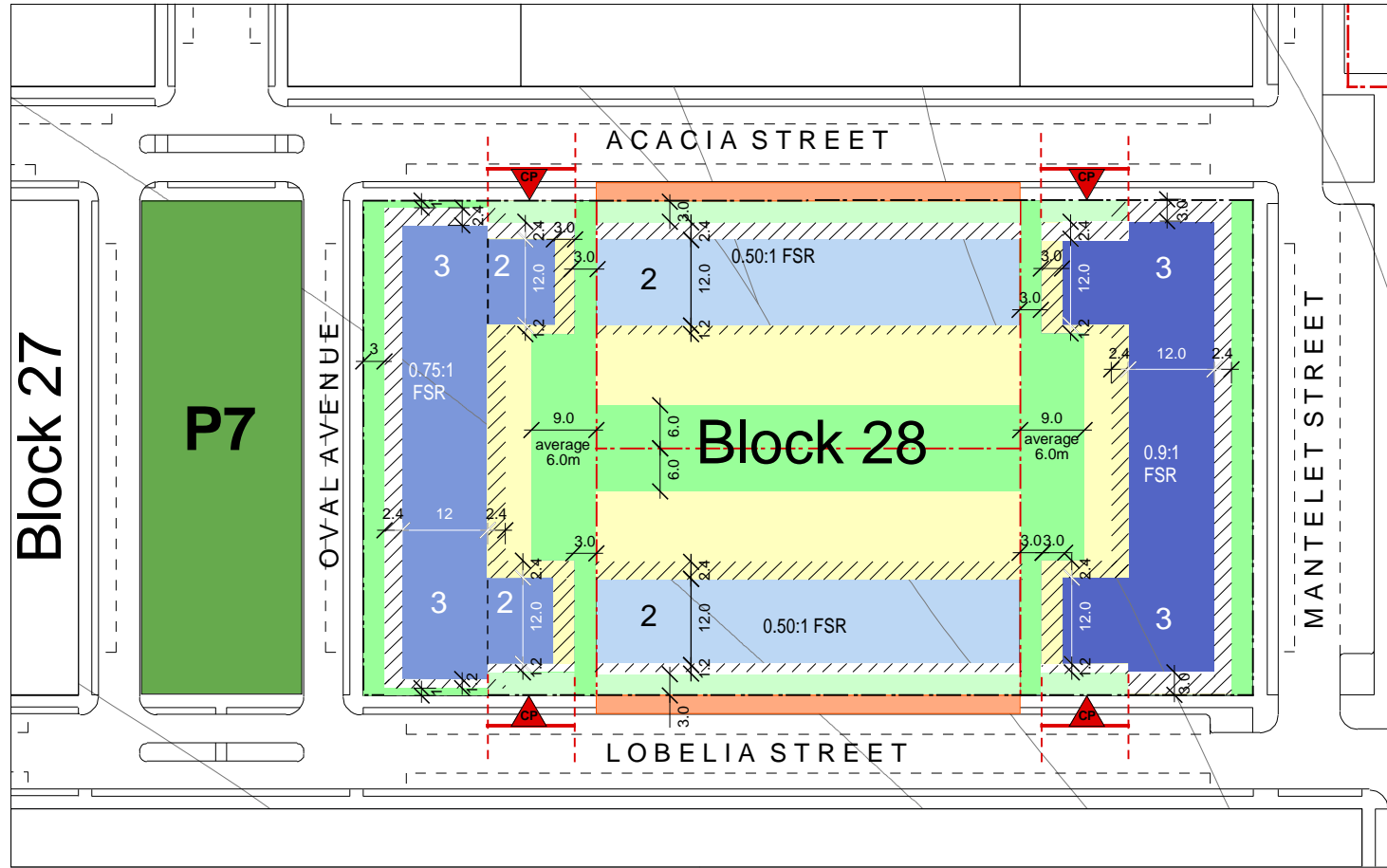
Controls

- C1. Any application for consent to subdivide land to create streets and development blocks generally in accordance with **Figure 6** must be accompanied by a report indicating proposed on-site and off-site traffic management devices and controls.
- C2. The report referred to in control C1 shall have regard to the staged provision of off-site traffic management devices and controls identified in **Figure 16**, which in turn relates to the staging of the development **Figure 17**.



DEVELOPMENT CONTROL PLAN DEFENCE SITE BUNDOCK + AVOCA STREETS RANDWICK

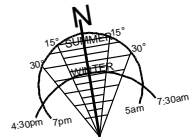
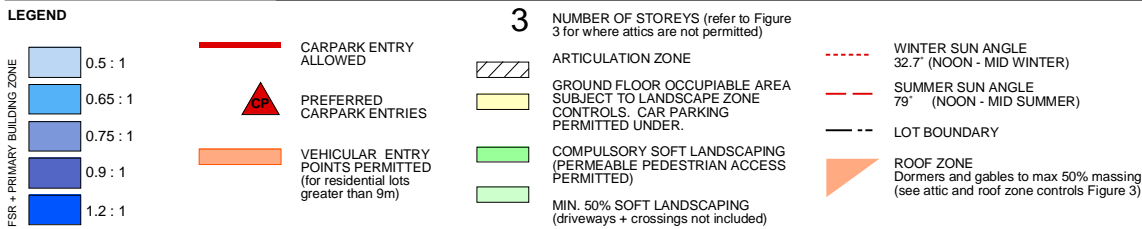
DATE
20.02.03



BUILDING ENVELOPE PLAN: Block 28
(Blocks 7, 10, 11 + 27 similar)

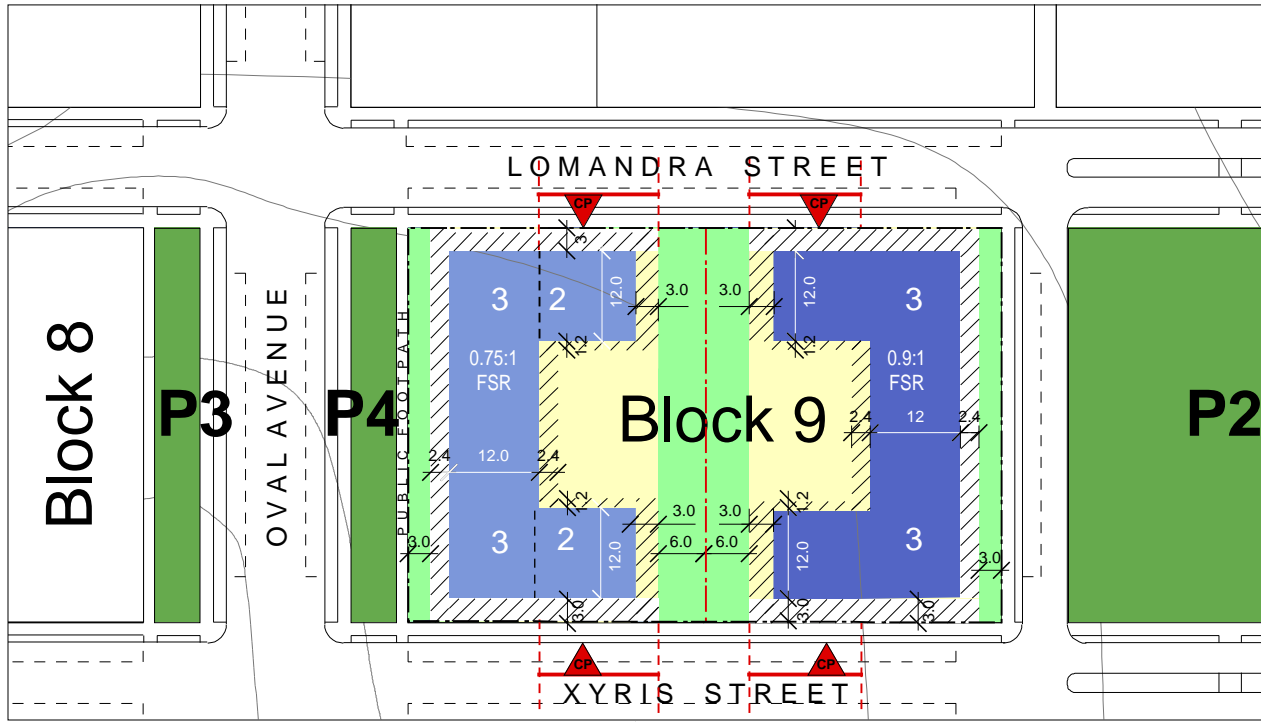
Figure 15
BLOCK STUDY 6

NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM



DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

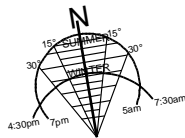
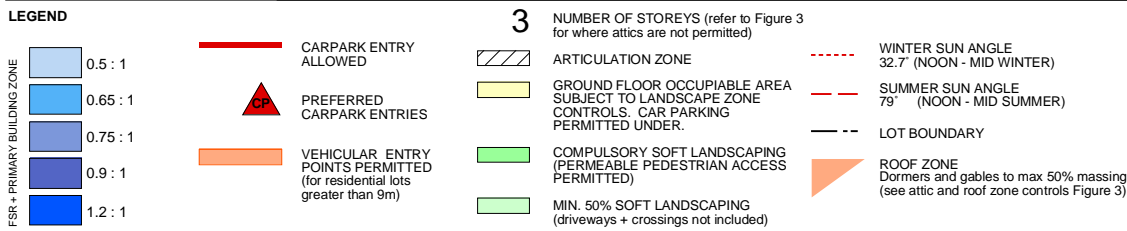
DATE
19.02.03



BUILDING ENVELOPE PLAN : Block 9 (Block 8 similar)

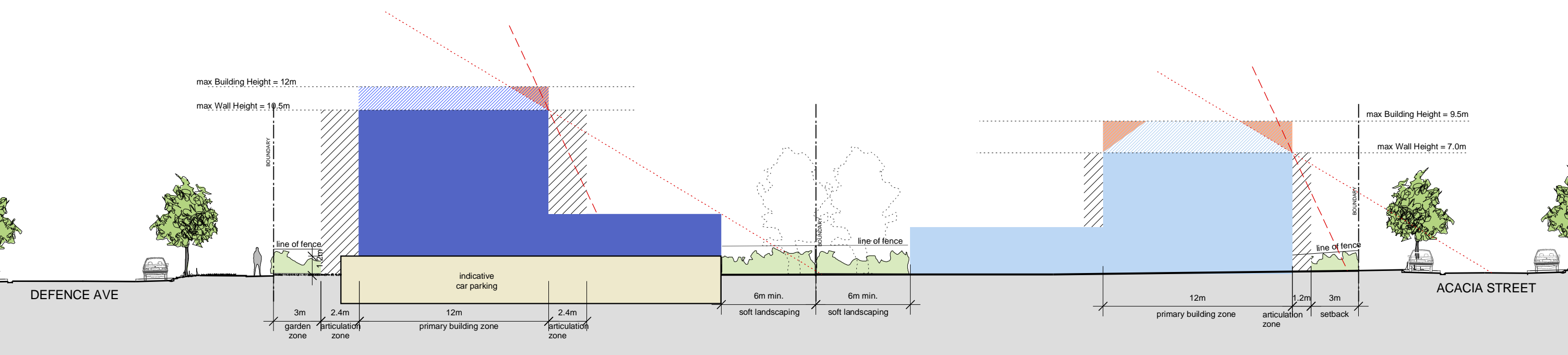
Figure 14
BLOCK STUDY 5

NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

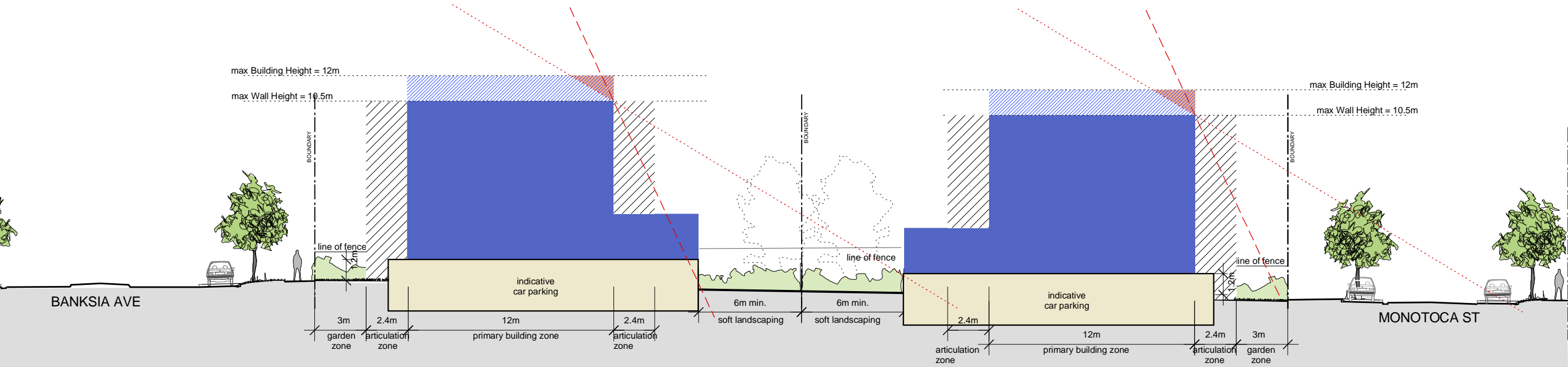


DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



SECTION K - K
BLOCK 23



SECTION L - L
BLOCK 17
(Blocks 18 + 19 similar)

Figure 13
SECTIONS K + L

NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

DEVELOPMENT CONTOL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03

LEGEND

FSR + PRIMARY BUILDING ZONE

0.5 : 1

0.65 : 1

0.75 : 1

0.9 : 1

1.2 : 1

CARPARK ENTRY ALLOWED

PREFERRED CARPARK ENTRIES

VEHICULAR ENTRY POINTS PERMITTED (for residential lots greater than 9m)

3 NUMBER OF STOREYS (refer to Figure 3 for where attics are not permitted)

ARTICULATION ZONE

GROUND FLOOR OCCUPIABLE AREA SUBJECT TO LANDSCAPE ZONE CONTROLS. CAR PARKING PERMITTED UNDER.

COMPULSORY SOFT LANDSCAPING (PERMEABLE PEDESTRIAN ACCESS PERMITTED)

MIN. 50% SOFT LANDSCAPING (driveways + crossings not included)

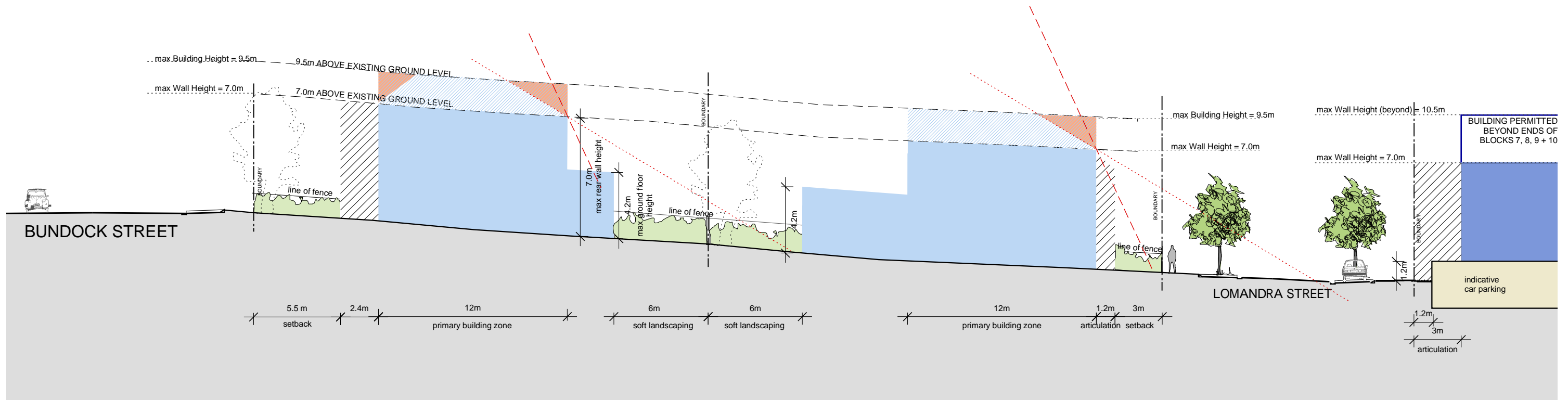
WINTER SUN ANGLE 32.7° (NOON - MID WINTER)

SUMMER SUN ANGLE 79° (NOON - MID SUMMER)

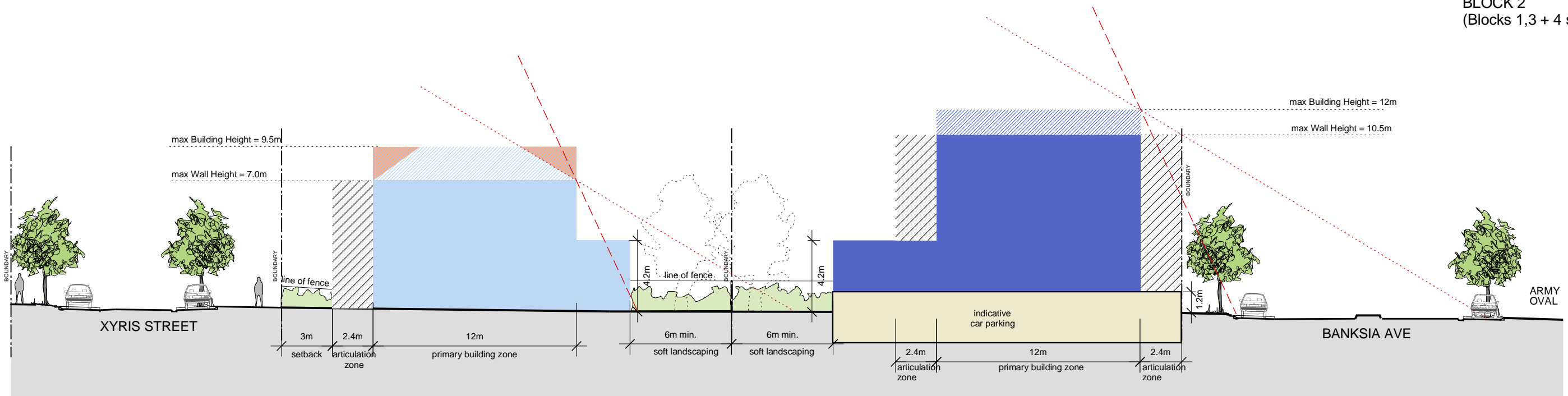
LOT BOUNDARY

ATTIC ZONE (see attic and roof zone controls Figure 3)

ROOF ZONE (Dormers and gables to max 50% massing (see attic and roof zone controls Figure 3))



SECTION I - I
BLOCK 2
(Blocks 1,3 + 4 similar)



SECTION J - J
BLOCK 13
(Blocks 12 + 16 similar)

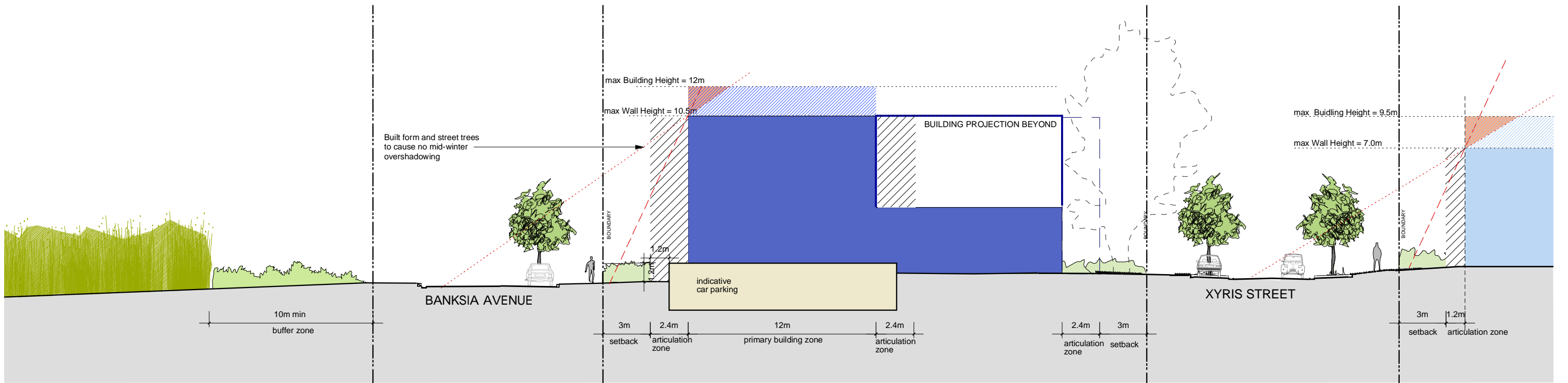
Figure 12
SECTIONS I + J

NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

DEVELOPMENT CONTROL PLAN DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

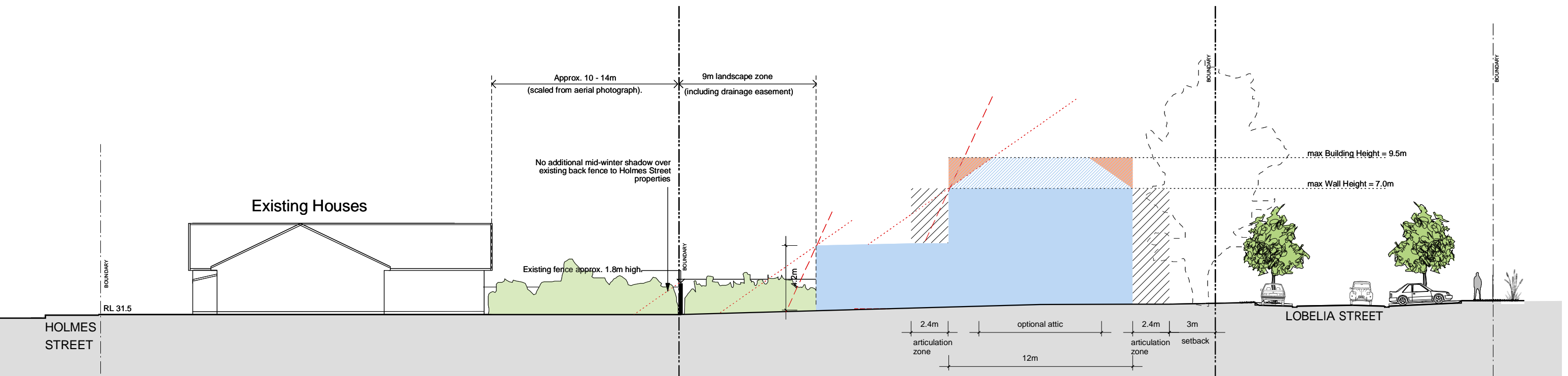
DATE
19.02.03

LEGEND		3 NUMBER OF STOREYS (refer to Figure 3 for where attics are not permitted)		WINTER SUN ANGLE 32.7° (NOON - MID WINTER)		ATTIC ZONE (see attic and roof zone controls Figure 3)	
FSR - PRIMARY BUILDING ZONE	0.5 : 1	ARTICULATION ZONE	GROUND FLOOR OCCUPIABLE AREA SUBJECT TO LANDSCAPE ZONE CONTROLS. CAR PARKING PERMITTED UNDER.	SUMMER SUN ANGLE 79° (NOON - MID SUMMER)	LOT BOUNDARY	ROOF ZONE (Dormers and gables to max 50% massing (see attic and roof zone controls Figure 3))	
0.65 : 1	PREFERRED CARPARK ENTRIES	COMPULSORY SOFT LANDSCAPING (PERMEABLE PEDESTRIAN ACCESS PERMITTED)	MIN. 50% SOFT LANDSCAPING (driveways + crossings not included)				
0.75 : 1	VEHICULAR ENTRY POINTS PERMITTED (for residential lots greater than 9m)						
0.9 : 1							
1.2 : 1							



BLOCK 15

SECTION G - G
BLOCK 15
(Blocks 1,3 + 4 similar)



BLOCK 32

SECTION H - H
BLOCK 32
(Blocks 12, 29, 30 + 31 similar)

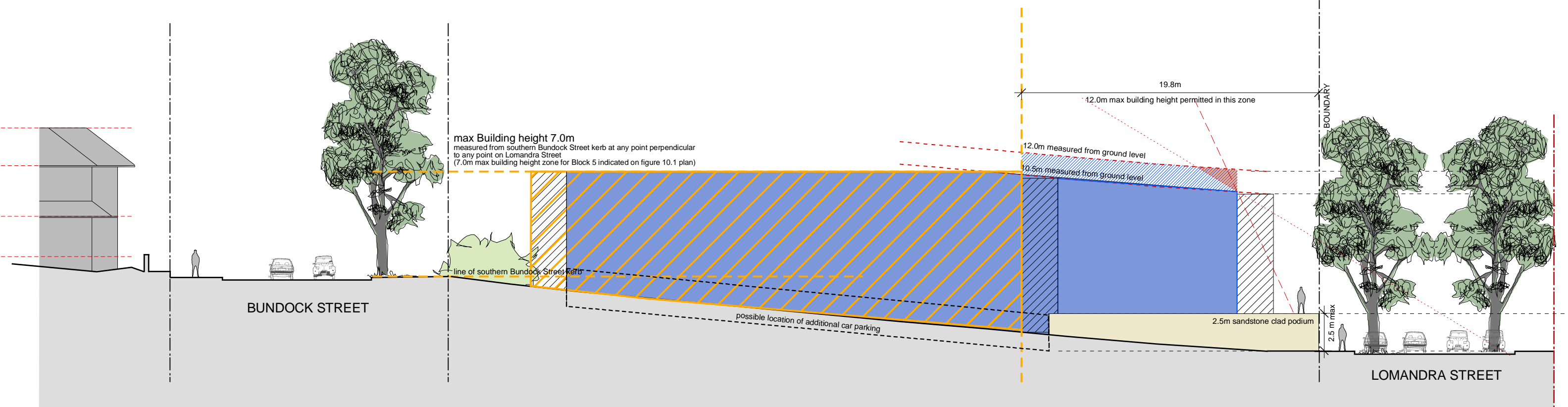
Figure 11
Sections G + H

NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

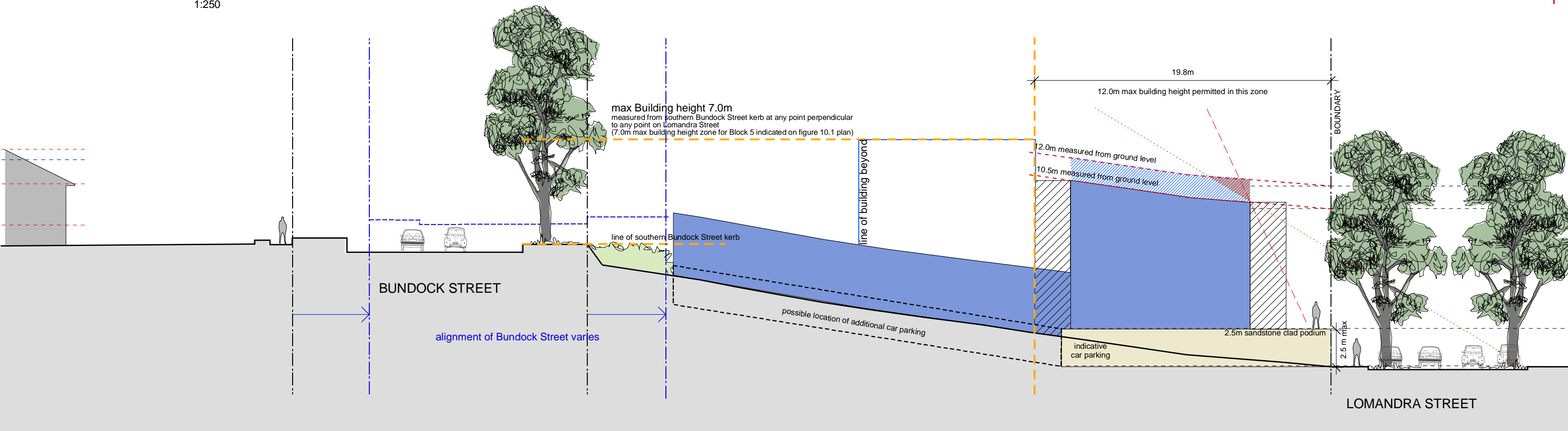
LEGEND				
FSR - PRIMARY BUILDING ZONE	0.5 : 1	CARPARK ENTRY ALLOWED	3 NUMBER OF STOREYS (refer to Figure 3 for where attics are not permitted)	WINTER SUN ANGLE 32.7° (NOON - MID WINTER)
	0.65 : 1	PREFERRED CARPARK ENTRIES		SUMMER SUN ANGLE 79° (NOON - MID SUMMER)
	0.75 : 1	VEHICULAR ENTRY POINTS PERMITTED (for residential lots greater than 9m)	ARTICULATION ZONE	LOT BOUNDARY
	0.9 : 1			ATTIC ZONE (see attic and roof zone controls Figure 3)
	1.2 : 1			ROOF ZONE (Dormers and gables to max 50% massing (see attic and roof zone controls Figure 3))
			GROUND FLOOR OCCUPIABLE AREA SUBJECT TO LANDSCAPE ZONE CONTROLS. CAR PARKING PERMITTED UNDER.	
			COMPULSORY SOFT LANDSCAPING (PERMEABLE PEDESTRIAN ACCESS PERMITTED)	
			MIN. 50% SOFT LANDSCAPING (driveways + crossings not included)	

DEVELOPMENT CONTROL PLAN DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



BUILDING ENVELOPE SECTION M - M: Block 5
1:250



BUILDING ENVELOPE SECTION N - N: Block 5
1:250

Figure 10.2
Sections M - M + N - N

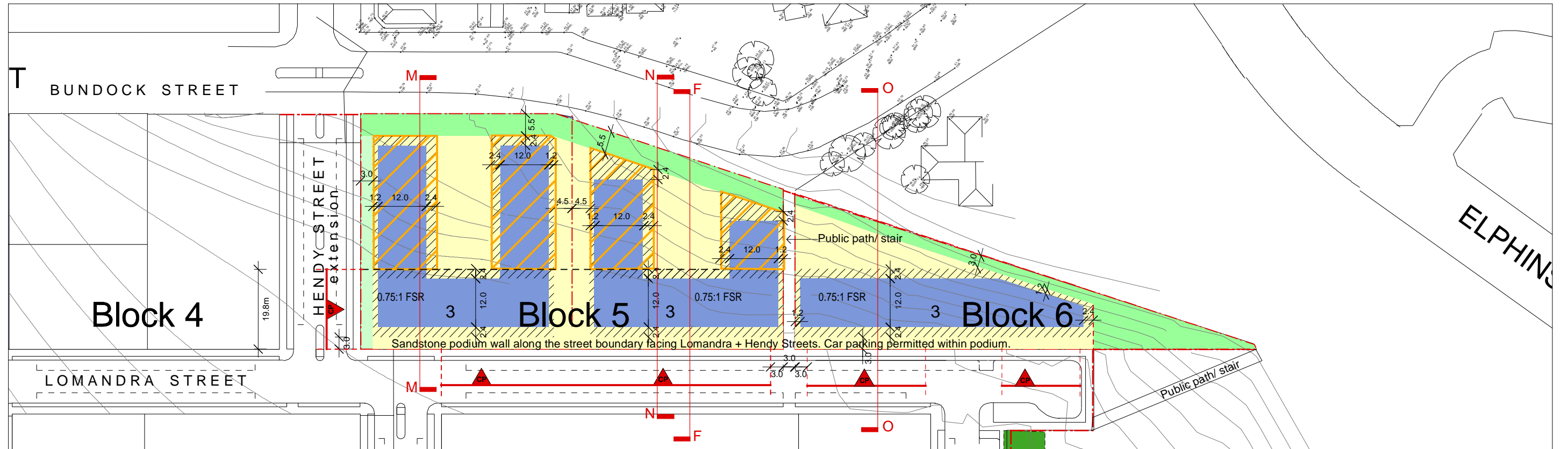
NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

LEGEND			
FSR + PRIMARY BUILDING ZONE	0.5 : 1	CARPARK ENTRY ALLOWED	3 NUMBER OF STOREYS (refer to Figure 3 for where attics are not permitted)
	0.65 : 1	PREFERRED CARPARK ENTRIES	
	0.75 : 1	VEHICULAR ENTRY POINTS PERMITTED (for residential lots greater than 9m)	ARTICULATION ZONE
	0.9 : 1		GROUND FLOOR OCCUPIABLE AREA SUBJECT TO LANDSCAPE ZONE CONTROLS. CAR PARKING PERMITTED UNDER
	1.2 : 1		COMPULSORY SOFT LANDSCAPING (PERMEABLE PEDESTRIAN ACCESS PERMITTED)
			MIN. 50% SOFT LANDSCAPING (driveways + crossings not included)
		WINTER SUN ANGLE 32.7° (NOON - MID WINTER)	
		SUMMER SUN ANGLE 79° (NOON - MID SUMMER)	
		LOT BOUNDARY	
		MAX BUILDING HEIGHT OF 7.0m measured from southern Bundock Street kerb at any point perpendicular to any point on Lomandra Street - maximum building height in this zone not to exceed the Bundock Street height limit	
		ATTIC ZONE (see attic and roof zone controls Figure 3)	
		ROOF ZONE (Dormers and gables to max. 50% massing (see attic and roof zone controls Figure 3))	

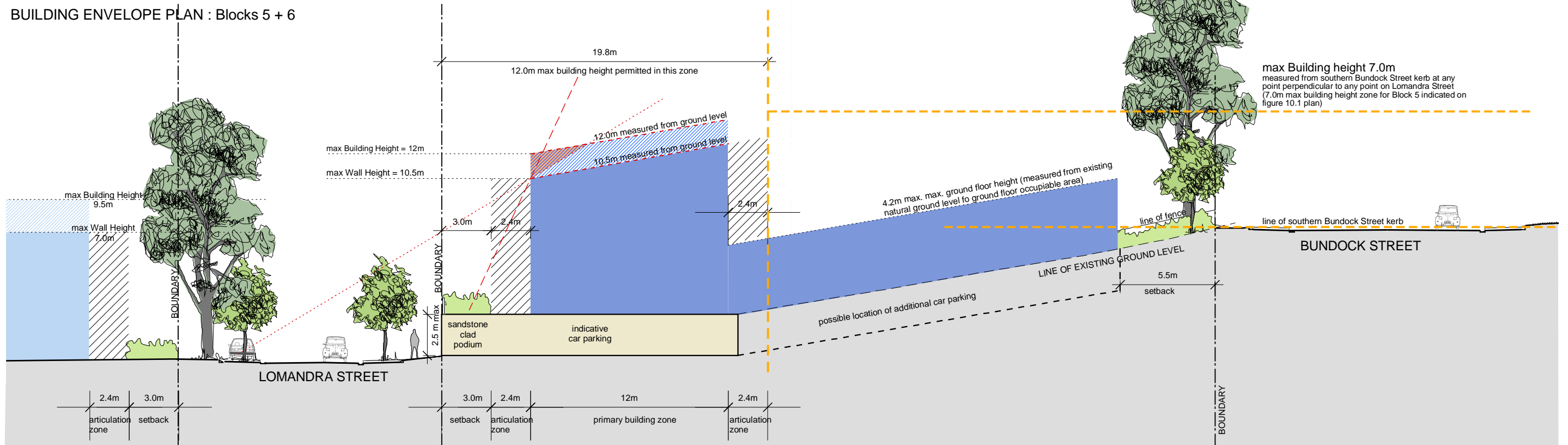
DEVELOPMENT CONTROL PLAN

DEFENCE SITE BUNDOCK + AVOCA STREETS, RANDWICK

DATE
21.02.03



BUILDING ENVELOPE PLAN : Blocks 5 + 6

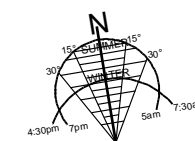


BUILDING ENVELOPE SECTION F - F : Block 5

Figure 10.1
BLOCK STUDY 4

NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

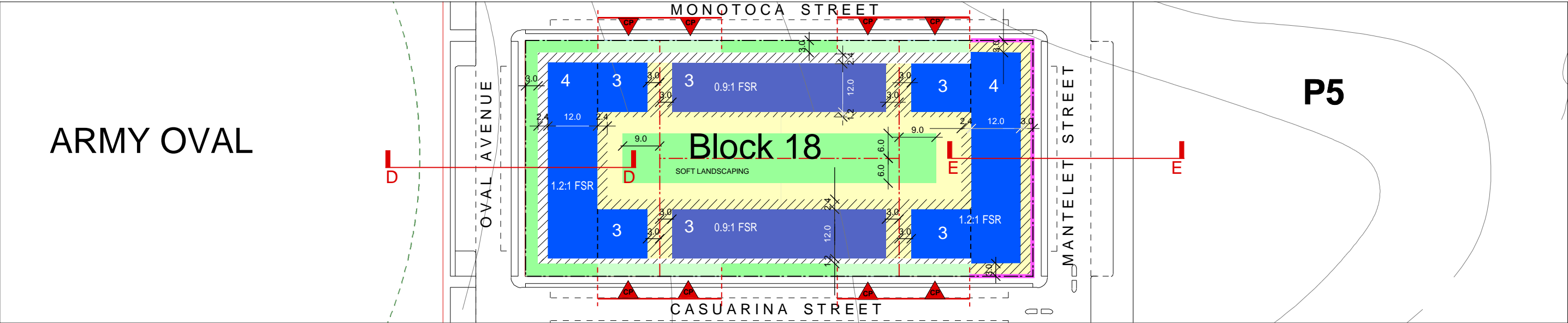
LEGEND			
FSR - PRIMARY BUILDING ZONE		3	NUMBER OF STOREYS (refer to Figure 3 for where attics are not permitted)
0.5 : 1		ARTICULATION ZONE	
0.65 : 1		GROUND FLOOR OCCUPIABLE AREA SUBJECT TO LANDSCAPE ZONE CONTROLS. CAR PARKING PERMITTED UNDER.	
0.75 : 1		COMPULSORY SOFT LANDSCAPING (PERMEABLE PEDESTRIAN ACCESS PERMITTED)	
0.9 : 1		MIN. 50% SOFT LANDSCAPING (driveways + crossings not included)	
1.2 : 1			
	CARPARK ENTRY ALLOWED		MAX BUILDING HEIGHT OF 7.0m measured from southern Bundock Street kerb at any point perpendicular to any point on Lomandra Street - maximum building height in this zone not to exceed the Bundock Street height limit
	PREFERRED CARPARK ENTRIES		ATTIC ZONE (see attic and roof zone controls Figure 3)
	VEHICULAR ENTRY POINTS PERMITTED (for residential lots greater than 9m)		ROOF ZONE (Dormer and Gables to max. 50% massing (see attic and roof zone controls Figure 3))
			WINTER SUN ANGLE 32.7° (NOON - MID WINTER)
			SUMMER SUN ANGLE 79° (NOON - MID SUMMER)
			LOT BOUNDARY



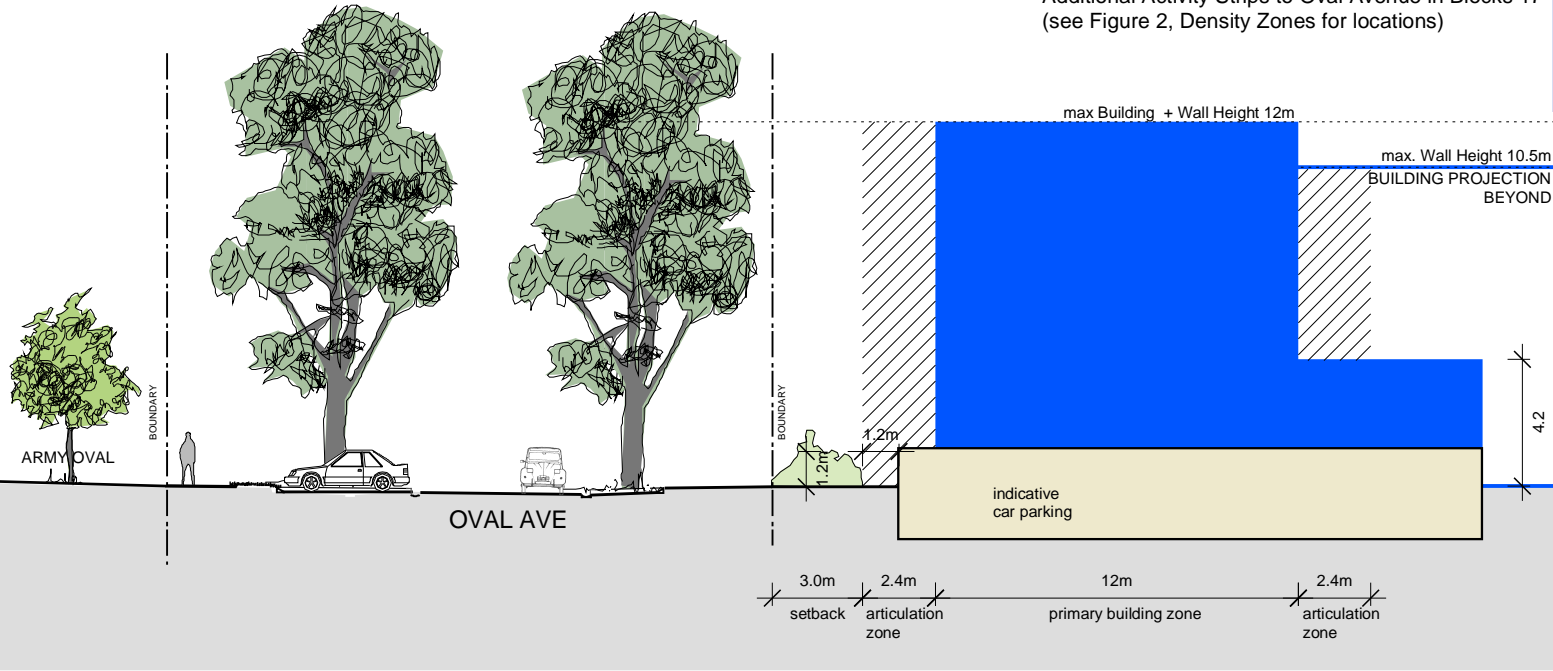
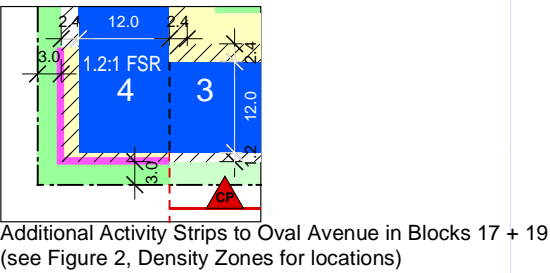
DEVELOPMENT CONTROL PLAN

DEFENCE SITE BUNDOCK + AVOCA STREETS, RANDWICK

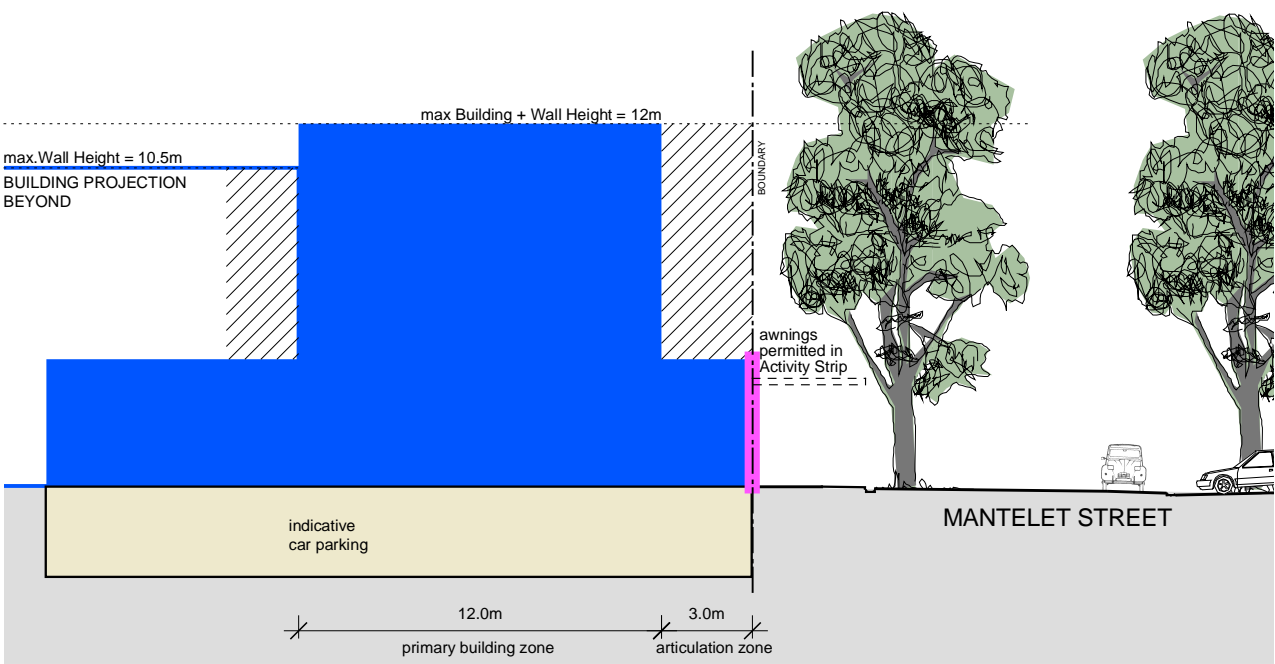
DATE
21.02.03



BUILDING ENVELOPES PLAN : Block 18 (Blocks 17 , 19 + 23 similar)


















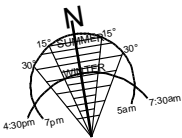
BUILDING ENVELOPES SECTION D - D : Block 18 (Blocks 17 + 19 similar)



BUILDING ENVELOPES SECTION E -E : Block 18 (Blocks 17 + 19 similar)

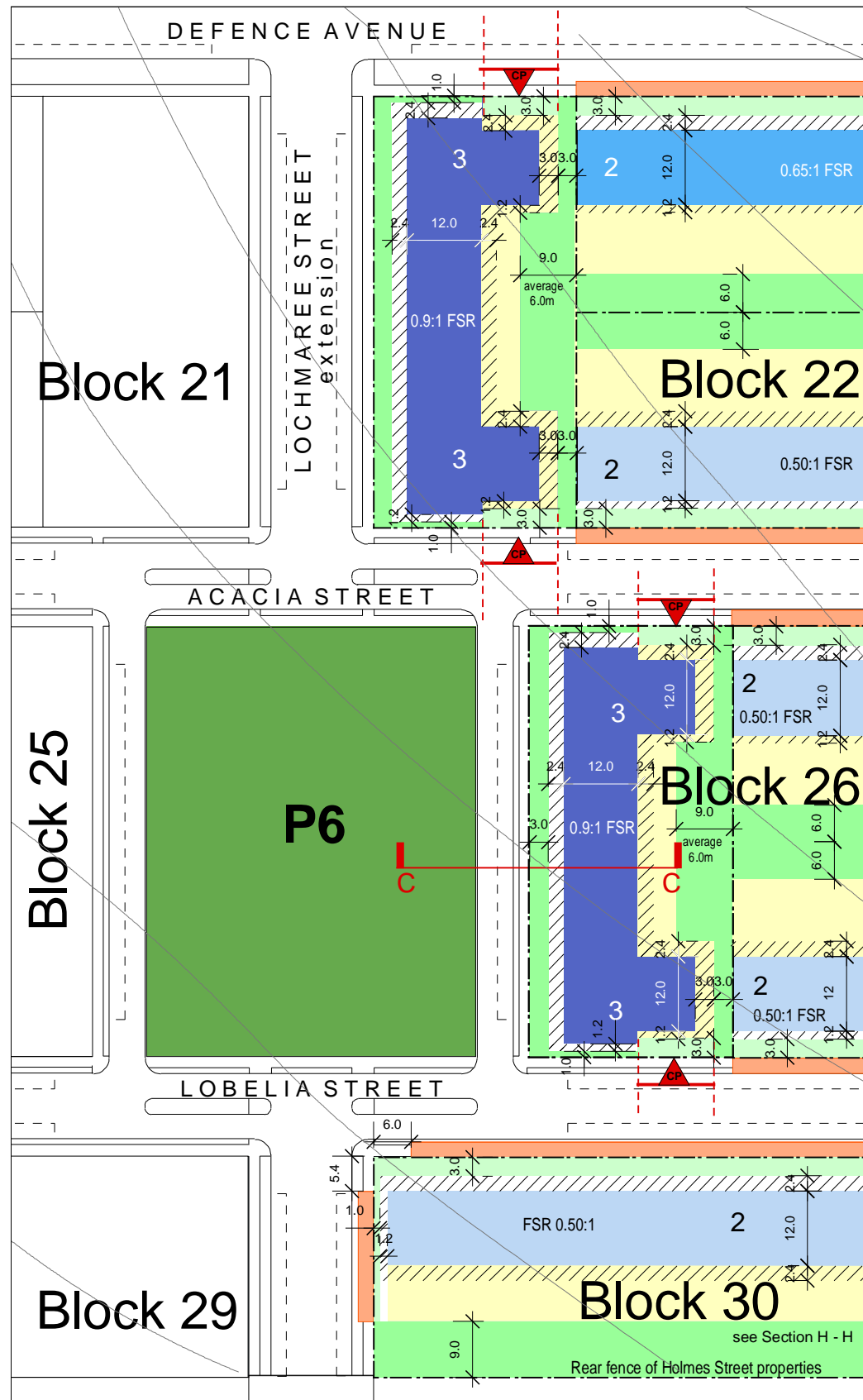
Figure 9
BLOCK STUDY 3
NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

LEGEND				
FSR - PRIMARY BUILDING ZONE		0.5 : 1	3 NUMBER OF STOREYS (refer to Figure 3 for where attics are not permitted)	
		0.65 : 1		
		0.75 : 1		
		0.9 : 1		
		1.2 : 1		
		CARPARK ENTRY ALLOWED		ARTICULATION ZONE
		PREFERRED CARPARK ENTRIES		
		ACTIVITY STRIP PERMITTED		GROUND FLOOR OCCUPIABLE AREA SUBJECT TO LANDSCAPE ZONE CONTROL. CAR PARKING PERMITTED UNDER.
		COMPULSORY SOFT LANDSCAPING (PERMEABLE PEDESTRIAN ACCESS PERMITTED)		
		MIN. 50% SOFT LANDSCAPING (driveways + crossings not included)		LOT BOUNDARY
		WINTER SUN ANGLE 32.7° (NOON - MID WINTER)		
		SUMMER SUN ANGLE 79° (NOON - MID SUMMER)		

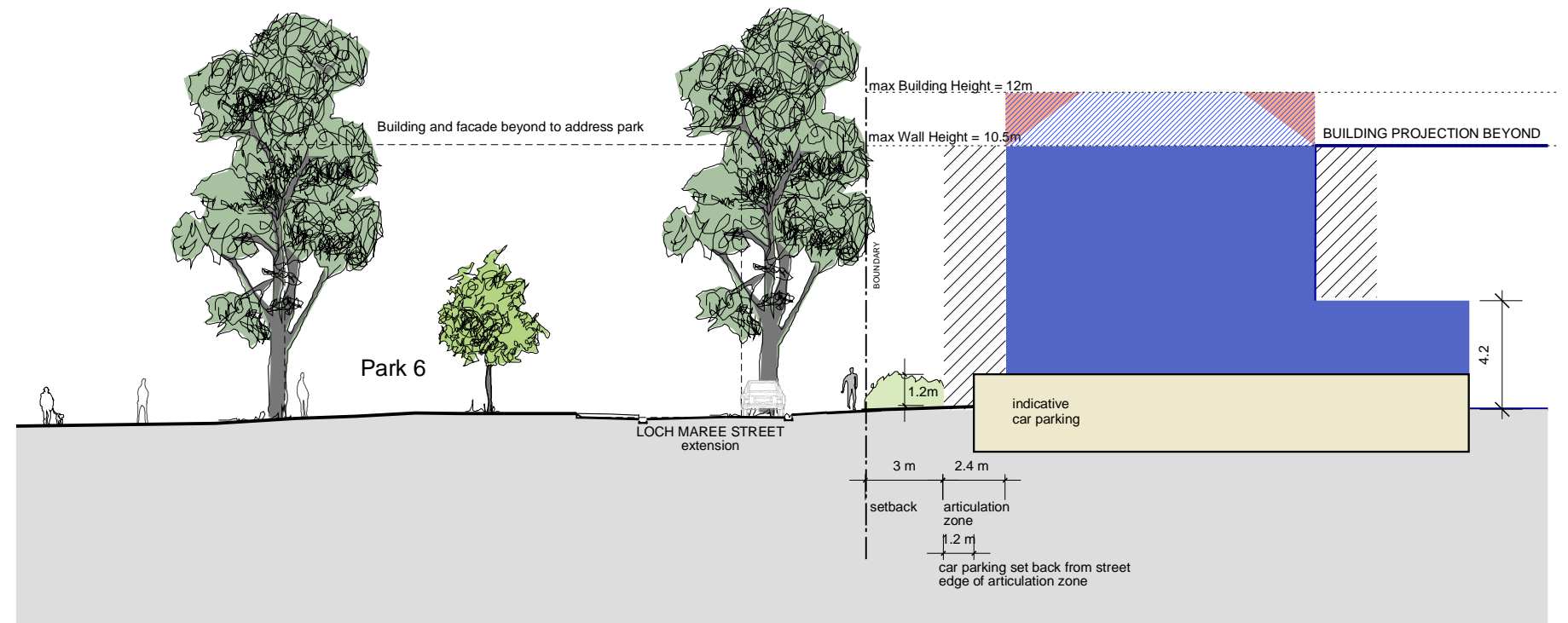


DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



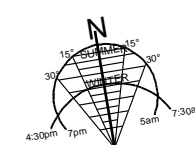
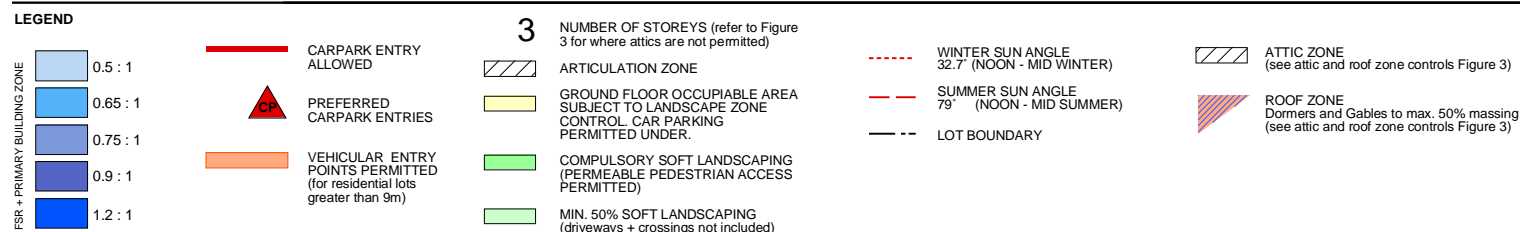
BUILDING ENVELOPES PLAN : Block 22, 26 + 30
(1, 2, 3, 4, 14, 21, 24, 25, 28, 29, 31 + 32 similar)



BUILDING ENVELOPES SECTION C - C : Block 22 + 26
(21, 24, 25 + 28 similar
for Blocks 1, 2, 3 + 4 see Figure 14, Section I - I,
for Blocks 14 + 16 see Figure 14, Section J - J
for Blocks 29, 30, 31 + 32 see Figure 13, Section H - H)

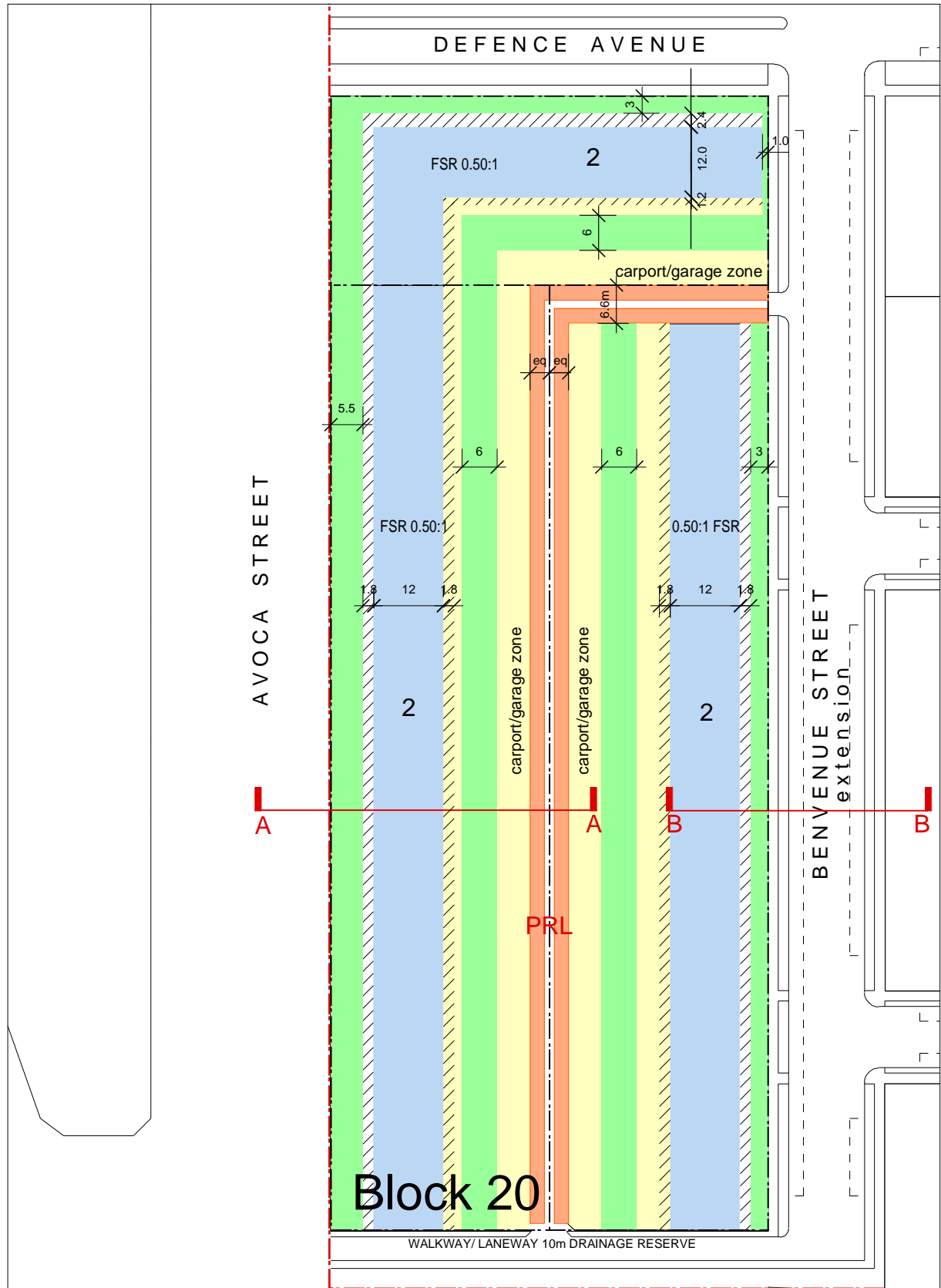
Figure 8
BLOCK STUDY 2

NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

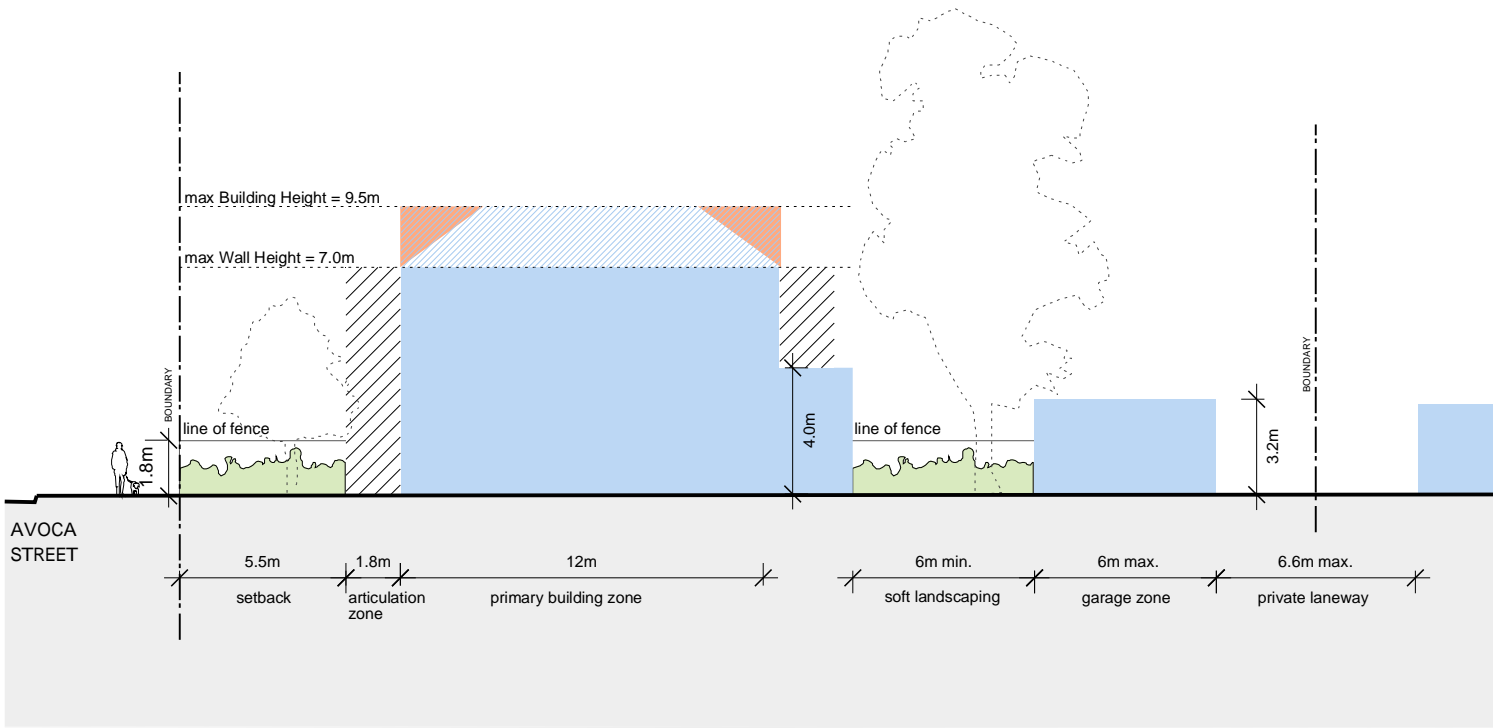


DEVELOPMENT CONTROL PLAN DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

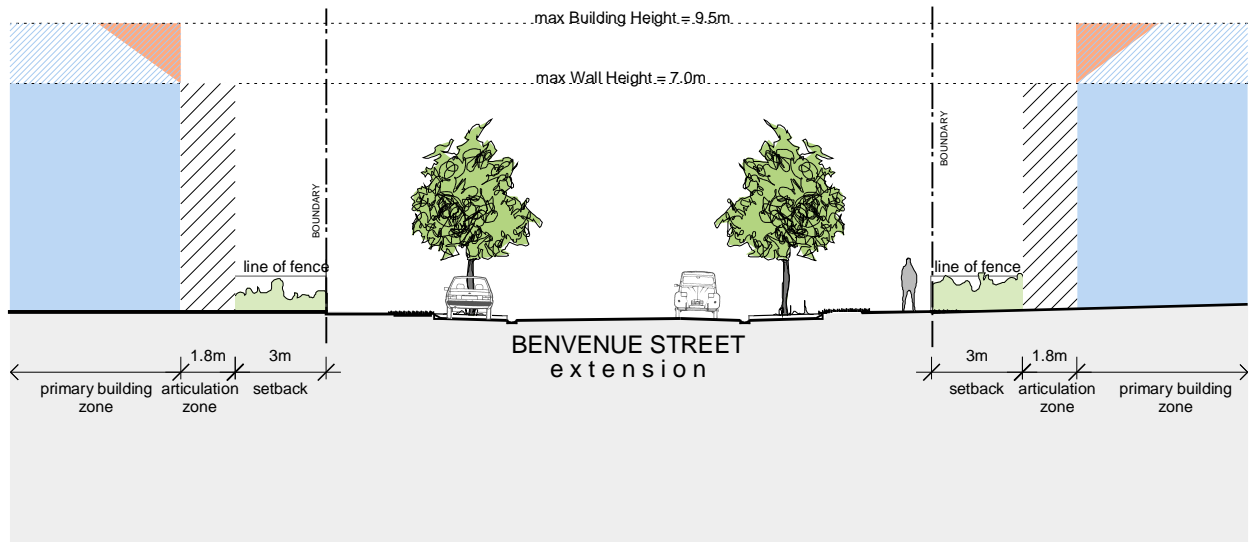
DATE
19.02.03



BUILDING ENVELOPES PLAN : Block 20



BUILDING ENVELOPES SECTION A - A : Block 20



BUILDING ENVELOPES SECTION B - B : Block 20

Figure 7
BLOCK STUDY 1

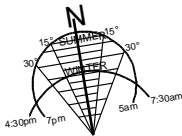
NOTE: FIGURES REPRESENT BUILDING ENVELOPE NOT BUILDING FORM

DEVELOPMENT CONTROL PLAN

DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03

LEGEND				
FSR + PRIMARY BUILDING ZONE	0.5 : 1	CARPARK ENTRY ALLOWED	3	NUMBER OF STOREYS (refer to Figure 3 for where attics are not permitted)
	0.65 : 1	PREFERRED CARPARK ENTRIES	ARTICULATION ZONE	
	0.75 : 1	VEHICULAR ENTRY POINTS PERMITTED (for residential lots greater than 9m)	GROUND FLOOR OCCUPIABLE AREA SUBJECT TO LANDSCAPE ZONE CONTROLS, CAR PARKING PERMITTED UNDER.	
	0.9 : 1	PRL Private Rear Lane	COMPULSORY SOFT LANDSCAPING (PERMEABLE PEDESTRIAN ACCESS PERMITTED)	
	1.2 : 1		MIN. 50% SOFT LANDSCAPING (driveways + crossings not included)	
			WINTER SUN ANGLE 32.7° (NOON - MID WINTER)	ATTIC ZONE (see attic and roof zone controls Figure 3)
			SUMMER SUN ANGLE 79° (NOON - MID SUMMER)	ROOF ZONE (Dormers and Gables to Max 50% Massing (see attic and roof zone controls Figure 3))
			LOT BOUNDARY	





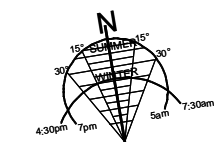
Note:
For blocks with specific
Block Studies or sections
Figures 7 - 15 take
precedence. For other
block studies here
referenced Figures 7 - 15
are for guidance only and
Figures 2, 3, 4 and 5 take
precedence.

1- 32 Block Numbers

Figure 6
KEY FOR BLOCK STUDIES
AND SECTION CONTROLS
(Figures 7 - 15)

DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



LEGEND

PRIMARY STREET FRONTAGE (PF)
3m garden zone except where otherwise noted. See designated car park entry zones for 0.75:1, 0.9:1, and 1.2:1 on Figures 6 - 17.

SECONDARY STREET FRONTAGE (SF)
garden zone setback 0m or 1m as noted, or 3m as shown for Primary Street Frontage

BLOCK ENDS that may interchange primary and secondary street frontage according to block subdivision

BOUNDARY SETBACK 01 (BS)
6m rear garden zone except where otherwise noted

BOUNDARY SETBACK 02
Rear garden zone dimensioned as shown. Alternatively, 6m average rear garden zone permitted.

BOUNDARY SETBACK 03
Rear garden zone dimensioned as shown

PRL **PRIVATE REAR LANE**
Rear lane access access.
(See Block Study 1)

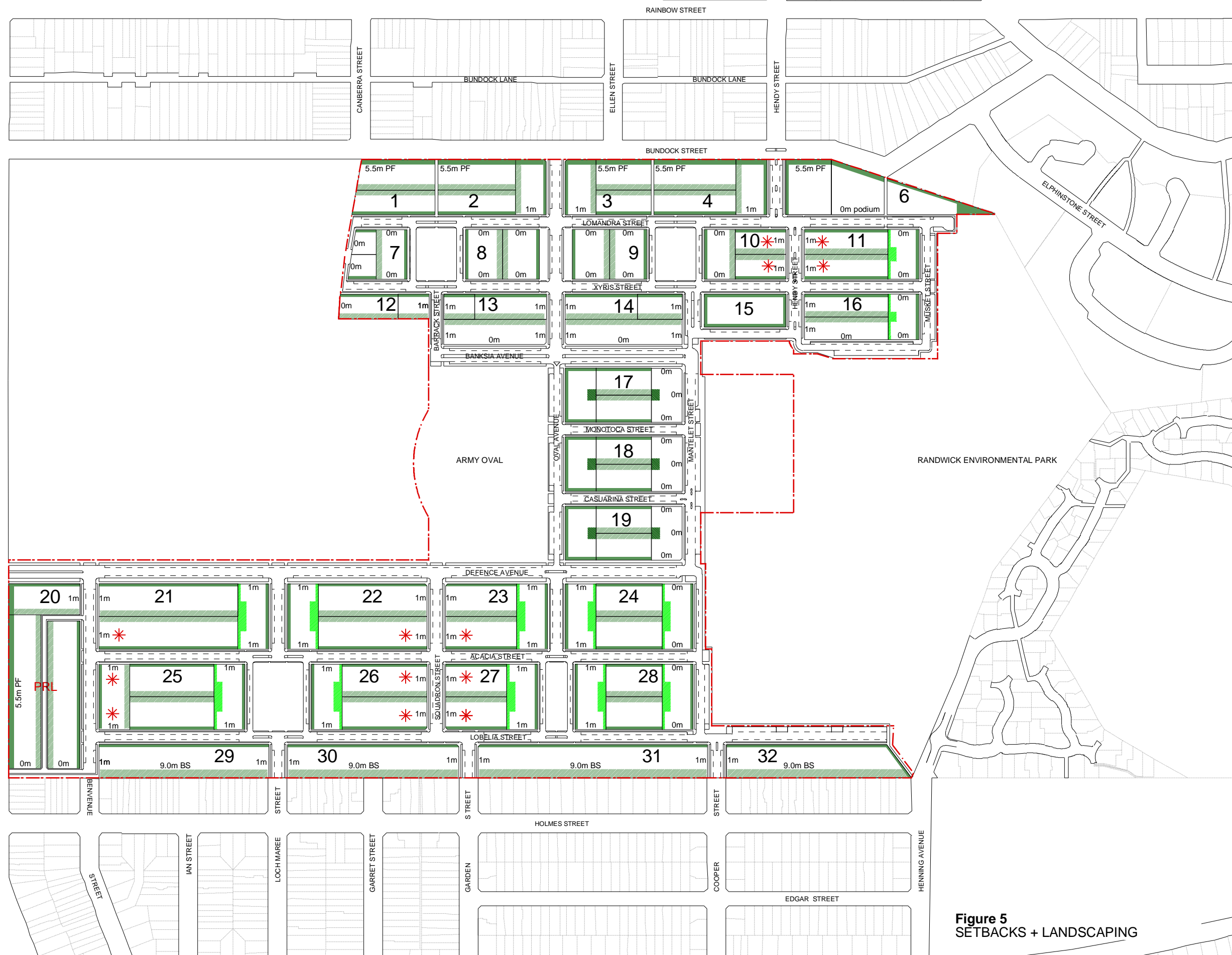
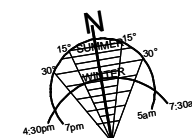
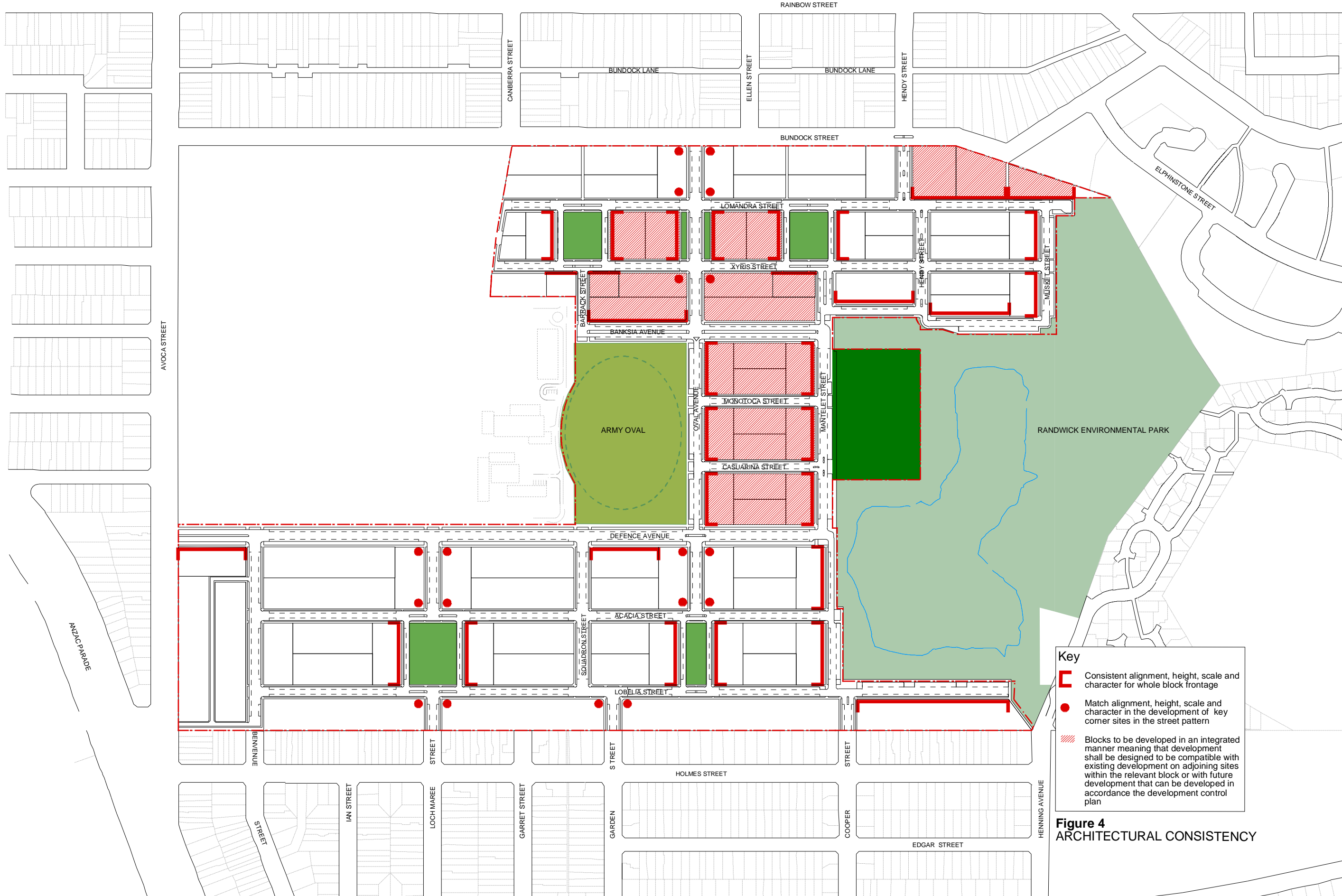


Figure 5
SETBACKS + LANDSCAPING



DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



Key




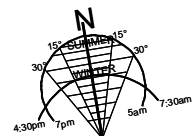
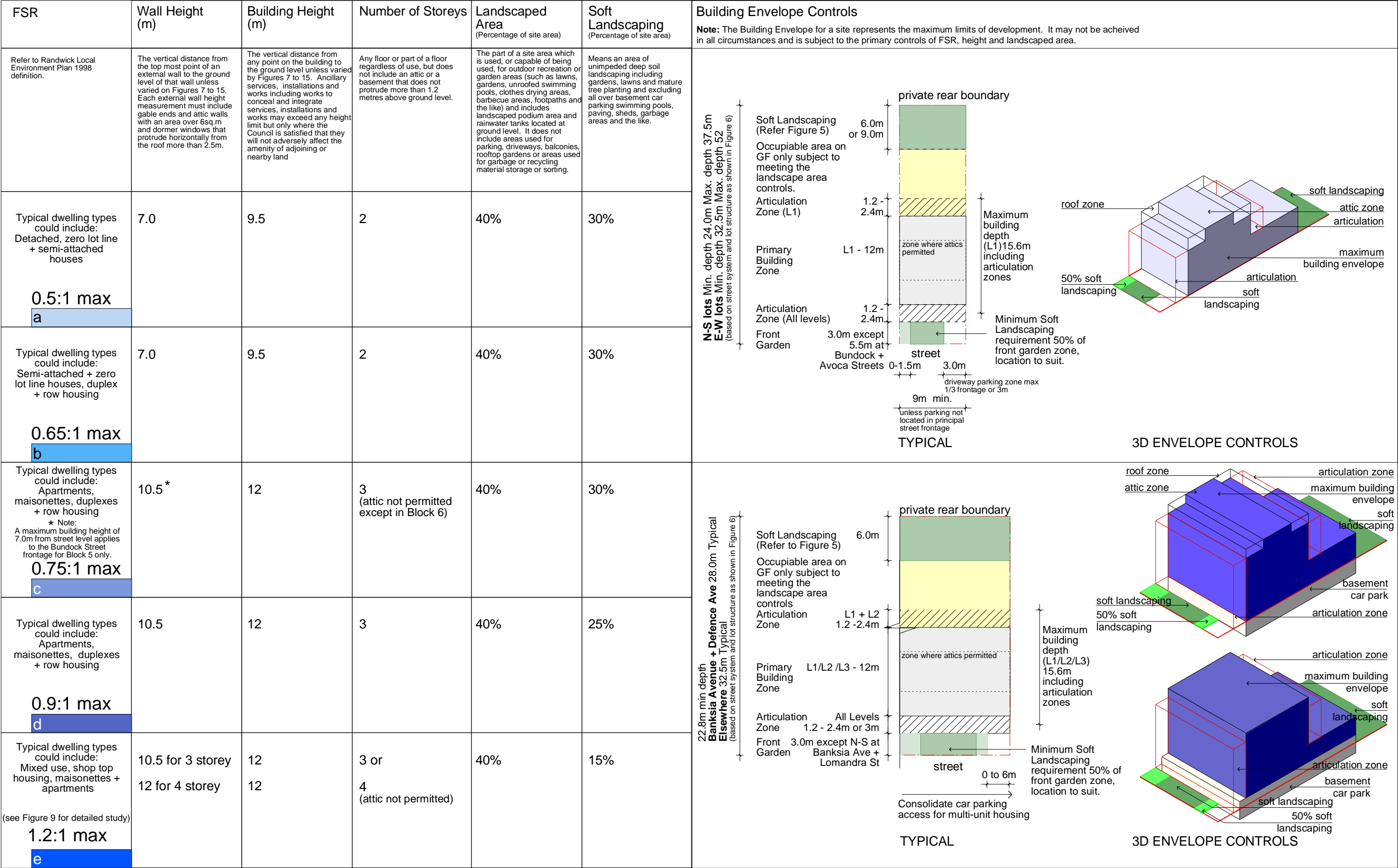
-  Consistent alignment, height, scale and character for whole block frontage
-  Match alignment, height, scale and character in the development of key corner sites in the street pattern
-  Blocks to be developed in an integrated manner meaning that development shall be designed to be compatible with existing development on adjoining sites within the relevant block or with future development that can be developed in accordance the development control plan

Figure 4
ARCHITECTURAL CONSISTENCY



DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



The maximum amount of floor space permitted for each development is controlled by FSR. FSR in conjunction with other built form controls manages neighbourhood and residential amenity. See selected block studies for specific controls and variations. Where controls in this Figure are inconsistent with the controls in Figures 6 - 15, the controls in Figure 6 - 15 prevail to the extent of any inconsistency. Development must comply with with the controls in the Randwick Local Environment Plan.

Figure 3
BUILT FORM CONTROLS

BUILDING CONTROLS LEGEND + DEFINITIONS

Soft Landscaping to comply with percentage requirement and location

Landscaped Area to comply with percentage requirement

Articulation Zone

Primary Building Zone

Ground floor occupiable area subject to landscape zone control, car parking permitted under.

GF= Ground Floor

L1= First Floor

L2= Second Floor

L3= Third Floor

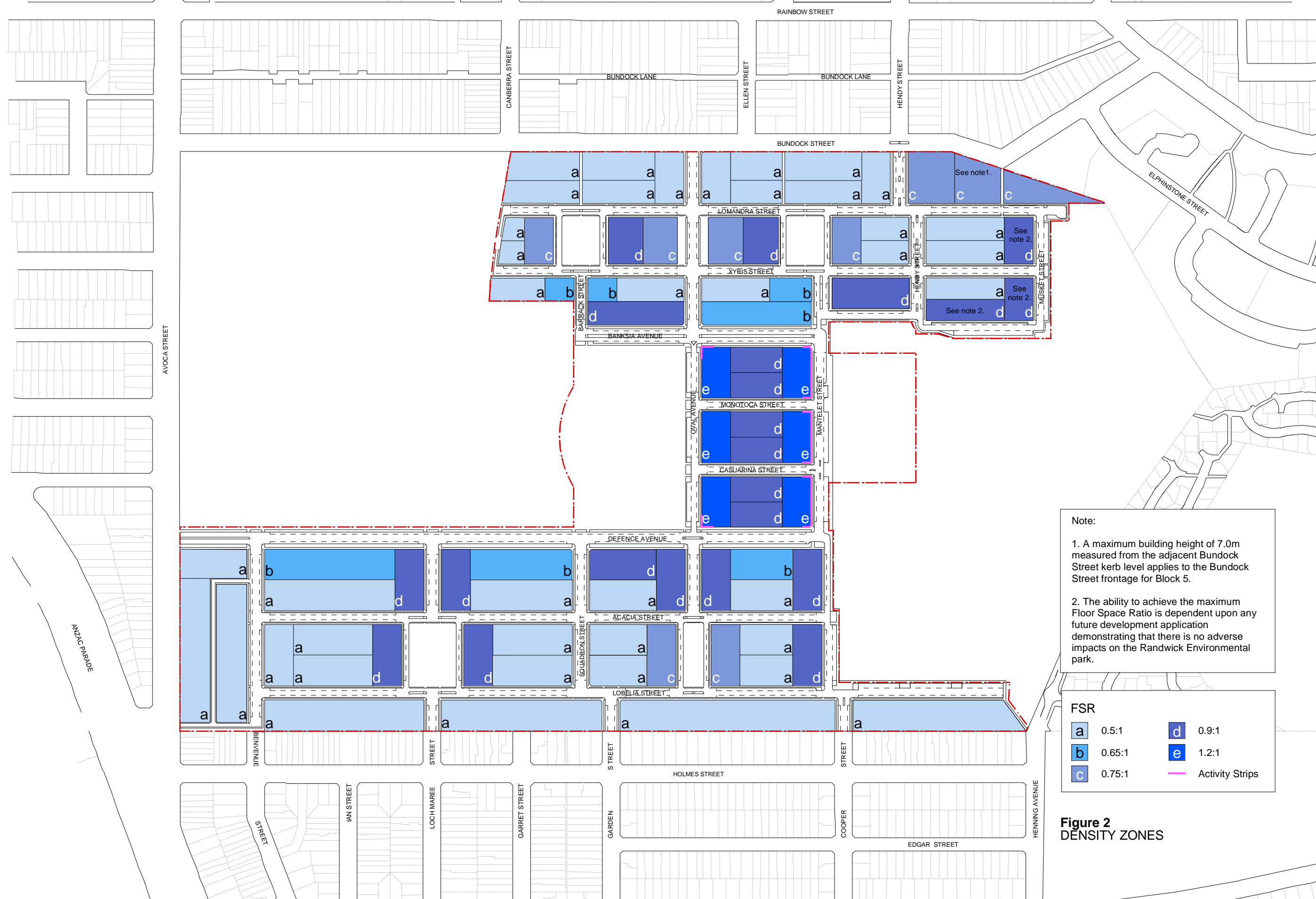
Articulation Zone The zones indicated on Figures 3 and 7 to 15 within which balconies, terraces, porches, bay windows, planters and the like are permitted. It may include gross floor area where that gross floor area does not exceed 30% of the area of the articulation zone of any floor on any facade. Bay windows are not permitted in an articulation zone if the setback is less than 3 metres from a side or rear boundary. The ground floor area of an articulation zone can be occupied by building where indicated on Figures 3 and 7 to 15.

Attic The area contained wholly within the roof envelope where the roof envelope has a maximum pitch of 36 degrees except on the side of a building where the wall of an attic abuts an existing or a simultaneously constructed party wall.

Roof Zone The zones indicated on Figures 3 and 7 to 15 within which pitched, curved or flat roofs, gables, dormers, skylights, roof terraces, decks, balconies, planters and the like are permitted.

DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
03.03.03



Note:

1. A maximum building height of 7.0m measured from the adjacent Bundock Street kerb level applies to the Bundock Street frontage for Block 5.

2. The ability to achieve the maximum Floor Space Ratio is dependent upon any future development application demonstrating that there is no adverse impacts on the Randwick Environmental park.

FSR			
a	0.5:1	d	0.9:1
b	0.65:1	e	1.2:1
c	0.75:1		Activity Strips

Figure 2
DENSITY ZONES

DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03

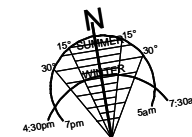




Figure 1a
MASTER PLAN OVERVIEW

DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



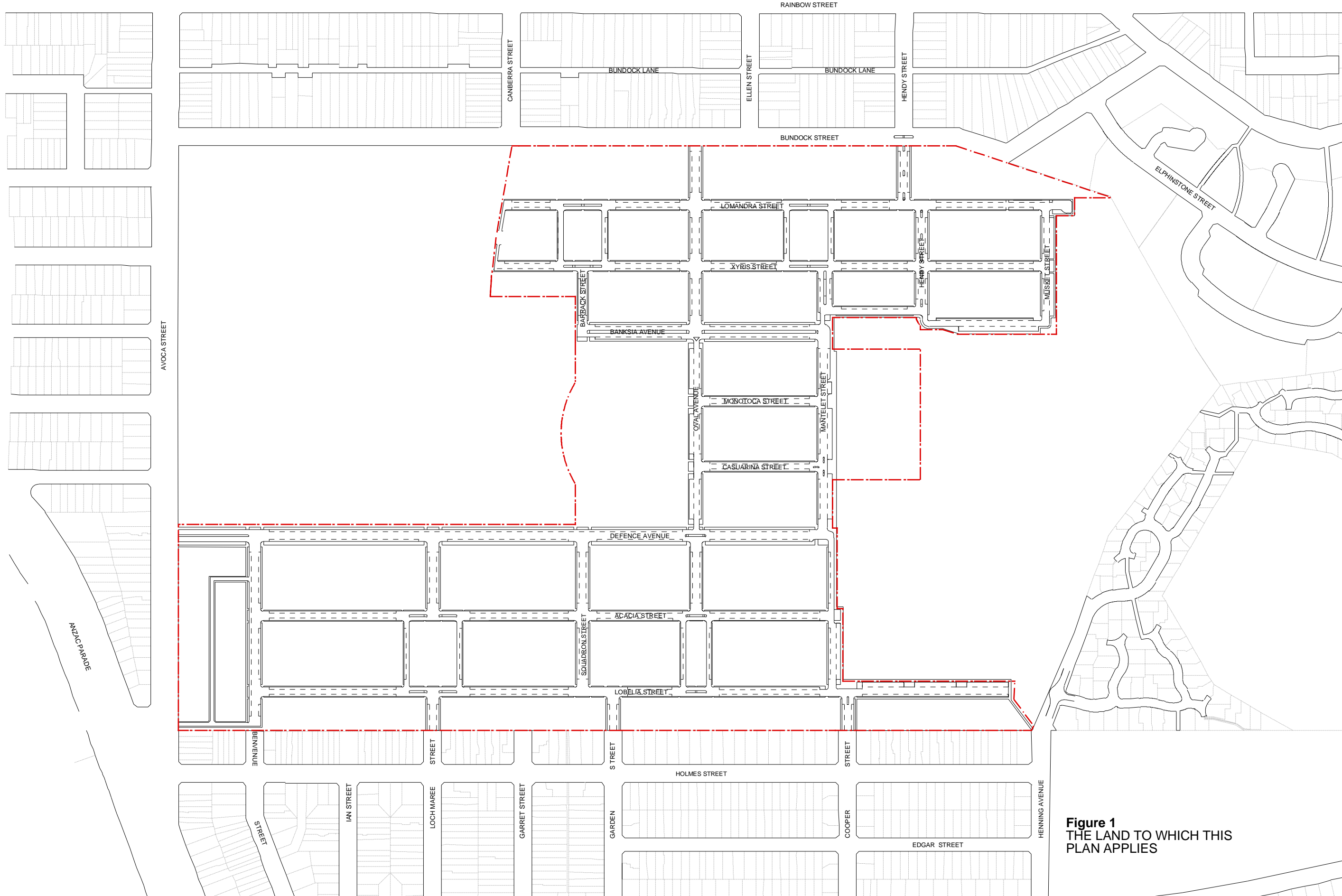
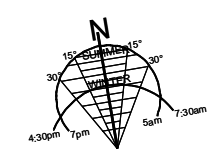
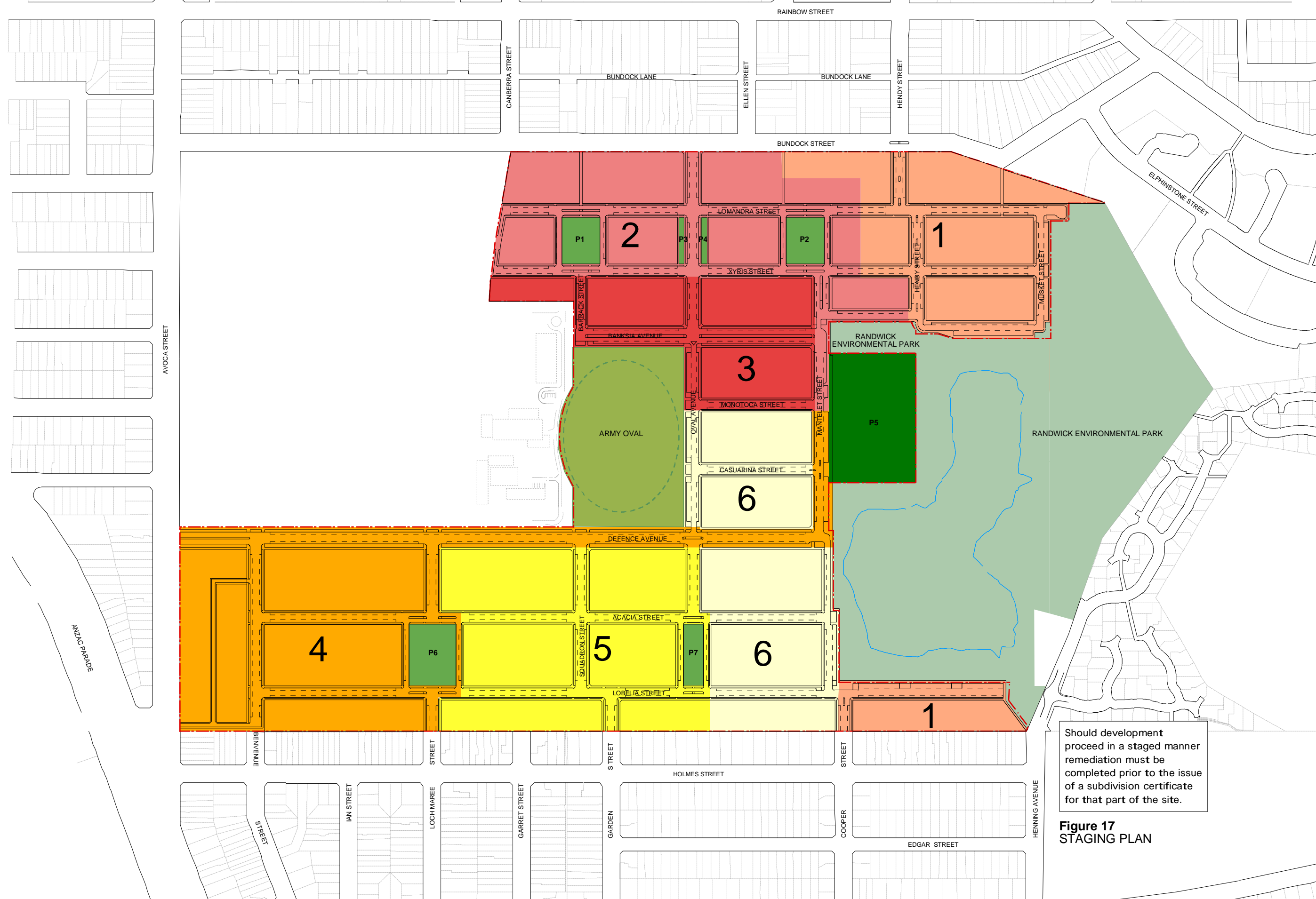


Figure 1
THE LAND TO WHICH THIS
PLAN APPLIES



DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03



Should development proceed in a staged manner remediation must be completed prior to the issue of a subdivision certificate for that part of the site.

Figure 17
STAGING PLAN

DEVELOPMENT CONTROL PLAN
DEFENCE SITE BUNDOCK + AVOCA STREETS KINGSFORD

DATE
19.02.03

